



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

APR 29 2011

Mr. John Madras  
Director, Water Protection Program  
Water Protection and Soil Conservation Program  
Missouri Department of Natural Resources  
1101 Riverside Drive  
Jefferson City, Missouri 65101

Dear Mr. Madras:

The U.S. Environmental Protection Agency (EPA) has completed its review of the 2010 Missouri Clean Water Act (CWA) Section 303(d) List of water quality-limited segments still requiring Total Maximum Daily Loads (TMDLs), submitted by the Missouri Department of Natural Resources (MDNR) on November 16, 2010, and received by EPA on November 22, 2010. EPA also reviewed supplemental information submitted by MDNR on December 14 and December 22, 2010, and January 12, 2011. In the original 2010 submittal, MDNR included the following items:

- A hard copy letter officially submitting the 2010 Missouri Section 303(d) List
- A compact disc (CD) containing the following information:
  - Missouri's proposed 2010 CWA Section 303(d) impaired waters list
  - A copy of the 2010 § 303(d) Listing Methodology Document
  - A copy of the 2010 Missouri Section 305(b) Report
  - A copy of Missouri's TMDL schedule
  - An administrative record of all written comments received by MDNR on the proposed Section 303(d) List and MDNR's responses
  - A rationale for the delisting of Little Beaver Creek in Phelps County based on a permit in lieu of a TMDL
  - A complete set of water quality assessment files

MDNR's submission included the 2010 CWA Section 303(d) List as approved by the Clean Water Commission on September 8, 2010, and the approval of the final two waters disposition on November 3, 2010. EPA has determined that Missouri's list of water quality-limited segments still requiring TMDLs partially meets the requirements of Section 303(d) of the CWA and EPA's implementing regulations. Therefore, today EPA is partially approving and partially disapproving Missouri's 2010 CWA Section 303(d) List. The enclosure to this letter



provides a more detailed rationale of today's action on Missouri's § 303(d) list. In today's decision:

- EPA approves the listing of 342 water body/pollutant pairs.
- EPA approves the delisting of 36 water body/pollutant pairs.
- EPA proposes to delist 42 water body/pollutant pairs for TMDLs EPA approved or established after the list was completed.
- EPA disapproves Missouri's decision to not list 10 water body/pollutant pairs and is proposing to restore or add them to the state's 2010 § 303(d) List.

EPA will open a public comment period to receive comments concerning the decision to delist, restore and add water body/pollutant pairs to the state's list. The list of water bodies that EPA is restoring to the 2010 § 303(d) Missouri List, as well as the rationale supporting this action, is included as an enclosure to this letter.

I congratulate you and your staff for the completion of the § 305(b) water assessment report and the § 303(d) 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 MDNR on the development of the 2012 Section 303(d) List.

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

Sincerely,



Karen Flournoy  
Acting Director  
Water, Wetlands and Pesticides Division

Enclosure

cc: Missouri Department of Natural Resources:  
Mr. John Ford  
Mr. John Hoke  
Mr. Refaat Mefrakis

Mr. John Goodin, EPA HQ

**U. S. ENVIRONMENTAL PROTECTION AGENCY - REGION 7's REVIEW  
of the  
2010 MISSOURI CLEAN WATER ACT SECTION 303(D) LIST**

The purpose of this review document is to provide the U. S. Environmental Protection Agency's (EPA's) rationale for approving certain delistings from Missouri's 2010 Clean Water Act (CWA) Section 303(d) List. EPA's review of Missouri's 2010 CWA Section 303(d) List is based on EPA's analysis of whether the state reasonably considered existing and readily available data and information and reasonably identified waters required to be listed by the CWA and EPA regulations (40 Code of Federal Regulations § 130.7). Throughout this review document the CWA Section 303(d) List is referred to as the "§ 303(d) List" or the "Section 303(d) List." The following is a list of acronyms and abbreviations used in this review document:

303(d) list	Clean Water Act Section 303(d) List
BOD	Biological Oxygen Demand
C	Streams that maintain permanent pools
CFR	Code of Federal Regulations
cfu/100 mL	Colony forming units per 100 milliliters
CWA	Clean Water Act
D.O.	Dissolved Oxygen
EDU	Ecological Drainage Unit
EPA	U. S. Environmental Protection Agency
FSD	Fine Sediment Deposition
IR	Integrated Report
L1	Public drinking water supply lake
L2	Major reservoir
L3	Other lakes
mg/L	milligrams per liter
NPDES	National Pollutant Discharge Elimination System
P1	Standing-water reaches of Class P streams
P	Permanently flowing stream
PIL	Permit in lieu of a TMDL
TN	Total Nitrogen
TMDL	Total Maximum Daily Load
TP	Total Phosphorus
TSS	Total Suspended Solids
U	Unclassified Water Body
WBID	Water Body Identification
WQS	Water Quality Standards
WWTP	Wastewater Treatment Plant

## **I. 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 states 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 standards (WQS), 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 waters impaired by point and/or nonpoint sources.

EPA regulations provide that states do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by federal, state, or local authority, and (3) other pollution control requirements required by state, local, or federal authority. See Code of Federal Regulations (CFR) at 40 CFR § 130.7(b)(1).

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

In developing CWA Section 303(d) lists, states are required by 40 CFR § 130.7(b)(5) 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: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any CWA Section 319 nonpoint assessment submitted to EPA. In addition to these minimum categories, states are required to evaluate any other water quality-related data and information that are existing and readily available. EPA's *Guidance for Water Quality-Based Decisions: The TMDL Process* (EPA Office of Water, 1991, Appendix C) describes categories of water quality-related data and information that may be existing and readily available. 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, EPA regulations at 40 CFR § 130.7(b)(6) require states to include as part of their submittals to EPA documentation to support decisions to use or not use particular data and information in decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.

## **C. Priority Ranking**

EPA regulations also codify and interpret the requirement in 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) list for Total Maximum Daily Load (TMDL) development and identify those 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. As long as these factors are taken into account, the CWA provides that states establish priorities. 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 Federal Register 33040, 33045 (July 24, 1992) and EPA's 1991 Guidance cited above. EPA reviews but does not take action to approve or disapprove the priority ranking.

## **II. Integrated Report**

EPA strongly encourages states to submit a single, integrated report (IR) to satisfy the reporting requirements of CWA Sections 303(d), 305(b) and 314. A summary of states reporting requirements for each of these sections and corresponding regulations is provided below:

**CWA § 303(d)** – by April 1 of all even numbered years, a list of impaired and threatened waters still requiring TMDLs; identification of the impairing pollutant(s); and priority ranking of these waters, including waters targeted for TMDL development within the next two years.

**CWA § 305(b)** – by April 1 of all even numbered years, a description of the water quality of all waters of the state (including, rivers/stream, lakes, estuaries/oceans and wetlands). States may also include in their CWA § 305(b) submittal a description of the nature and extent of ground water pollution and recommendations of state plans or programs needed to maintain or improve ground water quality.

**CWA § 314** – in each CWA § 305(b) submittal, an assessment of status and trends of significant publicly owned lakes including extent of point source and nonpoint source impacts due to toxics, conventional pollutants, and acidification.

Each IR will report on the WQS attainment status of all waters, document the availability of data and information for each water, identify certain trends in water quality conditions and provide information to managers in setting priorities for future actions to protect and restore the health of our nation's waters. EPA promotes this comprehensive assessment approach to enhance a state's ability to track programmatic and environmental goals of the CWA. EPA

promotes the use of the five-part categorization format for sorting waters in the IR.<sup>1</sup> In summary, the categories are:

Category 1: All designated uses are supported, no use is threatened,

Category 2: Available data and/or information indicate that some, but not all of the designated uses are supported,

Category 3: There is insufficient available data and/or information to make a use support determination,

Category 4: Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed, and

Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Missouri's 2010 submittal included the CWA Section 303(d) List of impaired waters (Category 5) and the state's assessment data. Today's decision is based on the November 16, 2010, submittal of the 2010 Missouri § 303(d) List and supplemental information submitted on December 14 and 22, 2010, and January 12 and March 18, 2011.

### **III. Analysis of Missouri's Submission**

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

EPA has reviewed Missouri's 2010 submission and found that while Missouri's submission included all the components as required by the CWA and federal regulations, the state's 2010 CWA Section 303(d) List did not include all water quality-limited segments still requiring a TMDL. EPA's review is based on its analysis of whether the state reasonably considered existing and readily available water quality-related data and information and reasonably identified waters to be listed. EPA finds that Missouri's submission only partially satisfies the statutory and regulatory requirements of Section 303(d) of the CWA and 40 CFR § 130.7. EPA is partially approving and partially disapproving the 2010 Missouri CWA Section 303(d) List and proposes adding several water bodies and corresponding pollutants to the state's list, as described in greater detail below. Additionally, EPA is proposing to remove from the 2010 Missouri CWA Section 303(d) List several water bodies where TMDLs have been established and are appropriate for delisting from the 2010 Missouri § 303(d) List. The sections below cover broad categories of EPA's action on Missouri's 2010 list submission. Tables 1-5 provide a summary of the decisions for each water body.

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<sup>1</sup> EPA. 2005. Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the CWA. EPA Office of Wetlands, Oceans, and Watersheds. July 29, 2005.

- and -

EPA. 2006. Memorandum: Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions. EPA Office of Wetlands, Oceans, and Watersheds. October 12, 2006.

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

Missouri used its *Methodology for the Development of the 2010 Section 303(d) List in Missouri* (Listing Methodology) to develop its 2010 submission. The Listing Methodology provides a detailed explanation of the data generated by MDNR's monitoring program; describes the procedures and methods for collecting data from other federal agencies, state agencies, universities, and monitoring networks; lists the supporting laboratories; and lists other data sources MDNR uses for compiling the state's CWA Section 305(b) report and Section 303(d) list. The Listing Methodology also explains how MDNR considers and evaluates each type of data for listing purposes.

## **C. Priority Ranking**

Table 17 of the *Missouri Water Quality Report (Section 305(b) Report) 2010* submitted by Missouri contains the state's schedule for completing TMDLs for those waters still needing a TMDL and identified goal years for development through 2017. The Listing Methodology submitted with Missouri's list details the process by which MDNR ranks waters for TMDL development and states that the TMDL schedule represents MDNR's priority ranking. (See *Methodology for the Development of the 2010 Section 303(d) List in Missouri*.) As such, EPA understands that the TMDL development schedule serves as the state's priority ranking as required by federal regulations at 40 CFR § 130.7(b). EPA is not taking action on these schedules as federal regulations do not require EPA approval of priority rankings or schedules.

## **D. Listing of Waters Impaired by Nonpoint Sources**

Based solely on an evaluation of the final 2010 Missouri CWA Section 303(d) List, EPA concludes that Missouri listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) of the CWA and EPA guidance. EPA believes that Section 303(d) provides ample authority to require Missouri to list waters impaired solely by nonpoint source pollutants. There is no expressed exclusion of the nonpoint source impaired water bodies in the CWA. EPA's belief that Section 303(d) applies to nonpoint sources is also consistent with the CWA definition of the term "pollutant" and Congress' use of that term in other sections of the CWA, such as Section 319 and Section 320. Therefore, § 303(d) lists are to include all water quality-limited segments still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources.

## **E. Public Comments**

MDNR provided several opportunities for public participation and comment in finalizing the 2010 Missouri CWA Section 303(d) List. Missouri posted its final draft 2010 § 303(d) List for a 90-day public comment period, held three public meetings, and a public hearing on the proposed list. Missouri evaluated and responded to each public comment and, where deemed appropriate, incorporated suggested changes into its 2010 § 303(d) List. MDNR held a

subsequent public comment period, meeting, and hearing prior to final adoption of the list by the Clean Water Commission. Missouri included copies of comments and Missouri's response with its list submission. In this decision EPA seeks public comments on the actions proposed in Section VI of this document which are summarized in Tables 3 and 4.

#### **IV. Approved Listings**

##### **A. Water Quality-Limited Segments for Inclusion on the Section 303(d) List**

EPA has reviewed Missouri's 2010 list submission and concludes that the state partially developed its list of impaired waters (i.e., Category 5 of its integrated report) in compliance with Section 303(d) of the CWA and 40 CFR § 130.7, and as a result, approves the listing of the water bodies and corresponding pollutants identified in Table 1. EPA's review is based on its analysis of whether the state reasonably considered existing and readily available water quality-related data and information and reasonably identified waters to be listed. EPA is partially approving and partially disapproving the state's submitted CWA Section 303(d) List. EPA is proposing to remove from the 2010 Missouri CWA Section 303(d) List several water bodies where TMDLs have been established and are appropriate for delisting from the 2010 Missouri § 303(d) List, as described in Section V of this letter. Additionally, the water body/pollutant pairs EPA disapproves for delisting and proposes to restore are described in Section VI of this document.

##### **B. Revisions to Listed Water Body/Pollutant Pairs**

###### Pollutant change from Unknown to Low Dissolved Oxygen (D.O.)

Missouri listed Dardenne Creek (Water Body Identification [WBID] 0221) as impaired by an unknown pollutant in 2008. The listing was based in part on water chemistry, sediment, and biological data indicating the macroinvertebrate community was impaired. On the 2010 § 303(d) List, Missouri revised the pollutant from unknown to low D.O. for this water body. The revision is intended to more accurately describe the current understanding of conditions in Dardenne Creek. As such, EPA is approving the pollutant change for Dardenne Creek (WBID 0221) from unknown to low D.O.

Missouri listed the North Fork Spring River (WBID 3188) as impaired by an unknown pollutant as well as by low D.O., bacteria and ammonia in 2008. For the 2010 § 303(d) List, Missouri has dropped the unknown pollutant and is attributing the impaired condition to low D.O. and sediment. In reviewing the water chemistry data, Missouri found numerous excursions of the D.O. criteria as well as two exceedances of the acute ammonia criterion. Bioassessment data also indicates an impaired condition in the water body. Missouri has determined that the most likely causes of the impaired biological community are the pollutants exceeding WQS. As such, EPA is approving the removal of the unknown pollutant cause while retaining the pollutants which have exceeded WQS.

###### Pollutant Modification from Toxicity to Lead

Missouri listed Bee Fork (WBID 2760) as impaired by toxicity in 2008. For the 2010 Missouri § 303(d) List, Missouri has identified lead in sediment as the pollutant causing toxicity. EPA approves this modification of the pollutant.

Missouri listed Bee Fork (WBID 2760U-01) as impaired by lead and toxicity in 2008. For the 2010 Missouri § 303(d) List, Missouri has identified lead in sediment and water as the pollutant causing toxicity. EPA approves this modification of the pollutant.

#### Added Specificity to Pollutants and Locations in a Major Reservoir

Missouri listed Table Rock Lake (WBID 7313) as impaired by nutrients in 2008. For the Missouri § 303(d) List, Missouri has added specificity and additional location information to the listing. The proposed 2010 Missouri § 303(d) List identifies Table Rock Lake as impaired by nutrients in the James, Kings and Long Creek arms of the lake. The White River arm of the lake is listed as impaired by chlorophyll and nitrogen. EPA approves this increase in specificity in the listing for Table Rock Lake.

### **C. Corrections to Listed Water Body/Pollutant Pairs**

In its 2010 list submission, Missouri proposed several corrections to water body/pollutant combinations that had been identified as impaired during previous listing cycles. These corrections were based on Missouri's November 2, 2009, submission of WQS to EPA. EPA has not approved these changes to Missouri's WQS, and as such, has listed these water bodies with both the proposed as well as the EPA approved information for each water body. In addition, other needed corrections were identified by EPA and Missouri during the review of the 2010 CWA Section 303(d) List. The corrections described below are incorporated into Table 1 of the approved listings.

Cedar Creek, Tributary to (WBID 0743) – Missouri included this water body under the name Renfro Creek as impaired on its 2010 list for low D.O. Missouri had previously identified Cedar Creek, Tributary to, as impaired by low D.O. on its 2004/2006 and 2008 § 303(d) Lists. This name change has not been approved by EPA. EPA has included this water body under both the approved name and the proposed name in Table 1 for informational purposes.

Ditch to Buffalo Ditch (WBID 3120) – Missouri included this water body under the name Pole Cat Slough as impaired on its 2010 list for low D.O. Missouri had previously identified low D.O. as causing impairment on the 2004/2006 § 303(d) List. This name change has not been approved by EPA. EPA has included this water body under both the approved name and the proposed name in Table 1 for informational purposes.

Douger Branch (WBID 3168) – Missouri included this water body under the name Chat Creek as impaired on its 2010 list for cadmium (in water) and lead and zinc (in sediment). Missouri had previously identified cadmium and lead and zinc (in

sediment) as causing impairment on the 2008 § 303(d) List. This name change has not been approved by EPA. EPA has included this water body under both the approved name and the proposed name in Table 1 for informational purposes.

Mississippi River (WBID 1707) – Missouri originally identified this water body on its 2010 § 303(d) List under the WBID 1706. In response to an EPA comment Missouri identified this as a typographical error and confirmed the correct WBID of 1707. In this document all references to this water body use the WBID 1706.

Piper Creek (Town Branch) (WBID 1444) – Missouri originally included this water body on its 2010 § 303(d) List under listings for Piper Creek and Town Branch separately. As a proposed action by EPA to address the approval of a TMDL for the original 1998 listing of Piper Creek which included Town Branch, EPA proposes to remove both these water bodies from Missouri's § 303(d) List and place them into Category 4a, waters for which a TMDL has been completed.

Pond Creek, Tributary (WBID 2128) – Missouri originally included this water body under the name Pond Creek as impaired on its 2010 list as impaired by inorganic sediment. Missouri had previously identified inorganic sediment as causing impairment on its 2002, 2004/2006 and 2008 § 303(d) Lists. EPA has included this water body under both the approved name and the proposed name in Table 1 for informational purposes.

River de Peres (WBID 1711) – Missouri included this water body under the WBID 1710 as impaired on its 2010 list for chloride and low D.O. Missouri had previously identified River de Peres as impaired by chloride and low D.O. on its 2004/2006 and 2008 § 303(d) Lists under the WBID 1711. EPA has included this water body under the approved WBID with a notation in Table 1.

Schuman Park Lake (WBID 7280) – Missouri included this water body under the name Frisco Lake as impaired on its 2010 list for mercury in fish tissue (T). Missouri had previously identified Schuman Park Lake as impaired by mercury (T) on its 2002, 2004/2006 and 2008 § 303(d) Lists. This name change has not been approved by EPA. EPA has included this water body under both the approved name and the proposed name in Table 1 for informational purposes.

Spring Branch (WBID 3708) – Missouri included this water body under the name Spring Creek (WBID 1870) as impaired on its 2010 list for low D.O. and organic sediment. Missouri had previously identified Spring Branch (WBID 3708) as impaired by low D.O. and organic sediment on its 2004/2006 and 2008 § 303(d) Lists. EPA has included this water body under the approved name and WBID with a footnote in Table 3 due to the approval of a TMDL for the listed impairments.

Wilson Creek (WBID 2375) – Missouri included this water body as impaired for bacteria under the WBID 2376. In response to an EPA comment Missouri identified this

as a typographical error and confirmed the correct WBID of 2375. This water body is identified under the WBID 2375 in this document.

Winnebago, Lake (WBID 7212) – Missouri included this water body under the WBID 7212 as impaired for mercury (T). A footnote indicated this WBID had changed to 7212 from 7217. However, this water body had been previously listed for mercury on the 2002 § 303(d) List under the WBID 7212. Missouri has withdrawn the footnote where it proposed the change in WBID. This water body is identified under the WBID 7212 in this document.

#### **D. Segment Length**

As discussed in EPA’s 2006 IR guidance, “ideally, all decisions about the WQS attainment status of individual assessment units would be based on a complete census of water quality conditions, which could involve sampling every portion of a waterbody at frequent intervals. Unfortunately, gathering this vast amount of data is not currently feasible, due to the limitation of current monitoring technology as well as the amount of funding available for gathering and analysis of water quality information...Given this situation, states and EPA will continue to need to make WQS attainment status determination by extrapolating, in time and space, to a substantial degree, from individual points of data.”

It is important that Missouri, EPA, and the general public be able to track the progress of individual water bodies as they are listed, pollution controls are implemented, and the applicable WQS are eventually attained. EPA’s 2006 IR guidance promotes the use of the IR format, the five category approach, and the assessment database as tools to better enable states to assess and track progress of water quality-limited segments. “Use of the Integrated Report format and the use of the five-part categorization scheme envisions that each state provides a comprehensive description of the water quality standards attainment status of all segments within a state...Fundamental to this accounting is the use of a consistent and rational segmentation and geo-referencing approach for all segments.” The IR guidance continues, noting “it is important that the selected segmentation approach be consistent with the state’s water quality standards,” which is critical to tracking progress.

A key component of identifying impairments is determining the designated beneficial uses for each water body in the state’s WQS regulations. The 2010 Missouri § 303(d) List does not contain unique identifiers for each impaired portion that are easily comparable to the classified segment in the state’s WQS. EPA raised this issue beginning with Missouri’s 2004/2006 submission and added the entire classified segment to the § 303(d) listed waters for that list and the 2008 List. The 2010 Missouri § 303(d) List submission included the WBID, the size of the impaired portion, latitude and longitude coordinates of the impaired portion, and the size of the classified segment. While this information provides more details about Missouri’s assessment, it does not remedy the need to be consistent with the state’s WQS and enable easy tracking between listing cycles. While EPA approves the addition of waters to the 2010 § 303(d) List, EPA is maintaining the position that the entire classified segment must be listed.

For the 2010 § 303(d) List submittal Missouri incorporated proposed changes to the lengths of stream segments and surface area of lake segments. These proposed changes to the Missouri WQS have not been approved by EPA and as such, are not in effect for purposes of the § 303(d) listing. In Table 1, EPA has incorporated this new size information but still identifies the water body/segment length as previously approved.

To provide as much information as possible to the public, EPA is including the descriptive information submitted by Missouri and adding the legal description of each classified water body (Table 1). This enables one to more readily compare the § 303(d) list to the state's WQS regulations and track changes from one assessment cycle to the next. Should Missouri want to assess sub-segments of waters for listing purposes, Missouri could develop smaller assessment units with defined endpoints and unique identifiers. EPA is willing to work with Missouri on this issue to find a system that meets the needs of both EPA and the state.

In some cases Missouri divided its listings to account for different sources of pollutants. These water bodies are identified in Table 1 as sub-numbers "a" and "b".

## **V. Approved Delistings (Table 2)**

Federal regulations require that the state provide documentation to EPA to support its decision to list or not to list its waters. Upon request from EPA, the state must demonstrate good cause for not including a water or waters on its list (40 CFR § 130.7(6)). In its *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act* (known as the IR guidance), EPA describes what constitutes good cause for removing a water body from the § 303(d) list. Consistent with 40 CFR § 130.7(b), good cause for not including segments on the § 303(d) list may be based on the following determinations:

- New information or more sophisticated water quality modeling is available that demonstrates that the applicable WQS(s) is being met.
- Flaws in the original analysis of data and information led to the segment being incorrectly listed.
- Effluent limitations required by state or local authorities that are more stringent than technology-based effluent limitations, required by the CWA, will result in the attainment of WQS for the pollutant causing the impairment (pursuant to 40 CFR § 130.7(b)(1)(ii)).
- Other pollution control requirements required by state, local, or federal authority will result in attainment of WQS within a reasonable period of time (pursuant to 40 CFR § 130.7(b)(1)(iii)).
- Documentation that the state included on a previous § 303(d) list an impaired segment that was not required to be listed by EPA regulations, e.g., segments where there is no pollutant associated with the impairment.
- The water body and pollutants are addressed in a TMDL approved or established by EPA.

States may assign waters to Category 4 if available data and/or information indicate that one or more designated uses are not being attained or are threatened, but a TMDL is not needed. States may place these water bodies in one of the following three subcategories:

Category 4a – An EPA-approved TMDL has been established to address the water body and pollutant.

Category 4b – Alternative pollution controls required by local, state, or federal authority are sufficiently stringent and expected to achieve WQS within a reasonable period of time. One example of such controls is an EPA-approved state National Pollutant Discharge Elimination System (NPDES) permit in lieu of a TMDL (PIL).

Category 4c – Impairment not caused by a pollutant, but instead caused by other types of “pollution,” as defined by the CWA. Development of a TMDL is not required.

Table 3 is a summary list of the water body/pollutant pairs EPA approves for delisting, as described below.

#### **A. Waters with EPA-Approved TMDLs (16 water bodies, Table 2)**

Big River (WBID 2074) – Missouri previously listed Big River as impaired by lead. On March 24, 2010, EPA approved a Missouri TMDL for lead. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. In today’s action, EPA is approving the delisting of Big River because this water body no longer requires the development of a TMDL for lead, consistent with 40 CFR § 130.7(b).

Big River (WBID 2080) – Missouri previously listed Big River as impaired by lead and inorganic sediment. On March 24, 2010, EPA approved a Missouri TMDL for lead and inorganic sediment. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today’s action, EPA is approving the delisting of Big River because this water body no longer requires the development of a TMDL for lead and inorganic sediment, consistent with 40 CFR § 130.7(b). This water body remains on the Missouri § 303(d) List for cadmium and zinc in sediment.

Buffalo Ditch (WBID 3118) – Missouri previously listed Buffalo Ditch as impaired by low D.O. On March 3, 2010, EPA approved a Missouri TMDL for low D.O. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. In today’s action, EPA is approving the delisting of Buffalo Ditch because this water body no longer requires the development of a TMDL for low D.O., consistent with 40 CFR § 130.7(b).

Cave Spring Branch (WBID 3245U-01) – Missouri previously listed Cave Spring Branch as impaired by nutrients. On December 6, 2010, EPA approved a Missouri TMDL for Total Phosphorus (TP) and Total Nitrogen (TN). As such these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today’s action, EPA is approving the delisting of Cave Spring Branch because this water

body no longer requires the development of a TMDL for TN and TP, consistent with 40 CFR § 130.7(b).

Flat River Creek (WBID 2168) – Missouri previously listed Flat River Creek as impaired by lead, inorganic sediment and zinc. On March 24, 2010, EPA approved a Missouri TMDL for lead, inorganic sediment and zinc. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Flat River Creek because this water body no longer requires the development of a TMDL for lead, inorganic sediment and zinc, consistent with 40 CFR § 130.7(b). This water body remains on the Missouri § 303(d) List for cadmium.

Hickory Creek (WBID 0442) – Missouri previously listed Hickory Creek as impaired by an unknown pollutant. On October 20, 2010, EPA approved a Missouri TMDL for TN, TP and Total Suspended Solids (TSS) to address the impairment. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Hickory Creek because this water body no longer requires the development of a TMDL for TN, TP and TSS, consistent with 40 CFR § 130.7(b).

Indian Camp Creek (WBID 0212) – Missouri previously listed Indian Camp Creek as impaired by inorganic sediment. On February 25, 2010, EPA approved a Missouri TMDL for inorganic sediment. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Indian Camp Creek because this water body no longer requires the development of a TMDL for inorganic sediment, consistent with 40 CFR § 130.7(b).

Little Osage River (WBID 3652) – Missouri previously listed Little Osage River as impaired by low D.O. On June 10, 2010, EPA approved a Missouri TMDL for low D.O. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Little Osage River because this water body no longer requires the development of a TMDL for low D.O., consistent with 40 CFR § 130.7(b). This water body remains on the Missouri § 303(d) List for bacteria.

Mississippi River (WBID 1707) – Missouri previously listed this segment of the Mississippi River as impaired by lead and zinc. On December 9, 2010, EPA approved a Missouri TMDL for lead and zinc. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of the Mississippi River because this water body no longer requires the development of a TMDL for lead and zinc, consistent with 40 CFR § 130.7(b).

Mound Branch (WBID 1300) – Missouri previously listed Mound Branch as impaired by low D.O. On May 26, 2010, EPA approved a Missouri TMDL for low D.O. As such, this water body/pollutant pair is appropriate for removal from the Missouri

303(d) List. In today's action, EPA is approving the delisting of Mound Branch because this water body no longer requires the development of a TMDL for low D.O., consistent with 40 CFR § 130.7(b).

Muddy Creek (WBID 0557) – EPA originally listed this water body as impaired in 2002. On October 20, 2010, EPA approved a Missouri TMDL for TN, TP and TSS to address an unknown pollutant. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of the Muddy Creek because this water body no longer requires the development of a TMDL for TN, TP and TSS, consistent with 40 CFR § 130.7(b).

Shaw Branch (WBID 2170) – Missouri previously listed Shaw Branch as impaired by lead and inorganic sediment. On March 24, 2010, EPA approved a Missouri TMDL for lead and inorganic sediment. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Shaw Branch because this water body no longer requires the development of a TMDL for lead and inorganic sediment, consistent with 40 CFR § 130.7(b). This water body remains on the Missouri § 303(d) List for cadmium in sediment.

Stinson Creek (WBID 0710) – Missouri previously listed Stinson Creek as impaired by organic sediment and low D.O. On May 26, 2010, EPA approved a Missouri TMDL for organic sediment and low D.O. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Stinson Creek because this water body no longer requires the development of a TMDL for organic sediment or low D.O., consistent with 40 CFR § 130.7(b).

Village Creek (WBID 2863) – Missouri previously listed Village Creek as impaired by lead and inorganic sediment. On January 14, 2010, EPA approved a Missouri TMDL for lead and inorganic sediment. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Village Creek because this water body no longer requires the development of a TMDL for lead or inorganic sediment, consistent with 40 CFR § 130.7(b).

Village Creek (WBID 2864) – Missouri previously listed Village Creek as impaired by inorganic sediment. On January 14, 2010, EPA approved a Missouri TMDL for inorganic sediment. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Village Creek because this water body no longer requires the development of a TMDL for inorganic sediment, consistent with 40 CFR § 130.7(b).

Willow Branch (WBID 0654U) – EPA originally listed this water body as impaired in 2002. On September 01, 2010, EPA established a TMDL for TN, TP and TSS to address an unknown pollutant. As such, these water body/pollutant pairs are

appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of the Willow Branch because this water body no longer requires the development of a TMDL for TN, TP and TSS, consistent with 40 CFR § 130.7(b).

**B. Water with Required Alternative Pollution Controls (one water body, Table 2)**

Little Beaver Creek (WBID 1529) – Missouri proposed removing Little Beaver Creek from the 2010 § 303(d) List for low D.O. citing a permit issued on December 23, 2005 and an August 22, 2008, revision to the city of Rolla's NPDES permit. Missouri provided documentation of the alternative pollution controls required under this permit revision and the rationale that these revisions will result in the meeting of WQS. EPA has reviewed the supporting information and concludes that Little Beaver Creek is appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of Little Beaver Creek because this water body no longer requires the development of a TMDL for low D.O., consistent with 40 CFR § 130.7(b). This water body remains on the Missouri § 303(d) List for inorganic sediment.

**C. Impairment Not Caused by a Pollutant (one water body, Table 2)**

East Fork Black River (WBID 2737) - Missouri proposed removing the East Fork Black River because data indicates low bioassessment scores are the result of hydromodification caused by the Taum Sauk dam. EPA has reviewed the supporting information and concludes that the East Fork Black River is appropriate for removal from the Missouri 303(d) List. In today's action, EPA is approving the delisting of East Fork Black River because this water body no longer requires the development of a TMDL for hydromodification, consistent with 40 CFR § 130.7(b).

**D. Restored Waters EPA Approves for Delisting as Meeting WQS (eight water bodies, Table 2)**

Dardenne Creek (WBID 0222) – Missouri identified this segment of Dardenne Creek as impaired by inorganic sediment on the 2008 Missouri § 303(d) List. As a numeric translator for a narrative WQS for fine sediment deposition (FSD), Missouri compares the lower 60 percent confidence level of the assessed stream to the mean percent FSD of reference streams in the Ecological Drainage Unit (EDU). If this number is less than 20 percent above the reference condition Missouri will not propose to list, and if listed will propose to delist the assessed water body. In the case of this segment of Dardenne Creek, the difference between the lower 60 percent confidence level and the reference condition is only 5 percent and so does not indicate impairment from FSD. Missouri has provided good cause for delisting this segment of Dardenne Creek, and as such, EPA approves Missouri's decision to remove this water body/pollutant pair from Category 5. This segment of Dardenne Creek remains listed as impaired for low D.O., consistent with 40 CFR § 130.7(b).

East Fork Chariton River (WBID 0682) – Missouri identified this water body as impaired by sulfate on the 2008 Missouri § 303(d) List. The assessment for the 2010 Missouri § 303(d) List shows the 60 percent lower confidence level concentration is less than the numeric criterion for the protection of the drinking water designated use. The mean is also lower than the target concentration of 250 milligrams per liter (mg/L). As such, according to Missouri’s EPA-approved WQS and Missouri’s Listing Methodology, East Fork Chariton River is no longer impaired by sulfate. Missouri has provided good cause for delisting East Fork Chariton River, and as such, EPA approves Missouri’s decision to remove this water body/pollutant pair from Category 5, consistent with 40 CFR § 130.7(b).

Jordan Creek (WBID 3374) – Missouri identified this water body as impaired for low D.O. on its 2008 Missouri § 303(d) List. In its assessment for the 2010 Missouri § 303(d) List, Missouri showed there is only one excursion of the criterion for D.O. in seven measurements. Missouri’s listing methodology cites EPA’s IR guidance and recommended use of the “10 percent rule” (i.e., no more than 10 percent of measurements fail to meet the water quality criterion) for evaluating conventional pollutants.<sup>2</sup> Many states implement the “10 percent rule” by using the binomial probability method, which is a tool for calculating and balancing the probability of drawing inaccurate determinations of impairment or attainment, for assessing water quality data. Specifically, Missouri’s Listing Methodology discusses the use of the binomial test to determine if “no more than 10 percent of all samples exceed the water quality criterion.”<sup>3</sup> EPA reviewed the data and found that only 1 of 7 samples violated the D.O. criterion in Jordan Creek. Using the binomial probability method, these data do not indicate impairment for low D.O. in Jordan Creek. Missouri has provided good cause for delisting Jordan Creek, and as such, EPA approves Missouri’s decision to remove this water body/pollutant pair from Category 5, consistent with 40 CFR § 130.7(b). This water body also has an EPA-established TMDL to address the impairment by toxicity from multiple pollutants.

Maline Creek (WBID 1709) – Missouri identified this water body as impaired by chloride on its 2008 Missouri § 303(d) List. For the last three years in which data is available the chronic chloride criterion is exceeded two times. In the case of grab samples Missouri’s Listing Methodology states “The test result must be representative of water quality for the entire time period for which acute or chronic criteria apply. For ammonia the chronic exposure period is 30 days, for all other toxics 96 hours. The acute exposure period for all toxics is 24 hours. The Department will review all appropriate data, including hydrographic data, to ensure only representative data is used. Except on large rivers where storm water flows may persist at relatively unvarying levels for several days, grab samples collected during storm water flows will not be used for assessing chronic toxicity criteria.” One of the two exceedances occurred during a period of unstable flow which discounts its use for assessment of a chronic criterion. Missouri has

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<sup>2</sup> Conventional pollutants are listed in Section 304(a)(4) of the Clean Water Act as including biological oxygen demanding (BOD) pollutants, suspended solids, fecal coliform, pH, and oil and grease.

<sup>3</sup> For additional discussion about the use of the binomial probability method, refer to the administrative record supporting EPA January 16, 2009, decision on Missouri’s 2004/2006 303(d) list.

provided good cause for delisting Maline Creek, and as such, EPA approves Missouri's decision to remove this water body/pollutant pair from Category 5, consistent with 40 CFR § 130.7(b). This water body remains on the Missouri § 303(d) List for low D.O.

Mississippi River (WBID 3152) - Missouri identified this water body as impaired by mercury (T) on its 2008 Missouri § 303(d) List. Data submitted with Missouri's 2010 list showed that the mean concentration of mercury in fish fillets from upper trophic level fishes has dropped below the impairment threshold of 0.3 milligrams per kilogram. Missouri has provided good cause for delisting this segment of the Mississippi River, and as such, EPA approves Missouri's decision to remove this water body/pollutant pair from Category 5, consistent with 40 CFR § 130.7(b).

Tributary to Hickory Creek (WBID 0589) - Missouri previously listed this Tributary to Hickory Creek as impaired by an unknown pollutant. On November 17, 2010, EPA approved a Missouri TMDL for TN, TP and TSS to address the impairment. As such, this water body/pollutant pair is appropriate for placement in Category 4a. In its 2010 § 303(d) submittal Missouri included the results of five bioassessment samples. These results exhibited four of five scores equal to or greater than 16: which indicates full support of the aquatic life use. The Listing Methodology identifies a decision point for impairment status of < 75 percent of the samples scoring 16 or greater. For this water body 80 percent of the samples score 16 or greater, as such, this water body is fully supporting its aquatic life use. In today's action, EPA is proposing the delisting of this Tributary to Hickory Creek because Missouri has provided good cause to suggest this water body has been restored to WQS and no longer requires the development of a TMDL for a pollutant, consistent with 40 CFR § 130.7(b).

Sugar Creek, Tributary (WBID 0686U-01) - Missouri identified this water body as impaired by nickel on its 2008 Missouri § 303(d) List. Data submitted with Missouri's 2010 list shows that the acute criterion for dissolved nickel is higher than any measured concentrations in this water body. Missouri has provided good cause for delisting the Sugar Creek, Tributary, and as such, EPA approves Missouri's decision to remove this water body/pollutant pair from Category 5, consistent with 40 CFR § 130.7(b).

West Yellow Creek (WBID 0599) - Missouri identified this water body as impaired by low D.O. on its 2008 Missouri § 303(d) List. Data submitted with Missouri's 2010 list shows only one excursion of the D.O. criteria in the last three years. Missouri has provided good cause for delisting West Yellow Creek, and as such, EPA approves Missouri's decision to remove this water body/pollutant pair from Category 5, consistent with 40 CFR § 130.7(b).

## **VI. EPA Proposed Changes to the 2010 Missouri § 303(d) List**

After review of Missouri's submittal for their 2010 § 303(d) List, EPA proposes to make certain additions and corrections to that submittal. These proposed actions are outlined below and consist of two general categories. First are those water body/pollutant pairs for which TMDLs were either approved (state submitted) or established (by EPA action) after

the Missouri § 303 (d) List submittal, but during EPA's review. Second are the water body/pollutant pairs that EPA proposes to restore or add to Missouri's list of impaired waters.

**A. Water Body/Pollutant Pairs for Which a TMDL has been Approved or Established and EPA Proposes to Delist (21 water bodies, Table 3)**

Bear Creek (WBID 0115U-01) – Missouri previously listed Bear Creek as impaired by an unknown pollutant. On December 23, 2010, EPA established a TMDL for biological oxygen demand (BOD), total nitrogen (TN), total phosphorus (TP) and total suspended solids (TSS) to address the impairment. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Bear Creek because this water body no longer requires the development of a TMDL for a pollutant, consistent with 40 CFR § 130.7(b).

Big Bottom Creek (WBID 1746) – Missouri previously listed Big Bottom Creek as impaired by low D.O. and organic sediment. On October 26, 2010, EPA established a TMDL for BOD, TN, TP, organic sediment and TSS to address the impairment. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting these water body/pollutant pairs and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Big Bottom Creek because this water body no longer requires the development of a TMDL for low D.O. and organic sediment, consistent with 40 CFR § 130.7(b).

Chariton River (WBID 0640) – Missouri previously listed Chariton River as impaired by bacteria. On December 21, 2010, EPA established a TMDL for bacteria to address the impairment. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Chariton River because this water body no longer requires the development of a TMDL for bacteria, consistent with 40 CFR § 130.7(b).

Courtois Creek (WBID 1943) – Missouri previously listed Courtois Creek as impaired by lead and metals in water. On September 17, 2010, EPA approved a Missouri TMDL for dissolved lead and metals to address the impairment. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting these water body/pollutant pairs and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Courtois Creek because this water body no longer requires the development of a TMDL for lead and metals in water, consistent with 40 CFR § 130.7(b).

Hinkson Creek (WBIDs 1007 and 1008) – Missouri previously listed these two segments of Hinkson Creek as impaired by an unknown pollutant. On January 28, 2011, EPA established TMDLs to address the impairment by toxicity from multiple pollutants. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Hinkson Creek because this water body no longer requires the development of a TMDL for a pollutant, consistent with 40 CFR § 130.7(b). Hinkson Creek (WBID 1008) remains listed as impaired by bacteria.

Indian Creek (WBID 1946) – Missouri previously listed Indian Creek as impaired by lead and metals in water. On September 17, 2010, EPA approved a Missouri TMDL for dissolved lead, zinc and metals. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting these water body/pollutant pairs and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Indian Creek because this water body no longer requires the development of a TMDL for lead, zinc or metals in water, consistent with 40 CFR § 130.7(b).

Tributary to Indian Creek (WBID 3663) – Missouri previously listed this Tributary to Indian Creek as impaired by lead and zinc. On September 17, 2010, EPA approved a Missouri TMDL for dissolved lead and zinc. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting these water body/pollutant pairs and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of this Tributary to Indian Creek because this water body no longer requires the development of a TMDL for lead or zinc, consistent with 40 CFR § 130.7(b).

Jordan Creek (WBID 3374) – Missouri identified this water body as impaired for an unknown pollutant on its 2008 § 303(d) List. On January 28, 2011, EPA established a TMDL for a storm water surrogate to address the impairment. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Jordan Creek because this water body no longer requires the development of a TMDL for a pollutant, consistent with 40 CFR § 130.7(b).

Lake Taneycomo (WBID 7314) – Missouri previously listed Lake Taneycomo as impaired by low D.O. On December 30, 2010, EPA approved a Missouri TMDL for low D.O. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Lake Taneycomo because

this water body no longer requires the development of a TMDL for low D.O., consistent with 40 CFR § 130.7(b). Lake Taneycomo remains listed as impaired for nitrogen.

Long Branch (WBID 0857) – Missouri previously listed Long Branch as impaired by an unknown pollutant. For the 2010 listing cycle, Missouri also proposed listing Long Branch as impaired by low D.O. On December 20, 2010, EPA established a Missouri TMDL for nitrogen, phosphorus, and total suspended solids to address the impairment. In addition, the TMDL and its targeted pollutants are appropriate to address the proposed 2010 impairment of low D.O. for this water body. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List for both the unknown pollutant and the low D.O. impairment. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Long Branch because this water body no longer requires the development of a TMDL for a pollutant, including low D.O., consistent with 40 CFR § 130.7(b).

Marmaton River (WBID 1308) – Missouri previously listed the Marmaton River as impaired by low D.O. On October 26, 2010, EPA approved a Missouri TMDL for biological oxygen demand, nitrogen, phosphorus and total suspended solids. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Marmaton River because this water body no longer requires the development of a TMDL for low D.O., consistent with 40 CFR § 130.7(b).

Pearson Creek (WBID 2373) – Missouri previously listed Pearson Creek as impaired by an unknown pollutant. On January 28, 2011, EPA established a TMDL to address the impairment by toxicity from multiple pollutants. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Pearson Creek because this water body no longer requires the development of a TMDL for a pollutant, consistent with 40 CFR § 130.7(b).

Piper Creek (Town Branch) (WBID 1444) – Missouri previously listed Piper Creek as impaired by an unknown pollutant and organic sediment. The original listing as Piper Creek was corrected in 2006 to Piper Creek (Town Branch), as the actual water body was misidentified in the original 1998 listing. On November 1, 2010, EPA established a TMDL for organic sediment, TN, TP and TSS. This TMDL addresses the impairment for what Missouri now considers Piper Creek (Town Branch). As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting these water body/pollutant pairs and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Piper Creek (Town Branch) because this water

body no longer requires the development of a TMDL for a pollutant, including organic sediment, consistent with 40 CFR § 130.7(b).

Tributary to Pond Creek (WBID 2128) – Missouri previously listed this Tributary to Pond Creek (now identified by Missouri as Pond Creek) as impaired by inorganic sediment. On December 23, 2010, EPA approved a Missouri TMDL for inorganic sediment, cadmium, lead and zinc in water and sediment. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of this Tributary to Pond Creek (Pond Creek) because this water body no longer requires the development of a TMDL for inorganic sediment, cadmium, lead or zinc, consistent with 40 CFR § 130.7(b).

Sandy Creek (WBID 0652) – Missouri previously listed Sandy Creek as impaired by an unknown pollutant. On December 20, 2010, EPA established a TMDL for iron and total suspended solids to address the impairment. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Sandy Creek because this water body no longer requires the development of a TMDL for a pollutant, consistent with 40 CFR § 130.7(b).

Shibboleth Creek (WBID 2120) – Missouri previously listed Shibboleth Creek as impaired by inorganic sediment. In Missouri's 2010 § 303(d) submittal, Missouri added the pollutants lead and zinc in sediment. On December 23, 2010, EPA approved a Missouri TMDL for inorganic sediment and cadmium, lead, and zinc in sediment. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Shibboleth Creek because this water body no longer requires the development of a TMDL for inorganic sediment or cadmium, lead, and zinc in sediment, consistent with 40 CFR § 130.7(b).

Spring Branch (Creek) (WBID 3708) – Missouri previously listed Spring Branch (Creek) as impaired by organic sediment and low D.O. In Missouri's 2010 § 303(d) submittal it proposed changing the name and WBID for this water body to Spring Creek (WBID 1870), this change in WQS has not yet been approved by EPA and the actions outlined in this document will refer to this water body under the approved name and WBID. On October 20, 2010, EPA approved a Missouri TMDL for organic sediment and BOD, TN, TP and TSS. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting these water body/pollutant pairs and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Spring Branch (Creek) because this water body no longer requires the development of a TMDL for organic sediment or low D.O., consistent with 40 CFR § 130.7(b).

West Fork Black River (WBID 2755) – Missouri previously listed West Fork Black River as impaired by nutrients. On December 23, 2010, EPA established a TMDL for TN and TP. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of West Fork Black River because this water body no longer requires the development of a TMDL for nutrients, consistent with 40 CFR § 130.7(b). The water body remains impaired for lead in sediment and EPA is proposing to restore the 2008 listing for nickel in sediment.

West Fork Locust Creek (WBID 0613) – Missouri previously listed West Fork Locust Creek as impaired by an unknown pollutant. In its 2010 § 303(d) submittal Missouri also proposed listing West Fork Locust Creek for low D.O. On September 15, 2010, EPA established a TMDL for TN, TP and TSS to address the unknown pollutant. In addition, the targeted pollutants are appropriate to address the proposed new low D.O. impairment for this water body. As such, these water body/pollutant pairs are appropriate for removal from the Missouri 303(d) List for both the original unknown pollutant and the low D.O. impairment. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of West Fork Locust Creek because this water body no longer requires the development of a TMDL for a pollutant, including low D.O., consistent with 40 CFR § 130.7(b).

West Fork Niangua River (WBID 1175) – Missouri previously listed West Fork Niangua River as impaired by low D.O. On December 23, 2010, EPA established a TMDL for BOD, TN, TP and TSS. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List for the low D.O. impairment. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of West Fork Niangua River because this water body no longer requires the development of a TMDL for low D.O., consistent with 40 CFR § 130.7(b).

Wilson Creek (WBID 2375) – Missouri previously listed Wilson Creek as impaired by an unknown pollutant. On January 28, 2011, EPA established a TMDL to address the impairment by toxicity from multiple pollutants. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Wilson Creek because this water body no longer requires the development of a TMDL for a pollutant, consistent with 40 CFR § 130.7(b).

Wyaconda New Lake (WBID 7009) – Missouri previously listed Wyaconda New Lake as impaired by atrazine. On December 21, 2010, EPA established a TMDL for atrazine. As such, this water body/pollutant pair is appropriate for removal from the Missouri 303(d) List. EPA contacted Missouri as to its preference on delisting this water

body/pollutant pair and Missouri requested that this water be removed based on the TMDL. In today's action, EPA is proposing the delisting of Wyaconda New Lake because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

**B. Water Bodies and Pollutants EPA Proposes Restoring or Adding to Missouri's 2010 CWA Section 303(d) List (nine water bodies, Table 4)**

Baldwin Park Tributary, (unclassified) – Missouri failed to list this water body as impaired for more than two exceedances of the acute zinc criterion. When EPA initiated an inquiry as to this water body's status, Missouri stated it was considered to be part of the Chat Creek TMDL approved by EPA on August 29, 2006. While this tributary is identified in that TMDL, there is no loading capacity, load allocation or waste load allocation identified which will lead to the attainment of WQS for this tributary specifically and no opportunity for public comment was provided. These components are needed for an approvable TMDL, and as they have not been completed for this water body, EPA proposes to add this water body/pollutant pair to the 2010 Missouri § 303(d) List.

Clear Creek (WBID 3239) – Clear Creek was listed as impaired by low levels of D.O., nutrients and bacteria on the 2008 Missouri § 303(d) List. In developing its 2010 § 303(d) List, Missouri proposed to delist Clear Creek for low D.O. Missouri attributes the low D.O. to elevated nutrients and large daily flux in D.O. concentrations relating to those nutrients. While it is likely nutrients are the cause for excursions from the D.O. criteria, the exceedance of the D.O. WQS requires that the water body be listed for that impairment. As such, EPA disapproves Missouri's decision to remove this water body/pollutant pair from the § 303(d) List and is proposing to restore low D.O. to the 2010 Missouri § 303(d) List. Clear Creek is also listed as impaired by nutrients.

Dardenne Creek (WBID 0221) – Dardenne Creek was listed as impaired by an unknown pollutant and inorganic sediment on the 2008 Missouri § 303(d) List. In developing its 2010 § 303(d) List, Missouri proposed to delist this segment of Dardenne Creek for both the unknown pollutant and inorganic sediment. Missouri also listed this segment as impaired for low D.O. In EPA's review of these proposed actions it was found that the inorganic sediment analysis and biological assessment pooled data from multiple segments of Dardenne Creek. EPA's analysis of segment specific data indicates a different conclusion. There are four bioassessments for this segment of Dardenne Creek. According to Missouri's Listing Methodology, 75 percent of the assessments must score 16 or greater for full support of the aquatic life narrative standard. In this case, three of the four scores (75 percent) were 14 or less. According to Missouri's Listing Methodology this water body is not in attainment. Similarly, when the percentage FSD data from 2008 is evaluated for this segment only, the lower 60 percent confidence limit is 37.5 percent. This number is greater than the 20 percent identified in Missouri's Listing Methodology, indicating the protection of aquatic life narrative standard is not in attainment. As such, EPA disapproves Missouri's decision to remove

these water body/pollutant pairs from the § 303(d) List and is proposing to restore them to the 2010 Missouri 303(d) List.

Flat River Creek Tributary (WBID 2168U-01) – Flat River Creek Tributary was listed as impaired by zinc on the 2008 Missouri § 303(d) List. Missouri identified on its delisting table that this tributary was considered to be part of the Flat River Creek TMDL approved by EPA on March 24, 2010. While this tributary is identified in that TMDL there is no loading capacity, load allocation, waste load allocation identified which will lead to the attainment of WQS for this tributary specifically, nor was the action made available for public comment. These components are needed for an approvable TMDL, and as they have not been calculated for this water body, EPA proposes to restore this water body/pollutant pair to the 2010 Missouri § 303(d) List.

Lewistown Lake (WBID7020) – Lewistown Lake was listed on the 2008 Missouri § 303(d) List as impaired by atrazine. For the 2010 § 303(d) List, Missouri has proposed to delist this lake based on the same rationale it submitted for its 2008 list. In EPA's analysis of the 2008 list it identified information needed before Missouri's contention that raw and finished drinking water atrazine concentrations were equivalent if there was no carbon filtration used during the treatment. Missouri stated there was no additional information for this water body when EPA inquired. As such, EPA stands by its 2008 assessment that Missouri has not provided good cause for the delisting of this water body/pollutant pair and proposes to restore it to the 2010 Missouri § 303(d) List.

Peruque Creek (WBID 0217 and 0218) – Both of these segments of Peruque Creek were listed as impaired by inorganic sediment on the 2008 Missouri § 303(d) List. In its evaluation and public notice of its decision to add these segments to Missouri's 2008 List, EPA relied on data from the Missouri Department of Conservation in addition to the data provided by the Missouri Department of Natural Resources. The 2010 Missouri § 303(d) List proposed delisting of these water body/pollutant pairs. Missouri has identified no additional data used in making their decision. By not providing additional data, EPA is unable to determine whether conditions in these segments has changed to demonstrate good cause to delist these segments. EPA again proposes to restore these waters to the 2010 Missouri § 303(d) List.

West Fork Black River (WBID 2755) – This water body was listed as impaired by nickel in sediment, an excursion of Missouri's narrative WQS, on the 2008 Missouri § 303(d) List. In the 2010 submittal, Missouri applied a mixing zone provision which resulted in the omission of numerous sediment samples from consideration for assessment. In reviewing the Missouri WQS, EPA has determined that narrative WQS apply at all times within designated mixing zones [(10 CSR 20-7.031(3)(A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses]. As such, the mixing zone exclusion does not apply and EPA proposes to restore West Fork Black River to Missouri's § 303(d) List as impaired for nickel in sediments.

Wolf Creek, Tributary to (WBID 3589) – This tributary was listed as impaired by low D.O. on the 2008 Missouri § 303(d) List. Missouri proposes to delist this water body/pollutant pair based on the age of the data.<sup>4</sup> EPA’s guidance has long indicated that data age alone is not good cause for the delisting of a water body. In its analysis of this water, EPA has identified that a major WWTP discharges into this segment. Based on the potential for impairment and the lack of data indicating the water body is meeting WQS, EPA proposes to restore this water body/pollutant pair to the 2010 Missouri § 303(d) List.

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<sup>4</sup> **Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act July 29, 2005**

**Table 1****Missouri-Submitted Water Quality-Limited Segments EPA Approves for Inclusion on Missouri's 2010 Section 303(d) List**

Water body/pollutant pairs where MDNR subdivided the classified segment to include additional information about the pollutant or pollutant source (see Section IV.D, Table 2) are denoted with an “-a”, “-b”, etc. For water bodies with proposed name changes, the table lists the water body under both names but only identifies the EPA approved name under the No. column.

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
1	Atkinson Lake	7234	L3	434.0	434.0	355	St. Clair	Chlorophyll
2	Atkinson Lake	7234	L3	434.0	434.0	355	St. Clair	Phosphorus
3	Bee Fork	2760	C	8.5	8.5	8.5	Reynolds	Lead
4	Bee Fork	2760	C	0.9	8.5	8.5	Reynolds	Lead (S)
5	Bee Fork	2760U-01	U	0.3	n/a	n/a	Reynolds	Lead (W)
6	Belcher Branch Lake	7365	L3	55.0	55.0	55	Buchanan	Mercury (T)
7	Bethany Lake	7109	L3	78.0	78.0	78	Harrison	Mercury (T)
8	Big Creek	0444	P	1.0	22.0	22.0	Harrison	Ammonia
9	Big Creek	0444	P	6.0	22.0	22.0	Harrison	Low D.O.
10	Big Creek	2916	P	3.0	34.1	32	Wayne/Iron	Cadmium (S)
11	Big Creek	2916	P	3.0	34.1	32	Wayne/Iron	Lead (S)
12	Big Creek	2916	P	3.0	34.1	32	Wayne/Iron	Metals (S)
13	Big Otter Creek, Tributary to	1225	C	1.0	1.0	1.0	Henry	Low D.O.
14	Big Piney River	1578	P	4.0	7.8	8.0	Texas	Low D.O.
15	Big River	2080	P	18.6	68.0	68	St. Francois	Cadmium (S)
16	Big River	2080	P	18.6	68.0	68	St. Francois	Zinc (S)
17	Bilby Ranch Lake	7368	L3	95.0	95.0	110	Nodaway	Chlorophyll
18	Binder Lake	7185	L3	127.0	127.0	127	Cole	Chlorophyll
19	Binder Lake	7185	L3	127.0	127.0	127	Cole	Phosphorus
20	Black River	2784	P	39.0	39.0	35.0	Wayne/Butler	Mercury (T)

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
21	Blackberry Creek	3184	C	3.5	6.5	6.5	Jasper	Chloride
22	Blackberry Creek	3184	C	3.5	6.5	6.5	Jasper	Sulfate Chloride
23	Blue River	0417	P	4.4	4.4	4.0	Jackson	Bacteria
24	Blue River	0418	P	9.4	9.4	9.0	Jackson	Bacteria
25	Blue River	0419	P	7.7	7.7	9.0	Jackson	Bacteria
26	Blue River	0421	C	12.0	12.0	11.0	Jackson	Bacteria
27	Bobs Creek	0035	C	3.5	14.2	12.5	Lincoln	Low D.O.
28	Bonne Femme Creek	0750	P	7.8	7.8	7	Boone	Bacteria
29	Bourbeuse River	2034	P	136.7	136.7	132	Phelps/Franklin	Mercury (T)
30	Brush Creek	1371	P	4.7	4.7	4	Polk/St. Clair	Low D.O.
31	Brush Creek	1371	P	4.7	4.7	4	Polk/St. Clair	Organic Sediment
32	Brush Creek	1372	C	5.5	5.5	2	Polk	Low D.O.
33	Burgher Branch	1865	C	1.5	1.5	2	Phelps	Low D.O.
34	Busch Lake #35	7057	L3	51.0	51.0	51	St. Charles	Mercury (T)
35	Busch Lake #37	7056U	U	34.0	34.0		St. Charles	Mercury (T)
36	Capps Creek	3234	P	5.0	5.0	4	Barry	Bacteria
37	Castor River	2288	P	7.5	7.5	6.5	Bollinger	Bacteria
38	Cedar Creek	0737	C	7.0	37.4	33	Callaway	Unknown
39	Cedar Creek	1344	P	10.0	31.0	27	Cedar	Unknown
40	Cedar Creek	1344	P	10.0	31.0	27	Cedar	Low D.O.
41	Cedar Creek	1357	C	16.2	16.2	16.5	Cedar	Unknown
42	Cedar Creek	1357	C	16.2	16.2	16.5	Cedar	Low D.O.
43	Cedar Creek, Tributary to (proposed new name. Renfro Creek)	0743	C	1.5	1.5	1.5	Callaway	Low D.O.
44	Center Creek	3203	P	12.8	26.8	26	Jasper	Cadmium (S)
45	Center Creek	3203	P	12.8	26.8	26	Jasper	Cadmium (W)
46	Center Creek	3203	P	12.8	26.8	26	Jasper	Lead (S)
47	Center Creek	3203	P	12.8	26.8	26	Jasper	Zinc (S)
48	Center Creek	3203	P	12.8	26.8	26	Jasper	Bacteria

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
49	Center Creek	3210	P	21.0	21.0	22	Newton/Jasper	Bacteria
50	Center Creek	3214	P	4.9	4.9		Lawrence/Newton	Bacteria
	Chat Creek (a.k.a. Douger Br.)	3168	C	1.0	2.1	4.5	Lawrence	Cadmium (W)
	Chat Creek (a.k.a. Douger Br.)	3168	C	1.0	2.1	4.5	Lawrence	Lead (S)
	Chat Creek (a.k.a. Douger Br.)	3168	C	1.0	2.1	4.5	Lawrence	Zinc (S)
51	Clear Creek	1333	P	28.2	28.2		Vernon/St. Clair	Low D.O.
52	Clear Creek	1336	C	22.3	22.3	15	Vernon	Low D.O.
53	Clear Creek	3238	P	11.1	11.1	9	Barry/Newton	Bacteria
54	Clear Creek	3239	C	3.5	3.5	2	Barry/Newton	Nutrients
55	Clear Fork	0935	P	3.0	25.8	24.5	Johnson	Low D.O.
56	Clearwater Lake	7326	L2	1635.0	1635.0	1650	Reynolds/Wayne	Mercury (T)
57	Coldwater Creek	1706	C	6.9	6.9	5.5	St. Louis	Bacteria
58	Coldwater Creek	1706	C	6.9	6.9	5.5	St. Louis	Chloride
59	Coldwater Creek	1706	C	4.0	6.9	5.5	St. Louis	Low D.O.
60	Coon Creek	0132	C	11.8	11.8	9	Randolph/Monroe	Low D.O.
61	Coon Creek, Tributary to	0133	C	2.0	2.0	1	Randolph	Low D.O.
62	Courtois Creek	1943	P	2.6	32.0	30	Washington	Metals*** (S)
63	Creve Coeur Creek	1703	C	3.8	3.8	2	St. Louis	Low D.O.
64	Creve Coeur Creek	1703	C	3.8	3.8	2	St. Louis	Bacteria
65	Creve Coeur Creek	1703	C	3.8	3.8	2	St. Louis	Chloride
66	Crooked Creek	1928	P	3.5	3.5	3.5	Dent/Crawford	Cadmium (S)
67	Crooked Creek	1928	P	3.5	3.5	3.5	Dent/Crawford	Cadmium (W)
68	Crooked Creek	1928	P	3.5	3.5	3.5	Dent/Crawford	Lead (S)
69	Crooked Creek	1928U-01	U	5.2	n/a	n/a	Iron/Dent	Cadmium (W)

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
70	Crooked Creek	1928U-01	U	5.2	n/a	n/a	Iron/Dent	Copper (W)
71	Current River	2636	P	124.0	124.0	118	Shannon/Ripley	Mercury (T)
72	Dardenne Creek	0219	P1	7.0	7.0	7	St. Charles	Low D.O.
73	Dardenne Creek	0221	P	16.5	16.5	15	St. Charles	Low D.O.
74	Dardenne Creek	0222	C	6.0	6.0	6	St. Charles	Low D.O.
75	Dark Creek	0690	C	9.1	9.1	8	Randolph	Low D.O.
76	Deer Ridge Lake	7015	L3	39.0	39.0	48	Lewis	Mercury (T)
77	Des Moines River	0036	P	31.3	31.3	29	Clark	Bacteria
78	Ditch #36	3109	P	7.8	7.8	7	Dunklin	Low D.O.
79	Ditch to Buffalo Ditch (proposed new name Pole Cat Slough)	3120	P	12.0	12.0	12	Dunklin	Low D.O.
80	Douger Branch (proposed new name Chat Creek)	3168	C	1.0	2.1	4.5	Lawrence	Cadmium (W)
81	Douger Branch (proposed new name Chat Creek)	3168	C	1.0	2.1	4.5	Lawrence	Lead (S)
82	Douger Branch (proposed new name Chat Creek)	3168	C	1.0	2.1	4.5	Lawrence	Zinc (S)
83	Dousinbury Creek	1180	P	3.9	3.9	3.5	Dallas	Bacteria
84	Dry Branch	3189	C	10.2	10.2	9	Jasper	Bacteria
85a	Dutro Carter Creek	3569	P	0.6	1.5	1.5	Phelps	Low D.O.
85b	Dutro Carter Creek	3569	P	0.9	1.5	1.5	Phelps	Low D.O.
86	East Fork Crooked River	0372	P	19.9	19.9	14	Ray	Low D.O.
87	East Fork Grand River	0457	P	28.7	28.7	25	Worth/Gentry	Bacteria
88	East Fork Locust Creek	0608	P	16.7	16.7	13	Sullivan	Bacteria

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
89a	East Fork Locust Creek	0610	C	0.4	15.7	13	Sullivan	Bacteria
89b	East Fork Locust Creek	0610	C	15.3	15.7	13	Sullivan	Bacteria
90	East Fork Locust Creek	0610	C	15.3	15.7	13	Sullivan	Low D.O.
91	East Fork Medicine Creek	0619	P	43.8	43.8	36	Putnam/Grundy	Bacteria
92	East Fork Tebo Creek	1282	C	1.0	14.5	12	Henry	Low D.O.
93	Eaton Branch	2166	C	0.9	1.2**	3	St. Francois	Cadmium (S)
94	Eaton Branch	2166	C	0.9	1.2**	3	St. Francois	Cadmium (W)
95	Eaton Branch	2166	C	0.9	1.2**	3	St. Francois	Lead (S)
96	Eaton Branch	2166	C	0.9	1.2**	3	St. Francois	Zinc (S)
97	Eaton Branch	2166	C	0.9	1.2**	3	St. Francois	Zinc (W)
98	Eleven Point River	2597	P	11.4	11.4	10	Oregon	Mercury (T)
99	Eleven Point River	2601	P	22.3	22.3	19	Oregon	Mercury (T)
100	Elm Branch	1283	C	3.0	3.0	3	Henry	Low D.O.
101	Fishpot Creek	2186	P	3.5	3.5	2	St. Louis	Bacteria
102	Fishpot Creek	2186	P	3.5	3.5	2	St. Louis	Low D.O.
103	Flat River Creek	2168	C	5.0	10.0	9	St. Francois	Cadmium (W)
104	Forest Lake	7151	L1	580.0	580.0	573	Adair	Chlorophyll
105	Forest Lake	7151	L1	580.0	580.0	573	Adair	Nitrogen
106	Forest Lake	7151	L1	580.0	580.0	573	Adair	Phosphorus
107	Foster Creek	0747U-01	U	0.5	n/a		Boone	Ammonia
108	Fowler Creek	0747	C	6.0	6.0	6	Boone	Low D.O.
109	Fox River	0038	P	42.0	42.0	27	Clark	Bacteria
110	Foxboro Lake	7382	L3	22.0	22.0	25	Franklin	Mercury (T)
111	Fox Valley Lake	7008	L3	89.0	89.0	108	Clark	Phosphorus
	Frisco Lake (a.k.a. Schuman Park Lake)	7280	L3	5.0	5.0	5	Phelps	Mercury (T)
112	Gasconade River	1455	P	264.0	264.0	249	Gasconade/Wright	Mercury (T)
113	Goose Creek, Tributary	1420	C	3.0	3.0	3	Lawrence	Bacteria

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
114	Grand Glaize Creek	2184	C	4.0	4.0	4	St. Louis	Bacteria
115	Grand Glaize Creek	2184	C	4.0	4.0	4	St. Louis	Chloride
116	Grand Glaize Creek	2184	C	4.0	4.0	4	St. Louis	Mercury (T)
117	Grand Glaize Creek	2184	C	4.0	4.0	4	St. Louis	Low D.O.
118	Grand River	0593	P	56.0	56.0	60	Livin./Chariton	Bacteria
119	Gravois Creek	1712	P	2.3	2.3	2	St. Louis	Bacteria
120	Gravois Creek	1712	P	2.3	2.3	2	St. Louis	Chloride
121	Gravois Creek	1713	C	6.0	6.0	4	St. Louis	Bacteria
122	Gravois Creek	1713	C	6.0	6.0	4	St. Louis	Chloride
123	Gravois Creek	1713	C	6.0	6.0	4	St. Louis	Low D.O.
124	Grindstone Creek	1009	C	1.5	2.5	1.5	Boone	Bacteria
125	Grindstone Reservoir	7384	L1	173.0	173.0	180	Dekalb	Chlorophyll
126	Grindstone Reservoir	7384	L1	173.0	173.0	180	Dekalb	Nitrogen
127	Grindstone Reservoir	7384	L1	173.0	173.0	180	Dekalb	Phosphorus
128	Harrison County Lake	7386	L1	280.0	280.0	280	Harrison	Chlorophyll
129	Harrison County Lake	7386	L1	280.0	280.0	280	Harrison	Phosphorus
130	Hazel Creek Lake	7152	L1	453.0	453.0	151	Adair	Mercury (T)
131	Hazel Creek Lake	7152	L1	453.0	453.0	151	Adair	Chlorophyll
132	Hazel Hill Lake	7387	L3	62.0	62.0	71	Johnson	Chlorophyll
133	Heath's Creek	0848	P	21.0	21.0	13	Pettis	Low D.O.
134	Hickory Creek	3226	P	4.9	4.9	4.5	Newton	Bacteria
135	Hinkson Creek	1008	C	18.8	18.8	18	Boone	Bacteria
136	Honey Creek	3169	P	16.5	16.5	13	Lawrence	Bacteria
137	Honey Creek	3170	C	2.7	2.7	2	Lawrence	Bacteria
138	Horse Creek	1348	P	27.7	27.7	24.5	Cedar	Unknown
139	Horse Creek	1348	P	27.7	27.7	24.5	Cedar	Low D.O.
140	Hough Park Lake	7388	L3	10.0	10.0	7	Cole	Mercury (T)
141	Indian Creek	0420	C	3.4	3.4	3	Jackson	Bacteria
142	Indian Creek	0420	C	3.4	3.4	3	Jackson	Chloride
143	Indian Creek	1747	C	3.6	3.6	3	St. Genevieve	Low D.O.

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
144	Indian Creek	3256	P	5.0	30.8	26	Newton	Bacteria
145	Indian Creek	3256	P	5.0	30.8	26	Newton	Unknown
146	Indian Creek Lake	7389	L3	185.0	185.0	192	Livingston	Mercury (T)
147	Kiefer Creek	3592	P	1.2	1.2	0.5	St. Louis	Bacteria
148	Knob Noster State Park Lakes (Lake Buteo)	7196	L3	10.0	24.0	24	Johnson	Mercury (T)
149	Kraut Run Lake	7056	L3	164	164		St. Charles	Chlorophyll
150	Kraut Run Lake	7056	L3	164	164		St. Charles	Phosphorus
151	La Belle Lake No. 2	7023	L1	98.0	98.0	112	Lewis	Chlorophyll
152	La Belle Lake No. 2	7023	L1	98.0	98.0	112	Lewis	Phosphorus
153	Lac Capri	7297A	L3	112.0	112.0		St. Francois	Chlorophyll
154	Lac Capri	7297A	L3	112.0	112.0		St. Francois	Nitrogen
155	Lake Jacomo	7101	L3	998.0	998.0	970	Jackson	Chlorophyll
156	Lake of the Ozarks, Niangua Arm	7205	L2	7600.0	59520.0	59520	Camden	Phosphorus
157	Lake of the Ozarks, Osage Arm	7205	L2	38920.0	59520.0	59520	Camden	Nitrogen
158	Lake of the Woods	7436	L3	3.0	3.0	3	Boone	Mercury (T)
159	Lake of the Woods	0419U-01	U	7.0	n/a	n/a	Jackson	Mercury (T)
160	Lake Springfield	7312	L3	293.0	293.0	360	Greene	Chlorophyll
161	Lake Springfield	7312	L3	293.0	293.0	360	Greene	Nitrogen
162	Lake Springfield	7312	L3	293.0	293.0	360	Greene	Phosphorus
163	Lake St. Louis	7054	L3	444.0	444.0	525	St. Charles	Mercury (T)
164	Lake Ste. Louise	7055	L3	71.0	71.0	98	St. Charles	Bacteria
165	Lake Taneycomo	7314	L2	2118.6	2118.6	1730	Taney	Nitrogen
166	Lake Wappapello	7336	L2	8200.0	8200.0	8200	Wayne	Chlorophyll
167	Lake Wappapello	7336	L2	8200.0	8200.0	8200	Wayne	Nitrogen
168	Lake Wappapello	7336	L2	8200.0	8200.0	8200	Wayne	Phosphorus
169	Lake Winnebago	7212	L3	272.0	272.0	350	Cass	Mercury (T)

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
170	Lamine River	0847	P	64.0	64.0	54	Morgan/Cooper	Bacteria
171	Lateral #2 Main Ditch	3105	P	11.5	11.5	11.5	Stoddard	Temperature
172	Lateral #2 Main Ditch	3105	P	11.5	11.5	11.5	Stoddard	Low D.O.
173	Little Beaver Creek	1529	C	3.3	3.5	4	Phelps	Inorganic Sediment
174	Little Dry Fork	1863	P	1.0	5.2	5	Phelps	Low D.O.
175a	Little Dry Fork	1864	C	0.6	4.7	4.5	Phelps	Low D.O.
175b	Little Dry Fork	1864	C	3.9	4.7	4.5	Phelps	Low D.O.
176	Little Drywood Creek	1325	P	20.5	20.5	17	Vernon	Low D.O.
177	Little Drywood Creek	1326	C	15.6	15.6	10	Barton/Vernon	Low D.O.
178	Little Lost Creek	3279	P	5.8	5.8	4.5	Newton	Bacteria
179	Little Muddy Creek, Tributary to	3490	C	1.0	1.0	0.4	Pettis	Chloride
180	Little Muddy Creek, Tributary to	3490	C	1.0	1.0	0.4	Pettis	Color
181	Little Niangua River	1189	P	20.0	43.8	43	Dallas/Camden	Low D.O.
182	Little Osage River	3652	C	23.6	23.6	16	Vernon	Bacteria
183	Locust Creek	0606	P	36.4	91.7	84	Putnam/Sullivan	Bacteria
184	Lone Elm Hollow	3216U	U	1.4	n/a	n/a	Jasper	Metals
185	Long Branch Creek	0696	C	2.0	14.8	13	Macon	Low D.O.
186	Longview Lake	7097	L2	853.0	853.0	930	Jackson	Mercury (T)
187	Lost Creek	3278	P	8.5	8.5	8.5	Newton	Bacteria
188	Main Ditch	2814	C	1.0	13.0	14	Butler	Ammonia
189	Main Ditch	2814	C	1.0	13.0	14	Butler	pH
190	Main Ditch	2814	C	10.0	13.0	14	Butler	Temperature
191	Maline Creek	1709	C	0.6	0.6	1	St. Louis	Low D.O.
192	Manito Lake	7198	L3	77.0	77.0	77	Moniteau	Nitrogen
193	Manito Lake	7198	L3	77.0	77.0	77	Moniteau	Phosphorus
194	Maple Slough Ditch	3140	C	18.2	18.2	16	Mississippi/New Madrid	Low D.O.
195	Marceline New Lake	7136	L1	200.0	200.0	200	Chariton	Chlorophyll

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
196	Marceline New Lake	7136	L1	200.0	200.0	200	Chariton	Nitrogen
197	Marceline New Lake	7136	L1	200.0	200.0	200	Chariton	Phosphorus
198	Mark Twain Lake	7033	L2	18132.0	18132.0	18600	Ralls	Mercury (T)
199	Mark Twain Lake	7033	L2	18132.0	18132.0	18600	Ralls	Nitrogen
200	McDaniel Lake	7236	L1	218.0	218.0	300	Greene	Chlorophyll
201	McDaniel Lake	7236	L1	218.0	218.0	300	Greene	Phosphorus
202	McKay Park Lake (Sunset Lake)	7399	L3	6.0	6.0	6	Cole	Mercury (T)
203	McKenzie Creek	2786	P	2.5	6.0	6	Wayne	Low D.O.
204	Meramec River	1841	P	76.0	76.0	37	Franklin/Jefferson	Mercury (T)
205	Meramec River	2183	P	22.8	22.8	22	St. Louis	Lead (S)
206	Meramec River	2183	P	22.8	22.8	22	St. Louis	Bacteria
207	Meramec River	2185	P	15.7	15.7	26	St. Louis	Lead (S)
208	Miami Creek	1299	P	19.6	19.6	18	Bates	Low D.O.
209	Middle Fork Grand River	0468	P	27.5	27.5	25	Worth/Gentry	Bacteria
210	Middle Fork Salt River	0121	P	24.8	85.1	49	Macon/Monroe	Low D.O.
211	Middle Indian Creek	3262	C	3.5	3.5	3	Newton	Unknown
212	Middle Indian Creek	3263	P	2.2	2.2	2.5	Newton	Bacteria
213	Middle Indian Creek	3263	P	2.2	2.2	2.5	Newton	Unknown
214	Missouri River	0226	P	184.5	184.5	179	Atchison/Jackson	Bacteria
215	Missouri River	1604	P	104.5	104.5	100	St. Louis/Gasconade	Bacteria
216	Moberly Rothwell Lake	7165	L3	22.0	22.0	25	Randolph	Chlorophyll
217	Monzingo Lake	7402	L1	898.0	898.0	1000	Nodaway	Mercury (T)
218	Monzingo Lake	7402	L1	898.0	898.0	1000	Nodaway	Chlorophyll
219	Muddy Creek	0853	P	39.0	62.2	55	Pettis	Chloride
220	Muddy Creek	0853	P	1.0	62.2	55	Pettis	Color
221	Muddy Creek	0853	P	62.2	62.2	55	Pettis	Unknown
222	Mussel Fork Creek	0674	C	29.0	29.0	29	Sullivan/Macon	Bacteria

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
223	Niangua River	1170	P	56.0	56.0	51	Dallas	Bacteria
224	No Creek	0550	P	28.7	28.7	22.5	Grundy/Livin.	Bacteria
225	No Creek	0550	P	28.7	28.7	22.5	Grundy/Livin.	Low D.O.
226	Noblett Lake	7316	L3	26.0	26.0	26	Douglas	Mercury (T)
227	Nodaway Lake	7076	L3	73.0	73.0	73	Nodaway	Chlorophyll
228	Nodaway Lake	7076	L3	73.0	73.0	73	Nodaway	Nitrogen
229	Nodaway River	0279	P	59.3	59.3	60	Nodaway	Bacteria
230	North Fork Cuivre River	0170	C	10.0	10.0	8	Pike	Low D.O.
231	North Fork Cuivre River	0170	C	10.0	10.0	8	Pike	Bacteria
232	North Fork Spring River	3186	P	17.4	17.4	14.5	Barton	Bacteria
233	North Fork Spring River	3188	C	1.0	55.9	51.5	Dade/Jasper	Ammonia
234	North Fork Spring River	3188	C	55.9	55.9	51.5	Dade/Jasper	Bacteria
235	North Fork Spring River	3188	C	55.9	55.9	51.5	Dade/Jasper	Low D.O.
236	North Indian Creek	3260	P	5.2	5.2	5	Newton	Bacteria
237	North Lake	7218	L3	19.0	19.0	51	Cass	Chlorophyll
238	North Lake	7218	L3	19.0	19.0	51	Cass	Phosphorus
239	North Moreau Creek	0942	P	11.6	47.9	50	Moniteau	Low D.O.
240	Odessa Lake	7093	L1	87.0	87.0	90	Lafayette	Chlorophyll
241	Odessa Lake	7093	L1	87.0	87.0	90	Lafayette	Nitrogen
242	Old Mines Creek, Tributary	2114	C	0.9	1.5	1.5	Washington	Sediment
243	Osage River	1031	P	10.0	81.9	82	Osage/Miller	Total Dissolved Gas
244	Osage River	1293	P	45.5	45.5		Vernon/St. Clair	Low D.O.
245	Panther Creek	1373	C	9.7	9.7	7.8	St.Clair/Polk	Low D.O.
246	Pearson Creek	2373	P	2.0	8.0	8	Greene	Bacteria
247	Petite Saline Creek	0785	P	21.0	21.0	17	Cooper/Moniteau	Low D.O.
248	Phillips Lake	1003U-01	U	32.0	n/a	n/a	Boone	Mercury (T)
249	Pickle Creek	1755	P	7.8	7.8	7	Ste. Genevieve	pH
250	Pike Creek	2815	C	1.3	6.0	6	Butler	Temperature

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
251	Pike Creek	2815	C	1.3	6.0	6	Butler	Low D.O.
252	Platte River	0312	P	142.2	142.2	138	Worth/Platte	Bacteria
	Pole Cat Slough (a.k.a. Ditch to Buffalo Ditch)	3120	P	12.6	12.6	12	Dunklin	Low D.O.
253	Pomme de Terre Lake	7238	L2	7820.0	7820.0	7820	Hickory	Chlorophyll
254	Pomme de Terre Lake	7238	L2	7820.0	7820.0	7820	Hickory	Nitrogen
255	Red Oak Creek	2038	C	10.0	10.0	9	Gasconade	Low D.O.
256	Red Oak Creek, Tributary to	3360	P	0.5	0.5	0.5	Gasconade	Low D.O.
257a	Red Oak Creek, Tributary to	3361	C	0.9	1.9	1.5	Gasconade	Low D.O.
257b	Red Oak Creek, Tributary to	3361	C	1.0	1.9	1.5	Gasconade	Low D.O.
	Renfro Creek (a.k.a. Cedar Creek, Trib.)	0743	C	1.5	1.5	1.5	Callaway	Low D.O.
258	Richland Creek	0884	C	6.2	10.0	8	Morgan	Low D.O.
259	River des Peres	1710( was 1711)	C	2.6	2.6	1	St. Louis	Chloride
260	River des Peres	1710( was 1711)	C	2.6	2.6	1	St. Louis	Low D.O.
261	River des Peres	1710U-01 (was 1711U-01)	U	2.5	n/a	n/a	St. Louis	Chloride
262	Sadler Branch	3577	C	0.8	0.8	0.8	Polk	Low D.O.
263	Salt Creek	0594	C	14.9	14.9	14	Livingston/Chariton	Low D.O.
264	Salt River	0091	P	29.0	29.0	29	Ralls/Pike	Low D.O.
265	Salt River	0091	P	29.0	29.0	29	Ralls/Pike	Mercury (T)

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
266	Schuman Park Lake (proposed new name Frisco Lake)	7280	L3	5.0	5.0	5	Phelps	Mercury (T)
267	Scroggins Branch	2916U-01	U	0.5	n/a	n/a	Iron	Cadmium (W)
268	Scroggins Branch	2916U-01	U	0.5	n/a	n/a	Iron	Zinc (W)
269	Shaw Branch	2170	C	1.2	1.2	2	St. Francois	Cadmium (S)
270	Shoal Creek	3222	P	41.1	41.1	43.5	Newton	Bacteria
271	Shoal Creek	3231	C	5.0	5.0	4	Barry	Low D.O.
272	Sni-a-Bar Creek	0399	P	36.6	36.6	32	Jackson/Lafayette	Low D.O.
273	South Blackbird Creek	0655	C	5.0	13.0	13	Putnam	Ammonia
274	South Davis Creek	0913		4.6	4.6	4	Lafayette	Low D.O.
275	South Fabius River	0071	P	80.6	80.6	61.5	Knox/Marion	Bacteria
276	South Fork Salt River	0142	C	17.9	40.1	32	Callaway/Audrain	Low D.O.
277	South Grand River	1249	P	66.8	66.8	62.5	Cass/Henry	Bacteria
278	South Indian Creek	3259	P	8.7	8.7	9	McDonald/Newton	Bacteria
279	Spring River	3160	P	61.7	61.7	58.5	Lawrence/Jasper	Bacteria
280	Spring River	3164	P	8.8	8.8	9.5	Lawrence	Bacteria
281	Spring River	3165	P	11.9	11.9	10	Lawrence	Bacteria
282	St. Johns Ditch	3138	P	15.3	15.3	35	Scott/New Madrid	Bacteria
283	St. Johns Ditch	3138	P	15.3	15.3	35	Scott/New Madrid	Mercury (T)
284	Stevenson Bayou	3135	C	6.4	6.4	14	Mississippi	Low D.O.
285	Stockton Branch	1361	C	1.0	3.6	5	Cedar	Low D.O.
286	Stockton Lake	7235	L2	23680.0	23680.0	23680	Cedar	Chlorophyll
287	Stockton Lake	7235	L2	23680.0	23680.0	23680	Cedar	Nitrogen
288	Straight Fork	0959	C	2.5	6.0	6	Morgan	Chloride
289	Straight Fork	0959	C	2.5	6.0	6	Morgan	Low D.O.
290	Strother Creek	2751	P	2.1	6.0	7	Iron	Lead (S)
291	Strother Creek	2751	P	2.1	6.0	7	Iron	Lead (W)

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
292	Strother Creek	2751	P	2.1	6.0	7	Iron	Nickel (S)
293	Strother Creek	2751	P	2.1	6.0	7	Iron	Zinc (S)
294	Strother Creek	2751	P	2.1	6.0	7	Iron	Zinc (W)
295	Strother Creek	2751U-01	U	1.0	n/a		Reynolds/Iron	Arsenic (S)
296	Strother Creek	2751U-01	U	1.0	n/a		Reynolds/Iron	Lead (S)
297	Strother Creek	2751U-01	U	1.0	n/a		Reynolds/Iron	Nickel (S)
298	Strother Creek	2751U-01	U	1.0	n/a		Reynolds/Iron	Zinc (S)
299	Sugar Creek	0686	P	6.8	6.8	5	Randolph	Low D.O.
300	Sugar Lake (Lewis and Clark State Park)	7067	L3	403.0	403.0	317	Buchanan	Bacteria
301	Table Rock Lake, White River Arm	7313	L2	17240.0	17240	43100	Stone	Chlorophyll
302	Table Rock Lake, White River Arm	7313	L2	17240.0	17240	43100	Stone	Nitrogen
303	Table Rock Lake, James, Kings and Long Creek Arms	7313	L2	25860.0	25860	43100	Stone	Nutrients
304	Thompson River	0549	P	5.0	70.6	65	Harrison	Bacteria
305	Todd Creek	0316	C	5.7	9.9	9.5	Platte	Low D.O.
306	Troublesome Creek	0074	C	41.3	41.3	34	Knox/Marion	Low D.O.
307	Truitt Creek	3175	C	6.4	6.4	5	Lawrence	Bacteria
308	Turkey Creek	3216	P	7.7	7.7	7	Jasper	Bacteria
309	Turkey Creek	3216	P	7.7	7.7	7	Jasper	Cadmium (S)
310	Turkey Creek	3216	P	7.7	7.7	7	Jasper	Cadmium (W)
311	Turkey Creek	3216	P	7.7	7.7	7	Jasper	Lead (S)
312	Turkey Creek	3216	P	7.7	7.7	7	Jasper	Zinc (S)

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
313	Turkey Creek	3217	P	6.1	6.1	5	Jasper	Bacteria
314	Turkey Creek	3217	P	6.1	6.1	5	Jasper	Cadmium (S)
315	Turkey Creek	3217	P	6.1	6.1	5	Jasper	Lead (S)
316	Turkey Creek	3217	P	6.1	6.1	5	Jasper	Zinc (S)
317	Turkey Creek	3282	P	2.4	2.4	2.4	St. Francois	Cadmium (W)
318	Turkey Creek	3282	P	2.4	2.4	2.4	St. Francois	Lead (W)
319	Turkey Creek	3282	P	1.2	2.4	2.4	St. Francois	Zinc (W)
320	Turkey Creek	3282	P	1.2	2.4	2.4	St. Francois	Low D.O.
321	Turnback Creek	1414	P	19.9	19.9	19.5	Lawrence/Dade	Bacteria
322	Unionville Lake	7154	L3	74.0	74	70	Putnam	Phosphorus
323	Warm Fork Spring River	2579	P	1.2	13.8	12	Oregon	Bacteria
324	Watkins Creek	1708	C	1.4	1.4	3.5	St. Louis	Bacteria
325	Watkins Creek	1708	C	1.4	1.4	3.5	St. Louis	Chloride
326	Weatherby Lake	7071	L3	185.0	185.0	194	Platte	Nitrogen
327	Weldon River	0560	P	43.4	43.4	42	Mercer/Grundy	Bacteria
328	West Fork Black River	2755	P	1.3	32.3	31.7	Reynolds	Lead (S)
329	West Fork Drywood Creek	1317	C	8.1	8.1	5.5	Vernon	Low D.O.
330	West Fork Medicine Creek	0623	P	39.8	39.8	40	Mercer/Grundy	Bacteria
331	West Fork Medicine Creek	0623	P	20.0	39.8	40	Mercer/Grundy	Unknown
332	West Fork Sni-a-Bar	0400	P	9.0	9.0		Jackson	Low D.O.
333	Whetstone Creek	1504	P	12.2	12.2	13	Wright	Low D.O.
334	Whetstone Creek	1505U	U	0.6	n/a		Wright	Ammonia
335	White Oak Creek	3182	C	18.0	18.0	15	Lawrence/Jasper	Bacteria
336	Williams Creek	3171	P	1.0	1.0	1	Lawrence	Bacteria
337	Williams Creek	3172	P	8.5	8.5	7	Lawrence	Bacteria
338	Willow Branch	3280	P	2.2	2.2	1.5	Newton	Bacteria

No.	Water Body Name	WBID	Class	MDNR Proposed Impairment Length* (mi/acres)	Proposed Impaired Classified Segment* (mi/acres)	EPA Approved Classified Segment (mi/acres)	County	Pollutant
339	Willow Fork	0955	C	6.8	6.8	6.5	Moniteau	Low D.O.
340	Willow Fork, Tributary to	0956	C	0.5	0.5	0.5	Moniteau	Low D.O.
341	Wilson Creek	2375	P	1.0	14.0	18	Greene	Bacteria
342	Wolf Creek	2879	C	8.0	8.0	8	St. Francois	Low D.O.

\* EPA considers the entire classified segment as impaired on the § 303(d) List. See Section IV.D of the decision document for additional information.

\*\* Only 0.9 miles of this stream remains after the creation of the Leadwood tailings pond.

\*\*\* Metals are believed to be the pollutant based on analysis of invertebrate community

(S) = pollutant in sediment

(T) = pollutant in fish tissue

(W) = pollutant in water

**Table 2****Missouri-Submitted Water body/Pollutant Pairs EPA Approves for Delisting**

No.	Water Body Name	WBID	Class	Classified Segment (mi/acres)	County	Pollutant	Comment
1	Big River	2074	P	53.0	Jefferson, Washington	Lead	EPA approved TMDL
2	Big River	2080	P	68.0	Jefferson, Washington	Inorganic Sediment	EPA approved TMDL
3	Big River	2080	P	68.0	Jefferson, Washington	Lead	EPA approved TMDL
4	Big River	2080	P	68.0	Jefferson, Washington	Lead (sediment)	EPA approved TMDL
5	Buffalo Ditch	3118	P	18.0	Dunklin	Low D.O.	EPA approved TMDL
6	Cave Spring Branch	3245U-01	U	n/a	McDonald	Nutrients	EPA approved TMDL
7	Dardenne Creek	0222	C	6.0	St. Charles	Inorganic Sediment	Meeting WQS
8	East Fork Black River	2737	P	17.0	Reynolds	Hydro-modification	Not caused by a pollutant
9	East Fork Chariton River	0682	P	48.5	Randolph	Sulfate	Meeting WQS
10	Flat River Creek	2168	C	9.0	St. Francois	Lead	EPA approved TMDL
11	Flat River Creek	2168	C	9.0	St. Francois	Lead (sediment)	EPA approved TMDL
12	Flat River Creek	2168	C	9.0	St. Francois	Zinc	EPA approved TMDL
13	Flat River Creek	2168	C	9.0	St. Francois	Inorganic Sediment	EPA approved TMDL
14	Hickory Creek	0442	C	1.5	Daviess	Unknown	EPA approved TMDL
15	Hickory Creek, Tributary to	0589	C	1.0	Grundy	Unknown	Meeting WQS
16	Indian Camp Creek	0212	C	5.0	St. Charles, Warren	Low D.O.	EPA approved TMDL
17	Jordan Creek	3374	P	3.8	Greene	Low D.O.	Meeting WQS

No.	Water Body Name	WBID	Class	Classified Segment (mi/acres)	County	Pollutant	Comment
18	Little Beaver Creek	1529	C	4.0	Phelps	Low D.O.	Permit in lieu of a TMDL
19	Little Osage River	3652	C	16.0	Vernon	Low D.O.	EPA approved TMDL
20	Maline Creek	1709	C	1.0	St. Louis City, St. Louis	Chloride	Meeting WQS
21	Mississippi River	1707	P	195.5	Mississippi, St. Louis	Lead Zinc	EPA approved TMDL
22	Mississippi River	3152	P	124.5	Pemiscot, Mississippi	Mercury (fish tissue)	Meeting WQS
23	Mound Branch	1300	C	10.0	Bates	Low D.O.	EPA approved TMDL
24	Muddy Creek	0557	P	36.5	Grundy, Mercer	Unknown	EPA approved TMDL
25	North Fork Spring River	3188	C	51.5	Barton	Unknown	Pollutant identified as Low D.O.
26	Shaw Branch	2170	C	2.0	St. Francois	Lead (sediment)	EPA approved TMDL
27	Shaw Branch	2170	C	2.0	St. Francois	Inorganic Sediment	EPA approved TMDL
28	Stinson Creek	0710	C	9.0	Callaway	Organic Sediment	EPA approved TMDL
29	Stinson Creek	0710	C	9.0	Callaway	Low D.O.	EPA approved TMDL
30	Sugar Creek Tributary	0686U-01	U	n/a	Randolph	Nickel	Meeting WQS
31	Village Creek	2863	P	1.5	Madison	Inorganic Sediment	EPA approved TMDL
32	Village Creek	2863	P	1.5	Madison	Lead	EPA approved TMDL
33	Village Creek	2864	C	3.0	Madison	Inorganic Sediment	EPA approved TMDL
34	West Yellow Creek	0599	C	43	Sullivan, Chariton	Low D.O.	Meeting WQS
35	Willow Branch	0654U-01	U	0.6	Putnam	Unknown	EPA approved TMDL

**Table 3****Water body/Pollutant Pairs EPA Proposes Delisting Based on Approved or Established TMDLs.**

EPA seeks public comment on these proposed delistings.

<b>Water Body Name</b>	<b>WBID</b>	<b>Listed Cause</b>	<b>TMDL Source</b>	<b>Date of Approval/ Establishment</b>
Bear Creek	MO-0115U-01	Unknown	EPA	12/23/2010
Big Bottom Creek	MO-1746	Low D.O. Ammonia Organic Sediment	EPA	10/26/2010
Chariton River	MO-0640	Bacteria	EPA	12/21/2010
Courtois Creek	MO-1943	Lead Zinc Metals	state of Missouri	09/17/2010
Hinkson Creek	MO-1007	Unknown	EPA	01/28/2011
Hinkson Creek	MO-1008	Unknown	EPA	01/28/2011
Indian Camp Creek	MO-0212	Inorganic Sediment	state of Missouri	02/25/2010
Indian Creek (Washington Co.)	MO-1946	Lead Zinc Metals	state of Missouri	09/17/2010
Jordan Creek	MO-3374	Unknown	EPA	01/28/2011
Lake Taneycomo	MO-7314	Low D.O.	state of Missouri	12/30/2010
Long Branch (Pettis Co.)	MO-0857	Unknown	EPA	12/20/2010
Marmaton River	MO-1308	Low D.O.	state of Missouri	10/26/2010
Pearson Creek	MO-2373	Unknown	EPA	01/28/2011
Piper Creek	MO-1444	Organic Sediment Unknown	EPA	11/01/2010
Sandy Creek	MO-0652	Unknown	EPA	12/20/2010

<b>Water Body Name</b>	<b>WBID</b>	<b>Listed Cause</b>	<b>TMDL Source</b>	<b>Date of Approval/ Establishment</b>
Shibboleth Branch	MO-2120	Inorganic Sediment Cadmium Lead Zinc	state of Missouri	12/23/2010
Spring Creek (Branch) <sup>5</sup>	MO-3708	Organic Sediment Low D.O.	state of Missouri	10/20/2010
Town Branch	MO-3822	Organic Sediment Unknown	EPA	11/01/2010
Tributary to Indian Creek	MO-3663	Lead Zinc Metals	state of Missouri	09/17//2010
Tributary to Pond Creek	MO-2128	Inorganic Sediment Cadmium Lead Zinc	state of Missouri	12/23/2010
West Fork Black River	MO-2755	Nutrients	EPA	12/23/2010
West Fork Locust Creek	MO-0613	Unknown	EPA	09/15/2010
West Fork Niangua River	MO-1175	Low D.O.	EPA	12/23/2010
Wilson's Creek	MO-2375	Unknown	EPA	01/28/2011
Wyaconda (New) Lake	MO-7009	Atrazine	EPA	12/21/2010

<sup>5</sup> TMDL addresses segment Missouri proposes to rename Spring Creek (WBID 1870).

**Table 4**

Water body/pollutant pairs that EPA disapproves for delisting and is restoring or adding to Missouri's 2010 303(d) List. EPA seeks public comment on these proposed actions.

<b>No.</b>	<b>Water Body Name</b>	<b>WBID</b>	<b>Class</b>	<b>Impaired Classified Segment (mi/acres)</b>	<b>County</b>	<b>Pollutant</b>
1	Baldwin Park Tributary (to Chat Creek)	3168U	U	n/a	Lawrence	Zinc
2	Clear Creek	3239	C	2.0	Lawrence, Barry	Low D.O.
3	Dardenne Creek	0221	P	15.0	St. Charles	Unknown
4	Dardenne Creek	0221	P	15.0	St. Charles	Inorganic Sediment
5	Flat River Creek, Tributary	2168U-01	U	n/a	St. Francois	Zinc
6	Lewistown Lake	7020	L1	29.0	Lewis	Atrazine
7	Peruque Creek	0217	P	4.0	St. Charles	Inorganic Sediment
8	Peruque Creek	0218	C	8.0	St. Charles	Inorganic Sediment
9	West Fork Black River	2755	P	31.7	Reynolds	Nickel (S)
10	Wolf Creek, Tributary to	3589	C	1.5	St. Francois	Low D.O.