

2017 Nutrient Management Plan

Daybreak Foods, Inc.

Initial NMP (New Fields)

Phillips Crop Care LLC
Phillip Laatsch
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Nutrient Management Plan Checklist Livestock / Poultry Operation WPDES Permit Application

Form 3400-025B (R 3/15)

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Notice: Pursuant to ch. NR 243, Wis. Adm. Code and s. 283.53(3), Wis. Stats., this form is required to be submitted, along with Form 3400_025A and all other required application materials, by the owner or operator of a concentrated animal feeding operation (CAFO). The Department will not consider your application unless you provide and submit complete information. Penalties for failure to submit a completed form are established in ss. 283.89 and 283.91, Wis. Stats. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.)

I. Operation Information			
Operation Daybreak Foods, Inc. LMC	Contact Keith Kulow	WPDES Permit No 5 7 5 5 0	
Location Address-Street, Route or Box 533 E Tyrarena Park Road, PO Box 800	City Lake Mills	State WI	ZIP Code 53551
Phone Number (inc area code) (920) 988-0359	Cell Phone Number	Fax Number	Email Address

II. Preparer Information			
Name of Crop Consultant Phillip Laatsch	Company/Title Phillips Crop Care, LLC - CCA #28879		
Mailing Address-Street, Route or Box 502 E Mill Street	City Beaver Dam	State WI	ZIP Code 53916
Phone Number (inc area code) (920) 296-6044	Cell Phone Number (920) 296-6044	Fax Number	Email Address phillipscropcare@yahoo.com

1. Plan Type: (select one) <input checked="" type="radio"/> Initial Plan <input type="radio"/> Annual Update <input type="radio"/> Permit Renewal	Applicable growing season 2016 to Fall 2017
2. Total acreage covered by NMP: <u>10,723.35</u> acres	Total cropland acreage, owned: <u>168.00</u> acres
Total spreadable acreage: <u>10,723.35</u> acres	Total agreement or rented acreage: <u>10,555.35</u> acres
3. Total acreage used for land application in previous 12 months: <u>9,684.70</u>	Total animals at facility in previous 12 months: <u>12,484.00</u>

III. NR 243 CAFO Nutrient Management Plan (NMP) Checklist

Check yes or no and provide the location (section) of the item in the NMP. Failure to provide item location may delay review of the NMP by the DNR and/or require resubmittal of the checklist with this information.

	Yes	No	Section
1. Does plan meet Wisconsin's NRCS 590 Nutrient Management Standard nutrient budgeting, soil test recommendations, selecting dominant critical soil unit criteria and establishing perennial vegetation in all areas of concentrated flow resulting in reoccurring gullies?	<input checked="" type="radio"/>	<input type="radio"/>	
2. Does plan contain fields with high potential for N leaching to groundwater? If yes, do these fields meet NRCS 590 soil temperature, application rate and timing restrictions?	<input type="radio"/>	<input checked="" type="radio"/>	
3. Does plan contain NRCS 590 response procedures for manures, organic byproducts and fertilizer applications that cause drainage to subsurface tiles, ponding or runoff? (NOTE: Such procedures must include methods to prevent offsite movement of nutrients - via subsurface tile discharge or surface runoff - to waterways and notify DNR of spills or accidental release)	<input checked="" type="radio"/>	<input type="radio"/>	
4. Does plan contain a copy of NRCS 590 checklist?	<input checked="" type="radio"/>	<input type="radio"/>	
5. Does plan have a narrative that describes:	<input checked="" type="radio"/>	<input type="radio"/>	
a. Expected numbers of animal units on site at end of first year of permit coverage and also expected numbers for remaining permit term (next 4 yrs). - NR 243.12(2)(6), Wis. Adm. Code.	<input checked="" type="radio"/>	<input type="radio"/>	
b. Expected amounts and types of manure and process wastewater produced on annual basis.	<input checked="" type="radio"/>	<input type="radio"/>	
c. Amount of manure and process wastewater to be land applied.	<input checked="" type="radio"/>	<input type="radio"/>	
d. Anticipated frequency and method(s) of land application.	<input checked="" type="radio"/>	<input type="radio"/>	
e. Other methods of use, disposal, distribution or treatment of manure or process wastewater.	<input checked="" type="radio"/>	<input type="radio"/>	
f. Tillage and crop rotation information for all fields owned or rented or in 'agreements'.	<input checked="" type="radio"/>	<input type="radio"/>	
g. Total acreage available (by landowner) for land application owned, rented or in 'agreements'.	<input checked="" type="radio"/>	<input type="radio"/>	

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	Yes	No	Section
h. General manure and process wastewater application requirements - NR 243.14(2)(b)(1-13) & (c-f), Wis. Adm. Code AND methods explaining how they will be met on all fields in plan (e.g., field and map verification procedures, applicable best management practices and recordkeeping procedures to track actions taken).	<input checked="" type="radio"/>	<input type="radio"/>	
i. Nutrient crediting requirements - NR 243.14(3), Wis. Adm. Code- and how they will be met.	<input checked="" type="radio"/>	<input type="radio"/>	
j. SWQMA application restriction option for each field AND methods explaining how restriction(s) will be met - NR 243.14(4), Wis. Adm. Code.	<input checked="" type="radio"/>	<input type="radio"/>	
k. Phosphorus delivery method (P Index or Soil Test P) for each field AND management strategy for fields with soil test P above 100 ppm and 200 ppm - NR 243.14(5), Wis. Adm. Code.	<input checked="" type="radio"/>	<input type="radio"/>	
l. Fields adjacent to or with high potential to drain to impaired or outstanding/exceptional waters (see DNR impaired waters map tool: http://dnr.wi.gov/topic/surfacewater/swdv/).	<input checked="" type="radio"/>	<input type="radio"/>	
m. Identification of sites for winter (frozen or snow covered ground) applications that meet criteria in tables 4 and 5 for manure - NR 243.14(6-8) - AND methods explaining how they will be met. (NOTE: Fields selected for winter application must have the lowest risk of pollutant delivery to waters of the state and have winter acute loss index value of 4 or less using the Wisconsin Phosphorus Index).	<input checked="" type="radio"/>	<input type="radio"/>	
n. Documentation of adequate storage (180 days) and methods of maintaining adequate storage - NR 243.14(9) and NR 243.17(3), Wis. Adm. Code.	<input checked="" type="radio"/>	<input type="radio"/>	See notes
6. Are the following field features identified as restricted or high risk areas on spreading maps: (NOTE: Checking yes requires plan narrative to describe methods or procedures to identify, avoid, eliminate or minimize the surface or ground water quality risk each feature represents).			
a. Private, non-community drinking water well (100ft setback).	<input checked="" type="radio"/>	<input type="radio"/>	
b. Community drinking water well (1,000ft setback).	<input checked="" type="radio"/>	<input type="radio"/>	
c. Soils within 24 inches of apparent water table or bedrock at time of application (NOTE: water table depth may vary over time and requires field investigation to determine actual depth to groundwater before application).	<input checked="" type="radio"/>	<input type="radio"/>	
d. Fields over 200 ppm soil test phosphorus (manure spreading prohibited unless department approval).	<input type="radio"/>	<input checked="" type="radio"/>	
e. Direct conduits to groundwater (100ft setback).	<input type="radio"/>	<input checked="" type="radio"/>	
f. SWQMA areas and 100ft prohibition, or equivalent. (NOTE: maps must identify all conduits to navigable waters. These include: ditches, concentrated flow channels, sinkholes, agricultural well heads, open tile line intake structures or open vent pipes in fields that discharge to navigable waters and grassed waterways that drain directly to a navigable water). See DNR navigable waters fact sheet: http://dnr.wi.gov/topic/waterways/factsheets/navigability_factsheet.pdf .	<input checked="" type="radio"/>	<input type="radio"/>	
g. Wetlands and 25ft setback OR start of the SWQMA if connected to navigable water - NR 243.14 (4)(a) (2), Wis. Adm. Code. See DNR wetlands map tool: http://dnr.wi.gov/topic/surfacewater/swdv/	<input checked="" type="radio"/>	<input type="radio"/>	
h. Fields adjacent to or with high potential to drain to impaired or outstanding/exceptional waters (see DNR impaired waters map tool: http://dnr.wi.gov/topic/surfacewater/swdv/).	<input checked="" type="radio"/>	<input type="radio"/>	
i. Soils with: (1) High Permeability; (2) Within 20 inches to bedrock; or (3) Within 12 inches to apparent water table. (see Appendix 1, WI Tech Note WI-1 http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_020655.pdf).	<input checked="" type="radio"/>	<input type="radio"/>	
j. Fields with ephemeral erosion, reoccurring gullies or concentrated flow channels. (NOTE: fields with such soil erosion features do not meet NRCS 590 and need to be stabilized with perennial vegetation or other runoff reducing practices. Once established, manure cannot be applied within vegetated flow channels/grassed waterways. If detected, describe in narrative how and when such areas will be stabilized before any manure is applied on fields where gullies exist.)	<input type="radio"/>	<input type="radio"/>	
k. Fields exceeding T - tolerable soil loss - over the crop rotation.	<input checked="" type="radio"/>	<input type="radio"/>	
l. Subsurface drainage systems (e.g., drain tiles and their outlets).	<input type="radio"/>	<input checked="" type="radio"/>	
7. Does field size and planned manure spreading to all fields reflect acreage lost to SWQMA or other required setbacks?	<input type="radio"/>	<input checked="" type="radio"/>	

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	Yes	No	Section
8. Is phosphorus being correctly managed:	<input checked="" type="radio"/>	<input type="radio"/>	
a. Fields 50-100ppm P: Balance P needs over a maximum 8 year rotation?	<input checked="" type="radio"/>	<input type="radio"/>	
b. Fields 100-200ppm P: Drawdown P by 50% cumulative crop removal over a maximum 4 year rotation AND P Index ≤ 6?	<input checked="" type="radio"/>	<input type="radio"/>	
c. Is commercial P above 20lbs in starter being added to fields over 50 ppm P?	<input type="radio"/>	<input checked="" type="radio"/>	
9. Are manure analyses being taken, at least annually, for every sample point in the permit and being used to develop the plan? If not completed yet, provide schedule when manure testing will be completed in narrative when plan will be updated with this information.	<input checked="" type="radio"/>	<input type="radio"/>	
10. Is all manure produced by the farm allocated over the entire rotation or five year permit term? (NOTE: A rotation may be longer or shorter than a five year permit term. If shorter than 5-years, the rotation must repeat or be amended to reflect, at least, the 5 year permit term).	<input checked="" type="radio"/>	<input type="radio"/>	
11. Are all commercial fertilizers and off-farm nutrients included for every year of rotation?	<input checked="" type="radio"/>	<input type="radio"/>	
12. Are all fields owned, rented or in agreements with farm that have, or are planned to, receive manure or process wastewater included in plan? (NOTE: Once a field is included in the plan it must remain so regardless of use/status for the 5-year permit term or rotation - this includes fields used only once during permit term or a rotation. For such fields, projecting what nutrients may be applied is required.)	<input checked="" type="radio"/>	<input type="radio"/>	
13. Are all fields in plan managed for the entire rotation? Managed for the entire rotation means: Planning for the sequence of crops, tillage, budgeting and application of nutrients for up to an 8-year period in order to determine field rotational soil loss, rotation avg. P Index, and applicable manure or legume credits for each rotation year.	<input checked="" type="radio"/>	<input type="radio"/>	
14. If any fields in plan do not receive manure during the rotation, do they follow UW A2809 crop recommendations for other applied nutrients?	<input checked="" type="radio"/>	<input type="radio"/>	
15. Are calibrations provided in plan for all manure hauling equipment (including equipment not owned by the farm)? If no, provide schedule when calibrations will be completed in narrative.	<input checked="" type="radio"/>	<input type="radio"/>	
16. Does plan include copies of soil testing for all NMP fields and manure testing results? If not completed yet, provide in narrative a schedule when testing for soil for specific fields or manure will be completed and when plan will be updated with this information.	<input checked="" type="radio"/>	<input type="radio"/>	
17. If available, have prior year(s) records (e.g., crop, tillage, nutrients applied) been included in NMP calculations to reflect what actually happened on each field vs. what was planned?	<input checked="" type="radio"/>	<input type="radio"/>	
18. Are any fields receiving over-applications of nitrogen based on UW Publication A2809?	<input checked="" type="radio"/>	<input type="radio"/>	See notes

Comments

IV. Certification

I certify that the CAFO Nutrient Management Plan criteria listed above is:

- (1) in compliance with all NR 243.14, Wis. Adm. Code, and applicable NRCS 590 criteria, and
- (2) all plan requirements have been reviewed by farm operator/owner

I understand that pursuant to s. 283.91(4), Wis. Stats., any person who knowingly makes any false statement representation or certification in a document filed with the DNR may be punished by a fine of not more than \$10,000 or by imprisonment for not more than 6 months or both.

Philip Lambert 28879

(Signature of Official Farm Representative)

Date 08/19/2016



Wisconsin Department of Agriculture, Trade & Consumer Protection
 Division of Agricultural Resource Management
 Bureau of Land and Water Resources
 PO Box 8911, Madison WI 53708-8911, Phone: 608-224-4605

Nutrient Management Plan Checklist

Sec. 92.05(3)(k), Wis. Stats.
 ATCP 50.04(3) Wis. Admin. Code

Use this form to check nutrient management (NM) plans for compliance with the WI NRCS 590 Standard (Sept. 2005).

County name: Jefferson, Dodge Date Plan Submitted: 08/19/2016 Growing season year NM plan is written for Fall 2016 - Fall 2017 (from harvest to harvest)

Township (T. N) – (R. E) Initial Plan or Updated Plan (choose one)

Name of qualified nutrient management planner Phillip Laatsch CCA # 28879		Planner's business name, address, phone: Phillips Crop Care, 502 E Mill St. Beaver Dam WI 920 296 6044	
Circle the planner's qualification: 1. <input type="checkbox"/> NAICC-CPCC 2. <input checked="" type="checkbox"/> ASA-CCA 3. <input type="checkbox"/> ASA-Professional Agronomist 4. <input type="checkbox"/> SSSA-Soil Scientist 5. <input type="checkbox"/> DATCP approved training course 6. <input type="checkbox"/> Other credentials approved by DATCP	Cropland Acres (owned & rented) 284.64	Name of farm operator receiving nutrient management plan: Plan holder - Daybreak Foods, Inc. LMC	
	Rented farm(s) landowner name(s) and acreage: J&S Farms: Kornsted 206.83 ac, Kuhn Farm 41.81 ac		
Check relevant program requirement/regulation plan developed for: <input checked="" type="checkbox"/> Ordinance <input type="checkbox"/> USDA <input checked="" type="checkbox"/> DATCP <input checked="" type="checkbox"/> DNR <input checked="" type="checkbox"/> NR 243 – <input type="checkbox"/> NOD or <input checked="" type="checkbox"/> WPDES			

Yes No NA

1. Are the following field features identified on maps or aerial photos in the plan?			
a. Field location, soil survey map unit(s), field boundary, acres and field identification number	X		
b. Areas prohibited from receiving nutrient applications: Surface water, established concentrated flow channels with perennial cover, permanent non-harvested vegetative buffer, non-farmed wetlands, sinkholes, lands where established vegetation is not removed, nonmetallic mines, and fields eroding at a rate exceeding tolerable soil loss (T)	X		
c. Areas within 50 feet of a potable drinking water well where mechanically-applied manure is prohibited	X		
d. Areas prohibited from receiving winter nutrient applications: Slopes > 9% (12% if contour-cropped); Surface Water Quality Management Area (SWQMA) defined as land within 1,000 ft of lakes and ponds or within 300 ft of perennial streams draining to these waters, unless manure is deposited through winter gleaning/pasturing of plant residue and not exceeding the N and P requirements of this standard; Additional areas identified within a conservation plan as contributing runoff to surface or groundwater	X		
e. Areas where winter applications are restricted unless effectively incorporated within 72 hours: Land contributing runoff within 200 feet upslope of direct conduits to groundwater such as a well, sinkhole, fractured bedrock at the surface, tile inlet, or nonmetallic mine	X		
f. Sites vulnerable to N leaching: Areas within 1,000 feet of a municipal well, and soils listed in Appendix 1 of the Conservation Planning Technical Note WI-1	X		
2. Are erosion controls implemented so the crop rotation will not exceed T on fields that receive nutrients according to the conservation plan or WI P Index model?			
	X		
3. Were soil samples collected and analyzed within the last 4 years according to UW Publication A2100 recommendations?			
	X		
4. Using the field's predominant soil series and realistic yield goals, are planned nutrient application rates, timing, and methods of all forms of N, P, and K listed in the plan and consistent with UW Publication A 2809, Soil Test Recommendations for Field, Vegetable and Fruit Crops, and the 590 standard?			
	X		
5. Do manure production and collection estimates correspond to the acreage needed in the plan? Are manure application rates realistic for the calibrated equipment used?			
	X		
6. Is a single phosphorus (P) assessment of either the P Index or soil test P management strategy uniformly applied to all fields within a tract?			
	X		
7. Are areas of concentrated flow, resulting in reoccurring gullies, planned to be protected with perennial vegetative cover?			
	X		
8. Will nutrient applications on non-frozen soil within the SWQMA comply with the following?			
a. Unincorporated liquid manure on unsaturated soils will be applied according to Table 1 of the 590 standard to minimize runoff	X		
b. One or more of the following practices will be used: 1) Install/maintain permanent vegetative buffers, or 2) Maintain greater than 30% crop residue or vegetative coverage on the surface after nutrient application, or 3) Incorporate nutrients leaving adequate residue to meet tolerable soil loss, or 4) Establish fall cover crops promptly following application	X		

I certify that the nutrient management plan represented by this checklist complies with Wisconsin's NRCS 590 nutrient management standard.



Wisconsin Department of Agriculture, Trade & Consumer Protection
Division of Agricultural Resource Management
Bureau of Land and Water Resources
PO Box 8911, Madison WI 53708-8911, Phone: 608-224-4605

Nutrient Management Plan Checklist

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ATCP 50.04(3) Wis. Admin. Code

Use this form to check nutrient management (NM) plans for compliance with the WI NRCS 590 Standard (Sept. 2005).

Signature of qualified nutrient management planner

Philip Lantieri 28879

SnapPlus Narrative and Crops Report

Starting Year	2017
Reported For	Daybreak Foods Inc. LMC
Printed	2016-07-07
Plan Completion/Update Date:	2016-05-03
SnapPlus Version 15.1 built on 2015-12-18	
C:\Users\Liz\Desktop\Working Files\Daybreak Foods.snapDb	

Prepared for:

Daybreak Foods Inc. LMC
attn:Keith Kulow
533 E. Tyranena Park Road, P.O. Box 800
Lake Mills, 53551

Prepared by: Phillips Crop Care LLC

502 E Mill St
Beaver Dam, 53916
920 296 6044, phillipscropcare@yahoo.com

Farm has 462 fields totalling 10720.4 acres

Farm Narrative: Daybreak Foods/Lake Mills Complex

2017 NMP Annual Update

Fall 2016 through Fall 2017

Permit # 0057550-05-0

Phillips Crop Care LLC

502 E Mill St.

Beaver Dam WI 53916

phillipscropcare@yahoo.com

920 296 6044

This NMP includes 10,730.2 cropland acres to land apply manure and the wash water. Crops grown include; corn for grain, soybean, winter wheat, new seeding alfalfa, and alfalfa.

The 2017 NMP includes all cropping, fertilizer, and tillage changes from 2016. The cropping years included in the NMP are 2016 through 2019.

Approved Manure Stacking Sites: DNR Approval Date 2/11/2016, Kuhl, F12, Holstein F1, Moll F1, O'Hara F2, Spangler F1, Farm 3 F6.

Approved Manure Stacking Sites: DNR Approval Date 2/18/2014, Darren F1, Farm 3 F5, Pat Long F3, Spangler F1, Starker F2, Webber F2. No manure stacks were used in 2014 or 2015.

Daybreak Foods Inc; Farm Narrative

Daybreak Foods owns and operates an egg laying farm, an egg breaking plant, and one pullet growing farm. All birds grown at the pullet farm are delivered to the laying farms and the eggs produced at the laying farms are transferred to the egg breaking plant. At the breaking plant the eggs are broken, liquid egg is produced and sold to companies specializing in further egg processing. During the process two waste streams are created consisting of manure and plant waste water. This nutrient management plan was developed to insure that the waste products are utilized in compliance with the conditions of the companies WPDES permit.

The facilities described above are:

1. The Lake Mills Complex laying farm and breaking plant located at N6680 Highway 0, Marshall
2. The Aztalan Pullet Farm located at W6178 Hwy B, Jefferson, This farm was sold in Spring of 2016, going forward this farm is not part of Daybreak Foods LMC DNR Permit. As of the time that I was writing the NMP I didn't have the Daily Spread Logs for the liquid manure that was spring applied, to empty the liquid storage unit the spring of 2016. When I get those sheets I can document the information in the NMP. (This facility has now been sold and will not be part of the DNR Permit in the future.

The Lake Mills Complex has a maximum capacity of 1,015,000 laying hens that produce eggs in six separate high-rise poultry buildings. Inside the layer barns the chickens live in cages located in the upper level of the barn and the manure produced is stored in the lower level of the barn. The area the manure is stored in is above ground and has concrete floors and side walls. More than one year of manure production can be stored in the building. The manure produced by the layer operations is dry, averaging 10-15% moisture, and is trucked or hauled in manure spreaders to the fields for application.

The Aztalan Pullet Farm is a pullet growing operation that houses 214,000 pullets. The pullet farm uses a liquid manure storage system. The pullets live in cages and the manure produced in the house falls in concrete pits in the barn which hold about one week of manure. Manure from the concrete pits is then pumped into a 101' diameter concrete tank which can hold approximately 6 months of manure production. The manure produced at the pullet farm is hauled in enclosed liquid tanks that are either mounted on a truck or mounted on wheels and pulled with a tractor to the fields for land application. (This Facility Now is SOLD)

The Lake Mills Breaking Plant sorts, washes, and breaks fresh eggs. During the process waste water is generated by washing the eggs, equipment and the building interior. This waste water is collected and stored in a stainless steel silo with a capacity of 40,000 gallons. Depending on the level of production the plant will produce between 8,000 and 20,000 gallons of waste water per day. The waste water is moved to the fields or to a DNR licensed storage facility by trucks.

Manure from the farms and waste water from the breaking plant is spread on nearby land that is operated by Dave Schroeder of Lake Mills, or to other farms surrounding the manure production sites. Each farm that is in the NMP controls the entire crop farming program including crop rotation, fertilizer programs, soil testing program, and erosion control program. Manure is applied using a strategy to supply the next year's nitrogen, phosphate, potash, and sulfur needs of the crop. The manure is applied to the land by employees of Dave Schroeder and the waste water is applied by employees of Daybreak Foods. Records for the program are kept at Daybreak Foods corporate offices located at 533 Tyranena Road, Lake Mills.

Daybreak facilities are designed to divert rainwater and all surface water away from manure storage structures. Bi-monthly inspections of facilities, livestock, and water usage are documented and kept on file at Daybreak Foods corporate offices located at 533 Tyranena Road, Lake Mills.

Narrative for Waste Water Waste Water Application Plan Strategy Land Application and Transportation

Daybreak Foods owns and operates a waste water tanker that is constructed so that the waste water may be loaded from the facility into the truck in a spill free manner on a concrete pad. A gauge is located on the rear and front of the truck to indicate when the tanker is fully loaded. Once loaded, the waste water is then transported to a DNR approved land spreading site listed in Daybreak's NMP where it is land spread at a rate determined by the criteria described in the next section. All Daybreak Foods wastewater applicators will be properly trained on procedures and observed applying wastewater regularly. When weather conditions permit, waste is spread by use of an irrigation gun off of the truck. This irrigation gun utilizes a 600 gallon per minute pump which propels the waste liquids through a one and one-half diameter gun located on the rear of the truck. This gun spreads the waste liquid across the field in a 150 foot square pattern thus providing a very thin, even application across the site without having to actually travel on the site. 637,200 gallons of wastewater were taken to United Liquid waste for the 2015-2015 cropping season.

Application Criteria

The waste water produced at the Lake Mills Breaking Plant will be tested monthly for BOD, total Kjeldahl nitrogen, chlorides and total phosphorus. The waste water will then be land spread in a manner which limits the application rate of the nutrients to the most restrictive of the following three criteria:

- 1) The most restrictive nutrient (nitrogen) need of the crop being grow.
- 2) Application of wastewater will be restricted to provide less than 165 lbs of nitrogen per acre.
- 3) The maximum hydraulic application rate allowed by the WPDES permit. (Current hydraulic application rates are 6,800 gal/acre/day on frozen ground or 13,500 gal/acre/day on unfrozen ground)
- 4) The maximum chloride application of 170 lbs/acre/year.
- 5) During winter conditions field areas spread must be under 2% slope. Nitrogen is the predominant nutrient in the waste water so Daybreak Foods will calculate waste water application rates based upon the crop nitrogen requirements minus any nitrogen supplied by other sources such as manure and commercial fertilizer applications. Waste water will be applied up to the nitrogen needs of the crop but not exceeding the hydraulic application rate or chloride limit.

The present rate of application is expected to be approximately 15,000 to 30,000 gallons/acre/year. This will be applied at a daily rate of less than the maximum hydraulic loading rate which is 13,500 gallons/acre/day unfrozen, 6,800 gallons/acre/day frozen.

Waste water may be applied alone or to the same fields that receive manure provided that all cumulative nutrient and loading rates are observed. The set back distances from wells, streams, lakes and tile inlets for the waste water application shall follow the industrial waste regulations.

Wastewater Spreading Restrictions

When spreading wastewater the following restrictions will be observed:

- > Landspreading sites shall be located at least 500' from the nearest inhabited dwelling. This distance may be reduced to 200' if the waste is incorporated and owners give their written consent.
- > Wastes may not be landspread closer than 1,000' from a well serving a community and 250' from other potable wells.
- > Landspreading sites may not be located in a floodway.
- > Landspreading sites shall be limited to a slope of 12% or less when soil temperatures are above freezing. When the ground is frozen or snow covered, Landspreading shall be restricted to slopes

of less than 2%.

> Wastewater will not be spread closer than 200' to surface water, except that the minimum separation may be reduced, to a minimum of 100' when a vegetative buffer strip is maintained between the site and the surface water.

> Landspreading sites shall have at least 36" of separation between the ground surface and bedrock or groundwater.

This narrative provided by Chris Roedl; Daybreak Foods Inc. for the Waste Water

Agronomic Narrative

Daybreak Foods Inc. annually produces 5000 ton of solid manure and 2 million gallons of liquid manure. The annual update will project the next cropping year's crops, yield, tillage, and manure or nutrient applications, as well as update the actual previous year's crops, yield, tillage, soil samples, and manure and or nutrient applications, along with updating the Nutrient Spreading Restriction Maps when new nutrient spreading restrictions need to be added.

The Counties included in the NMP are Jefferson, Dane, Columbia, and Dodge. The Farm operators and the farm acres are listed in the Separate Agronomic Narrative.

Crops that are included in the NMP are Corn for Grain, Soybeans, Winter Wheat, and some Alfalfa/Hay. The NMP includes all solid and liquid manure (2017 no liquid manure) that is produced by the farm. The waste water that is produced at the egg breaking plant is land applied using a permit that the DNR office has given Daybreak Foods Inc., the Daybreak Farm Narrative talks more about the egg waste water.

Some farms and acres are listed in the 2017 NMP may not have updated soil samples within the last 4 years. On those fields the soil phosphate level is set for 101 ppm and 50% draw down is targeted on those fields, when the soil samples are updated we will have the soil test results imported and we will manage phosphate according to soil test results. All soil sampled fields are soil tested with a minimum of one sample derived from 5 acres. All soil samples are sent to a Wisconsin Certified Soil Testing Lab. There are 14 Growers that have acres in the NMP, each one of them have their soil samples taken by their own Agronomic Cooperative (agronomic agriculture supplier) or are individually taken.

Solid manure samples are taken by the farm each fall when the manure is removed and a sample is taken from each barn. Liquid manure samples are taken each time the manure pit is emptied. In the NMP average N-P-K values are used for the liquid and the solid. I used 12 units of Nitrogen/ 1000 gal of manure. Fields with soil test phosphate levels over 200 ppm will not be receiving manure in the future without department approval.

The manure is land applied by Dave Schroeder and his employees on farms that he owns, rents, or has neighboring farmers that are in agreement with to land apply the manure. Dave Schroeder and Daybreak Foods Inc. have extra and additional copies of the manure spreading restrictions on each field. The 2016 NMP restriction maps were converted to the new map style that is supported by DATCP. The manure spreading restriction maps are set up using the Manure Management Advisory System, and additional spreading restrictions are added, wells are 200 ft setback, Direct Conduits to Groundwater 100 ft setback. All the Slope, Fall Nitrogen, and SWQMA restrictions are labeled on each map, restrictions updates are added to the maps.

University of Wisconsin nutrient recommendations are followed as close as practical according to UW A2809, with the exception of the crop Winter Wheat. The Winter Wheat crop is usually planted after the soybean harvest. The soybean crop gives us nitrogen credits when we grow the wheat crop the following year, but the soybean nitrogen credits are not available to the winter wheat crop until later in the Winter Wheat life-cycle. Winter Wheat needs the crop nutrient nitrogen real early in the life-cycle; the crop nutrient nitrogen needs to be applied right before the wheat breaks dormancy. The wheat crop needs to have 65 units of nitrogen applied in the spring for the Winter Wheat crop to reach its fullest potential. If the crop nutrient nitrogen is not applied on time the wheat crop will be deficient nitrogen resulting in lost wheat yield. No nitrogen has been applied in the fall in the past. A2809 recommends applying 20 units of nitrogen for the wheat crop in the fall, currently no nitrogen is applied to the wheat crop in the fall.

Some corn fields are listed on Snap-Plus as having additional nitrogen applied, just about all of the fields in the NMP are no-tilled or minimum tilled. The amount of residue on the soil surface makes the crop nutrient nitrogen immobile when nitrogen is applied, thus additional nitrogen needs to be applied to off set the immobilization that takes place. The additional nitrogen applications are needed to off-set the natural immobilization that takes place because of the residue buildup over the years of the no-till Best Management Practice. Residue is always great to see on the soil surface, but some times the residue ends up costing us some yield. A thick mat of residue on the soil surface keeps the soil cool in spring after the crops are planted resulting in less than ideal emergence conditions. Conditions; cooler soils and a harder time for seeds to emerge, seeds not emerging consistently, seeds emerging that had problems and will never catch up to the rest of the plants that emerged earlier uniformly resulting in lower yields. Sometimes the (carbon credit) residue ends up costing us money (reducing yield). Best Management Practices are used as much as possible continue to keep the environment clean and to achieve high yielding crops.

Odor. David is very cautious when applying manure to the crop fields, he knows his neighbors don't want to smell the (fragrance) chicken manure. David will always try to apply manure to the crop fields when the wind is low or away from the directions of the houses in the near area. David prefers to apply manure when the temperature are a cooler, he knows the chicken manure still has an odor but usually when applying on cooler/cold days neighbor's are not spending as much time outside resulting in less neighbor's outside when manure applications are being made. David applies the manure to the cropland after all the crops are harvested. David and most of the plan's fields are in a corn soybean rotation. After the crops are all harvested David and his workforce start applying manure. It is very difficult to run the dry chicken manure spreaders during harvest, Dave recently purchased 2 new spreaders and is having an employee or two spread some manure to harvested crop fields while the bulk of the harvest is being done.

Tillage. Just about all of the first year corn is no-tilled. The exception is fields that are corn on corn. If the field is continuous corn the tillage is fall chisel plow no disk. Most of the soybean fields planted are fall chisel plow no disk to break up any compaction caused from the corn harvest and to start breaking down the thick corn residue mat. Dave Schroeder will fall chisel plow no disk

his flat fields or flat parts of fields after the corn is harvested prior to planting soybeans. Agronomically the residue mat from 230 + bu/ac corn is too tough for soybeans to emerge through, the fall chisel plowing no disk sizes up the corn residue and allows it to start breaking down faster. The hill portions of the fields are not fall chisel plow no disk, they just have a spring field cultivation before planting. Dave understand the importance of keeping the soil on the hillsides, he knows the soil is giving him the water holding capabilities to help continue to give him good yields on the hillsides, he also understands that more aggressive tillage on hillsides makes that soil prone to erosion. Also the hillsides are hard on machinery (stones) and if the hillsides are not worked very deep the amount of stones are less, the repairs to tillage equipment is less.

The NMP is organized in Snap Plus, because the plan is very big with a lot of different growers the NMP in Snap Plus gets updated when we receive new information. The NMP could be opened up to 2 or 3 times a month, thus always resulting in new information.

This NMP was developed using the phosphorus index.

The NMP was developed using the latest version of Snap-Plus V2.

Concentrated Flow Notes: Table 4 in NR 243.14 Nutrient Restrictions will be followed for the Setbacks from surface waters, Setbacks from downslope areas of channelized flow, vegetated buffers, and wetlands, and Setbacks from direct conduits to groundwater with slopes from 0-6% and slopes from 6-9%. On unfrozen ground the Nutrient Spreading Restrictions in the maps that I provided to the farms will be followed. I will do a walkover/drive over in the spring to identify more concentrated flow channel areas.

Field Name	Acres	2017
Behm Gruchow 1	7	Corn grain Spring Cultivation 191-210 bu/acre
Behm Gruchow 2	7.4	Alfalfa None 6.6-7.5 ton/acre
Behm Gruchow 3	4.4	Alfalfa None 6.6-7.5 ton/acre
Behm Gruchow 4 & 15	7	Winter wheat (grain +straw) to annual cover crop No Till, cover crop no till 81-100 bu/acre
Behm Gruchow 5	5.5	Corn grain Fall Chisel, no disk 191-210 bu/acre
Behm Gruchow 6	14	Corn grain Fall Chisel, no disk 171-190 bu/acre

DNR NUTRIENT MANAGEMENT PLAN

AGRONOMIC NARRATIVE

Daybreak Foods Inc. LMC

June 2016

Annual Update #4

Wisconsin NR 243 Requirements

Permit # WI -0057550-05-0

Permit term July 1st 2012 through June 30th 2017

Farm Sites with Expected Animal Numbers for First Year of Permit and Remaining Permit Term (2012-2017)

Farm operators included in this NMP are as follows for solid manure: Larry Behm, J&S Farms, Darren Schroeder, Dave Schroeder, David Smithback, Eric Swain, Dale Guenterberg, Rod Hebel, Vince Heiman, Bill Hoffman, Randy Kuhl, Gary Leverton, Liberty Prairie Farms, Nick Miller, and Wilke Estate.

Please be advised that future years are an estimate of animal numbers and actual numbers may vary from these values. Actual animal numbers will be revised in the NMP Annual Updates.

The following tables provide the current and expected animal numbers that will be included for the first year permit term and the remaining permit term (4 years). Current and projected animal numbers are listed by farm (below) and are consistent with the *final* A.U. Calculation Worksheet(s) (form 3400-25A).

Daybreak Foods Inc. LMC Maximum Number of Animals for each year

Year	Coop Size Layers	Total Animal Units
2009	Maximum Capacity 1,015,000 birds	12,484
2010	Maximum Capacity 1,015,000 birds	12,484
2011	Maximum Capacity 1,015,000 birds	12,484
2012	Maximum Capacity 1,015,000 birds	12,484
2013	Maximum Capacity 1,015,000 birds	12,484
2014	Maximum Capacity 1,015,000 birds	12,484
2015	Maximum Capacity 1,015,000 birds	12,484
2016	Maximum Capacity 1,015,000 birds	12,484
2017	Maximum Capacity 1,015,000 birds	12,484
2018	Maximum Capacity 1,015,000 birds	12,484
2019	Maximum Capacity 1,015,000 birds	12,484
2020	Maximum Capacity 1,015,000 birds	12,484
2021	Maximum Capacity 1,015,000 birds	12,484

** example $0.0123 \times 1,015,000 = 12,484$ AU

Expected Amounts and Types of Manure and Process Wastewater Produced on Annual Basis

Wastewater

Egg wash water is produced by the farm. There is a separate wastewater narrative for the Farm.

Manure

Manure is stored under the barns, for each barn there could be up to 15 month of manure storage depending on how many birds, size, water usage by the birds, ventilation, cold/cool months during our 15 month time period.

Manure Solids Volumes Generated for all Sites and Sources

Year	Total Liquids	Total Solids
2008		1,772 tons
2009		2,688 tons
2010		3,427 tons
2011		4,916 tons
2012		4,276 tons
2013		5,377 tons
2014		2,519 tons
2015		2,869 tons
2016		3,360 tons
2017		5,000 tons
2018		5,000 tons
2019		5,000 tons
2020		5,000 tons
2021		5,000 tons

Other Nutrient Sources for Land Application (NRCS 590 Requirement)

The manure produced by the farm is stored in the barn under the birds until the manure is land applied. There is a total of 6 barns to house the birds. The feed is all stored in bins, the bins are filled 2 times a week. The feed that gets spilled while filling the bins is cleaned up. See Wash water narrative for Wash water information.

Volumes of Other Nutrient Sources to be Land Applied

Liquid Waste Sources	Volume of Wash Water	Solid Waste Sources	Total Amount
Septic Waste – Removal	Wastewater gets land applied to cropland on the farm or taken to United Liquid Waste for Disposal.	Chicken manure stored under each barn	See above for yearly tons produced/estimated
Waste is picked up by a licensed Septic Waste Removal Company and is disposed by that company	See NMP for Farms, Fields where the Wash water is applied, Wash water has it's own narrative describing the Wash water holding and land applying details.	Manure is land applied with the fields (and weather) permits	

Amount of manure, process wastewater and other sources to be land applied

Please refer to the Nutrient Management plan for calculations/analysis for table value and The Nutrient Management Land spreading Section in the NMP for land application schedules for specific fields.

Anticipated frequency and method(s) of land application

Daybreak Foods Inc. LMC anticipates applying manure according to the following schedule: Manure will be land applied when farm fields are available(weather permitting) during the months of July through January and April to when the crops are planted in May. Please refer to NMP Section of plan for land application schedules for specific fields. Please also refer to the Map for Farm and field maps and field verification procedures that will be followed to verify areas of fields are not prohibited from manure spreading and NR 243 or NRCS 590 setback requirements are followed.

Daybreak Foods Inc. LMC anticipates using the following equipment to solid manure on fields in NMP: Surface spreaders for all solid manure, J&S Farms (Dave Schroeder) will do all the land application. All solid manure will be incorporated with a chisel plow, field cultivator, vertical tillage machine where needed, or in the case of No-Till or alfalfa it will be surface applied in accordance with all NR 243 and NRCS 590 rules. In the summer, solid manure may be top dressed on some alfalfa fields.

Other methods of use, disposal, distribution or treatment of manure or process wastewater

Some of the wash water is taken to United Liquid Waste for disposal.

Total acreage available (by landowner) for land application owned, rented or in ‘agreements’.

The table below summarizes this information. Please refer to the SNAP PLUS Crops and Narrative report of plan for more information related to landbase documentation. The farm has a total of approximately 10,700 + acres in 475 + fields of land available for manure land applications.

Total land application acres available – 10,730.2

Acres owned – 168 ; Acres Rented –10,723.35 ; Acres in agreements –10,723.35

Land Operator	Land Owner Name	Field Name	Acres	Rental or Agreement Length	Length	Additional Field Info
Larry Behm	Larry Behm	Home 1-20	158.8	Agreement	5 years	Tile on Farm
Larry Behm	Leroy Gruchow	Gruchow 1-14	77.58	Agreement	5 years	
Larry Behm	Waldis and Debra Klass	Klass 5-14	29.89	Agreement	5 years	
Larry Behm	Mary McLaren	MacLaren 1-3	65	Agreement	5 years	
Larry Behm	Gail Fraiser	Fraiser	11.6	Agreement	5 years	
Larry Behm	Steve Tilton	Tilton	4	Agreement	5 years	
J&S Farms	Jim Alexander	Alexanders	60	Agreement	5 years	

J&S Farms	Stever Aschebrenner	Trailer Park	31.5	Agreement	5 years	
J&S Farms	Andy Didion	Andy Didion(Paul)	68	Agreement	5 years	
J&S Farms	John Didion	Didion Home 1-3	72.6	Agreement	5 years	
J&S Farms	Keith Kulow	Kelow/Lakeland	15.5	Agreement	5 years	
J&S Farms	Probst	Probst	18	Agreement	5 years	
J&S Farms	Dough Nelson	Doug Nelson	20	Agreement	5 years	
J&S Farms	Ed Nelson	LN 2&4	50.5	Agreement	5 years	
J&S Farms	Ed Nelson	Home	6.5	Agreement	5 years	
J&S Farms	LeRoy Nelson	LeRoy Nelson 8	54.5	Agreement	5 years	
J&S Farms	LeRoy Nelson	F110	20.4	Agreement	5 years	
J&S Farms	Robert and Sandra Torres	Heard	137.4	Agreement	5 years	Tile on Farm
J&S Farms	Dean Schneider	Johnson Farm	121.4	Agreement	5 years	
J&S Farms	Dave and Darren Schroeder	Lakeland	80	Agreement	5 years	Tile on Farm
J&S Farms	Dave and Darren Schroeder	Pat Long	168	Agreement	5 years	Tile on Farm
J&S Farms	Dave Schroeder	Schroeder?Punzels Farm	195.8	Agreement	5 years	Tile on Farm
J&S Farms	Dennis Stockfish	Stockfish	83.3	Agreement	5 years	Tile on Farm
J&S Farms	Aaron Johnson	F70	124	Agreement	5 years	
J&S Farms	Aaron Johnson	F60&80	162.4	Agreement	5 years	
J&S Farms	Aaron Johnson	F61	128.4	Agreement	5 years	
J&S Farms	Aaron Johnson	F90 - F94	73	Agreement	5 years	
J&S Farms	Aaron Johnson	F100	88.1	Agreement	5 years	
J&S Farms	Aaron Johnson	F40-41 &112	324.2	Agreement	5 years	

J&S Farms	Creekwood	F32 & 33	8.3	Owned		
J&S Farms	Aaron Johnson	F52 & 53	52.7	Agreement	5 years	
J&S Farms	Aaron Johnson	F56	35.3	Agreement	5 years	
J&S Farms	Kornsted	Farm	218.5	Agreement	5 years	
J&S Farms	Daybreak Foods	Pullet	63.8	Owned		
J&S Farms	Daybreak Foods	Hyder	95.9	Owned		
J&S Farms	Whitman	Whitman	60.9	Agreement	5 years	
J&S Farms	Blumberg	Blumberg	43.1	Agreement	5 years	
J&S Farms	Dave Schroeder	Menz	69.7	Agreement	5 years	
J&S Farms	Dave Schroeder	Manski	107	Agreement	5 years	
J&S Farms	Daybreak Foods	Farm Energy	3.7	Agreement	5 years	
J&S Farms	Webber	Webber	178.5	Agreement	5 years	
J&S Farms	Dave and Darren Schroeder	Zimmerman	63.7	Agreement	5 years	
J&S Farms	Schultz	Schultz	88.6	Agreement	5 years	
J&S Farms	Borck	Borck	25.3	Agreement	5 years	
J&S Farms	Hubacher	Hubacher	58.5	Agreement	5 years	
J&S Farms	Mulderlink	Mulderlink	49.4	Agreement	5 years	
J&S Farms	Troy Schneider	Troy Schneider	10	Agreement	5 years	
J&S Farms	Tom Burns	Tom Burns	27.5	Agreement	5 years	
J&S Farms	Heller	Heller	240.7	Agreement	5 years	
J&S Farms	Gail Roberts	Schumacher	88.9	Agreement	5 years	
J&S Farms	Dave and Darren Schroeder	Spangler	100.8	Agreement	5 years	

J&S Farms	Pete Meissner	Link	52.7	Agreement	5 years	
J&S Farms	WI DNR	Fisher	22	Agreement	5 years	
J&S Farms	Pete Meissner	O'hara	154	Agreement	5 years	
J&S Farms	Pete Meissner	Farm #3	138.8	Agreement	5 years	
J&S Farms	George Ducklow	Ducklow	54.1	Agreement	5 years	
J&S Farms	Jody Schutte	Schutte	16.2	Agreement	5 years	
J&S Farms	Henry Schuster	Schuster	110.8	Agreement	5 years	
J&S Farms	Dave and Darren Schroeder	Holstein	121.6	Agreement	5 years	
J&S Farms	Dave and Darren Schroeder	Starker	325.6	Agreement	5 years	
J&S Farms	Dave and Darren Schroeder	Moll	102.4	Agreement	5 years	
J&S Farms	Darren Schroeder	Rocky Knoll/Darren's	183.8	Agreement	5 years	
J&S Farms	Darren Schroeder	Windy Knoll	80.7	Agreement	5 years	
J&S Farms	Kuhn	Kuhn	41.81	Agreement	5 years	
Wilke Estate	Wilke Estate	Wilke Farms	389.5	Agreement	5 years	
Bill Hoffman	Bill Hoffman	Hoffman Farms	1112.95	Agreement	5 years	
Dale Guenterberg	Dale Guenterberg	Dale Guenterberg	150.8	Agreement	5 years	
Rod Hebel	Rod Hebel	Rod Hebel Farms	667.9	Agreement	5 years	
V. Heiman	V. Heiman	V. Heiman	246.8	Agreement	5 years	
Randy Kuhl	Randy Kuhl	Randy Kuhl	110.6	Agreement	5 years	
Nick Miller	Nick Miller	State Farm	311.1	Agreement	5 years	
Terry Carr/Leverton	Terry Carr/Leverton	Leverton	105.5	Agreement	5 years	
Liberty Prairie Farms	Kevin Shelley	Liberty Prairie	15.5	Agreement	5 years	

David Smithback	David Smithback	Dad's	132.5	Agreement	5 years	
David Smithback	Helgstad	Helgstad	32	Agreement	5 years	
David Smithback	Lowell Lund	Lowell Lund	144.2	Agreement	5 years	
David Smithback	Nelson	Nelson	121.4	Agreement	5 years	
David Smithback	Vosby	Vosby	297.4	Agreement	5 years	
Eric Swain	Mitch DeGolier	DeGolier	52.1	Agreement	5 years	
Eric Swain	Bill Klecker	Klecker	85.3	Agreement	5 years	
Eric Swain	Kunz	Kunz	20.7	Agreement	5 years	
Eric Swain	Neerland	Neerland	35.5	Agreement	5 years	
Strauss Dale Holsteins	Jim Strauss	Jim Strauss	66.96	Agreement	5 years	
Strauss Dale Holsteins	Punzel	Punzel	40.03	Agreement	5 years	
Strauss Dale Holsteins	Goers	Goers	16.12	Agreement	5 years	
Strauss Dale Holsteins	Tom Strauss	Tom Strauss	39.52	Agreement	5 years	

Tillage and crop rotation information for all fields owned or rented or in ‘agreements’

Please refer to The Field Data and 590 Assessment in the NMP for the tillage, crop rotation and land application schedules for specific fields.

Nutrient crediting requirements - NR 243.14(3)

When selecting manure application rates for all fields, Daybreak Foods Inc. LMC has taken into account:

1. soil nutrient levels prior to land spreading
2. known nutrient applications from other sources, including:
 - a. commercial fertilizers
 - b. bio-solids
 - c. **first and second year** manure and legume credits
 - d. other sources of nutrients that are expected to be applied or have already been applied to fields.

Adjustments will be made to assumed nutrient credits based upon actual crop yields.

SWQMA application restriction option for each field AND procedures- NR 243.14(4)

For all fields, except those with alfalfa crop in rotation, Daybreak Foods Inc. LMC will follow SWQMA option 1 - no application of manure or process wastewater within 25 feet of a navigable water, conduit to navigable water or wetland; and immediately incorporate manure in all other areas within the SWQMA.

For fields with alfalfa crops in rotation Daybreak Foods Inc. LMC will follow SWQMA option 5 – No application of manure or process wastewater within 100 feet of navigable water or conduit to navigable water.

Phosphorus delivery method (Soil Test P or P Index) and P management procedures for each field- NR 243.14(5)

Daybreak Foods Inc. LMC will use the P Index for all fields within the NMP. Please refer to Field Data and 590 Assessment in the NMP for this information.

Daybreak Foods Inc. LMC will follow the P Management procedures listed below when applying manure and process wastewater to fields to demonstrate compliance with NR 243.14(5)(b) and applicable NRCS 590 requirements:

Fields with less than 50 ppm:

- N application rates allowed up to the N needs of the following crop or the N removal of the following legume crop.
- OR
- Rotational average PI values for each field shall be 6 or lower. PI is calculated using up to 8 year rotation using current Wisconsin P Index calculations. P applications on fields with PI > 6 may be made only if additional P is needed according to UWEX soil fertility recommendations.

Fields with soil test P between 50-100 ppm:

- P application shall not exceed the total crop P removal for crops to be grown over maximum 8 year rotation.
- OR
- Rotational average PI values for each field shall be 6 or lower. PI is calculated using up to 8 year rotation using current Wisconsin P Index calculations. P applications on fields with PI > 6 may be made only if additional P is needed according to UWEX soil fertility recommendations.

Fields with soil test P between 100-200 ppm:

- The rotational average P Index value for the crop rotation or for the next 4 year period, whichever time period is less, will be calculated.

- When P Index is > 6, manure application(s) to field are prohibited.
- When P index is < 6, manure applications allowed with P drawdown by 50% cumulative crop removal over a maximum 4 year rotation will be implemented.

Fields with soil test P greater than 200 ppm:

- P applications from manure and process wastewater prohibited, unless approved by DNR.
- The planned average WI P Index value for the crop rotation or for the next 4 year period, whichever time period is less, will be calculated.
- P drawdown by 50% cumulative crop removal over a maximum 4 year rotation will be implemented.

Soil Test P fields

All fields using soil test P will be included within a **current** conservation plan for Daybreak Foods Inc. LMC, or use the erosion assessment tools included with the P Index model. See Individual Farms conservation plan meets the NRCS 590 criteria (V.C.2.b) below and addresses all soil erosion consistent with **current crops and management** or uses the erosion assessment tools included within the WI P Index model.

NRCS 590 Conservation Plan Criteria - (V.C.2.b)

The plan must be developed by and field verified by a conservation planner to document crop management and the conservation practices used to control sheet and rill erosion to tolerable levels (T) and to provide treatment of ephemeral soil erosion.

- The conservation plan must be signed by the land operator and approved by the county land conservation committee or their representative.
- A conservation planner must develop conservation plans using the minimum criteria found in the USDA, NRCS National Planning Procedures Handbook and the WI Field Office Technical Guide.
- In crop fields where ephemeral erosion is an identified problem, a minimum of one of the following runoff reducing practices shall be implemented:
 - Install/maintain contour strips and/or contour buffer strips.
 - Install/maintain filter strips along surface waters and concentrated flow channels that empty into surface waters that are within or adjoin areas where manure will be applied.
 - Maintain > 30% crop residue or vegetative cover on the soil surface after planting
 - Establish fall cover crops.

All fields using soil test P that have a high potential to deliver phosphorus to 303(d) listed waters impaired by nutrients or outstanding and exceptional resource waters, shall be managed by Daybreak Foods LMC to ensure:

- (1) soil test P levels shall not increase over a crop rotation unless DNR provides written approval.
- (2) Same fields that have soil test phosphorus below optimum levels, soil test P levels shall not increase over a rotation above the optimum level for the highest demanding phosphorus crop in a rotation.

Field proximity to nutrient impaired or outstanding/ exceptional waters - NR 243.14(5)

Please refer to the Maps Tab of plan for maps showing locations of fields in proximity to these types of waters. To complete these maps, Daybreak Foods Inc. LMC used the following tools:

DNR 2010 proposed impaired waters list:

http://dnr.wi.gov/topic/impairedwaters/documents/attachment_b_final%20proposed%202010%20impaired%20waters%20list.xls

DNR impaired, outstanding or exceptional waters search tool:

<http://dnr.wi.gov/water/impairedSearch.aspx> .

Identification of sites for winter (frozen or snow covered ground) spreading – NR 243.14(8)

Daybreak Foods Inc. LMC plans to spread manure onto fields in NMP during winter (frozen or snow covered ground) conditions.

For compliance with NR 243.14(8) winter spreading sites requirement, fields (see fields in the Map Tab) have been selected for winter application. Fields in the Map Tab have been evaluated by Daybreak Foods LMC to meet the NR 243 criteria in Tables 4 and 5 for manure and criteria in 214.17(2) Daybreak Foods LMC has also determined these fields represent the lowest pollutant delivery to waters of the state and have winter acute loss index value of 4 or less using the Wisconsin Phosphorus Index. In addition, Daybreak Foods LMC will evaluate these same fields at time of manure application to determine if conditions are suitable for applying manure and complying with the requirements of NR 243.14(8).

Winter Manure Spreading Fields;

Manure is applied to the restriction areas of these fields before the ground is frozen, in the SWQMA areas and the slopes greater than 9%

Lakeland, F70, F60 & 80, F61, F95 and F95 south, F100, F40,41 & 112, F52, F53, Alexanders, LN2, LN4, LN8, F110, Kornsted, Punzels, Stockfish, John Didion, Andy Didion, Heard, Hyder, Pullet Farm, Whittman, Blumberg, Farm Energy, Menz, Manski, Party Mart, Webber, Schults, Borck, Hubacher, Mulderlink, Troy Schneider, Johnson, Heller, Halverson, Tom Burns, Halverson Subdivision, Spangler, Schumacker, Link, Fisher, O'hara, Farm #3, Pat Long, Schuster, Holstein, Starker, Moll, Rocky Knoll/Darren's Home, Windy Knoll, Kuhn Farms.

Manure Stacking – NR 243.141

All manure stacking sites used by Daybreak Foods Inc. LMC shall be included in this NMP and must receive DNR review and approval before use. All manure stacking sites shall be selected for compliance with all requirements of NR 243.141. Please refer to the Maps of plan for additional manure stacking site(s) information. The farm has stacking sites that are already approved.

General Manure Application Requirements – NR 243.14(2)(b)(1-13)&(c-f)

Daybreak Foods Inc. LMC will take several actions to ensure all manure is land applied in compliance following general landspreading requirements of NR 243.14:

- No ponding on application site
- During dry weather, no runoff from the application site, nor discharge to waters of the state through subsurface drains
- No causing fecal contamination of water in a well
- Unless rain event is greater than 25 yr/24 hr event and farm complies with NMP and WPDES permit, no runoff from the application site, nor discharge to waters of the state through subsurface drains due to precipitation or snowmelt
- No application on saturated soils
- Maximize use of available nutrients, prevent delivery of manure and process wastewater to waters of the state, and minimize the loss of nutrients and other contaminants to waters of the state to prevent exceedances of groundwater and surface water quality standards and to prevent impairment of wetland functional values
- Retain nutrients in the soil with minimal movement
- No application within 100 feet of direct conduits to groundwater
- No applications within 100 feet of private well and 1000 feet of commercial well
- No application on fields with soils that are 60 inch thick or less over fractured bedrock when ground is frozen or where snow is present.
- No application when snow is actively melting such that water is flowing off a field.

Please refer to the Maps of the plan for spreading maps that visually describe how the farm will meet many of these general spreading requirements.

To demonstrate compliance with the NR 243.14 general land application requirements above, Daybreak Foods Inc. LMC will complete, on an ongoing basis, map and field verification procedures (listed below) to ensure spreading maps are accurate (including soil types, slopes and slope lengths), SWQMA or well setback distances are followed and prohibited conditions/features on fields are identified and avoided when spreading manure or process wastewater to NMP fields. The procedures demonstrate how land application activities will be in compliance with NR 243.14 or NRCS 590 restrictions throughout the permit term.

The prohibited conditions/features that Daybreak Foods Inc. LMC will evaluate for on each field include: ephemeral erosion or concentrated flow channels, saturated soils, intermittent and perennial streams, grassed waterways, wetlands, lakes, drinking wells, areas of field with bedrock or groundwater within 24 inches of field surface, wells and other direct conduits to groundwater - NR 243.14(2)(b)(3),(5),(6), (7-12). These areas have been inventoried and marked on restriction maps (see Maps Tab).

Daybreak Foods Inc. LMC will maintain written and/or visual records of ongoing field and map verification actions to demonstrate compliance with NR 243.14 requirements. Please refer to Appendix D.

Field and Map Verification Procedures

Prior to spreading manure onto fields, J&S Farms; Dave Schroeder (and employees of J&S Farms), will complete the following map and field verification procedures to ensure all manure spreading will be in compliance with NR 243 and 590 criteria:

- Spreading maps will be reviewed by Dave Schroeder and his employees, to identify all restricted or prohibited features and setback distances on field
- Fields will be inspected for restricted or prohibited features; any new conditions/features will be identified.
- Once identified, prohibited field features will be avoided and setback distances (as depicted on spreading maps or in NR 243 or NRCS 590) will be measured and followed during manure spreading.
- Spreading maps will be updated with any new prohibited/restricted field features or conditions.
- A log will be kept with the NMP to track the map and field verification procedures listed above. The log will track:
 - (a) date(s) review took place
 - (b) person(s) involved.
 - (c) fields verified
 - (d) any new field features or conditions identified on fields
 - (e) photos or other documentation of field features or conditions reviewed

Avoiding manure or process wastewater field runoff or ponding— NR 243.14(2)(b)(1), (2)&(6).

Please refer to field and map verification procedures and NRCS 590 requirements for runoff and ponding.

Surface applications & precipitation forecast for runoff within 24 hours – NR 243.14(2)(b)(13)

For this NMP, *surface* applications of manure will not be completed when rain events above 2 inches are forecasted within 24 hours of the time of planned applications. Surface application means manure that is applied and left on the surface of the field. Surface application does not mean manure that is surface applied and then incorporated into the soil.

Prior to manure applications to fields, www.accuweather.com will be used to track weather forecast data. This information will be used determine the risk for forecasted precipitation to cause run-off from fields. Weather forecast data will be printed or saved to disc and kept with the NMP.

Drain tile fields & tile discharges to surface waters -NR 243.14(2)(b)(2),(4)&(6) and NRCS 590 (V.A.1.k)

Drain tile discharges of manure and process wastewater from fields to surface waters under are not allowed under NR 243. The following fields have been identified to have drain tiles: See Pages 3-5 for farms with tile lines. Please see Maps Tab of plan for additional drain tile field information. Drain tile discharges of manure and process wastewater to surface waters will be prevented or responded to by Daybreak Foods Inc. LLC. via the following procedures:

Prior to spreading manure onto fields with drain tiles:

- UW extension Guidelines for Preferential Flow of Manure in Tile Drainage will be reviewed by Dave Schroeder:
http://www.extension.org/pages/Preferential_Flow_of_Manure_in_Tile_Drainage
- The following UW Discovery Farms Drain Tiles documents will be reviewed by Dave Schroeder:
 1. Maintaining Tile Drainage Systems
 2. Understanding and Locating Drain Tiles
 3. And any other tile drainage fact sheets currently available on the UW Discovery Farms site at <http://www.uwdiscoveryfarms.org/OurResearch/AgriculturalTileDrainage.aspx>
- Spreading maps will be reviewed to identify know drain tile locations
- Fields will be inspected for drain tile presence or outlets; any new tile outlets/subsurface drainage systems will be identified
- All tile outlets will be visually checked for flow and water conditions (e.g., clear, colored, foam, odor, etc).
- Results of all visual tile monitoring will be tracked – using form in Appendix B - and kept with NMP
- Planned manure spreading (rates and locations) on fields will be evaluated and then limited or adjusted, as necessary, according to the following criteria:
 1. Available water holding capacity of the soil
 2. Depth of injection
 3. Clay soil considerations
 4. Concentration of Application from spreading equipment type used
 5. Are known tile drains flowing?
 6. Shallow tillage (3 to 5 inch depth) used or not used prior to application to disrupt the continuity of worm holes, macropores and root channels (preferential pathways) to reduce the risk of manure reaching drain lines.
 7. Perennial Crop and No Till precautions

During and after manure spreading on fields with drain tiles, best management practices will be followed:

- Visual inspection of tile outlets for flow and water conditions (e.g., clear, colored, foam, odor, etc.)
- Containing manure or process wastewater tile discharges from release into waterway(s)
- Notifying DNR of any spills/discharges to waterways from tiles
- Reducing application rates or delaying application(s) to tiled fields
- Setbacks from tiled areas
- Immediate tillage/ incorporation of applied manure
- Use of other manure application equipment (e.g., sweeps)
- Update NMP spreading maps or narrative
- Results of visual inspections of tiles will be tracked – using form in Appendix B of this narrative and kept with NMP.

Please also refer to NRCS 590 requirements for field runoff, ponding and drainage to subsurface tiles.

Manure applications to areas of fields with shallow groundwater or bedrock – NR 243.14(2)(b)(7).

NR 243 prohibits manure applications on areas of fields that have groundwater or bedrock within 24 inches of the field surface *at time of application*. Daybreak Foods Inc. LLC. will demonstrate compliance with this prohibition by:

- Implementing DNR guidance, dated March 2009. Please refer to Appendix C of this narrative for the DNR guidance.

Daily Spreading Log and Annual Reports for DNR – NR 243.19

Daybreak Foods Inc. LMC will maintain daily spreading log for all manure applications to NMP fields for compliance with NR 243.19. The daily spreading log will also be used to complete required annual reports for DNR. Daybreak Foods LMC recognizes the daily spreading log and annual reports are essential to document actual management practices used by Daybreak Foods LMC. and the resulting soil erosion and water quality impacts on specific fields. Daybreak Foods LMC. will use DNR Forms 3200-123 and 3200-123A (MS excel spreadsheets) to complete Daily spreading and annual reports. These forms will be obtained from DNR. Please refer to Maps Tab/manure spreading of plan for this information.

Please also refer to NRCS 590 requirements for Annual Updates to NMP

Manure spreading equipment calibration and Manure concentration testing – NR 243.19

Daybreak Foods Inc. LMC shall conduct or require periodic inspections and ongoing calibration of landspreading equipment to detect leaks and ensure accurate application rates for manure. Initial calibrations shall be followed by additional calibration after any equipment modification or after changes in manure source. At a minimum, calibration of all manure spreading equipment used by Daybreak Foods LMC shall be completed annually and recorded.

http://www.extension.org/pages/Calibration_of_Manure_Application_Equipment

Please refer to manure spreading tab of plan for manure spreading equipment calibration records.

Daybreak Foods Inc. LMC shall analyze all manure sources applied to fields in accordance with WPDES permit conditions. Samples shall be collected so they are representative of all manure applied to fields. All manure shall be analyzed for Nitrogen, Phosphorus, and percent solids in years where manure is applied. Daybreak Foods Inc. LMC will follow sampling methods found in UW publication A3769, Recommended Methods of Manure Analysis: <http://learningstore.uwex.edu/Assets/pdfs/A3769.pdf> . Please refer to manure samples tab of plan for manure sampling records and related information.

Wisconsin NRCS 590 Requirements

Dominant Critical Soil

Each field in this NMP is managed to meet NRCS dominant critical soil criteria

<http://datcp.wi.gov/uploads/Farms/pdf/ChoosingCriticalSoilType.pdf>. The dominant critical soil is the most erosive soil that covers at least 10% of the field area. The dominant critical soil type was selected for all fields listed in the NMP to ensure corresponding rotational T – tolerable soil loss - values for each field are accurate for compliance with NRCS 590 requirements. Please refer to the Field Data and 590 Assessment in the NMP for this information.

T – Tolerable soil loss

Each field in this NMP is managed to meet T – tolerable soil loss - over the crop rotation. T values were calculated using NRCS RUSLE 2 model through SNAP-PLUS. No nutrient applications (manure, fertilizer) are allowed on fields that fail to meet T. Erosion controls shall be implemented so that tolerable soil loss (T) over crop rotation will not be exceeded on fields that receive nutrients. Please refer to The Field Data and 590 Assessment of plan for information showing each field’s tolerable and actual soil loss.

Soil Testing

Each field in the NMP is managed for compliance with NRCS A2100 soil testing criteria:

<http://datcp.wi.gov/uploads/Farms/pdf/uwex-a2100.pdf>. Accordingly, all fields in this NMP either meet or are managed to meet A2100 criteria over time. Please refer to the SNAP-PLUS soil sampling summary of plan for this information. For fields in this NMP that do not currently meet A2100, one of the following management options will be implemented by farm X until soil testing can be completed:

1. Manure will not be applied to field;
2. Field will be managed as if P levels are greater than 100 ppm P according to NR 243.14(5) criteria for all manure applications to field.

Application and budgeting of nutrients – consistent with NRCS 590 standard and soil fertility recommendations found in A2809.

Each field in the NMP is managed to address the source, rate, timing, form and method of application and budgeting *of all* nutrient sources (i.e., including soil reserves, commercial fertilizer, manure, organic byproducts – animal mortality and composting materials - legume crops and crop residues) generated or accepted by the farm and applied to fields. Please refer to the SNAP-PLUS application summary of plan for this information.

Other sources of nutrients to be land applied (NRCS 590 requirement)

Please refer to the SNAP-PLUS Field Data and 590 Assessment of plan for calculations/analysis for table values and The SNAP-PLUS spreading and NM sorted by crop of plan for specific fields land application amounts and schedules (e.g., spring, summer or fall).

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Crop Yield Goals

Each field in the NMP is managed according to yield goals that are attainable by the farm under average growing conditions and established using multi year documented yields kept by the farm. Farm yield goals in this NMP shall not be set higher than 15% above the previous 3-5 year average. Absent field/farm specific yield goals data, yield goals in this NM plan will be set using Wisconsin county average crop yields found at National Agricultural Statistics Service: http://www.nass.usda.gov/Data_and_Statistics/index.asp

Records of soil and manure testing results

Daybreak Foods Inc. LMC has completed and retained records showing recent soil testing and manure testing results. Please refer to the SNAP-PLUS soil sampling summary and the manure summary of plan for this information. Daybreak Foods Inc. LMC acknowledges that soil testing of some fields is out of date and needs to be completed. Daybreak Foods Inc. LMC will follow the following schedule to ensure soil testing for fields will be completed and then the NMP will be updated with this information. All soil samples will be sent to a UW Approved Soil Testing Lab.

Fields with concentrated flow channels resulting in reoccurring gullies or ephemeral erosion

Daybreak Foods Inc. LMC will evaluate fields on an ongoing basis each year for presence or flow channels or other types of ephemeral soil erosion. If fields show evidence of concentrated flow channels resulting in re-occurring gullies or ephemeral erosion, the following actions will be taken by the farm:

- Spreading maps will be updated to reflect areas with concentrated flow channels;
- Manure will not be spread on fields with concentrated flow channels, until perennial vegetative cover is established in all areas of concentrated flow;
- A schedule for establishing perennial vegetative cover in all areas of concentrated flow as well as implementation dates will be recorded and kept with this NMP.
- One or more NRCS 590 runoff reducing practices for crop fields with ephemeral erosion will be selected and implemented. Practices selected and implementation dates will be recorded and kept with this NMP.

Once vegetated flow channels/grassed waterways established within fields, such areas will be maintained to perform their intended function and manure will not be applied within these areas.

Fields with high potential for N leaching to groundwater - soil temperature, application rate and timing restrictions

Fields in this NMP have been evaluated for soils with high potential for N leaching to groundwater for compliance with NRCS 590 requirements. Please refer to the SNAP-PLUS compliance check of plan for this information. When manure is applied fields with soils classified as having a high potential for N leaching to groundwater and the soils are > 50 degrees F, the potential exists for rapid N mineralization. The risk for N mineralization and loss (via leaching to groundwater) is a concern the farm will manage for. As such, Daybreak Foods LMC will measure soil temperatures prior to field applications in late summer or fall. Soil temperature logs will be kept with manure spreading records/reports and maintained over time for compliance recordkeeping requirements. The farm will follow the following procedures for compliance with NRCS 590 soil temperature, application rate and timing restrictions:

- If any fields are found to be > 50 degrees F, Daybreak Foods Inc. LMC will strictly follow section V, B, 2 of NRCS 590 standard.
- If any fields are found to be < 50 degrees F, Daybreak Foods Inc. LMC will strictly follow section V, B, 3 of NRCS 590 standard.

Field Inspection and Response Procedures for manure ponding, runoff from fields or drainage to subsurface tiles.

Daybreak Foods Inc. LMC will evaluate field and weather conditions prior to and during mechanical applications of **manures, organic byproducts and fertilizer** to ensure that applied material(s) do not cause ponding, runoff, or drainage to subsurface tiles.

The following response procedures will be followed by Daybreak Foods Inc. LMC if/when ponding, runoff or drainage to subsurface tiles occurs during and/or after applications to fields:

1. Stop application immediately (if field application not finished)
2. Containment measures (e.g., earth berms, pumps, temporary pits, tillage, incorporation) will be implemented immediately to prevent off-site movement from field.
3. Changes in application rate, method, depth of injection or timing to the field shall be implemented during any future application to eliminate ponding, runoff or drainage to subsurface tiles.
4. Farm shall notify DNR of any spills or accidental release to comply with Ag Spill Law (289.11) or term of WPDES permit.

Annual Updates

This NMP will be updated annually. Each NMP annual update for Daybreak Foods Inc. LMC shall include records/documentation of all soil or manure analyses as well as crops, tillage, nutrient application rates, and methods actually implemented on each field that receives nutrients. Annual updates are essential to document actual management practices and resulting soil erosion and water quality impacts on specific fields.

Provide following info for Reissuance permit:

- Changes to the operation that have or are planned to occur during upcoming permit term
See Engineering Narrative and Engineering Paperwork.
- Changes to the operation that will be necessary to comply with NR 243.14 Nutrient Management land application requirements (e.g., general requirements – 243.14.(2)(b)1-13, fields with drain tiles).
- Location of existing site and proposed modifications to the site
- See Engineering Narrative and Engineering Paperwork.
- Include all 1st time WPDES permit issuance criteria listed above here

Appendix A

Wisconsin Manure Quantity Estimation

V 09/01/03

Name: _____ Date: _____

Animal	Size	Daily Manure Production To Apply						Annual Manure Production To Apply				
		Solid		Liquid				Number x	Daily x	365 Day x	%	=
	Lbs	Lbs/day	ft ³ /day	MWPS ft ³ /day x WI dairy & beef dilution factor	ft ³ /day & WI dilution	MWPS gal./day x WI dairy & beef dilution factor	gal./day & WI dilution	of Head	Total Tons or Gal.	Total	Collected	Collected Tons or Gal.
Dairy												
Calf	150	13	0.200	.21*1.8=	.37	1.53*1.8=	2.80					
Calf	250	21	0.320	.33*1.8=	.60	2.47*1.8=	4.50					
Heifer	750	65	1.000	1.03*1.8=	1.85	7.70*1.8=	13.8					
Lact. Cows	1000	106	1.700	1.71*1.8=	3.07	12.7*1.8=	23.0					
	1400	148	2.400	2.38*1.8=	4.28	17.7*1.8=	32.0					
Dry Cows	1000	82	1.300	1.30*1.8=	2.35	9.7*1.8=	18.0					
	1400	115	1.820	1.82*1.8=	3.33	13.6*1.8=	25.0					
Beef												
Calf	450	26	0.420	.415*3.2=	1.3	3.1*3.2=	9.9					
High Forage	750	62	1.000	1.00*3.2=	3.2	7.5*3.2=	24.0					
High Forage	1100	92	1.400	1.48*3.2=	4.8	11*3.2=	35.0					
High Energy	750	54	0.870	.87*3.2=	2.7	6.5*3.2=	20.8					
High Energy	1100	80	1.260	1.27*3.2=	4.1	9.5*3.2=	30.5					
Beef Cow	1000	63	1.000	1.00*3.2=	3.2	7.5*3.2=	24.0					
Swine												
Nursery Pig	25	2.7	0.040		.04		.30					
Grow-Finish Pig	150	9.5	0.150		.17		1.20					
Gestating Sow	275	7.5	0.120		.14		1.00					
Sow & Litter	375	22.5	0.360		.42		3.00					
Boar	350	7.2	0.120		.14		1.00					
Poultry / Other												
Layers	4	0.26	0.004		.004		.03					
Broilers	2	0.18	0.003		.003		.02					
Turkeys	20	0.9	0.014		.015		.11					
Duck	6	0.33	0.005		.006		.04					
Sheep	100	4	0.060		.055		.40					
Horse	1000	50	0.800		.827		5.98					

Source: Midwest Plan Service publication number MWPS-18 "Manure Characteristics" Section 1, copyright 2000. Solid volumes are as excreted. The liquid dairy and beef values are computed from the MWPS daily production and have approximately equal nutrient values annually as solid manure. MWPS liquid dairy and beef factors are multiplied by 1.8 and 3.2 respectively. Dilution on your operation may be substantially different. Use manure analysis and manure storage volumes to determine manure production whenever possible.

Manure quantities are likely to be more accurate estimated from storage size:

What is the manure storage pit size? _____ gallons or tons?

Multiply pit size x Number of times emptied/yr? _____ = Total annual manure collection

Available Manure Nutrients

V 09/01/03

Manure analysis testing for available nutrients in (lbs./ton or lbs./1000 gallons) N P₂O₅ K₂O

Manure book values for available nutrients in (lbs./ton or lbs./1000 gallons)									
Species/ Management	Total Available Nutrients from Solid Manure lbs./ton				Species/ Management	Total Available Nutrients from Liquid Manure lbs./ 1,000 gallons			
	N	N	P ₂ O ₅	K ₂ O		N	N	P ₂ O ₅	K ₂ O
	Surface applied	Incorporated by 3 rd day				Surface applied	Incorporated by 3 rd day		

One Year of Application									
Dairy	3	4	3	7	Dairy	7	10	5	16
Beef	4	5	5	9	Veal calf	6	8	6	20
Swine	7	9	6	7	Beef	5	7	5	16
Duck	9	10	13	24	Swine indoor pit	25	33	25	24
Chicken	20	24	30	24	Swine outdoor pit	17	22	10	16
Turkey	20	24	24	24	Swine farrow nursery indoor pit	13	16	14	18
Sheep	7	9	11	32	Poultry	8	10	6	10
Horse	3	4	4	8					

Two Consecutive Years of Application									
Dairy	4	5	4	8	Dairy	10	12	6	18
Beef	5	6	6	10	Veal calf	8	9	7	23
Swine	8	11	7	8	Beef	7	9	6	18
Duck	10	12	15	27	Swine indoor pit	30	38	29	27
Chicken	24	28	35	27	Swine outdoor pit	20	26	11	18
Turkey	24	28	28	27	Swine farrow nursery indoor pit	15	19	16	20
Sheep	9	12	13	36	Poultry	10	11	7	11
Horse	4	5	4	9					

Three or More Consecutive Years of Application									
Dairy	5	6	4	9	Dairy	11	13	7	19
Beef	6	7	7	10	Veal calf	8	10	8	24
Swine	9	11	8	9	Beef	8	10	7	19
Duck	11	13	16	29	Swine indoor pit	33	40	32	29
Chicken	26	30	38	29	Swine outdoor pit	22	27	12	19
Turkey	26	30	30	29	Swine farrow nursery indoor pit	16	20	17	21
Sheep	10	13	14	38	Poultry	10	12	8	11
Horse	4	5	5	10					

Figures are rounded to the nearest whole pound. Manure book values table replaces UWEX Publication A-2809 (1998)

Wisconsin Certified Laboratories

A Wisconsin nutrient management plan must be based on soil tests conducted at the soil testing laboratory certified by the Department of Agriculture, Trade and Consumer Protection. This requirement ensures soil test results and recommendations will be generated through analytical procedures approved by the University of Wisconsin. The results are consistent. Laboratories must perform with a certain level of success, to remain certified.

The following soil testing laboratories are Wisconsin DATCP certified. The laboratories participating in the Manure Analysis Proficiency (MAP) program are indicated below to provide quality control to the Laboratory Analysis Industry. You can learn more about the MAP program and find other participating laboratories at <http://ghex.colostate.edu/map/>.

UW Soil & Plant Analysis Laboratory
5711 Mineral Point Rd
Madison, WI 53705
(608)262-4364
soil-lab@uwmadmail.services.wisc.edu

UW Soil & Forage Lab
8396 Yellowstone Dr.
Marshfield, WI 54449
(715)387-2523
jbpeter1@facstaff.wisc.edu
MAP participant

Agsources Soil & Forage Lab
106 N. Cecil Street
Bonduel, WI 54107
(715)758-2178
aglab@agsources.com
MAP participant

Rock River Laboratory
PO Box 169
Watertown, WI 53904
(920)261-0446
rrllab@execpc.com
MAP participant

Dairyland Laboratories
217 E. Main Street
Arcadia, WI 54612
(608)323-2123
info@dairylandlabs.com
MAP participant

A&L Great Lakes
Laboratories
3505 Conestoga Dr.
Fort Wayne, IN 46808
(219)483-4759
lparker@algreatlakes.com
MAP participant

Mowers Soil Testing Plus, Inc.
117 E Main St
Toulon, IL 61483
(309)286-2761
swiedman@mowersplus.com

Logan Labs
P.O. Box 1455
184 West Main Street
Russells Point, OH 43348
Ph: (937) 842-6100

Appendix B Drain Tile Inspection Log

				Outlet flow <i>before</i> manure application								Outlet flow <i>during/after</i> manure application		
Date	Field Name	Acres	Tile Out-let ID	Flow? Check Time?	Describe flow, rate, color, odor	Manure Source	Manure spread method	Start & End Time for Application	Amt. Per acre	Soil Conditions	Weather Conditions	Flow? Check Time?	Describe flow, rate, color, odor	Response Actions Taken?
6/5/2001 Example	R1	12	1	Yes 10AM	Clear, no odor, trickle	001	IJ	1030-11AM	5,000 gal/acre	Moist, but no ponding	C, W	Yes 11 AM	Brown, foamy, more flow than before	Yes – see next page
6/6/2001 Example	R2	23	1, 2	Yes 3PM	Clear, no odor	001	IC	330PM-630PM	7,000 gal/acre	Dry – some cracks	S	Yes 400 PM 645 PM	Clear during – all check and each outlet	No

Nutrient Sources
 001 = Manure Shed
 002 =
 003 = Bunker Waste

Soil Conditions
 D = Dry SN = Snow Covered
 W = Wet
 FZ = Frozen

Application Method
 SA = Surface Applied
 IJ = Injected
 IC = Incorporated

Weather
 S = Sunny LR = Light Rain
 C = Cloudy HR = Heavy Rain
 W = Windy SN = Snow

Appendix C



BUREAU OF WATERSHED MANAGEMENT

INTERIM GUIDANCE

NUTRIENT MANAGEMENT - CAFO APPLICATIONS ON SHALLOW GROUNDWATER SOILS

March 2009

Description: Ch. NR 243, Wis. Adm. Code, restrictions CAFO manure and process wastewater applications to fields that have less than 24 inches of soil over groundwater or bedrock.

This guidance describes how permittees and their consultants can identify and determine whether to use these fields as well as how Department staff can review fields for compliance with this requirement.

This document is intended solely as guidance, and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations, and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

Background

NR 243.14(2)(b)(7) requires CAFO manure or process wastewater applications may not be applied on areas of a field with a depth to groundwater or bedrock of less than 24 inches.

This restriction applies only to those portions of field that have less than 24 inches of separation to groundwater. If portions of a field have at least 24” of soil, these portions of the field are not subject to the prohibition (i.e., there is no de minimus amount of field that falls into/out of a prohibition area that would allow the entire field to be determined to not meet/meet the restriction).

NRCS Conservation Planning Technical Note WI-1

This document (Appendix 1) identifies soils with high potential for groundwater contamination. It places restrictions on ‘w’ type soils. The ‘w’ symbol indicates the soil is very poorly and poorly drained has an apparent water table that is less than 12 inches from the surface for any duration at any time of the year. Accordingly, ‘w’ soils indicate, by definition, where the depth to groundwater may also be within 24 inches of the field surface for any duration at any time of the year.

Tech Note WI-1 link (Sept 2007):<http://www.wi.nrcs.usda.gov/technical/technotes.html>

NRCS Soil Description for ‘w’ soils

NRCS soil descriptions provide more detailed information for individual soils, including ‘w’ soils. Each description contains a category entitled DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY. This category describes the depth to water table (groundwater) for specific time periods. Here are two examples:

Example 1 - Poorly drained. An apparent seasonal high water table is at 15 cm (0.5 foot) above the surface to 31 cm (1.0 foot) below the surface at some time during spring in most years.

Example 2 - Very poorly drained. Depth to the seasonal high water table ranges from 2 foot above the surface in ponded phases to 1 foot below the surface from September to June.

For specific NRCS soil descriptions, use NRCS Soil Description Search link (click on soil series name search):

<http://soils.usda.gov/technical/classification/osd/index.html>

NRCS soil description, groundwater depth factors and NR 243 compliance

The NRCS soil descriptions, however, are not regulatory. They are general guidance provided by NRCS for general nutrient management purposes. *The actual depth to groundwater on a specific day or under specific conditions may vary from the NRCS narrative soil descriptions.*

The following factors influence groundwater depth:

- Soil type(s) and moisture content.
- Field topography.
- Weather patterns (wet or dry seasons).
- Drainage systems (ditches and drain tiles).
- Crop and Tillage types.

NR 243.14 requires manure applications to fields meet the depth to groundwater requirement **on a field by field basis at the time of application.** The steps described below provide permitted CAFO farms some methods to demonstrate compliance with the NR243 depth to groundwater requirement. **Please note, this guidance does not preclude a CAFO farm from submitting or implementing alternative methods to this guidance*.**

* = Alternative methods do not become effective until the department has reviewed and approved the method.

Interim guidance for shallow groundwater soils

- (1) For each field listed in farm's Nutrient Management Plan (NMP), identify and map all 'w' soil units using tools below. Keep with NMP.**

Web Soil Survey - <http://websoilsurvey.nrcs.usda.gov/app/>

Tech Note WI-1 (Appx 1)- <http://www.wi.nrcs.usda.gov/technical/technotes.html>

- (2) For each field, document the NRCS Soil Series description for all 'w' soil units using link below. Keep with NMP.** Use DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY description to determine depth to water table time period(s).

NRCS Soil Description - <http://soils.usda.gov/technical/classification/osd/index.html>

- (3) If possible, avoid applying manure or process wastewater to areas of fields with 'w' soils during shallow groundwater time periods listed in NRCS soil description(s). If avoidance is not possible, follow steps 4-6 below.**

- (4) Before any application, inspect the 'w' soil section(s) of the field and answer the following question: Are 'w' soil sections of field 'idle' - Y or N?**

For purposes of this guidance, "idle" means: the 'w' soil section(s) of field show evidence of hydric soils and exhibit: (1) Wetland vegetation (woody vegetation, shrubs, grasses) or (2) Abandoned condition (e.g., no crops or evidence of recent crops for at least two years).

- i. If Y – no application; locate alternative acreage.**
- ii. If N – go to Step 5.**

- (5) Before any application, demonstrate 'w' soil sections of field do not have a groundwater depth of less than 24 inches.**

- i. If Y– apply manure and follow all other NR243.14 manure spreading requirements.**
- ii. If N– no application; locate alternative acreage; or apply at time when groundwater depth is greater than 24 inches.**

For purposes of this guidance, 'demonstrate' means one of the following options:

- (1) Locate drain tile(s) on the field with 'w' soils units. Determine drain tile(s) are functioning and tile depth is 24 inches or greater from the surface of the field. If drain tile(s) meet criteria above, complete application and follow all other NR243 spreading requirements (e.g., preventing drain tile discharges to surface waters).
- (2) Excavate at least two "representative" soil pits within at least one 'w' soil area on the field that is five acres or less in size* (using mechanical soil auger or manual hand tools) to a depth of at least 30 inches. After at least one hour, observe if the water table is below 24 inches of surface. If both pits (for each five acre area) meet the criteria above, refill each pit, complete application and follow all other NR243 spreading requirements.

*= When 'w' soil area on field is greater than five acres in size, excavate additional soil pits so a ratio of two pits for each 5 acre sized 'w' soil unit is met.

For purposes of this guidance, "representative" means choosing locations within a 'w' soil area of field that reflects the overall structure and characteristics of the 'w' soil unit.

- (6) Document steps taken at each field with 'w' soil units in WPDES permit daily and annual spreading reports.**

SnapPlus Application Restriction Compliance Check Report

For Years	2016 - 2019
Plan Year	2017
Reported For	Daybreak Foods Inc. LMC: Group: New Fields 2017
Printed	2016-10-12
Plan Completion/Update Date	2016-05-03
SnapPlus Version 16.0 built on 2016-03-21	
C:\Users\Liz\Desktop\Working Files\Daybreak Foods.snapDb	

Prepared for:
Daybreak Foods Inc. LMC
attn:Keith Kulow
533 E. Tyranena Park Road, P.O. Box 800
Lake Mills, 53551

Prepared by:
Phillips Crop Care LLC
502 E Mill St
Beaver Dam, 53916
920 296 6044, phillipscropcare@yahoo.com

WPDES Permitted Farm

Manure Credits: 2nd Year

Strategy for applying manure adjacent to navigable water, conduits to navigable water or wetlands:

Annual crops: No applications within 25 ft; inject or immediately incorporate in rest of SWQMA

Perennial crops: No applications within 25 ft; inject or immediately incorporate in rest of SWQMA

Manure will be applied to the following fields with SWQMA and W soil restrictions:

For fields with W soil restrictions:

CAFO field areas that may have groundwater within 2 feet of surface at time of manure application will be verified prior to application for

(1) groundwater depth or

(2) presence of functioning drain tiles within all wet field areas to ensure groundwater depth is below 2 feet of surface.

These fields will have specific records of these investigations, including methods used, which will be maintained within the NMP.

Field Name / Crop Year	In SWQMA	Has W Soils	W Soil Acknowledged	2016	2017	2019
Kornsted 1	No	Yes	No	X		
Kornsted 2	No	Yes	No	X		
Kornsted 3	No	Yes	No	X		
Kornsted 4	No	Yes	No	X		
Kornsted 5	No	Yes	No	X		
Kornsted 6	No	Yes	No	X		

Field Name / Crop Year	In SWQMA	Has W Soils	W Soil Acknowledged	2016	2017	2019
Kornsted 7	No	Yes	No	X		
Kornsted 8	No	Yes	No	X		
Kuhn Farm	Yes	Yes	No		X	X
X - Fields with manure applications						

This farm uses both PI and Soil Test P for P2O5 590 Compliance

Rotational Restriction Problems

No Rotational Problems found

Soil Test Problems

No Soil Test Problems

Application Restriction Problems

Field Name	Year	Problem	Explanation
Kornsted 1	2016	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 1	2016	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.

Field Name	Year	Problem	Explanation
Kornsted 2	2016	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 2	2016	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 3	2016	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 3	2016	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 4	2016	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 4	2016	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.

Field Name	Year	Problem	Explanation
Kornsted 5	2016	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 5	2016	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 6	2016	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 6	2016	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 6	2016	Soil test P is between 100 to 200 ppm and if manure is applied to this CAFO field, it must meet the P Index standard and a P2O5 Balance target that demonstrates soil test P drawdown over a rotation of 4 years or less. Reset CAFO P Rotation Setting to include the year of this manure application so the P2O5 Balance and P Index can be checked for a correct time period.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 7	2016	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.

Field Name	Year	Problem	Explanation
Kornsted 7	2016	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 8	2016	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kornsted 8	2016	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Spreading Restrictions will need to be followed. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kuhn Farm	2017	Overapplication of manure or fertilizer N of 59 lbs N/acre.	Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.

Field Name	Year	Problem	Explanation
Kuhn Farm	2017	CAFO farms are not allowed to apply manure within 100 feet of a drinking water well.	<p>Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.</p>
Kuhn Farm	2017	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	<p>Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.</p>

Field Name	Year	Problem	Explanation
Kuhn Farm	2017	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kuhn Farm	2017	Unincorporated applications upslope of conduits to groundwater: well within 200 feet	Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.

Field Name	Year	Problem	Explanation
Kuhn Farm	2019	Overapplication of manure or fertilizer N of 59 lbs N/acre.	Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kuhn Farm	2019	CAFO farms are not allowed to apply manure within 100 feet of a drinking water well.	Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.

Field Name	Year	Problem	Explanation
Kuhn Farm	2019	CAFOs are prohibited from applying manure when groundwater is within 24 inches of the surface.	Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.
Kuhn Farm	2019	Manure application on a field which may have groundwater within 2 feet of the surface. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field.	Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.

Field Name	Year	Problem	Explanation
Kuhn Farm	2019	Unincorporated applications upslope of conduits to groundwater: well within 200 feet	Manure Spreading Restrictions will need to be followed. Manure may not be applied within 100 ft of a direct conduit to groundwater or within 100 ft of a private well or a non community system or within 1000 ft of a community well, or upslope of conduits to groundwater: well within 200 ft. A planner still needs to acknowledge applications will be verified in the Field Restriction for this field. This field will need to be checked to verify that groundwater is not within 2 feet of the soil surface at manure application time.

Excess N Problems

Kuhn Farm	2017, 2019
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Soil Test Problems Legend	
Too Few Soil Samples	Less than one sample per five acres.
Soil Test Data Too Old	Soil test is greater than 4 years old

SnapPlus Field Data and 590 Assessment Plan

Reported For	Daybreak Foods Inc. LMC Group: New Fields 2017
Printed	2016-10-12
Plan Completion/Update Date	2016-05-03
SnapPlus Version 16.0 built on 2016-03-21	
C:\Users\Liz\Desktop\Working Files\Daybreak Foods.snapDb	

Prepared for:

Daybreak Foods Inc. LMC
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533 E. Tyrannena Park Road, P.O. Box 800
Lake Mills, 53551

Prepared by: Phillips Crop Care LLC

502 E Mill St
Beaver Dam, 53916
920 296 6044, phillipscropcare@yahoo.com

WPDES Permitted Farm

Field Data: 249 Total Acres Reported.

Field Name	F. Grp	FSA Trct	FSA Fld	Acres	County	Critical Soil Series & Symbol	F. Slp %	F.Slp Len ft	Below Field Slope To Water %	Dist.To Water ft	N/Fld Res	Contour/ Filters	Irrig	Tiled	Rotation	Tillage	Report Period	Field "T" t/ac	Rot Avg Soil Loss t/ac	SCI	Rot Avg PI	Soil Test P ppm	Rot P205 Bal lb/ac	P205 Bal Target lb/ac
Kornsted 1	J & S			83.6	Jefferson	FOX FsB	4	200	0 - 2	301 - 1000	W %	No / No	No	No	Cg-Sg15-Cg-Sg15	NT-NT-NT-NT	2016-2019	3	0.2	0.8	1	101	-161	-125
Kornsted 2	J & S			11.3	Jefferson	HOUGHTON Ht	1	250	0 - 2	301 - 1000	W	No / No	No	No	Cg-Sg15-Cg-Sg15	NT-NT-NT-NT	2016-2019	2	0	1.1	1	101	-161	-125
Kornsted 3	J & S			61.1	Jefferson	FOX FsB	4	200	0 - 2	1001 - 5000	W %	No / No	No	No	Cg-Sg15-Cg-Sg15	NT-NT-NT-NT	2016-2019	3	0.2	0.8	1	101	-161	-125
Kornsted 4	J & S			3.2	Jefferson	WACOU STA Wa	1	250	0 - 2	1001 - 5000	W	No / No	No	No	Cg-Sg15-Cg-Sg15	NT-NT-NT-NT	2016-2019	5	0.1	1.0	1	101	-161	-125
Kornsted 5	J & S			4.2	Jefferson	SEBEW A Sm	1	250	0 - 2	1001 - 5000	W	No / No	No	No	Cg-Sg15-Cg-Sg15	NT-NT-NT-NT	2016-2019	3	0.1	0.8	1	101	-161	-125
Kornsted 6	J & S			10.5	Jefferson	FOX FsB	4	200	0 - 2	1001 - 5000	W	No / No	No	No	Cg-Sg15-Cg-Sg15	NT-NT-NT-NT	2016-2019	3	0.2	0.8	1	101	-175	-88
Kornsted 7	J & S			28.6	Jefferson	FOX FoC2	9	150	0 - 2	1001 - 5000	W %	No / No	No	No	Cg-Sg15-Cg-Sg15	NT-NT-NT-NT	2016-2019	3	0.5	0.8	1	101	-161	-125
Kornsted 8	J & S			4.3	Jefferson	MATHER TON MmA	2	250	0 - 2	1001 - 5000	W	No / No	No	No	Cg-Sg15-Cg-Sg15	NT-NT-NT-NT	2016-2019	3	0.2	0.8	1	101	-161	-125
Kuhn Farm	J & S			41.8	Dodge	MIAMI MyC2	9	150	0 - 2	301 - 1000	W S D C %	No / No	No	No	Sg15-Cg-Sg15-Cg	FCND-NT-FCND-NT	2016-2019	5	4.3	0.4	6	11	-60	-

Crop Abbreviations	
Abbreviation	Crop
Cg	Corn grain
Sg15	Soybeans 15-20 inch row

Tillage Abbreviations	
Abbreviation	Tillage
FCND	Fall Chisel, no disk
NT	No Till

Restriction Legend	
Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 200 feet upslope of field.
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

SnapPlus Spreading and Nutrient Management Sorted By Crop Report

Crop Year	2017
Reported For	Daybreak Foods Inc. LMC Group: New Fields 2017
Printed	2016-10-12
Plan Completion/Update Date	2016-05-03
SnapPlus Version	16.0 built on 2016-03-21
C:\Users\Liz\Desktop\Working Files\Daybreak Foods.snapDb	

Prepared for:
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attn:Keith Kulow
533 E. Tyranena Park Road, P.O. Box 800
Lake Mills, 53551

Prepared by: Phillips Crop Care LLC
502 E Mill St
Beaver Dam, 53916
920 296 6044, phillipscropcare@yahoo.com

First Year Corn Grain Fields					Crop Removal					Soil Test ppm		Adjusted Recs lb/ac			Planned Applications and Credits lb/ac			Over(+) Under(-) Adj. UW Recs lb/ac			Applications			
Name	Ac.	Slp %	Soil Map Symbol (pred) & N Res	Prior Crop	2017 Crop	Yield Goal	P205	K2O	Tillage	Avg P	Avg K	N	P205	K2O	N	P205	K2O	N	P205	K2O	Product Name and Analysis	Appln Rate and Method	N-P205-K2O credit	Total Amt
Kuhn Farm	41.8	9	SdA W	Soybeans 15-20 inch row	Corn grain	211-230	85	65	NT	11	102	140	115	65	219	105	88	79	-10	23	28% UAN (Liquid 28-0-0) 28-0-0	40 gal Spring Unincorp	119-0-0	1672 gal
																					Chicken Manure Day 50-53-44	2 ton Fall Unincorp	100-105-88	84 ton

41.8 planned First Year Corn Grain acres

1,672 planned gal 28% UAN (Liquid 28-0-0)

84 planned ton Chicken Manure Day

SnapPlus Spreading and Nutrient Management Sorted By Crop Report

Soybean Fields					Crop Removal				Soil Test			Adjusted Recs lb/ac			Planned Applications and Credits lb/ac			Over(+) Under(-) Adj. UW Recs lb/ac			Applications			
Name	Ac.	Slp %	Soil Map Symbol (pred) & N Res	Prior Crop	2017 Crop	Yield Goal	P205	K20	Tillage	Avg P	Avg K	N	P205	K20	N	P205	K20	N	P205	K20	Product Name and Analysis	Appln Rate and Method	N-P205-K20 credit	Total Amt
Kornsted 1	83.6	4	SfB W	Corn grain	Soybeans 15-20 inch row	56-65	50	85	NT	101	100	0	0	115	8	0	0	8	0	-115				
Kornsted 2	11.3	1	Ht W	Corn grain	Soybeans 15-20 inch row	56-65	50	85	NT	101	100	0	0	0	8	0	0	8	0	0				
Kornsted 3	61.1	4	FsA W	Corn grain	Soybeans 15-20 inch row	56-65	50	85	NT	101	100	0	0	115	8	0	0	8	0	-115				
Kornsted 4	3.2	1	Pa W	Corn grain	Soybeans 15-20 inch row	56-65	50	85	NT	101	100	0	0	0	8	0	0	8	0	0				
Kornsted 5	4.2	1	Pa W	Corn grain	Soybeans 15-20 inch row	56-65	50	85	NT	101	100	0	0	0	8	0	0	8	0	0				
Kornsted 6	10.5	4	Wa W	Corn grain	Soybeans 15-20 inch row	56-65	50	85	NT	101	100	0	0	115	8	0	0	8	0	-115				
Kornsted 7	28.6	9	FoC2 W	Corn grain	Soybeans 15-20 inch row	56-65	50	85	NT	101	100	0	0	115	8	0	0	8	0	-115				
Kornsted 8	4.3	1.5	Sm W	Corn grain	Soybeans 15-20 inch row	56-65	50	85	NT	101	100	0	0	115	8	0	0	8	0	-115				

206.8 planned Soybean acres

249 total planned acres

Total Planned to be Applied

Total Manure Volume	Manure App Plan	Remaining Manure
5994 tons	84	5,910
3947500 gals	0	3,947,500

1,672 planned gal 28% UAN (Liquid 28-0-0)

84 planned ton Chicken Manure Day

Tillage Abbreviations	
Abbreviation	Tillage
FCND	Fall Chisel, no disk
NT	No Till

SnapPlus Manure Production Estimator Report

Crop Year	2017
Reported For	Daybreak Foods Inc. LMC
Printed	2016-10-12
Plan Completion/Update Date	2016-05-03
SnapPlus Version 16.0 built on 2016-03-21	
C:\Users\Liz\Desktop\Working Files\Daybreak Foods.snapDb	

Prepared for:
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Prepared by: Phillips Crop Care LLC
 502 E Mill St
 Beaver Dam, 53916
 920 296 6044, phillipscropcare@yahoo.com

Nutrient Source Summary for 2017

		Values are for First Year Available Nutrients in lb/ton or lb/1000 gallons								Volumes are in Tons or Gallons						Value of Applied Nutrients in \$ (based on commerical fertilizer costs in \$/lb)			
Source Name	Type	N	N Inc	N Inj	P	K	S	DM	Volume	Volume Applied	Volume Remain	Fall	Winter	Spring	Summer	N	P2O5	K2O	S
Behm Liquid Dairy Manure	Dairy, slurry	7.0	10.0	10.0	5.0	16.0	0.9	6	0	0	0	0	0	0	0	0	0	0	0
Chicken Dry Manure Nat	Chicken, solid	20.0	38.6	38.6	44.3	39.1	4.9	60	0	574	-574	574	0	0	0	0	0	0	0
Chicken Liquid	Poultry, liquid	27.0	32.0	32.0	15.0	14.7	1.1	8	2,000,000	0	2,000,000	0	0	0	0	0	0	0	0
Chicken Manure Day	Chicken, solid	49.9	49.9	49.9	52.6	43.9	5.6	76	5,000	4,812	188	4,478	0	334	0	0	0	0	0
Chicken Manure From Another Farm	Chicken, solid	20.0	24.0	24.0	30.0	24.0	1.9	60	0	0	0	0	0	0	0	0	0	0	0
Dairy Manure	Dairy, solid	2.0	3.0	3.0	3.0	6.0	0.7	33	0	0	0	0	0	0	0	0	0	0	0
Guenterberg Steer & Heifer Manure	Beef, solid	3.0	4.0	5.0	6.0	10.0	1.0	29	0	0	0	0	0	0	0	0	0	0	0

		Values are for First Year Available Nutrients in lb/ton or lb/1000 gallons								Volumes are in Tons or Gallons						Value of Applied Nutrients in \$ (based on commerical fertilizer costs in \$/lb)			
Source Name	Type	N	N Inc	N Inj	P	K	S	DM	Volume	Volume Applied	Volume Remain	Fall	Winter	Spring	Summer	N	P2O5	K2O	S
Manure From Another Source	Chicken, solid	20.0	24.0	24.0	30.0	24.0	1.9	60	0	0	0	0	0	0	0	0	0	0	0
Nick Hull Grazing	Beef, grazing	4.0	0.0	0.0	5.0	9.0	0.0	9	0	0	0	0	0	0	0	0	0	0	0
Pasture Grazing	Beef, grazing	4.0	0.0	0.0	5.0	9.0	1.0	9	0	0	0	0	0	0	0	0	0	0	0
Poultry Liquid	Poultry, liquid	8.0	10.0	0.0	6.0	10.0	0.4	3	0	0	0	0	0	0	0	0	0	0	0
Poultry Manure Deans	Chicken, solid	20.0	24.0	24.0	38.0	32.0	1.9	56	0	0	0	0	0	0	0	0	0	0	0
Poultry Manure J & S	Chicken, solid	20.0	24.0	24.0	30.0	24.0	1.9	60	0	0	0	0	0	0	0	0	0	0	0
Pulsfus Chicken Solid	Chicken, solid	24.0	27.0	29.0	35.0	26.0	1.7	57	994	0	994	0	0	0	0	0	0	0	0
Purple Cow Chicken Litter	Chicken, solid	16.3	19.6	19.6	20.1	20.6	2.0	36	0	0	0	0	0	0	0	0	0	0	0
Strauss Dairy Semi-Solid	Dairy, semi-solid	2.0	2.0	3.0	3.0	5.0	0.4	15	0	1,165	-1,165	960	0	205	0	0	0	0	0
Wastewater	Other, liquid	1.0	1.0	1.0	0.2	0.6	0.0	0	1,947,500	979,865	967,635	0	0	261,585	718,280	0	0	0	0
Total Solid:									5,994	6,551	-557	Total Values				0	0	0	0
Total Liquid:									3,947,500	979,865	2,967,635								

Estimated Livestock Manure Production

No Livestock Found

Manure Storage

No Storages Found

Spreaders

No Spreaders Found

SnapPlus Soil Test Report

Reported For	Daybreak Foods Inc. LMC Group: New Fields 2017
Printed	2016-10-12
Plan Completion/Update Date	2016-05-03
SnapPlus Version 16.0 built on 2016-03-21	
C:\Users\Liz\Desktop\Working Files\Daybreak Foods.snapDb	

Prepared for:

Daybreak Foods Inc. LMC
attn:Keith Kulow
533 E. Tyranena Park Road, P.O. Box 800
Lake Mills, 53551

Prepared by: Phillips Crop Care LLC

502 E Mill St
Beaver Dam, 53916
920 296 6044, phillipscropcare@yahoo.com

WPDES Permitted Farm

Field Name	Subfarm	Acres	Predominant		Soil Test Date	Soil Test Lab	Lab Number	Samples		pH	OM%	in ppm			
			Soil Map Symbol	Soil Name				Rec. #	Actual #			P	K	S	CEC
Kornsted 1	J & S	83.63	SfB	ST. CHARLES	2016-07-22	BOGUS	BOGUS	17	18	7.0	3.5	101	100	0	0
Kornsted 2	J & S	11.32	Ht	HOUGHTON	2016-07-22	BOGUS	BOGUS	2	2	7.0	3.5	101	100	0	0
Kornsted 3	J & S	61.11	FsA	FOX	2016-07-22	BOGUS	BOGUS	12	12	7.0	3.5	101	100	0	0
Kornsted 4	J & S	3.23	Pa	PALMS	2016-07-22	BOGUS	BOGUS	1	1	7.0	3.5	101	100	0	0
Kornsted 5	J & S	4.19	Pa	PALMS	2016-07-22	BOGUS	BOGUS	1	1	7.0	3.5	101	100	0	0
Kornsted 6	J & S	10.51	Wa	WACOUSTA	2016-07-22	BOGUS	BOGUS	2	2	7.0	3.5	101	100	0	0
Kornsted 7	J & S	28.55	FoC2	FOX	2016-07-22	BOGUS	BOGUS	6	6	7.0	3.5	101	100	0	0
Kornsted 8	J & S	4.29	Sm	SEBEWA	2016-07-22	BOGUS	BOGUS	1	1	7.0	3.5	101	100	0	0
Kuhn Farm	J & S	41.81	SdA	ST. CHARLES	2016-01-12	ROCK RIVER LAB	186667	8	12	7.1	3.1	11	102	0	23

Crop Year Soil Test Needed

Field Name	Soil Test Date	2016	2017	2018	2019	2020	2021	2022
Kornsted 1	2016-07-22						X	
Kornsted 2	2016-07-22						X	
Kornsted 3	2016-07-22						X	
Kornsted 4	2016-07-22						X	

SnapPlus Soil Test Report

Field Name	Soil Test Date	2016	2017	2018	2019	2020	2021	2022
Kornsted 5	2016-07-22						X	
Kornsted 6	2016-07-22						X	
Kornsted 7	2016-07-22						X	
Kornsted 8	2016-07-22						X	
Kuhn Farm	2016-01-12					X		

Korsnsted 1 North

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/10/2016 SnapMap Version: 16.0, Crop year: 2016



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|--|---|---|--|
| <ul style="list-style-type: none"> Winter Restriction if Slope > 9% No Winter App. Slope > 12% DNR Wetland CAFO SWQMA 300FT SWQMA 1000FT FALL N Restrictions CAFO Manure Restriction (W) CAFO Manure Restriction (R) Perennial Streams Intermittent Streams Waterbodies | <ul style="list-style-type: none"> HUC 12 Watershed HUC 8 Basin Counties Township/Range Impaired Waters (303d) Outstanding/Exceptional Waters Roads Fields Tile lines Not farmed | <ul style="list-style-type: none"> Grass filter area Vegetated buffer Water Sinkhole/other karst feature Other Designed grassed waterway Permanent vegetated channel Unvegetated ephemeral channel Drainage ditch Gully Point buffers | <ul style="list-style-type: none"> Drinking Well Well Irrigation Well Sinkhole Non-metallic mine Fractured bedrock at surface Other direct conduit Manure prohibited Incorporate manure County Defined Karst Features |
|--|---|---|--|

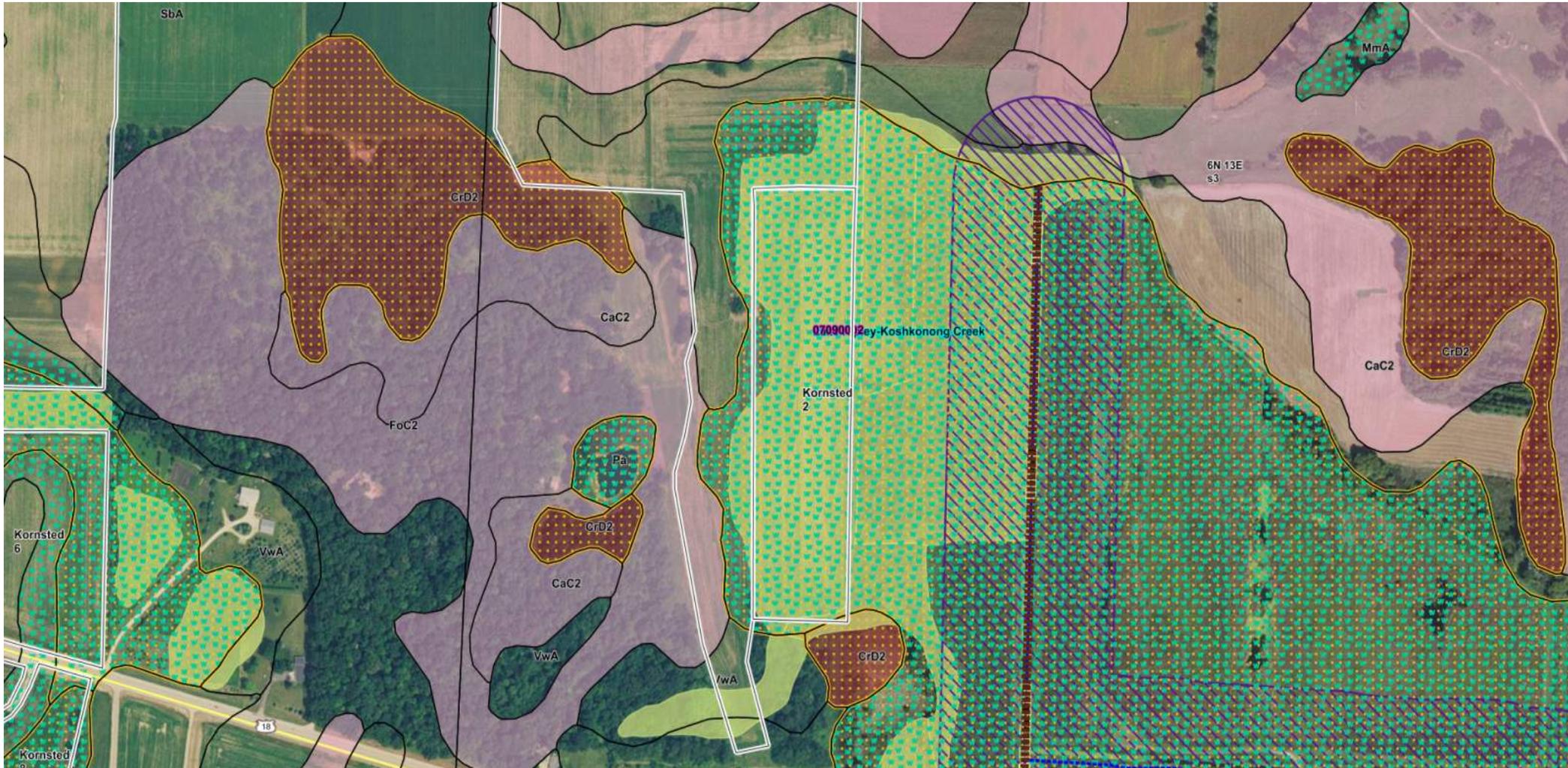
Kornsted 1 South & 2

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/10/2016 SnapMap Version: 16.0, Crop year: 2016



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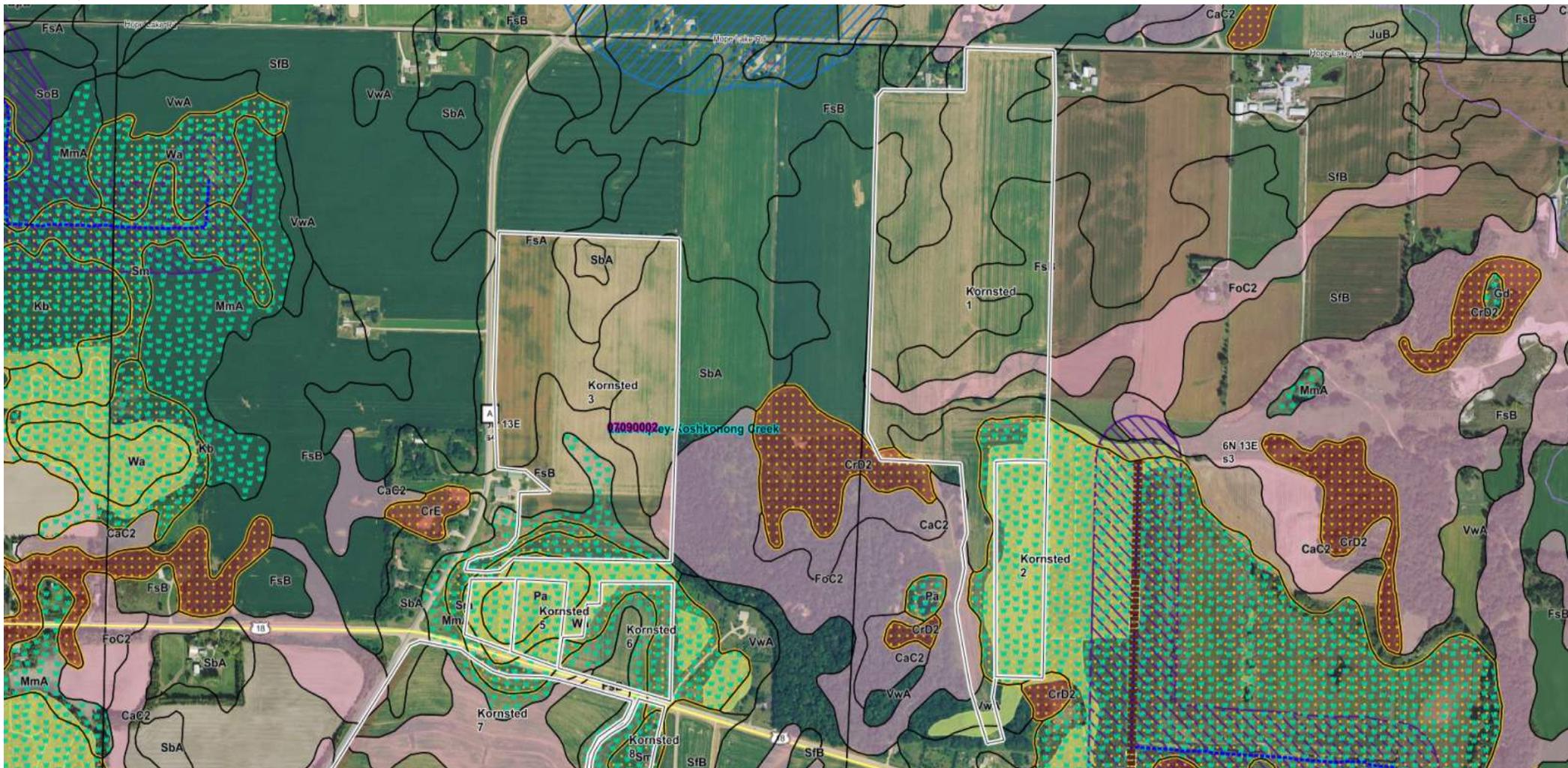
Kornsted 1-3

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/10/2016 SnapMap Version: 16.0, Crop year: 2016



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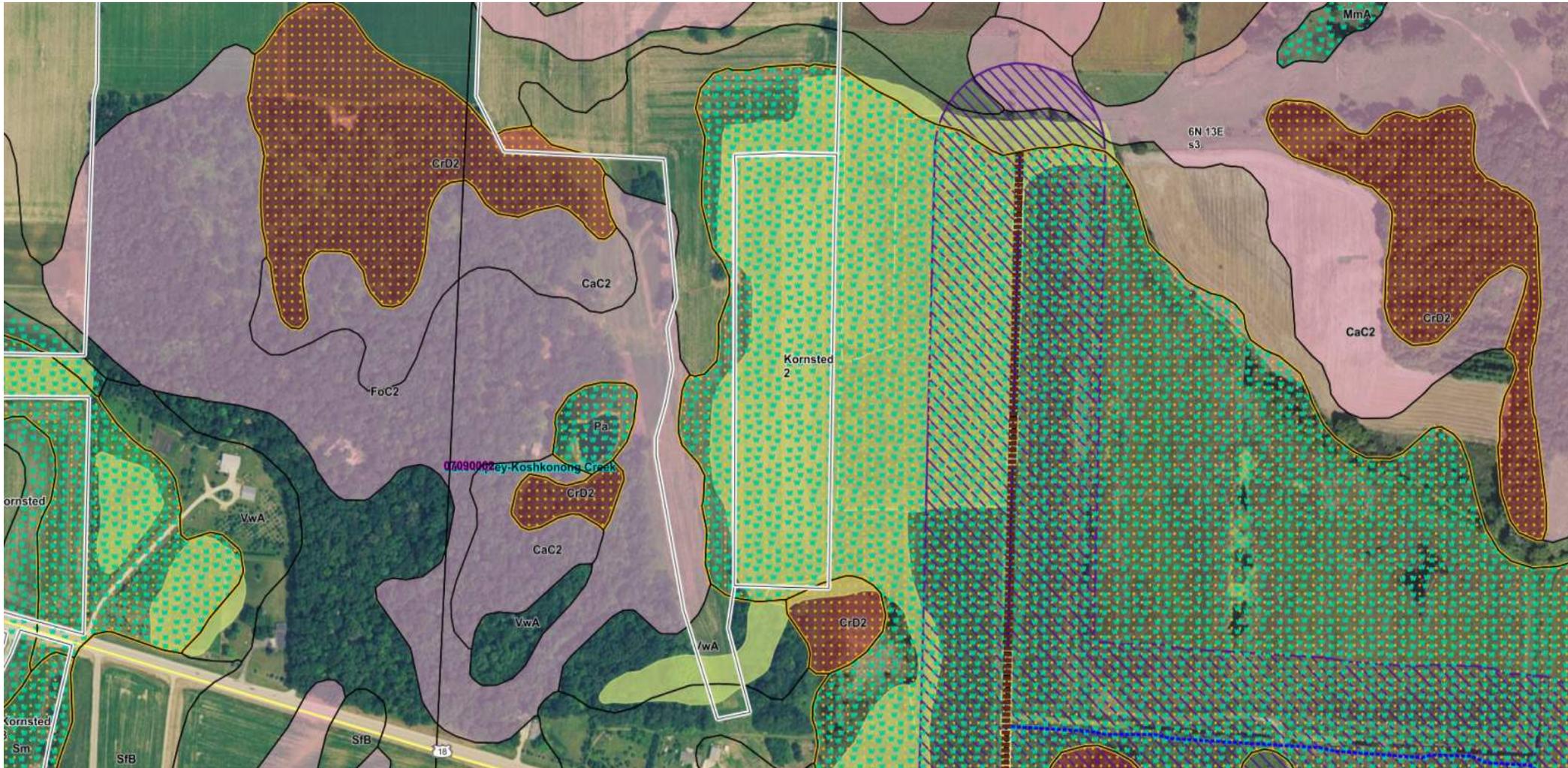
Kornsted 2 Detail

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/10/2016 SnapMap Version: 16.0, Crop year: 2016



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Kornsted 3

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/10/2016 SnapMap Version: 16.0, Crop year: 2016



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| <ul style="list-style-type: none"> Winter Restriction if Slope > 9% No Winter App. Slope > 12% DNR Wetland CAFO SWQMA 300FT SWQMA 1000FT FALL N Restrictions CAFO Manure Restriction (W) CAFO Manure Restriction (R) Perennial Streams Intermittent Streams Waterbodies HUC 12 Watershed HUC 8 Basin Counties Township/Range Impaired Waters (303d) Outstanding/Exceptional Waters Roads Soils Fields Tile lines Not farmed Grass filter area Vegetated buffer Water Sinkhole/other karst feature Other Designed grassed waterway Permanent vegetated channel Unvegetated ephemeral channel Drainage ditch Gully Point buffers Drinking Well Well Irrigation Well Sinkhole Non-metallic mine Fractured bedrock at surface Other direct conduit Manure prohibited Incorporate manure County Defined Karst Features |
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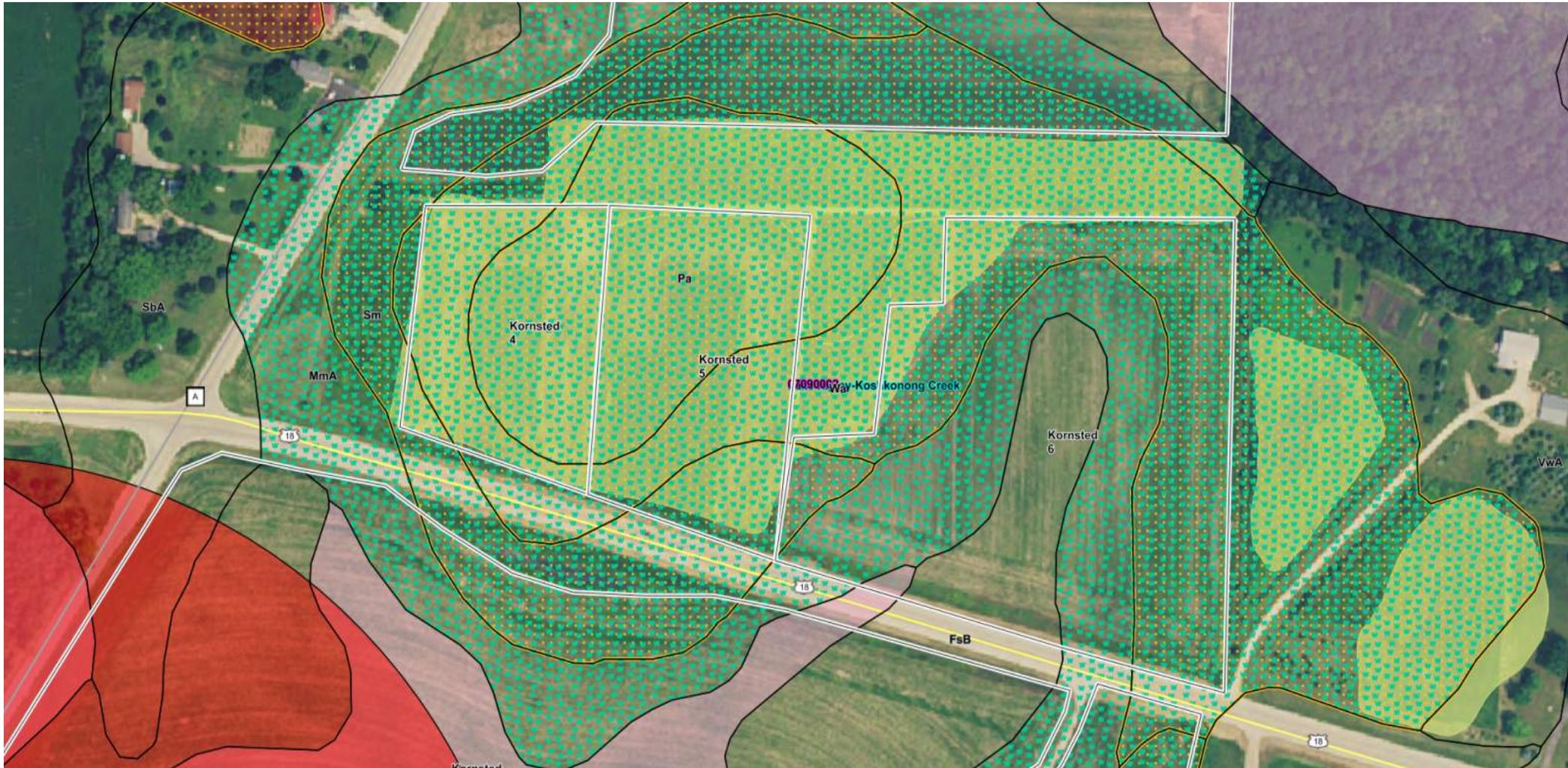
Kornsted 4-6

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/12/2016 SnapMap Version: 16.0, Crop year: 2016



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| <ul style="list-style-type: none"> Winter Restriction if Slope > 9% No Winter App. Slope > 12% DNR Wetland CAFO SWQMA 300FT SWQMA 1000FT FALL N Restrictions CAFO Manure Restriction (W) CAFO Manure Restriction (R) Well compensation Community wells 1000ft Shallow Silurian | <ul style="list-style-type: none"> Bedrock depth <5ft Perennial Streams Intermittent Streams Waterbodies HUC 12 Watershed HUC 8 Basin Counties Township/Range Impaired Waters (303d) Outstanding/Exceptional Waters Roads | <ul style="list-style-type: none"> Soils Fields Tile lines Not farmed Grass filter area Vegetated buffer Water Sinkhole/other karst feature Other Designed grassed waterway Permanent vegetated channel | <ul style="list-style-type: none"> Unvegetated ephemeral channel Drainage ditch Gully Point buffers Drinking Well Well Irrigation Well Sinkhole Non-metallic mine Fractured bedrock at surface Other direct conduit | <ul style="list-style-type: none"> Manure prohibi Incorporate ma County Defined |
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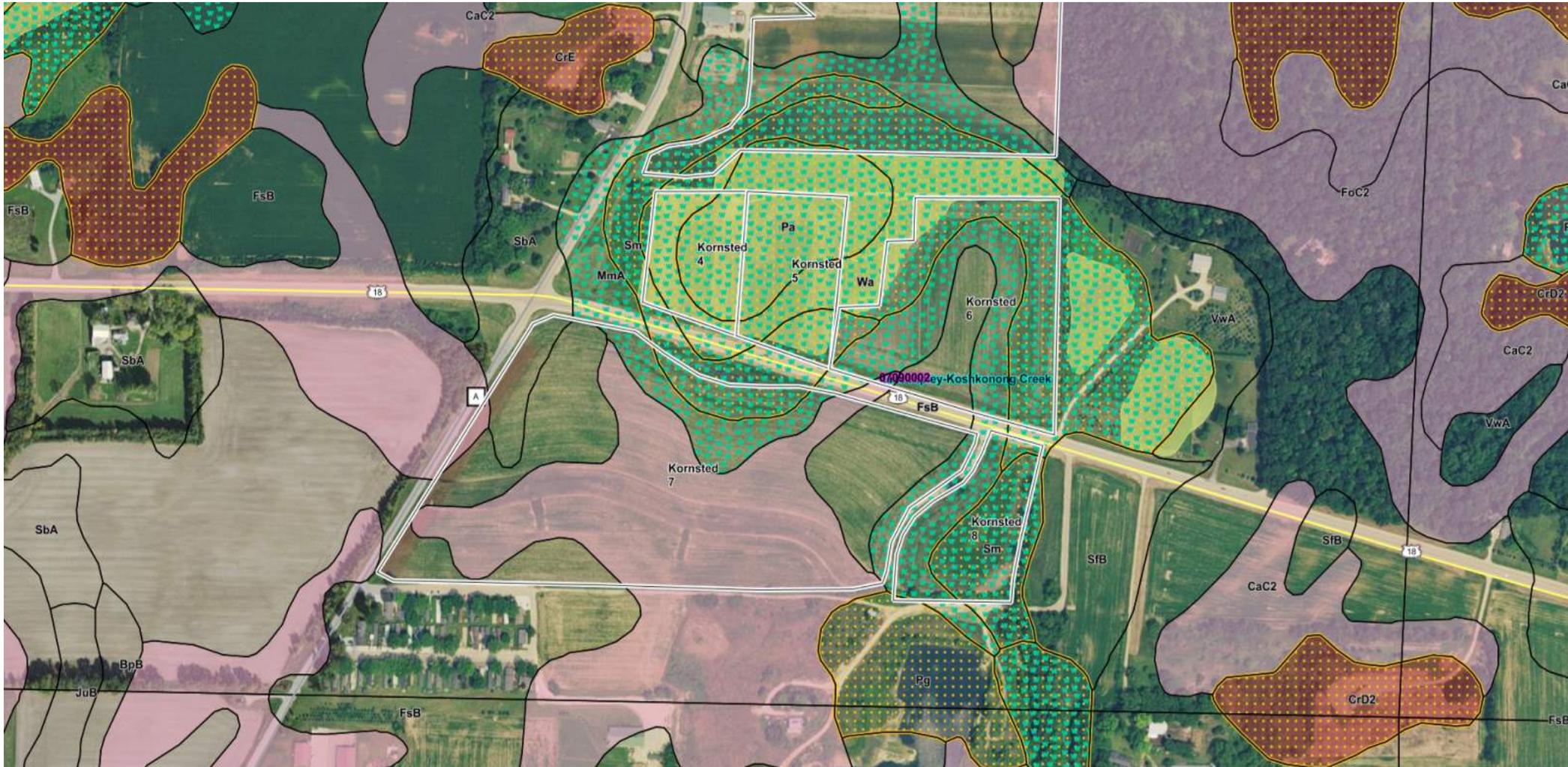
Kornsted 4-8

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/10/2016 SnapMap Version: 16.0, Crop year: 2016



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| <ul style="list-style-type: none"> Winter Restriction if Slope > 9% No Winter App. Slope > 12% DNR Wetland CAFO SWQMA 300FT SWQMA 1000FT FALL N Restrictions CAFO Manure Restriction (W) CAFO Manure Restriction (R) Perennial Streams Intermittent Streams Waterbodies | <ul style="list-style-type: none"> HUC 12 Watershed HUC 8 Basin Counties Township/Range Impaired Waters (303d) Outstanding/Exceptional Waters Roads Soils Fields Tile lines Not farmed | <ul style="list-style-type: none"> Grass filter area Vegetated buffer Water Sinkhole/other karst feature Other Designed grassed waterway Permanent vegetated channel Unvegetated ephemeral channel Drainage ditch Gully Point buffers | <ul style="list-style-type: none"> Drinking Well Well Irrigation Well Sinkhole Non-metallic mine Fractured bedrock at surface Other direct conduit Manure prohibited Incorporate manure County Defined Karst Features |
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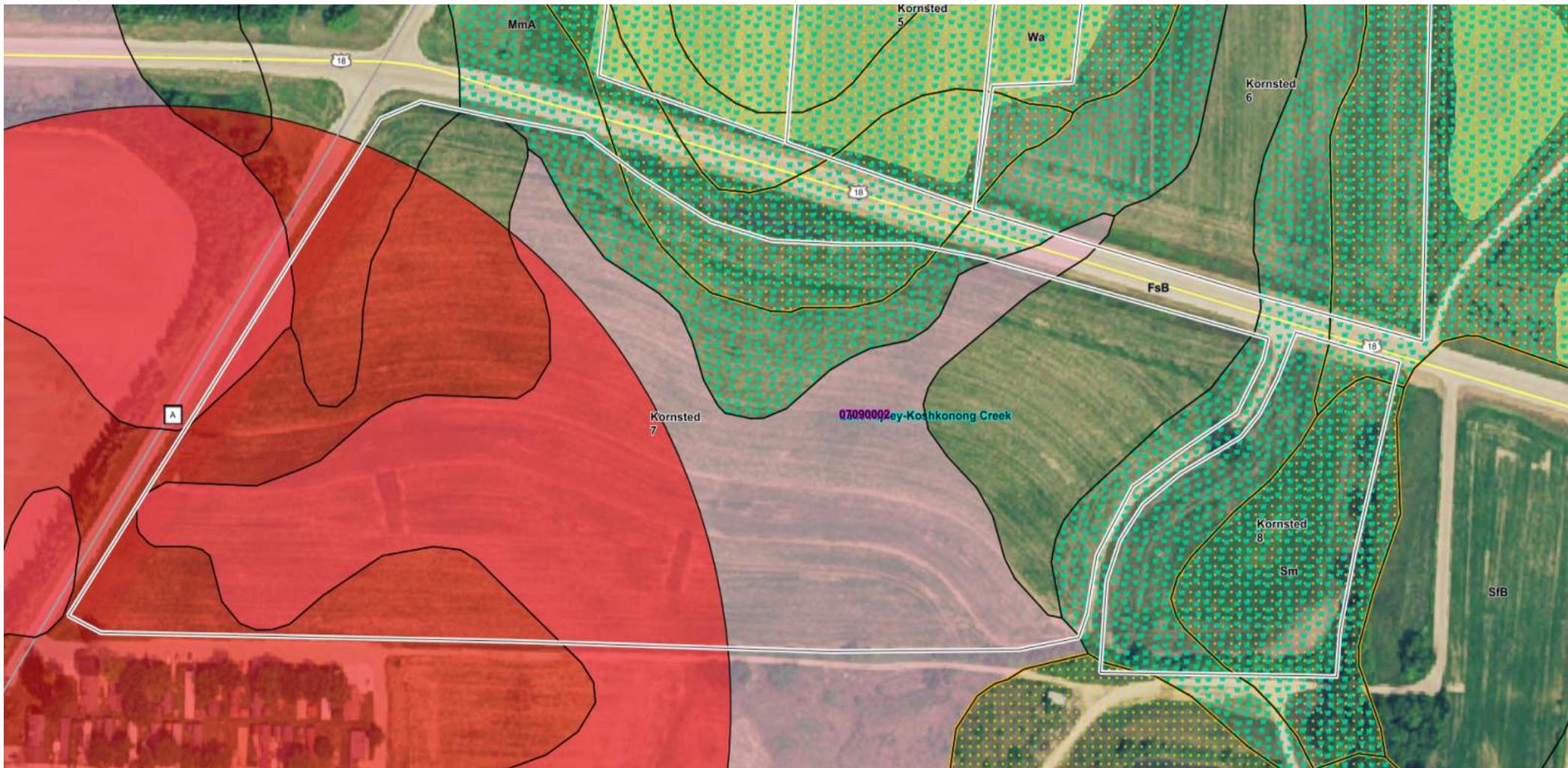
Kornsted 7-8

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/12/2016 SnapMap Version: 16.0, Crop year: 2016



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Kuhn Farm

Farm Name: Daybreak Foods Inc. LMC

Is this a CAFO: True



Map generated on: 10/12/2016 SnapMap Version: 16.0, Crop year: 2016



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| <ul style="list-style-type: none"> Winter Restriction if Slope > 9% No Winter App. Slope > 12% DNR Wetland CAFO SWQMA 300FT SWQMA 1000FT FALL N Restrictions CAFO Manure Restriction (W) CAFO Manure Restriction (R) Well compensation Community wells 1000ft Shallow Silurian | <ul style="list-style-type: none"> Bedrock depth <5ft Perennial Streams Intermittent Streams Waterbodies HUC 12 Watershed HUC 8 Basin Counties Township/Range Impaired Waters (303d) Outstanding/Exceptional Waters Roads | <ul style="list-style-type: none"> Soils Fields Tile lines Not farmed Grass filter area Vegetated buffer Water Sinkhole/other karst feature Other Designed grassed waterway Permanent vegetated channel | <ul style="list-style-type: none"> Unvegetated ephemeral channel Drainage ditch Gully Point buffers Drinking Well Well Irrigation Well Sinkhole Non-metallic mine Fractured bedrock at surface Other direct conduit | <ul style="list-style-type: none"> Manure prohibi Incorporate ma County Defined |
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