UNITED STATES COURT OF APPEALS

FOR THE SECOND CIRCUIT

August Term, 2004

(Argued: December 13, 2004 Decided: February 28, 2005)

Docket Nos. 03-4470 (L), 03-4621 (C), 03-4631 (C), 03-4641 (C), 03-4849 (C), 04-40199 (C), 03-40229 (C)

WATERKEEPER ALLIANCE, INC., AMERICAN FARM BUREAU FEDERATION, NATIONAL CHICKEN COUNCIL, NATIONAL PORK PRODUCERS COUNCIL, AMERICAN LITTORAL SOCIETY, SIERRA CLUB, INC., NATURAL RESOURCES DEFENSE COUNCIL, INC.,

Petitioners/Intervenors,

—v.—

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, MICHAEL O. LEAVITT, Administrator, United States Environmental Protection Agency

Respondents.

Before:

OAKES, KATZMANN, and WESLEY, *Circuit Judges.*

The petitioners challenge an administrative rule promulgated by the United States Environmental Protection Agency in order to regulate the emission of water pollutants by concentrated animal feeding operations. *See* National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations, 68 Fed. Reg. 7176, 7179 (Feb. 12, 2003) (codified at 40 C.F.R. Parts 9, 122, 123 and 412). The petitions for review are granted in part and denied in part.

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Amici Curiae.

KATZMANN, *Circuit Judge*:

In this consolidated petition, we review various challenges to a regulation promulgated by the United States Environmental Protection Agency under the Clean Water Act in order to abate

1 and control the emission of water pollutants from concentrated animal feeding operations.
2 While we deny many of the challenges here brought, we find that several aspects of the
3 regulation violate the express terms of the Clean Water Act or are otherwise arbitrary and
4 capricious under the Administrative Procedure Act. Accordingly, we grant the petitions in part
5 and deny the petitions in part.

6 BACKGROUND

7 A. Statutory Background

8 The Clean Water Act (the "Act") is a cornerstone of the federal effort to protect the
9 environment. "[D]esigned to 'restore and maintain the chemical, physical, and biological
10 integrity of the Nation's waters,'" *No Spray Coalition, Inc. v. City of New York*, 351 F.3d 602,
11 604 (2d Cir. 2003) (PNL, RDS, Korman, D.J.) (quoting 33 U.S.C. § 1251(a)), the Act is the
12 principal legislative source of the EPA's authority – and responsibility – to abate and control
13 water pollution. *See* 33 U.S.C. §§ 1311(a), 1342, 1362.

14 By way of very brief overview, the Act formally prohibits the "discharge of a pollutant"[1]
15 by "any person"[2] from any "point source"[3] to navigable waters except when authorized by a

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[1] The term "discharge of a pollutant" is defined to mean, *inter alia*, "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12)(A).

[2] The term "person" is defined to mean "an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body." 33 U.S.C. §1362 (5).

[3] The term "point source" is defined to mean "any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged." 33 U.S.C. § 1362 (14). Notably, the Act includes "concentrated animal feeding operation" as an example of a point source. *Id.*

permit issued under the National Pollutant Discharge Elimination System ("NPDES"). *See* 33 U.S.C. §§ 1311(a), 1342. This means, as a practical matter, that the EPA primarily advances the Act's objectives – including the ambitious goal that water pollution be not only reduced, but eliminated, *see* 33 U.S.C. § 1251(a)(1) – through the use of NPDES permits that, while authorizing some water pollution, place important restrictions on the quality and character of that licit pollution.

NPDES permits are issued either by the EPA, itself, or by the states in a federally approved permitting system. *See* 33 U.S.C. § 1342. Regardless of the issuer, every NPDES permit is statutorily required to set forth, at the very least, "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." *S. Florida Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 158 L.Ed.2d 264, 124 S. Ct. 1537, 1541 (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.").

The specific effluent limitations contained in each individual NPDES permit are dictated by the terms of more general "effluent limitation guidelines" ("ELGs"), which are separately promulgated by the EPA. *Cf. EPA v. California, 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."). ELGs, and the effluent limitations established in accordance with them,

are technology-based restrictions on water pollution. They are technology-based, because they are established in accordance with various technological standards that the Act statutorily provides and that, pursuant to the Act, vary depending upon the type of pollutant involved, the type of discharge involved, and whether the point source in question is new or already existing. We will discuss these with greater detail below. For now, we note simply that the technology standards for already existing point sources include (1) the best available technology economically achievable, *see* 33 U.S.C. § 1311(b)(2)(A); (2) the best conventional pollutant control technology, *see* 33 U.S.C. § 1314(b)(2)(A); and (3) the best practicable control technology currently available, *see* 33 U.S.C. § 1314(b)(1)(A). The technology standard for new point sources, which is commonly referred to as a new source performance standard, is based on the best available demonstrated control technology, *see* 33 U.S.C. § 1316.

We also note that where effluent limitations prove insufficient to attain or maintain certain water quality standards, the Act requires NPDES permits to include additional water quality based effluent limitations. *See* 33 U.S.C. §§ 1311(b)(1), 1312(a). Overall, we hope to make clear that the NPDES permit is critical to the successful implementation of the Act because – by setting forth technology-based effluent limitations and, in certain cases, additional water quality based effluent limitations – the NPDES permit "defines, and facilitates compliance with, and enforcement of, a preponderance of a discharger's obligations under the [Act]." *California, ex rel. State Water Res. Control Bd.*, 426 U.S. at 205.

B. <u>Regulatory Background</u>

1 In the consolidated petitions before us, we are asked to review, *inter alia*, the permitting
2 requirements and effluent limitation guidelines promulgated by the EPA in its attempt to regulate
3 the emission of water pollutants from so-called concentrated animal feeding operations
4 ("CAFOs"). Before reviewing these challenges, however, a few introductory words about
5 CAFOs themselves are in order.
6 CAFOs are the largest of the nation's 238,000 or so "animal feeding operations" –
7 "agriculture enterprises where animals are kept and raised in confinement." National Pollutant
8 Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and
9 Standards for Concentrated Animal Feeding Operations, 68 Fed. Reg. 7176, 7179 (Feb. 12, 2003)
10 (codified at 40 C.F.R. Parts 9, 122, 123 and 412) [hereinafter "Preamble to the Final Rule"].[4]
11 Such "agriculture enterprises" are not, however, of a kind the Founding Fathers likely would
12 have envisioned populating America's "yeoman republic." *See generally*, STANLEY ELKINS AND
13 ERIC MCKITRICK, *Jefferson and the Yeoman Republic*, THE AGE OF FEDERALISM 195-208 (1972).
14 On the contrary, CAFOs are large-scale industrial operations that raise extraordinary numbers of

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[4]Under 40 C.F.R. 122.23(b)(1), an animal feeding operation ("AFO") is defined to mean:

> a lot or facility (other than an aquatic animal production facility) where the following conditions are met:
> (i) Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and
> (ii) Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

1 livestock.[5] For example, a "Medium CAFO"[6] raises as many as 9,999 sheep, 54,999 turkeys, or

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[5] The CAFO Rule defines a concentrated animal feeding operation as "an AFO [animal feeding operation] that is defined as a Large CAFO or as a Medium CAFO by the terms of this paragraph, or that is designated as a CAFO in accordance with paragraph (c) of this section." 40 C.F.R. § 122.23(b)(2). Paragraph (c) provides that an appropriate authority (either a state director, the EPA administrator or both) may designate an AFO as a CAFO upon a determination that the AFO is "a significant contributor of pollutants to waters of the United States." 40 C.F.R. § 122.23(c).

[6] According to 40 C.F.R. § 122.23(b)(6), the term Medium CAFO includes:

... any AFO with the type and number of animals that fall within any of the ranges listed in paragraph (b)(6)(i) of this section and which has been defined or designated as a CAFO. An AFO is defined as a Medium CAFO if:

(i) The type and number of animals that it stables or confines falls within any of the following ranges:
(A) 200 to 699 mature dairy cows, whether milked or dry;
(B) 300 to 999 veal calves;
(C) 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
(D) 750 to 2,499 swine each weighing 55 pounds or more;
(E) 3,000 to 9,999 swine each weighing less than 55 pounds;
(F) 150 to 499 horses;
(G) 3,000 to 9,999 sheep or lambs;
(H) 16,500 to 54,999 turkeys;
(I) 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;
(J) 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
(K) 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;
(L) 10,000 to 29,999 ducks (if the AFO uses other than a liquid manure handling system); or
(M) 1,500 to 4,999 ducks (if the AFO uses a liquid manure handling system); and

(ii) Either one of the following conditions are met:
(A) Pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or
(B) Pollutants are discharged directly into waters of the United States which

1 124,999 chickens (other than laying hens).[7] "Large CAFOs"[8] raise even more staggering

2 numbers of livestock – sometimes, raising literally millions of animals in one location.

3 Economically, these CAFOs generate billions of dollars of revenue every year.[9] The EPA

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originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

[7] However, the animal feeding operation raising the chickens must use something "other than a liquid manure handling system." *See* 40 C.F.R. 122.23(b)(6)(J).

[8] 40 C.F.R. § 122(b)(3) classifies an animal feeding operation as a Large CAFO if it:

... stables or confines as many as or more than the number of animals specified in any of the following categories:
(i) 700 mature dairy cows, whether milked or dry;
(ii) 1,000 veal calves;
(iii) 1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs.
(iv) 2,500 swine each weighing 55 pounds or more;
(v) 10,000 swine each weighing less than 55 pounds;
(vi) 500 horses;
(vii) 10,000 sheep or lambs;
(viii) 55,000 turkeys;
(ix) 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;
(x) 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system
(xi) 82,000 laying hens, if the AFO uses other than a liquid manure handling system;
(xii) 30,000 ducks (if the AFO uses other than a liquid manure handling system); or
(xiii) 5,000 ducks (if the AFO uses a liquid manure handling system).

[9] *See, e.g.*, EPA, DEVELOPMENT DOCUMENT FOR THE FINAL REVISIONS TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM REGULATION AND THE EFFLUENT GUIDELINES FOR THE CONCENTRATED ANIMAL FEEDING OPERATIONS, 4-35 (Dec. 2002) (noting that "[b]y 1997, the value of poultry production exceeded $21.6 billion, and much of the poultry output was generated by corporate producers on large facilities producing more than 100,000 birds." (citations omitted)).

has focused on the industry because CAFOs also generate millions of tons of manure every year,[10] and "when improperly managed, [this manure] can pose substantial risks to the environment and public health." Preamble to the Final Rule at 7179.

Animal waste includes a number of potentially harmful pollutants. According to the EPA, the pollutants associated with CAFO waste principally include: (1) nutrients such as nitrogen and phosphorus; (2) organic matter; (3) solids, including the manure itself and other elements mixed with it such as spilled feed, bedding and litter materials, hair, feathers and animal corpses; (4) pathogens (disease-causing organisms such as bacteria and viruses); (5) salts; (6) trace elements such as arsenic; (7) odorous/volatile compounds such as carbon dioxide, methane, hydrogen sulfide, and ammonia; (8) antibiotics; and (9) pesticides and hormones. *See* National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 2960, 2976-79 (proposed Jan. 12, 2001) [hereinafter "Proposed Rule"]; *see also* Preamble to the Final Rule at 7181.

These pollutants can infiltrate the surface waters in a variety of ways including spills and other dry-weather discharges, overflows from storage "lagoons," and discharge to the air coupled with subsequent redeposition on the landscape. *See* Preamble to the Final Rule at 7181. Perhaps the most common way by which pollutants reach the surface waters is through improper "land

[10] The USDA estimates that operations that confine livestock and poultry generate about 500 million tons of animal manure each year – over three times more raw waste than humans generate in the United States, according to the EPA. Preamble to the Final Rule at 7180.

application." Land application, the predominant means by which CAFOs dispose of animal waste,[11] is a process by which manure, litter, and other process wastewaters are spread onto fields controlled by CAFOs. As all parties here agree, when properly land-applied, manure, litter, and other process wastewaters can act as a fertilizer, because "land application of CAFO waste fosters the reuse of the nitrogen, phosphorus, and potassium in these wastes for crop growth." EPA, STATE COMPENDIUM: PROGRAMS AND REGULATORY ACTIVITIES RELATED TO ANIMAL FEEDING OPERATIONS 13 (May 2002). However, when waste is excessively or improperly land-applied, the nutrients contained in the waste become pollutants that can and often do run off into adjacent waterways or leach into soil and ground water. *See id.*; Preamble to the Final Rule at 7180-81.

In light of these environmental threats, the EPA first promulgated regulations for CAFOs in 1974 and 1976 – regulations that, very generally speaking, defined the types of animal feeding operations that qualify as CAFOs, set forth various NPDES permit requirements, and established effluent limitation guidelines for CAFOs. *See* 41 Fed. Reg. 11,458 (Mar. 18, 1976); 39 Fed. Reg. 5704 (Feb. 14, 1974). After having been sued, in 1989, for failing to publish a plan to revise existing effluent limitations for the industry pursuant to 33 U.S.C. § 1314(m),[12] the EPA, on

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[11] "Several estimates indicate that 90% of CAFO-generated waste is land applied." EPA, STATE COMPENDIUM: PROGRAMS AND REGULATORY ACTIVITIES RELATED TO ANIMAL FEEDING OPERATIONS 13 (May 2002).

[12] That suit, brought by the NRDC and Public Citizen, was resolved by a consent decree in which the EPA agreed to propose new effluent limitation guidelines for the swine, poultry, beef and dairy subcategories of CAFOs. *See* Consent Decree, as amended, *NRDC v. Reilly, modified sub. nom., NRDC v. Whitman*, No. 89-2980 (D.D.C. 1/31/1992).

1 January 12, 2001, proposed to "revise and update" the first set of CAFO regulations. *See*
2 Proposed Rule at 2960. The EPA explained, in proposing its revisions, that the new rule aimed to
3 address not only inadequate compliance with existing policy, but also the "changes that have
4 occurred in the animal production industries." Proposed Rule at 2972. Specifically, the EPA pointed
5 to the "continued trend toward fewer but larger operations, coupled with greater emphasis on more
6 intensive production methods and specialization," a trend that – along with "increased reports of
7 large-scale discharges from these facilities" and "continued runoff" – had contributed to "the
8 significant increase in nutrients and resulting impairment of many U.S. waterways." *Id.*

9 The EPA received approximately 11,000 public comments on the proposed rule, *see*
10 Preamble to the Final Rule at 7187, as well as an additional 450 or so comments following the
11 publication, in November 2001 and July 2002, of Notices of Data Availability (documents that
12 summarized new data and information presented to the EPA). *See id.* at 7187-88. Ultimately, on
13 February 12, 2003, the EPA promulgated its Final CAFO Rule ("CAFO Rule" or "Rule"). *See* 40
14 C.F.R. §§ 9, 122, 123, 412; *see also* Preamble to the Final Rule at 7176.

15 The aspects of the Rule most relevant to the petitions before us are as follows:

16 (1) <u>The Duty to Apply for an NPDES Permit</u>

17 The Rule requires that all CAFO owners or operators must apply for an individual NPDES
18 permit or submit a notice of intent for coverage under an NPDES general permit. *See* 40 C.F.R. §
19 122.23(d)(1). There is, however, an exception: Section 122.23(d)(2) provides, in effect, that an
20 owner or operator of a Large CAFO need not seek coverage under an NPDES permit if the owner

or operator secures a determination from the director of the relevant permitting authority that the Large CAFO has "no potential to discharge" manure, litter or process wastewater. *See* 40 C.F.R. § 122.23(d)(2); *see also id.* at § 122.23(f) (describing the process by which a Large CAFO may secure a determination that it has "no potential to discharge").

(2) NPDES Permit Requirements

The Rule includes the requirement that each CAFO develop and implement a nutrient management plan. Such a nutrient management plan must, under the Rule:

> (i) Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;
>
> (ii) Ensure proper management of mortalities (i.e. dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;
>
> (iii) Ensure that clean water is diverted, as appropriate, from the production area;
>
> (iv) Prevent direct contact of confined animals with waters of the United States;
>
> (v) Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;
>
> (vi) Identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the United States;
>
> (vii) Identify protocols for appropriate testing of manure, litter, process wastewater, and soil;
>
> (viii) Establish protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater; and
>
> (ix) Identify specific records that will be maintained to document the implementation and management of the minimum elements described [above].

40 C.F.R. § 122.42(e)(1)(i)-(ix). Additionally, the effluent limitation guidelines for CAFOs (which

we will describe in a moment) further require that each Large CAFO develop and implement a nutrient management plan that, *inter alia*, includes a waste "application rate" that "minimize[s] phosphorus and nitrogen transport from the field to surface waters." 40 C.F.R. § 412.4(c)(2).

(3) The Discharges Subject to NPDES Requirements

The Rule provides, in § 122.23(e), that all land application discharges from a CAFO are subject to NPDES requirements, i.e., any discharge of manure, litter, or process wastewater that results from the land application of these materials by a CAFO is a discharge that is regulable and subject to NPDES permit requirements. 40 C.F.R. § 122.23(e). Where, however, CAFOs land-apply waste in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in that waste, any subsequent "precipitation-related" discharge is considered to be an "agricultural stormwater discharge" that is, under the Act, exempt from regulation. *See id.*; 33 U.S.C. § 1362(14).

(4) Effluent Limitation Guidelines

The Rule establishes effluent limitation guidelines ("ELGs") that apply to land application discharges by Large CAFOs and to the "production areas"[13] of Large CAFOs.[14] Two general

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[13] 40 C.F.R. § 122.23(b)(8) defines production area as:

> that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed

1 comments about these ELGs are in order. First, although the EPA usually establishes quantitative
2 or numerical ELGs, the EPA here promulgated "best management practices," which are qualitative
3 or non-numerical ELGs for Large CAFOs, but which, we note, are still technology-based because
4 they are based on the technology standards prescribed by the Act. *See* 40 C.F.R. § 412.4; *see also*
5 40 C.F.R. § 122.44(k) (describing the circumstances in which the EPA may promulgate "best
6 management practices" in the place of numerical ELGs). Second, because the EPA here decided to
7 organize Large CAFOs into four subcategories (depending upon the types of animals present), the
8 ELGs are also organized into four subcategories. *See* Preamble to the Final Rule at 7208.
9 Additionally, we note that, with respect to land application, best management practices include, most
10 importantly, the requirement that Large CAFOs "develop and implement a nutrient management
11 plan" that, *inter alia*, sets an application rate that minimizes the transport of phosphorus and nitrogen
12 from the land application field to surface waters. 40 C.F.R. §§ 412.4(c)(1)-(2). The land application
13 best management practices also provide for manure and soil sampling, inspection of land application
14 equipment and various setback requirements. *See* 40 C.F.R. § 412.4(c)(3)-(5). With respect to the
15 ELGs for production areas, best management practices include various requirements designed to
16 minimize the possibility of overflows, such as mandatory inspections of relevant equipment and the

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> silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities [dead animals].

[14] The ELGs promulgated by the CAFO Rule apply only to *Large* CAFOs. *See* Preamble to the Final Rule at 7208.

installation of depth markers in surface and liquid impoundments (e.g., lagoons, ponds, and tanks). *See* 40 C.F.R. § 412.37; Preamble to the Final Rule at 7214-21.

DISCUSSION

Two sets of petitioners bring challenges to the CAFO Rule: the "Environmental Petitioners" (Waterkeeper Alliance, Inc., Sierra Club, Natural Resources Defense Council, Inc., and the American Littoral Society) and the "Farm Petitioners" (American Farm Bureau Federation, National Chicken Council, and the National Pork Producers Council).[15] *Amici curiae*, who represent various environmental and public health interests, join the Environmental Petitioners in some of their challenges.

All the challenges we here consider – most of which are brought by the Environmental Petitioners – can be divided into three general categories: (1) challenges to the permitting scheme established by the CAFO Rule; (2) challenges to the types of discharges subject to regulation under the CAFO Rule; and (3) challenges to the effluent limitation guidelines established by the CAFO Rule.[16] We will address each category in turn.

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[15] We refer to both sets of petitioners as they refer to themselves.

[16] The Farm Petitioners also challenge the CAFO Rule for impermissibly assuming jurisdiction over all "surface waters," when the Clean Water Act confers upon the EPA the authority to regulate only "navigable waters," a term defined by the Act to mean "waters of the United States, including the territorial seas." 33 U.S.C. § 1362(7). The EPA has clarified, however, that the CAFO Rule employs the term "surface waters" only in an effort to distinguish surface water from groundwater and that the Agency fully recognizes that its regulatory authority encompasses only the "waters of the United States, including the territorial seas." Given these clarifications, we deny the Farm Petitioners' challenge as moot.

1 To the extent we are asked to review whether some aspect of the CAFO Rule violates the
2 Clean Water Act, our inquiry is governed by the standards set forth in *Chevron U.S.A. Inc. v.*
3 *Natural Resources Defense Council, Inc.* *See* 467 U.S. 837 (1984). *See also Public Citizen, Inc.*
4 *v. Mineta*, 340 F.3d 39, 53 (2d Cir. 2003). If Congress has "directly spoken to the precise
5 question at issue" and "the intent of Congress is clear, that is the end of the matter; for the court,
6 as well as the agency, must give effect to the unambiguously expressed intent of Congress."
7 *Chevron*, 467 U.S. at 842-43 (footnote omitted). If, however, we determine that the statute is
8 silent or ambiguous with respect to the specific question at issue, then we consider "whether the
9 agency's answer is based on a permissible construction of the statute." *Id.* at 843.

10 To the extent we are asked to review whether some aspect of the CAFO Rule violates the
11 Administrative Procedure Act because it is "arbitrary, capricious, an abuse of discretion, or
12 otherwise not in accordance with law," 5 U.S.C. § 706(2)(A), our inquiry is governed by the
13 standard set forth in *Motor Vehicle Manufacturers' Association of the United States, Inc. v. State*
14 *Farm Mutual Automobile Insurance Company.* *See* 463 U.S. 29 (1983). *See also Public*
15 *Citizen*, 340 F.3d at 53. To determine whether an agency has acted in an arbitrary and capricious
16 fashion, we ask whether the agency has "examine[d] the relevant data and articulate[d] a
17 satisfactory explanation for its action including a rational connection between the facts found and
18 the choice made." *State Farm*, 463 U.S. at 42. Then, "[i]n reviewing that explanation, we must
19 consider whether the decision was based on a consideration of the relevant factors and whether
20 there has been a clear error of judgment." *Id.* Normally, we must deem arbitrary and capricious
21 an agency rule where "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." *Id.* at 43 (internal quotations and citations omitted).

With this background in mind, we turn now to the various challenges.

A. Challenges to the CAFO Rule Permitting Scheme

1. Failure to Regulate

The Environmental Petitioners broadly indict the CAFO Rule as countenancing the creation of an "impermissible self-regulatory permitting regime." More precisely, the Environmental Petitioners argue that the CAFO Rule is unlawful because: (1) it empowers NPDES authorities to issue permits to Large CAFOs in the absence of any meaningful review of the nutrient management plans those CAFOs have developed; and (2) it fails to require that the terms of the nutrient management plans be included in the NPDES permits. We agree with the Environmental Petitioners on both counts.

a. Failure to Require Permitting Authority Review

The Clean Water Act demands regulation in fact, not only in principle. 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. Section 1342(a)(1) of Title 33 provides, for example, that when the EPA is, itself, issuing NPDES permits, the EPA may issue a permit for the discharge of any pollutant or combination of

pollutants "upon condition that such discharge will meet ... all applicable requirements [including the effluent limitations statutorily required by 33 U.S.C. § 1311]." The Act further provides that the EPA "shall prescribe conditions for such permits *to assure compliance with* [all applicable requirements, including effluent limitations]." 33 U.S.C. § 1342(a)(2) (emphasis added). Similarly, 33 U.S.C. § 1342(b) allows states to distribute NPDES permits only where, *inter alia*, the state permitting programs "*apply, and insure compliance with*, any applicable [effluent limitations and standards]." 33 U.S.C. § 1342(b) (emphasis added).[17]

By failing to provide for permitting authority review of the nutrient management plans, the CAFO Rule plainly violates these statutory commandments and is otherwise arbitrary and capricious under the Administrative Procedure Act. The requirement to develop and implement a nutrient management plan is, after all, one of the "best management practices" that constitute the effluent limitation guidelines for land application by Large CAFOs. *See* 40 C.F.R. § 412.4(c)(1). But not just *any* nutrient management plan suffices under the Rule. On the contrary, the effluent limitation guidelines expressly require that Large CAFOs develop and implement a nutrient management plan that:

> incorporates the requirements of paragraphs (c)(2) through (c)(5) of this section based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters.

Id. Accordingly, in order to comply with the effluent limitations for land application of manure,

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[17] We note that the EPA has authorized 45 States and the Virgin Islands to administer the NPDES program. *See* Preamble to the Final Rule at 7185.

1 litter, and process wastewater, Large CAFOs must, *inter alia*, develop and implement nutrient
2 management plans that, pursuant to paragraph(c)(2), include "application rates" that "minimize
3 phosphorus and nitrogen transport from the field to surface waters in compliance with the
4 technical standards for nutrient management established by the Director." *See* 40 C.F.R. §
5 412.4(c)(2).

6 As presently constituted, the CAFO Rule does nothing to *ensure* that each Large CAFO
7 has, in fact, developed a nutrient management plan that satisfies the above requirements. The
8 CAFO Rule does nothing to ensure, in other words, that each Large CAFO will comply with all
9 applicable effluent limitations and standards. This is because, most glaringly, the CAFO Rule
10 fails to require that permitting authorities review the nutrient management plans developed by
11 Large CAFOs before issuing a permit that authorizes land application discharges.

12 A recent decision of the Ninth Circuit supports the conclusion we here reach. In
13 *Environmental Defense Center, Inc. v. EPA* ("EDC"), the Ninth Circuit considered a challenge to
14 a "Phase II" EPA rule for municipal storm sewer systems. *See* 344 F.3d 832 (9th Cir. 2003),
15 *cert. denied, Texas Cities Coalition on Stormwater v. EPA*, 124 S.Ct. 2811 (2004). Among other
16 things, the Phase II Rule allowed small municipal storm sewer systems to seek permission to
17 discharge pollutants by submitting an individualized set of best management practices designed
18 by each municipal storm sewer system ("stormwater management plans"), either in the form of
19 an individual permit application or in the form of a notice of intent to comply with a general
20 permit. *See EDC*, 344 F.3d at 842. So long as a notice of intent included a stormwater
21 management plan, the EPA deemed a municipal storm sewer system to be in compliance with the

relevant standards of the Clean Water Act, including the standard that municipal stormwater pollution be reduced to the "maximum extent practicable." *See id.* at 855; 33 U.S.C. § 1342(p)(3)(B)(iii); 40 C.F.R. § 123.35. The Phase II Rule did not require NPDES authorities to review the stormwater management plans themselves.

The Ninth Circuit held, however, that the failure to require permitting authority review of the stormwater management plans violated the Clean Water Act.[18] While the Ninth Circuit was quick to laud "[i]nvolving regulated parties in the development of individual stormwater pollution control programs," it emphasized that "programs that are designed by regulated parties must, in every instance, be subject to meaningful review by an appropriate regulating entity to ensure that each such program reduces the discharge of pollutants to the maximum extent practicable [i.e., the relevant statutory standard]." *EDC*, 344 F.3d at 856. The Phase II Rule, by contrast, failed to require that the relevant permitting authorities review the stormwater management plans to "ensure that the measures that any given operator of a [small municipal storm sewer system] has decided to undertake will *in fact* reduce discharges to the maximum extent practicable." *Id.* at 855 (emphasis in original). Accordingly, the Phase II Rule provided no

[18] Admittedly, the Ninth Circuit predicated its holding on a violation of a statutory provision different from the provisions at issue in this case. To wit, the Ninth Circuit held that the Phase II Rule violated 33 U.S.C. § 1342(p)(3)(B)(iii), a provision that specifically pertains to municipal storm sewer discharges and that allows permits for such discharges to issue only where the permits "require controls to reduce the discharge of pollutants to the maximum extent practicable." 33 U.S.C. § 1342(p)(3)(B)(iii). *See EDC*, 344 F.3d at 855-56. This is, however, a distinction without a difference. The demand that permits authorizing municipal storm sewer discharges must "require controls" is, in sum and substance, identical to the demand that permits authorizing discharges from *other* point sources must "assure compliance with" applicable effluent limitations. Both provisions require regulation of discharges *in fact*.

1 safeguard against a municipal storm sewer system's "misunderstanding or misrepresenting its
2 own stormwater situation and proposing a set of minimum measures for itself that would reduce
3 discharges by far less than the maximum extent practicable." *Id.*

4 Like the Phase II Rule, the CAFO Rule does not require that NPDES permitting
5 authorities review the nutrient management plans to ensure that the nutrient management plans
6 designed by the Large CAFOs will *in fact* reduce land application discharges in a way that
7 "achieve[s] realistic production goals, while minimizing nitrogen and phosphorus movement to
8 surface waters." 40 C.F.R. § 412.4(c)(1). Like the Phase II Rule, the CAFO Rule does not
9 adequately prevent Large CAFOs "from misunderstanding or misrepresenting" their specific
10 situation and adopting improper or inappropriate nutrient management plans, with improper or
11 inappropriate waste application rates.[19]

12 The EPA offers two principal arguments in defense of the permitting scheme, neither of
13 which we find to be persuasive. First, the EPA argues that the nutrient management plan does
14 not, itself, constitute an effluent limitation guideline but is, instead, "simply a planning tool" to

[19] There may well be reason to fear that Large CAFOs may misunderstand their specific situation and prepare inadequate nutrient management plans as a result. Even the EPA has acknowledged that crafting proper waste application rates is a complicated task – that is why the EPA expressly recommended, but notably did not require, that waste application rates be prepared by those who are "competent in or have an understanding of a number of technical areas, including soil science and soil fertility, nutrient application and management, crop production, soil and manure testing and results interpretation, fertilizer materials and their characteristics, BMPs [best management practices] for the management of nutrients and water, and applicable laws and regulations." Preamble to the Final Rule at 7213. Tellingly, the EPA also specifically recognized, in the Preamble to the CAFO Rule, that "USDA, and other organizations such as the American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, and a number of land grant universities, recommend that nutrient management plans be prepared by trained and certified specialists." *Id.*

1 help CAFOs comply with the effluent limitations. Accordingly, EPA contends that it is not
2 statutorily compelled to require permitting authority review of the plans. We reject this
3 argument. For one thing, we believe that the terms of the nutrient management plans are
4 *themselves* effluent limitations, for reasons we state in Section A.1.b, *infra*. By failing to require
5 permitting authority review of nutrient management plans, the CAFO Rule thus allows permits to
6 issue that do not assure compliance with all applicable effluent limitations. Even assuming,
7 *arguendo*, that EPA is correct and the nutrient management plan is not, itself, an effluent
8 limitation, EPA's argument still fails on its own terms. For while EPA denies that the nutrient
9 management plan is itself an effluent limitation, even the EPA concedes, as it must, that the
10 requirement to develop and implement a nutrient management plan ***is*** an effluent limitation; this
11 requirement is, after all, one of the "best management practices" required by the CAFO Rule.
12 *See* 40 C.F.R. § 412.4 (c)(1). The CAFO Rule – by failing to provide for permitting authority
13 review – still does not *ensure* that each Large CAFO has, in fact, developed and implemented a
14 nutrient management plan that satisfies the requirements of 40 C.F.R. § 412(c)(1).

15 Second, the EPA argues that there is no *need* for permitting authority review because the
16 Rule provides Large CAFOs with little room for discretion – and thus little room for error – in
17 setting their waste application rates. This is true, the EPA argues, because the Rule requires
18 states to develop "technical standards" based on certain "field-specific assessment[s]" and further
19 requires Large CAFOs to adopt application rates that comply with those technical standards. *See*
20 40 C.F.R. § 412.4(c)(2); 40 C.F.R. § 412.4(c)(1). However, while state technical standards will
21 reduce discretion on the part of the Large CAFOs, they will not eliminate it. State technical

1 standards are based on *field*-specific assessments. But Large CAFOs ultimately set application
2 rates based on *site*-specific assessments of the relevant field conditions, as the EPA concedes in
3 the Preamble to the Rule. *See* Preamble to the Final Rule at 7209 ("Today's rule requires Large
4 CAFOs to determine and implement *site-specific* nutrient application rates that are consistent
5 with the technical standards for nutrient management established by the permitting authority.")
6 (emphasis added); *see also id.* at 7213 ("The nutrient management plan is the tool CAFOs must
7 use to assess soil and other field conditions at their operation . . . to determine the *site-specific*
8 nitrogen or phosphorus-based rate at which manure, litter, and other process wastewaters are to
9 be applied.") (emphasis added).[20] By not providing for permitting authority review of these
10 application rates, the CAFO Rule fails to adequately prevent Large CAFOs from
11 "misunderstanding or misrepresenting" the application rates they must adopt in order to comply
12 with state technical standards. The CAFO Rule does not ensure that the Large CAFOs will, in
13 fact, develop nutrient management plans – and waste application rates – that comply with all
14 applicable effluent limitations and standards.

15 b. Failure to Require that the Terms of the Nutrient Management Plans be

[20] On its face, the Rule requires CAFOs – like state permitting authorities – to develop nutrient management plans based on "field-specific assessments." 40 C.F.R. § 412.4(c)(1). However, it is clear that each CAFO must make such "field-specific assessments" on a site-by-site basis; that is, each CAFO must determine what the relevant field conditions are at its site in order to determine its site-specific waste application rate. *See* Preamble to the Final Rule at 7209 ("Today's rule requires Large CAFOs to determine and implement *site-specific* nutrient application rates that are consistent with the technical standards for nutrient management established by the permitting authority.") (emphasis added); *see also id.* at 7213 ("The nutrient management plan is the tool CAFOs must use to assess soil and other field conditions at their operation . . . to determine the *site-specific* nitrogen or phosphorus-based rate at which manure, litter, and other process wastewaters are to be applied.") (emphasis added).

1 Included in the NPDES Permits

2 The Clean Water Act unquestionably provides that all applicable effluent limitations must
3 be included in each NPDES permit. *See* 33 U.S.C. §§ 1311(a), 1311(b), 1342(a); *see also Am.*
4 *Paper Inst., Inc. v. EPA*, 996 F.2d 346, 349 (D.C. Cir. 1993) (noting that the Clean Water Act
5 "mandates that every permit contain [*inter alia*] effluent limitations that reflect the pollution
6 reduction achievable by using technologically practicable controls"). What the parties here
7 dispute is whether the terms of the nutrient management plans, themselves, constitute effluent
8 limitations that must be included in the NPDES permits.

9 As we have already stated, rather than setting forth *numerical* effluent limitations for land
10 application of manure, the CAFO Rule establishes *non-numerical* effluent limitations in the form
11 of best management practices. *See* 40 C.F.R. § 412.4. Among these best management practices
12 is the requirement that CAFOs "develop and implement a nutrient management plan" that, *inter*
13 *alia*, sets application rates that minimize phosphorus and nitrogen transport. *See* 40 C.F.R. §
14 412.4(c)(1). The EPA readily acknowledges that the requirement to *develop and implement* a
15 nutrient management plan is a non-numerical effluent limitation, but argues that – under the
16 wording of this requirement – the terms of the nutrient management plans themselves do not
17 constitute the non-numerical effluent limitations. Accordingly, EPA argues that the terms of the
18 nutrient management plans need not be included in the NPDES permits.

19 We believe that the EPA's argument is foreclosed by the statutory definition of effluent
20 limitation. The Clean Water Act defines effluent limitation to mean "any *restriction* established
21 by a State or the Administrator on quantities, *rates*, and concentrations of chemical, physical,

1 biological, and other constituents which are discharged from point sources . . ." 33 U.S.C. §
2 1362(11) (emphasis added). There is no doubt that under the CAFO Rule, the only restrictions
3 actually imposed on land application discharges are those restrictions imposed by the various
4 terms of the nutrient management plan, including the waste application *rates* developed by the
5 Large CAFOs pursuant to their nutrient management plans. Indeed, the requirement to develop a
6 nutrient management plan constitutes a restriction on land application discharges only to the
7 extent that the nutrient management plan actually imposes restrictions on land application
8 discharges. To accept the EPA's contrary argument – that *requiring* a nutrient management plan
9 is itself a restriction on land application discharges – is to allow semantics to torture logic.

10 Because we believe that the terms of the nutrient management plans constitute effluent
11 limitations, we hold that the CAFO Rule – by failing to require that the terms of the nutrient
12 management plans be included in NPDES permits – violates the Clean Water Act and is
13 otherwise arbitrary and capricious in violation of the Administrative Procedure Act.

14 2. Lack of Public Participation

15 The Environmental Petitioners also argue, and we here find, that the permitting scheme
16 established by the CAFO Rule violates the Clean Water Act's public participation requirements
17 and is otherwise arbitrary and capricious under the Administrative Procedure Act.

18 Congress clearly intended to guarantee the public a meaningful role in the implementation
19 of the Clean Water Act. The Act unequivocally and broadly declares, for example, that "[p]ublic
20 participation in the development, revision, and enforcement of any regulation, standard, effluent
21 limitation, plan, or program established by the Administrator or any State under this Act shall be

1 provided for, encouraged, and assisted by the Administrator and the States." 33 U.S.C. § 1251(e).
2 Consistent with this demand, the Act further provides that there be an "opportunity for public
3 hearing" before any NPDES permit issues, *see* 33 U.S.C. §§ 1342(a), 1342 (b)(3); that a "copy of
4 each permit application and each permit issued under this section [1342] shall be available to the
5 public,"*see* 33 U.S.C. § 1342(j); and that "any citizen" may bring a civil suit for violations of the
6 Act, *see* 33 U.S.C. § 1365(a).

7 The CAFO Rule deprives the public of the opportunity for the sort of regulatory
8 participation that the Act guarantees because the Rule effectively shields the nutrient
9 management plans from public scrutiny and comment. Admittedly, the Preamble to the Rule
10 indicates that the "EPA *expects* that the permitting authority will make this information available
11 to the public upon request," *see* Preamble to the Final Rule at 7233 (emphasis added); however,
12 the Rule provides no assurance that EPA's expectations will be satisfied. Not only does the
13 CAFO Rule fail to require that the terms of the nutrient management plans be included in the
14 NPDES permits, it also fails to provide the public with any other means of access to them. After
15 all, the Rule provides only that a "copy of the CAFO's site-specific nutrient management plan
16 must be maintained on site and made available to the Director [of the state permitting authority]
17 upon request." 40 C.F.R. § 122.42(e)(2)(ii). The Rule does not similarly require that copies of
18 the nutrient management plans be made available to the *public* by the CAFOs.

19 This scheme violates the Act's public participation requirements in a number of respects.
20 First and foremost, in light of our holding that the terms of the nutrient management plans
21 constitute effluent limitations that should have been included in NPDES permits, the CAFO Rule

1 deprives the public of its right to assist in the "development, revision, and enforcement of ... [an]
2 *effluent limitation*." 33 U.S.C. § 1251(e) (emphasis added). More specifically, the CAFO Rule
3 prevents the public from calling for a hearing about – and then meaningfully commenting on –
4 NPDES permits before they issue. *See* 33 U.S.C. §§ 1342(a), 1342 (b)(3). The CAFO Rule also
5 impermissibly compromises the public's ability to bring citizen-suits, a "proven enforcement
6 tool" that "Congress intended [to be used...] to both spur and supplement government
7 enforcement actions." Clean Water Act Amendments of 1985, Senate Environment and Public
8 Works Comm., S. Rep. No. 50, 99th Cong., 1st Sess. 28 (1985). Under the CAFO Rule, as
9 written, citizens would be limited to enforcing the mere requirement to develop a nutrient
10 management plan, but would be without means to enforce the terms of the nutrient management
11 plans because they lack access to those terms. This is unacceptable.

12 And even assuming, *arguendo*, that the nutrient management plans did not themselves
13 constitute effluent limitations, we would still hold that the CAFO Rule violates the Act's public
14 participation requirements. Nutrient management plans are, even under the EPA's own theory of
15 the CAFO Rule, a critical indispensable feature of the "plan, or program established by the
16 Administrator or any State" in order to regulate Large CAFO land application discharges. 33
17 U.S.C. § 1251(e). The EPA itself has stated in the Preamble to the Rule that "the only way to
18 ensure that non-permitted point source discharges of manure, litter, or process wastewaters from
19 CAFOs do not occur is to require . . . [land application] in accordance with site specific nutrient
20 management practices." Preamble to the Final Rule at 7198. Since nutrient management plans
21 embody all the relevant "site specific nutrient management practices," it is clear that, even

1 according to the EPA, nutrient management plans are a *sine qua non* of the "regulation, standard,
2 plan, or program" it established to regulate land application discharges. 33 U.S.C. § 1251(e).

3 Given that the CAFO Rule forestalls – rather than "provid[es] for, encourag[es], and
4 assist[s]" – public participation in the development and enforcement of nutrient management
5 plans, and given that nutrient management plans are an important "regulation, standard, effluent
6 limitation, plan or program" established by the EPA to regulate land application discharges, the
7 CAFO Rule violates the plain dictates of 33 U.S.C. § 1251(e).

8 3. <u>The Duty to Apply</u>

9 The Farm Petitioners also challenge the permitting scheme established by the CAFO
10 Rule. They contend that the EPA has exceeded its statutory jurisdiction by requiring all CAFOs
11 to either apply for NPDES permits or otherwise demonstrate that they have no potential to
12 discharge. We agree and grant their petition in this regard.

13 The Clean Water Act authorizes the EPA to regulate, through the NPDES permitting
14 system, only the discharge of pollutants. The Act generally provides, for example, that "Except
15 as in compliance [with all applicable effluent limitations and permit restrictions,] the *discharge*
16 *of any pollutant* by any person shall be unlawful." 33 U.S.C. § 1311(a) (emphasis added).
17 Consistent with this prohibition, the Act authorizes the EPA to promulgate effluent limitations
18 for – and issue permits incorporating those effluent limitations for – the discharge of pollutants.
19 Section 1311 of Title 33 provides that "[e]ffluent limitations ... shall be applied to all point
20 sources of *discharge of pollutants,*" *see* 33 U.S.C. §1311(e). Section 1342 of the same Title then
21 gives NPDES authorities the power to issue permits authorizing the *discharge of any pollutant or*

1 *combination of pollutants.* *See* 33 U.S.C. § 1342 (a)(1) ("the Administrator may, after
2 opportunity for public hearing, issue a permit for *the discharge of any pollutant, or combination*
3 *of pollutants*") (emphasis added); *see also* 33 U.S.C. § 1342(b) (authorizing states to administer
4 permit programs for "discharges into navigable waters"). In other words, unless there is a
5 "discharge of any pollutant," there is no violation of the Act, and point sources are, accordingly,
6 neither statutorily obligated to comply with EPA regulations for point source discharges, nor are
7 they statutorily obligated to seek or obtain an NPDES permit.

8 Congress left little room for doubt about the meaning of the term "discharge of any
9 pollutant." The Act expressly defines the term to mean "(A) any addition of any pollutant to
10 navigable waters from any point source, [or] (B) any addition of any pollutant to the waters of the
11 contiguous zone or the ocean from any point source other than a vessel or other floating craft."
12 33 U.S.C. § 1362(12). Thus, in the absence of an actual addition of any pollutant to navigable
13 waters from any point, there is no point source discharge, no statutory violation, no statutory
14 obligation of point sources to comply with EPA regulations for point source discharges, and no
15 statutory obligation of point sources to seek or obtain an NPDES permit in the first instance.

16 The CAFO Rule violates this statutory scheme. It imposes obligations on all CAFOs
17 regardless of whether or not they have, in fact, added any pollutants to the navigable waters, i.e.
18 discharged any pollutants. After all, the Rule demands that every CAFO owner or operator either
19 apply for a permit – and comply with the effluent limitations contained in the permit – or
20 affirmatively demonstrate that no permit is needed because there is "no potential to discharge."
21 *See* 40 C.F.R. §§ 122.23(d) and (f). In the EPA's view, such demands are appropriate because all

CAFOs have the *potential* to discharge pollutants. *See* Preamble to the Final Rule at 7202 ("The 'duty to apply' provision is based on the presumption that every CAFO has a potential to discharge."). While we appreciate the policy considerations underlying the EPA's approach in the CAFO Rule, however, we are without authority to permit it because it contravenes the regulatory scheme enacted by Congress; the Clean Water Act gives the EPA jurisdiction to regulate and control only *actual* discharges – not potential discharges, and certainly not point sources themselves. *See National Resources Defense Council v. EPA*, 859 F.2d 156, 170 (D.C. Cir. 1988) (noting that "the [Act] does not empower the agency to regulate point sources themselves; rather, EPA's jurisdiction under the operative statute is limited to regulating the discharge of pollutants"). To the extent that policy considerations do warrant changing the statutory scheme, "such considerations address themselves to Congress, not to the courts." *MCI Telecommunications Corp. v. AT&T, Co.*, 512 U.S. 218, 234 (1994) (citation omitted).

EPA's other arguments are also unavailing. The EPA principally attempts to derive support for its "duty to apply" provision from the statutory definition of point source. EPA argues that point source is defined to mean not only "any discernible, confined and discrete conveyance" from which pollutants "are" discharged, but also "any discernible, confined and discrete conveyance" from which pollutants "*may be*" discharged. 33 U.S.C. § 1362(14). The EPA cannot, however, point to any provision of the statute that gives operational effect to the "may be" language in the manner in which the EPA seeks to do so here. The EPA points, for example, to 33 U.S.C. § 1311(e). Yet that section provides not that effluent limitations shall be applied to all point sources, end of story, but that effluent limitations shall be applied "to all point

1 sources *of discharge of pollutants* in accordance with the provisions of this chapter." 33 U.S.C. §
2 1311(e) (emphasis added). Thus, while point sources are statutorily defined to include potential
3 dischargers, effluent limitations can, pursuant to 33 U.S.C. § 1311(e), be applied only to "point
4 sources of *discharge of pollutants*," i.e. those point sources that are *actually* discharging.[21] *Id.*

5 The EPA also argues that the "duty to apply" provision is consistent with the Act's goal
6 of not just reducing, but eliminating water pollution. It is true that the duty to apply provision is
7 consistent with the broad goal of eliminating water pollution. However, the duty to apply flatly
8 contravenes the statute's text, which more specifically defines – and circumscribes – the powers
9 that Congress conferred upon the EPA in order to effectuate the Clean Water Act's goals.
10 Principles of statutory construction forbid us from sanctioning EPA conduct that is plainly
11 inconsistent with a statute's specific text. *See Caminetti v. United States*, 242 U.S. 470, 485
12 (1917) ("It is elementary that the meaning of a statute must, in the first instance, be sought in the
13 language in which the act is framed, and if that is plain . . . the sole function of the courts is to
14 enforce it according to its terms.").

15 For all these reasons, we believe that the Clean Water Act, on its face, prevents the EPA
16 from imposing, upon CAFOs, the obligation to seek an NPDES permit or otherwise demonstrate
17 that they have no potential to discharge. *See Chevron U.S.A. Inc. v. Natural Resources Defense*
18 *Council, Inc.*, 467 U.S. 837, 842-43 (1984) (where Congress has "directly spoken to the precise

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[21] We also point out that our reading of 33 U.S.C. § 1311(e) does not render superfluous the "may be" language included in the statutory definition of point source. In our view, the "may be" language can be read to clarify the reach of the EPA's power to seek injunctive relief. *See* 33 U.S.C. § 1319(b); *see generally Weinberger v. Romero-Barcelo*, 456 U.S. 305 (1982).

1 question at issue" and "the intent of Congress is clear, that is the end of the matter; for the court,

2 as well as the agency, must give effect to the unambiguously expressed intent of Congress.")

3 (footnote omitted).[22]

4 B. Challenges to the Types of Discharges Regulated

5 1. Regulatory Exemption for "Agricultural Stormwater" Discharges

6 As stated in the background section, *supra*, the CAFO Rule generally provides that

7 discharges from a land application area under the control of a CAFO are subject to NPDES

8 requirements. *See* 40 C.F.R. § 122.23(e). However, the Rule, like the Clean Water Act itself,

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[22] Because we find that the EPA lacks statutory authorization to require potential dischargers to apply for NPDES permits, we need not consider whether the record here supports the EPA's determination that Large CAFOs may reasonably be presumed to be such potential dischargers. We hasten to note, however, that if Congress were to amend the Clean Water Act to permit the imposition of a duty-to-apply, we believe the EPA would have ample reason to consider imposing this duty upon Large CAFOs. In our view, the EPA has marshaled evidence suggesting that such a prophylactic measure may be necessary to effectively regulate water pollution from Large CAFOs, given that Large CAFOs are important contributors to water pollution and that they have, historically at least, improperly tried to circumvent the permitting process. *See, e.g.*, Proposed Rule at 2976-77 (noting that, according to the 1998 National Water Quality Inventory, the agricultural sector was the leading contributor to identified water quality impairments in the nation's rivers and lakes); *id.* at 3008 ("since the inception of the NPDES permitting program in the 1970s, a relatively small number of larger CAFOs has actually sought permits); *see also* Preamble to the Final Rule at 7180 (describing a rise in the excess manure nutrients produced by animal feeding operations); *id.* at 7181 (detailing the ecological and human health impacts caused by CAFO manure and wastewater), *id.* at 7237 (noting the pollutants present in manure and other CAFO wastes and describing how they contribute to the impairment of water quality).

We also note that the EPA has not argued that the administrative record supports a regulatory presumption to the effect that Large CAFOs *actually* discharge. As such, we do not now consider whether, under the Clean Water Act as it currently exists, the EPA might properly presume that Large CAFOs – or some subset thereof – actually discharge. *See generally NLRB v. Curtin Matheson Scientific, Inc.*, 494 U.S. 775 (1990); *National Mining Ass'n v. Babbitt*, 172 F.3d 906 (D.C. Cir. 1999).

carves out an exception where the discharge in question is "an agricultural storm water discharge," *id.* – a category of discharges that the Act exempts from regulation via the statutory definition of "point source." *See* 33 U.S.C. § 1362(14). More specifically, the Rule classifies, as agricultural stormwater, any "precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of a CAFO" where the "manure, litter or process wastewater has [otherwise] been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization." 40 C.F.R. § 122.23(e).

The Environmental Petitioners contend that this approach violates the Clean Water Act and is otherwise arbitrary and capricious in violation of the Administrative Procedure Act because the Clean Water Act's definition of "point source" requires regulation of *all* CAFO discharges, notwithstanding the fact that agricultural stormwater discharges are otherwise deemed exempt from regulation. We disagree.

The Act defines the term "point source" as follows:

> "[P]oint source" means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, *concentrated animal feeding operation*, or vessel or other floating craft, from which pollutants are or may be discharged. *This term does not include agricultural stormwater discharges* and return flows from irrigated agriculture.

33 U.S.C. § 1362(14) (emphasis added). Contrary to the views of the Environmental Petitioners, we find that this provision is self-evidently ambiguous as to whether CAFO discharges can ever constitute agricultural stormwater. Here, the Act expressly defines the term point source to *include* "concentrated animal feeding operations;" the Act expressly defines "point source" to

1 *exclude* "agricultural stormwater;" and the Act makes absolutely no attempt to reconcile the two.
2 Congress has not addressed the precise issue the Environmental Petitioners put before us, and, as
3 a result, the operative question we must consider becomes, pursuant to *Chevron*, whether the
4 CAFO Rule's exemption for "precipitation-related" land application discharges is grounded in a
5 "permissible construction" of the Clean Water Act. *Chevron U.S.A. Inc. v. Natural Resources*
6 *Defense Council, Inc.*, 467 U.S. 837, 843 (1984).

7 The EPA reads the Act's definition of "point source" as generally authorizing the
8 regulation of CAFO discharges, but exempting such discharges from regulation to the extent that
9 they constitute agricultural stormwater. We think this is a reasonable construction in light of the
10 legislative purpose of the agricultural stormwater exemption and given precedent from this
11 circuit. With respect to legislative purpose, we believe it reasonable to conclude that when
12 Congress added the agricultural stormwater exemption to the Clean Water Act, it was affirming
13 the impropriety of imposing, on "any person," liability for agriculture-related discharges
14 triggered not by negligence or malfeasance, but by the weather – even when those discharges
15 came from what would otherwise be point sources. There is no authoritative legislative history
16 to the contrary. The Environmental Petitioners, for example, cite legislative history from 1972 in
17 support of their position; however, the agricultural stormwater exemption was not added to the
18 Clean Water Act until a full fifteen years later, when Congress passed the Water Quality Act of
19 1987. *See* Water Quality Act of 1987, Pub. L. No. 100-4 § 503, 101 Stat. 7 (1987). It would be
20 improper for us to rely on statements from 1972 in order to resolve an ambiguity that was not
21 created until 1987. In our view, prior legislative history is a hazardous basis for inferring the

1 intent of a subsequent Congress, in the same way that "*subsequent* legislative history is a
2 hazardous basis for inferring the intent of an *earlier* Congress." *Pension Benefit Guaranty Corp.*
3 *v. LTV Corp.*, 496 U.S. 633, 650 (1990) (emphasis added) (citation omitted). And, in any event,
4 none of the legislative history from 1972 comes close to casting doubt on the construction we
5 permit here.[23]

6 Precedent from this circuit also supports the construction that the EPA advances and we
7 here permit. In *Concerned Area Residents for the Environment v. Southview Farm*, this Court
8 considered the agricultural stormwater exemption and its statutory relationship to point source
9 discharges, specifically CAFO discharges. 34 F.3d 114 (2d Cir. 1994). The essence of the
10 Court's holding was not, as Environmental Petitioners contend, that discharges from an area
11 under the control of a CAFO can *never* qualify for the agricultural stormwater exemption.
12 Rather, the Court held that a discharge from an area under the control of a CAFO can be
13 considered *either* a CAFO discharge that is subject to regulation *or* an agricultural stormwater
14 discharge that is not subject to regulation. Whether or not a discharge is regulable turned, in the

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[23] For example, the Environmental Petitioners substantially rely on a statement from Senator Robert Dole acknowledging the environmental threat posed by "[p]recipitation runoff" from areas storing animal and poultry waste. 2 A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, Committee Print Compiled for the Senate Committee on Public Works by the Library of Congress, Ser. No. 93-1, p. 1295 (1973). Senator Dole did not at all suggest that the Act aimed, in fact, to regulate precipitation runoff. His statement about precipitation runoff was merely part of a larger discussion about the general environmental threat posed by animal and poultry waste. To wit, he stated that: "In these modern facilities, the use of bedding and litter has been greatly reduced; consequently, the manure which is produced remains essentially in the liquid state and is much more difficult to handle without odor and pollution problems. Precipitation runoff from these areas picks up high concentrates of pollutants, which reduce oxygen levels in receiving streams and lakes and accelerate the eutrophication process." *Id.*

1 Court's view, on the primary cause of the discharge. That is why the Court wrote that a
2 discharge could be regulated, and liability imposed, where "the run-off was primarily caused by
3 the over-saturation of the fields rather than the rain and that sufficient quantities of manure were
4 present so that the run-off could not be classified as 'stormwater.'" *Id.* at 121.

5 We believe that the CAFO Rule comports both with Congress' intent in enacting the
6 agricultural stormwater exemption and with our holding in *Southview Farm*. So far as Congress'
7 intent is concerned, while the Rule holds CAFOs liable for most land application discharges, it
8 prevents CAFOs from being held liable for "precipitation-related discharge[s]" where "manure,
9 litter or process wastewater has [otherwise] been applied in accordance with site specific nutrient
10 management practices that ensure appropriate agricultural utilization." 40 C.F.R. § 122.23(e). In
11 other words, like the Clean Water Act itself, the CAFO Rule seeks to remove liability for
12 agriculture-related discharges primarily caused by nature, while maintaining liability for other
13 discharges. So far as our holding in *Southview Farm* is concerned, discharges from land areas
14 under the control of a CAFO can and should generally be regulated, but where a CAFO has taken
15 steps to ensure appropriate agricultural utilization of the nutrients in manure, litter, and process
16 wastewater, it should not be held accountable for any discharge that is primarily the result of
17 "precipitation."

18 We also find unpersuasive the only other significant complaint the Environmental
19 Petitioners lodge against the CAFO Rule's agricultural stormwater exemption – namely that it is
20 unreasonable, and hence improper, for the EPA to construe the term "agricultural" as
21 encompassing any stormwater discharge from a land area under the control of a CAFO. The

1 Environmental Petitioners contend that CAFOs must be viewed as industrial, not agricultural.
2 We disagree. Dictionaries from the period in which the agricultural stormwater exemption was
3 adopted define "agriculture" or "agricultural" in a way that can permissibly be construed to
4 encompass CAFOs. For example, Webster's New World Dictionary defined the term
5 "agriculture" to include, *inter alia*, "work of cultivating the soil, producing crops, and raising
6 livestock." WEBSTER'S NEW WORLD DICTIONARY OF AMERICAN ENGLISH 26 (3rd College Ed.
7 1988). The Oxford English Dictionary similarly defined agriculture to include, *inter alia*,
8 "cultivating the soil," "including the allied pursuits of gathering in the crops and rearing live
9 stock." I THE OXFORD ENGLISH DICTIONARY 267 (2d Ed. 1989). Here, there is no question that
10 CAFOs "rais[e]" or "rear" livestock and, because land-applied manure is used as fertilizer,
11 "cultivat[e] the soil" as well. *Cf.* Preamble to the Final Rule at 7197 ("When manure or process
12 wastewater is applied in accordance with practices designed to ensure appropriate agricultural
13 utilization of nutrients, it . . . fulfills an important agricultural purpose, namely the fertilization of
14 crops . . ."). As a result, we cannot say that the EPA has impermissibly treated CAFOs as
15 agricultural in character.
16 Additionally, we note again that the CAFO Rule classifies precipitation-related
17 discharges as agricultural stormwater only where CAFOs have otherwise applied "manure, litter
18 or process wastewater . . . in accordance with site specific nutrient management practices that
19 ensure appropriate *agricultural* utilization." 40 C.F.R. § 122.23(e) (emphasis added). Thus,
20 even the CAFO Rule's application of the agricultural stormwater exemption is expressly tethered

1 to agricultural endeavors.[24]

2 Accordingly, for all these reasons, we reject the Environmental Petitioners' challenge to
3 the CAFO Rule's exemption for agricultural stormwater discharges because we believe that the
4 exemption is premised on a permissible construction of the Act.

5 2. Regulation of "Uncollected" Discharges

6 The Farm Petitioners contend that the CAFO Rule violates the Clean Water Act because
7 it regulates "uncollected" discharges from land areas under the control of a CAFO; in effect, the
8 Farm Petitioners claim that runoff from land application areas, unless "collected" or
9 "channelized" at the land application area itself, does not constitute a point source discharge. We
10 reject this claim because, in our view, regardless of whether or not runoff is collected at the land
11 application area, itself, any discharge from a land area under the control of a CAFO is a point
12 source discharge subject to regulation because it is a discharge from a *CAFO*.

13 To evaluate the Farm Petitioners' claim we turn, once again, to the statutory definition of
14 point source. The term "point source" is defined to mean, in relevant part, "any discernible,
15 confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel,

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[24] We note, moreover, that while the EPA had previously classified CAFO discharges as industrial, rather than agricultural, the Agency has here adequately justified that change on the ground that "[w]hen manure or process wastewater is applied in accordance with practices designed to ensure appropriate agricultural utilization of nutrients, it... fulfills an important agricultural purpose, namely the fertilization of crops..." Preamble to the Final Rule at 7197. *Cf. Motor Vehicle Manufacturers' Association of the United States, Inc. v. State Farm Mutual Automobile Insurance Company*, 463 U.S. 29, 42 (1983) (where an agency has changed course it is "obligated to supply a reasoned analysis for the change."). Because the EPA also put the public on notice of the substantive change, *see* Proposed Rule at 3029-32, it has complied with all applicable procedural requirements.

1 conduit, well, discrete fissure, container, rolling stock, *concentrated animal feeding operation*, or
2 vessel or other floating craft, *from which pollutants are or may be discharged.* 33 U.S.C. §
3 1362(14) (emphasis added). Given that the Act expressly defines "point source" to include
4 concentrated animal feeding operations, the Farm Petitioners can prevail on their challenge only
5 if we find that the Act prohibits classifying a land application discharge as a discharge "*from*" a
6 CAFO. We believe, however, that the Act not only permits, but demands, that land application
7 discharges be construed as discharges "from" a CAFO to the extent that they are not otherwise
8 agricultural stormwater.

9 As this Court previously held in *Catskill Mountains Chapter of Trout Unlimited, Inc. v.*
10 *City of New York*, the term point source refers to "the proximate source from which the pollutant
11 is directly introduced to [a] destination water body." *See* 273 F.3d 481, 493 (2d Cir. 2001).[25]
12 Here, CAFOs are unquestionably "the proximate source" of any discharge of pollutants from
13 land application areas under their control to the surface waters (again, except where those
14 discharges are agricultural stormwater). But for the application of manure by the CAFO to the
15 land, there could never be a discharge of pollutants from the land to the surface waters. Thus, any
16 land application discharge that is not agricultural stormwater is, definitionally, a discharge

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[25] We note that, in this respect, *Catskill Mountains* is in complete accord with *Southview Farm*. Implicit in *Southview Farm* is the idea that when a discharge from a land application area under the control of a CAFO is primarily caused by rain, such a discharge is not subject to regulation because the rain – not the CAFO – is the proximate source of the discharge; but when "run-off [is] primarily caused by the over-saturation of the fields rather than the rain and [there are] sufficient quantities of manure . . . present," *Southview Farm*, 34 F.3d at 121, such a discharge *is* subject to regulation because the CAFO – not the rain – is the proximate source of the discharge.

1 "from" a CAFO that can be regulated as a point source discharge.

2 Contrary to the contentions of the Farm Petitioners, whether the land application run-off
3 has been "collected" or "channelized" at the land application area is irrelevant to the
4 determination regarding whether such run-off constitutes a CAFO discharge. To be sure, the Act
5 does generally contemplate that discharges be "channelized" in order to fall within the EPA's
6 regulatory jurisdiction; that is why the term "point source" is defined as "discrete, discernible,
7 conveyances." However, a CAFO is, itself, a "channel" under the Act – it is, of course, expressly
8 included in the list of examples of the types of "point sources" the EPA may regulate. Thus, any
9 discharge "from" a CAFO is already a point source discharge. Requiring that manure, litter, or
10 process wastewater be separately channelized at the land application site before any runoff could
11 be considered a "point source discharge" would be, in effect, to impose a requirement not
12 contemplated by the Act: that pollutants be channelized not once but twice before the EPA can
13 regulate them.

14 Even assuming that the Act did not plainly require that land application discharges
15 generally be regulated as point source discharges, we would find that the EPA has permissibly
16 construed the statute in defining, as a "discharge from a CAFO," the "discharge of manure, litter
17 or process wastewater to waters of the United States from a CAFO as a result of the application
18 of that manure, litter or process wastewater by the CAFO to land areas under its control." 40
19 C.F.R. § 122.23(e). Land application areas are, after all, an integral and indeed indispensable
20 part of CAFO operations. CAFOs depend on them to receive the volumes of manure their
21 animals generate; as we noted in the background section above, "[s]everal estimates indicate that

90% of CAFO-generated waste is land applied." EPA, STATE COMPENDIUM: PROGRAMS AND REGULATORY ACTIVITIES RELATED TO ANIMAL FEEDING OPERATIONS 13 (May 2002). Given this fact and given that, under the Rule, only discharges from land application areas "under [the] control" of a CAFO are subject to regulation, *see* 40 C.F.R. § 122.23(e), the EPA could quite reasonably conclude that runoff from a land application area is runoff from a CAFO.

Thus, we reject the challenge to the CAFO Rule's regulation of land application discharges, including "uncollected" discharges.

C. Challenges to the CAFO Rule Effluent Limitations

The Environmental Petitioners bring a host of challenges to: (1) the CAFO Rule's technology-based effluent limitation guidelines; and (2) the CAFO Rule's failure to promulgate additional water quality based effluent limitations.

Again, we note that the specific effluent limitations contained in each individual NPDES permit are dictated by the terms of more general "effluent limitation guidelines" ("ELGs"), which are separately promulgated by the EPA. *Cf. EPA v. California, 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."). ELGs, and the effluent limitations established in accordance with them, are technology-based restrictions on water pollution; they are technology-based because they are established in accordance with various technological standards that the Act statutorily provides and that, pursuant to the Act, vary depending upon the type of pollutant involved, the type of discharge involved, and whether the point source in question is new or

already existing. *See* 33 U.S.C. § 1311. For existing facilities, the Act requires that ELGs be based on standards that include: (1) the best available technology economically achievable ("BAT"), *see* 33 U.S.C. § 1311(b)(2)(A); (2) the best conventional pollutant control technology ("BCT"), *see* 33 U.S.C. § 1314(b)(2)(A); and (3) the best practicable control technology currently available ("BPT"), *see* 33 U.S.C. § 1314(b)(1)(A). The technology standard for new point sources, which is commonly referred to as a new source performance standard, is based on the best available demonstrated control technology. *See* 33 U.S.C. § 1316.

The EPA here established non-numerical ELGs for the production areas of CAFOs, and did so on a sub-category by sub-category basis. Of these, two are relevant: the subcategory for dairy cows and cattle (other than veal calves), grouped together under Part 412, Subpart C of EPA's regulations ("Subpart C CAFOs"), *see* 40 C.F.R. § 412.30-37, and the subcategory for swine, poultry and veal calves, grouped under Part 412, Subpart D, ("Subpart D CAFOs"), *see* 40 C.F.R. § 412.40-47. The EPA, which was required to set BAT, BPT and BCT standards for the production areas of Subpart C and Subpart D CAFOs, here determined that the identical "technologies" satisfy these standards, and accordingly promulgated ELGs based on the same technologies. Generally speaking, these ELGs, whether based on BAT, BCT or BPT standards: (1) set forth a prohibition on discharges from the production area of a CAFO (except insofar as the discharges are caused by "precipitation"); (2) require best management practices for the production area, including the installation of depth markers in manure lagoons and storage tanks, daily inspections of water lines, and weekly inspections of animal waste storage structures and of equipment used for channeling stormwater or runoff; (3) require additional best management

1 practices for land application areas; and (4) provide an opportunity for alternative performance
2 standards based upon "site-specific alternative technologies that achieve a quantity of pollutants
3 discharged from the production area equal to or less than the quantity of pollutants that would be
4 discharged under the baseline." *See* 40 CFR § 412.31(a)(2).

5 The Environmental Petitioners present several challenges to the technology-based ELGs
6 promulgated by the EPA. Specifically, they challenge the BAT-based ELGs, the BCT-based
7 ELGs for pathogens, and the new source performance standard adopted for Subpart D CAFOs.
8 The Environmental Petitioners also challenge the EPA's decision not to impose additional water
9 quality based effluent limitations. We address each set of challenges in turn.

10 1. Challenges to the BAT Standards

11 The Environmental Petitioners contend that the CAFO Rule's BAT-based ELGs – i.e. the
12 ELGs reflecting the best available technology economically achievable ("BAT"), *see* 33 U.S.C. §
13 1311(b)(2)(A) – violate the Clean Water Act, or are otherwise arbitrary and capricious, in three
14 respects. To wit, the Environmental Petitioners claim that: (a) in establishing the BAT standards,
15 EPA failed to consider the best-performing technologies in the CAFO industry; (b) EPA
16 improperly abandoned a more suitable option as BAT for beef and cattle CAFOs (Subpart C
17 CAFOs); and (c) the EPA improperly rejected a more suitable option for swine, poultry and veal
18 CAFOs (Subpart D CAFOs). We deny all these challenges.

19 a. Failure to Consider the Best Performing Technologies

20 The Environmental Petitioners sweepingly contend that, in developing its BAT standards,

1 the EPA failed to consider the single-best performing or optimally operating CAFO in each
2 category or subcategory and then adopt BAT standards that reflect the respective performances of
3 those CAFOs. We reject this summary challenge. The record reflects that EPA extensively
4 surveyed available technologies, narrowed the list of potential BAT candidates to seven options,
5 and subsequently found, within the bounds of its discretion, that "Option 2" – described below –
6 was the best candidate for BAT, because all the other options considered either did not perform
7 better than "Option 2," were not adequately supported in science, or were not economically
8 achievable.

9 The EPA engaged, here, in extensive data collection. The EPA conducted more than 116
10 site visits to CAFOs in over 20 states. It obtained information regarding the operational
11 characteristics, waste management systems, and financial situations of CAFOs from several
12 agencies within the USDA such as the National Agricultural Statistics Service, the Animal and
13 Plant Health Inspection Service, and the Economic Research Service. EPA also attended
14 conferences, obtained research from the land grant university system, met with several trade
15 associations, and conducted extensive literature reviews. It received and considered
16 approximately 11,000 public comments on the proposed CAFO Rule, *see* Preamble to the Final
17 Rule at 7178, as well as an additional 450 or so comments following the publication, in
18 November 2001 and July 2002, of Notices of Data Availability (documents that summarized new
19 data and information presented to the EPA). *See id.* at 7187-88. On the basis of this data
20 collection, the EPA ultimately found that the BAT standards it adopted – which generally require
21 improved operation and maintenance – would significantly reduce CAFO discharges as well or

better than any other available, economically achievable technologies. And it generally justified this decision within the bounds of its discretion. *See, e.g., id.* at 7215 ("One recent study from Iowa State University suggested 76 percent of earthen manure structures lacked appropriate accompanying management and maintenance activities. Another study in North Carolina stated more than 90 percent of violations were attributed to operation and management deficiencies.").

To be sure, the CAFO Rule does not *explicitly* identify the single, existing best-performing CAFO in each category or subcategory of the Rule. However, it is obvious that the CAFO Rule *substantively* establishes standards that make "reference to the best performer in any industrial category" – and nothing in the Act or the legislative history indicates that any more was required of the EPA. *See* 1 A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, Committee Print Compiled for the Senate Committee on Public Works by the Library of Congress, Ser. No. 93-1, p. 170 (1973). We believe that in all BAT subcategories, the EPA has either adopted the technology employed by the best performers or declined to do so for permissible reasons. Indeed, the Environmental Petitioners cannot identify any specific performance standard that the EPA failed to consider or rejected for impermissible reasons in adopting its BAT standards. Thus, the EPA has complied with its statutory duties in setting the BAT standards, and we consequently reject the Environmental Petitioners' challenge to them.

b. <u>BAT for Beef and Cattle CAFOs ("Subpart C CAFOs")</u>

The Environmental Petitioners also challenge the BAT standards on the narrower ground that the EPA improperly abandoned a more suitable option as BAT for beef and cattle (Subpart

C) CAFOs. Specifically, the Environmental Petitioners contend that EPA should have selected what EPA had called "Option 3," rather than "Option 2" as BAT for Subpart C CAFOs.

By way of brief background, after reviewing an array of various pollution control technologies and best management practices, the EPA – as we previously stated – narrowed the list of potential BAT candidates to seven options. Those seven options can be generally summarized as follows:

Option 1 would require controls on land application of manure, based on the ability of the soil to assimilate the nitrogen content of the manure, plus inspection and recordkeeping requirements for the production area;

Option 2 would require the same controls as Option 1, but would restrict the rate of manure application instead to a (generally lower) phosphorus-based application rate where necessary, depending on site-specific soil conditions;

Option 3 would require the same controls as Option 2, but would also require ground water monitoring and discharge controls, unless the CAFO could show that the groundwater beneath manure storage areas or stockpiles do not have a direct hydrologic connection to surface waters;

Option 4 would require the same controls as Option 3, but would also require sampling of surface waters adjacent to the production area and/or land under control of the CAFO to which manure is applied;

Option 5 would require – at least for Subpart D CAFOs – the same controls as Option 2, but would also establish a zero discharge requirement that does not allow overflows from the production area under any circumstances;

Option 6 would require the same controls as Option 2, but would also require that swine and dairy operations install and implement anaerobic digestion and gas recovery to treat manure; and

1 Option 7 would require the same controls as Option 2, but would also prohibit manure
2 application to frozen, snow-covered, or saturated ground.

3 *See* EPA. PROPOSED RULE DEVELOPMENT DOCUMENT 10-14 to 10-21 (Jan. 2001).

4 The EPA initially proposed adopting Option 3 as BAT for Subpart C CAFOs, *see*
5 Proposed Rule at 3061-62, but ultimately adopted Option 2. *See* Preamble to the Final Rule at 7215-
6 16. That is to say, the EPA initially proposed that various groundwater-related requirements be
7 uniformly imposed on CAFOs, but ultimately decided that groundwater-related requirements be
8 implemented, as necessary, on a case-by-case basis. *See id.*; Proposed Rule at 3062.[26] The
9 Environmental Petitioners claim that the rejection of Option 3's groundwater requirements is
10 unsupported in the record. The EPA argues, in opposition, that it reasonably determined that Option
11 2 is better technology than Option 3, and that Option 3 would impose prohibitive economic costs on

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[26] As the EPA explained in the Preamble to the Proposed Rule and reaffirmed in its brief in this consolidated petition,

> even under Option 2, permit writers [are] required to consider whether a facility is located in an area where its hydrogeology makes it likely that the ground water underlying the facility is hydrologically connected to surface water and whether a discharge to surface water from the facility through such hydrologically connected ground water may cause or contribute to a violation of State water quality standards. In cases where such a determination was made by the permit writer, he or she would impose appropriate conditions to prevent discharge via a hydrologic connection [and that these conditions] would be included in the permit.

Proposed Rule at 3062. It is thus clear that when the EPA stated, in the Preamble to the Final Rule, that "requirements limiting the discharge of pollutants to surface water via groundwater ... are beyond the scope of today's ELGs," Preamble to the Final Rule at 7216, the EPA meant only that uniform national requirements are beyond the scope of today's ELGs. The EPA did not, in other words, mean to suggest that NPDES authorities lacked the power to impose groundwater-related requirements on a case-by-case basis, where necessary.

1 the CAFO industry. We believe that the record adequately supports EPA's determinations and
2 accordingly defer to the Agency's selection of Option 2.

3 The EPA principally claims that Option 2 is better technology than Option 3 because
4 groundwater-related requirements are highly dependent on site-specific variables and that,
5 accordingly, such requirements are more effectively evaluated and implemented on a case-by-case
6 basis, rather than imposed uniformly. The record adequately supports this claim. Studies do show
7 that variability in topography, climate, distance to surface water, and geologic factors influence
8 whether and how pollutant discharges at a particular site enter surface water via groundwater. *See*
9 EPA, PROPOSED RULE DEVELOPMENT DOCUMENT 12-12 (Jan. 2001). For example, a study by
10 Clapp and Hornberger demonstrates that variability in soil types significantly affects the rates at
11 which water flows through them; indeed, Clapp and Hornberger "reported that water flowed through
12 sand about 100 times faster than through clayey [sic] soils and about 10 times faster than through
13 silty soils." *Id.* Given that there is sufficient record support for EPA's determination that
14 groundwater-related requirements are better imposed on a case-by-case basis, and given that Option
15 2 requires CAFOs to consider whether such requirements are needed, *see* Proposed Rule at 3062,
16 we find that EPA has adequately justified its finding that Option 2 constitutes better technology than
17 Option 3. *See Nat'l Wildlife Fed'n v. EPA*, 286 F.3d 554, 566 (D.C. Cir. 2002) (upholding the
18 EPA's determination to regulate "color discharges" from pulp and paper mill process on a case-by-
19 case basis where such discharges were dependent on site-specific conditions).

20 The record also supports the EPA's decision to reject Option 3 as economically prohibitive
21 and not likely to result in any significant reduction in groundwater pollution. *See Am. Petroleum*

Inst. v. EPA, 787 F.2d 965, 972 (5th Cir. 1986) ("EPA would disserve its mandate were it to tilt at windmills by imposing BAT limitations which removed de minimis amounts of polluting agents from our nation's waters, while imposing possibly disabling costs upon the regulated industry."). EPA's final economic analysis showed a nearly six-fold increase in the number of beef, dairy, and heifer CAFOs projected to close under Option 3, were that Option, rather than Option 2, adopted. This amounted to a potential facility closure rate under Option 3 of 29% for heifer CAFOs, 19% for beef, and 12% for the subcategory as a whole. *See* EPA, FINAL RULE ECONOMIC ANALYSIS 3-22 (Dec. 2002). At the same time, the EPA found that while it was difficult to quantify on an industry-wide basis the pollutant reduction that would be associated with nationally-applicable ELGs for groundwater controls, its pollution reduction models showed a difference of less than 1% difference between the nitrogen load reduction achieved under Option 3 as opposed to Option 2. *See* EPA, PROPOSED RULE DEVELOPMENT DOCUMENT 12-15 (Jan. 2001).

In light of all the above, we deny the Environmental Petitioners' challenge to the selection of Option 2 as BAT for Subpart C CAFOs.

c. <u>BAT for Swine, Poultry and Veal CAFOs ("Subpart D CAFOs")</u>

Although the EPA initially proposed Option 5 as BAT for Subpart D CAFOs, *see* Proposed Rule at 3063-64, the EPA ultimately determined that the costs of Option 5 would not be economically achievable and, accordingly, adopted Option 2. *See* Preamble to the Final Rule at 7218-19. The Environmental Petitioners here challenge the EPA's rejection of Option 5 on the grounds that: (1) the EPA gave undue consideration to cost; (2) the EPA's economic modeling is flawed; and (3) even assuming the reasonableness of the EPA's economic models, the Agency has,

1 in other contexts, deemed "economically achievable" technologies that produced the same or worse
2 economic costs. We reject all of these challenges and uphold the EPA's selection of Option 2 as
3 BAT for Subpart D CAFOs.

4 As a preliminary matter, we note that Environmental Petitioners are correct that cost is only
5 one of the factors that EPA is supposed to consider in establishing BAT standards. *See* 33 U.S.C.
6 § 1314(b)(2)(B) (specifying that the EPA should consider "the age of equipment and facilities
7 involved, the process employed, the engineering aspects of the application of various types of control
8 techniques, process changes, the cost of achieving such effluent reduction, non-water quality
9 environmental impact (including energy requirements), and such other factors as the Administrator
10 deems appropriate"). However, the Clean Water Act "does not state what weight should be accorded
11 to the relevant factors; rather, the Act gives EPA the discretion to make those determinations." *BP*
12 *Exploration & Oil, Inc. v. EPA*, 66 F.3d 784, 802 (6th Cir. 1995). And as this Court previously
13 indicated in *Riverkeeper, Inc. v. EPA*, the Administrator is obligated to "inquire into the initial and
14 annual costs of applying the technology and make an affirmative determination that those costs can
15 be reasonably borne by the industry." 358 F.3d 174, 195 (2d Cir. 2004). Thus, if the EPA
16 determines, with adequate support in the record, that a given set of costs cannot reasonably be borne
17 by a given industry, courts must defer to that determination.

18 We believe that the EPA has here determined, with adequate support in the record, that
19 Subpart D CAFOs cannot reasonably bear the costs associated with Option 5, because the EPA –
20 after conducting extensive economic analysis, involving numerous economic tests and modeling –
21 determined that Option 5 would render 17% of swine CAFOs and 11% of Subpart D CAFOs, on the

1 whole, vulnerable to closure. *See* EPA, FINAL RULE ECONOMIC ANALYSIS at 3-19 to 3-22 (Dec.
2 2002).[27]

3 Environmental Petitioners challenge the probity of the EPA's economic modeling, because,
4 in their view, the EPA should have assumed that CAFOs could offset their compliance costs by
5 obtaining state and federal funding ("cost-share assistance") and by passing the costs on to
6 consumers ("cost passthrough"). In evaluating this challenge, we wish to make clear, at the outset,
7 that the EPA's determinations about costs, as well as the methodology that the EPA employs in
8 making such determinations, are entitled to deference.[28] "While EPA must take seriously its
9 statutory duty to consider cost, courts of review should be mindful of the many problems inherent
10 in an undertaking of this nature and uphold a reasonable effort made by the Agency." *Nat'l Wildlife*
11 *Fed'n v. EPA*, 286 F.3d 554, 563 (D.C. Cir. 2002) (quoting *FMC Corp. v. Train*, 539 F.2d 973, 979
12 (4th Cir. 1976)). A reviewing court can neither "second-guess EPA's analysis nor 'undertake [its]
13 own economic study'; rather, the court must 'uphold the regulations if EPA has established in the
14 record a reasonable basis for its decision.'" *Id.* at 565 (citation omitted); *see also Chem. Mfrs. Ass'n*
15 *v. EPA*, 870 F.2d 177, 250 (5th Cir. 1989) ("a 'court's inquiry will be limited to whether the Agency
16 considered the cost of technology, along with the other statutory factors, and whether its conclusion

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[27] Because the Clean Water Act "imposes no obligation on EPA to subdivide industries so that each point-source category contains identical producers," *BASF Wyandotte Corp. v. Costle*, 598 F.2d 637, 655 (1st Cir. 1979), we reject the Environmental Petitioners' claim that EPA should segregate poultry CAFOs out of Subpart D and separately consider the costs of imposing Option 5 on them.

[28] We agree with the Environmental Petitioners that the EPA's economic determinations are not – as the EPA puts it – entitled to "heightened deference." Deference, not "heightened" deference, is due.

1 is reasonable'" (citation omitted)).

2 We believe that the EPA has reasonably justified its decision not to consider either cost-share
3 assistance or cost passthrough in promulgating the final CAFO Rule. First, with respect to cost-share
4 assistance, the EPA determined, within the bounds of its discretion, that there were too many
5 uncertainties regarding the extent to which any such assistance would mitigate compliance costs and
6 that, accordingly, it would be inappropriate to consider cost-share assistance as a reliable offset to
7 compliance costs. In its proposed economic analysis, EPA determined, for example, that although
8 the USDA's Environmental Quality Incentives Program ("EQIP") could theoretically ease the
9 economic strain that Option 5 might impose, the EQIP program should not be relied upon because
10 it might not cover all new applications from CAFOs, might limit the eligibility of CAFOs through
11 various requirements, and might delay distributing funds to CAFOs given various waiting lists and
12 geographic priorities. *See* EPA, PROPOSED RULE ECONOMIC ANALYSIS 4-55 to 56 (Jan. 2001). And
13 while certain legislation passed by Congress in 2002 eliminated some restrictions on EQIP
14 participation and substantially increased funding for EQIP, EPA still believed, at the time it
15 conducted its final economic analysis, that the benefits of the EQIP program were still too
16 speculative to count on because it remained unclear what the actual funding levels would be, what
17 limits might be placed on the types of waste management practices covered, and what share of
18 dollars would be allocated to confinement facilities – as opposed to other agricultural operations –
19 and to larger-sized operations. *See* EPA, FINAL RULE ECONOMIC ANALYSIS 2-66 to 2-68 (Dec. 2002).
20 We cannot say that the EPA unreasonably determined that federal allocations were too uncertain to
21 rely upon.

1 Second, with respect to cost passthrough, we believe that EPA determined, within the bounds
2 of its discretion, that the possibility of passing costs on to consumers was also too uncertain to rely
3 upon. The EPA explained in its proposed rule economic analysis that farmers are at the bottom of
4 a long food marketing chain, subject to imperfect market conditions characterized by "local
5 oligopsony conditions, or 'few buyers'." *See* EPA, PROPOSED RULE ECONOMIC ANALYSIS 4-60 (Jan.
6 2001), citing Rogers and Sexton, *Assessing the Importance of Oligopsony Power in Agricultural*
7 *Markets*, 76 AMER. J. AGR. ECON. 1143-50, Dec. 1994. Given the limited bargaining power of those
8 who raise and confine animals, *see id.* at 2-25 to 2-26, the EPA thus concluded that "[i]ndividual
9 farmers generally have a limited ability to pass on increased costs associated with regulations" and
10 that, as a result, it would be a mistake to rely on cost passthrough. *See id.* at 4-60. We cannot say
11 that the EPA acted unreasonably in making these determinations.[29]

12 Having rejected the challenges to the soundness of the EPA's economic models, we move
13 finally to Environmental Petitioners' claim that, even assuming the reasonableness of the EPA's
14 economic modeling, the results do not support a finding that Option 5 was economically
15 unachievable because the Agency has, in other contexts, deemed "economically achievable"
16 technologies that produced the same or worse economic costs. We reject this claim as well. The
17 EPA here estimated that Option 5 would expose up to 11% of Subpart D CAFOs to financial stress
18 sufficient to create a risk of closure. *See* EPA, FINAL RULE ECONOMIC ANALYSIS at 3-22 (Dec.

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[29] We also uphold, as reasonable, EPA's decision not to rely on "long-run market adjustments," given that these, too, are inherently uncertain and difficult to predict and that, in any event, adjustments for the long-run might "mask severe financial effects at regulated CAFOs in the short-run." *See* EPA, FINAL RULE ECONOMIC ANALYSIS 2-64 (Dec. 2002).

2002). While the EPA – and courts – have treated more substantial risks of closure as nonetheless supporting a finding of economic achievability, *see, e.g., Chem. Mfrs. Assoc. v. EPA*, 870 F.2d at 202 (upholding BAT where 14% of facilities would be forced to close), it is also true that the EPA – and courts – have treated less substantial risks of closure as supporting a finding of economic unachievability. For example, the D.C. Circuit has upheld an EPA determination that a projected closure rate of less than 7% could support a finding of economic unachievability. *See Nat'l Wildlife Fed'n v. EPA*, 286 F.3d 554, 563 (D.C. Cir. 2002). In the end, economic achievability is a determination the EPA must make on an industry-by-industry basis because each industry has its own special attributes and requires an individual assessment of appropriate financial criteria. And we must defer to such determinations unless they are unreasonable. *See id.*, 286 F.3d at 565.

Thus, we reject the Environmental Petitioners' claim that the EPA unlawfully selected Option 2, rather than Option 5, as BAT for Subpart D CAFOs.

2. Challenge to the BCT Standard for Pathogens

The Environmental Petitioners next claim that the EPA's failure to adopt any requirements specifically designed to reduce pathogen discharges violates the Clean Water Act and is otherwise arbitrary and capricious in violation of the Administrative Procedure Act.[30] We agree with the

[30] We find that, contrary to the EPA's argument, the Environmental Petitioners are not barred from bringing this claim, because one comment expressly addressed the inadequacy of the Agency's pathogen reduction measures, *see* Excerpt Number CAFO201424-27 in EPA, RESPONSE TO COMMENTS ON THE NPDES PERMITTING REQUIREMENTS AND EFFLUENT LIMITATIONS GUIDELINES FOR CONCENTRATED ANIMAL FEEDING OPERATIONS at 9-81 (Dec. 2002) and because, in any event, the Agency clearly considered its statutory obligation to impose pathogen reduction measures in the course of promulgating the CAFO Rule. *See Nat'l Resources Def. Council, Inc. v. EPA*, 824 F.2d 1146, 1151 (D.C. Cir. 1987).

1 Environmental Petitioners in part.

2 The EPA does not dispute that it is required, under the Clean Water Act, to promulgate BCT-
3 based effluent guidelines for at least one pathogen, namely fecal coliform. *See* 33 U.S.C. §
4 1314(a)(4) (listing fecal coliform as a conventional pollutant subject to regulation); 33 U.S.C. §
5 1311(b)(2)(E) (requiring the promulgation of BCT standards for pollutants). That is to say, the EPA
6 does not dispute that it is required to promulgate a technology standard for achieving pathogen
7 reductions that reflects the *best* conventional pollutant control technology. The EPA also does not
8 here dispute that there is a more than *de minimis* presence of pathogens in the animal waste regulated
9 by the CAFO Rule. In the Preamble to the CAFO Rule, for example, the EPA expressly
10 acknowledges "the presence of pathogens in animal wastes and the potential risk they pose to human
11 health and the environment." Preamble to the Final Rule at 7217. *See also* EPA, RESPONSE TO
12 COMMENTS ON THE NPDES PERMITTING REQUIREMENTS AND EFFLUENT LIMITATIONS GUIDELINES
13 FOR CONCENTRATED ANIMAL FEEDING OPERATIONS A-8 (Dec. 2002) ("EPA recognizes the presence
14 of pathogens in animal wastes and the potential risk they pose to human health and the
15 environment"); Proposed Rule at 2977 (noting that livestock manure "contains countless
16 microorganisms, including bacteria, viruses, protozoa, and parasites," that "[m]ultiple species of
17 pathogens may be transmitted directly from a host animal's manure to surface water" and that
18 "[o]ver 150 pathogens found in livestock manure are associated with risks to humans").

19 The EPA argues that, notwithstanding the above, its failure to impose any BCT-based ELGs
20 specifically designed to achieve pathogen reductions is justified. Principally, the EPA argues that:
21 (1) the pathogen controls it did evaluate, most of which appear to relate to the use or potential use

1 of anaerobic digestion technology, would not necessarily lead to significant pathogen reduction, but
2 would impose significant costs, *see* Preamble to the Final Rule at 7217; and (2) the ELGs otherwise
3 adopted by the CAFO Rule may "incidentally" achieve some reductions of the pathogens in CAFO
4 discharges. *See* Brief of Respondents United States Environmental Protection Agency, et al. at 196;
5 *see also* Preamble to the Final Rule at 7217 ("Although the ELG requirements in this rule are not
6 specifically designed to reduce the pathogens in animal wastes, today's rule may achieve some
7 reductions of pathogens in CAFO discharges . . .").

8 In our view, however, the CAFO Rule violates the Clean Water Act because the EPA has not
9 made an affirmative finding that the BCT-based ELGs adopted in the CAFO Rule do *in fact*
10 represent the best conventional pollutant control technology for reducing pathogens. The EPA may
11 well determine, within the bounds of its discretion, that the ELGs otherwise adopted by the CAFO
12 do in fact represent the best conventional pollutant control technology for reducing pathogens. It
13 may well be the case, to put it slightly differently, that the EPA determines, after considering all the
14 relevant factors, that the ELGs otherwise adopted by the CAFO Rule will directly – not just
15 incidentally – reduce pathogens and do so better than any other pollutant control technology. But
16 we cannot, consistent with the Act, allow the EPA to avoid imposing any other pollutant control
17 technology without an express finding in this regard. The Act requires that the EPA select the best
18 pollutant control technology for reducing pathogens, and we must enforce that requirement.[31]

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[31] Because the EPA never made an affirmative finding that the other ELGs adopted by the CAFO Rule constitute the *best* conventional pollutant control technology, we need not address whether EPA reasonably rejected other pathogen controls. The rejection of those controls is not properly before this Court.

1 Accordingly, we grant the petition to the extent that Environmental Petitioners challenge the
2 EPA's failure to impose ELGs specifically designed to reduce pathogens in CAFO discharges as a
3 violation of the Clean Water Act.

4 3. Challenge to the New Source Performance Standard for Swine, Poultry, and Veal

5 The Environmental Petitioners claim that the EPA's "new source performance standard" for
6 the production areas of swine, poultry, and veal CAFOs is arbitrary and capricious and that – because
7 the EPA introduced a change to the standard that was not subject to public comment – the new
8 source performance standard for the production areas of swine, poultry, and veal CAFOs violates
9 the Clean Water Act's public participation requirements. We agree with them in part.

10 The Clean Water Act requires the EPA to promulgate "New Source Performance Standards"
11 ("NSPS") for new, as opposed to already existing, sources of pollution. *See* 33 U.S.C. § 1316. The
12 Act provides that these standards must "reflect the greatest degree of effluent reduction which the
13 Administrator determines to be achievable through application of the best available demonstrated
14 control technology, processes, operating methods, or other alternatives, including, where practicable,
15 a standard permitting no discharge of pollutants." 33 U.S.C. §1316(a)(1). The Act further requires
16 that the EPA "take into consideration the cost of achieving such effluent reduction, and any non-
17 water quality, environmental impact and energy requirements." 33 U.S.C. § 1316(b)(1)(B). And we
18 note that the EPA is given "considerable discretion to weigh and balance the various factors required
19 by statute to set [NSPS]." *Riverkeeper, Inc. v. EPA*, 358 F.3d 174, 195 (2d Cir. 2004) (citation
20 omitted).

21 The EPA initially proposed that the NSPS for the production areas of swine, poultry and veal

1 CAFOs include various groundwater-related requirements, *see* Proposed Rule at 3144, and also
2 proposed that the NSPS for the production areas of swine, poultry, and veal CAFOs include a total
3 prohibition on production area discharges. *See id.* ("There must be no discharge of process
4 wastewater pollutants into U.S. waters, including any pollutants discharged to ground water which
5 have a direct hydrological connection to surface waters."). In the Final Rule, however, the EPA
6 changed course in several respects: (1) The NSPS did not include the groundwater-related
7 requirements; (2) the NSPS still barred all production area discharges, but provided that a CAFO
8 could comply with this requirement by designing, constructing, operating and maintaining
9 production areas that could "contain all manure, litter, and process wastewater including the runoff
10 and the direct precipitation from a 100-year, 24-hour rainfall event;" and (3) the NSPS empowered
11 permitting authorities to establish alternative performance standards that allow production area
12 discharges, so long as such discharges were accompanied by "an equivalent or greater reduction in
13 the quantity of pollutants released to other media" by the CAFO. *See* 40 C.F.R. § 412.46. The
14 Environmental Petitioners here challenge all three aspects of the final NSPS.

15 We reject the challenge to the extent that it concerns the EPA's failure to include
16 groundwater-related requirements as part of the NSPS. The EPA's decision not to include such
17 requirements as part of the NSPS was predicated on the same findings underlying its decision not
18 to include groundwater-related requirements as part of the BAT for "Subpart C CAFOs." And as
19 we have already explained, we believe that these findings are supported in the record. *See* discussion
20 *supra*.

21 However, we agree with the Environmental Petitioners that there is not adequate support in

1 the record for either: (1) the EPA's decision to allow CAFOs to comply with the "total prohibition"
2 requirement by designing, operating, and maintaining a facility to contain the runoff from a 100-year,
3 24-hour rainfall event; or (2) the EPA's decision to allow CAFOs to comply with the "total
4 prohibition" requirement through alternative performance standards.

5 With respect to the former, the EPA claims that the "100-year, 24-hour rainfall event" design
6 standard is functionally equivalent to or a logical outgrowth of a total prohibition standard. The EPA
7 has not, however, adequately substantiated this claim. For example, the EPA never modeled the
8 potential overflows and pollutant loads from a system with a 100-year, 24-hour storm event design
9 capacity; so far as we can tell, the EPA modeled only the potential overflows and pollutant loads
10 from a system with a 25-year, 24-hour storm event. And while certain studies may have shown that
11 the production area BMPs adopted by the CAFO Rule would have substantially prevented the
12 production area discharges documented in the record, we think it obvious that *substantially*
13 *preventing* discharges is not the same as prohibiting them outright.

14 With respect to the latter, the EPA has not justified in any way – let alone with adequate
15 support in the record – its decision to allow a CAFO to comply with the total prohibition standard
16 through an alternative standard permitting production area discharges so long as the CAFO's
17 aggregate pollution is equivalent to or lower than what it would have been without the production
18 area discharges.

19 Additionally, because the EPA did not indicate, until the adoption of the final rule, that it was
20 considering either the 100-year, 24-hour rainfall event option or the possibility of alternative
21 performance standards, we find that the EPA's decision to adopt such provisions as part of the NSPS

for swine, poultry, and veal violates the Clean Water Act's public participation requirements. *See* 33 U.S.C. § 1251(e) ("Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States").

4. Challenge to the EPA's Failure to Impose Water Quality Based Effluent Limitations

We now consider the final challenge brought in this consolidated petition, namely, whether the CAFO Rule violates the Clean Water Act and is otherwise arbitrary and capricious under the Administrative Procedure Act because the Rule fails to promulgate water quality based effluent limitations ("WQBELs") and also bars states from doing so. We agree with the Environmental Petitioners that it does, at least in part.

As stated above, the Clean Water Act not only requires that the EPA promulgate technology-based effluent limitations, but also provides that additional WQBELs "shall be established" – either by the EPA, *see* 33 U.S.C. § 1312(a), or by the states, *see* 33 U.S.C. § 1314(l) – where "discharges of pollutants from a point source or group of point sources . . . would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public health, public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water." 33 U.S.C. § 1312(a). The Act authorizes the imposition of such WQBELs because "[t]he limitations necessary to achieve a given level of water quality in one reach of a waterway may require more control of effluents than that attainable through application of the

1 best available technology." 2 A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT
2 AMENDMENTS OF 1972, Committee Print Compiled for the Senate Committee on Public Works by
3 the Library of Congress, Ser. No. 93-1, p. 1464 (1973).

4 The CAFO Rule does not, here, promulgate any WQBELs. This much is clear. And this
5 does not present a problem to the extent that the Rule fails to promulgate – and bars the states from
6 promulgating – WQBELs for any "agricultural stormwater discharge," as that term is defined in 40
7 C.F.R. § 122.23(e).[32] Agricultural stormwater discharges are, after all, statutorily exempt from any
8 effluent limitations, including WQBELs, because they are not point source discharges. *See* 33
9 U.S.C. § 1362(14).

10 What is fully unclear is: (1) why the CAFO Rule exempts discharges other than agricultural

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[32] The Environmental Petitioners argue that the Preamble to the Final Rule can be construed to give the term "agricultural stormwater discharge" a broader definition than the one provided in 40 C.F.R. § 122.23(e). Because the Preamble at one point states that where a CAFO has developed site specific practices to ensure appropriate agricultural utilization of nutrients, "*[a]ny remaining discharge* ... would be covered by the agricultural storm water exemption," the Environmental Petitioners claim that the agricultural stormwater exemption might be read to include even "dry weather discharges," i.e., discharges not caused by rain. Preamble to the Final Rule at 7198. We disagree. First and most importantly, the CAFO Rule itself provides that only a "precipitation-related discharge" can be classified as agricultural stormwater. 40 C.F.R. § 122.23(e). Dry-weather discharges are, by definition, not precipitation-related. Second, the Preamble expressly states – in the paragraph preceding the statement that the Environmental Petitioners construe as suggesting a broader definition of agricultural stormwater – that "any dry weather discharge of manure or process wastewater resulting from its application to land area [sic] under the control of a CAFO would not be considered an agricultural storm water discharge and would thus be subject to Clean Water Act requirements." Preamble to the Final Rule at 7198. Thus, the agricultural stormwater exemption encompasses only those discharges that the CAFO Rule defines as agricultural stormwater, that is, a "precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of a CAFO" where the "manure, litter or process wastewater has [otherwise] been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization." 40 C.F.R. § 122.23(e).

1 stormwater discharges from WQBELs, and (2) whether the CAFO Rule bars the states from
2 promulgating WQBELs for discharges other than agricultural stormwater discharges, and, if so, why.
3 With regard to the former, the EPA has here indicated its intention not to promulgate any WQBELs
4 whatsoever; the Preamble to the Final Rule states, after all, that the "EPA does not expect that water
5 quality-based effluent limitations will be established for CAFO discharges resulting from the land
6 application of manure, litter or process wastewater." Preamble to the Final Rule at 7207. The EPA
7 has, however, only justified its determination not to impose WQBELs, only insofar as agricultural
8 stormwater discharges are concerned. *See id.* The EPA has not attempted, in any way, to explain
9 its failure to promulgate WQBELs for CAFO discharges other than agricultural stormwater
10 discharges as that term is defined in 40 C.F.R. § 122.23(e). The EPA sidesteps the issue completely
11 on appeal, and the Preamble to the CAFO Rule similarly fails to explain, let alone justify, its
12 decision. Since there is otherwise evidence in the record suggesting that the EPA's technology-based
13 effluent limitation guidelines may not, on their own, "assure protection of public health," *see, e.g.*,
14 Memorandum from Laurel J. Staley, Chief, Treatment and Destruction Branch, Land Remediation
15 & Pollution Control Division, EPA, Re: Assessment of the Necessity for Controlling Potentially
16 Infectious Microorganisms in Animal Wastes (Jan. 16, 2002), we find that the EPA's failure to
17 justify the lack of WQBELs for CAFO discharges other than agricultural stormwater discharges
18 violates 33 U.S.C. § 1312(a) and is arbitrary and capricious in violation of the Administrative
19 Procedure Act.[33] Accordingly, on remand, we direct the EPA to explain whether or not, and why,

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[33] To be clear, we are not asked to consider – and we accordingly do not consider – whether EPA is statutorily required, in the first instance, to investigate the propriety of imposing WQBELs. Here, we hold only that where the EPA has made a determination, one way or the

WQBELs are needed to assure that CAFO discharges will not "interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public health, public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water." 33 U.S.C. § 1312(a).

Additionally, we find that the Preamble to the Rule is ambiguous about whether states may promulgate WQBELs for discharges other than agricultural stormwater discharges as that term is defined in 40 C.F.R. § 122.23(e). On the one hand, the Preamble does, at one time, seem to suggest that states may promulgate WQBELs; it provides that "[a]lthough, as noted above, manure and process wastewater discharges from the land application area are not directly subject to water quality-based effluent limits, EPA encourages States to address water quality protection issues in their technical standards for determining appropriate land application practice." Preamble to the Final Rule at 7198. On the other hand, the Preamble elsewhere says that where a CAFO has implemented site-specific practices designed to ensure appropriate agricultural utilization of nutrients, it is free from *any* further regulation. To wit, the Preamble states:

> In explaining how the scope of CAFO point source discharges is limited by the agricultural storm water exemption, EPA intends that this limitation will provide a "floor" for CAFOs that will ensure that, where a CAFO is land applying manure, litter or process wastewater in accordance with site specific practices designed to ensure appropriate agricultural utilization of nutrients, *no further effluent limitations will be authorized, for example, to ensure compliance with water quality standards.*

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other, about the propriety of imposing WQBELs, that determination must be reasonable and supported in the record, i.e., not arbitrary and capricious.

1 *Id.* (emphasis added). Given the ambiguity in the Preamble, and given the fact that at least one state
2 has expressed concern that the Rule prevents the imposition of any state WQBELs, *see* Wisconsin
3 Dep't of Natural Res. Comments on U.S. EPA's Proposed Rule Revisions for Concentrated Animal
4 Feeding Operations at 1 (July 27, 2001), we believe it necessary for the EPA to explain more clearly,
5 on remand, whether in fact states may promulgate WQBELs for discharges other than agricultural
6 stormwater discharges as the term is defined in 40 C.F.R. § 122.23(e) and, if not, why.

7 Accordingly, we grant the Environmental Petitioners' challenge to the extent that they claim
8 that the CAFO Rule is arbitrary and capricious under the Administrative Procedure Act because the
9 EPA has not sufficiently justified its decision not to promulgate WQBELs for discharges other than
10 agricultural stormwater discharges, as that term is defined in 40 C.F.R. § 122.23(e). Additionally,
11 we grant the Environmenal Petitioners' petition to the extent that it seeks clarification of whether
12 the CAFO Rule bars the states from promulgating WQBELs.[34]

13 **CONCLUSION**

14 For the foregoing reasons, the petitions are granted in part and denied in part. We hereby
15 vacate those provisions of the CAFO Rule that: (1) allow permitting authorities to issue permits
16 without reviewing the terms of the nutrient management plans; (2) allow permitting authorities to

[34] The Environmental Petitioners moved to clarify and/or supplement the administrative record on appeal to include certain documents exchanged between the EPA and the Office of Management and Budget. They so moved because, in their view, the EPA-OMB documents supported their challenges to (a) the EPA's failure to promulgate WQBELs and (b) the CAFO Rule's new source performance standard for swine, poultry, and veal. Because we have granted both these challenges without even considering the EPA-OMB documents, we deny the Environmental Petitioners' motion as moot.

1 issue permits that do not include the terms of the nutrient management plans and that do not
2 provide for adequate public participation; and (3) require CAFOs to apply for NPDES permits or
3 otherwise demonstrate that they have no potential to discharge. We also remand other aspects of
4 the CAFO Rule to the EPA for further clarification and analysis. Specifically, we direct the EPA
5 to: (1) definitively select a BCT standard for pathogen reduction; and (2) clarify – via a process
6 that adequately involves the public – the statutory and evidentiary basis for allowing Subpart D
7 CAFO's to comply with the new source performance standard by either: (a) designing,
8 constructing, operating and maintaining production areas that could contain all manure, litter and
9 process wastewater including the runoff and the direct precipitation from a 100-year, 24-hour
10 rainfall event; or (b) complying with alternative performance standards that allow production
11 area discharges, so long as such discharges are accompanied by an equivalent or greater
12 reduction in the quantity of pollutants released to other media. Additionally, we direct the EPA
13 to clarify the statutory and evidentiary basis for failing to promulgate water quality based effluent
14 limitations for discharges other than agricultural stormwater discharges, as that term is defined in
15 40 C.F.R. § 122.23(e), and also direct the EPA to clarify whether states may develop water
16 quality based effluent limitations on their own. We uphold the CAFO Rule in all other respects.