

# Permitting Agricultural Sources of Water Pollution

## *How a Court Case Led New York to Develop a Permitting Program for Large Farming Operations*

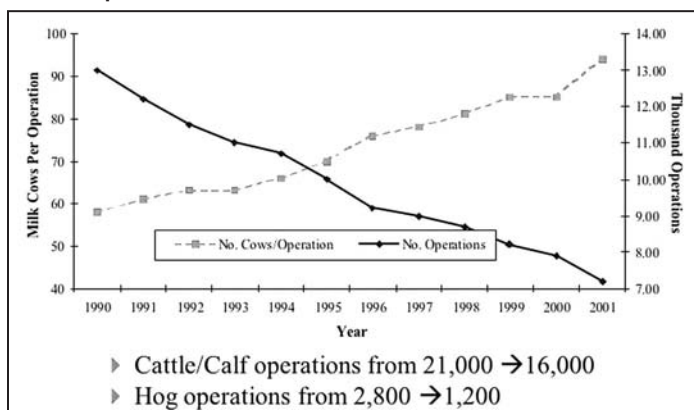
by Joseph DiMura

New York, like many other states, historically has viewed water pollution from agricultural operations as nonpoint source pollution. Because of this classification, farmers have not been required to obtain state discharge permits. In 1991, however, a local citizens' group filed a federal lawsuit against Southview Farms, a large dairy operation in Wyoming County. The suit alleged a multitude of Clean Water Act (CWA) violations.

A district court jury eventually found that Southview had committed five of the 11 alleged violations, but the judge in the case later overruled the jury's finding because of insufficient evidence to support the alleged violations. The case was appealed in 1994 to the U.S. Court of Appeals for the Second Circuit, which reversed the judge's decision and ruled that the farm was a concentrated animal feeding operation (CAFO), and therefore a point source subject to permitting under the National Pollutant Discharge Elimination System (NPDES) program.

A subsequent U.S. Supreme Court decision upholding the circuit court's ruling led to a growing awareness among farmers of the potential for CWA citizen suits. Moreover, farmers realized that gaining coverage under an NPDES permit would afford them legal protection if they agreed to comply with permit conditions. Meanwhile, with the trend toward fewer but larger farms (see table below) added to these factors, the state's Department of Environmental Conservation (DEC) found that its nonregulatory approach for CAFOs might no longer be viable. Accordingly, the agency engaged the various stakeholders to determine what options might be available to remedy this problem.

Number of Operations with Milk Cows in New York State



### Point Sources versus Nonpoint Sources

Under CWA, point source water pollution is generally thought of as end-of-the-pipe pollution, or the delivery of one or more pollutants to a receiving water by way of an outlet or conveyance designed for this purpose. CWA provisions require such point sources to obtain NPDES permits allowing them to discharge into U.S. waters, primarily surface waters. In turn, New York's Environmental Conservation Law requires a State Pollutant Discharge Elimination System (SPDES) permit enabling point sources to discharge wastewater into "waters of the state," which include both surface waters and groundwater.

Nonpoint sources encompass all other sources of water pollution. These sources typically are associated with polluted runoff, but they also can include dry and wet deposition of air pollutants, thermal pollution caused by the removal of streambank shading vegetation, and pollutants transported via sediments to the water column. One thing nonpoint sources have in common, however, is that they currently are not required to obtain an SPDES discharge permit.

When DEC received NPDES delegation authority from the U.S. Environmental Protection Agency (EPA) in 1975, the agency initially implemented the SPDES program by developing and issuing discharge permits for industrial wastewater treatment plans and municipal and private commercial wastewater treatment plants. These permits typically required technology-based and water quality-based effluent limitations that controlled the mass discharge rate or concentration of specific pollutants in the wastewater. SPDES permits to control stormwater were not required until 1993.

### Enter CAFOs

Under CWA, CAFOs are considered to be point sources of pollution, and EPA has had regulations and performance standards for CAFOs on the books for more than 25 years under the NPDES program. Criteria for designating animal feeding operations (AFOs) as a point source outline the number of animal feeding units necessary for CAFO classification, as well as discharge methods and potential to pollute surface waters. (Generally, one animal unit is equal to 1,000 pounds [450 kg] of live animal weight.)

The regulations define AFOs as facilities where animals are fed and confined for 45 days or more in any 12 consecutive month period, and where crops, vegetation, forage growth, or post-harvest residues are not grown or sustained in the feedlot or facility. The latter part of this definition is meant to distinguish feedlots from pasture areas, which are not considered point sources under the CAFO regulations.

To qualify as a CAFO or point source, an AFO must meet one of three basic tiers.

- First, all AFOs with 1,000 animal units or more are CAFOs.
- Second, AFOs with more than 300 animal units, but less than 1,000 animal units, that discharge directly to surface waters or indirectly through a ditch, flushing system, or other similar manmade construction are CAFOs.
- Finally, any AFO may be designated as a CAFO if it is found to significantly contribute to pollution of surface waters. EPA specifically prohibits designation of AFOs with fewer than 300 animal units as a CAFO unless the permit authority conducts an onsite inspection to determine that it "should and could be regulated under the permit program."

Despite such existing state and federal authority, DEC did not issue any SPDES permits for CAFOs. The agency based its policy on the premise that EPA's effluent guideline, which specifies "zero discharges" to surface waters from animal confinement areas, could be

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*“Of the permit’s many requirements, the most important encompasses the need to develop and implement a waste management plan.”*

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accomplished through voluntary programs augmented by existing legal enforcement authority in more severe cases.

### **Involving Stakeholders**

DEC’s stance changed as result of the court case against Southview Farms and growing public and agricultural interest in regulating these operations. In response, DEC placed the issue of “animal waste as a point source” on a regulatory reform initiative, which was geared toward improving the efficiency and delivery of about 45 agency program areas. DEC developed a work plan for carrying out the initiative and sought heavy involvement from stakeholders involved in agriculture and nonpoint source issues.

A technical CAFO working group made up of these stakeholders subsequently was formed to examine all the legal, regulatory, policy, environmental, and economic issues to be considered in developing a more comprehensive approach for regulating CAFOs. Participating organizations included farmers, agribusiness, environmentalists, cooperative extension services, and county and state agencies responsible for soil and water conservation.

The group’s primary focus involved an extensive examination of the need and viability of a point source control program for CAFOs in New York. EPA’s three-tier CAFO classification system and requirement of onsite inspections for small CAFO designations became important considerations in these deliberations.

Another regulatory issue given significant attention centered on the development of individual permits versus a general permit. An individual permit is developed for a specific facility based on a detailed application describing the facility’s operations and manure treatment. DEC inserts specific limits and permit conditions into the permit and conducts public notice and comment periods for each permit. A general permit, on the other hand, is developed to address many similar operations on a statewide basis.

Following a review of AFO characteristics, the work group settled on the following rationale for going with a general permit as the SPDES tool for regulating CAFOs:

- AFOs use similar raw products, such as animal feed, water, and bedding.
- Waste generated at AFOs exhibits similar characteristics and the same pollutants of concern—namely biological oxygen demand, total suspended solids, phosphorus, nitrogen, pH, and pathogens.
- AFOs normally represent a low environmental risk category that does not warrant individual permit review.
- Most states and EPA regions are implementing the CAFO regulation and guidance by means of a general NPDES permit.
- A general permit will provide statewide consistency in controlling water pollution from AFOs, while at the same time allowing for site specific management practices.
- A general permit provides administrative efficiency through a single public outreach and participation process involving public notices and hearings, whereas individual permits would require a repeat of the process for each applicant.
- Upon completion of the public participation process, CAFOs can apply and be legally covered by the statewide general permit in a timely fashion if their operation meets the criteria specified by the general permit.

- The technology-based standard in the federal NPDES regulations for CAFOs requires containment of “stormwater runoff for precipitation up to a specified storm frequency,” which is consistent with current New York regulations allowing general SPDES permits for stormwater discharges.

Other policy issues considered included the resource commitments that participating county agricultural agencies would have to make to implement a permit program.

### **Permit Options Emerge**

As part of its review, the work group studied NPDES general permits for CAFOs from four other states and one EPA region. Based on the experience of these other states and applicability to New York, the group developed four different options ranging from no permit program (the policy at the time) to a general permit program fully implementing EPA’s NPDES guidance. These options included the following:

1. Continuing the current DEC policy for voluntary AFO compliance, meaning that no AFOs would be covered by permit. Implementing a general SPDES permit for AFOs with more than 1,000 animal units, with all smaller AFOs asked to follow voluntary best management practices (BMPs). (This option would have covered about 150 AFOs based on a 1998 estimate.)
2. Implementing a general SPDES permit covering AFOs with more than 1,000 animal units, as well as AFOs with between 300 and 1,000 animal units with the potential to discharge from a manmade conveyance. Again, all smaller AFOs would be asked to follow voluntary measures. (This option would have covered about 825 AFOs, according to 1998 estimates.)
3. Implementing a general SPDES permit program covering options 2 and 3, as well as any smaller AFO deemed to be a point source following an onsite inspection by DEC. (This option potentially would have covered all of the estimated 9,000 AFOs present in the state in 1998.)
4. The work group ultimately recommended that DEC develop a general SPDES permit based on option 3. Although several group members preferred a broader general permit scheme, making any farm eligible for coverage under the general permit, others pointed out that potentially taking on all of the state’s AFOs would go far beyond what existing or future public and private sector resources could handle. Consequently, the group concluded that covering all AFOs would impair the delivery of a meaningful program.

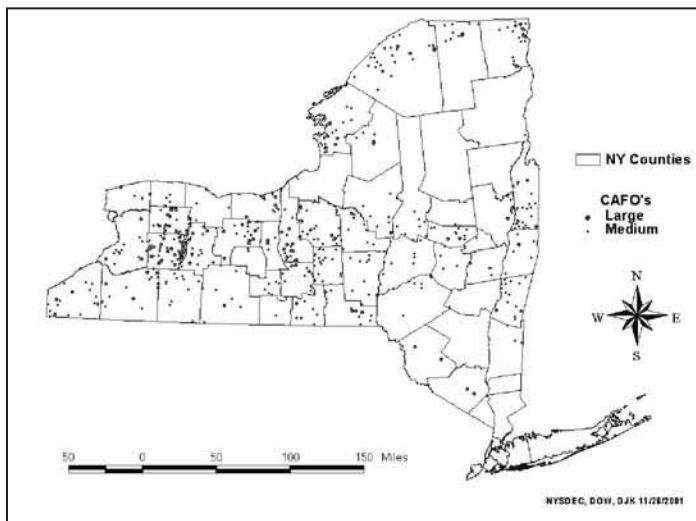
### **Going with a General Permit**

As a result, DEC developed and issued a general SPDES permit for any AFO exceeding 1,000 animal units, as well as any AFO with more than 300 animal units, but fewer than 1,000 animal units with the potential to discharge via a manmade conveyance. For AFOs with fewer than 300 animal units, DEC recommended eliciting voluntary compliance, with no permits issued for these facilities; this is the one area where New York’s permit deviates from EPA’s CAFO structure.

As part of the general permit, all AFOs meeting the CAFO classifications are required to have a certified, site-specific agricultural waste management plan developed in accordance with state practice stan-

dards for waste management systems. Likewise, confinement areas must be designed to prevent wastewater discharges, except in the case of a 25-year, 24-hour storm, which is the EPA technology-based standard. DEC issued the general permit for CAFOs in July 1999 (see [www.dec.state.ny.us](http://www.dec.state.ny.us)).

**Location of 624 New York State Permitted CAFOs**



In the meantime, state agricultural agencies developed a comprehensive, site-specific, tiered process for evaluating environmental risks on a farm. Their work culminated in guidance detailing a number of BMPs for protecting water quality that gave DEC added assurance that smaller producers had an effective, scientifically based procedure to follow even in the absence of an SPDES permit.

### Permit Program Today

Following the CAFO permit's issuance in 1999, animal agriculture entered the realm of environmental regulation for the first time in New York. Today, almost four years later, the general permit covers 134 large CAFOs and 516 medium CAFOs. These CAFOs are scattered across New York's rural landscape, with the largest number concentrated in the western area of the state (see map below).

Of the permit's many requirements, the most important encompasses the need to develop and implement a waste management plan. The plan must meet conservation practice standards established by the federal Natural Resources Conservation Service (NRCS), identifying pollutant sources on the farm and recommending BMPs to prevent or minimize water pollution. In addition, the plan must identify how manure can be managed safely by recycling it and other organic wastes into crops, which then are fed back to the farm's animals. In this way, a certified plan keeps the waste generated by the CAFO in balance with the land's ability to handle nutrients, such as phosphorus and nitrogen, preventing pollution of surface and groundwaters.

Training certified public and private sector planners to meet the demands of the new CAFO permit, however, posed a major problem during the permit's initial stages because there simply were not enough planners at hand. To address this shortcoming, DEC modified the permit in 2001, and again in 2002, allowing CAFOs to apply for extensions to complete their waste management plans.

Meanwhile, the New York State Department of Agriculture and Markets developed a program to qualify and certify both private and public sector planners for the agricultural and environmental fields. Prior to the state's CAFO permit, no such program existed to train and certify planners in all of the disciplines necessary for developing

a waste management system in accordance with NRCS standards. Since then, the number of planners steadily has increased to meet the new demand, and as of March 2003, 300 CAFOs had had their plans certified, including 98 percent of the large CAFOs.

Comprehensive revisions to the EPA CAFO regulations were issued in 2002. DEC, with the help of the CAFO stakeholders and participation in EPA work groups, correctly anticipated the direction the new regulations would take. Since the CAFO permit already met most of the requirements under the new regulations, DEC was able to successfully issue the first renewal of the permit on July 1, 2004, with few disruptions to the CAFO permit program.

To learn more about the first renewal of the CAFO permit, refer to the article by Angus Eaton in this issue of *Clearwaters*.

*This article was reprinted with permission from the Water Environment Federation.*

*Joseph DiMura, P.E., is the director for the New York State Department of Environmental Conservation's Bureau of Water Compliance and was responsible for developing the state's general permit program for concentrated animal feeding operations (CAFOs).*



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