



Missouri
Department of
Natural Resources

Proposed 2014 303(d)
RESPONSES TO PUBLIC COMMENTS

Public Notice
October 15, 2013 – January 31, 2014

Missouri Department of Natural Resources
Water Protection Program
PO Box 176
Jefferson City, MO 65102-0176
800-361-4827 / 573-751-1300

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

The Missouri Department of Natural Resources posted the draft 303(d) list for public comment. The Department accepted written comments from October 15, 2013 through January 31, 2014.

Below is a summary of the public comments received regarding the Proposed 2014 303(d) List of Impaired Waters. All original written comments will also be saved to the public administrative record file and available from the Department's website.

General 303(d) Listing Comments

St. Louis Metropolitan Sewer District (MSD)

Submitted a comment that water bodies currently listed as impaired for water quality standards that are changing or may be changing in the near future (e.g., chloride, ammonia, losing stream bacteria, dissolved oxygen, and nutrients), should be considered a low priority for TMDL development.

MDNR Response and Action:

Currently, the Total Maximum Daily Load (TMDL) program develops the TMDL schedule that is submitted to the U.S. Environmental Protection Agency (EPA) annually. This comment will be shared with the TMDL program staff.

Newman, Comley and Ruth submitted the following comments:

Encourages the Department and the Clean Water Commission to remove all proposed nutrient impaired lake listings from the 303(d) list in their entirety [including specific lakes exceeding nutrient criteria previously approved by the EPA]. The approved criterion is not science based and not tied to the attainment of beneficial uses.

MDNR Response:

Table M of the 10 CSR 20-7.031 provides a list of twenty-five lakes that have site specific nutrient criteria. The proposed nutrient criteria for lakes, with the exception of Table M lakes, were disapproved by EPA. Currently, there are approximately 37 lakes that are proposed on the 2014 303(d) List of impaired waters. Twenty-eight of those lakes are listed as impaired for mercury in fish tissue, while nine lakes are listed for nutrient impairments (total nitrogen, total phosphorus and/or chlorophyll a). Because the Table M lakes maintain water quality criteria, the Department is required to complete water quality assessments on these waters.

The proposed 303(d) list has a column for the "pollutant" and "source." In some instances, the pollutant is unknown. In previous 303(d) lists, the Department used the term "unknown" under the pollutant column, but currently is including "fishes bioassessments" (see Buffalo Creek example). Fish bioassessments are a type of monitoring or test that is performed to support the impairment decision. In the case of bioassessments where the pollutant is

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

sometimes unknown, the pollutant column should (at minimum) include the word “unknown” in the pollutant column as follows “Unknown – fishes bioassessment.”

MDNR Response and Action:

The Department agreed and revisions were made to the proposed 2014 303(d) List following the November 2013 Public Availability meeting to include “Unknown/Aquatic Macroinvertebrates Bioassessments - to the pollutant column. “Unknown” was also added to the four Fish Bioassessments proposed on the 2014 303(d) List.

303(d) listing should be supported by transparent, reproducible, and independently verifiable information and assessments of data quality. The information provided on the 303(d) listing worksheets for each impaired water body is insufficient to make an independent assessment of the quality of the data being used to support impairment determinations.

MDNR Response and Action:

The Department tries to present information in a clear, concise manner that allows for transparency. The Department agrees additional explanation could be added to the assessment worksheets, within the listing methodology document (LMD) and/or 303(d) web site.

Water quality data and aquatic macroinvertebrate data and reports can be accessed from the Department’s website. This information has been available from the Department’s website for a number of years, but may not be widely known or easily located. The web links have been provided here for reference and will be added to the LMD and 303(d) website.

- *Weblink to the Department’s on-line searchable Water Quality Assessment Database. http://dnr.mo.gov/mocwis_public/wqa/waterbodySearch.do*
- *Weblink to the Department’s Environmental Services Program, Water Quality Monitoring Section. From the below link, you will find links to Aquatic Macroinvertebrates Bioassessment Reports, and on-line database. <http://dnr.mo.gov/env/esp/wqm/biologicalassessments.htm>*

If information is unclear, the public may contact the Department at the meetings convened to discuss the proposed list, or offer comments to that effect, and the Department will respond.

Water Body Specific Comments

Bee Tree Lake (WBID 7309)

MSD submitted a comment regarding the mercury impairment for Bee Tree Lake. They suggest since the mercury impairment results from atmospheric deposition and given the widespread nature of the problem and diffuse source, the Department should consider the development of a TMDL be low or medium priority.

MDNR Response and Action:

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

Currently, the TMDL program develops the TMDL schedule that is submitted to EPA annually. This comment will be shared with the TMDL program staff.

Big Creek (WBID 2673)

The Missouri Department of Conservation (MDC) submitted a comment regarding the 10% rule assessment on Big Creek. It was recommended, for consistency, the binomial method should be followed.

MDNR Response:

Big Creek was first listed as impaired during the 2012 listing cycle for low dissolved oxygen resulting from unknown sources. The initial listing was based upon 45 samples collected between 2000 and 2008 by the National Park Service. Since the original listing, additional samples have been collected providing a total of 63 samples to be utilized for data analysis. Twenty-four additional samples were collected between 2009 and 2011 (noting no exceedences within this time frame). Based upon the entire 87 sample data set (sample size greater than 30) the frequency of exceedence of the dissolved oxygen standard was less than 10%. Therefore, a binomial method was not required, and Big Creek was requested to be delisted.

Brush Creek (unclassified tributary), Blue River (WBID 0419 and 0418), Line Creek (WBID 3575), Shoal Creek (WBID 0397), East Fork Shoal Creek (WBID 0398), Wilsons Creek (WBID 2375), North Branch Wilsons Creek (WBID 3745), Jordan Creek (WBID 3374), and Jones Branch (unclassified tributary of Pearson Creek)

EPA submitted comments regarding the above streams stating urban stream monitoring completed by the U.S. EPA Region VII Environmental Services Division has identified streams that should be listed for toxic bottom sediments according to the state's methodology. Majority of the data is available on STORET and from KCWaters.org or can be provided by EPA.

MDNR Response:

The Department has downloaded the data provided by EPA into the Department's water quality assessment database. However, due to timing and receipt of the data, the Department does not have adequate time to assess the data and allow appropriate time for stakeholder review, discussion, and comment. The Department requests the assessment and/or listing of these streams be postponed until the 2016 listing cycle.

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

Center Creek (WBID 3203)

EPA submitted a comment regarding Center Creek stating the impairment for zinc is covered by a TMDL.

MDNR Response and Action:

The Department agrees. The information in the Department's database will be corrected for Center Creek and it will be removed from the proposed 303(d) list.

Chat Creek (WBID 3168)

EPA submitted comments on Chat Creek stating the TMDL proposed to delist the stream is for cadmium and not zinc. Therefore, this water body should remain on the 303(d) list for cadmium.

MDNR Response:

The data for Chat Creek was evaluated as per the 2014 LMD. There was only one exceedence of cadmium during stable flow conditions in the last three years of data, and thus it was not listed as impaired. However, the tributary that delivers most of the cadmium and zinc to Chat Creek is Baldwin Park Tributary, which is on the proposed 2014 303(d) List for cadmium.

Coldwater Creek (WBID 1706)

EPA submitted a comment regarding Coldwater Creek stating that not all available data was assessed. Additional chloride samples are available and should be included in the assessment. The chloride concentration on 2/21/2012 was 274 mg/L which exceeds the chronic water quality criterion. This data is available from the Department's website data search site (http://www.dnr.mo.gov/mocwis_public/wqa/waterbodySearch.do). With the sample taken on 1/5/2010 identified in the assessment spreadsheet for this water body, there was more than one exceedence of the chronic chloride criterion in the last three years.

MDNR Response and Action:

The Department agrees this was an assessment error. The additional chloride samples were included in the data set and reassessed.

Fox Creek (WBID 1842) and Dardenne Creek (WBID 0221)

EPA submitted a comment regarding Fox Creek asking if the unknown listing from 2012 is being replaced with an aquatic macroinvertebrate bioassessment.

MDNR Response:

Yes.

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

Grindstone Creek (WBID Hinkson1009), Hinkson Creek (WBID 1008), and Hominy Creek (WBID 1011)

The City of Columbia submitted a comment stating the data used by the Department to judge the streams as impaired for Grindstone Creek, Hinkson Creek and Hominy Branch to be old and does not believe the data is representative of current conditions due to removal of five wastewater treatment plants from the watershed since 2004. In addition, the proposed 303(d) list assumes the sources of the pollutants (*E. coli*) are due to urban and rural nonpoint sources, and storm sewers. The City of Columbia states that since there is no solid proof of the sources, the sources should be listed as “unknown.”

MDNR Response:

Grindstone Creek was first listed as impaired for E. coli during the 2006 listing cycle. A water body will be maintained on the impaired waters list until significant improvements have been completed in the watershed that addresses the impairment, and follow-up monitoring has been completed and data analysis indicates the beneficial use(s) is(are) now being met. At that time, the Department will request the water body be delisted.

Hinkson Creek was first listed as impaired for E. coli during the 2010 listing cycle. As previously discussed, a water body will be retained on the impaired waters list until significant improvements have been completed in the watershed that address the impairment, follow-up monitoring has been completed, and data analysis indicates the beneficial use(s) is(are) being met. At that time, the Department will request the water body be delisted.

Hominy Branch was first listed as impaired for E. coli during the 2012 listing cycle. As previously discussed, a water body will be maintained on the impaired waters list until significant improvements have been completed in the watershed that addresses the impairment, follow-up monitoring has been completed, and data analysis indicates the beneficial use(s) is(are) now being met. At that time, the Department will request the water body be delisted.

There may be data collected after the date certain wastewater treatment facilities were taken off-line. If water quality data analysis indicates improvement resulting from the removal of these facilities, and the beneficial use is now being met, then the Department will request the water body be delisted for E. coli impairment during the 2016 listing cycle.

The presence of E. coli is an indicator of fecal contamination. E. coli is present in the intestines of warm blooded animals which is related to both point or nonpoint sources. In the absence of known point sources in the watershed, nonpoint sources are considered the major contributing factor to fecal contamination. Nonpoint source pollution can occur from several diffuse sources and cannot be pin-pointed to one single contributor. Aerial photos of the watershed are referenced to determine the major landuses contributing to the impairment.

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

As part of its adaptive management approach, the Department is currently collecting samples from all three of the aforementioned streams. The data collection efforts are still occurring and the data will be available and assessed during the 2016 listing cycle. To aid in the assessment process, the Department requests information regarding the management practices that have been implemented since these streams were initially listed as impaired. This will help the Department understand any improvements that may be indicated through data analysis and will provide added justification to request the water bodies be delisted for E. coli impairments.

Hays Creek (WBID 0097) and Dry Fork (WBID 3178)

EPA submitted comments regarding Hays Creek and Dry Fork. EPA reviewed the biological assessment worksheets and stated statistical significance was not calculated to show that reference streams in the same ecoregions were significantly larger. In addition, the state used control streams instead of the reference streams identified in Table I as directed in the state's water quality standards.

MDNR Response:

Over the last couple years, the Department biologists monitored 2nd order to small 3rd order streams to gain a better understanding of an impairment or extent of impairment. These streams are often smaller than the reference streams listed in Table I of 10 CSR 20-7.031. In order to make an appropriate and accurate stream comparison, it is extremely important to assess small streams against others of similar size and features. Therefore, several small control streams are chosen based upon similar Valley Stream Types (VST) characteristics as the study stream. The Department biologist thoroughly reviews the VST database and ground-truths all the control streams. The Department is confident the control streams are appropriately selected through thorough investigation and comparison using the best available methods (VST, ground-truthing, etc.).

Koen Creek (WBID 2171)

EPA submitted a comment on Koen Creek assessment worksheet. The 1995 EPA REMAP was discounted because of questions about its quality. This data should be considered valid. If there is no additional data to change the assessment, then this water should remain on the 303(d) list.

MDNR Response:

The Department chose not to use the REMAP fish community data because the collection method differed somewhat from the methods used by the RAM program, and the Department was concerned the differences may have had an effect on the IBI scores. The Department also had some concerns that despite being a third order stream, there was very little water in this stream most of the year.

Little Beaver Creek (WBID 1529)

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

EPA submitted a comment regarding Little Beaver Creek questioning if both sediment and macroinvertebrate community impairments should be on the 303(d) list.

MDNR Response:

There is significant amount of fine sediment deposition downstream of the Smith Sand and Gravel site, and the Department is assuming this is the reason for the low macroinvertebrate scores.

Little Blue River (WBID 0422)

The City of Independence submitted comments regarding the proposed listing for Little Blue River. It was mentioned that data collected by the USGS at 39th Street was not provided on the assessment worksheets and this data is available from the USGS website. In addition, the data summary sheet (assessment worksheet) indicates that a statistical procedure was used to adjust *E. coli* data to give greater weight to non-storm events, given the USGS data set was biased toward stormwater influenced sampling. The city wanted to let the Department know that extended periods of high flow can largely be attributed to the upstream reservoir releases, not stormwater runoff. Other information and comments provided by the city related to TMDL development considerations.

MDNR Response and Action:

The Department has re-assessed the water body to take into account the upstream reservoir releases mentioned. The Department also provided an explanation of the statistical adjustment procedures that were followed (the documents were provided to the city of Independence on 01/23/2014 via e-mail correspondence). The assessment outcome remains the same.

Regarding the USGS site at 39th Street: As mentioned, the Department will need to obtain this information from the USGS website. However, it will take a considerable amount of time to import the data into the Department's database and reassess within this public comment period. The Department would like to include this data during the 2016 assessment cycle. However, with that said, according to the LMD, the Department will conduct a bacteriological assessment on the most recent 3 years of data. Therefore, the addition of the site data from 39th Street between 2006-2009 will provide historical information, but will not be used for assessment purposes because of the availability of newer information.

North Fork Cuivre River (WBID 0170), Williams Creek (WBID 3594), Burriss Fork (0968), Coldwater Creek (WBID 1706), Dardenne Creek (WBID 0221 and WBID 0222), Dark Creek (0690), Grand Glaize Creek (WBID 2184), Maline Creek (WBID 1709), Tributary to Big Otter Creek (WBID 1225), and Watkins Creek (WBID 1225).

The EPA submitted comments regarding the use of the binomial probability calculations for the above water bodies. EPA reviewed the assessment worksheets and stated the assessments conducted on the above water bodies were not consistent with the 2014 Listing Methodology Document procedures.

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

MDNR Response:

The Department has used the binomial probability distribution to assess the “ten percent rule” pollutants with more than 30 samples. The Department has done so because the binomial is a better method than a straight ten percent calculation.

The Department only uses the last three years of data when evaluating toxics, however, for “ten percent rule” pollutants, the Department uses older data as long as it appears to remain representative of current conditions. For instance, Coldwater Creek, the last three years of data were assessed for chloride, while the entire data set (182 data points) for dissolved oxygen was used for the assessment. MDNR requested clarification from EPA: Should the state be only looking at the last three years of data for the “ten percent rule” pollutants?

MDC submitted a comment regarding the delisting of Dardenne Creek (WBID 0221 and WBID 0222). It was recommended the new data be assessed using the binomial statistical method. MDC also recommends additional comprehensive dissolved oxygen monitoring be conducted.

MDNR Response:

Both water body segments were listed for low dissolved oxygen resulting from unknown sources.

- Dardenne Creek WBID 0221 was originally listed as impaired during the 2010 listing cycle. The initial listing for WBID 0221 was based upon approximately 58 data points collected between 2000 and 2009. During the 2014 listing cycle, no additional data was available.*
- Dardenne Creek WBID 0222 was originally listed during the 2006 listing cycle. The initial listing for WBID 0222 was based upon 52 data points collected between 2000 and 2005. For the 2008 listing cycle, approximately 25 additional data points were available for assessment (2006 and 2008). During the 2014 listing cycle, no additional data was available.*

Based upon the entire data set of each water body segment, it was determined that neither water body segment exceeded the 10% rule. Therefore, according to the 2014 LMD, the binomial method was not necessary.

Additional monitoring is scheduled for Dardenne Creek in the upcoming monitoring year, which will include dissolved oxygen measurements. The new data will be assessed to determine if conditions have changed since the last data collection efforts.

North Fork Cuivre River (WBID 0170)

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

EPA submitted a comment regarding North Fork Cuivre River data collected from WBID 0170. The data collected from the North Fork Cuivre River (WBID 0158) below the confluence with Indian Creek (WBID 0171) shows the North Fork Cuivre (WBID 0158) is not impaired, but it does not show just cause that the upstream segment of the North Fork Cuivre River (WBID 0170) is not impaired.

MDNR Response and Action:

The Department agrees. The North Fork Cuivre River (WBID 0170) will be removed from the proposed delist and retained on the 303(d) list of impaired waters list until additional data is collected.

Middle Fork of the Black River (WBID 2744)

Newman, Comley and Ruth provided a comment regarding the aquatic macroinvertebrate assessment. The listing worksheet indicated the impairment is based on crayfish densities at a site below Strother Creek. However, no assessment of the impact of habitat on crayfish density was presented. Sediment chemistry and water chemistry do not indicate impairment, a USGS study on Middle Fork sediments found 99 percent survival, and the invertebrate assessment was 17. The weight of evidence at this site points to attainment of aquatic life beneficial use, and the listing should be removed.

MDNR Response and Action:

The Department agrees, the crayfish data suggests possible impairment but the sediment and water chemistry do not indicate acute/chronic problems. The Department will place the Middle Fork of the Black River (WBID 2744) in Category 2B until additional data is available.

Newman, Comley and Ruth submitted a comment regarding the proposed listing of Strother Creek. The bioassessment worksheet was provided on the Department's website and wondered if the creek listing was in error.

MDNR Response and Action:

The Department inadvertently missed including the Strother Creek's macroinvertebrate assessment worksheet to the zip file located on the Department's website. Upon notification, the worksheet was added to the website and an electronic copy forwarded to the commenter via e-mail communication.

Peruque Creek (WBID 0217 and 0218)

EPA submitted a comment regarding the Peruque Creek delisting. EPA indicated the delisting for inorganic sediment is not accompanied by any data files showing inorganic sediment is no longer exceeding the narrative translator. In addition, there are no fish assessment data provided on the Department's website for the newly listed impairments on these two segments.

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

MDNR Response and Action:

The Department agrees. The sediment deposition worksheets will be included on the Department's 303(d) website. The Department did not include an assessment for the fish community because the Department does not have one. The listing for Peruque Creek was added to the list by the EPA and the rationale was included in their final decision document for one of the earlier 303(d) lists. The fish bioassessment replaces the inorganic sediment impairment.

Salt River below Clarence Cannon Dam (WBID 0091 and WBID 103)

The Department of Energy, Southwestern Power Administration submitted a comment regarding the proposed listing of the Salt River below Clarence Cannon Dam. The Southwestern Power Administration stated the lake stratification and watershed nonpoint source loading should be listed as causes of the low dissolved oxygen impairment in the Cannon Dam Re-Regulation Pool. They also request that the Department implement a site-specific dissolved oxygen water quality standard for the Cannon Dam Re-Regulation Pool that is seasonally lower than 5.0 mg/L.

MDNR Response and Action:

The Department believes that listing the dam as the source is a more general term that also includes the sources noted by the Southwestern Power Administration. The request for site specific criteria will be forwarded to our Water Quality Standards staff.

Table Rock Lake (WBID 7313)

The City of Branson submitted a comment regarding the county listed for Table Rock Lake. The proposed 303(d) list shows the county as "Taney County." However, only a small portion of the lake is located in Taney County, and wondered if the county should be listed as "Stone County."

MDNR Response:

When we assign GPS (UTM) data points for impaired lakes we give the location of the dam. If only an arm of the lake is impaired, we would give the downstream point of the impairment and assume everything in the upstream direction from that point is impaired. Since the location of the dam is in Taney County, that county name is used.

Tiff Creek (WBID 3763)

MDC submitted a comment to suggest changing the delisting reason to be more consistent with the worksheet statement "suspected impairment – no habitat data."

MDNR Response and Action:

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

The Department agrees with your comment regarding the Tiff Creek delisting comment. The delisting comment will be revised to align with the statement provided on the 2014 assessment worksheet.

Troublesome Creek (WBID 0074)

EPA submitted comments on Troublesome Creek regarding the biological assessment worksheet. EPA states that sediment is itself a pollutant and if sediment is preventing the stream biota from meeting full compliance, the water body should be 303(d) listed for sediment.

MDNR Response:

The section of Troublesome Creek in question is in a lower gradient upland setting near the upper end of the watershed. This portion of the stream channel is developed in glacial till and will naturally have a significant amount of fine sediments regardless of current landuse. The Department views this as a natural condition of the stream that limits habitat quality, rather than a pollutant that can be abated. Because of this the Department believes it was appropriate to re-categorize Troublesome Creek as a category 4C.

Turkey Creek (WBID 3282)

EPA submitted a comment regarding the Turkey Creek assessment worksheet. The worksheet indicates impairment for lead in the water but not in the sediment.

MDNR Response:

The Department would like to clarify. There are two Turkey Creek assessment worksheets: one covering WBIDs 3216 and 3217 located in Jasper County, while the other WBID 3282 is located in St. Francois County. WBID 3216 and 3217 assessment worksheet provides information on the impairment for lead in sediment, and WBID 3282 assessment worksheet provides information on the impairment for lead in water.

Salt River (WBID 0103)

EPA submitted a comment regarding the Salt River to indicate there isn't a dissolved oxygen assessment sheet for this site.

MDNR Response and Action:

The WBID was changed to 7556 and it should have been noted on the new worksheet. This worksheet will be updated and reposted on the Department's 303(d) website.

Shibboleth Branch (WBID 2119)

EPA submitted a comment regarding Shibboleth Branch to indicate it has an EPA approved TMDL for lead and zinc in sediment. EPA provided a follow-up response stating they commented in error. The TMDL was approved for a different segment of Shibboleth Branch.

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

On 12/30/2013, EPA noted an error in their comments for Shibbleth Branch. The approved TMDL segment for Shibbleth Branch is located upstream of the proposed impaired segment.

Weatherby Lake (WBID 7071)

The Kessinger Law Firm submitted a comment regarding Weatherby Lake, stating it does not believe the lake should be classified as a water of the state because the Clean Water Act does not apply to this lake under 33 U.S.C §1315. Weatherby is an artificial private lake. There is no regular flow of water from the lake, and does not empty into any waters of the United States (above or beneath ground). It is believed the lake is not “navigable waters” as defined under the Clean Water Act.

The lake owners conduct private testing of its waters on a consistent basis to ensure the water quality. The tests of the Department that rely overwhelmingly on “nutrient data by the University of Missouri” from 1996-2010 which are likely inaccurate.

A request to the Department was made to remove the Weatherby Lake from the list of impaired waters, or as an alternative, provide information as to the Department’s procedures to remove the Lake from the impaired waters list.

MDNR Response:

According to 10 CSR 20-7.031, Weatherby Lake is 185 acres and a Class L3 lake. According to 10 CSR 20-7.031, a Class L3 lake is defined as “Other lakes which are waters of the state. These include both public and private lakes.” 10 CSR 20-7.031 further states Weatherby Lake has the following designated uses: Livestock and Wildlife Watering, Protection of Warm Water Aquatic Life, Human Health Fish Consumption, Whole Body Contact Recreation-Category A, and Secondary Contact Recreation. Additional information can be found within the 10 CSR 20-7.031. The Code of State Regulations is available electronically from the Missouri Secretary of State’s website

<http://www.sos.mo.gov/adrules/csr/current/10csr/10c20-7a.pdf>.

Because Weatherby Lake is considered waters of the state with assigned beneficial uses, the Department is responsible for assessing the health of the lake to ensure the uses are meeting water quality standards. Table M of 10 CSR 20-7.031 provides information regarding the criteria set for specific lakes within the state. Weatherby Lake water quality criteria can be found in this table. The information has been summarized here for convenience.

<i>Lake Ecoregion</i>	<i>Lake</i>	<i>County</i>	<i>Site-Specific Criteria (ug/L)</i>		
			<i>TP</i>	<i>TN</i>	<i>Chl</i>
<i>Plains</i>	<i>Weatherby Lake</i>	<i>Platte</i>	<i>16</i>	<i>363</i>	<i>5.1</i>

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

As previously mentioned, Weatherby Lake data has been collected through the Lakes of Missouri Volunteer Program (LMVP) since 1998. The program is sponsored by the University of Missouri Columbia and supported by the Department. Data collection efforts are documented through a quality assurance project plan (QAPP) that is developed in accordance to EPA's requirements and guidance procedures. Additional information about QAPP procedures can be viewed from EPA's website:

<http://www.epa.gov/quality/qapps.html>, <http://www.epa.gov/quality/qapps.html>. Data generated by the LMVP is shared with the Department.

If other water quality data of quality and quantity are available, the Department would like the opportunity to review the data. The data package, at minimum, should include the sample dates, time, site locations, field sample collection type: grab, depth integrated, composite, etc.), QC information (field and laboratory), sample collector training and experience, name of analytical lab, and methods and detection limits used during analysis.

Currently, the processes for removing the lake from the impaired waters list would include the implementation of land management practices or education outreach efforts to reduce nutrient inputs to the lake system. The process for removing the lake from the waters of the state designation is beyond the 303(d) listing process and will involve other Department staff.

West Fork of the Black River (WBID 2755)

Newman, Comley and Ruth submitted a comment regarding the proposed listing of the West Fork of the Black River. There are three different listing years under column "Year First Listed" for lead and nickel in sediment impairment, and therefore, would like the Department to explain the date discrepancies.

MDNR Response and Action:

Yes, the Department agrees. This is an error, and will be corrected to reflect that nickel in sediment was first listed in 2008, the same year that lead was also listed.

Additional comments were received regarding the assessment worksheets. A review of the sediment assessment worksheet data showed inconsistencies with information received during an open records request. Clarification was requested regarding several inconsistencies.

MDNR Response and Action:

The Department edited and re-assessed all sediment chemistry worksheets handling all duplicate samples in a consistent manner and recalculated averages as geomean. A summary of the updates were provided to the commenter via e-mail.

- *Bills Creek data was removed for it did not contain any nickel, lead, or zinc metals information (Manganese data only).*
- *All duplicate samples were merged per stream location to provide a single average sample value. The mean data are noted with an asterisk (*).*

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

- *Any previously missing data were included in the new assessment.*
- *The new assessment did not change the status of the water body.*

Wilsons Creek (WBID 2375), Jordan Creek (WBID 3374), and Pearson Creek (WBID 2373)

The City of Springfield and EPA submitted comments on the above streams for not being on the proposed list, nor was information available for these streams. EPA indicated the TMDL has been withdrawn so these waters again need a TMDL and should be relisted.

The City of Springfield indicates the age of the bacteria data for Pearson Creek is 9 to 13 years old. The city has recent data on Jones Branch, which indicates levels are good within this tributary and believes conditions have improved in Pearson Creek. The water body should be assigned to Category 2B or 3B and the potential impairment not include “urban runoff/storm sewers” as currently proposed.

The City of Springfield commented that Wilsons Creek was originally listed for bacteria impairment for losing stream protection in 2010 and contends the losing stream *E. coli* criterion is not scientifically supported.

EPA stated the TMDL for Wilsons, Jordan, and Pearson creeks has been withdrawn so these waters again need a TMDL and should be relisted.

MDNR Response and Action:

During the 1998 listing cycle Wilsons and Pearson creeks were listed as impaired for unknown pollutants from unknown sources. It was during the 2010 listing cycle when both of these streams were removed from the impaired list due to TMDLs developed by EPA. These TMDLs have since been withdrawn and, therefore, the waters returned to the 2014 303(d) list of impaired waters.

During the 2004/2006 listing cycle, both Wilsons and Pearson creeks were listed as impaired for bacteria. A water body will be maintained on the impaired waters list until significant improvements have been completed in the watershed that addresses the impairment listing or water quality data indicates improvements.

During the 2004/2006 listing cycle, Jordan Creek was impaired for low dissolved oxygen due to unknown reasons. It was during the 2010 listing cycle, Jordan Creek was removed from the impaired waters list due to the water body meeting water quality standards.

The City of Springfield also commented the toxicity data for Wilsons Creek is no longer representative of current conditions and conditions have greatly improved since the data were collected. In addition, the city states the Department should reevaluate habitat conditions for Wilsons, Pearson, and Jordan creeks. The city believes the study stream segments may be smaller than those of reference stream orders, and under Missouri’s new rule these sections of Wilsons, Jordan, and Pearson Creek will be classified as headwater streams.

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

MDNR Response:

The Department does not understand this concern at this time. Currently, Wilsons and Pearson creeks are not listed due to toxic conditions. However, as stated by EPA in a previous comment (page 3), EPA Region VII Environmental Services Division has recently identified streams [Wilsons Creek (WBID 2375), North Branch Wilsons Creek (WBID 3745), Jordan Creek (WBID 3374), and Jones Branch (unclassified tributary of Pearson Creek)] that should be listed for toxic bottom sediments according to the state's methodology. A majority of this data is available on STORET or can be provided by EPA.

EPA requested the Department assess this data for incorporation into the proposed 2014 303(d) list. The Department has downloaded the data provided by EPA into the Department's water quality assessment database. However, due to timing and receipt of the data, the Department did not have adequate time to assess the data and allow appropriate time for stakeholder review, discussion, and comment. The Department requests the assessment and/or listing of these streams be postponed until the 2016 listing cycle.

Whetstone Creek (WBID 1505U)

EPA submitted comments on Whetstone Creek to indicate the TMDL used to delist the creek was not approved for the upstream unclassified segment. The TMDL does not target a loading capacity which would result in meeting water quality standards.

MDNR Response:

The Department does not understand EPA's decision or statement for East Whetstone Creek 1505U (previous numbered as WBID 3964) and the justification for leaving this segment on the proposed 2014 303(d) list. The original TMDL allocated a point source ammonia load of zero pounds for this segment of the creek, which is currently impaired by ammonia solely by the Mountain Grove lagoon discharge. It would seem that correction of the problem lies in the setting and enforcing water quality based permit limits, not with correcting a deficiency in the TMDL.

Woods Fork (WBID 2429)

Newman, Comley and Ruth submitted comments regarding the proposed listing of Woods Fork. It was noted that the IBI score chart has a stream order of 1 and 2 with corresponding IBI scores for categories of unimpaired, inconclusive, suspected impairment and impairment. In previous meetings with MDC and MDNR, there was consensus that it is not appropriate to utilize fish IBI for first and second order streams. Therefore, why is this column included in the data sheet?

MDNR Response:

First through fifth order streams will be assessed when available data allows. Assessing all stream orders provides the Department an overall view of the health of a water. The RAM

Proposed 2014 303(d) List of Impaired Waters – Summary of Public Comments

data may be used to show 1st and 2nd order streams are unimpaired but the LMD does not allow use of the RAM data to rate these streams as impaired.

The bioassessment data sheet states that “a review of concurrent habitat scores indicate habitat was not impaired at the time of each fish survey.” However, there was no habitat data/information included in the data sheet. It has been requested the Department revise and supplement its data sheets to include habitat data/information for both the test stream/study and local reference streams.

MDNR Response and Action:

The habitat scores for Woods Fork and reference streams were provided by MDC. The QCPH1 (habitat) scores were added to the assessment worksheet for Woods Fork (an electronic copy was provided to the commenter via e-mail communication).