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Animal Waste and Water Quality: EPA's Response to the *Waterkeeper Alliance* Court Decision on Regulation of CAFOs

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Summary

In October 2008, the Environmental Protection Agency (EPA) issued a regulation to revise a 2003 Clean Water Act rule governing waste discharges from large confined animal feeding operations (CAFOs). This action was necessitated by a 2005 federal court decision (*Waterkeeper Alliance et al. v. EPA*, 399 F.3d 486 (2nd Cir. 2005)), resulting from challenges brought by agriculture industry groups and environmental advocacy groups, that vacated parts of the 2003 rule and remanded other parts.

The Clean Water Act prohibits the discharge of pollutants from any "point source" to waters of the United States unless authorized under a permit that is issued by EPA or a qualified state, and the act expressly defines CAFOs as point sources. Permits limiting the type and quantity of pollutants that can be discharged are derived from effluent limitation guidelines promulgated by EPA. The 2003 rule, updating rules that had been in place since the 1970s, revised the way in which discharges of manure, wastewater, and other process wastes from CAFOs are regulated, and it modified both the permitting requirements and applicable effluent limitation guidelines. It contained important first-time requirements: all CAFOs must apply for a discharge permit, and all CAFOs that apply such waste on land must develop and implement a nutrient management plan.

EPA's October 2008 regulation addresses those parts of the 2003 rule that were affected by the federal court's ruling: (1) it eliminates the "duty to apply" requirement that all CAFOs must either apply for discharge permits or demonstrate that they have no potential to discharge, which was challenged by industry plaintiffs; (2) it adds procedures regarding review of and public access to nutrient management plans, challenged by environmental groups; and (3) it modifies aspects of the effluent limitation guidelines, also challenged by environmental groups. The final rule also modifies a provision of the 2003 rule that the court upheld, clarifying the treatment of a regulatory exemption for agricultural stormwater discharges.

EPA's efforts to revise the 2003 rule have been controversial, with particular focus on the "duty to apply" for a permit and agricultural stormwater exemption provisions. Industry groups were generally supportive, approving deletion of the previous "duty to apply" provision and also of efforts to provide flexibility regarding nutrient management plan modifications. Environmental groups strongly criticized EPA's actions, arguing that the *Waterkeeper Alliance* court left in place several means for the agency to accomplish much of its original permitting approach, but instead EPA chose not to do so. State permitting authorities also had a number of criticisms, focusing on key parts that they argue will greatly increase the administrative and resource burden on states. The date for CAFOs to comply with the revised rule is February 27, 2009. Congress has shown some interest in CAFO issues in the past, primarily through oversight hearings in 1999 and 2001.

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Introduction

According to the Environmental Protection Agency (EPA), the release of waste from animal feedlots — the portion of the livestock industry that involves large, intensive animal raising and feeding operations — to surface water, groundwater, soil, and air is associated with a range of human health and ecological impacts and contributes to degradation of the nation's surface waters. The most dramatic ecological impacts are massive fish kills, which have occurred in a number of locations in the United States. A variety of pollutants in animal waste can affect human health in several ways, such as causing infections to the skin, eye, ear, nose, and throat. Contaminants from manure can also pollute drinking water sources. Data collected for the EPA's 2000 National Water Quality Inventory report identify agriculture as the leading known contributor to water quality impairments in rivers and lakes. Animal feeding operations are only a subset of the agriculture sector, but 29 states specifically identified animal feeding operations as contributing to water quality impairment.[1] Federal efforts to control these sources of water pollution have accelerated in recent years, but they have been highly controversial.

The primary pollutants associated with animal wastes are nutrients (particularly nitrogen and phosphorus), organic matter, solids, pathogens, and odorous/volatile compounds. Animal waste also contains salts and trace elements, and to a lesser extent, antibiotics, pesticides, and hormones. Pollutants in animal waste can impact waters through several possible pathways, including surface runoff and erosion, direct discharges to surface waters, spills and other dry-weather discharges, leaching into soil and groundwater, and releases to air (including subsequent deposition back to land and surface waters). Pollutants associated with animal waste can also originate from a variety of other sources, such as cropland, municipal and industrial discharges, and urban runoff.

Although agricultural activities are generally not subject to requirements of environmental law, discharges of waste from large concentrated animal feeding operations (CAFOs) into the nation's waters are regulated under the Clean Water Act (CWA). In the late 1990s, EPA initiated a review of the CWA rules that govern these discharges. The rules had not been revised since the 1970s, despite subsequent structural and technological changes in some components of the animal agriculture

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[1] U.S. Environmental Protection Agency, "National Water Quality Inventory, 2000 Report," August 2002, EPA-841-R-02-001, 1 vol.

industry. A proposal to revise the existing rules was released by the Clinton Administration in December 2000. These regulatory activities and proposals have been very controversial. Agriculture industry groups have opposed permitting requirements that they consider burdensome and costly, while others, such as environmental groups, have favored more stringent national standards that require improved control technology. During this period, Congress showed some interest in CAFO issues, through oversight hearings held by House subcommittees in October 1999 and May 2001.

The Bush Administration issued final revised regulations in December 2002, which were published in the *Federal Register* in February 2003 and became effective April 14, 2003.[2] The 2003 rule was challenged by multiple parties — environmental groups and agriculture industry groups — and in February 2005, a federal court issued a ruling that upheld major parts of the rule, vacated other parts, and remanded still other parts to EPA for clarification, leaving all parties unsatisfied to at least some extent. In response, EPA issued proposed revisions to the CAFO rule in June 2006. Those revisions have been criticized by a number of stakeholder groups. Under that proposal, EPA intended to promulgate revised rules in June 2007; the deadline for compliance with the revised rules would have been July 31, 2007. However, in July 2007, EPA extended the deadline for compliance with CAFO rules to February 27, 2009. In March 2008, EPA released a supplementary proposal to incorporate in a final rule. A final revised regulation was announced October 31, 2008; it takes effect December 22, 2008.

This report describes major features of the 2003 CAFO rule. It discusses the parts of the rule that were addressed in the federal court's decision and EPA's response to the court, as presented in the 2006 proposed revisions, the 2008 supplementary proposal, and the October 2008 final regulations. Finally, the report also provides an overview of perspectives on these issues of key interest groups — the livestock and poultry industry, states, and environmentalists.

The 2003 Rule

The CWA prohibits the discharge of pollutants from any "point source"[3] to waters of the United States unless authorized under a national pollutant discharge elimination system (NPDES) permit that is issued by EPA or a qualified state. Any

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[2] U.S. Environmental Protection Agency, "National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs); Final Rule," 68 *Federal Register* 7175-7274, February 12, 2003. For additional information on the 2003 rule, see CRS Report RL31851, *Animal Waste and Water Quality: EPA Regulation of Concentrated Animal Feeding Operations (CAFOs)*, by Claudia Copeland.

[3] Under the act, point sources are defined as any discernible, confined, and discrete conveyance, such as any pipe, ditch, channel, or conduit from which pollutants are or may be discharged. In contrast, nonpoint source pollution, which is not regulated by NPDES permits, is any source of water pollution that is not associated with a discrete conveyance, including precipitation runoff from fields, forest lands, or mining and construction activities.

discharge from a point source, even one that is unplanned or accidental, is illegal unless it is authorized by the terms of a permit. NPDES permits limit the type and quantity of pollutants that can be discharged from a facility and specify other requirements, such as monitoring and reporting. The specific discharge limitations in the permit are derived from effluent limitation guidelines and standards (ELGs) that are separately promulgated by EPA for specific categories of industrial sources. ELGs are technology-based restrictions on water pollution, because they are established in accordance with technological standards specified in the act. They vary depending upon the type of pollutant and discharge involved, and whether the point source is new or already existing.

The act expressly defines CAFOs as point sources. EPA issued NPDES permitting rules for CAFOs in 1974 (defining which animal feeding operations are subject to regulation[4]) and effluent limitation guidelines in 1976. The 2003 rule did not redefine what is a CAFO, but it revised the way in which discharges of manure, wastewater, and other process wastes from CAFOs are regulated, and it modified both the NPDES permitting requirements and applicable ELGs. Under the 2003 rule, all CAFOs are required to apply for an NPDES permit. EPA estimated that this requirement expanded the number of covered operations from about 12,800 under the pre-2003 rules to 15,500 — primarily the largest CAFOs, in terms of numbers of animals raised or housed on-site — or about 19% of all animal feeding operations of all size in the United States at that time. EPA acknowledged that prior to the 2003 revisions, permitting and enforcement had been inadequate and that only 4,000 CAFOs actually had permits.

The rule established ELGs that apply to the production areas of regulated CAFOs (including the animal confinement area, manure storage area, raw material storage area, and waste containment area) and, for the first time, to the land application area (referring to land to which manure, litter, or process wastewater is or may be applied). These ELGs are non-numerical best management practices. Discharges from a production area are subject to a performance standard requiring facilities to maintain waste containment structures that generally prohibit discharges except in the event of overflows or runoff resulting from a 25-year, 24-hour rainfall event.[5] Similarly, discharges of pollutants from land application areas must comply with ELG best management practices, such as the adoption of setback limits from surface waters or vegetative buffer strips. In addition, a permitted facility is required to submit an annual performance report to EPA and to develop and follow a plan, known as a comprehensive nutrient management plan (NMP), for handling manure and wastewater.

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[4] An animal feeding operation (AFO) is a facility in which livestock or poultry are raised or housed in confinement for a total of 45 days or more in any 12-month period and animals are not maintained in a pasture or on rangeland. CAFOs are a subset of AFOs. In addition to meeting the confinement criteria, an AFO is a CAFO if it meets minimum size thresholds (those with more than 1,000 animals are CAFOs; those with fewer animals may be defined as CAFOs in some cases).

[5] This is a rainfall event with the probability of recurrence once in 25 years (or a 4% chance of being exceeded in a 24-hour period in any single year). The amount of precipitation that constitutes a 25-year, 24-hour rainfall event varies by location.

The *Waterkeeper Alliance* Decision and EPA's Response

The 2003 rule was challenged in court by a number of diverse groups. The cases, brought by environmental petitioners and by farm industry petitioners, were consolidated by the Second Circuit Court of Appeals, which issued a decision on February 28, 2005 (*Waterkeeper Alliance et al. v. EPA*, 399 F.3d 486 (2nd Cir. 2005)). The ruling reflected partial victory for all of the parties, because the court upheld or did not address significant parts of the regulation (such as the definition of what is a CAFO, for regulatory purposes). It upheld EPA's authority to regulate through permits the discharge of manure, litter, or process wastewater that a CAFO applies to a land application area. It also upheld EPA's interpretation that precipitation-related discharges of manure, litter, or process wastewater from land application areas that are applied in accordance with a nutrient management plan qualify as "agricultural stormwater" and thus do not require permits.

The court agreed with some of the claims raised by both sets of petitioners: it vacated parts of the regulation and remanded other parts to EPA for clarification. In response to the ruling, EPA proposed revisions to the 2003 rule in June 2006.[6] The parts of the rule affected by the court's ruling and EPA's response are described in the remainder of this report. EPA officials indicated in the 2006 proposal that they expected to promulgate revised regulations by June 2007. Earlier in 2006, EPA had extended compliance dates in the 2003 rule for facilities that were affected by the *Waterkeeper Alliance* decision until July 31, 2007.[7] This extension affected the date for newly defined CAFOs (facilities not defined as CAFOs as of April 14, 2003 — the effective date of the 2003 rule) to seek NPDES permit coverage and the date by which all CAFOs must develop and implement nutrient management plans.

In May 2007, EPA announced that it was still considering comments on the 2006 proposal and did not expect to complete work on a final rule until 2008. Thus, EPA extended the July 31, 2007, compliance deadline until February 27, 2009 — giving livestock operators another 19 months to obtain discharge permits and to develop and implement manure management plans.[8] The compliance deadline extension did not apply to new livestock operations (who were required by the 2003 rule to comply with those rules when they begin operations) or to existing CAFOs

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[6] U.S. Environmental Protection Agency, "Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines for Concentrated Animal Feeding Operations in Response to Waterkeeper Decision; Proposed Rule," 71 *Federal Register* 37744-37787, June 30, 2006.

[7] U.S. Environmental Protection Agency, "Revised Compliance Dates for National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines for Concentrated Animal Feeding Operations," 71 *Federal Register* 6978-6984, February 10, 2006.

[8] U.S. Environmental Protection Agency, "Revised Compliance Dates Under the National Pollutant Discharge Elimination System Permit Regulations and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations," 72 *Federal Register* 40245-40250, July 24, 2007.

that were covered by permits prior to 2003 (who also were required to comply when the 2003 rule became effective).

In March 2008, EPA released a supplement to the 2006 proposal, modifying that proposal in two respects by proposing additional options to respond to the *Waterkeeper Alliance* ruling, but not reopening the entire 2006 proposal for additional public comment. EPA provided a 30-day public comment period on the supplementary proposal.[9] Even with the supplementary proposal, EPA expected to promulgate a final revised regulation by the summer of 2008 and would not need to extend the February 2009 compliance date.

Several hundred public comments on EPA's regulatory proposal were submitted by individual citizens, environmental advocacy groups, state agencies (environmental, public health, and agricultural departments), individual livestock and poultry producers, and groups that represent livestock and poultry producers.[10] Public comments addressed a number of general and specific technical points, with particular focus on the "duty to apply" and agricultural stormwater exemption provisions of the proposal (discussed below). Industry's comments were generally supportive of the proposal, approving deletion of the previous "duty to apply" provision and also EPA's efforts to provide flexibility regarding nutrient management plan modifications — especially to limit review and public participation requirements to only those changes that are substantial. Environmental groups, on the other hand, strongly criticized the proposal, arguing that the *Waterkeeper Alliance* court left in place several means for the agency to accomplish much of its original permitting approach, but instead EPA chose not to do so. State environmental and resource agencies, the primary implementers of CWA permitting, also had a number of criticisms. They focused on key parts that they argue will greatly increase the administrative and resource burden on states.

A final revised regulation was issued by EPA on October 31.[11] The final rule substantially adopts the 2006 proposal and the 2008 supplementary proposal, with some mainly editorial modifications. According to EPA, the revised rule will apply to about 15,300 CAFOs that will need permit coverage (74% of the 20,700 CAFOs

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[9] U.S. Environmental Protection Agency, "Revised National Pollutant Discharge Elimination System Permit Regulations for Concentrated Animal Feeding Operations; Supplemental Notice of Proposed Rulemaking," 46 *Federal Register* 73, March 7, 2008, pp. 12321-12340.

[10] Materials in the EPA docket for this rulemaking, No. EPA-HQ-OW-2005-0037, including EPA documents and public comments on the proposal, can be found at [http://www.regulations.gov/fdmspublic/component/main].

[11] U.S. Environmental Protection Agency, "Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision, Final Rule," 73 *Federal Register* 225, November 20, 2008, pp. 70417-70486. For additional information, see [http://cfpub.epa.gov/npdes/afo/cafofinalrule.cfm].

operating in 2008).[12] The agency estimates that 9,000 CAFOs currently are covered by existing permits.

The remainder of this report discusses key portions of the regulation that were affected by the court's ruling, but begins with the agricultural stormwater issue which the court did not reject or remand. Following that is discussion of issues that EPA addressed as a result of the litigation: (1) the "duty to apply" requirement that all CAFOs either apply for NPDES permits or demonstrate that they have no potential to discharge, which was challenged by industry plaintiffs, (2) procedures regarding review of and public access to nutrient management plans, challenged by environmental groups, and (3) aspects of the effluent limitation guidelines, also challenged by environmental groups.

Agricultural Stormwater Discharges

One issue that the federal court upheld in 2005 concerns the rule's treatment of a regulatory exemption for agricultural stormwater discharges. This issue, which was one of the most controversial during development of the 2003 rule, arose in the context of the regulatory framework concerning the land application of manure, litter, and process wastewater. As noted above, the CWA expressly defines the term "point source" to include concentrated animal feeding operations. The same provision of the act, section 502(14), also expressly defines "point source" to *exclude* "agricultural stormwater." The court characterized this provision as "self-evidently ambiguous" and observed, "the Act makes absolutely no attempt to reconcile the two."[13] When manure and other waste are applied to land, precipitation-related runoff can transport nutrients, pathogens, and other pollutants in the waste to nearby receiving waters.

To develop the 2003 rule, EPA had to interpret the statutory inclusion of CAFOs as point sources and the agricultural stormwater exclusion consistently and to identify the conditions under which discharges from the land application area of a CAFO are point source discharges that are subject to NPDES permitting requirements, and those which are agricultural stormwater discharges and thus are not point source discharges.[14] The land application portion of the rule details requirements to ensure that animal waste is applied to land in accordance with nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the waste. Under the rule as promulgated, EPA determined that when manure or process wastewater is applied in accordance with those practices, at appropriate agronomic rates, it is a beneficial agricultural production input. Where such practices have been used, any remaining precipitation-related discharge is agricultural stormwater which is exempt from permitting. In contrast, where appropriate manure management

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[12] EPA estimated that the CAFO industry had grown by about 22% from 2002 to 2008, due to industry expansion and the trend toward larger, more concentrated facilities, but that changes in the 2008 rule, discussed below, reduce the number of operations expected to seek permit coverage from 15,500 under the 2003 rule to 15,300 under the revised rule.

[13] *Waterkeeper Alliance et al. v. EPA*, 399 F.3d at 507.

[14] Production areas such as feedlots and lagoons are not eligible for the agricultural stormwater exemption, because they involve the type of industrial activity that originally led Congress to single out CAFOs as point sources. See 68 *Federal Register* 7198.

practices have not been used, EPA argued that it is reasonable to conclude that discharges of manure from a land application area have not been applied at agronomic rates, are not agricultural stormwater, and thus are subject to NPDES permitting. Under the rule, adherence to appropriate nutrient management practices eliminates any need to seek permit coverage for land application discharges or submit a land application NMP to the permitting authority.

Both groups of petitioners challenged this portion of the rule. Livestock and poultry industry plaintiffs had argued that land application runoff should be considered a point source discharge subject to permitting only if it is collected or channelized prior to discharge. In contrast, the environmental petitioners argued that the act's definition of "point source" requires regulation of all CAFO discharges, notwithstanding the statutory exemption for agricultural stormwater discharges. The court found that EPA's interpretation of the act in this regard was reasonable. The court interpreted the rule as seeking to remove liability for agriculture-related discharges primarily caused by nature, while maintaining liability for other discharges. "[W]here a CAFO has taken steps to ensure appropriate agricultural utilization of the nutrients in manure, litter, and process wastewater, it should not be held accountable for any discharge that is primarily the result of 'precipitation.'"[15] It rejected the challenges by the parties, and it upheld this portion of the rule.

Although the court did not direct EPA to revise this provision, the agency stated in the Preamble to the 2006 proposal that it was considering adding a provision that would apply to runoff from CAFO fields that are otherwise unpermitted because they do not discharge or propose to discharge (and thus are considered to be agricultural stormwater). Under this addition, in order to qualify as agricultural stormwater discharges and thus receive a permit exemption, unpermitted large CAFOs would still be required to comply with nutrient management technical standards for land application (field-specific standards, for example) that have been established by the permitting authority (the state or EPA), in addition to the practices specified in the EPA rule.

Public Comments. Industry groups endorsed EPA's proposal regarding agricultural stormwater, which assumes that where land application is conducted in accordance with the rule's nutrient management standards, stormwater runoff is exempt from NPDES permitting. However, these groups strongly objected to EPA's suggestion in the Preamble to the 2006 proposal that it was also considering requiring CAFOs to comply with additional technical standards established by a permitting authority, because they maintained that such a change would unlawfully narrow the exemption.

Environmentalists, on the other hand, argued that this portion of the proposal would unlawfully allow CAFOs to self-regulate, as it fails to require them to get permits in order to claim the exemption. States expressed a similar view, contending that neither a state nor EPA can take enforcement action against an unpermitted CAFO to comply with technical or other standards. One state observed that EPA's proposal represents "a circular arrangement that would be quite difficult to enforce

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[15] *Waterkeeper* at 509.

and administer," and that courts would be skeptical of enforcement cases against facilities that are exempt from regulation.[16]

Final Revised Regulation. The final rule includes a provision described in the Preamble to the 2006 proposal. The regulation states that in order for unpermitted large CAFOs to have their precipitation-related discharges qualify as agricultural stormwater discharges, they must apply manure, litter, or process wastewater to land according to site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the waste. A full nutrient management plan is not required. While this is a new provision in the rule, EPA stated that it is not a new requirement; rather, it clarifies EPA's existing interpretation of the agricultural stormwater exemption in CWA section 502(14).

Duty to Apply for a Permit

The 2003 rule explicitly required all CAFOs to apply for an NPDES permit, or to demonstrate to the permitting authority that they have no potential to discharge. EPA's policy rationale for this "duty to apply" provision was based on its "presumption that most CAFOs have a potential to discharge pollutants into waters of the United States."[17] However, farm industry plaintiffs argued that, unless there is a discharge of a pollutant, CAFOs and other point sources are neither statutorily obligated to comply with EPA regulations, nor are they obligated to seek or obtain an NPDES permit. The *Waterkeeper Alliance* court ruled in support of these plaintiffs and held that EPA exceeded its authority under the CWA in ordering all CAFOs to apply for a permit, finding that the law requires permits only where there is an actual discharge, not just a potential to discharge.

EPA proposed to replace the broad "duty to apply" requirement of the 2003 rule with a requirement that all CAFOs that "discharge or propose to discharge" must seek coverage under an NPDES permit. A similar requirement for all point sources already exists under other parts of EPA regulations that were not affected by the *Waterkeeper Alliance* decision (40 C.F.R. §122.21(a)(1)). The proposal deleted the 2003 rule's provision allowing CAFOs to demonstrate that they have no potential to discharge, saying that such a designation would be irrelevant because the proposal requires only those CAFOs that discharge or propose to discharge to seek coverage under a permit. EPA estimated that the change in the "duty to apply" provision — i.e., eliminating the permit requirement for CAFOs that have the *potential* to discharge, as opposed to those that *actually* discharge or propose to discharge — means that 25% fewer CAFOs would ultimately seek permits and that CAFO operators will experience a $15.5 million per year reduction (or 26%) in administrative burden, compared with the 2003 rule.

EPA's March 2008 supplementary proposal included a provision that would allow CAFOs to voluntarily certify that the facility does not discharge or propose to discharge. This provision would allow a CAFO to certify to the permitting authority,

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[16] Illinois Environmental Protection Agency, Comments on the revised CAFO regulation, August 29, 2006, p. 4.

[17] 71 *Federal Register* at 37748.

through an objective assessment, that the operation does not discharge or propose to discharge and therefore does not need to obtain an NPDES permit. To be eligible for this certification, the facility would be required to evaluate that its production area will not discharge and to develop and implement an NMP similar to that for permitted facilities. The certification process would be voluntary, but it would offer protection to a farmer because in the event that a discharge from a certified CAFO occurs, the farmer would be not liable for having failed to apply for a permit. The operator would still be subject to liability for the discharge itself, however, and the certification would cease to be valid.

Public Comments. Both state permitting authorities and environmental groups opposed deletion of the original requirement that all CAFOs must apply for an NPDES permit. They said that in doing so, EPA would change the entire permitting program from one that is pro-active to one that is reactive, because it "would allow CAFO operators to decide whether their situation poses enough risk of getting caught having a discharge to warrant the investment of time and resources in obtaining a permit."[18] Although EPA estimated that 25% fewer CAFOs will seek permit coverage, states argued that this overestimated the number that will voluntarily get permits, because under EPA's proposed revisions, there is virtually no incentive to seek a permit. Further, states contended that any cost savings that CAFOs will experience will be shifted to permitting authorities which will be placed in a more adversarial position of first proving that a facility has a discharge and then taking an enforcement action. As one state observed, the number of CAFOs, permitted or not, is the same, and EPA expects states to inspect those that don't apply for permit coverage, as well as process permits for those that do.[19] Overall, states argued that the administrative burden on states of EPA's proposal to delete the "duty to apply" requirement will be greater than under the 2003 rule, not less, as EPA concluded.

States and environmental groups also objected to allowing industry to voluntarily self-certify compliance, saying that it would undermine the environmental protection provisions of the rule. Industry groups also were critical, saying that requiring most feedlots to seek permits or face retroactive penalties if an unpermitted discharge occurs would amount to a form of the "duty to apply" concept that was rejected by the *Waterkeeper* court.

Agriculture industry commenters had other concerns about this aspect of EPA's proposal. They had challenged the "duty to apply" provision of the 2003 rule, and the court upheld their argument that the CWA only requires facilities that actually discharge to seek permit coverage. Industry groups fundamentally disagree with any presumption that CAFOs do discharge pollutants, contrary to EPA's position in

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[18] Natural Resources Defense Council, Sierra Club, Waterkeeper Alliance, Comments on the revised CAFO regulation, August 29, 2006, p. 9.

[19] Ohio Department of Agriculture, Ohio Environmental Protection Agency, Ohio Department of Natural Resources, Comments on the revised CAFO regulation, undated, p. 6.

support of the 2003 rule or environmentalists' contentions.[20] Thus, they objected to EPA's attempts to get CAFOs to voluntarily seek permits and the specific addition of a permit requirement for those that "propose to discharge." According to this view, EPA may not lawfully establish permitting requirements based on speculation as to possible future CAFO discharges. Any "duty to apply" triggered by accidental discharges could arise (if at all) only after an actual discharge has occurred and should be limited to facilities that accidentally discharge and fail after a reasonable time to identify the cause and take appropriate corrective measures.[21] One of EPA's rationales for promulgating the 2003 rule was recognition that large numbers of unpermitted CAFOs were discharging wastes that contribute to water quality impairments.[22] Critics of industry's position on this issue contended that allowing CAFOs to self-regulate, self-report accidental releases, and then possibly seek permit coverage will likely perpetuate those same conditions.

Final Revised Regulation. The final rule adopts the approach proposed in 2006, replacing the "duty to apply" requirement in the 2003 rule with a requirement that a CAFO must seek permit coverage when it actually discharges or proposes to discharge (i.e., based on an objective assessment that it is designed, constructed, operated, or maintained such that a discharge will occur, not simply that it might occur).

EPA recognizes that some CAFOs that do not discharge or propose to discharge will not seek permit coverage. But, in the event of a discharge from an unpermitted CAFO, the operator would be in violation of the CWA, because any discharge from a CAFO, even one that is unplanned or accidental, is illegal unless it is authorized by the terms of a permit or is agricultural stormwater. Some CAFO operators were concerned that an accidental discharge from an unpermitted facility would subject the CAFO to liability for the discharge and for failure to apply for a permit. Thus, the final rule includes the option proposed in 2008 to allow a CAFO to certify to the permitting authority that it is designed, constructed, operated, and maintained not to discharge. A certifying CAFO will be required to implement a nutrient management plan that, at a minimum, meets the NMP requirements applicable to permitted CAFOs. A CAFO's "no discharge" certification is not subject to review by the permitting authority in order for it to become effective, and the permitting authority is not required to make the certification available to the public for comment, because the certification is not a permit application for which review is required. In the event of a discharge from a certifying CAFO (other than agricultural stormwater), the facility would be liable for any unpermitted discharge, but not for failure to apply for a permit.

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[20] National Pork Producers Council, United Egg Producers, American Farm Bureau Federation, National Council of Farmer Cooperatives, National Corn Growers Association, "Comments on Proposed Post-*Waterkeeper* CAFO NPDES Regulations," August 29, 2006, p. 38.

[21] Id., p. 14.

[22] See 68 *Federal Register* 7179-7181,

Nutrient Management Plans

The 2003 rule mandated that NPDES permits for all CAFOs that land apply animal waste include a new requirement that the permittee develop and implement a nutrient management plan that includes minimum elements specified in the rule, such as ensuring adequate storage of manure, litter, and process wastewater, and preventing direct contact of confined animals with waters of the United States. CAFOs were to develop and implement an NMP by the same date that the rule required them to comply with the rule's land application provisions (generally December 31, 2006, under the original rule; since the *Waterkeeper Alliance* decision, EPA twice extended the deadline, now scheduled for February 27, 2009). The 2003 rule provided that NMPs would be retained on-site at the CAFO. It must be available to EPA or the permitting authority, but it is not considered part of the facility's permit.

The environmental plaintiffs argued to the federal court that the NMP part of the 2003 rule was unlawful under the Clean Water Act and the Administrative Procedure Act[23] because it failed to require that the terms of the NMP must be reviewed and be included in the NPDES permit (inclusion in the permit would make the NMP enforceable by the government and private citizens) and because it allowed permitting authorities to issue permits in the absence of any meaningful government or public review of this aspect of the permit. They also argued that the permitting aspects of the rule violate the Clean Water Act's public participation requirements by effectively shielding the plans from public scrutiny and comment. The court agreed with the environmental plaintiffs on these points and vacated these portions of the rule.

In response, EPA proposed in 2006 to require that CAFOs seeking permit coverage submit an NMP as part of the permit application and that the permitting authority make the plan available for review prior to developing the facility's permit. The permitting authority would be responsible for reviewing the NMP for completeness and sufficiency. The terms of the NMP (such as the minimum elements described above) would become terms and conditions of the permit, as required by the court. In its proposal, EPA distinguished between NMP *terms,* which must be incorporated as enforceable conditions of the permit following the public review process, and the plan as a whole, which must be submitted to the permitting authority for review. The NMP as a whole, EPA said, will include underlying data, calculations, and other information such as technical standards that provide a basis for the facility-specific requirements.

EPA rules generally allow permitting authorities to issue two types of permits: either individual facility-specific permits, or general permits to cover multiple facilities without the need to receive individual permit applications from facilities in advance of developing the permit. In the 2003 rule, EPA indicated that it expected that most permitting authorities would utilize general permits, as a way of minimizing regulatory burden. The *Waterkeeper Alliance* ruling required EPA to

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[23] The Administrative Procedure Act, 5 U.S.C. §§ 551-559, contains provisions that govern federal agency rulemaking proceedings.

expressly address public participation in review of NMPs, since they must be included in a permit. In the case of individual permits, existing NPDES rules already establish procedures for public participation. Thus, because the NMP would be part of the individual permit application, it would be subject to existing rules requiring public participation, and no rule changes were needed.

EPA's 2006 response to the *Waterkeeper Alliance* ruling contained new provisions for public participation in review of NMPs for those facilities intending to be covered by a general permit, because there is no provision in existing rules that explicitly addresses incorporation of site-specific NMP requirements into a general permit. The proposal included mechanisms so that general permits for CAFOs can be modified, once issued, to include the terms of an NMP applicable to a specific CAFO and to provide an opportunity for public review of a CAFO's Notice of Intent (including the entire NMP) to be covered by a general permit, before the CAFO actually receives coverage under the general permit. Under the proposal, the permitting authority (state or EPA) would have discretion as to how best to provide public notification and comment in the context of general permits.

In the March 2008 supplementary proposal, EPA presented alternatives to enable permitted CAFOs some flexibility in developing their NMPs, with respect to specifying the rates of application of nutrients in manure, litter, or process wastewater to land. Circumstances at a farm change during the period of a permit (ordinarily five years), and agricultural operations often modify their nutrient management and farming practices during the normal course of their operations — for example, planting different crops that have different needs for nitrogen and phosphorus. The alternatives were intended to allow CAFOs to make crop rotation and similar changes without requiring formal modification of their NMPs. Such flexibility would reduce the burden on permitting authorities and CAFO operators by decreasing the number of significant changes to permits, which require public notice and comment. The alternatives would allow CAFO operators to make routine changes at a facility that affect the rate of nutrient application to land without changing the NMP itself. EPA proposed three alternatives, with increasing amounts of flexibility for the CAFO operator; each approach would require annual reporting requirements to provide actual data that would be publicly available concerning compliance with permit requirements during the previous year.

Public Comments. Many comments on the 2006 proposal focused on the complexity of nutrient management planning and the administrative and resource burdens that NMPs would put on CAFO operators and state permitting agencies. Recognizing the problem of burdens imposed on permitting authorities, EPA's proposal incorporated flexibility in various ways, such as allowing states the discretion to decide how to provide for public notice. Other comments were critical that EPA was proposing too much flexibility and discretion for permitting authorities and would not ensure adequate public participation and review.

Industry commenters sought clarification in the rule of criteria that constitute the terms of the NMP (since NMP terms become enforceable conditions of the permit), which EPA addressed in the 2008 supplementary proposal. However, other commenters asserted that the entire NMP should be included in or expressly

referenced by the permit, so as to ensure that the permit requires the CAFO to comply with every discharge reduction or prevention measure in its NMP.

Final Revised Regulation. The final rule adopts the approach that EPA proposed. The revisions do not change the required contents of the NMP, but they add a requirement for CAFOs to submit their NMP as part of their permit application or notice of intent to be covered by a general permit and add public participation requirements to ensure opportunity for public review. The rule establishes new procedures for permitting authority and public review of NMPs for CAFO general permits. To respond to the *Waterkeeper* decision, the final rule specifies minimum terms of the NMP that must be enforceable requirements of a CAFO's permit, but EPA did not agree with those commenters who argued that all of the information in the NMP constitutes enforceable terms.

The court focused on rates of applications as perhaps the most important term of the NMP, and it was an issue of concern to many commenters. Thus, the 2006 and especially the 2008 supplementary proposal addressed this issue in detail. The final rule modifies the 2008 supplementary proposal to include two options for identifying the terms of the NMP with respect to rates of application of nutrients.[24] Each approach provides a means for a CAFO to articulate in its NMP annual maximum rates of application of animal waste by field and crop and identify the minimum required terms of the NMP specific to that approach. One approach would be suitable for operations with predictable crops and land application, EPA said, while the other likely would benefit CAFOs that may need to adjust their rates of application because of changes in soil levels of nitrogen and phosphorus, due, for example, to changes in crop rotations.

Aspects of the Effluent Limitation Guidelines for CAFOs

Specific effluent limitations contained in individual NPDES permits are dictated by the terms of more general effluent limitations guidelines promulgated by EPA that typically specify the maximum allowable levels of pollutants that may be discharged by facilities within an industrial category or subcategory using specific technologies. While the limits are based on the performance of specific technologies, they do not generally require the industry to use these technologies, but rather allow the industry to use any effective alternatives to meet the pollutant limits. As noted above, in the 2003 rule, EPA established non-numerical effluent limitation guidelines for the production areas of CAFOs, and did so for four subcategories of the CAFO industry. The environmental petitioners challenged several aspects of the ELGs, and the *Waterkeeper Alliance* court upheld parts of their claims. In this portion of the decision, the court remanded the rule to EPA with instruction to present additional analysis and justification, so as to clarify its decisionmaking rationale.

New Source Standards for Swine, Poultry, and Veal Operations. The CWA requires EPA to promulgate New Source Performance Standards (NSPS) for new, as opposed to already existing, sources of pollution, based on what is

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[24] The 2008 supplementary proposal included a third option which many commenters had said would be too complicated. EPA agreed and did not include it in the final rule.

determined to be the best available demonstrated control technology. The 2003 rule dictated that new sources in this subcategory meet a waste management standard of no discharge, except in the event of manure runoff and precipitation from a 100-year, 24-hour rainfall event.[25] The rule also allowed a less restrictive alternative performance standard (a 25-year, 24-hour storm standard) for those facilities that will voluntarily use new technologies and management practices that perform as well as or better than the baseline ELGs at reducing pollutant discharges to surface waters from the production area. The court held that EPA had not provided adequate statutory and evidentiary basis for these portions of the rule and had not justified its decision to allow compliance through an alternative standard. In its 2006 proposal to revise the rule, EPA deleted the provision allowing CAFOs to meet the no discharge standard through the use of a 100-year, 24-hour rain event containment structure, thus effectively prohibiting all discharge of manure, litter, and process wastewater from the production area for new sources in this subcategory. EPA also proposed to delete the voluntary superior performance standards provision, since the baseline for all new facilities in this subcategory will now be no discharge.

In the October 2008 final rule, EPA adopts the revisions proposed in 2006 — deleting the use of a 100-year, 24-hour rain event containment structure and deleting the voluntary superior performance standards provision in the 2003 rule. The agency also promulgated a new provision that would allow a CAFO using an open surface manure storage structure to request the permitting authority to establish site-specific ELGs that incorporate the NSPS no discharge requirement. The new provision is intended to create an incentive for the use of innovative technologies to meet the no discharge requirement by providing an up-front determination that the CAFO will meet the requirement prior to potentially expensive construction.

Technology for Pathogen Control. An effluent limitation guideline establishes the degree of pollutant reduction that is attainable by industrial sources through the application of various levels of technology. The CWA requires that ELGs be based on standards that are progressively more stringent: (1) best practicable control technology currently available (BPT), the minimum technological requirement, (2) best control technology for conventional pollutants (BCT), and (3) best available technology economically achievable (BAT), representing the best control measures that have been developed or are capable of being developed within the industrial category. The act required existing sources to meet BPT by July 1, 1977, and BAT by July 1, 1983. BCT is not an additional limitation, but it replaces BAT for control of a group of pollutants that are naturally occurring in the aquatic environment, are biodegradable, and are the traditional and primary focus of wastewater control. Five pollutants are presently considered conventional pollutants; one of these, the pathogen fecal coliform, is associated with manure discharges from CAFOs. Point sources that discharge conventional pollutants are required to meet the BCT standard, but the act requires that, in establishing BCT, EPA must conduct a "cost reasonableness" test of attaining more stringent pollutant control than BPT.

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[25] This is a statistical event defined as the amount of rainfall that has a 1% chance of being exceeded in a 24-hour period in any given year (or once in 100 years).

In the 2003 rule, EPA said that the ELG requirements of the rule were not specifically designed to reduce pathogens in animal waste but may, in EPA's view, achieve some incidental reductions of pathogens. The environmental plaintiffs argued that EPA had not presented adequate evidence to justify establishing a BCT standard for pathogens that is no more stringent than the rule's BPT standard. The court upheld this complaint and ruled that EPA must make an affirmative finding that the BCT-based ELGs adopted in the rule do in fact represent the best control technology for reducing pathogens. In its 2006 proposal to revise the 2003 rule, EPA retained the BCT standard promulgated previously and provided a lengthy narrative discussion and cost analysis justifying its original rationale.

In the October 2008 final rule, EPA presents what it terms an affirmative finding that the BCT limitations adopted in the 2003 rule do, in fact, represent the best conventional control technology limitations for fecal coliform. Thus, it retains the BCT standard in the 2003 rule with a more complete explanation of how it made that determination.

Water Quality-Based Effluent Limitations. While technology-based NPDES permits derived from EPA's ELGs may result in meeting state water quality standards for individual waterbodies, the effluent guidelines program is not specifically designed to ensure that the discharge from each facility meets the water quality standards for that particular waterbody. For this reason, the CWA requires permitting authorities to establish water quality-based effluent permit limitations (WQBELs), where necessary to attain and maintain water quality standards, that specify discharge limitations that are more stringent than the national ELGs. Where WQBELs are necessary, they are established without consideration of treatment technologies or cost. In the 2003 rule, EPA included no requirements concerning WQBELs, saying that it did not expect that WQBELs will be established for CAFO discharges from land application areas since, as described above, any precipitation-related discharges from those areas will be considered agricultural stormwater, which is exempt from NPDES permitting.

The environmental plaintiffs challenged EPA's failure to justify the lack of WQBELs for discharges other than agricultural stormwater. They also charged that the 2003 rule bars states from promulgating WQBELs. The *Waterkeeper Alliance* court partly upheld these complaints and directed EPA on remand to explain whether or not, and why, WQBELs are needed to assure that CAFO discharges will not interfere with the attainment and maintenance of water quality standards. The court also found that the Preamble to the 2003 rule was ambiguous about whether states may promulgate WQBELs for discharges other than agricultural stormwater, and it ordered EPA to clarify this issue.

In the 2006 proposal, EPA restated its view that precipitation-related discharges from land application areas are statutorily exempt from any effluent limitations, including WQBELs, because they are agricultural stormwater, but it clarified that WQBELs can be applied in appropriate cases to further limit discharges from CAFO production areas and with respect to non-precipitation-related land application discharges. This reasoning applies to state-issued as well as EPA-issued permits. Further, EPA said that it is possible that a state, acting under its own regulatory

authorities, could impose additional requirements that are broader than the federal NPDES program, if they so choose. Whether states will do so, however, is unclear.

In the October 2008 final rule, EPA reiterates its view that nothing in the rule limits a state's permitting authority to include more stringent limitations on agricultural stormwater discharges under its own state regulations. Thus, the agency says that a state could require WQBELs for new sources that are subject to the rule's no discharge standard (discussed above). But EPA also reiterates its view that, as a practical matter, it is difficult to imagine circumstances in which additional limitations would be necessary for CAFOs that already must comply with a stringent no discharge requirement.

Conclusion

While there was no overall agreement among interest groups on the initial 2006 and 2008 supplementary proposals, they did concur on at least one point: EPA should provide much more clarity and guidance on such key concepts as criteria or circumstances defining the need for a CAFO to seek permit coverage and what terms in a nutrient management plan should be included in a permit. EPA offered some examples on these points, but the public comments reflected considerable uncertainty about issues that are fundamental to implementation of the rule.

Further, agriculture industry groups and states generally agreed on one other issue. As previously noted, EPA had originally expected to promulgate a final revised rule by June 2007. The 2006 proposal did not include an extension of the original July 31, 2007, deadline for compliance with the rule, apparently assuming that states have already adopted provisions of the 2003 rule and would simply need to rescind provisions of the vacated rule and replace them with language of a revised rule. States considered that date unrealistic and unattainable, as did many in industry.

Because of delays in completing work on a final rule, in 2007 EPA extended the compliance deadline for newly defined CAFOs (those previously not required to have permits) to February 27, 2009. Environmental advocates objected to the proposed extension, asserting that it would further delay the time when states will issue needed permits to CAFOs. Some states said that EPA's delay would complicate the work of state regulators who are anxious to have the rule finalized. Regulatory revisions in response to *Waterkeeper Alliance* were expected to be complete in the summer of 2008; if so, this would leave six to eight months from promulgation of a final rule for animal feeding operations not previously defined as CAFOs to submit permit applications, for CAFOs to submit NMPs to permitting authorities, and for permitting authorities to incorporate NMPs as enforceable conditions of permits. EPA believed that this would allow sufficient time for all required actions. The feasibility of this schedule implied that the final rule would not differ greatly from the 2006 proposal and the 2008 supplementary proposal — and indeed, the final rule substantially adopts EPA's proposals. Even so, some groups continued to ask for more time for compliance. In the final rule, EPA did not modify the February 27, 2009, compliance date, based on its view that CAFOs already have the information that they need to

develop nutrient management plans and have not needed to wait for further EPA action before doing so.

EPA pledged to work with states that will be affected by a number of new requirements, and EPA officials said that no state program fully meets the requirements of the rule. Under the final rule, states will have one year to adopt program changes that comply with the regulation (or, two years if statutory changes are needed). The February 27, 2009, compliance date refers to the deadline for CAFOs to apply for permits and develop nutrient management plans. Sources will have three years to actually get permit coverage.

EPA estimates that economic impacts of the final rule on CAFO operators will be nearly the same as costs of the 2003 rule — $54 million annually. While approximately 25% of CAFO operators subject to the 2003 rule would not need permit coverage under the 2008 revisions (largely due to eliminating the universal "duty to apply" requirement), thus saving CAFOs approximately $14 million in reduced permitting costs, other CAFOs face increases in annual administrative burden due to the new NMP requirements and costs to qualify for the agricultural stormwater exemption.

State permitting authorities are projected to incur slightly higher costs under the final rule compared with the 2003 rule — about $17 million annually. The smaller number of permitted facilities is expected to reduce costs, while implementing the new NMP requirements is expected to increase the administrative burden on states.

Initial reaction of stakeholder groups to the final rule is not surprising. Industry groups are generally pleased that there was little change from EPA's proposals. Questions about implementation of the agricultural stormwater exemption persist, both with states and environmental advocates, and many states believe that EPA has underestimated the impacts of the rule on permitting authorities. Finally, environmental groups reportedly remain concerned about allowing CAFOs to self-certify that they do not discharge, as well as about EPA's failure to require stringent technology for pathogen control.

Because of the differing perspectives on EPA's action, one can anticipate that there will be further challenges to the final rule. Some of the public comments on the initial 2006 proposal and the 2008 supplementary proposal echoed criticisms that were made of the 2003 rule and seem to preview legal critiques that are likely to be raised in future challenges. Congress has shown some interest in CAFO issues in the past, primarily through oversight hearings in 1999 and 2001, before issuance of the 2003 rule. In September 2008, the Government Accountability Office issued a report that questioned EPA's ability to effectively regulate CAFOs, because the agency lacks comprehensive, accurate information needed to do so.[26] Whether these issues will receive more congressional attention in the future is unknown for now.

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[26] U.S. Government Accountability Office, *Concentrated Animal Feeding Operations — EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern*, GAO-08-944, 80 p.