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**STATE OF MINNESOTA
IN COURT OF APPEALS
A15-1622**

Minnesota Center for Environmental Advocacy,
Relator,

vs.

Minnesota Pollution Control Agency,
Respondent,

Metropolitan Council Environmental Services,
Respondent.

**Filed June 13, 2016
Affirmed
Connolly, Judge**

Minnesota Pollution Control Agency
Permit No. MN0070629

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Considered and decided by Reilly, Presiding Judge; Connolly, Judge; and Stauber, Judge.

UNPUBLISHED OPINION

CONNOLLY, Judge

Relator challenges respondent Minnesota Pollution Control Agency's (MPCA) issuance of a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) permit, arguing that (1) the MPCA's decision is arbitrary and capricious because the effluent limit in the permit relies on significant voluntary pollution reductions and the record lacks evidence that such reductions have been or will be achieved; and (2) the permit violates federal law by allowing discharge of pollution in excess of applicable water-quality standards. We affirm.

FACTS

Background

Although phosphorus occurs naturally in rivers and lakes, too much phosphorus can cause an excessive growth of algae, resulting in the killing of fish and severe nuisance algae blooms. There are two main sources of phosphorus pollution: point sources (e.g. discharges coming from a pipe such as wastewater-treatment-plant outfalls) and nonpoint sources (e.g., agricultural runoff and streambank erosion). The regulation of point and nonpoint sources is at the heart of this dispute.

The Federal Clean Water Act (CWA) requires the states to adopt water-quality standards (WQS) that "establish the desired condition of a body of water." *In re Cities of Annandale and Maple Lake NPDES/SDS Permit*, 731 N.W.2d 502, 510 (Minn. 2007).

WQS can be narrative, i.e., a description of unacceptable conditions in a water body, or numeric, i.e., a quantitative measure of the concentration of a pollutant in a water body. *In re Alexandria Lake Area Sanitary Dist. NPDES/SDS Permit*, 763 N.W.2d 303, 309 (Minn. 2009); *Minn. Env't'l. Sci. and Econ. Review Bd. v. Minn. Pollution Control Agency*, 870 N.W.2d 97, 99 (Minn. App. 2015). WQS are used to determine if a water body is “impaired” under CWA § 303(d). 33 U.S.C. § 1313(d)(1)(A) (2014). After identifying an impaired water body, a state must identify a total maximum daily load (TMDL) for each pollutant that causes a failure to meet WQS. 33 U.S.C. § 1313(d)(1)(C) (2014). A TMDL includes

the sum of pollutant load allocations for all sources of the pollutant, including a wasteload allocation for point sources, a load allocation for nonpoint sources and natural background, an allocation for future growth of point and nonpoint sources, and a margin of safety to account for uncertainty about the relationship between pollutant loads and the quality of the receiving surface water.

Minn. Stat. § 114D.15, subd. 10 (2014). WQS are also used to determine the appropriate limits to be included in NPDES/SDS permits. 33 U.S.C. § 1342 (2014); 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d) (2014). If a discharge has the reasonable potential to cause or contribute to a violation of a water quality standard, a NPDES/SDS permit must include a water-quality-based effluent limit (WQBEL). 40 C.F.R. § 122.44(d)(1)(iii) (2014). It is undisputed that the NPDES/SDS permit at issue in this appeal was required to have a WQBEL because, in 2001, the Lake Pepin watershed was placed on the impaired waters list under CWA § 303(d) for excessive nutrients, particularly phosphorus.

The Dispute

The MPCA has the authority to implement the CWA in Minnesota. 33 U.S.C. § 1342; Minn. Stat. § 115.03, subd. 5 (2014). In 2014, the MPCA adopted numeric river eutrophication¹ WQS for Minnesota, including the Mississippi River Pool 3, that limited total phosphorus (TP) to less than or equal to 100 Ug/L. Minn. R. 7050.0222. At the same time, the MPCA adopted a site-specific eutrophication standard for Lake Pepin with similar numeric standards. Minn. R. 7050.0220, subp. 7. These became the “applicable [WQS]” for CWA purposes when the Environmental Protection Agency (EPA) approved them in early 2015. *See* 40 C.F.R. § 131.21(c).

In May 2015, the MPCA published notice of its intent to issue a permit to respondent Metropolitan Council Environmental Services (MCES) for five MCES wastewater treatment plants. The notice consisted of an 18-page fact sheet describing the terms of the permit and the MPCA’s rationale for issuing it. During the 30-day comment period, relator Minnesota Center for Environmental Advocacy (MCEA) submitted comments opposing the permit. The MPCA issued a response to the MCEA’s comments and, on September 11, 2015, issued the permit. The goal of the permit is “to reduce TP pollutant levels in point source discharges and protect water quality in accordance with [state and federal law].”

MCEA petitioned for a writ of certiorari to challenge the issuance of the permit.

¹ Eutrophication is a response to increased phosphorus loading that “is characterized by increased growth and abundance of algae and other aquatic plants, reduced water transparency, reduction or loss of dissolved oxygen, and other chemical and biological changes.” Minn. R. 7050.0150.

DECISION

An agency's quasi-judicial determinations will be upheld unless they are unconstitutional, outside the agency's jurisdiction, procedurally defective, based on an erroneous legal theory, unsupported by substantial evidence, or arbitrary and capricious. *Carter v. Olmsted County Hous. and Redevelopment Auth.*, 574 N.W.2d 725, 729 (Minn. App. 1998). "When a decision turns on the meaning of words in a statute or regulation, a legal question is presented. In considering such questions of law, reviewing courts are not bound by the decision of the agency and need not defer to agency expertise." *St. Otto's Home v. Minn. Dep't of Human Servs.*, 437 N.W.2d 35, 39-40 (Minn. 1989) (citations omitted). "When the agency's construction of its own regulation is at issue, however, considerable deference is given to the agency interpretation, especially when the relevant language is unclear or susceptible to different interpretations. If a regulation is ambiguous, agency interpretation will generally be upheld if it is reasonable." *Id.* (citations omitted). The appellate court will also defer to the agency's expertise and special knowledge "when (1) the agency is interpreting a regulation that is unclear and susceptible to more than one interpretation; and (2) the agency's interpretation is reasonable." *In re Annandale*, 731 N.W.2d at 515. The appellate court will also "consider the agency's expertise and special knowledge when reviewing an agency's application of a regulation when application of the regulation is primarily factual and necessarily requires application of the agency's technical knowledge and expertise to the facts presented." *Id.* n.9 (quotation omitted).

I. Was the MPCA’s issuance of the MCES permit arbitrary and capricious?

“[A]n agency ruling is arbitrary and capricious if the [] (a) [agency] relied on factors not intended by the legislature; (b) [agency] entirely failed to consider an important aspect of the problem; (c) [agency] offered an explanation that runs counter to the evidence; or (d) [agency’s] decision is so implausible that it could not be explained as a difference in view or the result of the agency’s expertise.” *Citizens Advocating Responsible Dev. v. Kandiyohi Cty. Bd. of Comm’rs*, 713 N.W.2d 817, 832 (Minn. 2006). The MCEA argues that the MPCA’s issuance of the permit was arbitrary and capricious because the MPCA relied on speculative future events, specifically voluntary reductions in phosphorus pollution from unregulated nonpoint sources, to conclude that the MCES’s limit will meet eutrophication standards, thus violating the regulatory requirement that the MPCA consider only existing point and nonpoint source controls.

When developing water-quality-based effluent limits, the permitting authority shall ensure that the level of water quality to be achieved by established limits on point sources is derived from, and complies with, all applicable WQS and that effluent limits developed to protect a numeric water quality criterion are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the state and approved by the EPA. 40 C.F.R. § 122.44(d)(1)(vii). The regulation MCEA cites for support of its argument states that each NPDES permit must include: any requirement in addition to, or more stringent than, promulgated effluent limitations, guidelines, or standards necessary to achieve WQS under section 303 of the CWA, including state narrative criteria for water quality, which includes limitations on pollutants which the

director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state WQS. 40 C.F.R. § 122.44 (d)(1).

(ii) When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, *the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution*, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.

40 C.F.R. § 122.44 (d)(1)(ii) (emphasis added). We conclude that this regulation is irrelevant in determining whether a WQBEL in a permit is sufficient to meet WQS. 40 C.F.R. § 122.44(d)(1)(ii) applies in “determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a state water quality standard.” It is undisputed that the discharge has the reasonable potential to cause an in-stream excursion above numeric criteria. The WQBEL was included specifically because of this reasonable potential to cause or contribute to an excursion above the numeric criteria within a State water quality standard. *See* 40 C.F.R. § 122.44(d)(1)(iii) (stating that “[w]hen the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant.”)

While the WQBELs set out in a permit must be calculated to ensure that the receiving waters meet WQS, they need not, in and of themselves, cure water quality problems. *Upper Blackstone Water Pollution Abatement Dist. v. U.S. E.P.A.*, 690 F.3d 9, 32-33 (1st Cir. 2012). Regulations require a permit to include conditions that “control all pollutants or pollutant parameters . . . [that] are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.” 40 C.F.R. § 122.44(d)(1)(i). The MPCA must consider both point and nonpoint sources of phosphorus pollution in setting effluent limits in a permit but the fact that, by itself, the permit does not ensure that the receiving waters will meet WQS does not render the MPCA’s permit arbitrary and capricious.²

MCEA argues that “MPCA’s reliance on hypothetical, voluntary reductions rather than ‘existing controls’ on nonpoint sources runs afoul of federal regulations.” Specifically, MCEA argues that the term “existing controls” means actual or real controls, not hypothetical or future controls, that MPCA has failed to identify any existing controls that will result in phosphorus reduction from nonpoint sources, and that the MPCA is not authorized to “consider[] anticipated reductions from nonpoint sources.” But as we have stated, the federal regulation does not limit the MPCA to only existing controls on point and nonpoint sources in setting a WQBEL, only that existing point and nonpoint sources must be considered when *deciding if a WQBEL is necessary*. Nothing in the regulation

² MCEA’s argument that the effluent limit is not a WQBEL is not supported by the evidence. MCEA’s claim that MPCA “put [the 159 metric tons per year] effluent target for the facilities into a model, and used the model to dial down inputs from other sources until the [WQS] were met” is not supported by the citation provided.

cited by relator limits the MPCA to looking at only existing controls on point and nonpoint sources of pollution to determine if the WQS will be met after the MPCA determines that a WQBEL is necessary.

However, our supreme court has not authorized or invited the MPCA to allow discharge permits in cases involving offsets that are remote in either time or place. *In re Annandale*, 731 N.W.2d at 525-26. It is therefore necessary for us to determine whether there is substantial evidence in the record as to whether or not controls exist on nonpoint sources and that based on these programs, it can reasonably be expected that future reductions in nonpoint source pollution will occur. “Substantial evidence is defined as: (1) such relevant evidence as a reasonable mind might accept as adequate to support a conclusion; (2) more than a scintilla of evidence; (3) more than some evidence; (4) more than any evidence; or (5) the evidence considered in its entirety.” *Cannon v. Minneapolis Police Dep’t*, 783 N.W.2d 182, 189 (Minn. App. 2010) (quotation omitted).

MCEA argues that the record lacks substantial evidence of the scope of nonpoint source reductions necessary to achieve future reductions, whether the quantity of reductions is attainable, what actions are necessary to achieve those reductions, or any support that the controls can be expected or anticipated. MPCA, in response to a similar allegation in MCEA’s comments, stated “[n]onpoint source reductions have . . . been achieved since the baseline period [1980 to 1996] and further improvements can reasonably be expected to occur in the future.”

It is not the role of the court to decide if voluntary reductions are the best method, rather, it is our role to examine the record to see if sufficient evidence exists to show that

reductions have occurred in the past and that they can reasonably be expected to occur in the future. If such evidence exists, the decision to rely on them is not arbitrary and capricious. We conclude that substantial evidence exists to conclude that voluntary reductions from nonpoint sources have occurred in the past and can be reasonably expected to occur in the future. The Nutrient Reduction Strategy (NRS), a document drafted by, in addition to the MPCA and the MCES, the Minnesota Department of Agriculture, the Minnesota Board of Water and Soil Resources, the Natural Resources Conservation Service, the Farm Service Agency, the Minnesota Department of Natural Resources, the Minnesota Department of Health, the Minnesota Public Facilities Authority, the University of Minnesota, and the United States Geological Survey, provides substantial evidence of existing state programs designed to achieve reductions in nonpoint source pollution as evidence that reductions in nonpoint pollution have been achieved and can reasonably be expected to continue to occur.

“A function of the [NRS] is to identify the nutrient reduction goals and milestones and provide a path to achieve those reductions over time.” Nutrient-management efforts have been ongoing for several decades. The NRS reports that reduction of phosphorus pollution from nonpoint sources has resulted in an eight percent reduction of phosphorus in the Mississippi River Basin since 2000. This is a result of several programs outlined in chapter four of the NRS such as the Clean Water Land and Legacy Program,³ the Erosion

³ A program established in 2008 that uses appropriations from the Clean Water Fund (CWF) to implement a number of clean-water-easement programs. The goal of the CWF is to reduce nonpoint source pollution by providing CWF dollars to local government units for on-the-ground activities.

Control and Water Management Program,⁴ the Regional and Local Resource Management and Planning Programs,⁵ the Reinvest in Minnesota Reserve Program,⁶ the Agricultural Best Management Practices Loan Program,⁷ the Farm Nutrient Management Assessment Program, the Nonpoint Source Management Program,⁸ the Agricultural Fertilizer Research and Education Council,⁹ the EQIP Mississippi River Basin Healthy Waters Initiative,¹⁰ as well as several others. These programs still exist and can be expected to influence nonpoint source pollution in the future. Each of these programs provide funding, education, or other incentives to decrease nonpoint source pollution.

Additionally, chapter five of the NRS describes “practices and technology that can be used to reduce phosphorus and nitrogen inputs to waters from key sources and presents

⁴ A program that provides funds to soil and water conservation districts to share the costs of systems or practices for erosion control, sedimentation control, or water quality improvements.

⁵ A number of programs through which nutrient-load reductions are addressed by implementing regulations, developing plans, engaging the public and funding best management practices.

⁶ A program that compensates landowners for granting conservation easements on privately owned lands that are, amongst other things, highly erodible.

⁷ Water quality program that provides low interest loans to farmers, rural landowners and agriculture supply businesses to encourage agricultural best management practices that prevent or reduce runoff from feedlots, farm fields, and other pollution problems.

⁸ A program that allows Minnesota to receive nonpoint source grant funds from the EPA under section 319 of the CWA. In 2011, these funds were used for developmental, education, and research projects and TMDL implementation projects.

⁹ A farmer-led program to advance soil fertility research, technology development, and education that is environmentally and economically sound.

¹⁰ National Resources Conservation Service program that works with producers to avoid, control, and trap nutrient and sediment runoff, and maintain or improve agricultural productivity. It provides financial and technical assistance to help producers use agricultural nitrogen and phosphorus most efficiently and reduce nonpoint source pollution.

example scenarios projected to meet the nutrient reduction milestones.” The NRS enumerates and prioritizes ways to achieve the phosphorus goals through various combinations of best management practices (BMP):

1. Optimize fertilizer and manure rates based on soil test phosphorus (estimated to provide a net savings to producers).
2. Increase [the] use of conservation tillage with at least 30 percent residue where conservation tillage is not already being used (estimated to provide a net savings to producers).
3. Use precision application techniques such as subsurface banding (net cost uncertain).
4. Add living cover BMP such as riparian buffers and cover crops that currently have a net cost to producers.

The MCEA argues that, because the nonpoint source reduction strategies stated in the NRS are voluntary, they are not sufficient controls on nonpoint source pollution to be considered when granting a permit. The MPCA has shown that these nonpoint source reduction strategies are reasonably likely to occur because they are in the best interest of the nonpoint source polluters from a cost-savings prospective. The NRS represented the cost-benefit results for agricultural best management practices and presented both the costs and the benefits as annualized values. But the MPCA and Iowa State University developed the annualized values by calculating the net present value of the monetary costs and benefits associated with each practice from the producer’s point of view. The results found in the NRS suggest that nonpoint source pollution strategies are likely to be implemented because of the cost savings to the producers. Additionally, the programs outlined in this opinion, as well as several others discussed in chapter four of the NRS, suggest that voluntary reductions will continue to be made as a result of the incentives available to

nonpoint source polluters. We conclude that the NRS goals and implementation strategies constitute substantial evidence to support MPCA's view that nonpoint source pollution improvements will continue to be made in the future.

II. Did the MPCA violate federal law when it issued the permit allowing the MCEA wastewater-treatment facilities to discharge pollution in excess of WQS applicable to the Mississippi River Pools and Lake Pepin?

Relator next argues that the permit does not comply with federal law because, even if all of the nonpoint source reductions were achieved, phosphorus pollution would continue to plague Lake Pepin and the Mississippi River Pools. The CWA requires the MPCA to establish effluent limits that ensure a level of water quality that complies with WQS. 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. §§ 122.44(d)(1)(ii), 122.44(d)(1)(vii). Relator argues that the limits derived for the permit will not result in a level of water quality that will achieve the recreational and aquatic-life use standards that apply to Lake Pepin and the Mississippi River Pools because, by MPCA's own admission, the modeled reductions in phosphorus loading would not achieve WQS in 7 of the 22 years modeled.¹¹ Relator primarily argues that the water conditions standards set forth in Minn. R. 7050.0222, subp. 4, 4(b) must be met every summer, not over a multiple-year average.

Minnesota's eutrophication standards for Lake Pepin and the Minnesota River Basin, "are compared to summer-average data." Minn. R. 7050.0222, subp. 4(a). A "summer-average" means a representative average of concentrations or measurements of

¹¹ Relator states that phosphorus loading would not achieve WQS in 9 of the 22 years modeled but according to the Lake Pepin Model outputs under Scenario 21, phosphorus WQS is not predicted to be met in 7 out of the 22 years modeled.

nutrient enrichment factors, taken over one summer season, meaning a period annually from June 1 through September 30. Minn. R. 7050.0150, subps. 4(DD), 4(EE). Therefore, the standard is met if the phosphorus averaged over the summer months is less than the numeric criterion in the rule. Minn. R. 7053.0205, subp. 7(c) states:

Discharges of total phosphorus in sewage, industrial waste, or other wastes must be controlled *so that the eutrophication water quality standard is maintained for the long-term summer concentration of total phosphorus*, when averaged over all flows, except where a specific flow is identified in chapter 7050.

(emphasis added).

The MPCA is the permitting authority charged with the day-to-day administration of the CWA in Minnesota. Minn. Stat. § 115.03; 40 C.F.R. §123.25(a). The MPCA established the TP limit for the permit based upon the results of its complex model which demonstrated that the long-term summer concentration of TP, averaged over all flows, will meet the numeric eutrophication standard. In so establishing, the MPCA found that calculating effluent limits for river eutrophication standards is uniquely challenging because “the seasonal averaging period for river eutrophication standards applies to all summer days over multiple years (typically assessed over a 10 year period) so that there is not a critical flow consideration . . . for river eutrophication standards as with conventional pollutants and toxins.” Based on this finding, the MPCA used the average TP concentration from all 22 years of the model to determine whether the numeric eutrophication standard would be satisfied. Averaging over all 22 years, rather than selecting a shorter range (the ten years recommended in the Statement of Need and

Reasonableness (SONAR)) ensured that the most complete range of flow conditions would be factored into the determination of whether the standard would be met.

In arguing that the standard must be met each summer, relator quotes MPCA's SONAR in adopting site-specific standards for Lake Pepin and the Mississippi River, which states "site-specific standards are applicable across all summers to ensure aquatic recreational use is supported *in all years*." However, the SONAR continues to say

[w]ith this in mind, site-specific standards for Lake Pepin and Mississippi River navigational pools will be applied across all summers with assessments using summer-means based on the most recent 10 years, consistent with other 303(d) assessments. An exception to the use of the complete 10-year record would be if a significant trend were noted that could be associated with specific point and nonpoint source reductions conducted as a part of TMDL implementation. In that instance, a shorter record (a minimum of two summers) could be used to assess use-support.

Additional support can be found for the multi-year average in MPCA's response to relator's comments to the draft permit:

Eutrophication standards are different from other standards in that the target is a long-term average rather than a short-term 'do not exceed' type value. The assessment process for lakes evaluates the long term water-quality by averaging summer means over a 10-year period. Given the considerable impact of annual weather patterns on the stream flows through Lake Pepin, MPCA decided to use all 22 years of the modelling effort to determine if reductions were adequate to meet the standard.

We agree with the MPCA that "long-term summer concentration" refers to a period of more than one summer. If the regulation's intent was to focus on a single summer, the defined term "summer average" would have been used. The phrase "long-term summer

concentration” evidences the intent of a different meaning. Because we conclude that the plain language construction of “long-term summer concentration” refers to a period of time longer than one summer, the MPCA did not act arbitrarily and capriciously in issuing the permit.

Affirmed.