



Response to Public Comments

Regarding

General Discharge Permit for Animal Feeding Operations

Maryland Discharge Permit No. 19AF, NPDES Permit No. MDG01

July 8, 2020

RESPONSE DOCUMENT

General Discharge Permit for Animal Feeding Operations

Maryland Permit No. 19AF, NPDES Permit No. MDG01

On September 4, 2019, the Maryland Department of the Environment (MDE) published a Notice of Tentative Determination to reissue the General Discharge Permit for Animal Feeding Operations (GD Permit), Maryland Permit #19AF, NPDES Permit # MDG01 which includes requirements for concentrated animal feeding operations (CAFOs). On October 15, 2019 and October 21, 2019, MDE held public hearings regarding the Tentative Determination.

Responses to Comment Categories

Due to the substantial number of comments received by MDE on the Tentative Determination to reissue the General Discharge Permit, the majority of which were either similar or identical and/or discussed the same or similar subjects, MDE has set forth in Roman Numeral format the broad public comment categories in bold text below, followed by MDE responses to each comment category in plain text. Some categories of comments include a single response by MDE that is applicable to the group of comments, while others include specific responses to each subcategory.

I. MDE's Regulatory Authority/Permitting Process

- A. Authority and Jurisdiction: New Poultry Farms are constructed to eliminate discharges, except in extreme weather conditions, therefore they are not required to apply for a General Discharge Permit (Part 1 B.3). Contested Case hearings by law are not to be applied to AFO Permit holders (Envir. Section 1-601(a)(3), (b), (c)) and MDE has no statutory authority to regulate odors or air quality and shouldn't be adding these provisions to the AFO General Discharge Permit. MDE has no jurisdiction on farms outside the state and Part 1.A.10 of the Permit should be eliminated. There should be clarification of the terms "surface water", "waters of the state", "field ditch", "public ditches", "tax ditches" and "public drainage systems".**

Animal feeding operations (AFOs) include CAFOs and Maryland Animal Feeding Operations (MAFOs). CAFOs are regulated under the federal Clean Water Act (CWA) as point sources, and as such, an owner or operator of a CAFO must have National Pollutant Discharge Elimination System (NPDES) permit coverage. Because CAFOs are a category or class of dischargers with similar operational and other characteristics, MDE regulates AFOs under a General Discharge Permit with common terms and conditions. Maryland has been delegated by the United States Environmental Protection Agency (EPA) to administer the NPDES program, therefore the General Discharge Permit is both an NPDES and state Discharge

Permit. All CAFOs and MAFOs must submit to MDE a Required Plan (comprehensive nutrient management plan (CNMP), nutrient management plan (NMP) and conservation plan (CP)), as a condition for Discharge Permit coverage. MAFOs are not required to obtain NPDES Permit coverage because they do not discharge to surface water. Instead, these operations are required to obtain state discharge permit coverage to address groundwater.

MDE must follow the judicial review and other requirements set forth in §§ 1-601- 1-606 of the Environment Article when issuing permits to discharge pollutants to waters of the state under § 9-323 of the Environment Article. Because the General Discharge Permit is subject to these provisions, contested case hearings on a final determination to reissue the General Discharge Permit may not occur. However, the Required Plans that an AFO owner or operator must submit to MDE along with the Notice of Intent (NOI) for coverage under the General Discharge Permit, are not permits to discharge pollutants to waters of the state issued by MDE pursuant to § 9-323 of the Environment Article, therefore MDE's approval of such Plans is not subject to judicial review and other requirements set forth in §§ 1-601- 1-606 of the Environment Article. Rather, a person aggrieved by MDE's final approval of these Plans may request a contested case hearing as set forth in the Code of Maryland Regulations (COMAR) 26.08.04.09N(3)(1).

An AFO located outside of Maryland may be designated a CAFO and subject to the General Discharge Permit if animal waste or any other part of its production area or land application area is in Maryland. This is consistent with EPA's regulations under 40 CFR 122.23(c)(1)-(2)). The primary concern for a state program when determining the appropriateness of a CAFO designation is whether there are pollutants being discharged into waters of the United States. EPA retains the authority to designate CAFOs even within a state with an approved program, such as Maryland, if EPA determines that pollutant discharges are contributing to an impairment downstream in an adjacent state jurisdiction (40 CFR 122.23(c)(1)(i)). Considering the federal regulation focus on the location of pollutant discharges relating to the operation of a CAFO, it would seem reasonable that MDE, as an EPA-approved program with delegating federal permitting authority, would also be able to regulate pollutant discharges affecting its jurisdictional waters. The key here is that the state may but is not required to designate the operation a CAFO.

The Department has revised the draft General Discharge Permit in response to comments suggesting that the interchangeable use of the terms "waters of the state" and "surface waters" includes ground water in situations where this is not the intent. The permit has been clarified and the term "waters of the state" is used in place of "surface water" when ground water is included. No other terms needed clarification.

B. CAFO Siting, Number and Distribution: Who determines the number of CAFOs- the county commissioners, the chicken processors, or MDE? Do counties have a limit on the number of AFOs?

MDE does not have authority over the siting, distribution, or density of AFOs in each local jurisdiction and such considerations are beyond the scope of the General Discharge Permit. Cumulative impact analyses are not required by the CWA or under the state's water pollution control law or regulations. Zoning and land use decisions are under local government control and may be determined in a county's master plan. In order to construct and operate an AFO, the owner or operator may need to satisfy county requirements. The General Discharge Permit contains setback and buffer provisions, including land application setbacks from drinking water wells, to prevent the discharge of manure and wastewater to waters of the state.

An AFO construction project that will disturb one acre or more must obtain an MDE General Permit for Stormwater Associated with Construction Activity before beginning earth moving activity on the first part of the project. Additionally, if an AFO operation will require more than 10,000 gallons per day of water for its operations, an MDE Water Appropriation and Use Permit is required. The extent of public review for new or modified AFO construction is determined at the local government level. All local authorizations, to the extent required, and state permits including the General Discharge Permit should be obtained prior to construction.

C. Environmental Justice: How will MDE consider EJ issues in the AFO review process? Has MDE had any interactions with the "Commission on Civil Rights" regarding disproportionately impacted groups?

MDE implements environmental justice principles in appropriate permitting processes by engaging all communities in meaningful public participation, education and outreach opportunities. MDE strives to integrate environmental justice into agency operations with the goal of improving the quality of life and sustainability, economic development and environmental protection for all Maryland communities. During the public participation process, MDE provided opportunities for public engagement that were both meaningful and consistent with applicable law.

D. Public Access: The public should be allowed to request an individual Permit and search for specific information on individual AFOs including progress on conservation practices and implementation schedules. The comment period should be extended to 60 days and the public provided access to the draft Permit. MDE failed to respond to an October 4, 2019 PIA request related to Total Maximum Daily Load (TMDL) implementation.

The Maryland Public Information Act is beyond the scope of the General Discharge Permit. MDE complied with all applicable public participation requirements during the permitting process, including making the draft General Discharge Permit available for public inspection and comment. MDE has limited authority to alter the public participation time periods set in statute and regulation. The public was provided 30 days to comment on MDE's Tentative Determination to reissue the General Discharge Permit and MDE held two separate public hearings on its determination. Moreover, MDE published the draft General Discharge Permit on its website to facilitate public access and review; and the public comment period was extended by 60 days. Additionally, the public can review and provide comments on an CAFO's Required Plan (CNMP, NMP, CP), including the implementation schedule, for a period of 30 days following MDE's preliminary decision to approve the Required Plan.

MDE believes that current applicable law and implementing regulations provide sufficient time for public participation therefore the draft General Discharge Permit has not been revised in this regard.

E. How are the environmental costs of reduced surface/ground water and air quality factored into the Permit decision? MDE was allowing alternative measures to compensate for lack of financial capacity.

Pursuant to § 9-324(a) of the Environment Article and COMAR 26.08.04.02A, MDE is authorized to issue a discharge permit if it finds that the permit meets all applicable state and federal laws, water quality standards, and effluent limitations. Specifically, the draft General Discharge Permit provisions are designed to prevent pollutant discharges to surface or ground waters of the state. MDE is not authorized to consider air quality when determining whether to issue an NPDES or state Discharge Permit. Any costs to comply with the General Discharge Permit are the responsibility of the AFO owner or operator.

F. The Permit puts an undue burden on organic poultry farmers.

Under the draft General Discharge Permit, organic CAFO or MAFO poultry pasture areas, like other agricultural pasture areas, must be managed to sustain vegetation in the normal vegetative growing season. To ensure sufficient protection of water quality and the environment, MDE deemed it necessary to include additional best management practices (BMPs) for these organic poultry operations, since unlike traditional poultry operations, the birds are allowed access outside of the poultry

houses. For clarification purposes, the draft General Discharge Permit has been revised to include definitions for the terms “organic poultry” and “poultry pasture”, and the draft General Discharge Permit has also been revised to clarify when the poultry pasture is not a part of the production area. Specifically, the poultry pasture is not considered part of the production area as long as the pasture area sustains vegetation during the normal **vegetative** growing season. Lastly, MDE has revised the definition of “poultry manure litter” or “litter” to include materials used as bedding that have come in contact with poultry.

G. MDE should add a reopener clause for new and modified AFOs if pertinent information arises from climate studies and/or the planning process. The General Discharge Permit should define what constitutes an upset.

Consistent with federal CWA NPDES Permit requirements, the draft General Discharge Permit includes provisions that require a permittee to submit documentation to MDE if the operation changes substantively. These provisions can be found in Part IV.F. and relate generally to the ownership of a CAFO, changes in the number or type of animals raised, whether manure is land applied, or any other site-specific changes that occur during the effective period of existing permit coverage.

The draft General Discharge Permit also has a permit reopener clause at Part VII.J. that triggers the modification or revocation and reissuance of an existing permit if an applicable effluent standard or limitation is changed or otherwise made more stringent by EPA pursuant to the CWA. There are no specific provisions in the CWA that authorize MDE to condition a permit reopener upon the revelation of new climate data, unless that data is used to formally modify an applicable effluent standard or limitations. The draft General Discharge Permit also defines the term “upset” at Part II.HH; and contains provisions regarding permittee demonstration of an upset at Part V.F.

The draft General Discharge Permit language and current applicable law and regulations sufficiently authorize MDE to address AFO operational changes and upsets resulting from climate or other actual or potential issues therefore the draft General Discharge Permit does not need to be revised in this regard.

H. Clarify discharge and no discharge.

New Source CAFOs are not authorized to discharge pollutants. For CAFOs that existed prior to EPA’s establishment of the CAFO effluent limitation guidelines under the CWA and implementing regulations, the discharge of animal waste, including manure, poultry litter, and process wastewater to waters of the state is allowed under the General Discharge Permit if the discharge results from a storm event greater than the 25-year, 24-hour storm and the production area is designed, constructed, operated, and maintained in accordance with certain animal waste storage and water quality protection requirements; and provided MDE is notified by

the operator within 24 hours of the event. MDE's use of the term "discharge" in the draft General Discharge Permit is consistent with applicable state and federal law.

The draft General Discharge Permit is sufficiently clear regarding what does and does not constitute a CAFO discharge therefore the draft General Discharge Permit does not need to be revised in this regard.

II. Record Maintenance and Reference Dates

- A. To be consistent with federal and state law, require all records maintained on site be submitted electronically to MDE unless the submission would be overly burdensome, or inconsistent with another law. No discretion should be given to waive electronic submissions.**

Pursuant to EPA's NPDES Electronic Reporting Rule, MDE is requiring all CAFO Annual Implementation Reports (AIRs) and NOIs to be submitted to MDE electronically by December 21, 2023.

- B. Include a date on any reference to another MDE document or standards incorporated by reference under the control of MDE or another state agency in the draft Permit. There should be a reference to considerations of climatic changes in designing technology-based effluent limitations.**

The General Discharge Permit term is for 5 years. Many NRCS and other standards referenced in the 2014 General Discharge Permit changed during the Permit term, and as such the references became inaccurate or outdated. Additionally, there are instances where for example, more than one NRCS practice standard may be applicable to a situation. In an effort to avoid permittee and public reliance on and confusion regarding standards and reference document dates, and other information that may change as a result of further scientific research or become outdated or otherwise erroneous, MDE has generally referenced various standards requirements in the General Discharge Permit; and where appropriate, MDE has included specific reference dates. Moreover, MDE is leading Maryland's efforts to reduce greenhouse gas emissions (GHG) and to adapt to the potential consequences of climate change and will continue to consider rising sea levels and storm intensity through various means, including the review of FEMA/NOAA flood maps and other agency processes.

As such, reference to climate studies that may or may not change within a 5-year period is neither legally required nor advisable for the reasons previously discussed above.

III. Resource Concern Identification and Implementation Schedule

- A. MDE should add a requirement that the operator fills out a checklist of NRCS conservation practices. Operators shouldn't be allowed to establish their own resource concerns and the deadline for the implementation schedule should be 5 years or less.**

The MD-RES-001C form (Field Evaluation Checklist) and the NRCS-EPA-52 (Environmental Evaluation Worksheet) are not part of the CNMP. They are documents that may be used by a licensed and certified plan writer during a preliminary resource assessment to summarize notes taken as part of their initial field evaluation of a site. The certified plan writer identifies any resource concerns and prepares a CNMP implementation schedule to address any resource concerns, not the AFO owner or operator. Implementation schedule dates are dependent on identified resource concerns. The Department agrees that a checklist or other standardized form of conservation practices may be helpful to all stakeholders. MDE will develop a form on which a CNMP writer must identify the resources evaluated and identify all specific resource concerns at an AFO. This form must be provided to MDE by the CNMP writer or an AFO owner or operator along with the AFO's CNMP. This will help ensure consistency between and among AFO CNMPs. The draft General Discharge Permit has been revised to require AFO owners or operators to submit this information to MDE.

- B. Require that resource concerns on the implementation schedule are addressed prior to issuing a Permit and are included in the AIR submittals.**

MDE retains enforcement discretion to address an AFO owner or operator's noncompliance with the implementation schedule through compliance assistance or other more formal means. MDE agrees that annual updates regarding AFO owner or operator progress on Implementation Schedule items would be useful information for all stakeholders. The Department will revise MDE's Annual Implementation Report (AIR) form to include a question regarding the status of resource concerns on an AFO's Implementation Schedule and has revised the draft General Discharge Permit to require this information. (*See also* response IIIA.)

IV. Permitting and Manure Tracking/Transport

- A. The AFO Permit should be extended to land appliers and manure brokers with additional regulations ensuring that manure taken off-site from no-land AFOs is accounted for. Is there a manifest tracking for manure transport to end users and/or manure brokers similar to Virginia's program 9VAC25-630-60? Identify FIV field levels where manure is applied and surrounding fields too. Prohibit land application within at least 100 feet of a tile drain or drinking water well.**

Land application of nutrients is regulated under the state's environmental and agricultural laws and regulations, regardless of whether the nutrients originate from AFOs or other sources. Land applying CAFOs are also subject to federal regulation. These operations are required to land apply nutrients in a manner consistent with an NMP to ensure proper nutrient uptake for maximum crop yields and to prevent excess nutrients from impacting waterways. Compliance with state environmental and agricultural laws and regulations relating to land application prevents water pollution and degradation of state waters. MDE can exercise enforcement discretion to address an unpermitted discharge resulting from the land application of nutrients. Testing of manure and soil are required annually and every three years, respectively, by MDA to provide input for NMP development. This testing is also a requirement of the General Discharge Permit to assure that an AFO's NMP is based on current data. The manure test results are also annually reported to MDA and MDE on the AIR. The manure and soil test results are maintained at the AFO and used by the nutrient management advisor to develop the NMP. For land application on cropland, the NMP includes a section identifying phosphorus fertility index value (FIV) levels of the fields. MDA's phosphorus management tool (PMT) must be used by farmers, including land applying AFOs, to evaluate fields with an FIV of 150 or greater, as these fields are at risk for phosphorus loss. AFO nutrient management and conservation plans are designed to ensure that nutrients such as nitrogen and phosphorus are properly utilized to minimize any potential for nutrient runoff into surface or groundwaters. AFOs are subject to manure application setback requirements. The AFO regulations currently require a setback of 100 feet from surface water, flood plains and wetlands for manure storage.

The Maryland Setback Standards and Approved Alternatives Consistent with CAFO/MAFO Requirements document and Fact Sheet are available on MDE's AFO webpage. NMPs and conservation plans are designed to ensure that nutrients (nitrogen and phosphorus) are properly utilized and to minimize any potential for nutrient run-off or absorption into Maryland's surface or ground waters.

Chapter 760, 2019 Laws of Maryland (SB 546) requires MDA to develop a manifest tracking system of animal manure exported by farm operations to alternative use facilities or other farm operations in Maryland, along with other information. Farm operations subject to Ch. 760 would include certain AFOs. The revised 2019 AIR reflects these additional requirements. Under the General Discharge Permit, AFOs are required to disclose any land application of manure, litter, or process wastewater on site in the AIR, and provide information on the destination of any manure exported off site. Exported manure must be accompanied by an analysis of that manure; and Maryland's nutrient management program and the General Discharge Permit require that all manure be land applied in accordance with a nutrient management plan.

Based upon the foregoing, the draft General Discharge Permit sufficiently addresses manure testing and tracking. MDE will include the tracking of manure in its soon to be updated database system.

B. How do you prevent land application of manure in an area within a floodplain or subject to recurring flooding such as an agricultural ditch?

See response IV.A. above.

V. Monitoring

A. The Permit does not adequately address air pollution (particulate matter/ammonia depositions) from poultry house exhaust fans and manure sheds that are deposited in the air and make their way to surface waters causing health and water quality impairments. Air and water monitoring are essential to determine impacts to surface/ground water/air quality. The Permit must be amended to reflect air emissions and monitoring requirements based on results from studies to be conducted by December 1, 2021. The Department should require an air sampling plan with results submitted to MDE within a certain period of time. How will MDE regulate these emissions in the Permit and determine impacts to resources? What is the monitoring strategy?

EPA does not regulate odors or air quality through its CAFO permitting program. *See generally* 40 CFR 122.23. While MDE derives much of its NPDES permitting authority from EPA and the CWA, it is authorized, as a delegated program, to impose requirements that are more stringent than what is required by the CWA or EPA's regulations. Therefore, MDE included in the draft General Discharge Permit provisions that require AFO owners or operators to implement BMPs in order to reduce nuisance odors and address any air quality resource concerns using appropriate NRCS Practice Standard(s). *See* General Discharge Permit at Part IV.D.1-2.

MDE's Air and Radiation Administration (ARA) continues to monitor activities within the animal husbandry industry as well as EPA's ongoing efforts to evaluate environmental impacts and possible regulatory initiatives. Ammonia emissions/ammonia deposition have been considered and addressed to the extent permissible under the Clean Water Act and the state's water pollution control law and implementing regulations with the requirement of several NRCS practices including litter amendments and hedgerows/shelterbelts.

There are several Natural Resources Conservation Service ("NRCS") practice standards that can be implemented by AFO operators to reduce actual or potential ammonia emissions from poultry houses. NRCS Practice Standard, Amendments for Treatment of Agricultural Waste, is used in poultry houses to reduce the potential for high ammonia emissions such as sodium bisulfate, aluminum sulfate, acidified clay, and ferric sulfate. These amendments are applied to the litter prior to bird placement to reduce potential high levels of ammonia, suppress ammonia volatilization from litter and reduce emissions from the poultry facilities. Modern poultry houses have internal ventilation and cooling systems. Though the primary goal of these systems is to provide bird comfort, an added benefit is that they reduce dust and feathers inside the houses. This results in less particulate matter to be discharged into the atmosphere. The emission of dust and feathers may be addressed through NRCS Practice Standards (Hedgerow Planting) or (Windbreak/Shelterbelt Establishment). The implementation of these BMPs can provide ammonia reduction and a means to reduce dust and feathers.

The draft General Discharge Permit contains BMPs to sufficiently minimize AFO ammonia emissions from poultry houses therefore no revisions are necessary.

B. Water monitoring is essential to determine the effects of an AFO on surface water and groundwater quality. How will MDE determine impacts to these resources and what is the monitoring strategy? Will the Department require a water sampling plan with results submitted to MDE within a certain period of time?

Effluent monitoring is required under some types of NPDES Permits. However, because of the nature of potential discharges from AFOs and the regulatory approach taken in the General Discharge Permit, it is MDE's position that annual water sampling at downstream sites by all permittees is not "required to carry out the objective" of the CWA or to "ensure compliance with Permit limitations." Unlike water quality based NPDES Permits, the General Discharge Permit relies primarily on technology, in this case best management practices (BMPs), to adequately protect water quality at AFOs. This reflects the approach to CAFO permitting taken in the federal regulations. Rather than including numeric effluent limitations based on pollution reduction technology and supported by sampling of effluent as they do for some industries, the federal regulations for CAFOs lay out BMPs along with a zero-discharge requirement (40 CFR Part 412). These BMPs are included in site-specific plans.

The BMPs and NMPs required by the General Discharge Permit are adequately protective of the environment without the need for downstream water sampling for all permittees. The General Discharge Permit's reliance on BMPs rather than effluent monitoring also reflects the potential difficulty of tracing downstream pollution back to particular AFOs. The Maryland Court of Special Appeals has ruled that since the Department requires voluminous records detailing where animal waste is distributed, recording of inspections, and testing of manure, litter, process wastewater, and soil, all of which must be kept on-site by the CAFOs for a period of five years, that MDE's record keeping requirements are just as stringent and achieves the same result as the monitoring of the volume of effluents produced and disposed of by CAFOs. Also, the installation of monitoring wells in fields is problematic, since heavy equipment is used on farm fields and could easily damage well casings. A damaged well casing may provide a direct conduit for nutrients, fertilizers, and pesticides to groundwater. MDE agrees that monitoring wells provide valuable information but prefers that they be used as part of a carefully monitored study.

MDE's Water and Science Administration developed a monitoring plan for Animal Feeding Operations. The intent of the plan is to establish a methodology to characterize the discharge from continuous flow and/or runoff from a CAFO site during meteorological events. There is an ongoing state effort to monitor select sites in state receiving waters adjacent to AFO operations where baseline levels of constituents of concern have been established. Monitoring of runoff from AFOs is a challenge due to the distributed nature and the fact that the parameters that would be monitored are generally found as legacy pollutants in rural areas regardless of the existence of the AFO operation.

The draft General Discharge Permit sufficiently protects state water quality therefore no additional revisions are necessary.

C. Water monitoring should be linked to an issue that has arisen. Farmers should not be required to give consent for unrestricted water quality testing on their property. The CAFO Permit is authorized due to the provisions of the Federal Clean Water Act, not the Clean Air Act. In the Draft Permit section IV d1 and d2 should be removed.”

The EPA developed the CAFO Program to be protective of water quality. Maryland has the authority to regulate the discharge of pollutants to both surface and groundwater. In the General Discharge Permit, MDE retains the right to require a sampling and monitoring plan if deemed necessary. The federal regulations require NPDES permits to include certain conditions “when applicable.” Among these are monitoring requirements “to ensure compliance with Permit limitations,” including the “mass (or other measurement specified in the Permit) for each pollutant limited in the Permit,” the “volume of effluent discharged from each outfall,” and “[o]ther measurements as appropriate...” 40 CFR §122.44(i).

MDE can mandate a sampling plan but it may not be as effective or efficient as a site-specific plan developed by a conservation specialist familiar with the affected AFO. The local Soil Conservation District (SCD) or the NRCS is available to assist farmers in the rare case sampling/monitoring is requested by the Department.

See response V.C. above.

D. Who is responsible for determining whether abandoned AFO sites have a continuing impact on surface/ groundwater, air quality and if it qualifies as an EPA Superfund site? Can the chicken house owners still use the houses to raise chickens without a CAFO permit?

A CAFO owner or operator must be covered under the General Discharge Permit or hold an individual discharge permit to grow birds. An AFO owner or operator is required to maintain compliance with General Discharge Permit terms and conditions until General Discharge Permit coverage has been properly terminated by MDE. If an AFO operation is abandoned and pollutants associated with the operation were not removed prior to abandonment, the AFO owner or operator continues to be legally responsible for any environmental contamination. If a lending institution obtains legal possession of an abandoned AFO operation, for example through foreclosure proceedings, the lending institution in possession may become responsible for any on-site environmental contamination. EPA, and not MDE, determines whether environmentally contaminated land qualifies as a Superfund site.

VI. AFO Siting

A. How will MDE address permitting new, existing, modified AFOs located in areas projected to be impacted by higher water levels based on FEMA/NOAA maps and climate change studies (i.e.: development within the 100- and 200-year flood plain)? Forecasts predict a higher number of storm events, sea level rise and increased precipitation. Overlaying existing and projected flood maps (based on climate change studies) suggests that several AFOs will be potentially impacted by higher water levels and some will be “underwater”. Permitting AFOs to be built in potentially flooded areas will expose manure in sheds and poultry houses to our waterways during flood events. Not only will this impact the environment, but farmers as well. Will there be stormwater mitigation plans that address current and predicted precipitation patterns and requirements for AFOs to report flood events? Also, cumulative impacts of having a large number of AFOs in a small area should be given weight and be part of the decision-making process to site and approve AFOs.

See Response I.B. and I.G

Any discharge of manure, poultry litter, and process wastewater by an AFO that is not in accordance with the terms and conditions of the General Discharge Permit must be reported to MDE, whether or not the discharge results from water table rise or flooding; and take steps to prevent such discharges in the future. MDE has the authority to either terminate General Discharge Permit coverage for any AFO operation if MDE determines in its sole discretion that the General Discharge Permit is not sufficiently protective of state waters; or require individual permit coverage for any new source if MDE makes such a determination. MDE also has the authority to request that an AFO owner or operator revise the CNMP or NMP to address any flooding concerns and/or require modifications of the permitted operation to eliminate or mitigate flood risk, up to and including the decommissioning of at-risk poultry houses. *See also* draft General Discharge Permit at VII.M.

Climate change research and projected precipitation trends may need additional research and are beyond the scope of this NPDES General Discharge Permit at this time. If there is an unexpected discharge to surface water from a flood event, the operator is required to report the event to MDE. EPA compliance inspectors respond to public complaints regarding environmental violations. Some of these issues will best be addressed in a broader climate action plan initiative which the Department is in the process of developing. MDE has nondiscretionary duties with respect to NPDES permitting that it must comply with, regardless of whether climate change might, in the future, impact its permitting program. MDE's authority to impose additional restrictions on CAFO siting is limited under law.

B. How will MDE address permitting new, existing, and modified AFOs located in areas projected to impact wetlands and other sensitive areas based on FEMA/NOAA maps and climate change studies?

See Responses VI.A. and I.B.

In Maryland, agricultural activities such as AFOs in wetlands and floodplains may or may not be exempt under state or federal law. There are wetland and waterway construction-related requirements which must be met when siting AFOs. If the proposed site for an AFO is in the 100-year nontidal floodplain, nontidal wetlands, or nontidal wetland buffers and/or waterways it may be subject to additional state and federal regulations.

AFO construction in federally regulated wetlands requires review by the U.S. Army Corps of Engineers (ACOE). If there is disturbance of a federally regulated nontidal wetland, waterway or State regulated 100-year nontidal floodplain or nontidal wetland buffer, a *Joint Federal/State Application for the Alteration of Any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland* (JA) must be submitted to MDE's Wetlands and Waterways Program. Concurrence sheets from the local Soil Conservation District (SCD) may be required to be submitted with the application as well. Based on the magnitude of potential environmental impacts, the activity may be covered under a general ACOE permit (such as the Maryland State

Programmatic General Permit) or it may require an Individual Permit (IP) under section 404 of the Clean Water Act. ACOE review is focused on ensuring that impacts to federally regulated wetlands are avoided and if not able to be avoided, minimized. If these impacts cannot be further minimized, the ACOE may require the applicant to mitigate impacts by replacing or restoring wetlands which are lost or damaged.

When the ACOE issues an IP, MDE has the authority under § 401 of the CWA to review water quality-related impacts of the activity and either certify that State water quality-related requirements (including water quality standards) will be met (with or without conditions) or deny certification. If MDE denies certification, the ACOE cannot permit the activity. If MDE certifies with conditions to protect water quality, the conditions must be incorporated into the federal ACOE permit. The AFO Permit review process requires that the ACOE and the Wetland and Waterways Program have issued all necessary approvals prior to registration under the General Discharge Permit.

C. How will MDE incorporate geospatial information in the AFO review process?

The Department already looks at geospatial data when reviewing the Required Plans for registration under the General Discharge Permit. Maryland's Environmental Resources and Land Information Network (MERLIN online) is used to evaluate the proximity of the proposed/renewed/modified site to streams, wetlands and floodplains. Also, the program has Geographic Information System (GIS) capability and can compare AFO locations to special resources such as tier 2 waters, NOAA/FEMA floodplain maps and climate change projections and proposed setbacks. MDE plans to extend the use of GIS to identify AFOs subject to flood risks using various map layers. Additionally, the AFO program currently supports MDE's ARA with its air monitoring of emissions in proximity to AFO facilities using GIS technology. This pilot program is in the initial stages.

VII. The Permit Review Process

A. The Department should evaluate if the nine minimum standards and CNMP requirements satisfy federal requirements. If this is not the case, then additional BMPs and site-specific info should be required if the minimum standards and Plan are insufficient to protect water quality. There should be an enforceable condition added to this Permit to incorporate BMPs that capture and treat all surface water generated from the permitted site.

Under the federal CAFO regulations, NMPs must meet the nine minimum standards to protect water quality. MDE requires that AFO Required Plans meet these nine minimum standards. *See* draft General Discharge Permit at IV.B.

The terms of AFO's Required Plan once approved by MDE are incorporated into and become enforceable as discharge Permit terms and conditions. MDE evaluates the Required Plans against the nine minimum standards to ensure that an AFO's permitted operations will be sufficiently protective of water quality.

MDE evaluates the Required Plans against the nine minimum standards. If the Department determines that the Required Plans have met the standards for water quality protection outlined by the EPA, the Department issues a preliminary approval of the Required Plans (CNMP, NMP and CP including the implementation schedule) and the 30-day public review period begins. The Plans can be further modified based on public comments received. The CNMP as well as compliance with the Stormwater Management Plan and Erosion and Sediment Control Plans are designed to protect waters of the state from discharges of manure, litter, and process wastewater in a well operated AFO.

The draft General Discharge Permit sufficiently protects water quality therefore no revisions to the nine minimum standards and Required Plan requirements are necessary.

B. MDE should use individual as well as General Permits as a mechanism to reduce nutrient loads from regulated industries.

In the draft General Discharge Permit, MDE retains the authority to require an AFO owner or operator to obtain individual Permit coverage if deemed necessary by MDE to protect water quality. Additionally, if MDE, in its sole discretion, determines that the General Discharge Permit is not adequately protective of state waters at a particular AFO operation, MDE may terminate General Discharge Permit coverage and require the AFO owner or operator to obtain an individual discharge permit.

C. This Draft General Discharge Permit is not consistent with the goals of the Chesapeake Bay Watershed Implementation Plan by not having an anti-degradation and restoration requirement. Maryland Phase III WIP calls for a reduction of nutrient pollution from the agricultural sector. The AFO review process for new and modified AFOs should determine the nearest water body, its water quality status/impairments and if it is located in a Tier 2 watershed which would require anti-degradation measures especially in catchments with no assimilative capacity. In such cases, additional monitoring requirements and "maintenance of healthy waters" should be listed as a resource concern. MDE should prioritize inspections based on risk to water quality. Maintaining existing AFO Permit conditions is not sufficient to protect water quality in the face of a changing climate.

See Response I.H.

New sources do not discharge to surface water and have a zero-discharge standard (effluent limitation guideline under 40 CFR § 412.46), meaning that no manure, poultry litter, or process wastewater is discharged to surface waters of

the United States from the production area regardless of storm size. BMPs such as proper manure handling, mortality management and the implementation of an NMP minimize the opportunity for nutrients to impact water quality.

MDE's anti-degradation policy is consistent with state and federal law and assures that water quality continues to support designated uses. *See* COMAR 26.08.02.04; 33 U.S.C. § 1342(o). There are three tiers of water quality protection (1) Tier 1 must meet minimum standards of fishable and swimmable; (2) Tier 2 waters are waters with higher than minimal standards of fishable/swimmable; and (3) Tier 3 are waters of special national significance and receive the highest level of protection. The draft General Discharge Permit is consistent with Maryland's antidegradation policy as the permit continues to prohibit the discharge of manure, poultry litter and process wastewater to surface waters except under limited circumstances. Unpermitted discharges to state waters and other potential water quality issues are addressed through the investigation, compliance assistance, and enforcement processes. MDE does prioritize AFO facility inspections where resource concerns have been identified or other conditions are reported that could impact water quality.

MDE's WSA has reviewed the draft General Discharge Permit and has determined that it is consistent with Maryland's Phase III Watershed Implementation Plan (WIP) for the Chesapeake Bay. The WIP describes a suite of practices that will be implemented on agricultural lands, including AFOs. Practices described in the WIP that will be installed at AFOs include agricultural stormwater management and animal waste management structures. It is expected that through the stringent requirements of the General Discharge Permit, and through other incentives and regulatory programs established by the state, that the practices recommended will be installed. Following the BMPs recommended in the WIP will allow the agricultural sector to meet its Phase III WIP targets.

The Department has revised the draft General Discharge Permit in response to comments that suggest MDE consider in its review water quality impairments within the watershed and nearby high quality waters that warrant special protection in order to protect existing water quality and ensure anti-degradation measures. When submitting a Notice of Intent (NOI) for coverage under the Permit for a proposed, renewed, or modified AFO, the Required Plan must identify the distance to and the name of the nearest waterbody(s), the 12-digit watershed name and number, the water quality status of the watershed(s) by identifying if there are any TMDL impairments for nitrogen, phosphorus, bacteria or sediment and if the facility is located in a Tier 2 watershed(s).

D. Maryland load growth estimations in 2013 were incorrect because they projected no growth in loads from the agricultural sector and a decline in animal production which would result in less manure. This calculation needs to be redone and a process in place to track the agricultural load sector.

As part of the Accountability Framework for implementing the Chesapeake Bay TMDL, the Chesapeake Bay Program updated all land use acreages and animal numbers during its 2017 Midpoint Assessment. This process of updating these numbers used the latest available data from the Agricultural Census and went through a formal partnership approval process, including the Chesapeake Bay Program's Land Use Workgroup and Agricultural Workgroup. These numbers were used to project acreages and animal populations out to 2025, and 2025 served as the basis for the Maryland's Phase III WIP. Maryland's Phase III WIP ensures that the state will meet its 2025 nutrient and sediment commitments for the Chesapeake Bay, and annual progress toward this goal will be tracked using the most up-to-date animal populations and land use acreages available. Thus, whether the 2025 projection underestimates or overestimates the agricultural loads, Maryland's achievement of the Phase III WIP goals will be judged based on actual state land use acreage and animal numbers in 2025.

- E. Utilize the latest technology to provide real-time decision support tools to operators that minimize the risk of pollution as is used in other states and use technology based effluent limitations considering climatic/precipitation conditions. A requirement that any new AFO facility offset the total estimated pollution load of the operation from on-site performance standards or potential additional off-site offset options.**

See Response VI. A.

The draft General Discharge Permit does not currently have a mechanism to include pollution trading though it could be a consideration to explore in the future. The General Discharge Permit is technology based as opposed to effluent based. Unlike water quality based NPDES Permits, the General Discharge Permit relies primarily on technology, in this case BMPs, to adequately protect water quality. Requirements for new construction include addressing the nine minimum standards for water quality protection (*see* draft General Discharge Permit at IV.B) and compliance with the “New Source Design Criteria” (NSDC) developed by a stakeholder group to enhance water quality protection opportunities for new sources. The NSDC requires that poultry structures be built at least 100 feet from waters of the state. New construction is held to a higher standard than that for existing buildings. *See also* draft General Discharge Permit at IV.E.2. The draft General Discharge Permit sufficiently protects water quality therefore no pollution offset revisions are necessary.