

Missouri  
Department of  
Natural Resources

DRAFT MISSOURI RIVER TMDL  
PUBLIC COMMENTS

Public Notice  
June 9 – July 9, 2006

**Missouri River**  
**WBIDs #0226, 0356, 0701 and 1604**

Atchison to St. Louis counties, Mo.

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

Comment on the Missouri River TMDL

From: Tim Gans, Missouri American Water Company, 314-606-2333

Date: 6/12/06

Method: Phone call rec'd by Anne Peery, TMDL Unit

Tim wanted to know if DNR would be requiring any monitoring of PCBs and chlordane in NPDES permits. After checking with the permits section, he was told there would be no new monitoring requirements. This is because the TMDL is written to fish tissue as a result of PCBs and chlordane in sediment and it is not a water column concern."

Tim said the MO American Water Company would be writing a letter of support for the TMDLs.

## Comment on the Missouri River TMDL

From: John Drew, DNR, Water Resources Program, 573-751-6632

Date: 6/14/06

Method: Phone call rec'd by Anne Peery, TMDL Unit

John pointed out that the lengths of the impaired segments add up to 533 miles (in WQS). However on page 3, paragraph 2, the TMDL says the impaired portion starts at River Mile 544, at the border of Iowa and Missouri. That is an 11 mile discrepancy right there. Further, John Drew knows that the actual River Mile at the Iowa border is 552.

We checked with Parsons on where they got their figure of 544 and they agreed to change to RM 552. Barbara Ruppel, GIS technician, says the river will be re-measured with improved tools as ArcView is upgraded and then the standards (WQS) can be corrected accordingly. The following was added to the TMDL as a footnote:

There is a 19-mile discrepancy between the length of the river (from the Iowa state line to the Mississippi) as recorded in the WQS vs. the mile marker on the river itself at the Iowa line. This amounts to a 3.4 % difference, which is well within the acceptable standard deviation. However, as ArcView becomes more accurate, the river will be re-measured and in due time this will be reflected in the WQS.



**Missouri Department of Health and Senior Services**

P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010  
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

**Julia M. Eckstein**  
Director



**Matt Blunt**  
Governor

June 23, 2006

John Ford  
Department of Natural Resources  
Water Quality Monitoring and Assessment Section  
Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176

Re: *Total Maximum Daily Load for Chlordane and PCBs in the Mississippi River and Total Maximum Daily Load for Chlordane and PCBs in the Missouri River*

Dear Mr. Ford:

After reading sections of these Total Maximum Daily Load documents (TMDLs), please consider the following comments:

- Section 1.2. *Problem Identification*. You state that the 2004 sturgeon advisory replaced the chlorinated hydrocarbon pesticide advisory for all waters outside of the Ozark Plateau. The fish advisory history is as follows: First, in 2001, Department of Health and Senior Services (DHSS) ended the chlorinated hydrocarbon pesticide advisory for all waters outside of the Ozark Plateau. Second, the sturgeon advisory has been issued for years, prior to 2004. A more accurate statement would be that in 2002 sturgeon eggs were added to the existing advisory on sturgeon meat that has been in place for the Missouri and Mississippi rivers since 1997. Lastly, you reference Missouri Department of Natural Resource (MDNR 2004) that is not in the reference section. You can quote DHSS instead.
- Section 2.2. *TMDL Endpoint*. First, you use the US Food and Drug Administration (FDA) value of 300 parts per billion (ppb). DHSS provided you with the screening value 100 ppb for the sum of the chlordane isomers. The FDA value that you use is for technical chlordane. In addition, the underlying assumptions used by the FDA methodology were never intended to be protective of recreational fishers that fish the same water body repeatedly over a number of years. Second, our present fish consumption advisory methodology for chlordane (sum of the isomers) is risk-based. Therefore, DHSS may have an advisory for sometime for contaminant concentrations in fish tissue that are below the 100 ppb (or 300 ppb). As you can see in the table below, unrestricted consumption is 100 times below the action level that you are currently using.

[www.dhss.mo.gov](http://www.dhss.mo.gov)

Healthy Missourians for life.

The Missouri Department of Health and Senior Services will be the leader in promoting, protecting and partnering for Health.

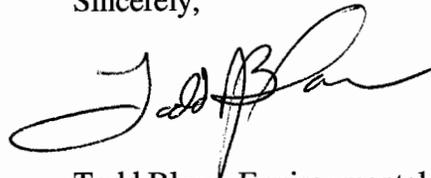
AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER: Services provided on a nondiscriminatory basis.

<u>Chlordane:</u> 0 to 0.0034 ppm	<input type="checkbox"/> Unrestricted consumption
>0.0034 to <0.0067 ppm	<input type="checkbox"/> 2 meal per week
>0.0067 to <0.025 ppm	<input type="checkbox"/> 1 meal per week
>0.025 to <0.11 ppm	<input type="checkbox"/> 1 meal per month
>0.11 ppm	<input type="checkbox"/> Do not eat

- Also in Section 2.2, you state that these watersheds have neither point-source inputs nor non-point source inputs of chlordane and polychlorinated biphenyls (PCBs). EPA has only banned commercial application of chlordane by licensed pesticide applicators. What prevents a noncommercial application of chlordane by a resident? You should check with the Department of Agriculture's Pesticide Enforcement Division for clarification on the use of chlordane. In addition, there was one National Pollution Discharge Elimination System (NPDES) point into Indian Creek, tributary to the Blue River, with PCBs in the effluent.
- Your margin of safety (MOS) to account for uncertainty states that the "fish advisories will stay in effect until all samples have met the desired endpoints for three consecutive years." Please include a sentence that mentions coordination with DHSS to ensure no threat from PCBs or chlordane level impairing fish consumption.

If you have any question regarding this review, please contact me at 573-751-6102. Thank you.

Sincerely,



Todd Blanc, Environmental Specialist  
Bureau of Environmental Epidemiology

cc: Mike McKee, Missouri Department of Conservation  
Gale Carlson, BEE Chief  
Kristi Campbell  
File

STATE OF MISSOURI      Matt Blunt, Governor • Doyle Childers, Director  
**DEPARTMENT OF NATURAL RESOURCES**

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www.dnr.mo.gov

August 22, 2006

Mr. Todd Blanc  
Missouri Department of Health and Senior Services  
P.O. Box 570  
Jefferson City, MO 65102-0570

Dear Mr. Blanc:

Thank you for reviewing the Mississippi and Missouri Rivers Total Maximum Daily Loads (TMDLs) and taking the time to comment on behalf of the Missouri Department of Health and Senior Services (DHSS).

- Section 1.2. Problem Identification

To address your concern, the following sentence was deleted:

This advisory was replaced by the 2004 advisory for the Mississippi River which recommends that no sturgeon or sturgeon eggs should be eaten due to elevated levels of chlordane and PCBs (MDNR, 2004). (deleted)

It was replaced with this sentence stating:

In 2002, sturgeon eggs were added to the existing advisory on sturgeon meat, which has been in place for the Mississippi River since 1997. (added)

- Section 2.2. TMDL Endpoint

As discussed with you via e-mail, we acknowledge that the Department of Natural Resources (department) has been collecting chlordane as sum of the isomers (four agreed on isomers), which carries the screening value of 0.1 mg/kg. Therefore, we have changed the TMDL endpoint from 0.3 mg/kg technical chlordane to 0.1 mg/kg as sum of the isomers.

Regarding your comment on the potential for continuing addition of chlordane and PCBs to the environment; the department acknowledges that there is still unused chlordane that could potentially enter the rivers. Although the pesticide is banned for all uses, there is nothing to prevent a citizen from applying chlordane. Mr. Paul Andre with the Missouri Department of Agriculture's (MDA) Pesticide Program, does not believe there is enough leftover chlordane to have a measurable negative impact on these rivers. MDA and our department have fielded very few phone calls about how to dispose of chlordane. Further investigation revealed that very little chlordane has been turned in at hazardous waste collection points throughout Missouri. The department is considering instigating some form of a "clean sweep" program to try and net the chlordane that is still being stored at someone's residence.

Mr. Todd Blanc  
Page Two

The permit mentioned is not of immediate concern in the Missouri River TMDL because it discharges to Indian Creek and then to the Blue River (both classified) before reaching the Missouri. PCBs are unlikely to reach levels of concern in the Missouri or Mississippi Rivers due solely from the one permitted outfall. Also, the facility is the subject of a Settlement Agreement (not yet finalized) dealing with PCBs.

Margin of Safety:

We included the following sentence: The department will endeavor to coordinate with DHSS in guarding against threats to human health associated with fish consumption from these two contaminants.

As always, DHSS' participation in the TMDL process and concern for the health of Missouri's water resources is appreciated. Your comments made this a better TMDL. If you have other questions or wish to discuss this further, please contact Ms. Anne Peery at (573) 526-1426 or by mail at the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102.

Sincerely,

WATER PROTECTION PROGRAM



Philip A. Schroeder, Chief  
Water Quality Monitoring and Assessment Section

PS:apl



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

JUL 05 2006

Mr. Edward Galbraith, Director  
Water Pollution Control Program  
Water Protection and Soil Conservation Division  
Missouri Department of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102

Dear Mr. Galbraith:

RE: Comments on Draft TMDLs public noticed on the MDNR website: Missouri River and Mississippi River.

The U.S. Environmental Protection Agency (EPA) is providing these comments on the proposed final Total Maximum Daily Loads (TMDLs) public noticed on the Missouri Department of Natural Resources (MDNRs) website; <http://www.dnr.mo.gov/env/wpp/wpcp-pn.htm>.

Missouri River TMDL public notice period June 9, 2006, to July 9, 2006, comments are in enclosure A.

Mississippi River TMDL public notice period June 9, 2006, to July 9, 2006, comments are in enclosure A.

EPA has completed its review of the draft TMDLs on public notice. By this letter, EPA is submitting comments concerning the draft TMDLs as listed in enclosure A. EPA appreciates the opportunity to comment and the thoughtful effort that MDNR has put into these draft TMDLs. EPA will continue to cooperate with and assist, as appropriate, in future efforts by MDNR to develop TMDLs.

If you have any questions or concerns in regards to this matter, please do not hesitate to contact Jack Generaux, TMDL Team Leader, at (913)551-7690, or Tabatha Adkins, TMDL Team, at (913)551-7128.

Sincerely,

John DeLashmit  
Chief  
Water Quality Management Branch

RECEIVED  
JUL 10 2006  
WATER QUALITY MANAGEMENT BRANCH

cc: Ann Crawford, TMDL Chief  
Missouri Department of Natural Resources

Phil Schroeder  
Missouri Department of Natural Resources

## Enclosure A

Regarding: Draft TMDLs for the Missouri and Mississippi Rivers, Chlordane and PCB Impairments

EPA has reviewed the draft documents and has the following comments which need to be addressed in the final TMDL:

We have no specific comments regarding the draft TMDLs as posted by MDNR. As a general observation, most TMDLs generally have targeted water column endpoints but in these instances, the targets were set based on fish tissue levels to protect human health. In some TMDLs developed across the country for fish tissue impairments, a generic translator (bioaccumulation factor) was used to relate the fish tissue to expected water column concentrations. The same approach could have been used here; but, that process would not have changed the conclusions of the TMDL. WLA and LA would still be set to zero because the chemical manufacturing has been stopped and the residual in the environment is degrading (albeit perhaps over a long time). Also identifying seasonal variation is not practical because the fish tissue impairment represents the result of long-term exposures to varied conditions. By continued monitoring of the fish tissue, the public will be kept informed of potential risks and ultimately, the levels should be such that fish advisories will no longer be necessary.

STATE OF MISSOURI                      Matt Blunt, Governor • Doyle Childers, Director  
**DEPARTMENT OF NATURAL RESOURCES**

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www.dnr.mo.gov

August 22, 2006

Mr. John DeLashmit  
U.S. Environmental Protection Agency  
Region VII  
901 North Fifth Street  
Kansas City, KS 66101

RE:    Response to Comments on the Mississippi and Missouri Rivers Total Maximum  
       Daily Loads

Dear Mr. DeLashmit:

This letter responds to comments from the U.S. Environmental Protection Agency (EPA) on the draft Total Maximum Daily Loads (TMDLs) for the Mississippi and Missouri Rivers.

We appreciate your observations. In response to public comments received during the comment period, however, the Department of Natural Resources (department) has made changes to the TMDL targets. In light of this, we will place these documents on public notice again. Enclosed please find the comments and the department's responses.

Thank you for your comments and for EPA's support in the TMDL process. If you have other questions or wish to discuss this further, please contact Ms. Anne Peery at (573) 526-1426 or by mail at the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102.

Sincerely,

WATER PROTECTION PROGRAM



Philip A. Schroeder, Chief  
Water Quality Monitoring and Assessment Section

PS:apl

Enclosure



# MISSOURI DEPARTMENT OF CONSERVATION

## Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180

Telephone: 573/751-4115 ▲ Missouri Relay Center: 1-800-735-2966 (TDD)

JOHN D. HOSKINS, Director

July 7, 2006

Department of Natural Resources  
WPP  
Water Quality Monitoring and Assessment Section  
P.O. Box 176  
Jefferson City, MO 65102-0176

Dear WPP representative:

I have reviewed the draft TMDLs for the Mississippi and Missouri Rivers and offer the following comments that are relevant to both documents:

### Section 1.2 Problem Identification

The Department of Health and Senior Service's 2006 fish consumption advisory (located at <http://www.dhss.mo.gov/NewsAndPublicNotices/06FishAdvisory.pdf>) recommends limiting consumption to 1 meal/week for catfish greater than 17 inches taken from the Missouri and Mississippi Rivers due to chlordane, PCBs and mercury.

### Section 2.2 TMDL Endpoint

The MDNR (2004) citation is not included in the reference section. The 0.01 mg/kg (10 ppb) is from the EPA water quality criteria and is near the detection limits for these compounds. Another document that is well recognized in the literature relative to PCBs in fish is the Great Lakes Protocol. They recommend unrestricted consumption of fish if PCB levels are below 50 ppb. MDNR may also want to review this information in establishing their human health screening level. The document can be retrieved at (<http://www.fish.state.pa.us/Fish/fishtech.pdf>).

### Table B

Need to add units to the columns for Technical Chlordane and PCBs (e.g. parts-per-million or ppm). Also, values in these columns are sometimes preceded by LT. You should identify what the abbreviation stands for. I assume that Technical Chlordane reflects actual quantitation of the entire chlordane mixture and not a sum of certain isomers. If only part of the isomers were summed to get the chlordane value then a more restrictive screening level should be used (contact the Department of Health and Senior Services for details).

COMMISSION

STEPHEN C. BRADFORD  
Cape Girardeau

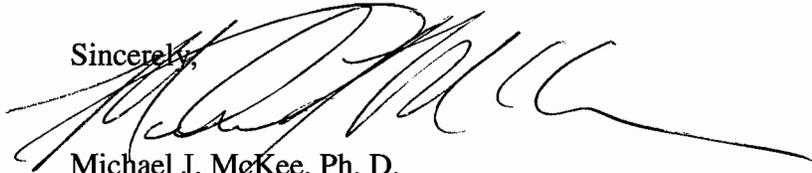
CHIP MCGEEHAN  
Marshfield

CYNTHIA METCALFE  
St. Louis

LOWELL MOHLER  
Jefferson City

2006 JUL 11 AM 11:19  
WATER PROTECTION PROGRAM

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael J. McKee', written over the word 'Sincerely,'.

Michael J. McKee, Ph. D.  
Resource Scientist  
Resource Science Center  
Missouri Department of Conservation

Cc: Karen Bataille, MDC  
Todd Blanc, DHSS

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

www.dnr.mo.gov

August 22, 2006

Mr. Mike McKee  
Missouri Department on Conservation  
2901 West Truman Boulevard, P.O. Box 180  
Jefferson City, MO 65102-0180

Dear Mr. McKee:

Thank you for reviewing the Mississippi and Missouri Rivers Total Maximum Daily Loads (TMDLs) and taking the time to comment on behalf of the Missouri Department of Conservation (MDC). The following responses correspond to your comments in the order they were written.

- **Section 1.2 Problem Identification**  
The Web page address for the Department of Health and Senior Services (DHSS) 2006 Fish Advisory has been included in the TMDL.
- **Section 2.2 TMDL Endpoint**  
The Department of Natural Resources (department) citation was removed. Actually, the department uses 2.0 mg/kg (the Food and Drug Administration recommendation) to judge impairment of a water body for PCBs, not the 0.01 mg/kg as stated. This level is what DHSS uses in their fish advisories. The endpoint has been changed to 2.0 mg/kg in the TMDL.
- **Table B**  
DHSS also pointed out the issue of which type of chlordane was being reported. DHSS uses the sum of the isomers as does our department. The data table and chlordane graph has been adjusted and units have been added. The abbreviation LT stands for "less than" and is not used in the revised data table.

As always, MDC's participation in the TMDL process and concern for the health of Missouri's water resources is appreciated. If you have other questions or wish to discuss this further, please contact Ms. Anne Peery at (573) 526-1426 1426 or by mail at the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102.

Sincerely,

WATER PROTECTION PROGRAM



Philip A. Schroeder, Chief  
Water Quality Monitoring and Assessment Section

PS:apl



Mohsen Dkhili/WPCP/DEQ/MODNR

07/10/2006 12:46 PM

To Phil Schroeder/WPCP/DEQ/MODNR@MODNR, Anne Peery/WPCP/DEQ/MODNR@MODNR

cc

bcc

Subject Fw: Missouri's TMDL Listing for the Missouri and Mississippi Rivers

History: This message has been forwarded.

FYI and action as you see fit.

--- Forwarded by Mohsen Dkhili/WPCP/DEQ/MODNR on 07/10/2006 12:44 PM ---



Franz.William@epamail.epa.gov

07/10/2006 12:46 PM

To mohsen.dkhili@dnr.mo.gov, mark.osborn@dnr.mo.gov

dhokanson@umrba.org, Maraldo.Dean@epamail.epa.gov,

Wilkinson.Bruce@epamail.epa.gov,

cc Shepard.Larry@epamail.epa.gov,

Delashmit.John@epamail.epa.gov

Subject Missouri's TMDL Listing for the Missouri and Mississippi Rivers

Mohsen:

As part of our efforts to support and work with the States through the Water Quality Task Force of the Upper Mississippi River Basin Association we have some comments regarding the Proposed Listing for the Missouri and Mississippi Rivers. Our comments are attached.

If you have any questions regarding these comments please do not hesitate to call me at 312/886-7500 or by responding to this e-mail.

Bill

(See attached file:

Comments%20on%20the%20Proposed%20TMDL%20for%20the%20Missouri%20and%20Mississippi%20Rivers%20in%20the%20State%20of%20Missouri.doc)

*William D Franz  
USEPA, Region 5  
77 West Jackson Boulevard  
mail code: 10-15J  
Chicago, IL 60604-3507*

Bill Franz  
Upper Mississippi River Team Manager  
312/886-7500  
312/8860957 fax



Comments%20on%20the%20Proposed%20TMDL%20for%20the%20Missouri%20and%20Mississippi%20Rivers%20in%20the%20State%20of%20Missouri.d

*(HC of this file ^1 attached. See next pg)*

Sent to contractor to  
answer 7/18

(Received at DNR via e-mail to Mohsen Dkhili on 7/10/06 from William (Bill) Franz, EPA)

Parson answer  
7/25 →

Comments on the Proposed TMDL for the Missouri and Mississippi Rivers in the State of Missouri

The principal rationale for Missouri's 0 Waste Load Allocations and Load Allocations for PCBs is that PCBs are banned and that "no additional loading [of PCBs] should occur" [page 8].

This statement is a bit misleading. Although production of PCBs was banned in 1977, PCBs are still released into the general environment. Note that the ban was on the manufacture, processing, and distribution in commerce of PCBs. The ban did not extend to products containing PCBs, such as transformers. Current sources of PCBs include poorly maintained or uncontrolled toxic waste sites; illegal or improper dumping of PCB wastes, such as transformer fluids; leaks from electrical transformers containing PCBs; disposal of PCB-containing products in landfills; sediment resuspension; air deposition; and byproducts of some industrial processes. The fact that we have many programs dealing with PCB cleanup/restoration, (e.g., Superfund - Hudson & Fox River, RCRA -Grand Cal, GLNPO Great Lakes dredging projects) highlights the ongoing problem.

The statement that "*Since Chlordane and PCBs were banned in 1988 and 1977, respectively, there will be no discharge of Chlordane or PCBs into streams from wastewater treatment plants and other point sources*" [page 8] should be reconsidered. Wastewater treatment plants continue to discharge PCBs. For example, PCB monitoring conducted in the Delaware River, as part of the Delaware River TMDL Program, indicated that loadings to the river and estuary from point sources were "*significant and of such magnitude to cause the water quality standards to be exceeded.*" As a result, the Delaware River TMDL established wasteload allocations for 142 point sources, including many WWTP's. Also, in the Ohio River, ORSANCO conducted high-volume sampling of effluent at 11 POTWs along the river. Levels in all samples far exceeded Water Quality Standards for PCBs.

Furthermore, based on the results of pesticides brought to clean sweeps in Region 5, there continues to be sources of chlordane which may become contaminants if not disposed of properly. Just a few examples of quantities of chlordane which have been removed from the Region in clean sweep programs (these numbers are estimates based on percent of active ingredient of the chlordane products brought in for disposal):

in 2004: 25 pounds of chlordane in Illinois

in 2005: 500 pounds of chlordane in Michigan and 1597 pounds of chlordane in Minnesota were turned in to clean sweep programs.

Indiana has removed a total of 1264 pounds of chlordane (cumulative total through 2005) in its clean sweep program.

Some of the chlordane collected came from homeowners who potentially could have disposed of the pesticide by either throwing it in the garbage or dumping it down the sink if the Clean Sweep program did not exist. In addition, chlordane was used to control ants and termites in structures, and was used to control insects in lawns, gardens, corn, vegetables, citrus, fruits and nuts. As a result of this past widespread use, the potential for contamination of fish tissue is still remains through contaminated sediment and stored old pesticide product even though these products has been cancelled.

We recommend that in light of the comments above consideration should be given to the development of Waste Load Allocations and Load Allocations for both PCBs and chlordane. The Waste Load Allocations and Load Allocations should be established at level designed to achieve Water Quality Standards and to protect the health of the ecosystem and avoid fish consumption advisories. We would be willing to work with the Missouri Department of Natural Resources

through the Upper Mississippi River Basin Association's Water Quality Task Force to develop reasonable Waste Load Allocations and Load Allocations.



Mark  
Osborn/WPCP/DEQ/MODNR  
07/25/2006 03:05 PM

To Anne Peery/WPCP/DEQ/MODNR@MODNR  
cc  
bcc

Subject Fw: comments from UMRBA

History:  This message has been replied to.

Mark Osborn  
Environmental Specialist  
Water Protection Program  
(573) 522-2019  
mark.osborn@dnr.mo.gov

----- Forwarded by Mark Osborn/WPCP/DEQ/MODNR on 07/25/2006 03:05 PM -----



"Zhang, Harry"  
<Harry.Zhang@parsons.com  
>  
07/25/2006 02:51 PM

To "Mark Osborn" <mark.osborn@dnr.mo.gov>  
cc

Subject RE: comments from UMRBA

Mark:

See brief reply below.

- Harry

---

Reply:

Parsons is under national EPA contract to provide technical support to EPA Region 7 states. During this task order project, Parsons reviewed EPA Region 7 approved TMDL examples in Missouri, Kansas and Iowa. All of them set Wasteload Allocations and Load Allocations as zero based on the fact that PCB and Chlordane was banned by EPA about twenty years ago. Parsons agree with this technical approach. Therefore, similar methodology was used in this TMDL.

---

**From:** Mark Osborn [mailto:mark.osborn@dnr.mo.gov]  
**Sent:** Tuesday, July 25, 2006 12:21 PM  
**To:** Zhang, Harry  
**Subject:** comments from UMRBA

Harry,

I left you a voice-mail message on this. Upper Mississippi River Basin Association (UMRBA) has the same issue as was expressed last March. Please review and let me know if you have further response to them.

Thanks.

Mark Osborn  
Environmental Specialist  
Water Protection Program  
(573) 522-2019  
mark.osborn@dnr.mo.gov



Mark  
Osborn/WPCP/DEQ/MODNR  
07/25/2006 11:13 AM

To Anne Peery/WPCP/DEQ/MODNR@MODNR  
cc  
bcc  
Subject Fw: comments in Mississippi and Missouri R TMDLs

Anne,

Parson's offered the response below to previous comments along the same line last March

Mark Osborn  
Environmental Specialist  
Water Protection Program  
(573) 522-2019  
mark.osborn@dnr.mo.gov

----- Forwarded by Mark Osborn/WPCP/DEQ/MODNR on 07/25/2006 11:11 AM -----



Mark  
Osborn/WPCP/DEQ/MODNR  
03/27/2006 11:05 AM

To "Zhang, Harry" <Harry.Zhang@parsons.com>  
cc  
Subject RE: comments in Mississippi and Missouri R TMDLs 

Excellent. Thanks, Harry.

Mark Osborn  
Environmental Specialist  
Water Protection Program  
(573) 522-2019  
mark.osborn@dnr.mo.gov  
"Zhang, Harry" <Harry.Zhang@parsons.com>



"Zhang, Harry"  
<Harry.Zhang@parsons.com>  
>  
03/27/2006 10:46 AM

To "Mark Osborn" <mark.osborn@dnr.mo.gov>  
cc  
Subject RE: comments in Mississippi and Missouri R TMDLs

Mark:

Thanks for your voice message.

We did further search on approved Chlordane TMDLs in MO, KS and IA (see below). All used "zero" for TMDL (instead of concentration-based). This is also consistent with the guidance from EPA Region 7. So we will add these TMDL examples in the reference to support setting zero load as TMDL.

We are revising the draft based on your other comments. As for converting figures in Appendix to tables, we will focus on those monitoring stations within Missouri boundary.

- Harry

Approved Chlordane TMDLs in EPA Region 7 States

(1) Missouri:

[http://www.dnr.mo.gov/env/wpp/tmdl/creve\\_coeur\\_lake\\_final\\_tmdl.pdf](http://www.dnr.mo.gov/env/wpp/tmdl/creve_coeur_lake_final_tmdl.pdf)

Creve Coeur Lake (Chlordane)

[http://www.dnr.mo.gov/env/wpp/tmdl/lake\\_stlouis\\_final\\_tmdl.pdf](http://www.dnr.mo.gov/env/wpp/tmdl/lake_stlouis_final_tmdl.pdf)

St. Louis Lake (Chlordane)

(2) Kansas:

Lower Arkansas River (Chlordane)

<http://www.wichita.gov/NR/ronlyres/567CC61D-F028-4E3F-A4AA-71C287FC645F/0/LittleArkFishAdvisor.y.pdf>

(3) Iowa:

Cedar Lake (Chlordane)

<http://www.iowadnr.com/water/tmdlwqa/tmdl/pdf/final/fcedar.pdf>

---

**From:** Mark Osborn [mailto:mark.osborn@dnr.mo.gov]

**Sent:** Friday, March 24, 2006 9:22 AM

**To:** Zhang, Harry

**Subject:** comments in Mississippi and Missouri R TMDLs

Good morning Harry,

Attached are some comments for the big river TMDLs. Since both reports are essentially the same, the comments apply equally to both.

Mark Osborn  
Environmental Specialist  
Water Protection Program  
(573) 522-2019  
mark.osborn@dnr.mo.gov

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

[www.dnr.mo.gov](http://www.dnr.mo.gov)

August 22, 2006

Mr. William D. Franz  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Mail Code: W-15J  
Chicago, IL 60604-3507

Dear Mr. Franz:

Thank you for reviewing the Mississippi and Missouri Rivers Total Maximum Daily Loads (TMDLs) and taking the time to comment on behalf of the Upper Mississippi River Basin Association.

We revised the TMDL in response to your concern that the TMDLs do not adequately address the potential (but unknown and uncharted/documented) contributions to the environment of these pesticides. Instead of simply saying they have been banned and are no longer entering the environment, we have now stated that we acknowledge the potential for minor levels of these compounds to enter the environment. The department does not see any valid reason to include a Waste Load Allocation and a Load Allocation in the TMDLs (other than zero) because the endpoints are not based on the mere existence of these compounds in waters, but rather on fish tissue levels and health advisories. Since chlordane and PCBs have been banned, our "implementation plan" is simply to keep monitoring to ensure the levels of these pesticides in fish tissue keep declining. Also, our data have not indicated any significant levels of these compounds being discharged from Missouri wastewater facilities either directly to these rivers or to any unclassified tributaries of the rivers. Therefore, we feel it is unnecessary to calculate these loads in the TMDL in order to ensure improvements in water quality.

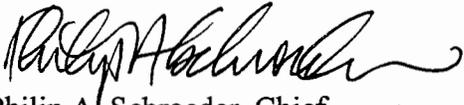
You may be interested that Missouri is planning to increase efforts to collect unused inventories and supplies of these compounds that may currently be sitting unnoticed at residences across the state. Also, note that the endpoints for both compounds have been altered in the TMDL: chlordane was changed to 0.1 mg/kg as the sum of the chlordane isomers and PCBs was changed to 2.0 mg/kg. As a result, both documents will be placed on 30-day public notice again. You will be notified accordingly.

Mr. William D. Franz  
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The Upper Mississippi River Basin's Association participation in the TMDL process and concern for the health of Missouri's water resources is appreciated. If you have other questions or wish to discuss this further, please contact Ms. Anne Peery at (573) 526-1426 1426 or by mail at the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102.

Sincerely,

WATER PROTECTION PROGRAM

A handwritten signature in black ink, appearing to read "Philip A. Schroeder", written in a cursive style.

Philip A. Schroeder, Chief  
Water Quality Monitoring and Assessment Section

PS:apl