

SUBJECT: Senate Committee on Agriculture and Insurance request for unspecified modifications to WT-21-05

FOR: JANUARY 2007 **BOARD MEETING**

TO BE PRESENTED BY: Russ Rasmussen/Gordon Stevenson

SUMMARY:

The Senate Committee on Agriculture and Insurance has requested unspecified modifications to ch. NR 243, which was adopted by the Natural Resources Board at the May 2006 Board meeting. Ch. NR 243 primarily outlines Wisconsin Pollutant Discharge Elimination System (WPDES) permit program requirements for Concentrated Animal Feeding Operations (CAFOs). The department has reviewed the Senate Committee's request and has met with legislators, agricultural and environmental group representatives and DATCP to identify modifications.

The proposed modifications include (1) minor changes to the definition of frozen ground and saturated soils, (2) revision of land application restrictions based on forecasted precipitation, (3) allowing operations to surface apply solid manure on non-frozen ground with some snow cover (less than an inch) during February and March, (4) allowing operations to stack solid manure during February and March and surface apply solid manure on frozen or snow-covered ground during other winter months, (5) clarification of the department's intent to continue to address discharges from small and medium operations by working cooperatively to address discharges, (6) clarification of applicability of WPDES permit nutrient management requirements to small and medium operations and (7) deletion of some notes.

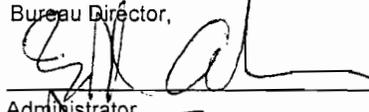
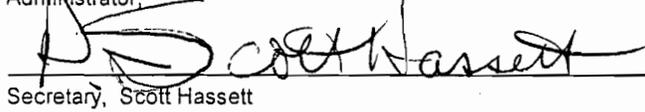
RECOMMENDATION: NRB approval of proposed modifications to WT-21-05

LIST OF ATTACHED MATERIALS:

- No Fiscal Estimate Required
- No Environmental Assessment or Impact Statement Required
- No Background Memo

- Yes Attached
- Yes Attached
- Yes Attached

APPROVED:

 Bureau Director,

 Administrator,

 Secretary, Scott Hassett

November 13, 2006
 Date
11/14/06
 Date
11/28/06
 Date

cc: Amy J. Arthur - AD/5

STAFF REVIEW - DNR BOARD AGENDA ITEM

REMINDER

Have the following questions been answered under the summary section of this form?

- -Why is the rule needed?
- -What are the significant changes?
- -What are the key issues/controversies?
- -What was the last action of the Board?

LIST OF ATTACHED REFERENCE MATERIAL REQUIRED FOR RULE PROPOSALS:

Hearing authorization:

Final adoption:

Background Memo (if needed)*
 Fiscal Estimate
 Environmental Assessment (if needed)
 Rule

Background Memo (if needed)*
 Response Summary
 Fiscal Estimate
 Environmental Assessment (if needed)
 Rule

* If all the questions listed in the REMINDER section above can be adequately summarized on the Green Sheet (and a second sheet if needed), the Background Memo may be omitted.

Unit	Reviewer	Date	Comments
Environmental Analysis and Review	JDP	11/10/06	
Management and Budget	ATN	11/13/06	
Legal Services -Program Attorney -Carol Turner	RON BT	11/13/06 11/10/06	
Other (if applicable)			

DATE: November 6, 2006 FILE REF: 3200

TO: Natural Resources Board

FROM: P. Scott Hassett

SUBJECT: Background Memo on Legislative Request for Unspecified Modifications to Chapter NR 243, Wis. Adm. Code, Relating to Regulations for Animal Feeding Operations

Recommendation

The Senate Committee on Agriculture and Insurance has requested unspecified modifications to the department's rule relating to the Wisconsin Pollutant Discharge Elimination System (WPDES) permit program for Concentrated Animal Feeding Operations (CAFOs). Prior to this request, the Natural Resources Board (NRB) adopted revisions to ch. NR 243 at the May 2006 Board meeting. The department has reviewed the Senate Committee's request and has met with legislators, agricultural and environmental group representatives and DATCP to identify modifications. Based on these meetings and further deliberation, the Department requests that the Natural Resources Board adopt modifications to ch. NR 243 as outlined in the "Background" section below.

Background

The regulations contained in ch. NR 243 are intended to address water quality impacts from animal feeding operations. Ch. NR 243 includes requirements for large, medium and small CAFOs under the WPDES permit program. Some sections of ch. NR 243 address implementation of the performance standards and prohibitions contained in ch. NR 151, but the Department is not proposing any changes to these sections. Since water resources in Wisconsin protected by the WPDES permit program include navigable lakes, streams, other surface waters, groundwater and wetlands, ch. NR 243 includes requirements to protect all of these types of water resources. However, ch. NR 243 does not address non-water quality related issues such as air pollution, odor or noise. Since ch. NR 243 is an existing administrative code, much of the framework for the WPDES permit program for CAFOs has been in place since the mid-1980's and already includes some of the revised federal rules.

Following NRB adoption of ch. NR 243 at the May 2006 Board meeting, the Senate Committee on Agriculture and Insurance and the Assembly Committee on Agriculture held a joint hearing on the rule on August 3, 2006. Following the hearing, the Senate Committee on Agriculture and Insurance requested unspecified modifications to the rule. In response to this request, the Department has proposed modifications to ch. NR 243 which include:

- Minor changes to the definition of frozen ground and saturated soils.
- Deletion of unnecessary notes associated with discharges from drain tiles.
- Revision of land application restrictions based on forecasted precipitation. The version of ch. NR 243 originally adopted by the Board included language that prohibited surface applications if a 70% chance of ½" of rain was forecasted during non-winter months and 50% chance of ¼" of rain during winter months. This was an area of significant controversy and concern for agricultural interests during legislative hearings. The Department is proposing to replace this language with language from NRCS Standard 590 that states that surface applications are prohibited when precipitation capable of producing runoff is predicted.

- Allowing operations to surface apply solid manure on non-frozen ground with some snow cover (less than an inch) during February and March. The previously adopted version of the code prohibited solid manure applications during periods of February and March where snow was present in any amount.
- Stacking of **Solid** Manure and Winter Application Restrictions: Under chapter NR 243 regulations, a CAFO may not surface apply (can still incorporate) solid manure during February and March (high risk runoff period) if areas of a field are frozen or if there is an inch or more of snow. To meet this restriction regarding surface application of solid manure, CAFOs will either have to construct two months of storage, or stack the solid manure. Under the version of chapter NR 243 originally adopted by the Board, if an operation wanted to stack solid manure in lieu of constructing solid manure storage, the operation was prohibited from surface applying solid manure on frozen or snow-covered fields during the entire winter. In order to simplify the rule and in recognition that siting restrictions on stacks should provide adequate water quality protection, the proposed modifications remove the regulatory differences placed on those operations that stack solid manure versus those operations that construct storage. Specifically, the proposed modifications will allow CAFOs that choose stacking as the storage option during February and March to surface apply solid manure during other winter months.
- Clarification that weekly inspections for storage facilities apply only to liquid storage facilities.
- Clarification of Department intent to continue to address discharges from small and medium operations by working cooperatively to address discharges. Under federal law (and ch. NR 243), certain operations are CAFOs by definition while others may be designated by the Department as a CAFO on a case-by-case basis. The Department's authority to define or designate small and medium operations as a CAFO and require permit coverage has not changed significantly from the existing rule. However, agricultural representatives expressed concern that the Department would focus only on permit issuance to address discharges from small and medium animal feeding operations. The Department has inserted a note indicating its intent to continue the current practice of working cooperatively with operations to address discharges rather relying on the issuance of permits. This includes the use of Notices of Discharge and other voluntary and regulatory programs available in the state. These programs typically provide an opportunity to obtain cost-share and technical assistance to aid an operation to implement corrective measures. Permit coverage or enforcement action may be necessary in cases where an operation has repeated discharges or refuses to put in corrective measures to abate a significant discharge that is harming a stream or contaminating a well.
- Clarification of the applicability of WPDES permit nutrient management requirements to small and medium operations (those with fewer than 1,000 animal units). A note has been added that clarifies that WPDES permit requirements for nutrient management outlined in ch. NR 243 apply only to small and medium operations that have been issued a WPDES permit.

In order to address the Senate committee's request for unspecified changes, the Department asks that the NRB adopt these modifications to ch. NR 243.

August 3, 2006

Mr. Scott Hassett, Secretary
Wisconsin Department of Natural Resources
101 S. Webster Street, 5th Floor
Madison, WI 53708

Re; Clearinghouse Rule 05-075

Dear Secretary Hassett,

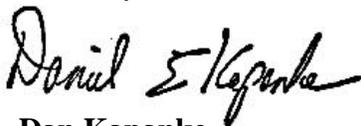
This letter is to inform you that on August 3, 2006, during an Executive Session of the Senate Committee on Agriculture and Insurance on Clearinghouse Rule 05-075, relating to animal feeding operations, the Committee adopted the following motion on a vote of (Ayes, 5; Noes, 2; Absent, 0):

“Moved, that the Senate Committee on Agriculture and Insurance, pursuant to s. 227.19 (4) (b) 2., Stats., requests the Department of Natural Resources to consider modifications to Clearinghouse Rule 05-075, related to animal feeding operations.

If the Department of Natural Resources does not agree to consider modifications to Clearinghouse Rule 05-075, in a letter addressed to the chair of the Senate Committee on Agriculture and Insurance, or fails to respond in writing to this request for modification, by 5:00 p.m., August 7, 2006, the Senate Committee on Agriculture and Insurance objects to Clearinghouse Rule 05-075, pursuant to s. 227.19 (4) (d) 6., Stats., on the grounds that the proposed rule is arbitrary and capricious, and imposes an undue hardship.”

Please inform me in writing by August 7, 2006 if the department agrees to consider modifications to this rule.

Sincerely

A handwritten signature in black ink that reads "Dan Kapanke". The signature is written in a cursive style with a large initial "D".

Dan Kapanke
Chair, Senate Committee on Agriculture and Insurance
State Senator
32nd Senate District

Fiscal Estimate — 2005 Session

<input checked="" type="checkbox"/> Original <input type="checkbox"/> Updated <input type="checkbox"/> Corrected <input type="checkbox"/> Supplemental		LRB Number Bill Number	Amendment Number if Applicable Administrative Rule Number NR 243
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Subject
 Adoption of repeal and recreation of ch. NR 243, Wis. Adm. Code - Animal Feeding Operations

Fiscal Effect

State: No State Fiscal Effect
 Indeterminate

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

- | | |
|--|---|
| <input type="checkbox"/> Increase Existing Appropriation | <input type="checkbox"/> Increase Existing Revenues |
| <input type="checkbox"/> Decrease Existing Appropriation | <input type="checkbox"/> Decrease Existing Revenues |
| <input type="checkbox"/> Create New Appropriation | |

- Increase Costs — May be possible to absorb within agency's budget.
 Yes No
- Decrease Costs

Local: No Local Government Costs
 Indeterminate

1. Increase Costs
 Permissive Mandatory
2. Decrease Costs
 Permissive Mandatory

3. Increase Revenues
 Permissive Mandatory
4. Decrease Revenues
 Permissive Mandatory

5. Types of Local Governmental Units Affected:
 Towns Villages Cities
 Counties Others
 School Districts WTCS Districts

Fund Sources Affected

- GPR FED PRO PRS SEG SEG-S

Affected Chapter 20 Appropriations

Assumptions Used in Arriving at Fiscal Estimate

SUMMARY OF RULE CHANGES

This chapter implements the Wisconsin Pollutant Discharge Elimination System (WPDES) permit program for Concentrated Animal Feeding Operations (CAFOs). The rules are being revised to reflect changes to federal CAFO rules administered by the U.S. Environmental Protection Agency (EPA), and additional revisions are being made to reflect current policies and to clarify requirements.

ASSUMPTIONS

The department assumes that there will be 245 permitted CAFOs within 5 years of code promulgation--150 permitted CAFOs under permit as of rule promulgation, up to 15 immediate first-time permittees as a result of rule revisions, and an additional 80 new CAFOs in the next five years based on 16 CAFO permit applications/year.

FISCAL IMPACT - DNR

The fiscal impact of revisions to NR 243 falls into two major areas--increasing the amount of review time required for nutrient management plans and increasing the number of reviews for manure storage facilities. The estimated impact is as follows:

(A) Nutrient management plans

All CAFOs will be required to implement phosphorous-based nutrient management plans. Therefore, the Department estimates that an additional 10 hours of staff time will be required for each annual review of a nutrient management plans. This type of work is typically done by a Wastewater Specialist-Senior. Assume 245 CAFOs x 10 hours each = 2,450 additional staff hours per year. This equates to 1.4 FTE (2,450 hours/1,800 hours per FTE = 1.4 FTE) and associated salary and fringe costs of \$80,500 (2,450 hours x \$32.84/hr = \$80,458).

Long-Range Fiscal Implications

None

Prepared By:	Telephone No.	Agency
Joe Polasek	266-2794	Department of Natural Resources
Authorized Signature	Telephone No.	Date (mm/dd/ccyy)
	266-2794	

Fiscal Estimate — 2005 Session

Page 2 Assumptions Narrative Continued

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number NR 243

Assumptions Used in Arriving at Fiscal Estimate – Continued

FISCAL IMPACT - DNR (cont.)

(B) Manure storage facilities

All CAFOs will be required to have 6 months storage for liquid manure by January 1, 2010. Therefore, it is estimated that 20% of current and future permitted CAFOs will need to construct 6-month storage facilities that will be reviewed by Department staff.

Assuming that there are 245 permitted CAFOs over the next 5-year period, it is estimated that 49 new manure storage facilities ($245 \times 20\% = 49$) will need to be reviewed by Department staff. It is estimated that each new facility will require 8 hours of staff review time; therefore, 78 additional hours of staff time per year will be needed ($49 \text{ facilities} \times 8 \text{ hrs} = 392 \text{ hrs}/5 \text{ yrs.} = 78.4 \text{ hrs}$) for this activity. This equates to approximately 0.1 FTE per year ($78 \text{ hours}/1,800 \text{ hours per FTE} = 0.04 \text{ FTE}$) and associated salary and fringe costs of \$2,800 ($78 \text{ hours} \times \$36.19/\text{hr.} = \$2,822$).

FISCAL IMPACT - OTHER STATE AND LOCAL AGENCIES

Since the WPDES permit program is administered solely by the Department, other state and local agencies should not expect increased costs associated with administering the changes to WPDES permit requirements. Other state (primarily, the Department of Agriculture, Trade and Consumer Protection) and local agencies (primarily Land Conservation Departments) may experience additional requests for assistance from CAFOs in developing nutrient management plans and design of storage and runoff control facilities; however, the modifications to NR 243 do not require such assistance given that private consultants can provide the same services.

Fiscal Estimate Worksheet — 2005 Session
 Detailed Estimate of Annual Fiscal Effect

Original Updated
 Corrected Supplemental

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number NR 243

Subject
 Repeal and recreation of NR 243 - Animal Feeding Operations

One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

Annualized Costs:		Annualized Fiscal Impact on State Funds from:	
		Increased Costs	Decreased Costs
A. State Costs by Category			
State Operations — Salaries and Fringes		\$ 83,300	\$ -
(FTE Position Changes)		(1.50 FTE)	(- FTE)
State Operations — Other Costs			-
Local Assistance			-
Aids to Individuals or Organizations			-
Total State Costs by Category		\$ 83,300	\$ -
B. State Costs by Source of Funds		Increased Costs	Decreased Costs
GPR		\$ 83,300	\$ -
FED			-
PRO/PRS			-
SEG/SEG-S			-
State Revenues	Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)	Increased Revenue	Decreased Revenue
GPR Taxes		\$	\$ -
GPR Earned			-
FED			-
PRO/PRS			-
SEG/SEG-S			-
Total State Revenues		\$	\$ -

Net Annualized Fiscal Impact

	State	Local
Net Change in Costs	\$ 83,300	\$
Net Change in Revenues	\$	\$

Prepared By: Joe Polasek	Telephone No. 266-2794	Agency Department of Natural Resources
Authorized Signature	Telephone No. 266-2794	Date (mm/dd/ccyy)

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING AND RECREATING RULES

The Natural Resources Board proposes an order to repeal and recreate ch. NR 243 relating to animal feeding operations

WT-21-05

Analysis Prepared by Department of Natural Resources

1. Statutes Interpreted: ss. 281.11, 281.12, 281.16, 281.19, 281.20, 281.41, 281.65, 281.96, 281.97, 281.98, 283.001, 283.01, 283.11, 283.13, 283.19, 283.31, 283.35, 283.37, 283.53, 283.55, 283.59, 283.63, 283.83, 283.87, 283.89, 283.91, Stats.

2. Statutory Authority: ss. 227.11(2), 281.16, 281.19, 281.41, 281.65, 283.001, 283.11, 283.13, 283.31, 283.37, Stats.

3. Explanation of agency authority: Pursuant to ss. 283.01(12) and 283.31, Stats., the Department has the authority to regulate animal feeding operations defined or designated as concentrated animal feeding operations (CAFO) as point sources under Wisconsin's pollutant discharge elimination system (WPDES) permit program. The statutory provisions referenced above give the Department the authority to promulgate rules to administer the WPDES permit program for CAFOs. Also, more specifically, the Department has the authority under s. 283.11(1), Stats., to promulgate rules that incorporate requirements established by the U.S. environmental protection agency (EPA). The Department's proposed rules incorporate the federal regulations established in 40 CFR parts 122 and 412 that regulate CAFOs. The Department's proposed rules also establish requirements that go beyond the federal requirements. The Department recognizes that s. 283.11(2), Stats., places some limitations on Department regulation of point sources, principally with respect to technology based requirements (Note: case law has clarified the scope of this statutory provision [Maple Leaf Farms v. DNR, 247 Wis.2d 96, 633 N.W. 2d 720]). Section 283.11(2), Stats., does not, however, preclude regulation in instances in which (1) there is an absence of federal regulation, (2) the regulations are needed to achieve water quality standards, or (3) the regulations are associated with protecting groundwater, which is not covered by the Clean Water Act and federal regulations, but is covered by ch. 283, Stats.

Finally, part of subchapter III of the proposed rules cover implementation of the state performance standards and prohibitions established in ch. NR 151. The Department's authority to establish rules to implement these standards and prohibitions is established under s. 281.16, Stats.

4. Related statute or rule: ss 281.15, 281.31, 281.77, Stats., and chs. NR 2, 102, 103, 104, 108, 113, 140, 150, 151, 153, 154, 200, 203, 204, 205, 207, 214, 216, 218, 219, and 220.

5. Plain language analysis:

Subchapter I - General

The Department is repealing and recreating chapter NR 243 to incorporate revisions to federal NPDES regulations for CAFOs (large, medium and small CAFOs) and to include additional

requirements to protect groundwater and surface waters in the state. The Department is not proposing any significant changes to existing requirements in chapter NR 243 related to implementation of statewide livestock performance standards and prohibitions.

The Department is delegated by EPA to administer the NPDES permit program for CAFOs through the Department's WPDES permit program established in ch. NR 243 and ch. 283, Stats. Federal and state CAFO rules address water quality impacts from the animal production area (those areas associated with production of animals including animal housing areas, manure storage facilities and runoff control systems), areas ancillary to the production area, and land application areas. While EPA's authority under the NPDES permit program is limited to addressing waters of the U.S. (essentially navigable waters), pursuant to the WPDES permit requirements in ch. 283, Stats., the Department is charged with addressing impacts to all waters of the state, including wetlands, groundwater and all surface waters.

Under federal and state law, all CAFOs are point sources. CAFOs fall into three categories: (1) Large CAFOs, or operations with 1000 animal units or more. (2) Medium CAFOs, or operations with 300 to 999 animal units, that have a discharge to navigable waters from the production area that meets certain criteria. (3) Designated CAFOs. Designated CAFOs include Medium and Small CAFOs (operations with fewer than 300 animal units) that are designated by the Department on a case-by-case basis as having a significant discharge. Once an operation is defined or designated as CAFO and issued a WPDES permit, impacts to all waters of the state are addressed in the permit.

Primary changes to existing rules in subchapter I: The existing rules had one calculation method, a combined animal unit calculation, that was used to determine the number of animal units (size) at an operation. Under the combined method, the total number of animal units at an operation is based on the combined animal unit equivalency numbers for all animal species, mature and immature, present at the operation, including animals at different sites that are considered to be part of the same operation. The proposed rule retains the existing method and adds a second method for calculating the number of animals. The second method is based on recently revised federal regulations. In this federal method, the animal types are not added together to determine the total; however some animal types (e.g., veal calves, heifers, layer operations with dry manure handling), have larger animal unit conversion factors than under the current rule. The rule procedures require the Department to compare the calculations under both methods, and use the highest calculated value to determine the size of an operation. Also, this rule package adds a definition for "agricultural stormwater discharges." This term was added based on recently revised federal regulations.

Both the existing and proposed code allow variances to non-statutory and federal requirements.

Subchapter II – Requirements for Large Concentrated Animal Feeding Operations

This subchapter outlines the requirements specific to Large CAFOs (animal feeding operations with 1000 animal units or more). The proposed rule contains WPDES permit application requirements. The existing rules established a duty to apply for a permit based solely on whether an animal feeding operation had 1000 animal units or more. This proposed rule requires that an animal feeding operation with 1000 animal units or more apply for a permit if the operation will store manure or process wastewater in a structure that is below or at grade, or if the operation will land apply manure or process wastewater. Both the existing rule and the proposed rule do not allow large CAFOs to discharge to waters of the state without WPDES permits. For new operations, the existing rule requires that a complete application be submitted 12 months in

advance of populating to 1000 animal units. For first-time permit applicants, this rule package requires that a general application with basic operational information (e.g., type of operation, anticipated number of animal units) be submitted 12 months prior to the anticipated date of becoming a large CAFO. A final complete permit application must then be submitted 6 months prior to becoming a large CAFO. Compared to existing rules, the proposed rules are more specific regarding the type of information that must be submitted in the final application, including a complete nutrient management plan. Reissuance applications are due 180 days prior to permit expiration. The proposed rules also include a change to the application requirements for existing animal feeding operations that become CAFOs due to the purchase of another operation. These expanded operations will have 90 days to submit an application to the Department. Although the Department always had the authority to issue general permits to cover CAFOs, the existing rules in chapter NR 243 did not include any specific requirements for general permits. The proposed rule includes specific application requirements for general permits. The Department can cover an operation under either an individual or general WPDES permit.

The rule package includes standard WPDES permit requirements. Some of these standard WPDES permit requirements for large CAFOs include:

- Permittees may not have a discharge from the animal production area (areas of an operation directly connected to production of animals including manure, process wastewater and feed storage areas as well as areas where animals are fed, maintained or confined) to navigable waters, except when an overflow of a structure occurs as the result of a 25-year, 24-storm event. This standard applies to dairy and cattle operations and most duck swine, poultry and veal operations. Compared to the existing rule, the changes to this production area standard is minor (e.g. discharge only allowed if it is an overflow event). The proposed rule does add new standards for other types of operations. For example, there are new standards included in the rule for other types of operations such as certain duck operations and horse and sheep operations as well as new standards for new source swine, veal or poultry CAFOs. New source CAFOs that are swine, veal or poultry may not have any discharges from the production area and they must meet a production area design requirement of a 100-year, 24-hour storm event. This provision is often referred to as the “no discharge” standard for navigable waters, and is consistent with federal standards. All permitted discharges from the production area must still comply with water quality standards.
- Permittees must develop an emergency response plan to address unauthorized spills or discharges.
- Permittees must control contaminated runoff from ancillary service and storage areas, including CAFO vegetated areas that are not part of the production area.
- Permittees shall manage animal mortality to ensure compliance with the “no discharge” standard and avoid impairments of other waters of the state.

In the existing and proposed rule, permittees must develop and implement a nutrient management plan that addresses the land application of manure and process wastewater generated by a CAFO. As a minimum requirement, the existing rule requires compliance with NRCS Standard 590 (1999). The proposed rule requires compliance with the updated technical standard for nutrient management planning--NRCS Standard 590 (2005). However, both the existing rule and proposed rule revisions require additional practices beyond NRCS Standard 590. The additional practices or restrictions are included for WPDES permittees for the purpose of complying with federal regulations, protecting water quality (both surface waters and groundwater) and minimizing runoff of manure and process wastewater pollutants. Some of the key provisions of the proposed rule that address land application activities (that deviate from NRCS 590) include the following:

- Manure or process wastewater may not pond on the site where it is applied.
- Manure or process wastewater may not run off the application site or discharge to waters of the state via subsurface drains under dry weather conditions or due to precipitation events less than the 25-year, 24-hour storm event. This is a change from the current rule requirement that does not allow run off of manure or process wastewater from the application site at any time. The proposed rule also contains a new requirement that prohibits surface applications of manure and process wastewater in response to ~~weather~~ forecasts of precipitation capable of producing runoff indicating a high probability of certain rain amounts in the 24-hour period following application.
- 2nd year manure crediting is required.
- CAFOs must implement additional practices when applying manure and process wastewater within the Surface Water Quality Management Area, or SWQMA (1000 feet of a lake, 300 feet of a stream) in order to comply with the federal setback requirement and to protect against acute runoff events. Compared to the existing rule, these are new requirements.
- The proposed rule requires CAFOs statewide to limit phosphorus applications in accordance with the soil test phosphorus or Phosphorus Index method outlined in NRCS Standard 590. Additional phosphorus restrictions apply to fields with high soil test levels (greater than 100 ppm). In the existing rule, the Department only required phosphorus based plans on a case-by-case basis in certain watersheds and did not specify a method of limiting phosphorus delivery.
- Additional restrictions on winter land application of solid manure are proposed. Under the existing rule, restrictions on the land application of solid manure were imposed on a case-by-case basis in certain watersheds. Under the proposed rule, operations may choose to surface apply solid manure on frozen or snow-covered ground provided they follow certain restrictions in ch. NR 243. Beginning January 1, 2008, solid manure may not be surface applied on frozen ground or areas of fields with an inch of snow or more covered ground during the months of February and March, the months of the winter when manure runoff events are most probable. Operations may choose to either stack the solid manure or construct a storage facility to avoid surface applications during February and March. With limited exceptions for drier manure types, operations that choose to surface apply solid manure during other times of the winter must have two months of properly designed storage to store solid manure during February and March. Operations that choose not to surface apply solid manure during frozen or snow covered ground conditions, including during the months of February and March, are allowed to stack solid manure in accordance with certain requirements, rather than build a solid manure storage facility designed in accordance with NRCS Standard 313. Each individual production area location that is part of an operation (e.g., an operation's main farm and its satellite farm are each considered individual production area locations) shall choose to either store or stack solid manure but cannot do both. Solid manure may be incorporated under frozen or snow covered ground conditions at any time provided it is done properly and is physically possible.
- Additional restrictions on winter applications of liquid manure are proposed. Under the existing rule, restrictions on the land application of liquid manure were imposed on a case-by-case basis in certain watersheds. Under the proposed rule, liquid manure may not be surface applied during the months of February and March. In addition, by January 1st, 2010, all existing source CAFOs must have 180 days of liquid manure storage and will be prohibited from surface applying liquid manure on frozen or snow-covered ground throughout the winter. New source CAFOs are subject to these winter land application restrictions upon permit issuance. However, the rule provides allowances for surface applications of liquid manure on frozen or snow-covered ground during certain emergency situations. Liquid

manure may be incorporated or injected under certain frozen or snow covered ground conditions provided it is done properly and is physically possible.

- The proposed rule also includes a number of provisions designed to address EPA's and the Department's regulatory innovation efforts. These include allowances for the use of general permits. Consistent with revised federal regulations, the proposed rule also includes allowances for continuous discharges to navigable waters from CAFO animal production areas in exchange for the implementation of innovative technologies and practices that achieve equal or better environmental performance than the "no discharge" standard.
- The rule includes more stringent restrictions on applications to avoid groundwater contamination. These include increased setbacks from direct conduits to groundwater, drinking water supply wells, increased separation distances from groundwater and fractured bedrock, and winter application restrictions on soils with reduced distances to bedrock.

CAFOs are responsible for the storage, management and land application of their manure and process wastewater except in certain cases specified in the rule where manure is transferred. Permittees must maintain records of transferred manure and must obtain Department approval to transfer responsibility. Compared to existing rules, the proposed rules add more allowances for transferring responsibility of CAFO manure to other parties when it is sold or given away.

Plans and specifications for reviewable facilities (e.g., manure storage, runoff control, feed storage, digesters) must be approved by the Department prior to construction. Manure storage facilities shall be constructed in accordance with NRCS Standard 313. The proposed rules incorporate the most recently updated version of NRCS Standard 313. The Department shall also evaluate existing reviewable facilities that have not been approved by the Department to determine if any actions are necessary to upgrade or abandon the facility to protect water quality.

In order to prevent surface applications of solid manure on frozen or snow-covered ground during February and March, all permittees must have two months of storage for solid manure or otherwise stack the solid manure ~~and avoid surface application of solid manure on frozen or snow covered ground throughout the winter.~~ Existing source CAFOs that currently have permit conditions requiring compliance with revisions to ch. NR 243 upon Department notification, have until January 1, 2008 to construct two months of solid manure storage or otherwise identify areas where they can stack the solid manure ~~throughout the winter during February and March.~~ ~~All other e~~ Existing source CAFOs that do not choose to stack solid manure, must build two months solid manure storage in accordance with a construction schedule contained in a WPDES permit, not to extend beyond November 30th following permit reissuance or modification. New source CAFOs that choose not to stack manure must have two months solid manure storage upon permit issuance. ~~Once an operation constructs two months of storage at a given production area location, it shall maintain two months storage at that location. There is a limited exception to the storage requirement that would allow operations with drier manure (>32% solids) that meet certain conditions to stack and surface apply solid manure during winter months with Department approval.~~ These restrictions regarding the surface application of solid manure in February and March are new requirements.

In order to be able to avoid surface applications of liquid manure on frozen or snow-covered ground in accordance with nutrient management requirements and to satisfy the federal requirement for adequate storage, all permittees must have 180 days of storage for liquid manure. Existing source CAFOs have until January 1st, 2010, to construct 180 days of storage. New source CAFOs shall have 180 days of storage upon permit issuance or prior to the first winter season. Once an operation has 180 days of storage for liquid manure, an operation must continue to maintain 180 days of storage for liquid manure. For an operation that is expanding, the rules

allow an operation to temporarily reduce the liquid manure storage capacity if approved by the Department. The requirement for 180-day storage is a new requirement for large CAFOs, although the majority of permitted CAFOs in the state already have 180-days of storage.

Under the proposed rules, permittees must conduct periodic inspections of the animal production area and correct and report any instances of permit noncompliance. Manure, process wastewater and soils where manure and process wastewater is land applied shall be periodically sampled. Daily logs of land application activities and annual reports summarizing land application activities shall be recorded on Department supplied forms. Inspections for runoff are also required for surface applications of manure and process wastewater on frozen or snow-covered ground. Annual reports shall be submitted to the Department summarizing production area inspections, land application activities, and sampling and monitoring activities. While many of the monitoring, inspection and reporting requirements contained in the proposed code were not in the existing code, they have been required in WPDES permits for some time.

In general, most operational requirements for large CAFOs contained in the proposed code would apply upon permit issuance, reissuance or modification, unless the requirements are already referenced or included in an operation's current WPDES permit.

Subchapter III – Other Animal Feeding Operations

The rules in subchapter III address discharges from animal feeding operations with fewer than 1000 animal units. Depending on the type or nature of the discharge and the size of the operation, the rules establish procedures and enforcement options for eliminating or reducing discharges to waters of the state, including the issuance of Notices of Discharge (NOD). There are three categories of discharges for which an NOD may be issued. The proposed rule does not make any substantive changes to existing NOD requirements and procedures.

Also, both the existing and proposed rule require WPDES permit coverage for medium-sized operations (300 to 999 animal units) that have a point source discharge to navigable waters. Operations with fewer than 1000 animal units (includes both medium and small operations) that have significant discharges to navigable waters may be designated by the Department as CAFOs subject to WPDES permit coverage as well. These requirements are based on federal regulations and are already established in the existing rule. The proposed rule adds one more factor for designating a small or medium operation as a CAFO: if the Department determines that a discharge from an operation has contaminated a properly-constructed well, the Department may require that the operation obtain a WPDES permit. The proposed rule establishes application requirements, designation criteria, permit requirements and procedures, and enforcement options for medium and small CAFOs. [Permit requirements outlined in ch. NR 243 \(e.g., nutrient management requirements\) are only mandatory for those small and medium operations that have been issued a WPDES permit.](#)

The rules in subchapter III also address discharges that are associated with noncompliance of livestock performance standards and prohibitions established in ch. NR 151. Implementation procedures and enforcement options are established in the rules. In general, under these regulations, if an existing livestock facility or practice has a discharge to waters of the state that is due to noncompliance with the livestock performance standards or prohibitions in ch. NR 151 (and is not considered a point source discharge), then the Department must make cost share dollars available for eligible costs to get compliance with the standards and prohibitions. Cost sharing does not have to be offered for new operations or facilities, or in cases where corrective

measures do not involve eligible costs. These rules are already in effect in the existing ch. NR 243 and the Department is not proposing any significant changes at this time.

Subchapter IV – CAFO Enforcement

The proposed rule explains the Department’s enforcement authority for CAFOs.

6. Federal rule summary and comparison: The revisions to federal regulations which served as the basis for the proposed revisions to ch. NR 243 include the following:

Ch. NR 243 follows federal requirements for animal production area standards, inspections, record keeping and reporting, mortality management, restrictions on chemical disposal, weather record keeping associated with land application requirements, and test methods for sampling manure, process wastewater and soil.

The federal regulations covering nutrient management and land application activities are fairly general and require states to develop more detailed technical standards and best management practices that satisfy the general federal standards. Ch. NR 243 is consistent with the following requirements outlined in the federal regulations:

- Federal regulations require that CAFOs develop a nutrient management plan. Under federal regulations, the plan must address the application and timing of manure and process wastewater applications and must minimize the risk of runoff of phosphorus and nitrogen to surface waters.
- The Department's proposed rules require that CAFOs develop a nutrient management plan that meets (1) NRCS Standard 590 for nutrient management, (2) additional requirements that are consistent with federal regulations and (3) other requirements determined by the Department to be necessary to protect surface waters, groundwater and wetlands.
- To minimize runoff of phosphorus and nitrogen and to address timing of applications (required federal standards for land application), the proposed revisions to ch. NR 243 contain restrictions on the winter application of solid and liquid manure and prohibit applications on saturated ground. The proposed rule also requires that permittees take into account predicted precipitation events. Ultimately, all applications are subject to the requirement that manure and process wastewater may not pond on the application site, or run off the application site or discharge to waters of the state via drain tiles under dry weather conditions or due to precipitation events less than the 25-year, 24-hour storm event.
- The federal regulations require that permittees have adequate storage for manure and process wastewater: The proposed revisions to ch. NR 243 define adequate storage to mean storage that is consistent with a permittee’s nutrient management and at least 180 days of storage for liquid manure. Consistent with the requirements of a nutrient management plan, design specifications for liquid manure management include a requirement to construct 180 days of storage for liquid manure for all operations by Jan. 1, 2010 (new source CAFOs would need to comply upon permit issuance). Design specifications for solid manure include a requirement to build two months of storage to address high risk periods of runoff during the months of February and March unless an operation chooses to headland stack its solid manure ~~and avoid solid manure applications on frozen or snow covered ground throughout the winter.~~
- To further address the federal standard requiring minimization of phosphorus and nitrogen runoff, the proposed revisions restrict nitrogen applications and provide two options to address phosphorus transport: (1) phosphorus application restrictions based on soil test phosphorus levels and (2) use of a risk assessment/phosphorus transport method (i.e., the Wisconsin Phosphorus Index).

- States shall specify NPDES permit requirements for medium and small-sized CAFOs: The Department has included requirements for runoff control, manure storage, nutrient management and monitoring and reporting for small and medium CAFOs. For medium and small CAFOs, requirements for nutrient management and manure storage are similar to large CAFO requirements.

Ch. NR 243 can be more stringent than certain federal regulations in areas where (1) there is an absence of federal regulation, (2) additional regulations are needed to achieve water quality standards, or (3) the regulations are associated with discharges to groundwater, which is not covered by the Clean Water Act and federal regulations, but is covered by ch. 283, Stats. Key areas where proposed ch. NR 243 is more stringent than the federal CAFO regulations include the following:

- EPA eliminated the use of the mixed animal unit calculation (i.e., totaling all animal species present at an operation) in defining which operations are large CAFOs requiring permit coverage. The Department has proposed to retain the mixed animal unit calculation (based on existing equivalency factors) for a number of reasons. First, many Wisconsin operations continue to have mixed ages and types of animals. Without the mixed animal unit calculation, some currently permitted CAFOs could potentially no longer require coverage under WPDES permits. Second, the mixed animal unit calculation results in more equitable regulation (e.g., an operation with 900 animal units of heifers and 900 animal units of milking cows would not need a permit but would produce more waste than an operation with 1001 animal units of milking cows that does need a permit). Third, operations in Wisconsin have been subject to the mixed animal unit calculation, including calculations based on immature animals, since the inception of the CAFO WPDES permit program in 1984 with little or no confusion. To be as protective as the federal regulations, the proposed rules have also added the federal method for determining the size. As discussed previously, the method that results in the largest number of animal units is used to determine the size. For some animal types, the federal rule reduces the number of animals needed to meet the 1000 animal permit threshold.
- The federal requirements state that all CAFOs with 1000 animal units or more must apply for WPDES permit coverage. In *Waterkeeper Keeper Alliance et al. v. EPA*, 399 F. 3d 486 (2nd Cir. 2005), the court vacated the duty to apply requirement. The Department's proposed rules state that all large CAFOs (1000 animal units or more) that store manure or process wastewater in a structure that is at or below grade, or that land apply manure or process wastewater must apply for WPDES permits. It is the Department's position that due to the extent of water resources present in the state of Wisconsin (surface waters, groundwater and wetlands), all large CAFOs that store or land apply manure or process wastewater in the state have discharges of manure or process wastewater pollutants that reach groundwater and/or surface waters via leaching or surface runoff. Therefore, any large CAFO must apply for a WPDES permit if it engages in storage or land application activities. Under chapter 283, Stats., WPDES permits must address discharges to all waters of the state, not just navigable waters. This approach is consistent with how the Department currently regulates large CAFOs. With regard to medium and small animal feeding operations, the basis for requiring permit coverage will still depend on whether there has been a significant discharge to navigable waters, except a permit may be required in cases where a discharge from a medium or small farm has caused a well contamination. Federal regulations do not require permits based on well contaminations because the federal NPDES permit program does not cover discharges that impact groundwater only.
- The federal rules provide a definition of agricultural storm water discharges. Agricultural storm water discharges are not subject to permit terms and conditions. The proposed

definition of agricultural storm water could be viewed as more stringent than the federal definition. However, the definition or scope of agricultural storm water discharges will vary from the federal definition from state to state and will depend on a state's specific nutrient management standard and permit requirements.

- The Department requires operations to submit an initial permit application 12 months prior to becoming a CAFO, and a complete permit application 6 months prior to becoming a CAFO. While the federal rule does not require an initial permit application, the initial application requirement is not burdensome (very limited information is required) and it is very helpful for operations and the Department in determining how WPDES rule requirement impact an operation's expansion plans.
- EPA regulations do not require submittal and approval of nutrient management plans to ensure compliance with nutrient management plan requirements, and consequently federal regulations only have minimal nutrient management recordkeeping and reporting requirements. Under the *Waterkeeper* decision, however, the court found that EPA's failure to require submittal of the plan was improper (because it is a WPDES permit requirement), so EPA will need to make changes to its regulations. Consistent with current requirements under ch. NR 243, the Department's proposed rules continue to require submittal and approval of CAFO nutrient management plans, and also require that the permittee conduct recordkeeping and reporting, so compliance with the plan can be evaluated.
- The federal nutrient management plan requirements impose a 100-foot setback from navigable waters and their conduits and allow for equivalent practices to the 100-foot setback, but the federal regulations do not specify acceptable equivalent practices. The Department has provided potentially equivalent practices to the 100-foot setback that include practices implemented within 300 feet of streams and 1000 feet of lakes (the Surface Water Quality Management Area or SWQMA used in proposed ch. NR 243 and NRCS Standard 590). These practices are intended to address the 100-foot setback as well as potential impacts from acute and chronic delivery of pollutants associated with manure and process wastewater applications near surface waters.
- EPA specifies setbacks from agricultural wellheads as part of its restrictions on direct conduits to navigable waters. In order to provide protection for groundwater and avoid impacts to potable water supplies, the Department has specified additional setbacks and practices within certain distances of wells (private, noncommunity and community wells), areas of shallow soils and direct conduits to groundwater. These setbacks are especially important given the private well contamination events experienced in the past, including those that have occurred recently.
- EPA limits the extent of CAFO responsibility for the land application of its manure and process wastewater that is transferred or given away to another party (i.e., where the CAFO does not have control over the application of the wastes). The Department's proposed rules state that the CAFO maintains responsibility for the transferred manure with a few limited exceptions.
- The federal regulations do not address potential water quality impacts from CAFO outdoor vegetated areas (large, open grassed areas connected to CAFOs, but not subject to the production area "no discharge" standard). The Department's proposed rules require that CAFOs maintain vegetation in these outdoor vegetated areas to mitigate impacts to surface waters and wetlands. Under the proposed rule, these outdoor vegetated areas are considered part of the ancillary areas.
- The federal regulations do not require emergency response plans for CAFOs. The Department has proposed requiring emergency response plans to address spills and unauthorized discharges to avoid acute and catastrophic impacts to waters of the state.

- The federal regulations do not require submittal of plans and specifications for manure and process wastewater storage structures and runoff controls systems. Pursuant to s. 281.41, Stats., the Department has the authority to require submittal of plans and specifications for certain structures and facilities covered by WPDES permits. Both the existing and proposed rule establish design standards and require submittal and Department review of certain structures and facilities.

7. Comparison with rules in adjacent states: For this section of the analysis (comparison to other states), the Department has not discussed NPDES permit program requirements which are fairly standard and do not vary significantly from state to state or non-controversial (e.g., inspection and “no discharge” requirements for CAFO animal production areas, manure/soil sampling, animal mortality management, etc.). The following section is a state-by-state comparison of the more controversial issues associated with the federal CAFO rule revisions. It should be noted that all the states in this comparison address impacts to surface water, groundwater and wetlands.

Minnesota: Minnesota has chosen not to revise its NPDES regulations but has instead issued a NPDES general permit that incorporates the federal revisions. As in Wisconsin, all large CAFOs are required to apply for NPDES permits with the size of the operation determined in accordance with a state combined animal unit calculation and the federal individual animal unit calculation method. Minnesota also reviews and approves CAFO nutrient management plans. Minnesota has NPDES requirements for phosphorus-based nutrient management based on soil test phosphorus levels. Fields with soil test phosphorus levels greater than 75 ppm within 300 feet of waters are rated very high in terms of potential nutrient delivery to surface waters. Applications on saturated ground and where precipitation is forecast within 24 hours (50% chance of 0.25” during winter, 50% chance of 0.5” at all other times) is prohibited. While Minnesota does not prohibit solid or liquid manure applications on frozen or snow-covered ground, it does place certain restrictions on where the manure can be applied (e.g., liquid manure cannot be applied on slope greater than 2%) and requires a field-by-field evaluation to ensure runoff will not occur. Minnesota also requires that all liquid manure storage facilities built after 2000 are constructed with 9 months of storage. Minnesota specifies equivalent practices to the 100-foot setback from navigable waters and their conduits for applications of manure and process wastewater. Minnesota’s equivalent practices served as the basis for practices identified in revisions to ch. NR 243. Unlike Wisconsin, Minnesota allows CAFOs to transfer responsibility of manure where they do not control the timing and rate of application. However, Minnesota has extensive record keeping associated with the transfer of manure and manure. Furthermore, manure must still be applied in accordance with state nutrient management requirements.

Michigan: Michigan has revised its NPDES CAFO rules as well as issued a general permit with provisions addressing the revised federal regulations. Unlike Wisconsin, Michigan does not use the mixed animal unit calculation for determining CAFOs size. All Large CAFOs that discharge or have potential to discharge must apply for NPDES permits. While Michigan requires creation of a nutrient management plan, unlike Wisconsin, Michigan does not require review or approval of the plan. Michigan has NPDES requirements for phosphorus-based nutrient management based on soil test phosphorus levels. Fields with soil test phosphorus levels of 75 ppm or more are rated high in terms of potential nutrient delivery to surface waters. Applications on saturated ground and where precipitation is forecast within 24 hours (70% chance of 0.5”) is prohibited. Surface applications of manure and process wastewater applications are prohibited on frozen or snow-covered land that is upslope from surface waters. Michigan requires 6 months storage for all manure unless another length of storage is determined by NRCS. Unlike Wisconsin, Michigan has not chosen to identify practices equivalent to the 100-foot setback from navigable waters and

their conduits but could approve alternate practices under individual NPDES permits. Similar to Minnesota, Michigan allows CAFOs to transfer responsibility for manure in those instances where CAFO operators do not control manure applications.

Iowa: Iowa has recently adopted new NPDES CAFO rules for operations with open feedlots. Iowa has withdrawn its NPDES CAFO rules for CAFOs with animals in total confinement. Iowa contends that operations with animals in total confinement do not need to apply for NPDES permits since they do not allow discharges from the animal production area, nor do they allow discharges of manure or process wastewater from land application sites at any time. Similar to Minnesota and Wisconsin, regulated large CAFOs (with open feedlots) must apply for permits. Iowa uses the mixed animal unit calculation to determine large CAFO size. Operations that demonstrate they have no potential to discharge do not need to obtain permit coverage. Similar to Michigan, Iowa requires creation of nutrient management plans and periodically reviews and approves the plans. Iowa has NPDES requirements for phosphorus-based nutrient management based on phosphorus transport modeling (phosphorus index). Iowa does not address applications of manure and process wastewater on frozen or snow-covered ground but does prohibit applications on saturated ground and when precipitation has recently occurred or is occurring. Manure storage is not required. Iowa has specified setback ranging from 200-800 feet that can be reduced to a 50 foot setback with a 50-foot vegetated buffer. Similar to Wisconsin, Iowa CAFOs are responsible for all their manure, except for dry poultry manure that is sold as a product.

Illinois: Illinois has issued a limited number of NPDES permits to CAFOs and is currently regulating most animal feeding operations under state regulations. Illinois is in the process of revising its NPDES CAFO rules. It has issued a general permit with provisions addressing the revised federal regulations but has yet to cover a CAFO under the general permit. Illinois regulates operations that meet the federal definition of large CAFOs. The NPDES general permit requires submittal and approval of nutrient management plans. Illinois does not allow applications on soil saturated by recent precipitation or when precipitation will produce runoff. Applications are not allowed on frozen or snow-covered soil if the application will produce runoff. Illinois state rules require that liquid storage built or modified after 1977 provides 120 days of storage. Liquid storage built after 1996 must provide 270 days of storage. Solid manure storage built after 1998 must provide 150 days of storage. Illinois has NPDES requirements for phosphorus-based nutrient management based on soil test phosphorus levels. Fields with soil test phosphorus levels of greater than 150 ppm are rated very high in terms of potential nutrient delivery to surface waters. No options are provided for the 100-foot setback from navigable waters and their conduits. Illinois has yet to determine requirements for transfer of manure responsibility.

8. Summary of factual data and analytical methodologies: Rule revisions to ch. NR 243 are in response to changes to federal regulations for CAFOs, and to protect water quality in the state. EPA compiled a number of technical and policy documents summarizing and outlining the basis for the revised regulations, including potential economic impacts. These documents are available online at http://cfpub.epa.gov/npdes/home.cfm?program_id=7.

The Department used additional materials and methodologies to create the proposed revisions to ch. NR 243. These include:

- NPDES Permit Writers' Guidance Manual and Example NPDES Permit for Concentrated Animal Feeding Operations; Provides information to NPDES permitting authorities, owners and operators of animal feeding operations, and the general public on how to implement the Clean Water Act CAFO regulations, including: 1) information to help permitting authorities ensure that NPDES permits conform to the CAFO regulations and 2) general information on

Clean Water Act and NPDES requirements that EPA will consider when reviewing the adequacy of State NPDES permits for CAFOs.

- Natural Resource Conservation Service (NRCS) technical standards, developed with input from a broad range of qualified technical experts.
- Meetings with the NR 243 Technical Advisory Committee (TAC), consisting of various stakeholder groups, which met 14 times between September of 2003 through February of 2005.
- Meetings of internal staff in the Agricultural Runoff Program which met approximately twice a month between the months of September 2003 and May of 2005.
- Department documented impacts to waters of the state associated with permitted and unpermitted animal feeding operations.
- Comments received on the public noticed revisions to ch. NR 243.

9. Analysis and supporting documents used to determine effect on small business or in preparation of economic impact report: In determining the effects that revisions to ch. NR 243 would have on small business, outlined in the Small Business/Final Regulatory Flexibility Analysis, the Department considered (1) the flexibility provided by federal rules in applying the rules and (2) the environmental consequences of providing alternate or less stringent requirements for small business.

The primary documents and methods used in determining the amount of flexibility provided under federal rules include:

- The Wednesday, February 12, 2003, Federal Register, containing the relevant parts of 40 CFR (Parts 9, 122, 123 and 412) that were modified and the attached preamble to these rules that reflect the reasoning behind EPA's modifications.
- NPDES Permit Writers' Guidance Manual and Example NPDES Permit for Concentrated Animal Feeding Operations: Provides information to NPDES permitting authorities, owners and operators of animal feeding operations, and the general public on how to implement the Clean Water Act CAFO regulations, including: 1) information to help permitting authorities ensure that NPDES permits conform to the CAFO regulations and 2) general information on Clean Water Act and NPDES requirements that EPA will consider when reviewing the adequacy of State NPDES permits for CAFOs.
- Discussions with EPA-Region V.

As stated in the Small Business/Final Regulatory Flexibility Analysis, since most large CAFOs are also considered to be small businesses there is limited flexibility to monitoring, reporting, schedule and compliance requirements contained in the rule.

The Department addressed potential opportunities for minimizing impacts on small business primarily through the practical and technical input provided by the NR 243 Technical Advisory Committee (TAC) and through public comment received on the proposed rule revisions. The NR 243 TAC provided input on what could be considered practical and economically sound means of compliance with proposed rules while minimizing potential water quality impacts. In addition, public comment identified particular areas of concern for small businesses. In some instances, the Department believed that establishing less stringent requirements for small businesses would have rendered portions of the NPDES permit program ineffective (e.g., reducing the amount of information that would be required to be provided to the Department to demonstrate compliance with land application requirements). Where possible, the Department has tried to standardize requirements as well as providing standardized reporting forms to improve consistency and simplify compliance.

10. Anticipated private sector costs: Fiscal impacts on the private sector primarily relate to phosphorus-based nutrient management requirements and to storage design requirements for solid and liquid manure. The Department estimates that the total first year costs of the rule could range from \$90,000 to \$33.3 million statewide, or no additional cost to approximately \$500,000 per operation. Since the great majority of costs are associated with manure storage requirements, fiscal impacts are highly dependent on the number of months of liquid manure storage individual operations currently have. For example, the Department has documented that approximately 80% of currently permitted operations already have six months of storage, which would significantly reduce potential first year costs.

Using a variety of assumptions, the Department estimates a first-year statewide increase in costs associated with phosphorus-based nutrient management requirements of about \$90,000. In estimating the cost impact, the Department assumed that 8 operations would be restricted by the phosphorus-based nutrient management planning requirements for the first time as a result of the revised rules. Based on an estimated cost of \$5.63 per animal unit per year for phosphorus-based management and an average of 2,000 animal units per CAFO, the total first year cost associated with the new rule is \$90,000 for proposed phosphorus-based nutrient management requirements.

The Department estimates total first year costs associated with manure storage requirements at \$4.2 million to \$33.2 million. This cost estimate assumes that 50-80% of all current and new CAFOs have or will have 6 months of liquid manure storage regardless of the proposed revisions to ch. NR 243 and would not be impacted by the storage provisions in the proposed rule changes. The remaining 20-50% would need to build some amount of storage to comply with the proposed rule changes. If one assumes that a 2,000 animal unit operation produces 736,100 cubic feet of manure and process wastewater in a 6 month period, the range of manure storage construction costs would be \$257,700 to \$404,900 for six months of storage. If 20-50% of the current and new CAFOs would have otherwise built at least a 3 month storage, irrespective of the new NR 243 requirements, the total first year cost is estimated at \$4.2 million to \$16.6 million. If 20-50% of the current and new CAFOs would not have otherwise built any storage and are required to construct 6 month storage, the total first year cost is estimated at \$8.5 million to \$33.2 million.

11. Effect on small business: The proposed revisions to ch. NR 243 will result in additional construction and management costs for certain small businesses since many of the operations that fall under the CAFO regulations are small businesses. Costs to small businesses are identified in section 10 (Anticipated private sector costs) and additional impacts to small businesses are included in the Small Business/Final Regulatory Flexibility Analysis.

12. Enforcement:

Large Concentrated Animal Feeding Operations (CAFOs). Enforcement of the rules that apply to large CAFOs occur through stepped enforcement actions such as issuance of notices of violation (NOV) and enforcement conferences. Furthermore, pursuant to s. 283.89(1), Stats., violations of the rules, WPDES permit terms and conditions or ch. 283, Stats., may be referred to the Wisconsin Department of Justice. Under ss. 283.87, 283.89 and 283.91, Stats., if the Department finds that an owner or operator of a large CAFO is violating: (1) a term or condition of its WPDES permit, or (2) any requirement in these rules or chapter 283, Stats., the Department, through a referral to DOJ, may seek temporary or permanent injunctive relief and may seek civil and criminal penalties. In such enforcement actions, the state may also recover the costs of investigating the violations, expenses of prosecution and the costs of removing and remedying the adverse effects to waters of the state that were caused by the violations. The Department considers several factors when choosing appropriate enforcement actions. Some of these factors include degree of harm to the environment, frequency or number of violations, whether violations

were due to negligent or intentional actions, whether violations were reported upon discovery, and whether actions were taken to minimize impacts to the environment.

Medium and Small Concentrated Animal Feeding Operations (CAFOs). If a medium or small CAFO holds a WPDES permit, the enforcement options discussed above for large CAFOs also apply to WPDES permitted medium and small CAFOs if an owner or operator of the permitted CAFO has a violation of the rules, chapter 283 or the terms and conditions of the WPDES permit.

Medium and Small Animal Feeding Operations (AFOs). If a medium or small farm has a discharge of pollutants, the Department may take several actions under these rules depending on the type or category of discharge. These actions include enforcement conferences, referring the matter to the county, issuing a notice of discharge (NOD), requiring WPDES permit coverage or referring the matter to the Department of Justice for penalties or other relief under ss. NR 281.98, or or 283.87, 283.89 and 283.91, Stats. Under s. 281.16(3), Stats., if the discharge is caused by noncompliance with the state performance standards and prohibitions established in ch. NR 151, and the discharge is not considered a point source discharge, then the Department must make cost share dollars available to the operator to achieve compliance if the discharge is from an existing facility or practice. Cost sharing is not required for compliance for new farms or practices. Counties are also responsible for implementing the performance standards and prohibitions so the Department may refer these cases to the county to work with a farm to achieve compliance.

13. Agency contact person:

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Modifications to WT-21-05 as requested by the Senate Committee on Agriculture and Insurance

NR 243.03 DEFINITIONS

(24) “Frozen ground” means soil that is frozen anywhere ~~within the first~~between the first ½” and 8” of soil as measured from the ground surface.

Note: Under the definition of frozen ground, soil that is that frozen to a depth of ½” or less as measured from the ground surface is not considered frozen ground.

(57) “Saturated soils” means soils where all pore spaces ~~in 50% or more of the top 12 inches of the soil profile~~ are occupied by water ~~such that~~ and where any additional inputs of water or liquid wastes cannot infiltrate into the soil.

NR 243.14(2) GENERAL REQUIREMENTS

(b) A permittee who land applies manure or process wastewater shall land apply all manure and process wastewater in compliance with the following requirements:

1. Manure or process wastewater may not pond on the application site.
2. During dry weather conditions, manure or process wastewater may not run off the application site, nor discharge to waters of the state through subsurface drains.

~~Note: If manure or process wastewater leaves the site through a subsurface drain and is deposited on another person’s property or is deposited in an area that may reach waters of the state, the department may require actions to clean up the deposited manure or process wastewater and may require that the permittee implement best management practices to keep manure and process wastewater on the application site.~~

3. Manure or process wastewater may not cause the fecal contamination of water in a well.

4. Manure or process wastewater may not run off the application site nor discharge to waters of the state through subsurface drains due to precipitation or snowmelt except if the permittee has complied with all land application restrictions in this subchapter and the WPDES permit, and the runoff or discharge occurs as a result of a rain event that is equal to or greater than a 25-year, 24-hour rain event.

~~Note: If manure or process wastewater leaves the site through a subsurface drain and is deposited on another person’s property or is deposited in an area that may reach waters of the state, the department may require actions to clean up the deposited manure or process wastewater~~

~~and may require that the permittee implement best management practices to keep manure and process wastewater on the application site.~~

13. Manure or process wastewater may not be surface applied when ~~the National Weather Service predicts, within 24 hours of the end of the application, a 70% chance or greater of 0.5 inches of rain during non-frozen or non-snow-covered ground conditions or a 50% chance or greater of 0.25 inches of rain during frozen or snow-covered ground conditions. The permittee shall identify the appropriate local National Weather Service station or stations it will use in the nutrient management plan~~precipitation capable of producing runoff is forecast within 24 hours of the time of planned application.

~~Note: National Weather Service information is available at <http://www.nws.noaa.gov>.~~

NR 243.14(6) SOLID MANURE WINTER RESTRICTIONS

(c) High-risk runoff period. 1. Beginning January 1, 2008, solid manure may not be surface applied from February 1 through March 31 if any of the following conditions exist on the area of the field where the manure is to be applied:

- a. Snow is present ~~in any amount~~to a depth of one inch or greater.
- b. The ground is frozen.

(d)~~1.~~ To meet the requirements of par. (c), ~~if a permittee chooses~~may choose to stack solid manure generated at a production area location in accordance with s. NR 243.141(1) rather than use a storage facility that meets the design requirements in s. NR 243.15, ~~the permittee may not surface apply any solid manure generated at that production area location on any areas of a field where snow is present in any amount or the ground is frozen, except as provided in subd. 2.~~

~~2. A permittee that chooses to stack solid manure generated at a production area location in accordance with s. NR 243.141 may not surface apply the stacked manure during the months of February and March, but on a case-by-case basis the permittee may receive permission from the department to surface apply stacked solid manure during other months when the ground is frozen or snow covered if the manure has a solids content of greater than 32% and the application is done in accordance with the requirements in pars. (a) and (b). To receive approval under this subdivision, the permittee shall provide studies to the department that demonstrate that stacking the solid manure does not pose additional risks to water quality in comparison to storing the manure. Factors the department shall consider in an approval include the potential for leachate or~~

~~runoff from the stack causing exceedances of surface water or groundwater quality standards or impairments to wetland functional values, information submitted or proposed to be submitted by the permittee outlining leaching and runoff characteristics of the manure, and practices to be implemented by the permittee to minimize the potential for leachate or runoff from the stack such as limiting the frequency, volume of manure to be stacked and length of stacking period.~~

NR 243.141 MANURE STACKING

(1) STACKING TO AVOID ~~WINTER~~ SURFACE APPLICATIONS IN FEBRUARY AND MARCH. For solid manure with a solids content of 16% or greater, the department may approve stacking of the manure outside of a department approved manure storage facility where a permittee chooses to stack solid manure in accordance with s. NR 243.14(6)(d). Permittees choosing to stack solid manure under s. NR 243.14(6)(d) shall land apply all stacked manure from a site within 8 months of the date when stacking first began at the site.

~~**Note:** Under s. NR 243.14(6)(d), stacking is only allowed if a permittee chooses to stack solid manure in lieu of surface applying solid manure on frozen or snow covered ground.~~

NR 243.17 OPERATION AND MAINTENANCE

(5) SOLID MANURE-MAINTAINING STORAGE DURING FEBRUARY AND MARCH. Pursuant to s. NR 243.15(3)(g) and (h), once a permittee has constructed or established properly designed manure storage facilities or a system of properly designed facilities that provide storage for solid manure generated at an operation site during February 1 through March 31, the operation shall operate and maintain the storage facilities or system to continue to provide storage for all solid manure generated at the operation site from February 1 to March 31, or otherwise obtain department approval to stack some or all of the manure in accordance with ss. NR 243.14(6)(d) and 243.141(1).

NR 243.19(1)(a) INSPECTIONS

3. Weekly inspections of liquid storage and containment structures. For liquid storage and containment facilities, the berms shall be inspected for leakage, seepage, erosion, cracks and corrosion, rodent damage, excessive vegetation and other signs of structural weakness. In

addition, the level of material in all liquid storage and containment facilities shall be measured and recorded in feet or inches above or below the margin of safety level.

NR 243.26 WPDES PERMITS FOR MEDIUM AND SMALL CAFOS

NR 243.26 WPDES permits for medium and small CAFOs. (1)

~~GENERAL OPERATIONS DEFINED AS A MEDIUM CAFO.~~ Any owner or operator of an animal feeding operation with 300 to 999 animal units shall submit a complete application for a WPDES permit to the department before a category I discharge to navigable waters occurs. An owner or operator of an animal feeding operation that has 300 to 999 animal units may not have a Category I discharge to navigable waters under s. NR 243.24(1)(a) unless the discharge is covered by and in compliance with a WPDES permit. In the event an owner or operator of an animal feeding operation has a Category I discharge to navigable waters and that operation is not covered by a WPDES permit at the time of the discharge, the owner or operator shall immediately contact the department and shall immediately apply for a WPDES permit.

(2) ~~DESIGNATING OPERATIONS DESIGNATED AS MEDIUM AND/OR SMALL~~ CAFOS. (a) Subject to par. (c), ~~for animal feeding operations not already defined as a CAFO under sub. (1),~~ the department may designate an animal feeding operation with 999 animal units or less as a CAFO if all of the following occur:

1. The department conducts an onsite investigation of the operation.
2. The department determines one of the following:
 - a. The operation is a significant contributor of pollutants to navigable waters and the department considers the factors in par. (b) when making this determination; or
 - b. The operation has caused the fecal contamination of water in a well constructed in accordance with ch. NR 811 or 812.
3. For discharges of pollutants from land applied manure or process wastewater to navigable waters by an animal feeding operation with 300 to 999 animal units, the department determines the discharge was not an agricultural storm water discharge.
4. The department provides written notification to the owner or operator of the designation.

Note: Consistent with past regulatory practices, the department intends to continue to work cooperatively with animal feeding operations to address discharges to waters of the state to

the maximum extent practicable in order to make designation of an operation as a CAFO unnecessary. This approach includes using voluntary programs or the issuance of an NOD, which typically provides an opportunity to obtain cost-share and technical assistance, to aid an operation to implement corrective measures.

(4) WPDES TERMS AND CONDITIONS. (a) WPDES permits issued under this subchapter shall contain requirements designed to implement corrective measures to address unacceptable practices, to protect groundwater and surface waters, and to prevent impairments to wetland functional values. At a minimum, permits shall contain requirements that a permittee do all of the following:

1. Comply with livestock performance standards and prohibitions, regardless of the availability of cost sharing.
2. Address manure, process wastewater and contaminated runoff from the production area in a manner that is consistent with accepted management practices and that treats or contains all manure, process wastewater and contaminated runoff for storm events up to and including a 25-year, 24-hour storm event.

Note: In determining accepted management practices for small and medium CAFOs, the department shall consider the factors contained in 40 CFR § 125.3(d).

3. Control all discharges from the production area in a manner that does not cause exceedances of groundwater or surface water quality standards or impair wetland functional values.
4. Develop and implement a nutrient management plan in accordance with s. NR 243.14 for the land application of manure and process wastewater.
5. Comply with the requirements in ss. NR 243.13(5)(b) and (6) to (8) and 243.142(5).
6. Conduct periodic inspections of the production area and land application equipment at a frequency specified in the WPDES permit.
7. Conduct manure, process wastewater and soil sampling in accordance with WPDES permit conditions.
8. Maintains and submit reports to the department in accordance with WPDES permit conditions.

Note: The WPDES permit requirements outlined in this subsection for small and medium CAFOs, including the requirement to develop and implement a nutrient management plan in accordance with s. NR 243.14, are only mandatory for those small and medium operations

that have been issued a WPDES permit. For small and medium AFOs that have not been issued a WPDES permit, nutrient management requirements contained in ATCP 50 apply.