MEMORANDUM OF UNDERSTANDING

Come now the Missouri Department of Natural Resources ("MDNR") and the United States Environmental Protection Agency ("EPA") and hereby memorialize all commitments relative to the determination of impaired waters and the development of total maximum daily loads ("TMDL") for impaired waters and corresponding listed pollutants. This document embodies the understanding of the MDNR and EPA with respect to said commitments.

1. MDNR and EPA agree to work together on waters identified in the Missouri 1998 impaired waters list, as amended and approved by EPA, attached and incorporated by reference as Exhibit A. MDNR and EPA shall continue to work together on waters approved for any subsequent 303(d) list.

2. MDNR agrees to develop a new TMDL Strategy Document (also referred to as Methodology Document) in advance of the 2002 303(d) list. This document shall be available to the public 120 days prior to the development of the next 303(d) list, which is required to be submitted to EPA no later than April 1, 2002. In any event, MDNR shall comply with EPA timetables in regard to submittal of the 303(d) list. The present Strategy Document, which is an updated version of the 1998 TMDL Strategy Document and was adopted by the Missouri Clean Water Commission (MCWC) in April, 2000, is attached and incorporated by reference as Exhibit B. MDNR intends to abide by this document until a newer version is adopted by the MCWC. EPA agrees to furnish comments on any proposed changes as this document is updated.

3. MDNR agrees to place on public notice a proposed list of impaired waters in accordance with section 303 of the Federal Water Pollution Control Act ("CWA") and to perform other necessary and beneficial actions in the development of the next 303(d) list. That list is required by EPA to be submitted no later than April 1, 2002. In any event, MDNR shall comply with EPA timetables in regard to submittal of the 303(d) list. Following public participation and the appropriate and lawful procedure under Missouri Clean Water law, MDNR shall submit to the Missouri Clean Water Commission ("MCWC") a proposed list of impaired waters for the year 2002. The decision of the MCWC shall be submitted to EPA as the Missouri 2002 list. EPA agrees to promptly review and advise MDNR as to any such proposed list.

4. MDNR agrees to develop TMDLs according to the general schedule and procedures contained in the approved Strategy Document. This document addresses all of the waters on the presently approved 303(d) list. The schedule for a number of these waters has been modified and is included as Exhibit C. These modifications are consistent with the draft Consent Decree that may assist the settlement of the federal lawsuit in this matter; additional modifications shall be made to this schedule to remain consistent with the requirements of the court as that matter proceeds. This schedule as it applies to any specific water in Exhibit C shall be further modified based on water-specific factors that may delay or accelerate specific TMDLs, although the overall schedule in the Consent Decree itself shall be maintained. These factors include weather conditions, flow, acts of nature, needed participation by other agencies and organizations that are not party to this MOU, changes in water quality indicated by monitoring or changes in the applicable federal rules or laws.

5. MDNR agrees to monitor twenty-six waters in accordance with the Interim Monitoring Plan (the "plan") attached and incorporated by reference as Exhibit D. The goal is to

obtain reliable data concerning water quality in these waters identified in Exhibit D. In appropriate cases, MDNR may adjust the plan for specific waters taking into account weather conditions, flow, acts of nature, changes in water quality indicated by monitoring or changes in the applicable federal rules or laws. EPA agrees that it shall review the data generated under the plan and expeditiously communicate to MDNR any comments it may have with respect to said data.

6. MDNR shall provide to EPA annually by December 31, a list of waters with completed TMDLs and whether they achieved the water quality standards.

7. MDNR agrees to comprehensively review the Missouri Water Quality Standards, Chapter 20-7 Water Quality Standards, Missouri Code of State Regulations, no later than April 1, 2002, and propose changes to the MCWC. The sections to be reviewed shall include, among other topics, metals criteria, bacteria criteria, fish consumption criteria, recreational waters and flow below permitted dams. The review and revision shall be completed in accordance with Missouri Clean Water law. EPA agrees to review and approve or disapprove proposed changes as promulgated by the MCWC as expeditiously as possible.

8. MDNR shall develop volunteer monitoring protocols and Quality Assurance/Quality Control procedures to increase the ability of MDNR to use citizen collected data. Volunteer data meeting the revised procedures shall be used in the determination of impaired waters. Protocols shall be expanded beyond standard volunteer monitoring procedures for lead, nitrate, phosphorus, ammonia, sediment, pH, dissolved oxygen and bacteria. Additional parameters may be added based on informational needs and the availability of technical means for volunteers to collect the data. These procedures shall be developed by June 2001.

9. This document reflects an understanding between MDNR and EPA. It is not intended to affect private rights and should not be so construed.

10. The MDNR Water Pollution Control Program shall provide an annual status report regarding the progress made on each item contained in this MOU to the Missouri Clean Water Commission and the public. This report shall be due each year from the date of a signed and executed MOU.

AGREED TO BY:

U. Gale Hutton
U.S. Environmental Protection Agency

8-16-00
DATE

AGREED TO BY:

Stephen M. Mahfood
Missouri Department of Natural Resources

AUG 14 2000
DATE