

FOR PUBLICATION

**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

FOOD & WATER WATCH; SNAKE
RIVER WATERKEEPER, INC.,
Petitioners,

No. 20-71554

OPINION

v.

U.S. ENVIRONMENTAL
PROTECTION AGENCY,
Respondent.

On Petition for Review of an Order of the
Environmental Protection Agency

Argued and Submitted May 6, 2021
Portland, Oregon

Filed September 16, 2021

Before: William A. Fletcher and Michelle T. Friedland,
Circuit Judges, and Frederic Block,* District Judge.

Opinion by Judge W. Fletcher

* The Honorable Frederic Block, United States District Judge for the
Eastern District of New York, sitting by designation.

SUMMARY**

Clean Water Act

The panel granted a petition for review brought by petitioner environmental organizations challenging a National Pollutant Discharge Elimination System (“NPDES”) Permit issued by the Environmental Protection Agency (“EPA”) for Concentrated Animal Feeding Operations (“CAFOs”) in Idaho.

The Clean Water Act prohibits the discharge of any pollutant by any person from any point source into the navigable waters of the United States except when the discharge is authorized by a permit issued under the NPDES. CAFOs house, feed, and raise thousands of animals in confined locations, and they generate animal manure, which can pose substantial risks to the environment and public health. Manure is typically stored in lagoons, and animal waste that leaks from lagoons can reach groundwater that can, in turn, reach navigable waters. The EPA has regulated CAFOs since the mid-1970s. The EPA regulates both production areas and land-application areas of CAFOs. Production areas include animal confinement areas, manure storage areas including lagoons, raw materials storage areas, and waste containment areas. Land-application areas are fields where manure, litter, and process wastewater are applied as fertilizer.

** This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

The panel held that the petitioners' challenge was timely. The parties agreed that petitioners challenged the Idaho Permit within 120 days of the issuance. The panel rejected the EPA's contention that the Permit largely relied on a 2003 Rule and that the petition was therefore untimely.

The panel agreed with petitioners' contention that the Permit lacked sufficient monitoring provisions to ensure compliance with the Permit's "zero discharge" requirements for both production and land-application areas, and therefore, it was arbitrary, capricious, and an abuse of discretion, and not in accordance with the law. The statutory and regulatory framework gives discretion to the EPA in crafting appropriate monitoring requirements for each NPDES permit, but the EPA's discretion is not unlimited.

Concerning production areas, the panel held the Permit had sufficient monitoring requirements for above-ground discharges from production areas. The CAFOs were required to perform daily inspections, and these mandated inspections were, in effect, monitoring requirements. The panel deferred to the EPA's expertise, and held that these provisions were sufficient to ensure compliance with the Permit's zero-discharge effluent limitations from production areas.

The panel held that the Permit had no monitoring provisions for underground discharges from production areas. Without a requirement that CAFOs monitor waste containment structures for underground discharges, there was no way to ensure that production areas comply with the Permit's zero-discharge requirement.

Concerning land-application areas, the panel held that the Idaho Permit flatly prohibited discharges from land-

application areas during dry weather. The Permit, however, had no monitoring provisions for dry weather discharges from land-application areas, even though the record before the EPA showed that such discharges can occur during irrigation of fertilized CAFO fields. Without a requirement to monitor runoff from irrigated CAFO fields, there was no way to ensure that a CAFO is complying with the Permit's dry weather no-discharge requirement for land-application areas.

The panel therefore granted the petition and vacated the permit.

COUNSEL

Tyler Lobdell (argued), Staff Attorney, Food & Water Watch, Boise, Idaho; Allison M. LaPlante and Danielle Replogle, Earthrise Law Center, Lewis & Clark Law School, Portland, Oregon; for Petitioners.

Benjamin J. Grillot (argued), Attorney; Eric Grant, Deputy Assistant Attorney General; Jonathan D. Brightbill, Principal Deputy Assistant Attorney General; Environment and Natural Resources Division, United States Department of Justice, Washington, D.C.; Simma Kupchan and Courtney Weber, Office of General Counsel and Office of Regional Counsel, United States Environmental Protection Agency, Washington, D.C.; for Respondent.

OPINION

W. FLETCHER, Circuit Judge:

The Clean Water Act (“CWA”) prohibits the “discharge of any pollutant” by “any person” from any “point source” into the navigable waters of the United States except when the discharge is authorized by a permit issued under the National Pollutant Discharge Elimination System (“NPDES”). 33 U.S.C. §§ 1311(a), 1342. In May 2020, the EPA issued a General NPDES Permit for Concentrated Animal Feeding Operations (“CAFOs”) in Idaho (the “Idaho Permit” or “Permit”). Final Reissuance of NPDES General Permit for CAFOs in Idaho, 85 Fed. Reg. 28,624 (May 13, 2020). Two environmental organizations, Food & Water Watch and Snake River Waterkeeper (“Petitioners”), challenge the Permit, contending that its issuance was arbitrary, capricious, and in violation of law because it lacks sufficient monitoring provisions to ensure compliance with its discharge limitations. We agree and grant the petition.

I. Background

Concentrated animal feeding operations house, feed, and raise thousands of animals in confined locations. NPDES Permit Regulation and Effluent Limitation Guidelines and Standards for CAFOs, 68 Fed. Reg. 7,176, 7,179 (Feb. 12, 2003) (codified at 40 C.F.R. Parts 9, 122, 123, and 412) [hereinafter “the 2003 Rule”]. Nationwide, CAFOs generate more than 500 million tons of animal manure annually, which “when improperly managed, can pose substantial risks to the environment and public health.” *Id.* In 2008, the EPA estimated that approximately 75 percent of CAFOs discharge pollution into waterways. *See* Revised NPDES Permit

Regulation and Effluent Limitations Guidelines for CAFOs in Response to the *Waterkeeper* Decision, 73 Fed. Reg. 70,418, 70,469 (Nov. 20, 2008) (codified at 40 C.F.R. Parts 9, 122, and 412) [hereinafter “the 2008 Rule”]; *see also* 2003 Rule at 7,181.

CAFOs manage manure by collecting, storing, and treating it, and applying it to fields as fertilizer. Thomas R. Head, *Local Regulation of Animal Feeding Operations: Concerns, Limits, and Options for Southeastern States*, 6 Env’t Law. 503, 515–16 (2000). Manure is typically stored in large open-air tanks or anaerobic lagoons. *Id.* at 515. Lagoons pose two serious hazards. First, “even the most well-managed lagoons usually fill to capacity within just two or three years.” *Id.* Unless excess liquid is removed, a lagoon will overflow. *Id.* Second, the potential “always exists that lagoons will fail or rupture and pollute surface waters or allow waste to seep into groundwater.” *Id.* “[E]ven assuming the lagoons were constructed pursuant to [Natural Resource Conservation Service] standards, these standards specifically allow for permeability and, thus, the lagoons are designed to leak.” *Cnty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC*, 80 F. Supp. 3d 1180, 1223 (E.D. Wash. 2015). Depending on the character of the soil surrounding the lagoon, animal waste leaked from lagoons can reach groundwater that can, in turn, reach navigable waters. CAFOs typically use animal waste as fertilizer for their fields. While application of animal waste can be safe, improper application, rainfall, or irrigation can result in discharges that reach navigable waters.

Because of the significant environmental threats CAFOs pose, the EPA has regulated them since the mid-1970s. *See*

41 Fed. Reg. 11,458 (Mar. 18, 1976); 39 Fed. Reg. 5,704 (Feb. 14, 1974).

A. Statutory Background

The objective of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). To achieve this objective, the CWA prohibits a point source from discharging pollutants into the “navigable waters of the United States” without an NPDES permit. *Id.* § 1311(a). The CWA defines “discharge of a pollutant” to mean “any addition of any pollutant to navigable waters from any point source.” *Id.* § 1362(12). A “point source” is “any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged.” *Id.* § 1362(14).

An NPDES permit limits the amounts and kinds of pollutants that may be discharged from a point source. *See id.* § 1311(a) (making it unlawful for a point source to discharge a pollutant without first obtaining a permit and complying with its terms). Every NPDES permit must set forth “effluent limitations,” that is, certain “restriction[s] . . . on [the] quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters.” *Id.* §§ 1311, 1342, 1362(11); *see also S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 102 (2004) (“Generally speaking, the NPDES requires dischargers to obtain permits that place limits on the type and quantity of pollutants that can be released into the Nation’s waters.”). Specific effluent limitations in individual NPDES permits are based on general “effluent limitation guidelines” (“ELGs”) promulgated by the EPA. *See EPA v. Cal. ex. rel. State*

Water Res. Control Bd., 426 U.S. 200, 205 (1976) (“An NPDES permit serves to transform generally applicable effluent limitations and other standards including those based on water quality into the obligations . . . of the individual discharger.”).

Section 1362(14) of the CWA lists a CAFO as a point source. *Id.* (“The term ‘point source’ means any discernible, confined and discrete conveyance, including but not limited to any . . . *concentrated animal feeding operation* . . . from which pollutants are or may be discharged.”) (emphasis added). Section 1362(14) provides that the term point source “does not include agricultural stormwater discharges and return flows from irrigated agriculture.” *Id.*

Because CAFOs are themselves point sources, the EPA has interpreted the stormwater and irrigation discharge exceptions as not applying when such discharges are from a CAFO. For example, the Idaho Permit prohibits dry weather discharges from a CAFO’s land application area. Discharges from irrigation return flows are included in the prohibition on dry-weather discharges. *See* Idaho Permit at 10 (“*No Dry Weather Discharge*. There shall be no dry weather discharge of manure, litter, or process wastewater to a water of the United States from a CAFO as a result of the application of manure, litter or process wastewater *This prohibition includes* discharges . . . through tile drains, ditches or other conveyances, and *irrigation return*.” (emphasis added)). Further, while the EPA has partially incorporated the stormwater discharge exception into a CAFO regulation, it has done so as a matter of regulatory discretion rather than statutory compulsion. *See* 40 C.F.R. § 122.23(e) (waiving the requirement for an NPDES permit for stormwater discharges from CAFO fields *if* the CAFO has land applied manure,

litter, or process wastewater in accordance with site-specific nutrient management practices). *But see Waterkeeper Alliance, Inc. v. U.S. E.P.A.*, 399 F.3d 486, 507 (2d Cir. 2005); *Concerned Area Residents for the Env't v. Southview Farm*, 34 F.3d 114, 121 (2d Cir. 1994).

B. CAFO Regulations

The EPA regulates both production areas and land-application areas of CAFOs. Production areas include animal confinement areas (where animals are confined for feeding or other purposes), manure storage areas including lagoons (where manure and other wastes are collected and stored or treated prior to final disposal), raw materials storage areas (where materials used in feeding operations are stored), and waste containment areas (where wastes other than manure are stored until final use or disposal). 40 C.F.R. § 122.23(b)(8). Land-application areas are fields where manure, litter, and process wastewater are applied as fertilizer. 40 C.F.R. § 122.23(b)(3). Both production and land-application areas are possible sources of discharges of pollutants into navigable waters. *See* 2003 Rule at 7,181.

Animal waste contains a number of pollutants. Pollutants associated with CAFO animal waste include nitrogen and phosphorus; solids, including manure and animal corpses; disease-causing viruses and bacteria including *E. coli*; trace elements such as arsenic; odorous/volatile compounds such as methane, hydrogen sulfide, and ammonia; antibiotics; pesticides; and hormones. *See* NPDES Permit Regulation and Effluent Limitations Guidelines and Standards for CAFOs, 66 Fed. Reg. 2960, 2976–79 (Jan. 12, 2001) [hereinafter “2001 Proposed Rule”]. Pollutants can reach surface water and groundwater in a variety of ways, including

overflows and underground leaks from lagoons, and surface runoff from land-application areas. 68 Fed. Reg. at 7,181.

Recognizing the threats CAFOs pose to water quality, the EPA began revising its CAFO regulations in 2001. After a two-year rulemaking process, the EPA promulgated a final Rule in 2003 (the “2003 Rule”). Among other things, the 2003 Rule required a CAFO either to apply for an NPDES permit or to demonstrate that it did not have the potential for discharge. *See* 2003 Rule at 7,181–82. The 2003 Rule also required permittees to develop and implement site-specific nutrient management plans (“NMPs”), and it exempted wet weather discharges under an exemption for agricultural stormwater. *See* 2003 Rule at 7,176. The 2003 Rule did not establish any general groundwater requirements.

The Second Circuit upheld the 2003 Rule’s incorporation of the agricultural stormwater exemption into its regulation, as well as the EPA’s decision to impose groundwater requirements on a “case-by-case” basis. *See Waterkeeper*, 399 F.3d at 497, 507–09, 515. However, the court held that the Rule was arbitrary, capricious, and contrary to law in failing to require review by the permitting authority of a CAFO’s proposed NMP, and in failing to require that the terms of the NMP be included in an issued permit. *Id.* at 498–503. The court also held that, in the absence of actual discharge of a pollutant, the CWA did not authorize the EPA to impose on CAFOs a general “duty to apply” for an NPDES permit. *Id.* at 504–06.

In the wake of *Waterkeeper*, the EPA revised its CAFO regulations in 2008 (the “2008 Rule”). In place of the 2003 Rule’s duty to apply, the 2008 Rule required that a CAFO owner or operator apply for a permit only if the CAFO

“discharge[d] or propose[d] to discharge” pollutants. 2008 Rule at 70,424. The 2008 Rule provided that, in the event of a discharge, a CAFO could be liable for both the discharge and for the failure to apply for a permit. *Id.* at 70,426–27. However, a CAFO operator could apply for a “certification” that the CAFO would not discharge a pollutant. If a certified CAFO discharged, the CAFO would violate the discharge prohibition, but would not be liable for failing to apply. The 2008 Rule also required that all NPDES permits include a requirement that CAFO operators develop and implement an NMP, and specified that the NMP must be reviewed by the permitting agency and included in the issued permit. *Id.* at 70,440–70,457.

In *National Pork Producers Council v. U.S. E.P.A.*, 635 F.3d 738, 750–53 (5th Cir. 2011), the Fifth Circuit, elaborating on the analysis of *Waterkeeper*, held that a non-certified CAFO could be held liable under the CWA for actual discharges, but could not be held liable for failing to apply for a permit. In response, the EPA again amended its regulations. See NPDES Permit Regulation for CAFOs: Removal of Vacated Elements in Response to 2011 Court Decision, 77 Fed. Reg. 44,494 (July 30, 2012).

Under current CAFO regulations, any permit issued to a CAFO must include a requirement to formulate and implement an NMP. 40 C.F.R. § 122.42(e)(1). The NMP must ensure (1) adequate storage of animal waste, (2) proper management of mortalities, (3) that clean water is diverted from the production area, (4) that animals do not interact with clean water; (5) that chemicals and other contaminants are properly disposed of; (6) that site-specific conservation practices are used to control runoff; (7) that proper protocols are used for testing manure, litter, or process wastewater, and

soil; and (8) that manure, litter, or process wastewater is land-applied in a manner that ensures appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater. *Id.* § 122.42(e)(1)(i)–(viii). Additionally, the NMP must include a waste “application rate” that “minimize[s] phosphorus and nitrogen transport from the field to surface waters.” *Id.* § 412.4(c)(2).

Current CAFO regulations prohibit the discharge of manure, litter, or process wastewater pollutants into waters of the United States from production areas, unless the discharge is precipitation-related and the production area is designed, constructed, and maintained to contain all manure, litter, and process wastewater, including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event. *Id.* § 412.31(a). The regulations allow wet-weather discharges of manure, litter, or process wastewater from land-application areas if the CAFO has identified and implemented appropriate site-specific measures to minimize discharges. *Id.* §§ 122.23(e), 122.42(e)(1)(vi)–(ix). The regulations do not address dry-weather discharges from land-application areas.

C. The Idaho Permit

Idaho is home to a large and growing number of CAFOs, primarily dairy farms and cattle feed lots in the Snake River watershed in southern Idaho. Improper management of CAFO waste has resulted in serious water quality problems in Idaho. State of Idaho Dep’t of Env’t Quality, Idaho’s 2016 Integrated Report App’x K (2018). Watersheds in CAFO-dominated areas have excessive and unsafe levels of *E. coli*, fecal coliform, and nutrients, as well as low levels of dissolved oxygen, which is essential to healthy aquatic life.

Idaho's 2016 Integrated Report documented 1,989 miles of streams and 471 acres of lakes that were contaminated with *E. coli*, 239 miles of streams and 55,509 acres of lakes that were burdened with excessive nutrients, and 920 miles of streams that contained unsafe levels of fecal coliform. *See id.* at 39–40. Many Idaho waterways that pass through CAFO-dominated areas are classified as “impaired waters” by the EPA. *Id.* App'x H at 89–113 (listing waterways in the Southwest Basin).

Several Idaho waterways in CAFO-dominated areas show levels of *E. coli* that far exceed the Water Quality Criterion geometric mean of 126 cfu/100 mL. *See, e.g., id.* at App'x H at 31 (Hatwai Creek, which borders a CAFO, had elevated levels of *E. coli*, nitrogen/nitrate, and phosphorus); *see also id.* App'x K at 36 (listing *E. coli* levels with a geometric mean of 1,108 cfu/100 mL near Grand View, which houses one of the world's largest CAFOs); *id.* App'x K at 58 (*E. coli* levels of 811 cfu/100 mL in Yahoo Creek, which is adjacent to a number of animal feeding operations); *id.* App'x K at 59 (*E. coli* contamination in Pioneer Reservoir). The leading causes of water impairment in Idaho's streams are “combined biota/habitat bioassessments, temperature, sedimentation/siltation, and *Escherichia coli*.” State of Idaho Dep't of Env't Quality, Idaho's 2018/2020 Integrated Report at xiii (2020). “*E. coli* in water is a strong indicator of sewage or animal waste contamination.” U.S. Dep't of Interior, Bacteria & *E. Coli* in Water, https://www.usgs.gov/special-topic/water-science-school/science/bacteria-and-e-coli-water?qt-science_center_objects=0#qt-science_center_objects (last visited Aug. 16, 2021).

On October 23, 2019, the EPA issued for public comment a draft Permit and Fact Sheet for Idaho CAFOs. 84 Fed. Reg.

56,809. On May 13, 2020, the EPA issued the Idaho Permit, with an effective date of June 15, 2020. 85 Fed. Reg. 28,624.

With one exception, the Idaho Permit forbids discharges of pollutants from production areas. Pollutants may be discharged from the production area only if “[t]he production area is designed, constructed, operated, and maintained to contain all manure, litter, process wastewater, and the runoff and direct precipitation from the 25-year, 24-hour storm event for the location of the CAFO.” CAFOs must perform daily inspections of all water lines, and must perform weekly visual inspections of all storm water diversion devices, runoff diversion structures, devices channeling contaminated storm water, and waste storage structures. All open surface liquid waste storage structures must have a depth marker that clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of a 25-year, 24-hour rainfall event. The inspection must note the level in liquid impoundments as indicated by the depth marker. Deficiencies found during inspections must be corrected as soon as possible.

Also with one exception, the Permit forbids discharges of pollutants from land-application areas. Wet-weather discharges are permitted only when manure, litter, and process wastewater have been applied in accordance with a site-specific NMP. 40 C.F.R. §§ 122.23(e), 122.42(e)(1)(vi)–(ix). Dry-weather discharges from the land-application area are flatly prohibited. Idaho Permit at 10.

The Permit requires CAFOs to make records available to the EPA upon request. Production area records include documents of all inspections of storage, containment, and treatment structures; the depth of the manure and process

wastewater in those structures; and inspections of all stormwater diversions and channel structures. Land-application area records include documentation of the dates of manure, litter, or process wastewater application for each field; the methods of the land application; the results of soil and manure samples; the dates on which the land-application equipment was inspected; and that all setback requirements and conservation practices identified in the NMP were followed.

The Permit also requires CAFOs to submit annual reports by March 1 of each year to the EPA and to relevant state regulatory authorities. If lagoons or other storage structures have overflowed, operators must analyze the discharges for various pollutants, including *E. coli*, nitrogen, nitrate nitrogen, ammonia nitrogen, phosphorus, and suspended solids. Reports must describe, *inter alia*, the quantity of manure, litter, and process wastewater applied to fields, as well as the results of manure and soil sample analyses.

II. Standard of Review

We review general NPDES permits issued by the EPA, such as the Idaho Permit, under Section 509 of the CWA, 33 U.S.C. § 1369(b)(1)(F). Under the Administrative Procedure Act, we must set aside an agency's decision if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). We must set aside an agency's decision if "the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be

ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The scope of our review is narrow. We may not substitute our judgment for that of the agency. *Id.* However, the agency must “examine the relevant data” and “articulate a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’” *Id.* (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)).

III. Discussion

A. Timeliness of Petition

Petitions for review of the type of NPDES permit at issue must be filed in a court of appeals within 120 days of the permit’s issuance. 33 U.S.C. § 1369(b)(1); *see also Tex. Mun. Power Agency v. Adm’r of U.S. E.P.A.*, 799 F.2d 173, 174 (5th Cir. 1986) (interpreting provision to be jurisdictional). The parties agree that Petitioners challenged the Idaho Permit within 120 days of its issuance. However, the EPA argues that the Permit largely relies on and incorporates the 2003 Rule, and that Petitioners’ challenge is therefore untimely.

The EPA relies on the Fifth Circuit’s reasoning in *National Pork Producers*, 635 F.3d 738. As described above, after the Second Circuit’s decision in *Waterkeeper*, the EPA revised its earlier 2003 Rule and issued a new final rule in 2008. The 2008 Rule changed the NMP’s procedural provisions, but did not change the NMP’s substantive requirements. *See* 2008 Rule at 70,437 (“[*Waterkeeper*] did not affect the substantive requirements for NMPs established

... in the 2003 CAFO rule.”). In *National Pork Producers*, petitioners argued that the EPA exceeded its authority in the 2008 Rule by requiring all permit applicants to develop and implement NMP protocols. 635 F.3d at 754. However, because the 2003 Rule had included this requirement, the Fifth Circuit deemed the challenge to the 2008 Rule untimely. *Id.*

By contrast, Petitioners do not challenge any part of the 2003 and 2008 Rules. Rather, they challenge the Idaho Permit, arguing that its requirements for monitoring effluent discharges are insufficient. This challenge is new and specific to the Idaho Permit. The novelty of the challenge is confirmed in the 2003 Rule itself, where the EPA rejected a proposed provision that would have required discharge monitoring by CAFOs. The EPA concluded that “factors affecting whether such discharges are occurring at CAFOs are so variable from site to site that a national technology-based standard is inappropriate.” 2003 Rule at 7,216. In the view of the EPA, discharge monitoring was “more appropriately addressed through NPDES permit conditions established by the permitting authority.” *Id.* at 7,217; *see also Waterkeeper*, 399 F.3d at 515 (“Studies do show that variability in topography, climate, distance to surface water, and geologic factors influence whether and how pollutant discharges at a particular site enter surface water via groundwater.”). Petitioners’ challenge is therefore timely.

B. Petitioners’ Challenge

An NPDES permit must ensure that discharges comply with effluent limitations in the permit. As stated by the Second Circuit in *Waterkeeper*,

Under the Act, permits authorizing the discharge of pollutants may issue only where such permits *ensure* that every discharge of pollutants will comply with all applicable effluent limitations and standards.

Waterkeeper, 399 F.3d at 498 (emphasis in original). Petitioners argue that the Permit lacks sufficient monitoring provisions to ensure compliance with the Permit’s “zero discharge” requirements, for both production and land-application areas. They argue that the issuance of the Idaho Permit is therefore arbitrary, capricious, an abuse of discretion, and not in accordance with law. For the reasons that follow, we agree with Petitioners.

1. Discharge Monitoring Under the CWA

To ensure that NPDES permittees comply with the effluent limitations contained in their permits, the CWA requires that permits contain “all applicable requirements [including the effluent limitations statutorily required by 33 U.S.C. § 1311],” and “prescribe conditions . . . *to assure compliance with* [all applicable requirements, including effluent limitations].” 33 U.S.C. § 1342(a)(1)–(2) (emphasis added). The CWA “demands regulation in fact, not only in principle.” *Waterkeeper*, 399 F.3d at 498.

EPA regulations incorporate the monitoring requirements of the CWA. Under 40 C.F.R. § 122.48(b), permits must specify “[r]equired monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring[.]” A permit must “assure compliance with [the] permit limitations” by including requirements to

monitor the “mass (or other measurement specified in the permit) for each pollutant limited in the permit; the volume of effluent discharged from each outfall; other measurements as appropriate.” 40 C.F.R. § 122.44(i)(1)(i)–(iii); *see also* U.S. EPA, NPDES Permit Writers’ Manual at 8-2 (Sept. 2010), https://www.epa.gov/sites/default/files/2015-09/documents/pwm_2010.pdf (“Monitoring is performed to determine compliance with effluent limitations established in NPDES permits, establish a basis for enforcement actions, assess treatment efficiency, characterize effluents and characterize receiving water.”).

This statutory and regulatory framework gives discretion to the EPA in crafting appropriate monitoring requirements for each NPDES permit. However, the EPA’s discretion is not unlimited. While 40 C.F.R. § 122.44(i) contemplates that the EPA has discretion to decide which monitoring requirements to include in an NPDES permit, 40 C.F.R. § 122.48(b) specifies that a permit must contain monitoring provisions “sufficient to yield [representative] data.” *See NLRB v. Brown*, 380 U.S. 278, 291 (1965) (“Reviewing courts are not obliged to stand aside and rubberstamp their affirmance of administrative decisions that they deem inconsistent with a statutory mandate or that frustrate the congressional policy underlying a statute.”); *Buffalo Crushed Stone, Inc. v. Surface Transp. Bd.*, 194 F.3d 125, 128–29 (D.C. Cir. 1999) (“[D]eference is not without limit. We will reject an agency’s interpretation if an alternative reading is compelled by the regulation’s plain language . . .” (quotation marks and citation omitted)).

Our case law confirms that NPDES permits must contain monitoring provisions sufficient to ensure compliance with the terms of a permit. For example, in *NRDC v. County of*

Los Angeles, 725 F.3d 1194, 1207 (9th Cir. 2013), we held that an NPDES permit is “unlawful if a permittee is not required to effectively monitor its permit compliance.” We concluded that the CWA “*requires* every NPDES permittee to monitor its discharges into the navigable waters of the United States in a manner sufficient to determine whether it is in compliance with the relevant NPDES permit.” *Id.* at 1207 (emphasis in original) (citing 33 U.S.C. § 1342(a)(2); 40 C.F.R. § 122.44(i)(1)); *see also* *NRDC v. U.S. EPA*, 863 F.2d 1420, 1433–34 (9th Cir. 1988) (finding EPA acted reasonably by using visual sheen test because it monitored compliance with the permit’s prohibition on the discharge of free oil).

Similarly, in *NRDC v. U.S. EPA*, 808 F.3d 556, 583–84 (2d Cir. 2015), the Second Circuit rejected an NPDES permit because it lacked monitoring provisions. The EPA had issued a general permit for the discharge of ballast waters from vessels. *Id.* at 583. The permit required vessels to report the expected dates, times, locations, volumes, and salinities of its discharges. *Id.* But the required reports provided little information on the quality of the ballast water. *Id.* Because the reports did not reveal whether a vessel was actually in compliance with the effluent limitations, the permit violated the statutory command that NPDES permits include monitoring sufficient to ensure compliance with applicable effluent limitations. *Id.*

Issuance of an NPDES permit is thus arbitrary, capricious, and contrary to law if the permit fails to include monitoring provisions that ensure compliance with the permit’s effluent limitations. As we have previously recognized, “[t]he NPDES program fundamentally relies on self-monitoring.” *Sierra Club v. Union Oil Co. of Cal.*, 813 F.2d 1480, 1491

(9th Cir. 1987), *vacated and remanded on other grounds*, 485 U.S. 931 (1988), *and reinstated and amended by* 853 F.2d 667 (9th Cir. 1988). Effective self-monitoring reveals permit violations, thereby promoting enforcement of the CWA. *See id.* at 1492; *see also County of Los Angeles*, 725 F.3d at 1208 (“The [Act] is viewed by many as the easiest of the federal environmental statutes to enforce. This is because persons regulated under the act normally must report their own compliance and noncompliance to the regulating agency.” (quotation marks and citation omitted)).

2. Monitoring Under the Idaho Permit

The EPA does not quarrel with the foregoing. It concedes that a permit must contain sufficient monitoring requirements to ensure that a CAFO complies with the effluent limitations in its permit. However, the EPA argues that the Idaho Permit contains sufficient monitoring requirements to ensure compliance, and that we must defer to its expertise.

As described above, the Idaho Permit requires CAFO operators to implement various measures to prevent discharges from the production and land-application areas. Petitioners argue the Permit does not require monitoring that would ensure detection of unpermitted discharges. We agree with Petitioners.

a. Production Areas

The Permit has sufficient monitoring requirements for above-ground discharges from production areas. As noted above, CAFOs are required to perform daily inspections of water lines, and weekly inspections of storm water diversion devices, runoff diversion structures, devices channeling

contaminated storm water, and waste storage containers. These mandated inspections are, in effect, monitoring requirements. We defer to the EPA's expertise and hold that these provisions are sufficient to ensure compliance with the Permit's zero-discharge effluent limitation from production areas. For example, the visual inspection of a waste container's depth marker ensures that containers maintain enough space to handle any excess water, thereby preventing runoff in all but the extreme circumstance of a 25-year, 24-hour rainfall event. *See NRDC*, 863 F.2d at 1433–34 (visual inspections that identify whether effluent limitation is met are reasonable).

However, the Permit has no monitoring provisions for underground discharges from production areas. The record before the EPA showed that leaky containment structures—especially lagoons—are sources of groundwater pollution and that “groundwater flow is the primary contributor of nitrate to surface water from agriculture.” *See Cow Palace, LLC*, 80 F. Supp. 3d at 1223. Despite this, the Idaho Permit has no monitoring requirement for underground discharges. The failure of the Permit to require such monitoring is striking, given the EPA's conclusion in the 2003 Rule that requirements in local permits rather than nationally uniform requirements are the best means to address underground discharges. In rejecting a proposal that monitoring of underground discharges be included in the nationwide 2003 Rule, the EPA wrote:

The proposed rule *would have imposed explicit national requirements for certain CAFOs to address possible discharges to surface water via ground waters that have a direct hydrologic connection to surface*

waters. These operations would have been required to sample groundwaters. . . .

In today's effluent limitation guidelines, EPA is rejecting establishing requirements related to discharges to surface water that occur via ground water with a direct hydrologic connection.

Pollutant discharges from CAFOs to surface water via a groundwater pathway are highly dependent on site-specific variables, such as topography, climate, distance to surface water, and geologic factors such as depth of groundwater, soil porosity and permeability, and subsurface structure. The factors affecting whether such discharges are occurring at CAFOs are so variable from site to site that a national technology-based standard is inappropriate.

2003 Rule at 7,216 (emphasis added); *see also Waterkeeper*, 399 F.3d at 515 (“Studies do show that variability in topography, climate, distance to surface water, and geologic factors influence whether and how pollutant discharges at a particular site enter surface water via groundwater.”).

The CWA requires that the EPA ensure that every NPDES permittee “monitor its discharges . . . in a manner sufficient to determine whether it is in compliance with the relevant NPDES permit.” *County of Los Angeles*, 725 F.3d at 1207. With one exception not relevant here, the Idaho Permit does not allow *any* discharges from the production area. Without a requirement that CAFOs monitor waste

containment structures for underground discharges, there is no way to ensure that production areas comply with the Permit's zero-discharge requirement. *See Waterkeeper*, 399 F.3d at 499 (failure of permit to include any mechanism for evaluating compliance with effluent limitation was arbitrary and capricious).

b. Land-Application Areas

As noted above, CAFO regulations allow discharges from CAFO land-application areas during wet weather, provided the CAFO has complied with its NMP. *See* 40 C.F.R. § 122.23(e) (“[W]here the manure, litter or process wastewater has been applied in accordance with site specific nutrient management practices . . . a precipitation-related discharge of manure, litter or process wastewater from land areas under the control of a CAFO is an agricultural stormwater discharge.”). However, the Idaho Permit flatly prohibits discharges from land-application areas during dry weather:

There shall be no dry weather discharge of manure, litter, or process wastewater to a water of the United States from a CAFO as a result of the application of manure, litter or process wastewater to land areas under the control of the CAFO. This prohibition includes discharges to waters of the United States through tile drains, ditches or other conveyances, and irrigation return.

The Permit has no monitoring provisions for dry weather discharges from land-application areas, even though the record before the EPA showed that such discharges can occur

during irrigation of fertilized CAFO fields. The Permit assumes that because the NMP requires CAFOs to apply manure, litter, and process wastewater at the agronomic rates established by the NMP, irrigation-produced runoff of pollutants will never occur. There is little in the record to support that assumption. Without a requirement to monitor runoff from irrigated CAFO fields, there is no way to ensure that a CAFO is complying with the Permit's dry weather no-discharge requirement for land-application areas. *See Cnty. of L.A.*, 725 F.3d at 1207 (holding that an NPDES permit must include compliance monitoring measures).

Conclusion

The Idaho Permit forbids underground discharges from production areas and dry weather discharges from land-application areas. However, the Permit contains no monitoring requirements for either kind of discharge. Because the Permit does not require monitoring that would ensure compliance with its effluent limitations, the EPA's issuance of the Permit was arbitrary, capricious, and a violation of law. We grant the petition and vacate the Permit.

Petition **GRANTED** and Permit **VACATED**.