

U.S FISH AND WILDLIFE SERVICE
MISSOURI DEPARTMENT OF NATURAL RESOURCES

BIG RIVER MINE TAILINGS SITE
SOUTHEAST MISSOURI LEAD MINING DISTRICT
NATURAL RESOURCE DAMAGE ASSESSMENT AND RESTORATION

ADDENDUM

PREASSESSMENT SCREEN AND DETERMINATION

The U.S Fish and Wildlife Service on behalf of the U.S. Department of the Interior (DOI) and the Missouri Department of Natural Resources (MDNR), as natural resource trustees (the Trustees) under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601, *et seq.*, implementing regulations and executive orders, are modifying the Preassessment Screen and Determination for the Big River Mine Tailings Site (Big River Preassessment Screen), executed June 30, 2008. The Big River Mine Tailings Site is part of the Southeast Missouri Lead Mining District. The Trustees have initiated a natural resource damage assessment and restoration (NRDAR) process pursuant to the DOI's Natural Resource Damage Assessment regulations, 43 C.F.R. Part 11, for portions of the Southeast Missouri Lead Mining District. With this Addendum, the Trustees are modifying the Big River Preassessment Screen to include the lower Meramec River in the Big River Assessment Area (or Big River Mine Tailings Site) due to new information related to the extent of lead-contaminated sediment in that river.

The Trustees, in the Big River Preassessment Screen, originally defined the natural resource damage Assessment Area for the Big River Mine Tailings Site as extending from lead mine/mill tailings sites in St. Francois County, tributaries to the Big River, and approximately 93 miles of the Big River downstream to its confluence with the Meramec River. The original natural resource damage Assessment Area was based on various studies showing contamination from abandoned lead mines and mills that have potentially injured natural resources, including fish, federally endangered mussels, and other wildlife in the Big River. Recently, the MDNR proposed a 37.7 mile stretch of the Meramec River below the confluence with the Big River for placement on its list of impaired water bodies, under section 303(d) of the federal Clean Water Act, 33 U.S.C. § 303. (MDNR, Sept. 23, 2008). The basis of this listing is the finding of lead-contaminated sediment above toxicological benchmarks established by Ingersoll et al. (1996) and MacDonald et al. (2000). The MDNR also conducted additional testing that demonstrated toxicity of that sediment.

Based upon a review of MDNR's information and an evaluation of the preassessment determination criteria, 43 C.F.R. §11.23(e), the Trustees have reached the following conclusions with regard to the Meramec River:

1. A discharge or release of a hazardous substances has occurred;
2. Natural resources for which the Trustees may assert trusteeship under CERCLA and FWPCA may have been adversely affected by the discharge or release of hazardous substances;
3. The quantity and concentration of the released hazardous substances are sufficient to potentially cause injury to natural resources;
4. Data sufficient to pursue an assessment are readily available or likely to be obtained at a reasonable cost; and
5. Response actions planned will not sufficiently restore, replace, or provide compensation for injured natural resources without further action.

Based on this new information, the Trustees determined that natural resource damage assessment is warranted in the stretch of the Meramec River proposed for the 303(d) list and, accordingly, are extending the Big River Mine Tailings Site for NRDAR assessment. Additionally, the Trustees decided to extend the Big River Mine Tailings Site at this time in the NRD assessment process in order to facilitate a more efficient assessment at a lower cost than pursuing a completely separate NRD assessment for only the Meramec River.

The information provided and conclusions made in this Addendum shall be used to direct further investigations and assessments and is not intended to preclude consideration of other resources later found to be affected or other parties found to be responsible for releases.

The Trustees have described NRDAR assessment activities in a draft Phase I Assessment Plan for the Southeast Missouri Lead Mining District. The draft Assessment Plan describes sediment sampling methods used to characterize the downstream extent of contamination and biological sampling designed to detect injury to aquatic organisms. Assessment activities planned or conducted by the Trustees for the Big River Mine Tailings Site are also applicable to the downstream extent of contamination in the Meramec River. The draft Phase I Assessment Plan is available at <http://www.dnr.mo.gov/env/hwp/sfund/nrda.htm> and <http://www.fws.gov/midwest/semonrda>

Questions related to the NRDAR process for the Big River Mine Tailings Site or the Southeast Missouri Lead Mining District can be directed to Dave Mosby, of the U.S. Fish and Wildlife Service, at (573) 234-2132 Ext. 113 or Frances Klahr, of the MDNR, at (573) 522-1347.

This Addendum to the Big River Mine Tailings Preassessment Screen may be executed in counterparts. A copy with all original executed signature pages affixed shall constitute the Addendum to the Big River Preassessment Screen. The date of execution shall be the date of the final Trustee signature.

REFERENCES

Ingersoll, C.G., P.S. Haverland, E.I. Bruson, T.J. Candield, F.J. Dwyer, C.E. Henke, N.E. Kemble, D.R. Mount and R.G. Fox, 1996. Calculation and Evaluation of Sediment Effect Concentrations for the Amphipod *Hyaella azteca* and the Midge *Chironomus riparus*, J. Great Lakes Res. 22(3):602-623.

MacDonald, D.D., C.G. Ingersoll, and T.A. Berger. 2000. Development and Evaluation of Consensus-Based Sediment Quality guidelines for Freshwater Ecosystems. Archives of Environmental Contamination and Toxicology 39(1):20-31.

Missouri Department of Natural Resources, Water Protection Program. Missouri's Proposed 2008 303(d) List. Sept. 23, 2008 *available at* <http://www.dnr.mo.gov/env/wpp/docs/proposed-2008-303d-list.pdf> (last viewed December 16, 2008).

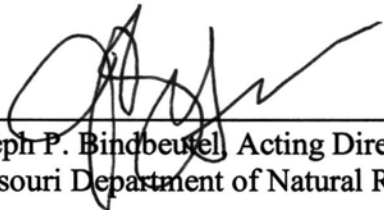
Missouri Department of Natural Resources, Water Protection Program. Water Quality Data for the Proposed 2008 303(d) List, *available at* <http://www.dnr.mo.gov/env/wpp/waterquality/303d/2008/proposed-2008-303d-list-data.htm> (last viewed December 16, 2008).

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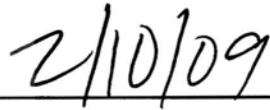
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**Natural Resource Damage Assessment and Restoration
Big River Mine Tailings Site Preassessment Screen**

MISSOURI DEPARTMENT OF NATURAL RESOURCES



Joseph P. Bindbeutel Acting Director
Missouri Department of Natural Resources



Date

U.S. DEPARTMENT OF THE INTERIOR

Tom Melius, Director
Region 3
U.S. Fish and Wildlife Service
U.S. Department of the Interior

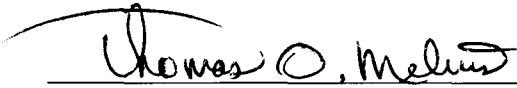
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**Natural Resource Damage Assessment and Restoration
Big River Mine Tailings Site Preassessment Screen**

CONCURRENCE

For the U.S. Department of Interior:



Tom Melius, Director
Region 3, U.S. Fish and Wildlife Service
Authorized Official for the Department of Interior

Jan. 23, 2009

Date

For the Missouri Department of Natural Resources:

Joseph P. Bindbeutel, Acting Director

Date