

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

www.dnr.mo.gov

DEC 06 2007

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

RE Trager Limestone, L.L.C.'s Gallatin Quarry's State Operating Permit in Lieu of a Total Maximum Daily Load for Non-Volatile Suspended Solids for Dog Creek (WBID 510)

Dear Mr. DeLashmit:

Two-tenths of a mile of Dog Creek, near the City of Gallatin in Daviess County, Missouri, was placed on Missouri's 1998 303(d) List for sediment. The creek was subsequently placed on the 2002 303(d) List for Non-Volatile Suspended Solids (NVSS). The sole source of the impairment was listed as Trager (misspelled "Traeger") Limestone's Gallatin Quarry. The Missouri Department of Natural Resources (department) has opted to correct the NVSS impairment through permit limits in lieu of a Total Maximum Daily Load (TMDL).

The change in listing from sediment to NVSS was to specify that the problem was due to mineral solids (e.g., silt, sand, gravel) coming from eroding mine waste materials and stockpiles. When these solids get into a stream, they settle onto the bottom, smothering natural substrates (and interstitial spaces associated with that habitat), aquatic invertebrates and fish eggs. This occurrence violates narrative criteria in the Missouri Water Quality Standards (WQS) at 10 CSR 20-7.031(3)(G), "Waters shall be free from physical...changes that would impair the natural biological community." WQS at 10 CSR 20-7.031(3)(A) and (C), also apply:

- (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
- (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.

The listings for the impaired reach were based on stream surveys conducted in 1997 (exact date unknown) and September 28, 2000. During those surveys, department personnel observed heavy instream aggregate deposits in the creek that created conditions harmful to aquatic life (see enclosed stream survey data). There are no other permitted facilities discharging NVSS into waters upstream of the impaired segment of Dog Creek. Land use in the watershed is mostly agricultural - approximately 60 percent grassland and 17 percent

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forest/woodland. Although almost 21 percent of the watershed is in row or close-grown crops, these areas are not contributing to the sediment problem associated with the quarry. This is evident by the mud-bottom pools, typical of northern Missouri streams, found immediately upstream of the quarry that lack the white/grey sediment so prevalent adjacent to the quarry. These observations confirm that the quarry is the sole source of the impairment.

To replace the existing General State Operating Permit for this quarry (MO-G490249, scheduled to expire October 5, 2011), the department issued a new site specific (i.e., individual) permit to Trager Limestone for their Gallatin Quarry (MO-0134091) (copy enclosed) on November 16, 2007. The WQS for NVSS will be achieved through removal of the stockpiled fines along the streambank, relocation of other stockpiles vulnerable to eroding directly into the creek, and installation of BMPs to control storm water contributions of NVSS to the creek (see reference to compliance schedule below).

Permit limits to address the NVSS issue went into effect upon permit issuance. They include the same 70 mg/L daily maximum and monthly average discharge limits for Total Suspended Solids (TSS) as in the old general permit. The daily maximum and monthly average Settleable Solids limits of 1.5 mL/L/hr and 1.0 mL/L/hr, respectively, will also remain unchanged. These limits have been shown to be achievable and protective of instream water quality at similar facilities using similar BMPs. The most noteworthy difference in the expression of discharge limits from the old to new permits is that non-storm water and storm water discharge limits for pollutants were delineated separately on the old general permit, whereas the new site specific permit requires the same pollutant discharge limits for all outfalls under all conditions. In addition, monitoring reports will now have to be submitted monthly, as opposed to the former annual submittal requirement.

Since March 2006, the department has closely coordinated any communications with the permittee with the Attorney General's Office, including permit issuance. Of particular shared interest is the Schedule of Compliance (SOC), which can be found in Section E, page 7, of the permit.

The site specific permit for Trager Limestone's Gallatin Quarry is enclosed and may also be found at on the department's Web site at <http://www.dnr.mo.gov/env/wpp/permits/wpcpermits-issued.htm>. The completion of tasks outlined in the SOC should result in WQS being achieved in Dog Creek. In order to determine if the impairment has been eliminated after the above-listed plans have been implemented, the department will conduct routine inspections of storm water controls at the quarry to confirm compliance with WQS. In addition, the new permit includes a once per month, instream monitoring requirement of a "visual survey of bottom sediments" to ensure permit limits are being achieved. Instream site S1 will be upstream of the quarry near the County Road 210 crossing (see map) and S2 will be downstream of outfall #003. These sites will be monitored for presence/absence of solids (see Section D. of the permit, page 6). The permit includes a reopener clause to allow for incorporation of stricter limits if monitoring reveals violations of WQS.

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With this letter, the department submits the Trager Limestone's Gallatin Quarry permit to the U.S. Environmental Protection Agency (EPA) for concurrence that the permit will serve in lieu of a TMDL on Dog Creek. We appreciate EPA taking prompt action on this matter. If you have any questions, please contact Ms. Donna Menown at (573) 526-1595, via e-mail at donna.menown@dnr.mo.gov, or by mail at Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

WATER PROTECTION PROGRAM



Edward Galbraith
Director

EG:dml

Enclosures

c: Mr. Daniel R. Schuette, Director, Division of Environmental Quality
Mr. Earl Pabst, Deputy Director, Division of Environmental Quality
Missouri Clean Water Commission
Ms. Mary Bryan, Attorney General's Office