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Details:

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WISCONSIN STATE LEGISLATURE ...
PUBLIC HEARING - COMMITTEE RECORDS

2005-06

(session year)

Assembly

(Assembly, Senate or Joint)

Committee on ... Agriculture (AC-Ag)

COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
- Public Hearings ... **PH**
- Record of Comm. Proceedings ... **RCP**

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt**
- Clearinghouse Rules ... **CRule**
- Hearing Records ... bills and resolutions
  (**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
  (**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

53. Comment: It is unclear if this section of the code is for those that are seeking a general permit or for the Department to require a General Permit. If it is for the Department to require general permit coverage, Gold'n Plump is vehemently opposed to this section and believes that it goes far beyond the intent of Wisconsin law or federal requirements; Gold'n Plump asks that this section be removed or modified to clarify that it is for those seeking a general permit if that is the case.

Response: No change made. The primary purpose of this section is to ensure that applications for CAFO general permit contain as much information as individual permit applications. The Department has the authority to require coverage under a general permit and does not intend to modify that authority under NR 243; however, such a decision is subject to challenge by the permittee and historically permit coverage is granted with the consent of the permittee.

Green Tier

54. Comment: The Department received a number of comments in support of the Department's Green Tier program. The Legislative rules clearinghouse commented on the use of the term Green Tier in NR 243.

Response: Changes made. See response to comment #8, section III.

NR 243.13 – Standard requirements

55. Comment: A producer group commented that it believes both "CAFO outdoor vegetated areas" and "ancillary service and storage areas" should not be the subject of WPDES permits and rather, discharges from these areas should be governed by Wisconsin's NR 216 Stormwater Program. The group believes that Ancillary Service and Storage areas should be covered by the stormwater program of NR 216 and not be a part of the WDPES Permit designed to control manure and process wastewater discharges from production areas. We note that the same statutory prohibition against WDNR regulating point source discharges more stringently than the federal rules is present with respect to stormwater discharges. See, Wis. Stat. § 283.1 1(2)(b). Just as industrial facilities are often covered by both a WPDES permit for a direct discharge and a stormwater general permit for discharges associated with industrial activities, so too should a large CAFO be treated. Another comment indicated that there may be fewer permits associated with these requirements, but more regulation combining NR 216 requirements into NR 243.

Response: No change made. Inclusion of stormwater provisions will avoid double regulation/permitting and will not lead to double enforcement.

56. Comment: A producer group commented that if CAFO outdoor vegetated areas are not a part of the production area and maintains sufficient vegetative cover, it is either a pasture or should be subject to the s NR 216 stormwater comment applicable to the "ancillary service and storage areas" (see above). In either case, it is beyond the jurisdiction of NR 243 if there is no actual discharge of pollutants to waters of the state from this pasture or other area not a part of the production area. As such, it should not be regulated by this rule.

Response: Partial change made. CAFO Outdoor Vegetated Area requirements were revised and moved to the ancillary service and storage area requirements – see change to s. NR 243.12(7).

57. Comment: Since many operations are participating in the development of a Comprehensive Nutrient Management Plan ("CNMP") under various USDA programs, we encourage the Department to allow operators to point to their CNMPs (which include emergency response plans as a subset) to satisfy this requirement and request that the code specifically incorporate language which presents this as an option.

Response: No change made. To the extent that a CNMP addresses the requirements of NR 243, it will be acceptable. Since CNMPs are intended to address compliance with state rules, it is expected that emergency response plans developed in accordance with a CNMP will comply with NR 243.

NR 243.14 – General

58. Comment: Currently, municipal waste (sewer system sludge) and industrial products (whey, seep water from wet brewers and distillers, wet distillers, and wet brewer's grains, fat waste) are allowed to be spread throughout the winter months. These products have high BOD content, heavy metal content, plant nutrient content, or other potentially harmful constituents. The storage requirements for these products are controlled under NR 213 standards which require more stringent engineering and construction. Yet, all of the above products will be allowed to be applied to land surfaces anytime of the year. Explain the double standard in relationship to manure, the Clean Water Act, and more restrictive standard then at the national EPA level.

Response: See response to comment #125 of this section.

59. Comment: Hauler certification is needed.

Response: Mandatory hauler certification is not within the authority of ch. 283, Stats.

60. Comment: There were comments expressing general concerns about the environmental impacts associated with manure, in particular liquid manure, and the need for increased monitoring of manure spreading.

Response: While an important source of crop nutrients, liquid manure is more prone to spills and runoff than solid manure under dry and wet weather conditions. The Department has included a number of manure handling and landspreading requirements that are intended to address potential negative impacts associated with liquid manure.

61. Comment: The Department should only incorporate into its rule the nutrient management portions of NRCS 590. NRCS 590 (2005 version) contains other considerations not related to water quality and not intended when developed by the Standards Oversight Council ("SOC") to have a regulatory application in Wisconsin. A producer group commented that it participated in the last two revisions to Wisconsin's version of NRCS 590 and can therefore state with authority that the nutrient management standard was not intended to be incorporated wholesale as a regulation with the power of Department of Justice enforcement behind it.

Response: The Department has incorporated all sections of NRCS Standard 590, except for section V.D., related to air issues. Department staff also participated in the revisions to NRCS Standard 590 and believes that all remaining sections are relevant to protecting water quality.

62. Comment: The nutrient management restrictions in NR 243 should apply to all livestock operations in the state, not just CAFOs.

Response: Partial change made. Under s. NR 243.03(2), for operations with fewer than 1000 animal units, the definition of agricultural stormwater and allowable discharges to navigable waters from land application areas is tied to implementation of practices in NR 243. Operations that follow NR 243 and that have discharges to navigable waters would be exempt from potentially having to apply for a WPDES permit. In addition, the Department may designate small and medium operations that have discharges to navigable waters or that impact groundwater as CAFOs and subject them to the requirements of NR 243. However, this is done on a limited basis.

63. Comment: The nutrient management requirement submitted with the permit should include manure/land leases and at least a 3 year feasibility report with contingencies.

Response: No change made. Under s. NR 243(1)(b), the Department can require additional information on available acreage where available landspreading acreage is limited.

64. Comment: Item 243.14(1)(b) states that a Nutrient Management Plan may require verification to apply on land not owned by the permittee. An operation commented that it has a large database of customers and has been selling manure in excess of 25 years and thus does not necessarily have a

specific field to utilize (spread on) at some future date. It utilizes a Sales and Marketing staff that sells to local farmers and provides documentation for necessary and required Nutrient Management Plans.

Response: No change made. DNR believes that in the interest of flexibility, operations may demonstrate adequate land base in a number of ways.

65. Comment: Section NR 243.14(l)(c) A producer group requested a presumptive approval of a plan amendment if no response is received from the Department within 30 days of submittal of the amendment. This comment is based on the dynamic process of nutrient management planning that cannot wait extended period for written approval from Department staff, which is already understaffed for nutrient management planners. Since nutrient management plans are developed by either certified professionals or trained owners, the process should be made to be as least cumbersome as possible.

Response: Partial change made. See 243.14(1). The code has been modified to allow the department to establish a condition in the WPDES permit that allows for implementation of certain types of nutrient management plan amendments without, or prior to, obtaining Department approval.

66. Comment: A producer group suggests the elimination of s. NR 243.14(2)(b)2 related to applications on saturated soil is duplicative of the performance standard defined in (b)l. of ponding on or running off.

Response: No change made. Both requirements are needed since ponding of manure and process wastewater may occur independently of application of materials on saturated soils.

67. Comment: A producer group objected to the vague language present at s. NR 243.14(2)(d) and recommends striking same. This provision appears advisory in nature as it requires the permittee to "consider" certain factors when making land application decisions; however, these factors in and of themselves are not a performance standard, effluent limitation, restriction or requirement. As such, the point of compliance is not able to be determined by the permittee rendering the provision vague and unenforceable from a due process perspective. We recommend this section be converted into an accompanying administrative code note.

Response: Change made.

68. Comment: A number of individual citizens and environmental advocacy groups commented in support of the additional groundwater protections in s. NR 243.14. Comments indicated that these protections may help minimize both acute manure discharges that can result in fishkills, and help protect public health by preventing groundwater contamination of private wells and community water supplies. Commenters referenced incidents of private well contaminations by manure, some from large CAFOs, that was spread at the wrong time. Although some commenters said that the requirements were not perfect, they believed they were an important step to protecting groundwater and preventing illness from exposure to contaminated water. Some comments related stories of people whose wells were contaminated by manure and the costs ($14,000) to replace the wells. Some comments indicated that the rules will be difficult to monitor and enforce and may not avoid all impacts, including nitrate contamination.

A limited number of producers expressed opposition to the restrictions designed to address groundwater. One producer pointed to the benefits to the soil by using manure as opposed to commercial fertilizer in areas of soils <24". One comment said that the alternative is to not grow crops in these areas.

Response: No change made. There are documented concerns with manure applications over shallow soils and in areas susceptible to groundwater contamination. The proposed requirements recognize the potential for human health impacts result from bacteria and nitrates associated with manure application in these areas. NR 243 does not regulate fields where only commercial fertilizer is applied.

69. Comment: Comments were received requesting that 2nd year manure credit requirements be eliminated. One reason is that the Phosphorus Index system using the SNAP Plus program only allows

operations to identify first year manure credits, or first, second and third year applications. Other comments referenced the fact that manure credits are not an exact science and variability of manure means that every load is slightly different, and no matter how good a manure applicator is, it is impossible to apply the nutrients evenly across the fields.

Response: No change made. The Department has a number of CAFOs that currently address 2nd year manure credits. While the Department recognizes manure variability and variability in application, 2nd year manure credits can represent a significant potential source of nutrients that could impact groundwater and surface water if not properly accounted for. The Department is working to address potential issues associated with the phosphorus index and SNAP Plus software.

70. Comment: Saturated soil is an important factor affecting the potential for manure to reach surface water. However, we need to establish a method that farmers can use to evaluate the soil moisture content. Discovery Farms has installed soil moisture probes with limited success. One producer is using this information to assess when field conditions are right for manure spreading, planting and other activities. Discovery Farms have soil moisture probes and could make that information available to producers throughout the state. We are learning more about how soil moisture affects field operations, but we do not have enough information at this time to make a recommendation. One farmer has been tracking soil moisture and has indicated that he has found this measurement to be very valuable to his operation. Based on his data, he knows the range of moisture where his fields are suitable for manure application, planting or other field operations. However, we are just starting to gather this information and are not ready to make recommendations at this time. Is there a simple (yet effective) means of determining soil moisture and saturated conditions? How will producers determine if a soil is saturated based on this definition?

Response: The Department has chosen not to codify a specific method for determining whether soils are saturated. NRCS Standard 590 has a simple method to determine when soil moisture levels are appropriate for applications.

71. Comment: A number of commenters, including Discovery Farms, discussed potential water quality impacts associated with subsurface drainage systems (drain tiles), and the need to address and/or better study these impacts.

Response: The Department recognizes the potential water quality impacts associated with drain tiles and the difficultly in determining acceptable best management practices to address these potential impacts. At this time, the Department is requiring only identification of drain tiles as part of the nutrient management plans (s. NR 243.14(2)(f))

72. Comment: One commenter requested that the rule provide some kind of compensation when a CAFO contaminates a well.

Response: While well compensation is not covered under NR 243, the state legislature recently passed legislation that would provide well compensation funds to people whose wells experience fecal contamination from livestock.

NR 243.14 – Nutrient Management (Phosphorus)

73. Comment: A number of environmental advocacy and conservation groups supported the concept of phosphorus-based nutrient management for livestock operations to mitigate negative impacts to water quality (i.e., eutrophication). However, a number comments expressed concerns about the allowances for manure and process wastewater applications on fields high in soil test phosphorus either because the proposed rule, unlike the 590 Standard, does not call for drawing down soil test levels on those fields excessively high in phosphorus (150 ppm or greater). A comment was received that manure spreading should simply not be allowed on soils testing high in phosphorus.

A limited number of producer comments expressed concern over the concept of phosphorus-based nutrient management, the limitations on the science associated with the Wisconsin P-Index and the ability

of the Soil Test P method to correlate to surface water impacts. One comment requested the continued allowance to spread on fields with soil test phosphorus levels of 200 ppm or more.

Response: The Department believes that phosphorus-based nutrient management is necessary to protect water quality and that the soil test phosphorus and the Phosphorus Index in the 590 Standard, with the additional restrictions in NR 243, are methods that can help to address phosphorus delivery to surface waters from CAFO land application activities. The Department also believes that applications on fields with soil test levels of 100 ppm or greater are acceptable provided the risk of delivery is controlled. The Department has proposed modifications to the requirements for all fields with soil test phosphorus of 100 ppm or greater to better address potential delivery from these fields (see response to comment #15, section II)

74. Comment: Phosphorus is not dangerous in fresh water, only salt water.

Response: No change made. Phosphorus is a limiting nutrient to weed/algal growth in many fresh water systems and thus is a significant contributor to eutrophication in fresh water systems.

75. Comment: Comments were received stating concerns about the proposed requirement that the method for assessing and minimizing phosphorus delivery must be consistent across all fields. This was viewed as unworkable given the hundreds of individual farmers that receive manure from CAFOs and their varied Nutrient Management Plans. Instead, NR 243 should provide the same flexibility allowed under NRCS standard 590 where producers select a method by FSA farm tract.

Response: Change made.

76. Comment: Item 243.14(5)(a)1. states that "increase in soil test phosphorus are prohibited". We recommend that this be modified to read, "increases in soil test phosphorus over the crop rotation are prohibited". This would mean that soil phosphorus levels would increase at the time of application and then over the course of the rotation would be mined back out.

Response: Change made.

77. Comment: The University of Wisconsin has determined that approximately 40% of our soluble phosphorus is mineralized and becomes insoluble as a result of the use of digesters. This suggests that when applied to land, the phosphorus is less likely to be soluble in rain water and runoff to waters of the state. Will phosphorous indexing account for the percent of soluble and insoluble phosphorus in the manure?

Response: The Phosphorus Index currently accounts for mineralization of phosphorus associated with digested manure that is applied to fields, through the inclusion of soil test phosphorus levels as a factor used in determining phosphorus delivery. The Phosphorus Index can be modified further to account for potential changes to soil buffering capacity and plant available phosphorus associated with materials such as digested manure. However, there is not enough data on how digested manure differs from other manures in these areas to warrant inclusion in the Phosphorus Index at this time.

NR 243.14 – Nutrient Management (SWQMA Restrictions)

78. Comment: Is it the Department's intent to limit commercial fertilizer applications within the SWQMA?

Response: No change made. The Department only has authority to regulate manure and process wastewater applications within the SWQMA. Applications of manure and process wastewater must take into account nutrient associated with applications of commercial fertilizer.

79. Comment: A number of environmental advocacy groups and individuals supported the SWQMA restrictions outlined in the rule. Reasons for support include the flexibility provided by the code, the need for vegetative buffers near surface waters and reductions in acute runoff events. Some comments

requested more restrictive requirement by requiring injection and incorporation within the SWQMA or increasing setbacks in order to make them easier to implement or to protect water quality.

Response: No change made. The Department believes that the setbacks and application restrictions in the SWQMA are sufficient to protect surface water quality and that producer flexibility is needed and provided for in these areas with the proposed code language, including allowances to conduct no-till farming in order to address sediment loss and long-term phosphorus delivery.

80. Comment: Can an operator choose a different option each year or each time the spreader hits a field when spreading within the WQMA?

Response: No change made. Methods of application can vary each year or per application provided the method of application is specified and approved as part of the nutrient management plan.

81. Comment: The definition of "Conduit to Navigable Water" needs to be changed because it removes too much agricultural land from production. There is no justification for eliminating this land from receiving manure nutrients. More flexibility needs to be built into the rules for SWQMA restrictions.

Response: No change made. The proposed rule does not prohibit applications within the SWQMA, including areas within 300 feet of conduits to navigable waters. It does require practices be implemented in those areas, including practices proposed by the permittee on a case-by-case basis that achieve an equivalent pollutant reduction equivalent to a 100 foot setback from navigable waters and their conduits.

82. Comment: Comments were received requested reciprocal setbacks associated with manure and process wastewater requirements and other rule requirements.

Response: No change made. The Department does not have authority through the WPDES permit to require reciprocal setbacks.

83. Comment: The options for applying manure in a SWQMA should include the ability to surface apply liquid manure with a dry matter content of less than 4% on a growing crop.

Response: No change made. Such a practice would be evaluated on a case-by-case basis in accordance with the requirements of s. NR 243.14(4) provided it provides pollutant reductions equal to or better than a 100-foot setback.

NR 243.14 – Winter restrictions

84. Comment: Winter spreading restrictions similar to NR 243 should be drafted for "nitro-gro" and paper industry waste.

Response: See response to comment #125 of this section.

85. Comment: A producer group recommended that rather than the six month moratorium on liquid manure, that liquid manure should be able to be applied if the land is not frozen or snow covered. Depending on the year, farmers are planting small grains as early as February and March. See s. NR 243,14(6)(c).

Response: The restrictions on winter applications of manure do not include a complete moratorium on winter applications of liquid manure. The restrictions prohibit surface applications of liquid manure on frozen or snow-covered ground. Operations can surface apply liquid manure in the winter on non-frozen, non-snow covered ground, except for the months of February and March. In addition, liquid manure may be applied at any time during the winter, including February and March, provided it is injected or incorporated and physical conditions allow injection or incorporation.

86. Comment: It is not possible to inject or incorporate into frozen ground. It is not common sense.

Response: No change made. The Department defines frozen ground as ground that is frozen within the first 8" of soil, which may allow injection or incorporation. However, the Department recognizes that there may be situations where the ground is frozen at depths that prevent proper incorporation or injection. The definition is intended to limit surface applications during conditions that are susceptible to runoff as a result of snowmelt or precipitation by having some amount of unfrozen soil that can absorb moisture.

87. Comment: Include the 590 Standard's "direct conduits to groundwater" in tables 4 and 5 in lieu of karst features.

Response: Change made.

88. Comment: A number of environmental advocacy and conservation groups and individual citizens commented in general support of the winter spreading restrictions in NR 243. Commenters in support of restrictions on frozen or snow-covered ground referenced the inability of frozen ground to infiltrate water and the "epidemic" of runoff events and fish kills that occurred in Wisconsin during 2004-2005. A number of commenters recounted personal experiences such as a farm family who experienced health problems, including their young daughter's health, because their well was reportedly contaminated by a CAFO that did not have sufficient storage. A county staff person recalled numerous well contamination complaints where winter manure spread manure on fields concentrated in closed depressional areas without sinkholes visible at the surface. A comment indicated that the agricultural community needs to take responsibility for impacts associated with winter applied manure.

Producers and producer groups opposed the winter restrictions for a number of reasons. Many felt the requirements were overly prescriptive and costly and should be focused on educating and outreach efforts directed at producers and allowing for more producer judgment. Others pointed to the benefits of allowing winter applications of manure and questioned the science behind the restrictions. Benefits asserted include protection against wind erosion since wet manure freezes to the soil and acts like mulch. In addition, many commenters indicated restricting winter spreading will result in more April spreading which in turn can conflict with local road weight limit bans, will result in soil compaction and increased runoff and erosion, and exacerbate neighbor conflicts due to mud and traffic on roads. Other comments indicated that spreading in April is not preferred because it coincides with spring rains that may also result in more runoff and water quality impacts. Some producers also like to apply on frozen ground, especially on ephemeral frost, because it avoids compaction and avoids muddy roads. Comments also pointed out that the vast majority of runoff events have been associated with unregulated (i.e., non-CAFO/non-WPDES permitted) operations and the CAFO restrictions were an over-reaction that also comes at a time when the Department is participating in the joint agency Manure Management Task Force.

Response: Some changes made. The Department believes that based on staff experience with runoff events and available science, applying manure during the winter is one of the riskiest application practices and can have serious impacts on surface waters, groundwater and wetlands. It is a risk that is serious enough that US EPA has specifically identified frozen or snow-covered ground as a condition requiring additional restrictions. The Department believes that there is still room for producers to exercise their judgment and that NR 243 will ensure that all producers are regulated in a more consistent manner. The Department has attempted to reduce the potential negative impacts producers describe by allowing applications during the winter at times and under conditions that represent a low risk for runoff and groundwater impact. In addition, many producers are currently addressing these issues (e.g., road bans, traffic, compaction, muddy roads) using equipment or methods of application (e.g., drag lines, additional storage) to avoid these issues. The Department recognizes that concentrating applications in April could potentially result in water quality impacts and has tried to address those potential impacts in the rule (e.g., restrictions on applying on saturated soils and when precipitation is forecasted).

The Department believes that manure-related impacts from any size operation are a concern. The Department is currently reviewing the Manure Management Task Force recommendations. However, the recommendations do not provide any clear direction for addressing many of the unique issues associated with larger-scale operations nor do they take into account the requirements of the NPDES permit

program. While the percentage of operations that had documented impacts and were permitted may be smaller when compared to nonpermitted operations, 5% of permitted operations were involved with the documented impacts (7 out of 145 operations). In addition, permitted operations produce approximately 11% of all the manure in the state by volume. This represents a significant potential source of impacts if not managed properly.

In response to potential concerns about costs and to reflect the additional time associated with NR 243 revisions, the Department has moved back the effective date for solid manure winter restrictions from January 1, 2007 to January 1, 2008.

Solid manure

89. Comment: Table 4: Requiring fall tillage for application on frozen ground is impractical for application purposes. Crop residue on fields such as soybeans is critical to meet "T" as well as soybeans are the preferred crop to winter apply manure for utilization by the upcoming corn crop.

Response: Tillage requirements are intended to provide surface roughness which limits the probability of runoff associated with winter applied manure. Solid manure may be surface applied on no-till fields during frozen or snow-covered ground conditions, except during the months of February and March. Without tillage or no-till practices, the risk of runoff is high and applications are not allowed.

90. Comment: The Department should allow solid manure applications to be surface applied on ground that is frozen with less than 2" of snow during February and March to allow no-till farmers to get on the land before spring seeding.

Response: NR 243 does not allow surface applications during frozen or snow-covered ground because of the increased risk of run off, especially given the increased potential for snow-melt or rain to occur during this time period.

91. Comment: Let farms haul solid manure on frozen & snow covered ground on non HEL (highly erodable land).

Response: Not all non-HEL land is suitable for applications during frozen or snow-covered ground conditions. The restrictions in s. NR 243.14 are intended to identify appropriate spreading areas.

Solid Manure - February/March

92. Comment: A number of producers and producer groups were against the restrictions on solid manure application during the winter, including prohibitions on surface applications during February and March. Some producer comments indicated that the prohibition of liquid manure spreading during February and March was warranted but that there was not enough reason to treat solid manure the same way. Comments in opposition to these requirements stated that solid manure spread on top of snow can be helpful in reducing spring run-off since it slows the rate of snow melt, that the restrictions were not warranted since the overwhelming majority of springtime run-off events are associated with liquid manure from nonpermitted farms, and that the restrictions will lead to applications during April to June when the soil is wet, leading to soil compaction, reduced crop yields and increased erosion as well potentially more runoff events. One comment mentioned there will be economic impacts associated with the restrictions since other states don't have a two month ban.

Advocacy groups and individual citizens that commented in support of the prohibition on surface applications of liquid and solid manure in February and March pointed to runoff events, research and documented manure-related events that indicate that February and March is a risky time to spread manure.

Response: No change made. While the majority of documented winter runoff events were associated with liquid manure, some events have been associated with solid manure. The Department recognizes that solid manure may be less susceptible to runoff and has provided for additional allowances for surface applications of solid manure during the winter in proposed NR 243. Other states require storage for solid

manure and allow for manure stacking. Ohio prohibits the application of stackable CAFO manure on frozen or snow-covered ground.

93. Comment: Comments questioned why the Department chose February and March as a prohibition period as opposed to other months (e.g., December or January) and how this period addresses weather variability from year to year and for different regions of the state. Other comments wondered if the prohibition period should be extended for northern parts of the state to account for when frost leaves the ground.

Response: No change made. The Department based the February and March restrictions based on historical snow melt and temperature data from various locations throughout the state, as well as Department experience with runoff events in the state. Data indicates that this time period captures when conditions of snow-melt, precipitation and runoff are most likely to occur throughout the state. These dates were chosen as a means of minimizing runoff potential, not completely eliminating the risk, and recognize that producers will need to implement practices outside of this time period to address annual weather and geographic variability.

94. Comment: The prohibition beginning on February 1st will result in a functional/practical bar on spreading solid manure until September when crops are harvested. This could result in the construction of seven months worth of solids storage rather than the two months the code appears to require.

Response: No change made. The Department does not agree with the comment. If the assumption that producers do not apply solid manure during the times of the year when crops are grown, than producers would already have more than two months of storage for solid manure. In addition, a producer that chooses not to spread solid manure in the spring that was placed in a storage facility during February and March would only need to store the same amount of manure in the same structure for a longer period of time, not build additional storage.

95. Comment: A comment was made that the prohibition on surface applications of manure during February and March should not apply to internally drained fields.

Response: No change made. While applications on internally drained fields may not represent a surface water quality concern, applications of manure on internally drained fields are potential source of groundwater contamination, especially during frozen or snow-covered conditions, should runoff occur that concentrates manure within the internally drained field.

96. Comment: How will the winter spreading restrictions impact daily haulers?

Response: The impact of the propose winter spreading restrictions on daily haulers will vary from operation to operation. Most daily hauled manure will qualify as a solid manure and thus can be surface applied during frozen/snow-covered conditions (except for February and March). During February and March, the operation will either have to incorporate the manure if the ground is frozen or snow-covered or provide storage for the manure. If the manure is stackable, (which may not be possible for some daily hauled manure) the operation could stack the manure during frozen or snow-covered conditions in lieu of surface applying the manure and providing 2 months of storage during February and March. The stacked manure could then be applied during non-frozen, non-snow covered ground conditions within the next 8 months.

97. Comment: Are the restrictions on liquid and solid manure applications in February and March based on temperature or soil conditions?

Response: No change made. Winter spreading restrictions are based on soil conditions and runoff potential.

98. Comment: Section NR 243.14(7)(f) - There were comments in support of and against allowances for emergency application of liquid manure. Some comments indicated the need to revise this section so

that liquid manure that has frozen and cannot be transferred to a manure storage facility may be applied during the high-risk run-off period. Wisconsin can experience 5-10 days of extremely cold weather during this time period in which the manure in modern, curtain sided barns will freeze in the walk alleys making it impossible to pump to storage lagoons. Comments indicated that the only feasible method we have is to scrape it up, load it on spreaders, haul it to fields and spread it; therefore, an exemption is needed that will allow operations to spread this limited amount of manure on carefully selected fields.

Response: Partial change made. The Department believes allowances for surface applications on frozen or snow-covered ground as a result of legitimate emergencies is warranted. Land application in these circumstances is warranted compared to potential dangers associated with an overtopping manure storage facility. The section of the code related to frozen liquid manure has also been modified to clarify requirements for surface applications of frozen liquid manure, particularly as it relates to these applications in February and March.

99. Comment: The rule change states that if you plan to spread any solid manure on frozen ground, you need approved storage for the 2 month period of February and March. This is too restrictive. If the site where the manure is to be stacked is acceptable for stacking all winter, why not just stack for 2 months?

Response: Partial change made. In general, the allowance to stack versus store solid manure is an attempt to balance two different types of risk and costs. For operations that choose to surface spread solid manure during most winter months and have an NRCS Standard 313 structure available during February and March, the potential water quality benefit of an actual storage structure and the producer cost of the storage is balanced with the risk of allowing surface applications of solid manure on frozen or snow-covered ground during other times of the winter. For operations that stack manure, the risk of potential impacts to waters of state associated with stacking is balanced with the water quality benefits of essentially eliminating the risk of runoff from winter surface applied manure.

Based on Discovery Farms data on stacking drier types of solid manure, the proposed rule (NR 243.14(6)(d)2.) has been created to allow the Department to approve stacking of manure with greater than 32% solids during February and March, on a case-by-case basis, rather than build storage, and still allow surface applications during other times of the winter. While the Department agrees that properly sited stacks of manure represent an acceptable level of risk as it relates to potential impacts to waters of the state, the Department does not agree that headland stacking provides the same level of protection as a designed storage structure, especially for certain types of manure, both in terms of potential management problems and potential runoff or leaching to groundwater. However, this new provision recognizes that certain types of manures under certain conditions, may prove to be as protective of water quality as providing constructed storage. The Department will consider a number of factors as part of this case-by-case approval, including study data that demonstrates stacking the solid manure does not pose additional risks to water quality in comparison to storing the manure.

<u>Liquid manure</u>
100. Comment: A number of advocacy groups and individual citizens commented specifically in support of the prohibition on liquid surface applications on frozen or snow-covered ground. Comments agreed that liquid manure poses a high risk of runoff to groundwater and surface waters not just February and March, these groups pointed to the 52 manure related event in 2004-2005, with 11 fish kills associated with liquid application on frozen snow-covered ground.

Response: No change made. The Department recognizes that all manure can be very beneficial as a nutrient and soil amendment. However, the Department agrees that liquid manure is more prone to runoff than solid manure, not just during the winter but at any time, and has included restrictions in NR 243 to address unique water quality concerns associated with liquid manure (e.g., hydraulic application loading restrictions on liquid surface applications near surface waters. The Department believes that additional restrictions for liquid manure are warranted based on documented impacts associated with liquid manure and the fact that liquid manure is more susceptible to runoff than solid manure due to its fluid nature.

101. Comment: A number of environmental advocacy groups and individual citizens proposed to shorten the compliance date for prohibiting surface applications of liquid manure applications on frozen or snow-covered ground. A number of comments indicated that the compliance date should be 2007 or 2008 rather than 2010 in order to avoid potential impacts to water quality and to protect public health (this was part of the comments received by 25 members of the Wisconsin League of Conservation voters). Others commented that the prohibition should be immediate for operations that already have six months storage, perhaps with a case-by-case exemption.

Response: No change made. See response to comment #23, section II.

102. Comment: The best time to spread is late March. This helps keep equipment and roads clean, most importantly it helps maintain a good soil profile; compaction is minimized. A judgment call about when to spread should be adequate.

Response: No change made. Applications in late March of liquid manure are allowed provided the manure is either injected or incorporated and the ground is not saturated. Surface application of solid manure is allowed provided the ground is not frozen, snow-covered or saturated.

103. Comment: Sometimes the only time producers can spread is on frozen ground because of weather variability.

Response: No change made. The proposed rule allows surface spreading of solid manure during most winter months and allows application during all winter months provided it is incorporated and the ground is not saturated. Prior to Jan. 1, 2010, the proposed rule allows surface application of liquid manure for existing operations that do not have 180-day storage, except during the months of February and March. Beginning Jan. 1, 2010, surface applications of liquid manure on frozen or snow-covered ground are limited to emergency situations. Operations can inject or incorporate liquid manure at any time on frozen or snow-covered ground provided it is feasible can be done properly.

NR 243.141 – Manure Stacking

104. Comment: A number of comments were received from advocacy groups and individual citizens in opposition to allowances for manure stacking. Primary concerns were the lack of science or consensus on the available science and associated concerns about runoff and leaching to groundwater and comments that the Clean Water Act requires storage in a structure. Some comments indicated that headland stacking should only be allowed on a case-by-case basis with direct Department oversight, provided the sites comply with 313 and any necessary additional restrictions.

An advocacy group also commented in opposition to allowing manure stacking. The group commented that federal effluent limitations for CAFOs only allow discharges from properly designed, constructed, and maintained structures that contain all manure and runoff from certain storm events. Proposed ss. NR 243.141 and NR 243.13 do not state that headland stacks meet the design exemption, nor do they state that headland stacks do not meet the design exemption despite the fact that headland stacks are not "structures." As a result, s. NR 243.141 violates 40 C.F.R. to the extent that it fails to make clear that all discharges to navigable waters (including intermittent tributaries to navigable waters) are prohibited from headland stacks.

Producer groups and individual producers supported manure stacking on pre-approved sites, although many commented that stacking allowances must take into account factors, such as bedding type, other than the percent solids of the manure. These comments indicated that if the manure will maintain its shape and not leach regardless of its solids content, it should be allowed to be stacked. One producer commented that covering stacks may be necessary and another comments referenced work done by Discovery Farms studying the stacking of turkey litter.

Response: Partial change made. The Department does not agree that the federal CAFO rules require storage structures and prohibits manure stacking. However, the Department does agree that manure stacks, by themselves, are not storage or containment structures; therefore, without associated

containment or storage structures, stacks may not have discharges to navigable waters under any circumstance. A note has been added after s. NR 243.141(3)(e) to this effect. The Department recognizes that for certain manure types, additional practices, such as covering, may be necessary to meet permit and code requirements.

The Department believes that stacking of stackable solid manure in lieu of surface application on frozen or snow covered ground and in compliance with the siting and operational restrictions in NR 243, represents an overall benefit to waters of the state. Stacking during other times of the year will require case-by-case approval. NR 243 is consistent with restrictions on temporary unconfined storage of manure and believes that the percent solids categories in NRCS Standard 313 provide a means of preventing potential water quality impacts.

Also see response to comment #99 of this section regarding additional stacking allowances provided in the code in response to public comment.

105. Comment: Comments recommended that rather than setting a date of June 1st when headland stacks need to be removed, set a time limit that headland stacks may remain in the field. It was recommend that this time interval be seven (7) months to provide operational flexibility and to avoid compaction issues related to removing headland stack in the spring.

Response: Change made. Consistent with NRCS Standard 313, the Department has modified stacking restrictions to allow stacks created during the winter to remain in place for up to 8 months. Given the benefits of avoiding surface applications of solid manure during February and March and avoiding compaction to promote infiltration, stacking criteria and other permit requirements provide adequate protection for waters of the state.

106. Comment: A producer disagreed with the need to have Department approval if the protective siting criteria are met. Amend the rule to allow for stacking without burdensome process of DNR approval if the above criteria are met.

Response: No change made. The Department recognizes that there are potential risks associated with manure stacking that warrant Department approval of sites.

107. Comment - We note that NRCS 313, Table 9 prevents a permittee from stockpiling more than 40,000 cubic feet at one site. This is approximately 750 tons and all permitted CAFOs are likely to produce much more than 750 tons during the proposed two month high risk application prohibition period. We note this conflict and suggest the Department develop language in the rule to address it.

Response: No change made. We believe the limitation on stack size in NRCS Standard 313 helps minimize potential water quality impacts.

108. Comment: A properly designed stacking site with good soils and safe conditions should be provided the same conditions as a concrete storage unit built to 313 standards. We understand that DNR feels it would be desirable to have all facilities build 313 stacking pads, but if the headland stacking sites are environmentally sound, why penalize producers for stacking manure in the field? In lieu of storage during February and March, the Department should allow stacking of the manure.

Response: Partial change made. See response to comment #99 of this section.

109. Comment: Delete references to allowing manure to be stacked on hydrologic group D soils. All of the Hydrologic group D soils in Door County would be considered a WQMA and thus the allowance to stack on Hydrologic group D soils conflicts with state WQMA restrictions.

Response: No change made. Stacks must meet all criteria contained in the code; therefore, stacking on Hydrologic group D that is also a WQMA is not allowed.

110. Comment: We need the ability to headland stack during times of the year when cropping or weather does not allow field spreading and incorporation. This includes most of the following months- January, February, March, June, April, July, August, September and December.

Response: No change made. For manure with a solids content greater than 32%, the Department may approve stacking during non-winter months on a case-by-case basis.

111. Comment: Use 32% solid content for all stacking requirements to avoid confusion.

Response: No change made. The Department has split up stacking allowances in accordance with NRCS Standard 313 for a number of reasons. A primary reason is that the Department believes stacking of manure with a solids content of 32% or less during winter months and allowing those stacks to remain in place for up to 8 months is an acceptable practice in exchange for reducing applications of manure in the winter. However, potential risks associated with stacking of this manure during non-frozen or snow-covered ground conditions are not warranted. Manure with solids of more than 32% presents an acceptable level of risk of runoff or leaching during non-frozen or snow-covered ground.

NR 243.142 – Distributed Manure

112. Comment: A producer group commented that WDNR exceeds its authority by regulating land application of manure on non-CAFO owned or controlled lands under NR 243 rather than NR 151. Although the legislature vested the WDNR with a broad grant of authority, this authority is limited by the legislature's explicit order to the WDNR to regulate point sources no more stringently than the effluent limitations developed by EPA. The EPA regulations specifically indicate that CAFOs that transfer manure to other persons are not responsible for the preparation of a nutrient management plan ("NMP") for these fields or for the over application of manure on these third-party fields. See 400 C.F.R. § 122.42(e). The CAFO must only prepare an NMP for those land application sites it owns or has operational control. Therefore, regulating third-party application of CAFO manure by requiring the NMP to address it is beyond the WDNR's statutory authority and instead NR 151's standards should apply to such land application sites. This position is strengthened by the recent *Waterkeeper* decision that a nutrient management plan constitutes an effluent limitation. The Department's approach in proposed s. NR 243.142 oversteps when it attempts to place limits on a CAFO's ability to distribute manure or to otherwise require a CAFO's NMP cover fields that are neither owned nor controlled by the CAFO.

Response: No change made. The Department's proposed rules do not limit or prohibit a CAFO from distributing its manure. Rather, the proposed rules delineate when the CAFO is responsible for distributed manure and when the manure must be applied in accordance with the WPDES permit terms and conditions. For the past twenty years, the Department's policy has been that the generator of the waste material (manure or process wastewater) is ultimately responsible for the handling of the waste (there are a few exceptions, e.g. if it is given to another WPDES permittee, de minimus amounts, if it will be distributed for some other purpose not involving cropland such as landscaping purposes). Moreover, if the Department were to follow the comment's suggested approach, then any CAFO could give all of its manure away or sell all of its manure for a low cost to another entity and then all of this manure would no longer be regulated by chapter NR 243 and potential water quality impacts would not be addressed. The comment suggests that this distributed manure is then subject to regulation under chapter 151; however the comment fails to recognize that if it is subject to chapter NR 151, the state or a local unit government would then have to provide cost sharing to make sure the CAFO generated manure is spread under a nutrient management plan and that plan would not meet the requirements of NR 243.

As for the legal arguments, the Department does not believe the issue is whether a nutrient management plan is an "effluent limit". The issue is the scope of activities subject to WPDES permit coverage. As stated in several other comment responses, the restriction in s. 283.11(2) does not prohibit the Department from regulating activities that EPA does not regulate - see *Maple Leaf Farms, Inc. v. State Department of Natural Resources*, 2001 WI App 170, 247 Wis. 2d 96, 633 N.W.2d 720. In the Maple Leaf Farms case, the CAFO challenged the DNR's authority to regulate the land application of manure on off-site croplands. One aspect of Maple Leaf's challenge was based on the uniformity provision contained in Wis. Stat. § 283.11(2).

The CAFO took the position that the DNR could not impose permit conditions on activities that were not also regulated in the Clean Water Act, and that because the Clean Water Act does not regulate off-site manure spreading, the uniformity provision had the effect of precluding the DNR from imposing permit conditions on the activity. The DNR asserted that it had the authority to regulate off-site spreading based on state law, regardless of whether the CWA regulated the activity or not, and that the uniformity provision did not apply in this instance because the permit conditions in question were "neither standards nor effluent limitations per se." In its decision, the Court agreed with the DNR that the uniformity provision applies "only where the federal program regulates the activity in question, for example, where the EPA has imposed specific discharge limits for defined categories of industrial discharges and the DNR has superimposed more stringent limits. It would not apply where the federal government has chosen not to regulate at all." (¶ 16)

113. Comment: Comments were received in opposition to the requirement to meet NRCS Standard 313 standards for distributing manure to other parties. A related comment indicated that a more practical and environmentally sensitive proposal would tie the storage to the ability of the product to not leach. Some products meet the headland stacking requirements of the proposed regulations.

Response: No change made. The proposed code requires that manure distributed as a commercial product or for alternative uses be delivered to proper storage. Proper storage is defined as a facility that complies with NRCS Standard 313 or other methods of storage that will not impact water quality. For certain situations and types of products, NRCS Standard 313 storage may not be required. This requirement is intended to ensure that water quality impacts associated with the distribution of manure do not occur at the site where distributed manure is stored.

114. Comment: I do not believe they have any jurisdiction over manure transported out of Wisconsin.

Response: Change made. A note was added to this effect in s. NR 243.142.

115. Comment: A CAFO wants to be able to manipulate the manure to sell it as a commercial product and qualify for an exemption under NR 243.142, rather than having to give it away or sell it to another person who then manipulates the manure.

Response: Change made. An allowance for a permittee to manipulate the manure and qualify for an exemption under s. NR 243.142 has been added to the code.

116. Comment: We know wet distiller's grain, wet brewer's grain, and other by products from industrial processes are sold throughout the state with no requirement on these industries to verify and be responsible for the facilities that store their product. I believe the standards at a minimum should be consistent.

Response: NR 243 has no authority over the distribution of these products if they are unrelated to CAFO operations.

<u>243.15 - Designed structures</u>

117. Comment: As with nutrient management plan amendments, we believe a presumptive approval step should be allowed given current Departmental staffing, work load and the potential significant expansion of the number of facilities covered by the WPDES permit program if the Department rejects our other comments above.

Response: No change made. The Department reviews plans and specifications for CAFO operations under s. 281.41, Stats., which provides the Department 90 days to review plans. Failure to act within this timeframe constitutes approval of the plans.

118. Comment: A number of environmental advocacy groups and individual citizens proposed to shorten the compliance date for large CAFO construction of 180 day storage. A number of comments

indicated that the compliance date should be 2008 rather than 2010, since most CAFOs have six months of storage already, to avoid rule complexity, to avoid potential impacts to water quality and public health, and to reduce the competitive advantage of those operations that haven't constructed storage. Others commented that the prohibition should be done sooner on a case-by-case basis.

Response: See responses to comment #23, section II.

Solid storage

119. Comment: Smaller farms do not have the economic ability to build manure facilities for solid manure; therefore the imposing of a regulation to limit spreading of solid manure for part of the year is dramatic to many producers.

Response: No change made. The proposed storage requirements apply primarily to permitted large CAFOs and will not impact smaller farms that are not required to obtain a WPDES permit.

120. Comment: Two comments were received specifically in support of 2 months storage for solid manure.

Response: No change made. Thank you for the comment.

121. Comment: Why is storage for solid manure only required for two months and liquid for 6 six months? At the very minimum solid systems should be treated the same unless Department approval is granted for approved stacking sites and proof that winter spread manure will not affect waters of the state. Recommend 180 days of storage for all CAFO's if subject to a WPDES permit unless departmental approval is granted for solid systems containing 32% or greater solids.

Response: No change made. The Department has required 180-day storage for liquid manure in part because many large CAFOs currently have 180-day storage and because liquid manure is more likely to runoff during frozen or snow-covered ground conditions. The Department has not required 180-day storage for solid manure in part because of the cost of such storage and the fact that it is not the current practice among large CAFOs. In addition, for certain manures, operations have the option to stack solid manure instead of constructing storage. The Department's restrictions for manure stacking are consistent with NRCS Standard 313.

122. Comment: The feed storage requirements may need to be clarified to apply to open feed storage. Covered/closed feed bins shouldn't need plan and spec approval from the DNR.

Response: No change made. Approval of feed bins may or may not be subject to plan review. The need for review will be depend on what is stored in the bins, whether or not they are open, and if there is potential for leaching and/or runoff issues.

123. Comment: The 10% limit on outside sources of material to digesters and/or manure storage structures is not based on science. Digesters are fairly new to the livestock industry and everyone is learning of their limitations as well potential positive impacts. To limit the ability to increase sources of renewable energy from waste food grade products with the 10% limit seems irresponsible for the Department.

Response: No change made. The proposed rule does not place a 10% limit on materials added to digesters. The reference to materials that comprise 10% of the digester volume only identifies that the Department may place additional design and operational requirements on permittees that exceed the 10% threshold.

124. Comment: A comment indicated concerns about the requirement to have marks placed on the sidewalls of storage facilities. Any marks on the sidewalls will be covered over after the first fill and empty cycle. Putting a pole or similar device in the pit will result in the same thing.

Response: The marker requirement for the margin of safety level is mandated by federal CAFO rules. The Department will work with producers to determine the best means of placing marks on sidewalls for a given operation.

Liquid storage

125. Comment: Many producer and producer group comments were in opposition to the proposed 180-day storage requirement for liquid manure. A number of comments stated that with regard to storage, one size does not fit all. Comments referenced the federal rules which require that "adequate" storage be available. Wisconsin producers should be allowed, like their competitors in other states, to establish individually to the Department that the amount of liquid manure storage available is "adequate" to meet nutrient management restrictions given the uniqueness of a producer's operation and variations in the state's weather conditions. Other comments stated that the proposed storage requirements are too costly for many producers. Some comments stated that 2 – 3 months storage was sufficient, in part because it coincided with the "high-risk" winter period for February and March. Others commented that 180-day storage will cause more runoff in the spring as larger volumes and more farmers are on the road applying manure on fields before planting crops. In addition, weight limits on roads can cause additional problems for producers in the spring. Another comment referenced regulations for municipal wastewater and other industrial products, which also have environmental contaminants of concern, that allow spreading of these materials throughout the winter months. The comment indicated that there is no scientifically defensible reason for this double standard.

Another comment proposed an alternative requirement whereby the Department would establish a six-month storage requirement unless a permittee can establish to the satisfaction of the Department that it has adequate storage for its operation, which may be less than six months capacity.

A limited number of producers supported the storage requirement, with one producer indicating that it was inconceivable to build a new farm without adequate storage and that six months is accepted since it's a Wisconsin winter, while another producer supported more storage.

A number of individual citizens and advocacy groups commented in support of the 180-day storage requirement for liquid manure. Comments indicated that six months storage will allow permitted operations to comply with other permit requirements and will eliminate the need for operations to empty storage facilities in the late winter, when the risk of runoff is greatest, and will prevent runoff to waters of the state and avoid fish kills and well contaminations. Comments also stated that most CAFOs already have 180 days of storage. Some comments stated that more than 180 days, up to a year's worth, of storage is needed.

Response: Partial change made. The Department has modified the proposed code to define adequate liquid manure storage as a minimum of 180 days of storage. The Department believes that requiring 180 days of liquid manure storage statewide is warranted based on the need to avoid liquid manure applications on frozen or snow-covered ground and saturated soil conditions and associated impacts to waters of the state. While February and March represent months that make applications of manure particularly risky for all manures, applying liquid manure is particularly risky when frozen or snow-covered conditions exist at all times in the winter. The environmental benefits, and economic justification for this requirement, is supported by the fact that most large CAFOs (up to 80%), already have at least 180 days of storage, some with more than 180 days of storage. It is possible that certain operations may require additional liquid manure storage in order to comply with NR 243 and avoid water quality impacts. The Department has included additional restrictions within the code which are also intended to address potential issues associated with spring applications (e.g., SWQMA restrictions, prohibition on applying on saturated ground, restrictions based on forecasted precipitation). In addition, many producers are currently addressing these issues (e.g., road bans, traffic, compaction, muddy roads) using equipment or methods of application (e.g., drag lines, additional storage) to avoid these issues.

The Department is only requiring 180-day storage for liquid manure, the type of winter spread material that has most often been associated with fish kills and well contaminations during winter months. As for other regulatory programs, the Department does require 6 months storage and prohibits surface

application during frozen and snow covered conditions for municipal sludge. The Department is currently evaluating winter spreading restrictions for industrial wastewaters under NR 214. The Department has proposed to allow applications of process wastewater from CAFOs in accordance with NR 214 during winter months and has not proposed to require storage for these materials.

The requirement for six months storage is not more stringent than federal regulations. EPA requires that CAFOs have adequate storage, but they allowed states the flexibility to develop their own definitions of what constitutes adequate storage. EPA assumed that storage would be necessary and that states in northern climates would likely require more storage to meet the nutrient management restrictions. Moreover, EPA assumed that six months storage would be a minimum component for the federal requirement to have adequate storage. This is evidenced in the Cost Methodology Report prepared by EPA for the rules. With regard to fiscal impacts to producers, EPA assumed a minimum of six months storage. Also, in the federal register preamble, EPA mentioned that some northern states may need up to 270 days of storage – see federal register, p 7212, February 2003.

126. Comment: One producer group commented that the storage requirements conflict with the Administration's Grow Wisconsin Initiative and questioned the Administration's commitment to the growth of the dairy and livestock industry. This comment is based on concerns that storage requirements may well cap certain operations from ever considering expansion. In addition, the comment referenced the livestock siting standards proposed in ATCP 51, which would consider the square footage of manure storage facilities as a critical input variable (and potentially the limiting factor) in the calculation of odor management restrictions on a facility's ability to grow.

Response: The Department supports a healthy environment as well as a thriving agricultural sector and believes that the two are closely connected. The proposed revisions to NR 243 and changes that have been made to the code based on public comment, are intended to ensure operations can operate profitably and in a manner that protects public health and the environment. The number of permitted operations in Wisconsin has risen dramatically in Wisconsin over the last 5-6 years, with many of those operations constructing 180 days of storage. The Department also understands that the odor restrictions in the Livestock Siting Rule have been drafted to allow operations a great deal of flexibility to address potential odor impacts from their operations, including odors associated with storage, in order to promote growth in the livestock industry.

127. Comment: We do not need more expensive storage facilities, but more farmer education and better ways of using the facilities we have.

Response: No change made. The Department agrees that producer education is a key component of avoiding water quality impacts. However, the Department also believes that having adequate storage for liquid manure (180 days) is a necessary component of avoiding water quality impacts, especially during winter months.

128. Comment: Why is the department using the 100 year, 24-hour storm event for swine, veal and poultry? Many Swine finishing barns have storage below the barn and rainfall does not get into the pits.

Response: No change made. The 100-year, 24-hour design standard is mandated by federal CAFO rules. However, if and operation has below barn storage and has no runoff directed to the storage structure, there is no need for additional design volume to address the 100-year, 24-hour storm.

129. Comment: If the WI DNR Water Division mandates storage of manure for the sake of protecting the waters of the state they should get automatic approvals for other permits that may be required by these mandates, including those required by other Department programs or local or state agencies.

Response: No change made. NR 243 has no jurisdiction to mandate automatic approvals from other permit programs or other locate or state requirements. Air regulations have not typically been an issue for most CAFOs constructing storage. Limiting required storage to liquid manure and not all solid

manure, is expected to have benefits for operations that are regulated under the Livestock Siting Rule and local requirements.

NR 243.17 – O & M

130. Comment: I support the requirement to have six months storage by December 1 of each year.

Response: Thank you for the comment.

NR 243.19-Monitoring and Reporting

131. Comment: A number of comments from producers and producer groups commented that they were concerned that the reporting, inspections and recordkeeping requirements were significantly expanded under the proposed rule and questioned if all the requirements were necessary. Comments expressed concern that permit holders that were doing a good job of applying and keeping the manure and nutrients where they belong were being punished by the increased requirements. Comments also expressed concern that the "paper work" burden on producers doesn't provide liability protection, doesn't protect water quality, serves only as an enforcement trap, and puts permitted farms at an economic and competitive disadvantage due to the extra costs and reduced time spent on improving operations. Comments recommended ensuring that requirements harmonize with federal rules, simplifying the requirements and allowing operations to use their own recordkeeping system, particularly for operations with good compliance records.

Response: While codified inspection, monitoring and reporting requirements have been expanded, many of the codified requirements have already been included in WPDES permits. In part, the code revision effort was intended to ensure more consistent inspection, monitoring and reporting requirements for land application activities as well as include the federally required daily and weekly inspections (which have been in WPDES issued and reissued permits since 2003). Inspection, monitoring and reporting requirements serve two key functions; (1) to determine whether an operation is in compliance with a permit and (2) to provide a permittee certain protections in the case of discharges, inspections or complaints. The WPDES permit program relies heavily on permittee self monitoring, inspection and reporting. The Department has limited land application requirements to those items that are deemed necessary to determine permit compliance based on years of Department experience regulating land application activities from CAFOs. In addition, the federal CAFO rule only allows discharges from the production area provided the permittee has met inspection and reporting requirements. While these requirements do serve an important role in cases of permit noncompliance, permittee records can also help determine if a given permittee did or did not contribute to identified water quality impacts and can help Department staff respond to complaints about an operation.

The Department is committed to minimizing the potential economic and time disadvantage associated with the monitoring and reporting requirements. For example, the Department has been working with the developers of SNAP Plus software to include an annual report for nutrient management and is working to create a standardized monitoring and inspection form for production area requirements.

The Department has limited ability to reduce these requirements under NR 243 in light of federal requirements and compliance issues. However, other programs, such as the Department's "Green Tier" program, may provide more flexibility.

132. Comment: The record keeping that will be required by these farmers will be very time consuming, not only for the permit holder but also for the DNR personnel who has to review these records.

Response: No change made. Department staff review and use information submitted by permittees on a frequent basis as part of its efforts to determine permit compliance.

133. Comment: A number of comments questioned why records must be kept for 5 years.

Response: Federal CAFO rules mandate records be kept for 5 years. This helps to ensure and document long-term compliance.

134. Comment: Can anyone conduct inspections or does an "official" need to conduct inspections?

Response: No change made. Production area and land application inspections and record keeping requirements can be done by the permittee or designee and does not need to be an "official." In some instances the code or permit may require inspections during the construction of facilities or evaluations of existing facilities be completed by a registered professional engineer or a person with similar qualifications.

135. Comment: Monitoring and reporting requirements may be the biggest area of change for most CAFOs and planners. The staff of the Discovery Farms Program is willing to help develop reporting materials and educate producers on how to maintain records. If we can be of assistance to the department and the agricultural community, we are willing to work together to develop a system that meets the needs of producers, agency personnel and the general public.

Response: No change made. The Department appreciates Discovery Farms' offer to assist in providing guidance to the agricultural community and is willing to work with the Discovery Farms Program to improve tools to facilitate compliance with monitoring and reporting requirements.

136. Comment: A number of producers commented that they did not believe that weekly inspections of liquid storage structures were necessary.

Response: No change made. Weekly inspections are mandated under federal CAFO rules, regardless of the level in the storage structure.

137. Comment: A number of comments indicated that it is not necessary to record each day a storage facility is below the 180-day level indicator.

Response: Change made. The code has been revised to require recording of the day the 180-day level indicator was visible between October 1 and November 30.

138. Comment: Producer/producer group comments did not indicate opposition to the requirement for managing mortality. However, comments were received in opposition to recording/reporting management of animal mortality. It was suggested that a blanket statement of how animal carcasses are handled should be allowed or that records be kept on a yearly, not daily basis. A comment was received that the record keeping obligation serves no environmental protection benefit and only serves as a trap for the unwary in enforcement cases. One comment expressed concern that on large operations, the record keeping obligation is burdensome and could be misused by opponents for purposes of a negative public relations campaign against the operation.

Response: No change made. Federal CAFO rules require records on management of animal mortality. Prior to going to public hearing on the rules, the Department removed requirements to record the mortality numbers in response to concerns about how the information would be used.

139. Comment: Quarterly, not weekly, inspections are appropriate for manure that has a solids content of greater than 32%.

Response: No change made. Weekly inspections are only required for liquid storage or containment structures.

Small Business Analysis

140. Comment: A number of comments were critical of the Department's Small Business Analysis. In particular, a producer group made the following comments:

- That the Department failed to include the estimated 275-325 additional dairy farms that would require a permit and the potential severe impacts on dairy operations that supplement income by contract poultry growing.
- That the Small Business Regulatory Review Board determined that the rule fails to meet five of the six statutory elements and failed to comply with portions of s. 227.14(2)(2m), and 227.1 14(2) and (3), Stats., as well as the underlying legislative mandates contained in those provisions of the Small Business Regulatory Flexibility Act.

The producer group requested that the Department withdraw and substantially rewrite the current proposed revisions to NR 243 in light of the rule's inconsistency with the Rules of Procedure of the Small Business Regulatory Review Board and, more generally, the underlying policy mandate of the Small Business Regulatory Flexibility Act (1983 Wis. Act 90).

Response: Some changes have been made to the Final Regulatory Flexibility Analysis/Small Business Analysis (attached to NR 243 Green Sheet package for adoption; also see attached "Fiscal Impact Report-Private Sector"). Also, revisions were made to the rules regarding the methodology for calculating the number of animal units at an operation. This reduced the number of small businesses subject to the WPDES permit coverage.

The Department disagrees that the comments provided by the Small Business Regulatory Review Board (SBRRB) requires that the Department withdraw its proposed rules. The Department believes that the comment has overstated many of the remarks from the SBRRB. The SBRRB did not state that the Department failed to satisfy five of the six elements of the threshold analysis. In four out of the six elements, SBRRB said it was uncertain or unclear as to whether the Department adequately addressed the threshold issues. Furthermore, there is no legal basis for withdrawing the entire rule package because SBRRB provided some comments on the small business analysis and on the rule package. However, the Department did address some of the questions and comments from SBRRB (see Department's responses to SBRRB comments) and some revisions have been made to the rules that will reduce impacts to CAFOs considered small businesses (e.g. change was made regarding the methodology for calculating the number of animal units at an AFO. This change will reduce the number of small businesses subject to WPDES permit coverage, and there will not be an additional 275-325 permits issued to CAFOs as some producer groups have alleged.

Finally, the SBRRB did request that the Department send them a copy of the comments received at the public hearing regarding certain issues, and so the Department will send the SBRRB a copy of this green sheet package (which contains a summary of the public comments received and the Department's responses).

Also, see responses to the SBRRB comments in section IV.

FISCAL IMPACT REPORT
PRIVATE SECTOR

The state currently permits approximately 150 CAFOs (145 existing and 5 pending coverage) and anticipates adding an additional 15 CAFOs as a result of the rule, as proposed. The additional CAFOs will be facilities that meet the federal definition of a CAFO (1,000 animal units (AU) for a single animal species or age class). The determination that this rule will immediately impact 15 additional facilities is based on the information from the 2002 Census of Agriculture – State Data (USDA, National Agricultural Statistics Service) and information compiled by regional staff through discussions with representatives in the livestock industry in January, 2006. Annually, 15-16 additional operations will apply for permit coverage.

Number of Permitted CAFOs
Under Current, and Proposed ch. NR 243 AU calculations

	Current	Proposed
Dairy[1]	124	124
Heifer[2]	3	10
Dairy Calf[2]	1	3
Veal Calf[2]	0	2
Poultry[3]	11	15
Beef and Swine[4]	11	11
Total	150	165

[1] Dairy would see no increase due to federal numbers, but would maintain the status quo using the current mixed AU approach.
[2] Heifer, Dairy calf and Veal calf operations would experience the highest number of facilities affected by the federal AU calculation. The state is projecting an increase of seven heifer operations, two dairy calf and two veal calf operations
[3] For the federal and proposed approach, it is estimated that two additional broiler operations and two duck operations may require coverage under a WPDES permit as a result of changes to the federal AU number.
[4] Beef and swine operations would experience no immediate changes under these scenarios.

The majority of the permitted CAFOs currently are Dairy operations. A Dairy operation typically includes a number of milking/dry cows, heifers and calves. A typical 1,000 AU dairy operation may have as many heifers and calves as milking/dry cows. 700 milk cows alone will equal 1,000 AUs. Using the concept of an equal number of cows to heifers and calves, the herd size will be closer to 920 before reaching 1,000 AUs. The 2002 Census of Agriculture for Wisconsin indicates 44 dairy farms have a herd size of 1,000 or more. It is assumed that these are automatic CAFOs and are part of the 120 currently permitted dairy operations. The next category in the census is 500-999 herd size of which there are 145 farms. It is difficult to tell from the census numbers how many of these would equal 1,000 AUs but, clearly only a percentage of the 145 farms would have a 700-999 herd size. Assuming half may fall into this category, 72 additional farms would qualify as a CAFO. The state currently has 120 permitted dairy farms. 120 minus the 44 large herd size operations would result in an additional 76 permitted operations where the herd size is 700-999. This is more than the estimate, which would suggest that the state has already identified the operations that meet the current AU calculation approach. The federal calculation will not add any additional operations that are dairy (mixed animal units), so the number of dairy operations that are CAFOs is not projected to change. However, solely heifer operations will see an increase in the number of CAFOs.

Cost to Small Businesses as a result of revisions to ch. NR 243 Wis. Adm. Code
Fiscal impacts on the private sector primarily relate to phosphorus-based nutrient management requirements and manure storage design requirements for both solid and liquid manure.

Nutrient management
The current version of ch. NR 243, Wis. Adm. Code, only requires a phosphorus-based nutrient management plan for facilities that drain to a nutrient impaired 303(d) listed waterbody or an outstanding or exceptional resource water. All others are nitrogen-based. A nitrogen-based plan generally requires less acreage for spreading manure to meet the needs of the crop. To meet the phosphorus needs of the crop may in some instances require the permittee to spread less manure per acre. The proposed ch. NR 243, Wis. Adm. Code, will require all CAFOs (existing and future) to use a phosphorus-based nutrient management planning process.

- Of the current 150 permitted facilities (145 existing and 5 pending), 60% (90 CAFOs) discharge to an ORW/ERW or impaired water and have already had to meet a phosphorus-based nutrient management plan requirement. This number is projected from the number of permits issued since 1999, when phosphorus-based nutrient management was introduced.
  (Source: Data from Department CAFO statistics and permits).

- Operations in Wisconsin
  - 85% of Wisconsin CAFOs are dairy CAFOs, and application trends indicate that dairy will continue to be the sector with the most CAFOs.
  - 8% are poultry operations.
  - 7% are swine or beef operations.

  (Source: Data from Department CAFO statistics and permits).

- Phosphorus-based nutrient management plans will limit application of manure to fields if those fields have a soil test phosphorus level above 100 ppm. Otherwise, the manure can be applied at the rate needed to meet the nitrogen needs of the crop, which is current practice. CAFOs would not expect to see increases in costs associated with phosphorus-based manure spreading unless the soil test phosphorus levels are above 100 ppm
  (Source: Business Impact Analysis for Proposed Changes to Chapter ATCP 50, Wis. Adm. Code NUTRIENT MANAGEMENT PROGRAM, December 2004).

- Approximately 11% of soils in the state currently test above 100 ppm soil test phosphorus
  (Source: Business Impact Analysis for Proposed Changes to Chapter ATCP 50,Wis. Adm. Code NUTRIENT MANAGEMENT PROGRAM, December 2004)

- Current permitted CAFOs range in size from 1,000 to 4,000 animal units although the majority are around 2,000 animal units. For the calculations we will use an average CAFO size of 2000 animal units.
  (Source: Data from Department CAFO statistics and permits).

- To manage manure based on phosphorus rather than nitrogen needs of the crop increases the cost by $5.63 per animal unit.
  (Source: DATCP Business Impact Cost Analysis Appendix 1 for revisions to ATPC 50)

If 40% of the current permittees are not yet using phosphorus-based nutrient management plan and all operations brought under the WPDES program due to federal requirements will need to apply manure based on phosphorus, then 75 CAFOs (60 current, 15 new) would need to implement phosphorus-based nutrient management as a result of the proposed revisions to chapter ch. NR 243, Wis. Adm. Code. 11% of these operations (8 CAFOs) would be located in areas of the state where soil test levels are 100 ppm or more and would experience a cost increase due to phosphorus-based nutrient management of $5.63/animal unit. The remaining 157 operations would incur no additional cost due to nutrient management.

8 operations x 2000 animal units/operation x $5.63 cost increase/animal unit = $90,080 cost increase for proposed phosphorus-based nutrient management requirements.

Almost two of the additional 16 operations per year that apply for permit coverage would experience soils that limit application of manure due to phosphorus, increasing the costs by $5.63/animal unit. Land may need to be rented (or purchased) for manure application in conformance with the nutrient management plan if the soils in the area are already high in phosphorus. This cost is already included in the $5.63/animal unit calculation.

Manure storage

The proposed ch. NR 243, Wis. Adm. Code will require additional liquid manure storage of 6 months. Some operations already provide this much storage and most new or significantly expanded operations choose, independent of ch. NR 243, Wis. Adm. Code to provide 6 months or more of storage, because it makes good business sense. The operations that are often caught with limited storage are operations that grow in herd size in small increments. Most existing operations without adequate storage for liquid manure, would have until January 1, 2010, to construct 180 days of storage.

- For the calculations, we will again use an average CAFO size of 2,000 animal units.
- The costs for liquid manure storage range from $0.35 to $0.55 per cubic foot of storage *(Source: DATCP engineering data).*
- A 2000 animal unit milking cow operation produces 736,100 cubic feet of manure and process wastewater in a 6 month period *(Source: DATCP manure calculation spreadsheet).*
- Therefore, based on per cubic foot costs and manure production, manure storage construction costs will be $257,664 to $404,900 for six months of storage, and half that for three months storage.
- For simplification, cost estimates are based on a dairy with only milking cows and a liquid manure handling system for all manure. This will likely overestimate the costs of manure storage because:
  - Dairy operations, especially milking cow operations, tend to have higher volumes of manure and higher process wastewater produced per animal unit than other animal types because of process wastewater inputs to storage (e.g., milking center wastes),
  - Potential solid manure sources, which would require only 2 months of storage if the manure could not be stacked, are considered liquid sources requiring six months of storage, and
  - Many poultry operations would be able to stack all their manure and would not be required to build any storage to comply with proposed storage requirements in ch. NR 243, Wis. Adm. Code
- Assume 50-80% of all current and immediately impacted CAFOs have or will have 6 months of liquid manure storage regardless of the proposed revisions to ch. NR 243, Wis. Adm. Code and would not be impacted by the storage provisions. *(Source: Survey of staff indicates up to 80% of current operations have 180 days storage.)*
- Therefore, 33 (20%) to 82 (50%) of current and immediately impacted CAFOs would need to build some amount of storage to comply with proposed revisions to ch. NR 243, Wis. Adm. Code.

If 20-50% of current and immediately impacted CAFOs would not have built any storage unless required to do so by the proposed ch. NR 243, Wis. Adm. Code, the costs of manure storage is as follows:

20% of operations building 6 months storage: 33 x $257,664 = $8.5 million.
50% of operations building 6 months storage: 82 x $404,900 = $33.2 million.

If 20-50% of current and immediately impacted CAFOs would have built at least 3 months of storage regardless of the proposed ch. NR 243, Wis. Adm. Code, the costs of manure storage is as follows:

20% of operations building an additional 3 months of storage: 33 x $128,832 = $4.2 million.
50% of operations building an additional 3 months of storage: 82 x $202,450 = $16.6 million.

The range of costs associated with manure storage requirements is $4.2 million to $ 33.2 million for the current and immediately impacted CAFOs as a result of the rule revision.

It is expected that costs per operation for the estimated 16 operations per year that apply for permits will experience similar, or possibly decreased costs, since operations may build storage as part of their expansion plan prior to becoming a permitted operation.

Land : Some operations may be required to purchase land for manure storage facilities, but this is expected to be infrequent. Typically land in close proximity to animal housing areas is the most convenient location for storage and is usually owned by the operator.

Small Business/Final Regulatory Flexibility Analysis.
NR 243 Revision

Contact: Tom Bauman –WT/2
Prepared: April 2006

Does the proposed rule have a significant economic impact on a substantial number of small businesses?

Yes _____ No ____X____.

While the economic impact might be significant for some small businesses, the number of small businesses affected is small. Currently the state permits 145 livestock operations (and 5 pending permit coverage). The revised rule, when promulgated, will immediately impact 10-15 more. Annually, 15 new CAFOs receive permit coverage. The revised rule will increase that number by 1 more per year. The total of impacted operations in the first year is 165 out of 30,000 livestock operations statewide. The Final Regulatory Flexibility Analysis does not define what is meant by a "substantial number", but it seems unlikely that 0.55% of all livestock operations in the state to even 0.8% in five years would be considered substantial. Therefore the conclusion is that the proposed rule will not have a significant economic impact on a substantial number of small businesses. See the fiscal impact report for a discussion on the cost to those operations that will be affected.

The original proposed rule contained a mixed animal unit calculation to determine who is required to apply for a WPDES permit. That calculation could potentially have affected a much larger number of operations (potentially more than 300 new operations according to some within the livestock industry). In response to public comment, the Department modified the method of calculating mixed animal units. The number of operations impacted under the revised method is reflected above.

I. Identify and discuss why the rule includes or fails to include any of the following methods for reducing the impact on small business.

A. Less stringent compliance or reporting requirements.

For permitted operations, the public hearing version of the code does not significantly alter current code requirements for compliance or reporting, other than the addition of certain types of self-inspections and the maintenance of a weather log that are federally required. Most, if not all, of the monitoring and reporting requirements associated with nutrient management-related activities are currently required of permitted operations. These requirements are critical components of ensuring permittee compliance with permit requirements. Since these are federal requirements, the Department may not waive or provide less stringent requirements. The Department is in the process of creating standardized reporting forms that will increase the ease and consistency of reporting.

B. Less stringent schedules or deadlines for compliance or reporting requirements.

The Department has limited flexibility to be less stringent, because NR 243 must reflect federal regulations. Federal regulations mandate that permittees be in compliance with nutrient management plan requirements (e.g., phosphorus-based plans) by July 31, 2007, at the latest. In addition, many of the reporting requirements are tied directly to determining permit compliance.

Upon promulgation of the proposed code changes, existing CAFOs would need to comply with storage requirements for liquid manure by January 1, 2010, and new CAFOs would comply upon permit issuance. Operations would also need to have two months of solid manure storage, typically upon permit issuance, re-issuance or modification, to comply with restrictions on surface applications of solid manure on frozen or snow-covered ground, which take effect January 1, 2008 or otherwise

stack manure throughout the winter. The schedules provide sufficient time for facilities to modify their operations to meet the deadlines. Once the rule is promulgated, new operations will already be aware of the requirements for storage and they will incorporate storage facilities into their new construction or expansion plans.

The Department included a number of provisions in the proposed code to accommodate concerns of small businesses and provide flexibility in the code. Examples of this include:

- Allowing the stacking of manure in place of requiring the construction of a more costly manure storage facility for certain types of solid manure.
- Allowing operations to temporarily reduce required storage levels from 180-days to 150-days in order to accommodate incremental expansions.
- Allowing operations that are covered under a permit for the first time, additional time to construct storage facilities if the facilities are not completed at the time of permit issuance (until November 30th of the year in which they would be issued a permit).

C. Consolidation or simplification of compliance or reporting requirements.

Several provisions have been made to consolidate and simplify reporting under this rule. Quarterly reports will be compiled but submitted only once a year, as part of the Annual Report. Standardized Annual Landspreading Reports and Daily Logs have been created to increase convenience for and consistency among operators. An effort is underway to create a standard inspection form for daily, weekly and quarterly inspections and incorporate the new Annual and daily log reporting format into nutrient management planning software being created by UW-Extension called SNAP Plus, to enable automatic generation of these reports.

D. The establishment of performance standards in lieu of design or operational standards.

Where possible, the rule tries to create performance standards. However, in some cases this flexibility can lead to permit noncompliance and water quality impacts if an operator doesn't understand how to meet the performance standard. To balance this, both the current version of NR 243 and the proposed revisions specify Best Management Practices (BMPs) where the Department has determined that BMPs, versus performance standards, will best facilitate permit compliance.

In addition, the Department received comments that certain performance standards were too broad. In particular, in response to public comment, the Department revised the restriction that manure may not run off any application site and provided for circumstances under which runoff could occur. In response to the removal of this performance standard; the Department included more prescriptive restrictions, particularly as it relates to forecasted precipitation.

E. The exemption from any or all requirements of the rule.

Under current NR 243, an animal feeding operation is required to apply for a WPDES permit under one of two scenarios. The first is if the operation is defined as a large CAFO that manages 1,000 animal units or more based on multiple animal species and age groups. The second is if a medium or small animal feeding operation discharges to navigable waters. In this second scenario operations with fewer than 1,000 animal units may be defined as a CAFO because they are significant contributors of pollution to navigable waters, or they cause the bacterial contamination of wells. NR 243 was revised to accommodate a third scenario from EPA. Under federal law, all animal feeding operations defined as a large CAFO are required to apply for a WPDES permit because they have 1,000 animal units or more based strictly on one animal species or age of species.

As a result of revisions made in response to public comment and federal court decisions, large operations that do not discharge to waters of the state do not need to apply for a permit. However, it will be very difficult for large operations to not have a discharge to waters of the state in Wisconsin due to our climate, the ubiquitous nature of water resources in the state, and the likelihood of manure

or process wastewater related pollutants entering waters of the state from land application and manure storage practices.

Operations that are defined as CAFOs based on combining the numbers of different animal species (e.g., turkey and dairy) or mature and immature animals (e.g., milking cows and heifers) at a given operation are not automatically required under federal law to obtain WPDES permits. This is a state requirement under the prior federal law and current NR 243. The reason for combining all animals together is still valid. Operations with combined animal types produce roughly the same amount of manure, if not more in some cases as single species CAFOs and have the same potential to impact water quality. In addition, most of these CAFOs may already fit the definition of a medium CAFO due to discharges to navigable waters from either the production area or land application areas.

By federal definition, animal feeding operations with 301-999 animal units do not automatically have to apply for WPDES permits if they do not have discharges to navigable waters. These operations would have to apply for a WPDES permit if they have a discharge from the production area, a significant discharge from land application areas to navigable waters or cause the bacterial contamination of a well. Also by federal definition, animal feeding operations with 300 or fewer animal units are not considered a CAFO and do not need to apply for a permit unless they are designated by the Department to be a CAFO.

Once an operation is determined to be a CAFO and is covered under a WPDES permit, it must comply with federal regulations, though the Department does have some flexibility in establishing permit conditions for CAFOs with fewer than 1,000 animal units. For example, while the "no discharge of pollutants to waters of the state" requirement for large CAFOs does not apply to medium and small CAFOs, medium and small CAFOs would be expected to address discharges from their operations in a manner that protects water quality.

II. Summarize the issues raised by small business during the rule hearings, any changes made in the proposed rule as a result of alternatives suggested by small business and the reasons for rejecting any alternatives suggested by small business.

As a result of comments received during the public hearing process, the Department has modified the formula for determining what constitutes a large CAFO. Producers and producer groups were concerned about how animal types were combined to determine if an operation was a large CAFO (i.e. it met or exceeded the 1,000 animal unit threshold) and needed to apply for a permit. The Department had originally proposed using the conversion factors provided by EPA and combining them with the Department's existing mixed animal unit approach. However, EPA's conversion factors were higher for some species. This could have resulted in an operation that currently has just under the 1,000 animal unit threshold going over 1,000 animal unit threshold using the new conversion factors. The final proposal is to continue using the current NR 243 mixed animal unit numbers in the proposed mixed animal unit calculation and to add the federal requirement for determining a CAFO based on a single animal type. This would likely result in a few heifer-only operations and some poultry operations requiring a permit, where they don't now, as a result of the federal single animal type calculation. Otherwise, the number of permittees under the mixed animal unit calculation will remain essentially the same when the rule is promulgated. The debate over mixed animal unit calculations does not impact operations that had a single animal type over 1,000 animal units as defined by EPA's rule. These operations would need to get a permit, regardless.

In response to concerns of producers and producer groups, the Department also created an allowance for discharges of manure and process wastewater from CAFO land application activities, provided certain criteria were met. Previously, the requirement was that applied manure and process wastewater could not run off the application site at any time.

Recognizing the additional timeframe associated with revisions to NR 243, the Department has extended the date by which existing operations need to comply with winter spreading restrictions for solid manure from January 1, 2007 to January 1, 2008.

In addition, the Department has increased the time temporary unconfined manure stacks (headland stacks) are allowed to remain in place. This was in response to producer and producer group concerns about potential compaction issues when land applying winter-stacked manure in the spring. The code previously required that stacks be removed by June 1st of each year, but that has been extended to eight months from the date the stack was created. The Department also modified the rule in response to producer concerns that would allow operations to stack manure with greater than 32% solids during February and March instead of constructing two months of solid manure storage for these months, provided certain requirements are met.

The Department also has proposed to allow producers to use different methods of addressing phosphorus delivery to surface waters (Phosphorus Index or Soil Test Method) based on tracts of land identified by the Farm Service Agency. The public noticed version of the rule would have required operations to choose one method for their entire operation.

Small businesses were also concerned that the requirement to apply for a permit 12 months prior to becoming a CAFO would impede their ability to purchase other operations. In response, the Department will allow operations up to 90 days to apply for a WPDES permit if they become a large CAFO as a result of purchasing another animal feeding operation.

In response to small business comments, the Department also changed the allowances for distributing manure by allowing permittees that manipulate manure and distribute it under a DATCP license to transfer responsibility for the manure to the person receiving the manure.

Many of the changes made by the Department, some of those listed above, were made to improve consistency with rules and state technical standards such the Livestock Siting Rule (ATCP 51), ATCP 50 and NRCS Standard 590. However, there were a number of comments from producer and producer groups that did not result in changes to the code. Primary issues where restrictions on winter applied manure, requiring 180-day storage for liquid manure, headland stacking restrictions, requirements for distributed manure and monitoring and reporting requirements. Changes to these requirements were not made either because they were not protective of water quality, particularly potential impact to groundwater, or because they were mandated by federal CAFO rules.

III. Identify and describe any reports required by the rule that must be submitted by small business and estimate the cost of their preparation.

In accordance with revised federal rule requirements, reflected in the proposed version of NR 243, permittees must conduct frequent inspections of water lines (daily), storm water diversions (weekly) and storage facilities and runoff control systems (weekly) at the animal production area. These inspections are then summarized in a quarterly report and these quarterly reports are submitted to the Department on an annual basis. For land application activities, the proposed code requires periodic manure and soil sampling, daily spreading logs documenting spreading activities, and a weather log. Permittees summarize this information and submit it to the Department as part of an annual report. The Department is in the process of creating standardized reporting forms that will increase the ease and consistency of reporting. Permitted operations must keep all records on-site for five years. Since these are federal requirements, the Department may not waive or provide less stringent requirements. The inspections, logs, sampling and reporting can be done by the permittee or by an employee. Many of the land application reporting requirements have been required of WPDES permittees for many years, and the daily and weekly inspections at the production area have been included in WPDES permits since April of 2003. Time is the issue for this activity. It will likely take an additional 15 minutes per day to complete the activities and record the results above and beyond those requirements already expected of permittees. The cost will depend on who completes the task and what their time is worth.

IV. Identify and describe any measures or investments that small business must take to comply with the rule and provide an estimate of the associated cost.

There are two investments that a small business is responsible for if permitted. The first is development of a nutrient management plan and the second is construction of manure storage facilities. Because nutrient management planning is already required, the additional nutrient management planning costs associated with the revisions to NR 243 represent an incremental increase in cost. Manure storage requirements are likely to cause the most significant increase in costs. See the fiscal impact report for costs associated with nutrient management planning and construction of manure storage facilities. It should be noted that EPA assumed that six months storage would be a minimum requirement to have adequate storage and were used in justification for the federal revisions. This is evidenced in the Cost Methodology Report prepared by EPA for the rules. With regard to fiscal impacts to producers, EPA assumed a minimum of six months storage – see pages 1-3 and 1-5 of the report. Also, in the federal register preamble, EPA mentioned that some northern states may need up to 270 days of storage – see federal register, p 7212, February 2003.

V. Identify the additional cost, if any, to the state in administering or enforcing a rule which includes any of the methods listed in I. A through E. .

The Department expects a potential increase annualized cost of 1.5 FTE ($83,300) as a result of the proposed revisions. Since the WPDES permit program is a Department run program, the Department does not expect increases to local governments or other state agencies. The Department is in the process of creating standardized reporting forms that will increase the ease and consistency of reporting. See the fiscal estimate for costs to the state of implementation of the rule.

VI. Describe the impact on public health, safety and welfare, if any, caused by including in the rule any of the methods listed in I. A through E.

The Department does not have the flexibility to suspend reporting requirements or nutrient planning requirements or free any small business from the requirement to provide adequate manure storage. The changes the Department has made to the animal unit calculation for a CAFO will result in fewer operations requiring permits than proposed in the public noticed version. The permit is a means to track compliance with applicable rules. Applicable rules require proper handling and disposal of manure. If fewer facilities will be required to manage manure in an environmentally sensitive manner and the Department is not able to properly track nutrient management activities at an operation, the potential for impacts to water resources and to public health, safety and welfare increases.

Since large CAFOs concentrate the manure and process wastewater pollutant loads in smaller areas, they can cause local water quality impairment when the manure is not managed correctly. If an operation has not received a permit, nutrient management and manure handling may not meet environmental standards and could result in a groundwater or surface water contamination. The state has recorded more than 50 manure spills over a recent twelve month period some of which resulted in fish kills and contamination of wells. Some of the operations responsible for these actions were permitted facilities.

Potential impacts to public health, safety and welfare include:

- groundwater contamination from nitrates and pathogens and the potential impact to public and private wells,
- fecal coliform bacteria reaching surface waters enjoyed by swimmers (full body immersion) and boaters (recreation) and the accompanying diseases associated with coliforms,
- phosphorus levels increase causing algal blooms. Algae can be unsightly, smelly, and interfere with navigability and recreational activities. Some algae produces toxins which can pose a serious health risk to swimmers or boaters that come in close proximity to the blooms.