



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

OCT 31 2007

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

2007 NOV -9 PM 12:13
WATER PROTECTION PROGRAM
RECEIVED

Dear Mr. Galbraith:

RE: Permit Limits in Lieu of a TMDL for Little Lindley Creek (WBID 1438)

This letter responds to the submission from the Missouri Department of Natural Resources (MDNR) dated August 13, 2007, regarding Little Lindley Creek. Little Lindley Creek was listed as impaired on Missouri's 1998 §303(d) list, for Biochemical Oxygen Demand (BOD) and Non Filterable Residue (NFR). It was subsequently placed on the 2002 §303(d) list for BOD and volatile suspended solids (VSS). MDNR proposes to correct the impairments with National Pollutant Discharge Elimination System (NPDES) permit limits in lieu of Total Maximum Daily Loads (TMDLs). The following water body segment is proposed to be corrected through permit limits.

Table with 6 columns: Water Body, WBID, Impairment, Source, Permit #, Year added to list. Row 1: Little Lindley Creek, 1438, BOD VSS, City of Buffalo's waste water treatment plant (WWTP), MO-0094854, 1998

Waters require TMDLs when certain pollution control requirements are not stringent enough to implement water quality standards (WQS) for such waters. To exempt an impaired water from the TMDL process, the pollution control requirements cited in the regulation under 130.7(b)(1)(i), (ii), and (iii) must be established and enforced by federal, state, or local laws or regulations, and be stringent enough that, when applied, the receiving water will meet WQS.

In regards to Little Lindley Creek, Federal regulations at 40 CFR 130.7(b)(1)(ii) provide that where ["more stringent effluent limitations (including prohibitions) required by either state or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty)"] are stringent enough to implement WQS, a TMDL is not required. The Environmental Protection Agency (EPA) has completed its review of this submission, and other previously submitted information supporting this permit in lieu of a TMDL, and concur that a TMDL is not



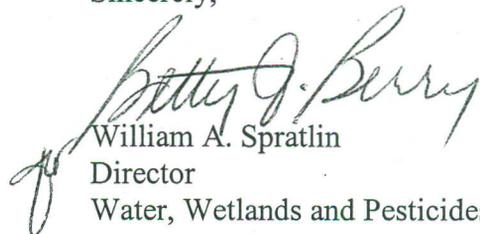
required for this impaired water body because the impairments are being addressed through more stringent effluent limitations as per 40 CFR 130.7(b)(1)(ii).

The City of Buffalo's WWTP has been identified as the sole source for the BOD and VSS impairments on Little Lindley Creek as a result of surface water monitoring directly above and below the plant. An NPDES permit for the plant was issued on July 20, 2007. The permit includes a schedule of compliance (SOC) to commence by January 1, 2008. Final limits, which will achieve WQS for BOD and VSS, will be imposed through the July 20, 2007, permit with the conclusion of the SOC by December 31, 2009. In review of the permit, BOD and total suspended solids were each set at 45 mg/L maximum weekly (30 mg/L monthly average). Additionally, the permit includes once per month instream monitoring for dissolved oxygen, temperature, pH, and ammonia, ensuring limits are achieved. The permit also includes the addition of permit limits for ammonia and a reopener clause to allow for stricter limits if monitoring shows WQS violations. All upgrades must be completed by December 31, 2009, including elimination of outfall 002. The upgraded facility will include an aeration basin, headwork upgrades, expanded sludge storage, and ultraviolet disinfection.

Enclosed with this letter is the Region 7 4b Rationale Document which summarizes EPA's approval of the permit in lieu of (PIL) a TMDL. EPA believes the separate elements of the PIL described in the enclosed form adequately address the pollutants of concern.

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

Sincerely,

  
William A. Spratlin  
Director  
Water, Wetlands and Pesticides Division

Enclosure

cc: John Hoke  
Missouri Department of Natural Resources

Phil Schroeder  
Missouri Department of Natural Resources



## EPA Region 7 4B Rationale

**Water body ID(s):** MO\_1438

**State:** MO

**Water body Names:** Little Lindley Creek

**(s):**

**Pollutant(s):** AMMONIA, BOD, VOLATILE SOLIDS

**HUC(s):** 10290107

**Basin:**

**Tributary(ies):**

**First Listing Cycle:** 1998

**Submission Date:** 8/03/2007

**Approved:** No

### Submittal Letter

*State submittal letter indicates final Maximum Daily Load(s) for specific pollutant(s)/water(s) were adopted by the state, and submitted to EPA for approval under section 303(d) of the Clean Water Act. Include date submittal letter was received by EPA and date of receipt of any revisions.*

EPA received this submittal with cover letter, final permits, and fact sheets on August 13, 2007.

### Concern

*A statement of the problem causing the impairment.*

The sole source of the impairments is the City of Buffalo's state operating permit (permit number MO-0094854) for the Buffalo wastewater treatment plant (WWTP). Historically the permit has two outfalls listed. The storm water clarifier discharges (outfall 002) into a manhole where it combines with the effluent from the secondary treatment side of the plant prior to being discharged at outfall 001. Outfall 001 discharges into a ditch that runs into an unnamed tributary that runs into Little Lindley Creek less than 0.1 mile from the outfall. In 2005, significant discharges of volatile suspended solids (VSS) had been deposited during heavy rains. The facility continues to be the sole source of VSS due to their peak flow clarifier (outfall 002) and inadequate sludge storage.

### Implementation Strategy

*A description of the proposed implementation strategy and supporting pollution controls necessary to achieve WQS, including the identification of point and nonpoint source loadings that when implemented assure the attainment of all applicable WQS.*

Listing for Little Lindley Creek was based on visual surveys conducted by MDNR. Improvements were made to the system by 2001. A biological and physicochemical assessment study was conducted in 2002-2003. Additional chemical monitoring was conducted late 2003. During site visits conducted by MDNR in 2005, significant discharges of sludge (VSS) were noted. A wasteload allocation (WLA) study was conducted in 2006 setting total suspended solids (TSS) at 30 mg/L (975.8 lbs/d). Biochemical oxygen demand (BOD) and

TSS were each set at 45 mg/L maximum weekly (30 mg/L monthly average). The WLA for ammonia was set seasonally (May 1- October 31, November 1 – April 30) at 3.7/7.5 mg/L daily maximum and 1.9/3.7 mg/L monthly average. These WLAs will ensure the water quality standards (WQS) for dissolved oxygen (DO) of 5 mg/L and the narrative standards for VSS will be met.

The permit was reissued July 20, 2007. A schedule of compliance (SOC) was included. All upgrades must be completed by December 31, 2009 (including elimination of outfall 002). The upgraded facility will include an aeration basin, headwork upgrades, expanded sludge storage and ultraviolet disinfection. There will be expanded peak flow handling capabilities, without compromising secondary treatment, which will result in elimination of sludge releases. WQS will be achieved for VSS, through compliance with standard secondary treatment limits.

## **Time**

*An estimate or projection of the time when WQS will be met.*

December 31, 2009, all upgrades (including elimination of outfall 002) must be completed. At that time WQS should be achieved in Little Lindley Creek.

## **Schedule**

*A reasonable schedule for implementing the necessary pollution controls.*

The permit was reissued July 20, 2007. An SOC was included. January 1, 2008 initiation of construction for upgrade of the facility begins. January 1, 2009 a detailed progress report is due. A completion date of December 31, 2009 with all upgrades (including elimination of outfall 002) must be completed.

## **Monitoring**

*A description of, and schedule for, monitoring milestones for tracking and reporting progress to EPA on the implementation of the pollution controls.*

Ambient stream monitoring by MDNR will be scheduled post construction to determine if the impairment has been eliminated. The permit includes once per month instream monitoring 1/4 of a mile downstream of the confluence of the effluent and Little Lindley Creek, for DO, temperature, pH, and ammonia, to ensure permit limits are being achieved.

## **Commitment to Revise**

*A commitment to revise, as necessary, the implementation strategy and pollution controls if progress towards meeting WQS is not being shown.*

The permit includes a reopener clause to allow for incorporation of stricter limits if monitoring reveals violations of WQS.

\*\*\*\*\* **Pollution control requirements in the submittal** \*\*\*\*\*

National Pollution Discharge and Elimination System (NPDES)