

**STATE OF MINNESOTA
IN COURT OF APPEALS
A12-1661**

In the Matter of the Decision on the Approval
for Submittal of a 401 Water Quality Certification
to the U.S. Environmental Protection Agency
for the Draft 2013 Vessel General Permit
and the Draft 2013 Small Vessel General Permit.

**Filed November 13, 2012
Affirmed
Johnson, Chief Judge**

Minnesota Pollution Control Agency

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Minnesota, and

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relators Minnesota Conservation Federation, Minnesota Center for Environmental
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Considered and decided by Johnson, Chief Judge; Schellhas, Judge; and Kirk,
Judge.

S Y L L A B U S

The Minnesota Pollution Control Agency did not err in issuing a certification,
pursuant to section 401 of the Clean Water Act, 33 U.S.C. § 1341 (2006), of the United
States Environmental Protection Agency's proposed National Pollutant Discharge

Eliminations System (NPDES) Vessel General Permit (VGP), which would allow discharges of ballast water in Minnesota waters, effective in December 2013.

OPINION

JOHNSON, Chief Judge

The federal Clean Water Act provides that the United States Environmental Protection Agency (EPA) may issue a permit for the discharge of pollutants into navigable waters only if an affected state certifies that discharges conducted pursuant to the permit will comply with certain water-quality standards. In this matter, the EPA proposed a general permit that would allow shipping vessels in Lake Superior to discharge ballast water that may contain non-native aquatic species. The Minnesota Pollution Control Agency (MPCA) issued a certification for the proposed general permit, with eight conditions. Four non-profit organizations have challenged the MPCA's certification by way of a writ of certiorari. We affirm.

FACTS

This case arises from concern about the spread of aquatic invasive species in Lake Superior and other Minnesota waters. The case was initiated by four non-profit organizations that are interested in the preservation of Minnesota's waters – the Minnesota Conservation Federation, the Minnesota Center for Environmental Advocacy, the National Wildlife Federation, and the Natural Resources Defense Council. These four relators have challenged an action of the Minnesota Pollution Control Agency (MPCA), which is responsible for protecting the state's water quality. *See* Minn. Stat. § 115.03 (2010). The Lake Carriers' Association, which represents numerous companies

that operate cargo ships on the Great Lakes, has intervened to urge affirmance of the MPCA's action.

Spread of AIS Through Ballast-Water Discharges

Aquatic invasive species (AIS) are living organisms that are transported from an area in which they are native to an area in which they are not native and thereafter displace native species, sometimes causing environmental and economic harm. The four relators in this case have cited, as examples, the Zebra mussel, which is native to Russia but was found in Lake Erie in 1988; the Eurasian ruffe, which is native to Central and Eastern Europe but was found in the Great Lakes in 1986; the New Zealand mudsnail, which is native to New Zealand but was found near the port of Duluth in 2005; and the spiny waterflea, which is native to Europe and Asia but was found in Lake Ontario in 1982. Relators estimate that these and other AIS impose costs of \$200 million per year in the Great Lakes region.

AIS are transported from their native areas to Minnesota waters primarily through the ballast water of ships. Large shipping vessels take in water as ballast, as necessary, to provide stability and control, and discharge the water, as necessary, when loading cargo. By making discharges in Minnesota waters of ballast water that was taken in outside of Minnesota waters, shipping vessels may cause the release and spread of non-native aquatic species. According to the MPCA, millions of gallons of ballast water are discharged into Minnesota waters every day. The MPCA has stated that more ballast water is discharged at the ports of Duluth, Minnesota, and Superior, Wisconsin, than at any other place in the Great Lakes. The Duluth Seaway Port Authority estimates that

only 5 percent of ballast-water discharges are made by ocean-going vessels (known as “Salties”) and that 95 percent are made by Great Lakes-only vessels (known as “Lakers”). The MPCA notes that, at present, the spread of AIS is less extensive in Lake Superior than in other parts of the Great Lakes, which have as many as three times the number of AIS as are present in Lake Superior.

Scientists have studied the relationship between ballast-water discharges and the spread of AIS. They generally agree that the greater the number of an individual non-native species that is released into a non-native area, the higher the probability that the species will become established in that area. But there is no known minimum amount of AIS necessary to establish a new population or, conversely, no known amount of AIS that may be released without the subsequent establishment of a non-native species. Efforts are underway to develop various systems to treat ballast water so that it does not spread AIS. The MPCA has stated, “Most ballast experts believe that ballast water (treatment) technology will ultimately provide the best protection for the Great Lakes and all of the nation’s waters.” Until ballast-water treatment technology is available, the shipping industry may rely on certain ballast-water management techniques, such as ballast-water exchanges and salt-water flushes.

The Clean Water Act

The federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), 33 U.S.C. §§ 1251-1387 (2006), “is a comprehensive water quality statute designed to ‘restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.’” *PUD No. 1 of Jefferson Cnty. v. Washington Dep’t of Ecology*, 511

U.S. 700, 704, 114 S. Ct. 1900, 1905 (1994) (quoting 33 U.S.C. § 1251(a)). The CWA “establishes distinct roles for the Federal and State Governments.” *Id.* The EPA is charged with, among other things, setting limits on discharges into the country’s navigable waters. *Id.* (citing 33 U.S.C. §§ 1311, 1314). One of the states’ roles is to create water-quality standards, which must ““consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.”” *Id.* (quoting 33 U.S.C. § 1313(c)(2)(A)). State-created water-quality standards ““shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of”” the CWA and ““shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational [and other purposes].”” *Id.* at 704-05 (alteration in original) (quoting 33 U.S.C. § 1313(c)(2)(A)).

As a general rule, the CWA prohibits the discharge of pollutants into navigable waters, unless a person has a permit allowing the discharge. 33 U.S.C. § 1311. A permit issued pursuant to the CWA must incorporate applicable effluent limits. 33 U.S.C. § 1342(a)(1); 40 C.F.R. § 122.44(a)(1) (2012). An “effluent limit” is “any restriction established by a State or the [EPA] Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged” into waters regulated by the CWA. 33 U.S.C. § 1362(11). A permit for the discharge of pollutants also must include conditions that will result in compliance with state water-quality standards. 33 U.S.C. § 1342(a)(1); 40 C.F.R. § 122.44(d) (2012). Under section 401 of the CWA, the EPA may not issue a permit allowing discharges of pollutants into

navigable waters unless the states affected by the permit have certified that the permitted activity will comply with certain provisions of the CWA and applicable state laws or have waived their right to make such a certification. 33 U.S.C. § 1341(a)(1).

Regulation of Ballast-Water Discharges

Until a few years ago, ballast-water discharges were not regulated at either the federal or state level. In 1973, the EPA promulgated regulations that exempted incidental discharges of ballast water from the prohibitions of the CWA. *See Northwest Env'tl. Advocates v. United States EPA*, 537 F.3d 1006, 1011 (9th Cir. 2008). Three decades later, however, a federal district court in California determined that the EPA had exceeded its statutory authority by promulgating that regulation. *Northwest Env'tl. Advocates v. United States EPA*, No. C 03-05760, 2005 WL 756614, at *13 (N.D. Cal. Mar. 30, 2005). The district court vacated the regulatory exemption, effective September 30, 2008. *Northwest Env'tl. Advocates v. United States EPA*, No. C 03-05760, 2006 WL 2669042, at *15 (N.D. Cal. Sept. 18, 2006). The United States Court of Appeals for the Ninth Circuit affirmed. 537 F.3d at 1027. The effective date of the vacatur of the regulatory exemption later was extended to February 6, 2009.

In response to the district court decision in *Northwest Environmental Advocates*, the EPA began taking steps to issue a permit to govern ballast-water discharges in American waters, which became known as the National Pollutant Discharge Eliminations System (NPDES) Vessel General Permit (VGP). *NEA*, 537 F.3d at 1026-27. As required by section 401 of the CWA, the MPCA issued a conditional certification of the EPA's first proposed VGP in November 2008. *See United States EPA Vessel General Permit*

for Discharges Incidental to Normal Operation of Commercial Vessels, No. A08-2196, 2009 WL 2998058, at *2 (Minn. App. Sept. 22, 2009). The EPA took final action by issuing the VGP in December 2008. *See id.* A non-profit organization subsequently challenged the MPCA's section 401 certification, but this court dismissed the challenge as moot in 2009 because the EPA had issued its final permit and because federal regulations did not allow the subsequent addition of conditions to the final permit. *See id.* at *4. (citing 40 C.F.R. § 124.55(b) (2008)).

Meanwhile, in 2007, the MPCA began work on its own permit for ballast-water discharges. In September 2008, the MPCA issued State Disposal System (SDS) Permit No. MNG300000, which governs ballast-water discharges in Minnesota waters. *See In re Request for Issuance of SDS General Permit MNG300000*, 769 N.W.2d 312, 316 (Minn. 2009) (*SDS Permit Opinion*). The SDS permit, which will be effective until September 30, 2013, specifies certain numeric limits on AIS in ballast-water discharges, which were established by the International Maritime Organization in its D-2 standard. The SDS permit requires shipping vessels built before January 1, 2012, to comply with its numeric limits by not later than January 1, 2016. *See id.* A non-profit organization sought review by this court of the MPCA's issuance of the SDS permit, and we affirmed. *See id.* at 325.

The 2013 VGP

Because the 2008 VGP is due to expire in December 2013, the EPA has taken steps to issue a new general permit to govern ballast-water discharges after that date. In December 2011, the EPA released a draft of its second vessel general permit (2013 VGP). The EPA initially set a June 30, 2012 deadline for affected states to grant, deny,

or waive a section 401 certification of the 2013 VGP. That deadline later was extended to October 1, 2012.

On May 7, 2012, the MPCA gave notice of its proposed conditional section 401 certification and requested public comments by May 28, 2012. 36 Minn. Reg. 1357-59 (May 7, 2012). The relators in this case and other non-profit organizations submitted comments to the MPCA, some of which have been reiterated as arguments to this court. On August 28, 2012, the MPCA's Citizens' Board approved the proposed conditional section 401 certification. The following day, the MPCA, through its commissioner, issued findings of fact, conclusions of law, and an order approving the conditional section 401 certification.

On September 7, 2012, the MPCA communicated its section 401 certification to the EPA in the form of a 12-page letter. The certification is expressly based on eight conditions: (1) compliance with the MPCA's SDS permit; (2) no additional requirement for a water-quality-based effluent limitation (WQBEL); (3) ballast-water exchange and salt-water flushing on voyages originating beyond the exclusive economic zone of the United States; (4) emergency control of ballast-water discharge; (5) best-management practices for Lakers; (6) certain monitoring requirements; (7) control of biocide usage; and (8) compliance with any other applicable state regulations, particularly Minn. Stat. § 115.1703.

On September 14, 2012, relators challenged the MPCA's section 401 certification by filing a petition for writ of certiorari with this court. *See* Minn. Stat. § 115.05, subd. 11 (2010). Relators moved to expedite the appeal to avoid dismissal on mootness

grounds, noting that the EPA is expected to take final action on the 2013 VGP by not later than November 30, 2012. This court granted the motion to expedite, set an accelerated briefing schedule, and heard oral arguments on October 25, 2012, two days after the conclusion of briefing. The court also allowed the Lake Carriers' Association to intervene as a respondent.

ISSUES

I. Did the MPCA err in issuing its section 401 certification by applying an incorrect standard of law to the determination that discharges of ballast water governed by the 2013 VGP permit will comply with water-quality standards required by the CWA?

II. Did the MPCA err in issuing its section 401 certification by not imposing conditions consisting of numeric water-quality-based effluent limits or by imposing conditions that will be ineffective in assuring compliance with the CWA?

ANALYSIS

Under section 401 of the CWA, the EPA may not issue a NPDES permit without the express or implied approval of each state in which permitted discharges will occur. *See* 33 U.S.C. § 1341(a)(1). For each such state, the EPA cannot issue a NPDES permit without having received a certification from the state that the permitted activity “will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317” of Title 33, unless the state has waived the certification requirement. *Id.* (sixth sentence). A state is deemed to have waived the certification requirement if the state does not respond to a request for certification “within a reasonable period of time,” which may not exceed

one year. *Id.* (fifth sentence). If a state denies a request for certification of a proposed NPDES permit, the EPA may not issue the permit. *Id.* (seventh sentence).

Under Minnesota law, the MPCA is the agency responsible for responding to requests for section 401 certifications. Minn. Stat. § 115.03, subd. 4a(1)(b). The MPCA has promulgated an administrative rule that requires the agency to take one of three actions in response to a request for a section 401 certification: (1) to issue a certification (or reissue or modify a prior certification), (2) to deny a certification (or revoke a prior certification), or (3) to waive the agency's authority to issue a certification. Minn. R. 7001.1450, subp. 1 (2011). The MPCA may issue a certification only "upon making a finding that the discharge which is the subject of the section 401 certification will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, United States Code, title 33, sections 1311, 1312, 1313, 1316, and 1317." Minn. R. 7001.1450, subp. 1(A).

The MPCA's decision to issue a section 401 certification is subject to review by this court pursuant to the Minnesota Administrative Procedures Act (MAPA). Minn. Stat. § 115.05, subd. 11(1). "We may reverse or modify the agency's decision if the agency's findings, conclusions, or decisions are affected by an error of law, unsupported by substantial evidence in view of the entire record as submitted, or arbitrary or capricious." *SDS Permit Opinion*, 769 N.W.2d at 317 (citing Minn. Stat. § 14.69(d)-(f)). The agency's decision "enjoy[s] a presumption of correctness." *Id.* (quoting *Reserve Mining Co. v. Herbst*, 256 N.W.2d 808, 824 (Minn. 1977)). We give "deference . . . to the agencies' expertise and their special knowledge in the field of their technical training, education, and experience." *Id.* (quoting *Reserve Mining Co.*, 256 N.W.2d at 824).

Relators' challenge to the MPCA's section 401 certification consists of essentially two arguments, which we will address in turn.

I.

Relators first argue that the MPCA erred in its certification because the agency applied an incorrect legal standard concerning future compliance with water-quality standards required by the CWA. Relators summarize their argument as follows:

CWA § 401 requires a certification containing effluent limitations and monitoring requirements necessary to “assure” that dischargers will comply with state water quality standards. Contrary to § 401, MPCA certified the VGP based upon a finding that the certification conditions will reasonably assure compliance with water quality standards. In basing this certification on a “reasonable assurance” standard, rather than the statutory “assurance” standard, MPCA committed an error of law

We begin our analysis of this argument by referring to the various federal and state laws that govern a section 401 certification. First, the content of a section 401 certification is governed by section 401(d) of the CWA, which provides as follows:

Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to *assure* that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 1311 or 1312 of this title, standard of performance under section 1316 of this title, or prohibition, effluent standard, or pretreatment standard under section 1317 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition of any Federal license or permit subject to the provisions of this section.

33 U.S.C. § 1341(d) (emphasis added).

Second, the EPA has promulgated a regulation that generally requires any state certification of activities requiring a federal permit under the CWA to include five specific components, of which the third component is most relevant to this case:

A certification made by a certifying agency shall include the following:

(1) The name and address of the applicant;

(2) A statement that the certifying agency has either (i) examined the application made by the applicant to the licensing or permitting agency . . . and bases its certification upon an evaluation of the information contained in such application which is relevant to water quality considerations, or (ii) examined other information furnished by the applicant sufficient to permit the certifying agency to make the statement described in paragraph (a)(3) of this section;

(3) A statement that there is a *reasonable assurance* that the activity will be conducted in a manner which will not violate applicable water quality standards;

(4) A statement of any conditions which the certifying agency deems necessary or desirable with respect to the discharge of the activity; and

(5) Such other information as the certifying agency may determine to be appropriate.

40 C.F.R. § 121.2(a) (2012) (emphasis added).

Third, the MPCA has promulgated an administrative rule that mirrors most of the language of 40 C.F.R. § 121.2(a)(3), including the requirement that the agency make a “statement that there is *reasonable assurance* that the activity will be conducted in a manner that will not violate applicable water quality standards.” Minn. R. 7001.1470, subp. 1(C) (2011) (emphasis added).

Fourth, the MPCA has promulgated an administrative rule that governs the issuance of a section 401 certificate. That regulation provides that the MPCA may issue a certification “upon making a finding that the discharge which is the subject of the section 401 certification will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, United States Code, title 33, sections 1311, 1312, 1313, 1316, and 1317.” Minn. R. 7001.1450, subp. 1(A).

The MPCA complied with each of these four provisions of law in the process that culminated with the issuance of its section 401 certification. First, consistent with section 401(d) of the CWA, the MPCA set forth certain limitations and monitoring requirements in its certification that will become conditions of the NPDES permit. The MPCA’s compliance with section 401(d) is reflected in the body of its certification letter, which expressly identifies eight conditions and describes them in detail.

Second, consistent with the EPA’s general regulations concerning state certifications, the MPCA made a “statement that there is a reasonable assurance that the [permitted] activity will be conducted in a manner which will not violate applicable water quality standards.” 40 C.F.R. § 121.2(a)(3). The MPCA’s compliance with this federal regulation is reflected in the following statement within the certification:

Minnesota certifies there is a reasonable assurance that discharges from vessels covered by the 2013 VGP . . . will comply with the applicable provisions of 33 U.S.C. §§ 1311, 1312, 1313, 1316, 1317, and 1341 (CWA §§ 301, 302, 303, 306, 307, and 401), and that Permittees and their activities will not contravene applicable limitations, standards and other

appropriate requirements of State law, provided the following conditions set forth in this Certification are met.¹

Third, consistent with its own administrative rule that tracks the EPA's general regulations concerning state certifications, the MPCA made a "statement that there is reasonable assurance that the activity will be conducted in a manner that will not violate applicable water quality standards." Minn. R. 7001.1470, subp. 1(C). The MPCA's compliance with this administrative rule is reflected in the statement quoted in the previous paragraph.

Fourth, consistent with its own administrative rule governing the issuance of section 401 certifications, the MPCA provided its certification "upon making a finding that the discharge which is the subject of the section 401 certification will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, United States Code, title 33, sections 1311, 1312, 1313, 1316, and 1317." Minn. R. 7001.1450, subp. 1(A). The MPCA's compliance with this administrative rule is reflected in paragraph 39 of its findings of facts, conclusions of law, and order, dated August 29, 2012, which states: "The MPCA finds that the discharge which is the subject of the section 401 certification

¹The EPA also has promulgated a regulation that governs a state's certification of a NPDES permit. 40 C.F.R. § 124.53 (2012). The regulation provides, in part, that a state's certification "shall be in writing" and "shall include," among other things, "[c]onditions which are necessary to *assure* compliance with the applicable provisions of CWA sections 208(e), 301, 302, 303, 306, and 307 and with appropriate requirements of State law." 40 C.F.R. § 124.53(e)(1) (emphasis added). Relators did not cite this regulation in their opening brief. Relators cited the regulation in their reply brief in rebuttal to the intervenor's brief. Regardless, we conclude that the MPCA complied with 40 C.F.R. § 124.53(e)(1) for the same reasons that we conclude that the MPCA complied with section 401(d).

will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, United States Code, title 33, sections 1311, 1312, 1313, 1316, and 1317.”

The nub of relators’ first argument is their contention that there is inconsistency between the “assurance” language of section 401(d) and the “reasonable assurance” language of 40 C.F.R. § 121.2 and Minn. R. 7001.1470, subp. 1(C). Relators contend that, in light of that inconsistency, the MPCA is obligated to abide by the “assurance” requirement of section 401(d) and to disregard the “reasonable assurance” language of 40 C.F.R. § 121.2 on the ground that the EPA’s regulation is null and void because it has been superseded by an act of Congress, and to disregard the “reasonable assurance” language of Minn. R. 7001.1470, subp. 1(C), on the ground of the Supremacy Clause, *see* U.S. Const. art. VI. Relators’ argument seemingly would require this court to consider whether a state court may strike down a federal agency’s regulation on the ground that the federal regulation violates a federal statute. We need not consider and resolve that question, however, because we conclude that the MPCA complied with each requirement of federal and state law identified by relators, including the requirements of section 401(d).

In arguing that the MPCA failed to abide by section 401(d), relators seize on a single word, “reasonable,” in one sentence of the MPCA’s 12-page certification letter: “Minnesota certifies there is a *reasonable* assurance that discharges from vessels covered by the 2013 VGP . . . will comply with the applicable provisions of [the CWA], and that Permittees and their activities will not contravene applicable limitations, standards and other appropriate requirements of State law, provided the following conditions set forth

in this Certification are met.” (Emphasis added.) That sentence of the certification, however, does not represent the MPCA’s attempt to comply with section 401(d). Rather, that sentence of the certification represents the MPCA’s attempt to comply with the federal regulation concerning state certifications and the MPCA’s own administrative rule concerning certifications, both of which provide that the MPCA must make a “statement that there is a reasonable assurance that the [permitted] activity will be conducted in a manner which will not violate applicable water quality standards.” 40 C.F.R. § 121.2(a)(1); *see also* Minn. R. 7001.1470, subp. 1(C). The MPCA’s compliance with section 401(d) is represented by the following statement in the certification, which precedes the description of the eight conditions: “The MPCA conditionally grants water quality certification for the EPA 2013 VGP subject to compliance with the conditions identified below.” By indicating that certification is granted “subject to compliance with the conditions” stated within the certification, the MPCA essentially stated that all eight conditions are necessary to assure compliance with federal and state law. The MPCA’s statements concerning the conditions of the certification are sufficiently definite to satisfy the requirements of section 401(d).

Thus, the MPCA complied with the various requirements of federal and state law, including section 401(d), when issuing its certification of the EPA’s proposed 2013 VGP permit. Therefore, the MPCA’s certification decision is not affected by an error of law.

II.

Relators also argue that the MPCA erred in its certification because it did not include numeric water-quality-based effluent limitations for AIS in its section 401

certification and because the conditions imposed by the MPCA are insufficient to assure compliance with water-quality standards required by the CWA.

We begin our analysis of relators' second argument with some background on effluent limits. The EPA recognizes two general types of effluent limits that may be imposed as conditions on a NPDES VGP: technology-based effluent limits (TBELs) and water-quality-based effluent limits (WQBELs). *Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York*, 451 F.3d 77, 85 (2d Cir. 2006). TBELs "reduce levels of pollution by requiring a discharger to make equipment or process changes, without reference to the effect on the receiving water." *City of Arcadia v. United States EPA*, 411 F.3d 1103, 1105 (9th Cir. 2005). WQBELs, on the other hand, focus on water-quality outcomes with reference to particular standards that may be established by a state for a particular body of water. *Catskill Mountains*, 451 F.3d at 85 n. 9. Furthermore, WQBELs, like the water-quality standards themselves, may be expressed in either numeric or narrative terms. *In re Alexandria Lake Area Sanitary Dist. NPDES/SDS Permit No. MN0040738*, 763 N.W.2d 303, 309 (Minn. 2009).

If a state's water quality standard is numeric, the NPDES permit merely adopts a limitation on a point source's effluent discharge necessary to keep the concentration of a pollutant in a waterway at or below the numeric benchmark. . . . A narrative standard is a statement of unacceptable conditions in or upon the waters. . . . A narrative standard is more difficult to implement in a permit than a numeric standard.

Id. at 309 (quotations omitted).

The MPCA has promulgated administrative rules that set forth narrative water-quality standards that apply to Lake Superior and certain other Minnesota waters. Under the narrative standard for Class 2 waters,

the aquatic habitat, which includes the waters of the state and stream bed, shall not be degraded in any *material* manner, there shall be no *material* increase in undesirable slime growths or aquatic plants, including algae, nor shall there be any *significant* increase in harmful pesticide or other residues in the waters, sediments, and aquatic flora and fauna; the normal fishery and lower aquatic biota upon which it is dependent and the use thereof shall not be *seriously* impaired or endangered, the species composition shall not be altered *materially*, and the propagation or migration of the fish and other biota normally present shall not be prevented or hindered by the discharge of any sewage, industrial waste, or other wastes to the waters.

Minn. R. 7050.0150, subp. 3 (2011) (emphases added); *see* Minn. R. 7050.0470, subp. 1(B) (129), (130) (2011) (designating Lake Superior as belonging to Classes 1B, 2A, and 3A). Similarly, the narrative standard for Class 5 waters provides that the quality of such waters “shall be such as to be suitable for aesthetic enjoyment of scenery, to avoid any interference with navigation or damaging effects on property.” Minn. R. 7050.0225, subp. 2 (2011); *see also* Minn. R. 7050.0410 (2011) (providing that all waters listed in part 7050.0470 are also designated Class 5 waters). These standards are not objective or quantifiable; rather, qualitative judgments are required to determine whether the narrative water-quality standards are met.

In its proposed 2013 VGP permit, the EPA stated, “While State WQS do not specifically address ANS [aquatic nuisance species], many narrative criteria and anti-degradation and general policies of applicable state water quality standards do seek to

prevent the types of degradation that is associated with the introduction of ANS into receiving waters.” The EPA determined that the TBELs imposed by the proposed 2013 VGP permit had been proven to be effective in reducing the spread of AIS and “may be protective of water quality standards.” But the EPA “nonetheless determined that the discharge of ballast water has the reasonable potential to cause or contribute to an exceedance of water quality standards” even with the TBELs. Accordingly, the EPA considered whether numeric WQBELs should be adopted.

The EPA sought assistance with respect to WQBELs by commissioning a study by the National Academies of Science (NAS) to determine appropriate WQBELs for AIS. The study concluded that “reducing propagule pressure (i.e., the quality, quantity, and frequency with which living organisms are introduced into a given location) will reduce the probability of invasions, when controlling for all other variables.” But the study also concluded that, while “[i]n principle, a well-supported model of the relationship between invasion risk and organism release could be used to inform a ballast water discharged standard,” the “current state of science does not allow a quantitative evaluation of the relative merits of the various [numeric] discharge standards in terms of invasion probability.” Based on this analysis, the EPA determined that it was infeasible to set numeric WQBELs at this time. The MPCA undertook a similar analysis and reached a similar conclusion:

[A]fter careful review of the available data and studies completed to further define the quality of the Waters of the State, MPCA is unable to conclusively determine a numeric standard which would definitely protect water quality and an unaltered species composition of the ecosystem.

As a result, the MPCA's section 401 certification does not rely on numeric WQBELs.

A.

Relators argue that the MPCA erred by not including numeric WQBELs in its section 401 certification. Relators contend that the MPCA is required to establish numeric WQBELs for AIS because, they assert, any transfer of AIS through ballast-water discharges will have a negative impact on water quality.

The EPA is required to include WQBELs in its NPDES permits as necessary to meet state water-quality standards. 40 C.F.R. § 122.44(d)(1). The EPA must include best-management practices in a permit if circumstances are such that “[n]umeric effluent limits are infeasible.” 40 C.F.R. § 122.44(k)(3) (2012). Likewise, under both federal and state law, the MPCA must include conditions that will result in compliance with water-quality standards when it issues a certification of a NPDES permit. 33 U.S.C. § 1341(a)(1); *PUD No. 1 of Jefferson County v. Washington Dep’t of Ecology*, 511 U.S. 700, 712 (1994) (“ensuring compliance with § 303 is a proper function of the § 401 certification”); 40 C.F.R. § 123.25(a)(15) (2012) (providing that section 122.44, governing NPDES permit conditions, applies to states issuing NPDES permits); Minn. R. 7001.1470, subp. 1(D), 2 (providing that MPCA must incorporate conditions into section 401 certification in same manner it would as issuer of permit). And the MPCA may, like the EPA, adopt best management practices if setting numerical WQBELs is infeasible. Minn. R. 7001.1080, subp. 3 (2011).

None of the above-described provisions of law requires numeric WQBELs, either in all situations or in the circumstances present in this case. Relators have not identified

any other provision of law that would require numeric WQBELs on the ground that narrative WQBELs necessarily are inadequate. The overarching requirement for the MPCA is that its certification “shall set forth any effluent limitations and other limitations, and monitoring requirements” that it deems necessary. 33 U.S.C. § 1341(d). But the implementing federal regulations do not foreclose the possibility that the MPCA may determine that narrative WQBELs, or some other form of limitations, are adequate to satisfy that standard, without the need for numeric WQBELs. Given the imprecise nature of the narrative water-quality standards and the difficulty in measurement, relators cannot establish that ballast-water discharges under the 2013 VGP necessarily will violate applicable water-quality standards.

The difficulty with this case is the reality that, as stated by the National Academies of Science, the “current state of science does not allow a quantitative evaluation of the relative merits of the various [numeric] discharge standards in terms of invasion probability.” This conclusion led the MPCA to determine that numeric WQBELs are infeasible. The MPCA contends that imposing numeric WQBELs would be “an exercise in futility” because the “technology to implement [them] has yet to be invented” and because a decision to impose numeric WQBELs at this time “would not likely survive an industry challenge.” The MPCA further contends that “[i]t makes no sense . . . to impose a numeric WQBEL that can neither be scientifically defended, met, nor enforced.” In contrast, relators essentially contend that numeric WQBELs must be established even if they are prohibitory in their effect on commerce.

Ultimately, the conflicting positions taken by relators and the MPCA can and should be resolved by judicial deference to the MPCA's decision to not impose numeric WQBELs. In discharging its duty to respond to the EPA's request for a section 401 certification, the MPCA is charged with implementing a federal statute, federal regulations, and state administrative rules. As a practical matter, those provisions of law are ambiguous as applied to the circumstances of this particular case. *See In re Alexandria Lake Area Sanitary Dist.*, 763 N.W.2d at 312 (reasoning that federal regulation is ambiguous as applied to facts of case). Thus, we must consider the nature of the issues and "whether the subject matter of the regulation is within the agency's technical training, education, and experience." *Id.* at 313. We should defer to the MPCA's "expertise and special knowledge when the agency's interpretation of an unclear regulation is reasonable," and the reasonableness of its interpretation depends on the circumstances of a particular case. *Id.*

In *SDS Permit Opinion*, this court deferred to the MPCA's issuance of a general permit for ballast-water discharge pursuant to state law. 769 N.W.2d at 321. We did so for reasons of agency expertise and experience but also because the MPCA was charged with implementing a new regulatory system. *Id.* We concluded that the MPCA reasonably chose to decline to impose more stringent WQBELs on the ground that "water quality will not be maintained and improved by the adoption of treatment standards and an implementation schedule that are unachievable." *Id.* at 324. We stated that it is "not our role to decide among policy choices or to second-guess the reasonableness of an agency's decision, given the broad authority afforded MPCA in its development of water-

quality programs.” *Id.* For the same essential reasons, we decline to interfere with the MPCA’s decision in this matter to not impose numeric WQBELs when issuing its section 401 certification. It is sufficient that the MPCA has satisfied the requirements of law discussed above in part I, especially the requirement that the MPCA provide “reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards.” 40 C.F.R. § 121.2(a)(3); Minn. R. 7001.1470, subp. 1(C).

Thus, the MPCA’s section 401 certification is not affected by an error of law on the ground that it does not include numeric WQBELs as a condition of certification.

B.

Relators argue that the MPCA erred by issuing its section 401 certification with conditions that will be ineffective in preventing the spread of AIS. Specifically, relators challenge the first, third, fourth, fifth, and sixth conditions imposed by the MPCA’s section 401 certification.

Relators argue that the MPCA’s decision to issue its certification was arbitrary and capricious and unsupported by substantial evidence. An agency’s decision is arbitrary and capricious

[i]f the agency (a) relied on factors not intended by the legislature; (b) entirely failed to consider an important aspect of the problem; (c) offered an explanation that runs counter to the evidence; or (d) [made a] decision [that] 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 County Bd. of Comm'rs, 713 N.W.2d 817, 832 (Minn. 2006). An agency decision is supported by substantial evidence “if it is supported by such relevant evidence as a reasonable mind might accept as adequate to support the conclusion.” *Minnesota Ctr. for Env'tl. Advocacy v. Minn. Pollution Control Agency*, 644 N.W.2d 457, 468 (Minn. 2002). Substantial evidence may be “(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.” *Id.* at 466.

The MPCA determined that the conditions in the 2013 VGP and the additional conditions imposed by its section 401 certification are sufficient to assure that discharges under the 2013 VGP will comply with Minnesota’s water-quality standards. The agency record indicates that the MPCA gave the matter careful consideration under the appropriate standards. The evidence in the agency record supports the MPCA’s determination that the conditions in the 2013 VGP permit and the MPCA’s section 401 certification will significantly reduce the risk of further spread of AIS and thereby will be effective in assuring compliance with water-quality standards.

Specifically, in the first condition imposed by the section 401 certification, the MPCA has required compliance with its own SDS permit. That permit includes TBELs that limit the quantity of discharges of AIS according to the International Maritime Organization’s D-2 standard. The agency record in this matter includes numerous studies showing that these standards will reduce the concentration of AIS in ballast-water discharge by approximately 99 percent. One study estimates that the D-2 standard will

significantly reduce the probability of the establishment of certain species to one-third of the present probability. These studies support the conclusion that the MPCA's decision to impose the first condition is neither arbitrary and capricious nor unsupported by substantial evidence. Furthermore, this court already has upheld the MPCA's issuance of the SDS permit in the face of an argument that "the terms of the SDS general permit will not preserve Lake Superior's high water quality," and that opinion effectively precludes us from reconsidering the efficacy of the SDS permit. *See SDS Permit Opinion*, 769 N.W.2d at 324.

In the third condition imposed by the section 401 certification, the MPCA required ballast-water exchanges and salt-water flushing for all ships on voyages originating beyond American waters. Relators contend that there is no evidence that these measures will reduce the risk of AIS enough to satisfy water-quality standards. But the agency record includes a report by NAS, which states that the ballast-water management techniques required in the third condition can reduce the spread of AIS. The agency record includes studies showing that mid-ocean ballast-water exchanges reduce the concentration of living organisms by 80 to 90 percent. Although additional organisms may be taken in during mid-ocean exchanges, those salt-water organisms are unlikely to establish themselves in the fresh-water environment of the Great Lakes. The agency record includes anecdotal evidence supporting the use of other best management practices. These studies and other evidence support the conclusion that the MPCA's decision to impose the third condition is neither arbitrary and capricious nor unsupported by substantial evidence.

In the fourth condition imposed by the section 401 certification, the MPCA reserves to itself the authority, in emergency situations, to prohibit discharges, to determine the location of discharges, or to require emergency treatment of “high-risk” ballast water. Relators contend that this condition will be ineffective because it does not control agency discretion. The supreme court has held that the MPCA sometimes is entitled to “flexibility” in implementing its regulatory scheme. *In re Alexandria Lake Area Sanitary Dist.*, 763 N.W.2d at 313. The fourth condition provides the MPCA with the flexibility to more aggressively regulate certain ballast-water discharges, even to the point of prohibition, if and when the necessity arises. We defer to the agency’s technical expertise in such matters. *See SDS Permit Opinion*, 769 N.W.2d at 324. The 2013 VGP is more likely, not less likely, to enhance water quality because of the fourth condition of the MPCA’s section 401 certification. Thus, the MPCA’s decision to impose the fourth condition is neither arbitrary and capricious nor unsupported by substantial evidence.

In the fifth condition imposed by the section 401 certification, the MPCA required Lakers to employ certain best management practices, such as the installation and maintenance of screens, the use of pumps instead of gravity systems, and steps to minimize the intake of AIS. Relators contend that this condition, though “salutary,” is “no guarantee that [AIS] will not be discharged or establish themselves.” The agency record contains evidence that these best management practices helped arrest the spread of Eurasian ruffe. Again, the 2013 VGP is more likely, not less likely, to enhance water quality because of the fifth condition of the MPCA’s section 401 certification. Thus, the

MPCA's decision to impose the fifth condition is neither arbitrary and capricious nor unsupported by substantial evidence.

In the sixth condition imposed by the section 401 certification, the MPCA required all vessels to monitor their compliance with the International Maritime Organization's D-2 standard by sampling and testing their ballast-water discharges on an annual basis. The agency record reflects that the data collected through required monitoring will help the agency determine how best to address AIS in the future. Once again, the 2013 VGP is more likely, not less likely, to enhance water quality because of the sixth condition of the MPCA's section 401 certification. Thus, the MPCA's decision to impose the sixth condition is neither arbitrary and capricious nor unsupported by substantial evidence.

For these reasons, we conclude that each of the challenged conditions is not arbitrary and capricious and is supported by substantial evidence. Relators essentially prefer that the MPCA go further than the conditions already imposed by adding WQBELs that would more likely assure compliance with water-quality standards. But relators' preference for greater protection does not undermine the MPCA's determination that the conditions imposed are sufficient to assure compliance with water-quality standards. To reiterate what we said when affirming the SDS permit that is incorporated into the section 401 certification, "[i]t is not our role to reweigh policy determinations that require an agency's technical knowledge or experience" and "likewise it [is] not our role to decide among policy choice, or to second-guess the reasonableness of an agency's decision, given the broad authority afforded MPCA in its development of water-quality programs." *SDS Permit Opinion*, 769 N.W.2d at 324. Accordingly, we reject relators'

arguments that the MPCA's decision to impose the challenged conditions on its section 401 certification was arbitrary or capricious and was unsupported by substantial evidence.

D E C I S I O N

The MPCA did not err in the process of issuing its section 401 certification by applying an incorrect standard of law concerning future compliance with water-quality standards required by the CWA. The MPCA did not err in the process of issuing its section 401 certification by imposing eight conditions on its certification but not imposing conditions consisting of numeric WQBELs. In sum, in issuing its section 401 certification, the MPCA did not act in an arbitrary and capricious manner or contrary to substantial evidence in the agency record.

Affirmed.