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I. Introduction

Madame Chairman and Members of the Committee, I am Benjamin H. Grumbles, Assistant Administrator for Water at the United States Environmental Protection Agency (EPA). Thank you for the opportunity to discuss EPA's programs and actions to protect water quality and public health from potential adverse effects of concentrated animal feeding operations (CAFOs). We are taking important actions, on many fronts with many partners, to accelerate the pace of environmental protection, while maintaining our country's economic and agricultural competitiveness.

II. Human health, water quality and other effects of the concentrated animal feeding operation industry

Nationally, there are an estimated 1.3 million farms with livestock. About 238,000 of these farms are considered animal feeding operations (AFOs) – agriculture enterprises where animals are kept and raised in confinement. Feed is brought to the animals rather than the animals grazing or otherwise seeking feed in pastures. AFOs annually produce more than 500 million tons of animal manure. If properly managed, these operations may minimize environmental impacts and provide valuable by-products; however, if improperly managed, the manure from these operations can pose substantial risks to the environment and public health.

Animal Feeding Operations (AFOs) are operations where animals are kept and raised in confined situations for at least 45 days/year and vegetation is not present in the confined area (to distinguish it from grazing operations). An operation must meet the definition of an AFO before it can be defined or designated as a concentrated animal feeding operation (CAFO). CAFOs are further defined as a large or medium CAFOs based primarily upon the number and type of animals confined at the operation. Additionally, an AFO that does not meet either of these definitions may be "designated" as a Small CAFO if it is determined to be a significant contributor of pollutants to waters of the US.

An ongoing trend toward fewer but larger farm operations, together with greater emphasis on intensive production methods, increases environmental and public health risks by concentrating more manure nutrients and other animal waste impacts within smaller geographic areas. In addition, many large operations do not have sufficient land to effectively use the manure they generate as fertilizer. Animal waste and wastewater can enter waterbodies from spills or breaks of waste storage structures (due to accidents or excessive rain), and over-application of manure to crop land.

Despite substantial improvements in the nation's water quality since the inception of the Clean Water Act, many of the Nation's assessed waters show impairments from a wide range of sources. Improper management of manure from CAFOs is among the many contributors to remaining water quality problems. EPA's 2002 National Assessment Database summarizes State water quality reports (Section 305(b) reports) and categorizes the quality of the state's assessed waters as good, threatened, or impaired. For the 2002 reporting cycle, States assessed 19% of river and stream miles and 37% of lake, pond, and reservoir acres nationwide. Of the waters assessed by States, those States identified 45% of the assessed miles of rivers and streams as impaired; agriculture, hydromodification[1], and habitat alterations are the leading identified sources, in that order. States identified 47% of assessed acres of lakes, ponds, and reservoirs as impaired and identified agriculture, atmospheric deposition, land application/waste sites, and hydromodification as the leading sources.

Improperly managed manure has caused acute and chronic water quality problems and is a significant component of waterbody impairments. Manure and wastewater from CAFOs can contribute pollutants such as excessive amounts of nitrogen and phosphorus, organic matter, sediments, pathogens, heavy metals, hormones, and antibiotics to the environment. Excess nutrients (i.e., nitrogen and phosphorus) in water can result in or contribute to low levels of dissolved oxygen (anoxia), eutrophication, and toxic algal blooms.

These conditions may be harmful to human health and have been associated with algal blooms. Decomposing organic matter (i.e., animal waste) can reduce oxygen levels and cause fish kills. Pathogens discharged into waterways have also been linked to threats to human health. Pathogens in manure can also create a food safety concern if manure is applied directly to crops at inappropriate

[1] Alteration of the hydrologic characteristics of a water body, such as channelization or water diversions

times. In addition, pathogens are responsible for some shellfish bed closures. Nitrogen in the form of nitrate can contaminate drinking water supplies drawn from ground water.

III. Efforts to Reduce the Impacts of AFOs and CAFOs

Congress passed the Clean Water Act to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." (33 U.S.C. 1251(a)). Among its core provisions, the Act prohibits the discharge of pollutants from a point source to waters of the United States except as authorized by a National Pollutant Discharge Elimination System (NPDES) permit and it also requires EPA to establish national technology-based effluent limitations guidelines and standards (ELGs) for different categories of sources. Section 502 of the Clean Water Act specifically defines the term "point source" (for the purposes of the NPDES program) to include CAFOs, but in addition exempts "agricultural stormwater discharges" from the definition of "point source."

EPA's regulatory program regarding animal agriculture focuses on the largest operations (or "CAFOs") which present the greatest potential risk to water quality.

EPA revised its NPDES regulations to control discharges from CAFOs in 2003. As a result of that rulemaking, EPA estimated at that time that close to 60% of all manure generated by AFOs would be regulated. In addition to these regulations, EPA has a strong voluntary program to reduce environmental impacts from animal agriculture, ranging from outreach programs to compliance assistance programs. An example of this is the Unified National Strategy for Animal Feeding Operations jointly developed by EPA and the United States Department of Agriculture (USEPA/USDA, March 1999) which specifies that the vast majority of operations that confine animals are and will continue to be managed through locally focused voluntary programs. EPA and USDA offer a comprehensive suite of voluntary programs (e.g. technical assistance, training, funding, and outreach) in addition to the regulatory programs to ensure that livestock operations, both regulated and non-regulated, properly manage their manure in order to protect the environment and public health.

The Strategy defines a national objective for all AFOs to develop comprehensive nutrient

management plans to minimize impacts on water quality and public health from AFOs. The vast majority (estimated to be about 95%) of these plans will be developed under voluntary programs.

EPA's working relationship with USDA has strengthened our ability to protect the environment from animal agricultural runoff. Our two Agencies hold bi-monthly meetings to discuss all aspects of this issue. This, as well as our day-to-day collaborations with USDA, has promoted increased understanding of the industry, broadened our outreach efforts and increased our ability to provide on-the-ground technical assistance to the farmer.

The CAFO Rule

In February 2003, EPA made comprehensive improvements to NPDES regulations for CAFOs. These revisions updated regulations originally issued in the 1970s, and they expanded the number of CAFOs covered by NPDES requirements to an estimated 15,500 facilities and added requirements to manage the land application of manure from CAFOs. The Agency estimates that the revisions would reduce annual releases of phosphorus by 56 million lbs.; nitrogen by 110 million lbs; and sediment by over two billion lbs.

The rule also required all CAFOs with a potential to discharge to apply for NPDES permits and required them to comply with the technology and water quality-based limitations in the permit as defined by the permitting authority. It also required each permitted CAFO to develop and implement a site-specific nutrient management plan (NMP).

Stakeholders representing both industry and environmental groups filed lawsuits challenging various provisions in the regulations. The case was brought before the U.S. Court of Appeals for the Second Circuit. On February 28, 2005, the Second Circuit issued its decision in Waterkeeper Alliance et al. v EPA. While it upheld the majority of the regulatory provisions, the Court vacated the requirement that all CAFOs with a potential to discharge apply for NPDES permits, and held that only those CAFOs that actually discharge must obtain NPDES permits. The Court also held that the terms of the nutrient management plans (NMPs) are effluent limitations that must be made part of the permit and enforceable as required by sections 301 and 402 of the CWA and, as such, must be subject to public comment and must be reviewed and approved by the permitting authority. The court upheld EPA's definition of "point source" as including discharges from a CAFO's land application areas and its

application of the "agricultural stormwater discharges" exemption to only those precipitation-related discharges that occur where the CAFO's land application practices ensure the appropriate agricultural use of the nutrients in the land-applied manure, litter and wastewater.

In June 2006, EPA proposed targeted revisions specifically to respond to the Court's ruling in the *Waterkeeper* case. EPA's proposed rule would require only those CAFOs that discharge or propose to discharge to apply for a permit. It would require CAFOs to submit their nutrient management plans to the permitting authority with their permit applications Permitting authorities would then be required to provide public notice and review of the plans, and include terms of the NMP as enforceable elements of the permit. It also clarifies that CAFOs land applying manure, litter or processed wastewater would not need NPDES permits if their only discharge is exempt agricultural stormwater.

EPA received 580 unique public comments on the proposed rule, which were considered in preparing a draft final rule. The draft final rule is currently undergoing a 90-day interagency review under Executive Order 12866, which began on August 13, 2007. We anticipate that the Administrator would sign the final rule by the end of the calendar year.

EPA believes our NPDES CAFO regulations are critical to restoring and protecting watersheds across the nation and we are putting a priority on implementation. Since the 2003 regulations, EPA has instituted a quarterly reporting process for tracking the number of CAFOs and NPDES permits. This reporting shows that the number of CAFOs has grown to approximately 19,000 facilities, and that roughly 8,300--or 43%--of those CAFOs are covered by NPDES permits. The EPA is committed to finalizing the pending rulemaking process and to moving ahead in its work with States and agricultural partners to ensure continued increases in permits and NMPs for CAFOs.

In addition, outreach and training is a major component of our CAFO program. After the 2003 rule was finalized, EPA published a series of guidance documents - one particularly targeting the CAFO industry by providing plain language explanations of how to comply with the rule. We have also held training courses in all of our 10 Regions to ensure EPA and State CAFO permit authorities clearly understand how to implement this rule. Furthermore, we are principal participants in an annual meeting held for all State regulatory authorities on matters pertaining to CAFOs. The Association of State and Interstate Water Pollution Control Agencies, or ASIWPCA, arranges this meeting and also holds monthly

conference calls where EPA regularly participates, to keep State regulatory authorities up-to-date on CAFO regulatory issues.

CAFO Rule Extension

In July 2007, EPA finalized a rule extending certain compliance dates necessary to allow the Agency time to respond adequately to public comments on issues raised by the February 2005 Waterkeeper decision before those compliance dates take effect. It extended the date by which facilities newly defined as CAFOs under the 2003 rule must seek NPDES permit coverage to February 27, 2009. In addition, all permitted CAFOs now have until February 27, 2009, to develop and implement nutrient management plans.

The extensions provide time for States and the agricultural community to adjust to the new requirements once they are finalized. I also issued a memorandum urging regional offices and States to continue to implement their existing regulatory programs while the Agency's response to the Court decision is being finalized. Until NMPs and other aspects of the regulation can be implemented in accordance with the court ruling, state and existing federal rules unaffected by the court ruling will continue to protect water quality.

IV. Partnership and Collaboration

EPA has forged strong working relationships with other organizations across the country to further promote environmental protection from CAFOs. One such organization is the National Association of State Departments of Agriculture (NASDA). State departments of agriculture are a source of expertise that EPA can use to provide both outreach and technical advice to farmers. As an example of this partnership, EPA awarded a grant under our Clean Water Act 304(b) program to NASDA to provide a website where farmers and the public at large can obtain information regarding State requirements and technical standards for manure management. It is called CNMPWatch.com.

Other partnership and collaborations include:

The California Dairy Quality Assurance Program: This partnership among industry, EPA, and state regulatory authorities offers a training course to farmers in addition to no-cost, on-site,

independent evaluations of farmers' operations. The State has seen a decrease in the rate of surface water discharges from these operations as a result of the program, the cooperation of industry, and enforcement actions by the State and EPA.

USDA MOU: On May 9, 2007, the EPA and the U.S. Department of Agriculture (USDA) announced additional measures for coordination and cooperation among the two agencies in prioritizing and implementing nutrient reduction activities in the Chesapeake Bay watershed. Under the agreement, EPA and USDA are more closely coordinating actions, aligning resources, tools, and partners, and monitoring for results to accelerate clean water progress in the Bay watershed. Because crop and pasture use account for 25 percent of the Bay Watershed -- which includes lands in Delaware, Maryland, New York, Pennsylvania, Virginia and West Virginia -- the nutrient reduction activities include a significant focus on agricultural contributions from livestock operations.

Great Lakes: One of the key issue areas addressed in the Great Lakes Regional Collaboration's Strategy to Restore and Protect the Great Lakes is nonpoint source pollution. Agriculture is recognized as one of the sources of this pollution in the Great Lakes basin, and the federal Great Lakes Interagency Task Force has several activities underway to help reduce the impacts of nonpoint source pollution on the Lakes. For example, USDA's Natural Resources Conservation Service (NRCS) is conducting rapid watershed assessments in eight watersheds in the western Lake Erie basin to collect natural resource data and apply critical conservation on the ground. USDA's Conservation Innovation Grants program is funding several efforts in the Great Lakes, including projects to reduce nutrient loadings and recycling waste streams from dairy farms. NRCS is also working with the Corps of Engineers as the Corps, through its Great Lakes Tributary Model program, develops watersheds models for state and local agencies to evaluate the effectiveness of conservation practices and prioritizes areas for attention.

Gulf of Mexico/Hypoxia: Reducing the large hypoxic zone in the Gulf of Mexico, which is largely created as a result of excessive nutrients coming from municipal facilities as well as agriculture, is a formidable challenge that requires focused attention by our federal and state partners. EPA has taken a lead role reducing the affects of agricultural runoff on the hypoxic zone. In 1997, EPA led the formation of the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, which I chair, and EPA continues to coordinate ongoing Task Force efforts. The goal of this Federal-State partnership is

to identify innovative and non-regulatory approaches to reducing Gulf hypoxia while enhancing water quality and quality of life in the Mississippi River Basin (Basin) and the Gulf. We plan to issue a revision of the 2001 Action Plan in March 2008. Additionally, OW has sponsored four scientific symposia and requested EPA's Science Advisory Board to review the state of the science regarding: (1) the causes and extent of Gulf hypoxia, and (2) the scientific basis for different management options targeting hypoxia mitigation in the Mississippi River-Atchafalaya River Basin (MARB).

V. CAFO Water Enforcement

With input from EPA Regions, States, Tribes, and the public, EPA's Office of Enforcement and Compliance Assurance (OECA) selects multi-year national compliance and enforcement priorities that focus on specific significant environmental problems and identified widespread noncompliance patterns. CAFOs have been an EPA Clean Water Act enforcement and compliance priority for several years, and EPA has proposed to maintain it as a priority through 2010. Our state partners have consistently identified agricultural operations as a leading source of water quality impairment throughout the nation. Industry trends have resulted in larger-sized operations generating large volumes of manure. This, in combination with outdoor manure storage at some CAFOs has contributed to some unauthorized discharges into waters of the United States.

EPA's recent compliance monitoring and enforcement efforts have focused primarily on existing CAFOs that are discharging without an NPDES permit.

In FY 2005, EPA Regions conducted 174 federal inspections and 118 joint inspections with States at CAFOs, and concluded 63 enforcement actions against CAFOs for Clean Water Act violations. In FY 2006, EPA Regions conducted 262 federal inspections and 130 joint inspections with States at CAFOs, and concluded 56 enforcement actions against CAFOs for Clean Water Act violations.

VI. CAFO Air Compliance Agreement and Monitoring Study

EPA concluded and the National Academy of Sciences confirmed that it did not have sufficient air emissions data for animal feeding operations (AFOs), which made it difficult to determine the

compliance status of AFOs with regard to existing air emission requirements. In January of 2005, EPA published a Federal Register notice providing AFOs with the opportunity to participate in a voluntary consent agreement and monitoring study. As part of the agreement, each participant agreed to: 1. pay a penalty for potential past and ongoing CERCLA, EPCRA, and CAA violations; 2. direct the payment of money into an industry fund used to conduct a national air emissions study; and 3. make its farm available, if selected, for air emissions monitoring; 4. use the emission estimating methodologies developed from the monitoring study to determine its compliance status, and comply with any applicable CAA, CERCLA, or EPCRA requirements. The goals of this innovative enforcement agreement were to ensure compliance with federal laws regarding air emissions, monitor and evaluate AFO air emissions, reduce air pollution, and promote a national consensus on methodologies for estimating air emissions."

VII. Conclusion

Thank you Madame Chairman and Members of the Committee for the opportunity to describe environmental and public health risks from CAFOs and the many actions EPA is taking with our State, local and agricultural partners. The implementation of the Unified National Strategy for Animal Feeding Operations and EPA's 2003 and 2007 CAFO rules is critical in our mission to restore and protect watersheds across the nation. EPA is committed to working with our Regions, States and agriculture partners to ensure timely development of NMPs and submission of permit applications and proper nutrient management from all livestock operations.

I would be happy to respond to any questions you may have.