

**UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA**

Minnesota Center for
Environmental Advocacy,

Civil No. 03-5450 (DWF/SRN)

Plaintiff,

v.

**MEMORANDUM
OPINION AND ORDER**

United States Environmental Protection
Agency; Stephen L. Johnson,
in his official capacity as Administrator
of the United States Environmental Protection
Agency; Environmental Protection Agency,
sued as United States Environmental
Protection Agency, Region 5; and Bharat Mathur,
in his official capacity as Acting Regional
Administrator of the United States
Environmental Protection Agency,

Defendants,

v.

Minnesota Pollution Control Agency (MPCA),

Intervenor Defendant.

Janette K. Brimmer, Esq., Minnesota Center for Environmental Advocacy; and Paula Duggan Vraa, Esq.,
Rider Bennett LLP, counsel for Plaintiff.

Daniel W. Pinkston, Esq., United States Department of Justice; and Friedrich A. P. Siekert, Assistant
United States Attorney, United States Attorney's Office, counsel for Defendants.

Robert B. Roche, Assistant Attorney General, Minnesota Attorney General's Office, counsel for Intervenor
Defendant.

Introduction

The above-entitled matter is before the undersigned United States District Judge pursuant to the Motion for Summary Judgment brought by Plaintiff Minnesota Center for Environmental Advocacy (“MCEA”). In its Complaint, MCEA alleges that the Environmental Protection Agency’s (“EPA”) approval of Minnesota’s Regional Maximum Daily Load Evaluation of Fecal Coliform Bacteria Impairments for twenty polluted waterways in southeastern Minnesota (the “SE TMDL”) violates the Clean Water Act, 33 U.S.C. § 1313 (“CWA”) and its applicable regulations. In essence, MCEA seeks a reversal of EPA’s approval of the SE TMDL and requests that the SE TMDL be remanded to EPA for recalculation of the TMDL. For the reasons set forth below, MCEA’s motion is granted in part and denied in part as moot. The SE TMDL is remanded to EPA for reconsideration consistent with this Order.

Background

I. Clean Water Act Framework

Congress enacted the CWA, 33 U.S.C. § 1251, *et seq.*, to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters” by eliminating the discharge of pollutants into those waters. 33 U.S.C. § 1251(a). In order to attain this mission, the CWA requires states to establish water quality standards that are sufficient to “protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter.” 33 U.S.C. § 1313(c)(2)(A). The state water quality standards must be established taking into consideration the value of the standards for “public

water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.” *Id.* Minnesota has promulgated water quality standards as enunciated in Minnesota Rules, chapter 7050.

The CWA requires states to identify and prioritize the waters within the state that, despite the implementation of technical pollution controls, do not meet the state water quality standards. *Missouri Soybean Ass’n v. United States Env’tl. Prot. Agency*, 289 F.3d 509, 511 (8th Cir. 2002) (citing 33 U.S.C. § 1313(d)). These waters are called water quality limited segments (“WQLSs”).

Once the WQLSs are identified, the state must rank the identified waters based on the severity of the pollution and the use of the waters. 33 U.S.C. § 1313(d). Based on this ranking, the state must develop a total maximum daily load (“TMDL”) for the pollutants identified by EPA for each WQLS. *See Sierra Club, North Star Chapter v. Browner*, 843 F. Supp. 1304, 1307 (D. Minn. 1993) (describing TMDL procedure). The TMDL “shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.” 33 U.S.C. § 1313(d)(1)(C). The TMDL sets the maximum allowable load allocation of a pollutant to a waterbody so that water quality standards will not be exceeded. 40 C.F.R. § 130.2(i). The TMDL includes three elements: (1) pollution from nonpoint sources or background sources (“load allocations” (“LA”)) (40 C.F.R. § 130.2(g)); (2) the amount of pollution from specific point sources (“wasteload allocations” (“WLA”)) (40 C.F.R. § 130.2(h)); and (3) the margin of safety (40 C.F.R. § 130.7(c)).

The state then must submit a list of identified WQLSs and TMDLs to the EPA “from time to time” for review. 33 U.S.C. § 1313(d)(2). This list is known as the “Section 303(d) list.” The EPA reviews the Section 303(d) list and makes a decision to either approve or disapprove the list within 30 days of submission. 33 U.S.C. § 1313(d)(2). If EPA approves the list, it is added to the state planning process. If EPA disapproves the list, EPA must develop its own TMDL necessary to implement the water quality standards for impaired waters within 30 days of the disapproval. 33 U.S.C. § 1313(d)(2). EPA also requires that states subject their TMDL for public review prior to submission to EPA. 40 C.F.R. § 130.7(c)(1)(ii).

II. The SE TMDL

Minnesota’s section 303(d) list for 1998 identified 20 water segments in the larger Lower Mississippi River Basin (the “Basin”)¹ that were impaired because they were undisputedly in violation of the water quality standard for fecal coliform bacteria.² The 20 impaired “reaches” include: the Cannon River (two reaches); the Cedar River (two reaches); the Mississippi River (three reaches); Garvin

¹ The Lower Mississippi River Basin is comprised of the Upper Mississippi River Basin, lower portion, and the Cedar-Des Moines River Basin, both located in southeastern Minnesota.

² Fecal coliform bacteria pollution results from runoff from manured fields, feedlots, failing septic systems, stormwater discharge, and other sources. Minnesota follows the national fecal coliform standards. Minnesota Rules § 7050.0222, subp. 4 and 5, set forth the fecal coliform water quality standards for the waters at issue here as: “[n]ot to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 400 organisms per 100 milliliters. The standard applies only between April 1 and October 31.” Minn. R. 7050.0222. The “geometric mean” referred to is the n th root of the product of n numbers, *e.g.*, $(y_1 * y_2 * y_3 * y_4 * y_5)^{(1/5)}$. See Plaintiff’s Memorandum in Support of Motion for Summary Judgment at 5; Defendants’ Memorandum in Response to Plaintiff’s Motion for Summary Judgment at 10; *see also* Eric W. Weisstein, “Geometric Mean,” from MathWorld—A Wolfram Web Resource, at <http://mathworld.wolfram.com/GeometricMean.html> (last visited June 17, 2005).

Brook; Prairie Creek; Robinson Creek; the Root River (two reaches); Salem Creek; the Shell Rock River; the Straight River; the Vermillion River (two reaches); the Whitewater River (two reaches); and the Zumbro River.

In developing the SE TMDL, the Minnesota Pollution Control Agency (“MPCA”) analyzed 2,300 water samples collected from 1997-2001 at 113 monitoring stations throughout the Basin. (AR 00128.) MPCA made basinwide determinations of the extent of fecal coliform concentrations by calculating the median of the geometric mean of fecal coliform concentration for seven watersheds for which they had sampling data. By using this method, MPCA determined that the basinwide median fecal coliform concentration in May would be 401 organisms/100 mL, and the median concentration for June through September would be 485 organisms/100 mL.³ Based on these figures, MPCA concluded that a 65 percent reduction of fecal coliform bacteria pollution was necessary basinwide to meet water quality standards.

The SE TMDL further proposed a phased implementation approach:

The Regional Fecal Coliform TMDL uses a phased approach to cope with uncertainty while breaking the challenge of achieving water quality standards into manageable, achievable segments scheduled in logical sequence. Phase one includes three parts: 1) The first part calls for a 65 percent source reduction applied basinwide to bring the standard of 200 org/100 mL. 2) The second part of phase one calls for supplemental efforts in four watersheds where the watershed median exceeds the basinwide median to a significant degree. 3) The third part calls for intensive monitoring at all impaired reach sites in 2006 and 2007 to determine progress toward meeting the standard. This monitoring will be conducted five times per month April to October, the period when the fecal coliform standard applies.

³ MPCA noted that it analyzed May data separately from June-September data “to reflect seasonal differences in weather, stream flow, fecal coliform sources, and processes that deliver fecal coliform to streams.” (AR 00144-145.)

A phase two TMDL implementation plan will be developed for watersheds where progress toward meeting the standard is deemed insufficient based on the intensive water quality monitoring in 2006 and 2007 described above. Phase two will include watershed-specific source-reduction targets chosen to achieve water quality standards. It will also include a monitoring plan to determine progress toward meeting the fecal coliform water quality standard.

Additional phases will be developed as needed until all reaches meet the standard. If it is anticipated that reaches where the level of impairment is close to the basinwide median will meet the standard within 10 years, and that additional time will be required for reaches where impairment levels are considerably higher than the basinwide median.

(AR 00094-95.)

In Summer 2002, MPCA published a “Public Notice of Intent to Approve Total Maximum Daily Load Study” along with the draft SE TMDL. On August 12, 2002, MCEA submitted comments by letter to MPCA criticizing the SE TMDL and requested a contested case hearing. (AR 000401-415.) Among other criticisms, MCEA objected to MPCA’s regional homogenization of the pollutant level data and to MPCA’s using the median figures for the entire basin to calculate the TMDL rather than the geometric means of individual impaired reaches. MCEA forwarded its comments to EPA on August 16, 2002. (AR 00390-400.)

MCEA also contested the SE TMDL when it was brought for final approval at MPCA’s Citizens Board Meeting on October 22, 2002. Despite MCEA’s objections, MPCA denied MCEA’s request for a contested case hearing and issued its Findings of Fact, Conclusions of Law, and Order on October 24, 2002. MPCA then submitted the SE TMDL and its conclusions to EPA for review. On November 13, 2003, EPA approved the final SE TMDL.

III. History of this Litigation

MCEA filed its Complaint in this matter on October 1, 2003. MCEA contends that EPA's approval of the SE TMDL is legally in error in that the TMDL fails to meet the requirements of the CWA, EPA regulations, and EPA guidance documents that require that TMDLs for each impaired water must return the water body to meeting water quality standards. MCEA asserts that the SE TMDL is arbitrary and unreasonable in that it is not based on actual evidence of impairment of the stream reaches in question, but rather was calculated based on basinwide figures. MCEA also asserts that the SE TMDL does not contain a margin of safety as required by the CWA and EPA regulation. Finally, MCEA contends that the SE TMDL improperly includes point sources as nonpoint sources in the load allocation.

MCEA filed this Motion for Summary Judgment on February 10, 2005. MCEA requested "an order reversing EPA's approval of the [SE TMDL] . . . and an order remanding the TMDL to EPA for recalculation of the TMDL for each impaired stream reach and with an adequate margin of safety." Plaintiff's Motion for Summary Judgment at 2. Prior to responding to MCEA's Motion for Summary Judgment, EPA filed a Motion for Voluntary Remand and to Stay Briefing Schedule to the Court based on MPCA's representations that MPCA intended to prepare a revised TMDL to be made available for review and comment by approximately July 1, 2005. The Court denied EPA's Motion, finding that it was untimely and that it would not necessarily resolve the dispute among the parties.

Here, EPA and MPCA do not object to an order remanding EPA's decision approving the SE TMDL. At oral argument on this matter, counsel for MPCA represented that it is going to redo the TMDL in line with many of MCEA's requests. For instance, counsel for MPCA asserted that rather

than calculating a basinwide degree of impairment, it plans to do a reach-by-reach TMDL, and that MPCA would not use seasonal averages to compute the TMDL. Further, counsel for MPCA asserted that it intended to use the geometric mean of each individual reach to determine the TMDL.

Discussion

I. Standard of Review

Summary judgment is proper if there are no disputed issues of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). The court must view the evidence and the inferences that may be reasonably drawn from the evidence in the light most favorable to the nonmoving party. *Enter. Bank v. Magna Bank of Missouri*, 92 F.3d 743, 747 (8th Cir. 1996). However, as the Supreme Court has stated, “[s]ummary judgment procedure is properly regarded not as a disfavored procedural shortcut, but rather as an integral part of the Federal Rules as a whole, which are designed ‘to secure the just, speedy, and inexpensive determination of every action.’” *Celotex Corp. v. Catrett*, 477 U.S. 317, 327 (1986) (quoting Fed. R. Civ. P. 1).

The moving party bears the burden of showing that there is no genuine issue of material fact and that it is entitled to judgment as a matter of law. *Enter. Bank*, 92 F.3d at 747. The nonmoving party must demonstrate the existence of specific facts in the record which create a genuine issue for trial. *Krenik v. County of Le Sueur*, 47 F.3d 953, 957 (8th Cir. 1995). A party opposing a properly supported motion for summary judgment may not rest upon mere allegations or denials, but must set forth specific facts showing that there is a genuine issue for trial. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 256 (1986); *Krenik*, 47 F.3d at 957.

At issue here is the Court's review of the EPA's approval of the SE TMDL. Judicial review of an administrative decision is governed by the Administrative Procedures Act, 5 U.S.C. § 706. The Court's review of an agency decision is limited to whether the agency's decision is "arbitrary, capricious, and an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Agency decisions are given a "high degree of deference." *Voyageurs National Park Ass'n v. Norton*, 381 F.3d 759, 763 (8th Cir. 2004) (quoting *Sierra Club v. Env'tl. Prot. Agency*, 252 F.3d 943, 947 (8th Cir. 2001)). The Court reviews whether the agency's decision was "based on consideration of the relevant factors and whether there has been a clear error of judgment." *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971).

II. Calculation Methods

MCEA asserts that EPA's approval of the SE TMDL was legally in error because the CWA requires that TMDLs be set for each impaired stream segment, not on a watershed or basinwide basis. In addition, MCEA objects to MPCA's calculation of the mean impairment levels in the SE TMDL over a four-month seasonal basis, rather than determining an impairment level for each individual month. EPA asserts that neither the CWA nor EPA's implementing regulations prohibit watershed-based TMDLs. As to the seasonal averaging, EPA asserts that MPCA separated May data from June through September data "to reflect seasonal differences in weather, stream flow, and fecal coliform sources." (AR at 00130.)

As noted above, a TMDL for an impaired reach is to be "established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and

water quality.” 33 U.S.C. § 1313(d)(1)(C). The Court agrees with EPA that neither the CWA nor EPA’s regulations necessarily prohibit a watershed or basinwide TMDL. However, the TMDL must be established at a level necessary to ensure that the applicable water quality standards are met in each of the impaired waters for which the TMDL is prepared, in compliance with the CWA’s mandate. *See id.* Here, EPA concedes that the CWA requires the state to establish pollutant loads in a TMDL at a level necessary to return each impaired water to its applicable water quality standards. Defendants’ Memorandum in Response to Plaintiff’s Motion for Summary Judgment at 24. Further, EPA acknowledges that “a uniform reduction of fecal coliform sources of 65 percent may be insufficient to lead to attainment of the fecal coliform [water quality standards] for each segment in the Basin.” *Id.* at 26. The Court finds that to the extent that EPA approved a TMDL that was not set to achieve water quality standards for each impaired reach, whether that TMDL was developed on a basinwide, watershed, or individual basis, EPA was clearly in error.

Similarly, the Court agrees with MCEA that a phased calculation that is not designed to return impaired segments to water quality standards is not in accordance with law. As noted above, by the explicit terms of the CWA, the TMDL must be “established at a level necessary to implement the applicable water quality standards” 33 U.S.C. § 1313(d)(1)(C). MCEA is correct in asserting that EPA and MPCA cannot classify its action as an “interim” or phased approach in order to get around the fact that the current calculations included in the SE TMDL are insufficient to return the impaired waterways to meeting water quality standards. *See, e.g., Chlorine Chemistry Council v. EPA*, 206 F.3d 1286, 1291 (D.C. Cir. 2000).

EPA and MPCA have represented to the Court that MPCA will establish individual load allocation targets for each of the listed impaired reaches in its revised TMDL, and that it will use the geometric mean rather than the median of geometric means in its calculations. Furthermore, MPCA represented at oral argument on this matter that it would not use a seasonal average approach in developing the TMDL. In reliance on EPA's and MPCA's representations, the Court need not issue further guidance on these points.

III. Margin of Safety

MCEA also challenges the margin of safety set forth in the SE TMDL. However, the Court agrees with EPA that MCEA's challenges are specific to the SE TMDL and may not be at issue when the MPCA issues its revised TMDL using the appropriate calculation measures to ensure that water quality standards are met. Thus, the Court finds that MCEA's Motion for Summary Judgment is moot in this regard. Nevertheless, the Court reminds EPA and MPCA that it must comply with the statutory and regulatory mandate to establish a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. 33 U.S.C. § 1313(d)(1)(C).

IV. Wasteload Allocation

Finally, MCEA contends that the SE TMDL improperly excludes straight pipe septic systems, municipal storm sewer systems, and concentrated animal feeding operations from the wasteload allocation. Consistent with recent EPA guidance, EPA now acknowledges that municipal storm sewer systems and concentrated animal feeding operations should be included in the wasteload allocation, not the load allocation, of the TMDL. However, EPA asserts that straight pipe septic systems need not be treated as point sources and thus that they need not be included in the wasteload allocation.

MCEA describes a straight pipe septic system as a system of disposing untreated sewage directly via a pipe to rivers, lakes, drain tiles, or ditches. Such systems are illegal pursuant to Minnesota Statute. Minn. Stat. §§ 115.55 and 115.56. In approving the classification of straight pipe septic systems as nonpoint sources, EPA relied on MPCA's policy decision that the wasteload allocation only be composed of point source discharges that are subject to effluent limits contained in NPDES permits. (AR at 00298.) Because straight pipe septic systems are illegal, they are not subject to permitting through NPDES permits. *Id.* Thus, MPCA did not include them as point source discharges under the wasteload allocation. *Id.*

The Court finds that EPA's approval of the TMDL with straight pipe septic systems as nonpoint sources was in error. By definition, a point source includes a "pipe." 33 U.S.C. § 1362(14). A pipe is a pipe, and the straight pipe septic system should be considered a point source and thus incorporated into the wasteload allocation.

Conclusion

Based on the Court's review of the parties submissions, the administrative record in this proceeding, and the representations made by the parties at oral argument on this matter, **IT IS HEREBY ORDERED THAT:**

1. Plaintiff Minnesota Center for Environmental Advocacy's Motion for Summary Judgment [Doc. No. 44] is **GRANTED IN PART** and **DENIED IN PART AS MOOT**.
2. This matter is remanded to the Defendant United States Environmental Protection Agency for recalculation of the Regional TMDL Evaluation of Fecal Coliform Bacteria Impairments in

the Lower Mississippi River Basin in Minnesota in accordance with the requirements of the CWA and the regulations set forth thereunder.

3. The revised TMDL shall be established at a level necessary to implement the applicable water quality standards for each reach impaired with fecal coliform contamination.

4. The revised TMDL shall contain a margin of safety that accounts for lack of knowledge concerning the relationship between effluent limitations and water quality.

5. The revised TMDL shall properly account for straight pipe septic systems in the wasteload allocation of the TMDL.

6. The State of Minnesota is allowed 90 days from the date of entry of final judgment in this case to give public notice of, and to seek comment on, a proposed amended or replacement Regional TMDL Evaluation of Fecal Coliform Bacteria Impairments in the Lower Mississippi River Basin in Minnesota. In the event that the State of Minnesota does not give public notice of such proposed TMDL within this 90-day period, within 30 days thereafter, EPA shall establish a replacement TMDL for the reaches that were addressed in the SE TMDL, and including any additional reaches that have been added to the 303(d) list, consistent with MPCA's representations made at oral argument on this matter. Once the proposed TMDL has been approved by EPA, or once EPA has established its own TMDL, either by proceeding as described in the previous paragraph or as a result of EPA's disapproval of the proposed TMDL pursuant to 33 U.S.C. § 1313(d)(2), EPA's November 13, 2002, approval of the SE TMDL will be deemed vacated.

7. The existing SE TMDL shall remain in force and effect pending completion of the recalculated TMDL.

LET JUDGMENT BE ENTERED ACCORDINGLY.

Dated: June 23, 2005

s/Donovan W. Frank
DONOVAN W. FRANK
Judge of United States District Court