

**MEMORANDUM**

**TO:** Laura DiPietro, Director of Water Quality, AAFM

**FROM:** Chris Gianfagna, CAFO Program Manager, DEC

**DATE:** February 18, 2021

**SUBJECT:** Response to VAAFM Comments on the Reissuance of Medium CAFO General Permit 3-9100

The Agency of Natural Resources (ANR) has received and reviewed the comments provided by the Agency of Agriculture, Food, and Markets (AAFM) on the draft National Pollution Discharge Elimination System (NPDES) General Permit 3-9100 for Discharges from Medium Concentrated Animal Feeding Operations (CAFOs) and provides the following general response, as well as responses to each comment in the actual draft of the general permit. This memo is formatted such that the original AAFM comment is provided without edit, followed by ANR's response to the comment.

- 1. AAFM Comment:** While the majority of the draft Medium CAFO GP is consistent and identical with Vermont's existing Medium CAFO GP, DEC has proposed several new additions. These additions are significant and have both economic and practical management impacts on agricultural operations. AAFM created the current AAFM Medium Farm Operation (MFO) General Permit to be greater than or equal to the Medium CAFO GP requirements. The AAFM MFO General Permit along with the Required Agricultural Practice (RAP) Rules already meet the requirements of the Environmental Protection Agency (EPA) water quality goals within the Lake Champlain Total Maximum Daily Load (TMDL) and the Conservation Law Foundation (CLF) requirements in the Revised Secretary's Decision (RSD). As a reminder, many of the standards established in the RAPs are set by the Legislature - as reflected in Act 64 of 2015 - those standards established in law were subsequently accepted by EPA to meet the reasonable assurance for the TMDL. With DEC's proposed new medium CAFO GP creating more stringent requirements than those established in law and by the Agricultural Nonpoint Source Pollution Control Program, AAFM recommends ANR consider a new CAFO GP more in line with the current CAFO GP, with updates to the GP to include RAP and the USDA NRCS 590 Standards ("590") revisions only. Should ANR continue with other changes beyond the RAPs and 590, AAFM feels an economic impact analysis of the remaining proposed changes is important for farms to understand the cost of the new standards so they are able to provide meaningful, informed input during the public comment process.

**ANR Response:** Federal law requires ANR, as the delegated entity responsible for administration of the NPDES program, to periodically review and re-evaluate the terms and conditions of any general permits issued under the state administered NPDES program. As part of that review, ANR has relied on extensive field experience regulating

discharges from CAFOs and regulatory experience in other NPDES programs to determine the appropriate revisions to the previously issued Medium CAFO General Permit. ANR believes these revisions are important for a farm that seeks legal authorization to discharge in compliance with the parameters of the permit and for ANR to fulfill its obligations under 10 VSA § 1250. These requirements are separate and apart from those established by the RAPs, TMDL, or regulatory provisions under Title 6 of the Vermont Statutes and therefore ANR's obligations go beyond simply acknowledging updates to the 590 Standard and incorporating the RAPs. The Required Agricultural Practices will continue to apply to farms that are covered under the Medium CAFO General Permit, even though they'd no longer need an MFO Permit. ANR used best professional judgment to develop conditions in the draft medium CAFO GP that are consistent with EPA's NPDES regulations and EPA's effluent limitation guidelines (which were subject to extensive economic analysis) while also taking into account state-specific conditions and the technology and equipment needed to comply with the draft requirements. Further, it should be noted that the Medium CAFO General Permit is intended for farms that elect permit coverage and believe they can comply. ANR believes that individual farms are best suited to determine the economic impact of compliance with this permit to their individual facilities should they elect to seek coverage under it. ANR has been mindful that the majority of changes in this version of the permit do not require additional or specialized technology to implement. The monitoring, recordkeeping, and reporting requirements may take additional time for a farm but should not require any specialized equipment or skills not already in place on most medium CAFOs. Nevertheless, farms will have an opportunity to share their thoughts during a forthcoming stakeholder process and ANR will consider all relevant comments on the topic. Farms with existing point source discharges that prevent them from complying with a general permit are better permitted through individual permits that can address the specific concerns on that farm.

2. **AAFM Comment:** ANR has explained that some of the proposed new additions are drafted by ANR and others ANR took directly from EPA's Large CAFO Permit template. EPA recognizes there are differences in how large and medium sized farms should be regulated by requiring different permit requirements based on farm size, with more stringent requirements being imposed on larger farms. ANR's proposed integration of some of EPA's templated Large CAFO permit requirements into the new Medium CAFO general permit would overlay additional regulatory requirements on Vermont's medium sized farms beyond those that are required by medium farms throughout the United States regulated by EPA. With EPA approval of the existing Vermont Medium CAFO GP, AAFM's MFO GP and RAPs, these additional regulatory requirements are difficult to justify as they could create a situation in which Vermont's medium-sized farms are at an economic disadvantage nationally.

**ANR Response:** EPA has established a national effluent limitation for Large CAFOs in 40 CFR 122.23. In the absence of an effluent limitation for Medium CAFOs the NPDES regulations direct ANR to develop the necessary effluent limitation needed to meet water quality standards using best professional judgement. This allows individual States and permit writers to evaluate local conditions to determine the appropriate permit conditions for any given scenario without restricting a State's ability to administer an effective program. As was required under the 2013 version of the Medium CAFO GP, ANR has elected to apply the Large CAFO effluent limitation to medium CAFOs. EPA has not established effluent limitations for Medium CAFOs in the Effluent Limitation Guidelines, but EPA did consider medium CAFOs in their economic analysis in development of the Effluent Limitation Guideline. EPA has not indicated that large and medium CAFOs should be regulated differently, but rather that the permit writer should use their best

professional judgement and consider the effluent limit guideline, local conditions, and water quality standards when establishing an effluent limitation for a Medium CAFO. In the case of a statewide general permit, ANR believes that adoption of aspects of the Large CAFO effluent limitation is appropriate, especially considering that many of the adopted requirements scale with the size of the farm. Further, since 47 states are authorized to administer the NPDES program, the variety of state regulations that apply to Medium CAFOs is significant, with many states, including other large dairy producing states such as New York, choosing also to adopt aspects of the Large CAFO effluent limitation or using state authority to require additional measures beyond the Medium CAFO requirements in the CFR. For these reasons, ANR does not believe that Medium CAFOs who seek permit coverage under the Medium CAFO GP will be economically disadvantaged nationally.

- 3. AAFM Comment:** AAFM has concerns that many Medium Farm Operations will be challenged to meet many of the monitoring and reporting requirements that are included in this draft CAFO GP from the Large CAFO permit requirements, regardless of whether they adequately manage the farm to prevent unpermitted discharges. Medium sized farms have reduced staffing capacities as compared to large farm operations, making monitoring and reporting requirements more difficult to manage. Creating administrative requirements as opposed to operational requirements increases the stress on the farm and amplifies the burden on the enforcement programs of the regulator with little water quality benefit. Additionally, imposing new technical standards above and beyond those utilized by the existing technical assistance programs provides challenges for farms. For example, a farm with a functioning waste storage facility is less likely to receive technical and financial assistance to upgrade the structure as compared to a farm that has structural deficiencies in their storage.

**ANR Response:** ANR recognizes that the monitoring and reporting requirements exceed those established by AAFM for MFOs but believes that a proactive approach that includes monitoring and reporting requirements will result in fewer discharges and actually lessen the enforcement burden on the regulatory programs, as well as decrease the likelihood for significant enforcement actions on farms. Commitment to these monitoring and reporting requirements should act to prevent avoidable impacts to water quality. Further, recognizing that the effort and time needed to complete the monitoring and reporting requirements scales with the size of the farm, ANR does not believe that these requirements are either overly burdensome or outside of the existing capacity of medium farm operators who chose to seek permit coverage to take advantage of the benefits provided by coverage under a NPDES permit. Regarding potential complications for existing technical assistance programs, ANR recommends that AAFM consider updating the criteria used for accessing their resources to align with these requirements so as to avoid scenarios where certain farms cannot access funding provided by AAFM. ANR has already discussed with and confirmed with NRCS that the need for a farm to comply with state regulations other than those administered by AAFM will not prevent farms from having access to NRCS financial assistance.

- 4. AAFM Comment:** AAFM appreciates the review of this draft CAFO GP ahead of the public process as outlined in the MOU between the Agencies. We encourage ANR to maintain the focus of no unpermitted discharges as the operational standard similar to the current CAFO GP as opposed to increasing the regulatory burden on farms to document additional preventative measures performed for the same outcome of no unpermitted discharges. AAFM also recommends that ANR remain consistent with the regulatory, technical, and financial assistance programs available to medium farms in

Vermont. Creating alternative standards will make it more challenging for farms to access resources for compliance. Lastly, it cannot be understated that the current suite of programs in Vermont to address Medium Farm Operations has been deemed appropriate to meet water quality goals, which includes the current CAFO GP, AAFM therefore finds little justification for further expanding the regulatory requirements on these farms after several years of substantially increased regulation following Act 64 of 2015. AAFM looks forward to a consistent regulatory approach between agencies and working together to ensure the regulatory framework is upheld to protect water quality.

**ANR Response:** Farms that have point source discharges from the production area are required to have CAFO permit authorization under federal law, irrespective of existing state laws that govern the operation of farms. The Medium CAFO GP is intended for farms that seek an authorization to discharge and believe they can comply at the time of application. This permit creates an additional opportunity for farms to take advantage of the benefits afforded by a National Pollution Discharge Elimination System Permit under the Clean Water Act, an option not available to them under the Medium Farm Operating Permit administered by AAFM. To take advantage of such protections ANR has established the necessary conditions for a legally authorized discharge based on national effluent limitation guidance and the Vermont Water Quality Standards, which exceed those required by AAFM's operating permits. Conflating the requirements of this NPDES permit with state regulations that will apply to all medium farms is a misunderstanding of the CAFO permitting program. ANR asked AAFM to clarify which water quality goals AAFM referred to in their comment and AAFM indicated the Lake Champlain Phosphorus Total Maximum Daily Load (TMDL). Although this is a critically important goal for the State to meet, it in and of itself does not address the multitude of water quality standards that ANR is responsible for establishing and meeting pursuant to the Clean Water Act, including those related to pathogens, nitrogen, and sediment in all parts of the state that would all be better served by ANR's proposed Medium CAFO General Permit. As such, ANR believes that the additional conditions in the draft permit are both appropriate for a farm that seeks an authorization to discharge, and necessary for meeting our broader water quality goals.

5. **AAFM Comment:** Page 7 of 36. B. 5. Requires a diagram of the farm for a specific list of items "demarcating impervious surfaces of the production area draining to waste storage facilities as well as features, including but not limited to; waste storage facilities, raw material storage, animal housing, clean water diversions, subsurface tile drains, and adjacent surface water(s)" to be submitted with the Notice of Intent (NOI). The federal CAFO rule does not require this information be provided nor does the current Medium CAFO GP in Vermont. Currently AAFM gathers information during its MFO inspection of a farm and through annual reporting that generally satisfies this proposed additional requirement. Because many farms may not be able to generate such a diagram from a technical capacity, VAAFM recommends that ANR work with existing State resources to develop and improve such a diagram as part of the Medium CAFO GP inspection process and to remove this requirement.

**ANR Response:** Accurate delineation of the production area is critical to effective evaluation of a permit application, including the verification of waste storage facility sizing calculations and in determining compliance with the effluent limitation in the event of a discharge. As indicated above, ANR is not tied to the federal CAFO rule or application requirements and as an authorized state may go beyond the federal requirements where it feels it is appropriate. ANR disagrees that farms would be unable to create such a diagram but is certainly open to diagrams created using the information that AAFM already has. Regardless of the source of this information, the onus is on the

applicant to submit accurate application materials, including a diagram of the production area. This information will also be helpful for the farm in understanding the routing of storm flows and process wastewater within the production area.

6. **AAFM Comment:** Page 8 of 36. B 9, 10 and 11. all require the farm to itemize waste generation by specific waste streams. The existing CAFO GP and the federal CAFO rule do not require this level of detail, and while AAFM understands ANR's desire for the farm to be specific, the current reporting process for farms does not itemize the wastes generation at this level. AAFM suggests that the requirement instead be that the farm must submit total wastes generated information as opposed to an itemized list of estimated wastes generated by source.

**ANR Response:** In order to ensure that materials provided by the farm are reasonable and will meet the effluent limitation guideline, ANR will require farms to describe each waste stream. In practice this may simply mean that the farm will submit the operation's waste generation calculator as part of their application. Further, this is consistent with the NRCS 590 standard which requires that the NMP document listing, quantification, application method and timing for all nutrient sources.

7. **AAFM Comment:** Page 19 of 36. 3. f. requires discharge analysis, which is not required by the federal CAFO rule and which is not in the existing CAFO GP. This proposed additional requirement distracts from the actual need in the moment of an emergency to stop the discharge and can be dangerous to human health and safety to require if a failed structure or other risk is involved. Estimates of wastes are sampled annually and could be used to develop estimates of the discharged content and therefore AAFM recommends eliminating this requirement.

**ANR Response:** Page 19 3.f. requires that discharge analyses taken be submitted as part of annual reporting. Section VI. J Standard Conditions, Duty to Provide Information details that all overflows or discharges from manure and/or wastewater storage or retention structures must be sampled for a number of parameters. This is a Standard Condition across NPDES permits and was included as part the 2013 CAFO GP. Section VI. J. d details the procedure the operator should take if it is unsafe to sample the discharge. As AAFM knows, the nutrient analysis of a pit that has been agitated properly can be much different than the nutrient analysis of a pit that is sampled from the top layer only. Further, this information is important for the program to understand whether the effluent limitation guideline meets VT Water Quality Standards.

8. **AAFM Comment:** Page 10 of 36. A. 1. a) I. by changing the reference data for precipitation calculations the amount of waste storage needed on Vermont farms changes and since the data is localized, it will impact farms differently, sometimes even within the same county. While this change is being referenced to the 25-year, 24-hour storm event, it leaves in question how the "normal precipitation less evaporation" is calculated for other storage design requirements in the permit. If the NOAA Atlas 14 data is utilized to further quantify annual precipitation for calculating what "normal" is, this could have real impacts on farms. This change alone could require farms that are compliant with the current CAFO GP to be unable to comply with this new GP without new storage, which could take several years to develop. In reviewing climate data, this could be up to a 12-inch difference in precipitation in some parts of Vermont. USDA and AAFM designs and permits are not using the NOAA Atlas 14 data as a reference as it summarizes event driven rainfall as opposed to annualized rainfall and it is unclear if ANR intends on using

this data just for the 25/24, or for overall storage design. AAFM recommends consistency in datasets and a collaborative review between ANR, AAFM and NRCS of climate data and those impacts on the design standards prior to adoption within a GP. By working together, the regulatory, technical and financial assistance programs could work towards updating the technical standards first to address climate change for new construction, thereby providing time for farms to comply perhaps in time to include updates in the next CAFO permit revision in 5 years.

**ANR Response:** Geographically explicit quantification of rainfall is needed for accurate waste storage facility sizing. Part III A.1.a.I specifies the precipitation data source for the 25-yr, 24-hr storm event, not the dataset for estimating normal precipitation and runoff during the storage period. At the time the draft permit was shared ANR had considered evaluating the precipitation data set used by the applicant for estimating normal precipitation and runoff during the storage period as part of application review, but later decided to identify a specific precipitation data set for use in waste storage facility sizing, which is now included in the draft general permit as Appendix B and is now available to AAFM and NRCS for incorporation into their waste storage facility sizing tools. At no point had ANR previously stated that Atlas-14 data should be used for estimating rainfall and runoff for the storage period.

ANR has since discussed data accuracy needs with AAFM and NRCS on several occasions and understands that differing design standards in the ANR and AAFM regulations will not prevent a farm from accessing the technical and financial resources of NRCS, which require compliance with all applicable state laws, including CAFO design standards. If AAFM remains concerned about farms being able to access technical or financial assistance from its own programs ANR is happy to work with AAFM to align design standards that meet CAFO requirements, but does not feel that revisions to the waste storage facility sizing standards need to wait until the next reissuance of the CAFO GP in 5 years.

Further, in subsequent conversations ANR has confirmed that both AAFM and NRCS are committed to using the Atlas-14 dataset for estimating the 25-yr, 24-hr rainfall depth for the design of new storage, which should address the concern raised in the comment regarding use of consistent datasets for estimation of rainfall for the 25-yr, 24-hr event.

9. **AAFM Comment:** Page 10 of 36. A. 1. a) II. specifies the dates that must be used to calculate the storage period. USDA and AAFM utilize a different standard based on 180 days. By specifying the dates and then changing the climate data set utilized (assuming the goal is to use the NOAA Atlas 14), this draft CAFO GP would be exceeding current state standards unnecessarily. A farm that can manage its storage to prevent a discharge is the requirement in the federal CAFO rule and by creating very specific requirements, farms will have to implement additional storages to meet these proposed standards. It takes several years to design and implement a waste storage facility that meets engineering standards and therefore farms would be non-compliant with this permit based on a technical detail and not a discharge which is overburdensome.

**ANR Response:** As indicated above, the NOAA Atlas-14 data is not used for determining rainfall and runoff during the storage period. The storage period in the CAFO permit represents a 180-day period that overlaps the winter manure spreading ban. An established storage period is needed for estimating precipitation and runoff during that period. Without specifying a date range an applicant could present any 180-days in the year, not necessarily those in the specified storage period. By using a spatially explicit and recent precipitation data set, as required in the draft CAFO GP, waste storage facility

sizing will more accurately reflect storage needs. The federal CAFO standard requires that the production area be designed to prevent overflow during the storage period. This requires appropriate sizing of waste storage facilities, not simply effective management as the comment suggests. The draft CAFO GP conditions are consistent with this goal and are needed to ensure adequate storage given increases in precipitation resulting from climate change.

- 10. AAFM Comment:** Page 12 of 36 5. e) states that a depth marker is required for liquid storage facilities. In the federal CAFO rule this requirement only applies to large CAFOs and in the current CAFO GP this is not the requirement. It is not common practice to have depth markers on MFO liquid storages in Vermont, so this would be a new requirement on most of these farms that would require a technical survey to calibrate the marker with the required levels (emergency, freeboard, etc.). In the draft GP there are also recordkeeping and then notification requirements using the depth marker, that are overburdensome on a farm, especially if it has sufficient storage and/or has never had a discharge from its storage structures.

**ANR Response:** As described in responses above, EPA has not developed effluent limitations for medium farms; the CFR directs permit writers to use best professional judgement when determining how to regulate medium CAFOs and the EPA provides an effluent limit guideline that may be relied upon when developing standards. ANR believes that a depth marker is appropriate for waste storage facilities at medium farms because accurately gauging available storage is critical to proper management to prevent discharges. ANR also believes the record keeping and reporting requirements are well within the abilities of a typical medium farm and do not constitute an overburdensome permit condition in a NPDES permit that can legally authorize a discharge. This is a higher standard than that required by the MFO GP and is needed for ANR to conduct due diligence when authorizing discharges under limited circumstances. Effective planning requires an accurate understanding of waste storage capacity and a means of tracking it, as well as precipitation to document when a discharge is authorized. The draft Medium CAFO GP is intended for farms that would like to take advantage of the benefits of a NPDES permit and that can demonstrate compliance at the time of application. If a farm has a discharge that requires a NPDES permit ANR may pursue coverage under an individual permit if that farm cannot comply with the general permit.

- 11. AAFM Comment:** Page 12 of 36 f) states that within the production area that access roads, parking areas, and other areas identified by the Secretary that do not drain to a waste storage facility be maintained to prevent erosion and the discharge of agricultural wastes. On Page 15 of 36 d) a farm is required to describe how it maintains these areas within its NMP. This is not a federal CAFO rule requirement and is not in the existing CAFO GP. Areas around a production area are not defined as production area, which is more specific to the confinement areas for livestock and wastes. This requirement is more expansive than the production area and raises questions of legality of where the agricultural stormwater exemption applies and for these reasons should not be included in the CAFO GP as there are other state laws within AAFM And DEC that are able to address discharges from these areas should they occur.

**ANR Response:** The definition of production area in the federal CAFO rule and the draft Medium CAFO GP expressly includes “areas within berms and diversions which separate uncontaminated storm water.” The inclusion of this language indicates that surfaces within the production area other than those specifically identified in the definition are included within what is considered production area. This may include access roads or

other surfaces where agricultural waste is tracked and subject to discharge by storm flows. The exact boundaries of the production area and what areas are subject to the production area effluent limitation will vary from farm to farm, which is one of the reasons that a production area diagram is necessary.

Further, ANR interprets the agricultural stormwater exemption to apply to the land application areas only and not the production area. Existing case law referenced by AAFM on the topic in the general permit is neither persuasive nor binding precedent as it does not rule on the question raised in the comment and took place in a different federal circuit with no jurisdiction in Vermont.

Lastly, AAFM explicitly identifies farm roads as within the production area in a presentation on Act 64 and the Required Agricultural Practices on the agency's website. Slide 32 of the presentation, titled "RAP Presentation" on the Additional Resources and Reports webpage, unequivocally states that "also included in the production area are the farm roadways." Slide 33 then includes access roads in the area delineated as production area. The presentation may be found at: <https://agriculture.vermont.gov/water-quality/additional-resources-and-reports>.

- 12. AAFM Comment:** Page 12 of 36 g) requires a farm to install and maintain a rain gauge and to record all events in excess of 0.5 inches. This is not a federal CAFO rule requirement and is not in the existing CAFO GP. With the advance of technology there are now ample monitoring stations to reference storm events should it be necessary. A farm must be designed and maintained to address the storage requirement, which is independent of tracking 0.5 inch or greater storm events. Requiring a monitoring and record keeping system can be costly and is duplicative with publicly available data.

**ANR Response:** Tracking precipitation with a rain gauge or weather station is already common on medium-sized farms, and while weather stations can be expensive, a plastic rain gauge is not. This requirement benefits the farm, enabling the farm to document and justify events leading up to a discharge. Operators already have a strong understanding of how precipitation affects the levels of a waste storage facility, this requirement, to an extent, quantifies it. DEC calculated the area weighted average curve number for cultivated land in the state which shows on average, runoff from a cultivated field in Vermont begins between 0.4 inches and 0.5 inches of precipitation, thus determining the recordkeeping threshold.

- 13. AAFM Comment:** Page 13 of 36 i):

- a. The draft GP has removed the following from the current CAFO GP, "Existing retention facilities that have been properly maintained and show no signs of structural breakage will be considered to be properly constructed." By removing this provision, medium farms would not be "grand-fathered" for their existing, functioning, waste storage structures. Requiring all medium farms to upgrade storages when they are not failing will be costly and will take valuable resources away from more urgent pollution projects. ANR should return the current CAFO GP language.

**ANR Response:** ANR will require that as-builts be submitted at the time of application, or, if no as-built are available, that the WSF be assessed by a professional engineer according to the VT WSF Evaluation Guide developed by ANR and included in Appendix C of the general permit. The intention of this guide will to be to assess major issues without invasive sampling, to calculate the storage volume of the WSF, and to assist in the installation of a depth marker if it is not already present. The VT WSF Evaluation

Guide was adapted from the 'VT NRCS Evaluating Existing Waste Storage Facilities' guide and New York State's 'AEM Tool for the Evaluation of Undesigned Waste Storage Facilities'.

- b. Attempts to mirror the requirement in the RAPs for storages that are built after July 1, 2006. The requirement in the RAPs provides for NRCS *or a professional engineering equivalent* (emphasis in original) in reference to the technical standards. This draft does not allow for professional engineering certification to be utilized in place of NRCS standards and it should be included to align with the RAPs.

**ANR Response:** Language in the GP subpart III.A.5(i) has been updated to accept an equivalent standard certified by a PE licensed in the State of Vermont.

- c. A change was made that the technical standards need to be those available at the time of "design" as opposed to the time of "construction." Sometimes the design process on a farm can lapse several years due to other constraints and therefore, at the time of construction is more appropriate. Alternatively, using "either at the time of design or during construction" allows farms to implement projects that may have had changes to the technical standards during the course of their project.

**ANR Response:** Thank you for pointing this out, we have updated the language to require that the structure be constructed in accordance with the most recent technical standards developed by the Vermont NRCS or an equivalent standard certified by a professional engineer licensed in the State of Vermont.

**14. AAFM Comment:** Page 13 of 36 j):

- a. This requires all waste storages structures without as-built drawings to be evaluated by a professional engineer and then the necessary improvements made so that the professional engineer can certify that the structure meets the NRCS standards. Numerous waste storage structures on medium farms do not have as-built drawings and would come under this requirement. Currently in Vermont, these structures are "grandfathered" until there is a concern that warrants an upgrade such as imminent failure due to structural integrity or evidence of pollutants entering surface or groundwater. Additionally, the designs of some structures are well outside of the scope of what would meet today's NRCS technical standards and, as such, an entirely new storage structure would need to be built as opposed to making improvements to the current structure (e. g. concrete structures not meeting rebar standards). Lastly, private engineers are unlikely to certify structures that they are unable to determine the construction specifications used without invasive exploration into the structure which could impact structural integrity (e.g. concrete structures).

**ANR Response:** ANR has replaced the requirement that all WSF without as-builts be certified with the requirement that all WSF that do not have as-builts be assessed by a PE according to the VT WSF Evaluation Guide developed by ANR.

- b. The implementation schedule for upgrading the waste storage is put within the NMP implementation schedule. Normally a NMP does not include structural implementation schedules. It seems that a general permit should not have such a detailed requirement that necessitates an implementation schedule. Utilizing enforcement for compliance schedules seems more appropriate for upgrades that are necessary based on actual or imminent failure of the structure.

**ANR Response:** This section has been removed. Eligible CAFO GP applicants will be in compliance at the time of application, all others will be directed to apply for an Individual Permit.

**15. AAFM Comment:** Page 13 of 36 m) requires the farm to notice DEC prior to wastes in their storage filling into the “emergency level,” which is effectively the space available for the 25 year, 24-hour storm event. While a farm is not allowed to discharge from a storage absent a storm event such as the 25/24, noticing DEC within 24 hours of using a portion of the storage available for this storm is not a requirement in the federal CAFO rule nor the current CAFO GP. Should a farm utilize some of the emergency level storage and the weather forecast does not predict precipitation, it would seem there is no risk of a discharge if the farm manages the waste to lower the level in accordance with a change in the weather forecast. With proposing to make storage requirements greater in this draft GP by using increased rainfall data, many farms may likely need to utilize the emergency storage on an annual basis. It is the risk the farm takes to manage wastes appropriately to ensure they do not discharge. The farm’s management could include risk, which if there is a discharge, the farm assumes that liability. A more appropriate notice requirement is that the farm notice the Department should the farm have a discharge, not if it has a potential to discharge.

**ANR Response:** Section III.A.5.m states that the farm must notify the department once a WSF has ‘exceeded the emergency level’. Therefore, a permitted farm must notify DEC once the level of a WSF has entered the top 12 or 6 inches of the WSF (depending on WSF type). It does not state that notification must occur once the level enters the volume for the 25-yr ,24-hr storm event. This is the same operational standard NRCS and AAFM hold farms to (in operation and maintenance plans and compliance inspections respectively) and this standard is independent of precipitation data or forecast. A farm that elects to seek authorization under the CAFO GP will need to follow a procedure, including notification to DEC when exceeding the emergency level and in the event of a discharge, in order to ensure that a resulting discharge is authorized (i.e. that the permit was followed and that the discharge was due to precipitation not, for example, because the operator failed to transfer to another pit with storage).

**16. AAFM Comment:** Page 16 of 36 proposes a new additional requirement of 25 foot vegetated buffers on ditches and conduits for medium CAFOs; the federal CAFO rule only requires setbacks or alternative practices to protect surface water and conduits to surface waters for large farms. The Vermont Legislature established a new minimum size of a buffer zone for all farms for a surface water at 25 feet and a ditch at 10 feet in Act 64 of 2015, this standard is found at 6 V.S.A. § 4810a(6)(A). Currently in Vermont, surface inlets were determined through the RAP rulemaking process to need the same protections as surface waters and therefore also have 25 foot buffer zone. AAFMs took great care in working in definitions of ditches and surface inlets in the RAPs as there was significant confusion within the agricultural community when words such as “conduits” were used without definition. This draft GP does not contain a definition of a “conduit.” AAFM recommends that “surface inlet” be defined to align with the RAPs as opposed to “conduit” so that the regulatory framework for farms is consistent. Any excess buffer or setback requirements beyond that required by the RAPs will be costly to farms and will impact their land area available for nutrient applications, potentially significantly with the proposed ditch buffer requirement.

**ANR Response:** Since sharing the draft GP with AAFM, DEC discussed the buffer and setback requirement with EPA and has since chosen to adopt the federal Large CAFO compliance alternative requirement of 35 ft vegetated buffers and setbacks for downgradient surface waters, ditches, and conduits to surface waters. All surface waters, ditches, and conduits upgradient of the application area will continue to need buffers and setbacks as described in the RAPs. Seeing no reason for applying a lesser buffer requirement for Medium CAFOs, the Department will hold fields managed by a Medium CAFO to the same standard as fields managed by a Large CAFO. The federal requirement of 35 feet is supported by a large body of research evaluated by EPA prior to adoption of the standard and when applied in concert with other nutrient management practices will decrease the instances and impacts of nutrient runoff from agricultural fields. The 35-ft buffer on downgradient surface waters, ditches, and conduits equates to an area of 0.08-ac per 100 linear feet of frontage on a surface water, ditch, or conduit to surface water or 0.09-ac total area per surface inlet point. This is a difference of 0.02-ac per 100 linear feet for surface waters and 0.06-ac per 100 linear ft for ditches when compared to the 25-ft and 10-ft buffer requirements RAPs. A definition of ‘conduit’ has been added to the draft GP.

- 17. AAFM Comment:** Page 17 of 36 l) II. Does not allow fertilizer or compost to be utilized in the buffer for maintenance or establishment. This prohibition on fertilizer and compost is not a requirement in the federal CAFO rule, further, in the RAPs and in the 590 Standard, fertilizer is allowed according to a soil test for the purposes of maintenance and establishment. Buffers are allowed to be harvested in Vermont, and may from time to time need to be maintained using fertilizers that contain a wide variety of nutrients depending on the formulation that are necessary to maintain a dense buffer and to continue harvesting, especially after large flood or storm events. This draft GP should not create further restraints beyond the state and federal requirements. Compost was allowed in the RAPs to provide a parallel for the organic community to maintain their buffers without the use of synthetic fertilizers.

**ANR Response:** The draft CAFO GP does not prohibit harvest or tillage for the purpose of establishing a buffer. One of the purposes of a downgradient vegetative buffer is to promote filtration and infiltration of nutrient-laden field runoff before it can reach a stream. Many downgradient buffer soils have legacy nutrients from nutrient application, manure runoff, and flooding. Please note, the federal standard for CAFOs is the regulatory floor, and ANR has determined that the risk to water quality is too high to allow farms authorized under the GP to apply nutrients so close to surface waters and conveyances to surface waters.

- 18. AAFM Comment:** Page 17 of 36 m) provides for private well exclusions:
- a. There is a proposed 100 foot nutrient setback from a private well, which is inconsistent with the RAPs and the Water Supply Rule and should be realigned such that the responsibility for setbacks is shared between properties. Currently, if a well is drilled properly, it should be placed 50’ from an adjacent crop field, then a farm is required to setback 50’ from the property boundary where the well exists creating a 100’ setback. AAFM recommends that for wells drilled inconsistent with the well drillers rule at the time, that ANR put protections in similar to the RAPs.
  - b. The 50 foot setback from pasturing a well with permission from the well owner is consistent with the RAPs, however the protections for illegally drilled wells is not in place.

AAFM recommends that for wells drilled inconsistent with the well drillers rule at the time, that ANR put protections in similar to the RAPs.

**ANR Response:** The language in the draft CAFO GP has been updated to reference the Water Supply Rule.

- 19. AAFM Comment:** Pages 17 and 18 of 36 outlines a table of recordkeeping requirements. The newly proposed items include several minor record keeping items, and several substantial new items, specifically;
- a. analysis of samples taken in the occurrence of an overflow from all manure and process wastewater storage structures. An overflow does not mean a discharge has occurred, and while it demonstrates a lack of management, the requirement to sample an overflowed storage alone, without a discharge, is dangerous and unnecessary because the storage is required to be sampled annually. CAFO rules define an overflow as a discharge, and AAFM recommends that if this draft will use the term 'overflow' anywhere within that the definition from the CAFO rule also be included.

**ANR Response:** Section VI. J Standard Conditions, Duty to Provide Information details that all overflows or other discharges from manure and/or wastewater storage or retention structures must be sampled for a number of parameters. This is a Standard Condition across NPDES permits and was included as part the 2013 CAFO GP. Section VI. J. d details the procedure the operator should take if it is unsafe to sample the discharge. As AAFM knows, the nutrient analysis of a pit that has been agitated properly can be much different than the nutrient analysis of a pit that is sampled from the top layer only. Further, this information is important for the program to understand whether the effluent limitation guideline meets VT Water Quality Standards. Please note that ANR's interpretation is that only overflows that have resulted in a discharge must be sampled. To clarify this we have updated the language in the recordkeeping table.

- b. **AAFM Comment:** Records of weekly inspections for stormwater or clean water diversion devices, runoff diversion structures, and devices directing contaminated stormwater or process wastewater to waste storage facilities, and inspections of waste storage facilities noting the level of liquid in the structure are not requirements of medium CAFOs either in the CAFO rule or the current CAFO GP in Vermont. This level of documentation and record keeping is excessive on farms of this size and should be removed.

**ANR Response:** ANR disagrees that weekly inspection of these structures and associated recordkeeping is excessive for medium sized farms. Field experience has shown that many discharges are identified during regulatory inspections when ANR and AAFM inspectors evaluate these same areas. This requirement will help to identify discharges from these areas sooner, which should result in faster resolution of any water quality issues and will ensure that that the farm documents the timeline and actions they've taken to correct impacts to water quality.

- c. **AAFM Comment:** Documentation of rain events in excess of 0.5 inch is not a requirement in the current CAFO GP or CAFO rule and there are a multitude of precipitation monitoring systems available in Vermont that are able to maintain this data as opposed to requiring individual farms to record this level of data.

**ANR Response:** See response to comment 12

**20. AAFM Comment:** Page 22 of 36 Part V. A. discusses facility closure requirements.

AAFM agrees farms should not abandon waste storage facilities, however in practice the abandonment typically occurs when the livestock are no longer on the farm. If this occurs, the farm would no longer meeting the criteria for a medium CAFO and applying these requirements would be difficult. Any waste storage facility on a regulated CAFO is required not to discharge, which rather than requiring facility closure, the more appropriate standard is for the farm to ensure there is no discharge. Some farms may be in limbo for several years, especially if there are family disputes over ownership, so setting a time frame as opposed to an operational standard is not as practicable and should not be included.

**ANR Response:** The draft CAFO GP has been updated to reflect this recommendation.