Permit Fact Sheet

General Information

Permit Number:	WI-0056308-06-0
Permittee Name:	Daybreak Foods – Creekwood - Cage Free; (formerly Daybreak Foods Inc. - Creekwood Farm)
Address:	N5505 Crossman Road
City/State/Zip:	Lake Mills, WI 53551
Discharge Location:	Daybreak Foods - Creekwood - Cage Free; • Layers - N5344 Crossman Road, Lake Mills, WI • Pullets - N5432 Crossman Road, Lake Mills, WI
Receiving Water:	Unnamed tributaries to the Lower Koshkonong Creek and the Lower Crawfish River watersheds and groundwaters of the state
StreamFlow ($Q_{7,10}$):	N/A
Stream Classification:	N/A

Animal Units					
	Current AU		**Proposed AU** **(Note: If all zeroes, expansions are not expected during permit term)**		
Animal Type	**Mixed**	**Individual**	**Mixed**	**Individual**	**Date of Proposed Expansion**
Layers (each) - non-liquid system	20753	25527	0	0	
Broilers/Pullets (each) - non-liquid system	3120	4992	0	0	
Total	23873	25527	0	0	

Facility Description

Daybreak Foods – Cage Free – Creekwood has recently changed its name from Daybreak Foods Inc. – Creekwood Farm. The facility is a recently renovated cage free egg laying operation with 2,075,340 laying chickens in five barns and 624,000 pullets in three bams. The facility has been permitted since 1985 and is currently permitted under the former name Daybreak Foods Inc. - Creekwood Farm. The current permit expired on 12/31/2017. The farm submitted a timely application allowing it to maintain permit coverage until the permit is reissued. This will be the 5th permit reissuance for this facility.

The number of birds at this facility has varied over the course of the current permit. The facility was depopulated in 2015 due to the Avian Flu outbreak. When the permit application was submitted in 2017, the facility was housing around

912,000 layers and 155,000 pullets and projecting the increase to the current flock size. The facility is also covered by the Jefferson County Livestock Siting Ordinance which sets a maximum approved size. There are no current plans to expand the facility during the proposed permit term.

All eggs produced at the new egg processing facility are broken and or graded. Approximately 22,000 gallons of egg wash wastewater are produced daily at the egg processing facility. The wastewater is processed prior to being stored and land applied to cropland following an approved Nutrient Management Plan (NMP). The wastewater treatment process consists of three cells, an 875,000-gallon covered anaerobic digester, an 875,000 gallon aerobic/aerated treatment cell and finally a 3,300,000 gallon decanter lagoon where the wastewater is stored.

The facility produces approximately 50,000 tons of solid chicken manure annually. Manure is conveyed out of the layer barns and into the Manure Drying and Processing building where it processed into a fertilizer. Manure is also hauled via truck from the pullet houses to the Manure Drying and Processing building. All mortality is currently being landfilled. Egg shells from the egg processing facility are delivered to the Manure Drying and Processing building and blended into the fertilizer as an added nutrient benefit. There are also 2 remaining concrete sheds approved for solid manure in an emergency, a new feed mill and storage facility, and a new office and employee check in building.

The previous facility was almost completely replaced during the renovation (2017 – 2020) to a cage free facility. The nine old layers houses that were depopulated in the summer of 2019 were removed from the site in winter/spring of 2020. Three pullet houses, one old wastewater lagoon, and one compost building were also removed during this project.

A previous adjacent third-party operation (Unlimited Renewables) that processed manure for this facility is no longer in existence or involved in this operation. Daybreak Foods took back operation of the facility in 2016, that is on their property and has operated it since the closure. It is once again part of Daybreak Foods Creekwood Cage Free. The permit for Unlimited Renewables is being discontinued as part of the permit reissuance.

Listed below are the proposed sample points for this permit.

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**	
004	Solid Manure Storage - 2 Buildings - This sample point is for the 2 existing manure storage buildings (F1, and F2) on the south side of the farm at N5505 Crossman Road, Lake Mills WI. These 2 buildings have concrete floors and have been used for manure processing and storage in the past. The 2 barns were re-evaluated in 2017 and approved on May 13, 2019. The facility only plans to use these buildings in an emergency. Manure stored in these buildings would be transferred to a third party for further processing or land application with Department approval obtained on October 16, 2019 with the approval of the NMP. This manure could also be land applied or headland stacked using this sample point as allowed in the Department approved nutrient management plan.	
006	Egg breaking wastewater. This sample point covers the entire wastewater treatment system on the west side of Crossman Road (N5505) installed in 2011 that consists of 3 inground structures to treat and store the wastewater and the new egg breaking and process wastewater system, built in 2018 and 2019, on the east side of Crossman Road (N5344). The treatment system includes a 0.875 million-gallon inground digester followed by a 0.875 million-gallon aerobic inground lagoon and then the treated wastewater goes into a 3.3 million gallon holding lagoon. All wastewater must be applied in accordance with the facilities approved Nutrient Management Plan. This treatment and storage system meets permit requirements.	
008	Solid Pullet Manure - this sample point includes all the pullet manure generated at the pullet barns at N5332 County Highway A, Lake Mills, WI on the west side of the Crossman Road and part of the original Creekwood site. This manure will be transferred by trucks to the new Manure Drying and Processing Building on the east side of Crossman Road (N5344). This includes the 3 new cage free pullet barns	

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**	
	installed in 2018 and 2019. This manure could also be land applied or headland stacked using this sample point as allowed in a Department approved nutrient management plan.	
009	Manure Drying and Processing Building - Solid Layer Manure – this sample point includes all manure generated at the 5 new cage free layer barns located on the east side of Crossman Road (N5344), Lake Mills WI. and the manure transported from the 3 Pullet Barns (Sample Point 008) located at N5432 County Highway A, Lake Mills, WI. The manure from the adjacent layer barns is transferred right into the manure processing facility where it is dried and stored. A third party will take the dried manure, as fertilizer, with written approval from the Department in accordance with NR 243.142, Wis. Adm. Code. The written approval is contained in the NMP approval. This manure could also be land applied or headland stacked using this sample point as allowed in the NMP and NMP approval. The new layer barns, buildings, and the manure drying and processing building were approved by the Department in 2018 and meet permit requirements.	

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

Beginning on the effective date of the permit, the permittee may not discharge pollutants from the operation's production area (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center wastewater treatment/containment systems, raw material storage areas) to navigable waters, except in the event a 25-year, 24-hour rainfall event (or greater) causes the discharge from a structure which is properly designed and maintained to contain a 25-year, 24-hour rainfall event for this location as determined under s. NR 243.04. If an allowable discharge occurs from the production area, state water quality standards may not be exceeded.

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

Manure and Process Wastewater Storage

The permit requires the operation to have adequate storage for manure and process wastewater and that storage or containment facilities are designed, operated and maintained to prevent overflows and discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that can never be exceeded. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

The permittee currently has no liquid manure storage and never has.

The facility constructed a new egg processing plant on the east site of Crossman Road as part of the renovation in 2018 - 2020 which replaced the now closed egg processing plant on the west side of Crossman Road. The new egg processing plant now transfers process wastewater to the existing process wastewater collection and treatment system. This treatment and storage system is on the west side of Crossman Road and it was not changed during the 2018 – 2020 renovation.

Solid Manure Storage

The facility dries manure and has constructed a new roofed manure processing facility (2019) that will further dry and store the manure from both the Layers and the Pullets. The facility received Department plan and specification approval prior to construction of this facility on the east side of Crossman Road. The new facility provides 321 days of storage. The facility also received Department approval on May 13, 2019 to continue use the roofed storage buildings F1 and F2 for emergency storage of solid manure. Former roofed storage building F3 was abandoned and torn down. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

Solid Manure Stacking

The operation has proposed to stack solid manure. All stacking of solid manure shall be done in accordance ch. NR 243, Wis. Adm. Code, which includes restrictions from NRCS Standard 313. Stacking of manure is considered to be part of the production area and is subject to the Production Area Discharge Limitations.

Ancillary Service and Storage Areas

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

Nutrient Management

With 2 million layers and 800,000 pullets (24,600 animal units), it is estimated that approximately 8.03 million gallons of process wastewater and 50,000 tons of solid manure will be produced per year. The permittee does not own any acres of cropland and rents about 491.9 acres. Given the rotation commonly used by the permittee, 477.3 acres are available (or open) to receive manure and process wastewater on an annual basis. The final animal numbers at the completion of the project are somewhat different from the projected numbers in the reviewed and approved Nutrient Management Plan (NMP), but are in the same range, and adjustments will be made through required annual Nutrient Management Plan updates.

Manure

The permittee does not intend to land apply solid manure on fields in the NMP. The permittee has a manure distribution plan that was reviewed and approved by the department based on Wisconsin Administrative Code NR 243.142 (2)(b)(2). This plan allows the permittee to manipulate the poultry manure via an industrial drier and sell to AgriNatural Grower Supply (AGS) under a DATCP fertilizer license. The approved plan requires the permittee to ensure AGS will apply the purchased manipulated manure only on fields that have a NMP that meets all the requirements of WI NRCS 590 Standard. This ensures effective management of the amount, source, placement, and timing of manure applications. The permittee anticipates that all solid manure produced by the facility will be manipulated and distributed to AGS. If the way the manipulation of the manure changes, or the purchaser of the manure changes, the permittee shall notify the department and resubmit a plan for review on how they will manage the manure moving forward. This approved plan is between the permittee and Wisconsin DNR, AGS is not involved in this agreement. If a compliance issue is found with the land application or handling of the distributed manure by AGS, including but not limited to applying the manure on fields not

in a WI NRCS 590 Nutrient Management plan, the department has the authority to rescind this distribution approval. This may lead to the inability of the permittee to further distribute manure to AGS.

The permittee previously used a variety of other techniques for treating manure over the previous permit term; these include pelletizing, drying, and composting of manure. Manure was previously spread on fields identified in the NMP or distributed to a third-party for land spreading, these agreements are no longer active. Overall, the change in manure distribution is not viewed to be significant by the department.

Process Wastewater

Process wastewater will be spread only on fields identified in the Daybreak Foods Creekwood Cage Free approved NMP. Process wastewater is produced at the inline egg breaking plant on site. The plant sorts, washes, and breaks fresh eggs. During the process, wastewater is generated by washing the eggs, equipment and building interior. This process wastewater travels through an anaerobic digester and aeration pond before being collected and stored in a 3.3 million-gallon storage tank. The plant will produce approximately 22,000 gallons of wastewater per day after the flock expansion. The permittee anticipates applying wastewater according to the following schedule: Wastewater will be land applied on alfalfa 3-4 times a year (at the beginning of the season and after each cutting), and after corn silage and wheat harvest, March – November.

Spreading Requirements

Any manure that is not applied under the manure distribution plan is subject to requirements set forth in the NMP and the permit. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

The permittee is required to implement a number or practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permitee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq$12% solids) on frozen or snow-covered ground during February and March. Non-emergency surface applications of liquid manure (<12%) on frozen or snow-covered ground are prohibited.

Monitoring and Sampling Requirements

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

Sampling Points

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as "Sampling Points." For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials, as shown in the table below. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

Sample Point Number: 004- Manure Storage - 2 Buildings; 008- Solid Pullet Manure; and 009- Manure Drying Building – Solid Layer Manure

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Nitrogen, Total		lbs/ton	Quarterly	Grab	
Nitrogen, Available		lbs/ton	Quarterly	Calculated	
Phosphorus, Total		lbs/ton	Quarterly	Grab	
Phosphorus, Available		lbs/ton	Quarterly	Calculated	
Solids, Total		Percent	Quarterly	Grab	

1.1.1 Changes from Previous Permit

Sample Point 004 was added to include the 2 remaining solid manure storage buildings F-1 and F-2, which the facility only plans to use in emergency situations. They had previously been included in Sample Point 007 which was inactivated, as covered below.

Sample Point 007, solid manure from the old Layer Buildings, was inactivated as the solid manure from the new cage free layer barns is now combined with the adjacent Manure Drying and Processing Building (Sample Point 009).

Sample Point 008 was reworded to reflect the new cage free pullet barns instead or the older pullet buildings which have been removed. It is still a solid manure sample point.

Sample Point 009 has been added to include the new Manure Drying and Processing Building and the solid manure from the adjacent 5 new cage free layer barns which is transferred into it along with solid manure from Sample Point 008.

1.1.2 Explanation of Operation and Management Requirements

These are typical sampling requirements for solid poultry manure.

Sample Point Number: 006- Egg Breaking Wastewater

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Nitrogen, Total		lb/1000gal	2/Month	Grab	
Nitrogen, Available		lb/1000gal	2/Month	Calculated	
Phosphorus, Total		lb/1000gal	2/Month	Grab	
Phosphorus, Available		lb/1000gal	2/Month	Calculated	
Solids, Total		Percent	2/Month	Grab	

1.1.3 Changes from Previous Permit

Sample point 001 was inactivated since it was for an old wastewater lagoon that was no longer in use and was removed, with approval during the renovation.

Sample point 006 was reworded to reflect the new processing building and the fact that egg wash water generated at a CAFO is now considered a process wastewater and regulated by Chapter NR 243 Wis. Adm. Code. In the past it was regulated as an industrial wastewater under NR 213 and NR 214, Wis. Adm. Code.

1.1.4 Explanation of Operation and Management Requirements

These are typical sampling requirements for egg washing process wastewater regulated under Chapter NR 243 Wis. Adm. Code. Process wastewater is now included in the Daybreak Foods Creekwood Cage Free's approved NMP which provides the same requirements as those for manure, except that winter landspreading of process wastewater is allowed as specified in the NMP approval. The previous Land Application Manage Plan is no longer being used. Among several benefits to this change in requirements, the recently approved NMP is a phosphorus based plan.

2 Schedules

2.1 Monitoring & Inspection Program

Use of the department's monitoring and inspection program template is encouraged, but optional.

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit an updated monitoring and inspection program within 30 days of the effective date of this permit.	11/01/2020

2.2 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop an updated written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	11/01/2020

2.3 Nutrient Management Plan

Submit annual nutrient management plan (NMP) updates by March 31 of each year. Note, in addition to annual NMP updates, submit NMP amendments and substantial revisions to the department for written approval prior to implementation of any changes to the NMP.

Required Action	Due Date
Management Plan Submittal: Submit any necessary updates to the Nutrient Management Plan to meet the conditions outlined in this permit (see conditions in the Livestock Operational and Sampling Requirements section).	11/01/2020
Management Plan Annual Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2021
Management Plan Annual Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2022
Management Plan Annual Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2023
Management Plan Annual Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2024
Management Plan Annual Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2025
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed, to include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	06/30/2025

2.4 Annual Reports

Submit Annual Reports by January 31st of each year in accordance with the Annual Reports subsection in Standard Requirements.

Required Action	Due Date
Submit Annual Report #1: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2021
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2022
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2023
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2024

Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2025
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed, to include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	06/30/2025

2.5 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	04/01/2025

2.6 Explanation of Schedules

This is a typical CAFO permit schedule for a recently renovated facility where all plans and specifications were approved, construction was completed, and post construction documents were submitted.

Special Reporting Requirements

None

Other Comments:

None

3 Environmental Analysis Summary

The WPDES permit issuance process for a new source concentrated animal feeding operation is an integrated analysis action under s. NR 150.20, Wis. Adm. Code and does not require a separate environmental analysis because it is included in this document. The entire facility (existing and new) renovation from 2018 – 2020 makes this operation a new source CAFO as defined in NR 243.03(41). The procedures, documents and information listed below provide for public disclosure and include an environmental analysis that provides sufficient information to establish that an environmental impact statement is not required (NR 150.03(12m)).

- The WPDES Final permit reissuance application package.
- Environmental Analysis Questionnaire; received on 11/14/2017, as well as additional requested materials, as part of the permit application process. This document and the attachments are located on the Department's specific webpage for Daybreak Foods Creekwood Cage Free located at https://dnr.wisconsin.gov/topic/CAFO/RecentPermits.html
- Three Plans and Specifications submittals for the renovation and construction of the required components of the project. This was separated into the east side of the road facilities, west side of the road facilities, and the process wastewater treatment project. Plans and specifications and evaluations were also submitted for the older manure storage buildings and the abandonment of the old wastewater lagoon. The Conditional Approval letters are attached.

- 2 Stormwater Construction Site Notices of Intent; Project 2 was submitted on September 15, 2017 and General Permit coverage was granted on October 12, 2017. Project 1 was submitted on January 4, 2018 and General Permit coverage was granted on January 31, 2018. As part of the intake process, the project area was screened for NHI, archeological/historical impacts, and wetland/hydric soils. Coverage letters are attached.
- The facility's Nutrient Management Plan. The October 16, 2019 Conditional NMP Approval letter is attached.
- May 4, 2020 E mail from Jim Amrhein, DNR Water Resources Management Specialist, to Mark Cain, DNR Wastewater Engineer, regarding the water resources in the project area. This document is attached.
- June 19, 2020 memo from David Panofsky, DNR Air Management Engineer to Mark Cain, and is attached

Additional Review Information

Daybreak-Creekwood Groundwater Review

The geology of western Jefferson County, where Daybreak – Creekwood is located can be separated into three general units: unconsolidated glacial drift, dolomite, and sandstone. The glacial drift consists of sand, gravel, silt, and clay overlying a bedrock valley which extends from the central regions of the county to the southwestern corner and beyond. The bedrock consists of Ordovician-aged Prairie du Chien formation, which is predominantly dolomite, overlying Cambrian-aged sandstone, and Precambrian crystalline igneous and metamorphic basement rock. During the installation of the facility's high capacity wells, bedrock was encountered at depths ranging from 105 to 119 feet to the west of Crossman Road, and 141 to 163 feet to the east.

The geology beneath the Daybreak site is saturated to the mostly impermeable underlying Precambrian basement rocks – a total saturated depth of approximately 800ft. Soil borings east of Crossman Road document saturation beginning at 3.5 to 13ft below ground surface, at elevations ranging from 842 to 850 ft MSL. The boring logs document seams of sand and gravel, and lenses of clay indicating that water perching and shallow preferential flows zones are likely present. This is supported by micro-topographic features including the presence of wetlands, wet depressions, small ponds, and mid-slope seeps that occur in the area. These wet areas provide increased hydraulic connectivity opportunities between surface water and shallow groundwater across the Daybreak site.

Recharge to groundwater is facilitated through precipitation. Localized shallow groundwater flow direction follows the surface topographic contours from high to low elevations, or towards cones of depression formed by drawdown from well usage. Regional groundwater flow is slightly to the east but appears to be mostly static.

Wells in the area are likely to be constructed to withdraw water from either the sand and gravel, or the sandstone aquifer, both of which have significantly higher yield than the Prairie du Chien formation. Due to their depth, volume of water in the aquifer, and downward groundwater migration retardation through the Prairie du Chien, wells constructed in the sandstone are less vulnerable to contamination originating from regional agricultural activities at the surface. Subsequently, sandstone wells in the area consistently yield water that contains very low to undetectable levels of nitrate.

Daybreak Foods – Creekwood Cage Free is a WDNR-permitted, high capacity water use property with 11 operational wells: one community well, one processing well, two private wells, and eight agricultural use wells. These wells are approved for a total water withdrawal of 1,894,000 gallons per day. In 2019, total water usage was reported as 27,031,599 gallons for the year. Water usage reported to the WDNR by the facility from 2010-2019 is reported in Table 1. Most of the water used is consumption by animals and associated husbandry, followed by egg washing and processing. Daybreak-Creekwood estimates approximately 8,000,000 of wastewater is currently generated annually by the facility, and this number is projected to remain the same through the permit term. This wastewater is disposed of by land application on approved local farm fields as detailed in the Nutrient Management Plan as a part of the WDNR-issued WPDES permit.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Annual Total (gallons)	20,131,104	19,738,121	21,206,618	18,676,967	18,495,241	9,943,969	16,587,132	17,704,503	27,262,591	26,911,599

Table 1. Annual reported groundwater withdrawal totals for Daybreak-Creekwood.

Note: The facility was depopulated in the spring of 2015 – fall of 2015 due to the Avian Bird Flu outbreak.

Groundwater Monitoring

Groundwater monitoring is a four-dimensional diagnostic tool that facilitates the acquisition of qualitative and quantitative data, at a fixed intercept between a lateral and vertical plane, at a discrete point in time, for the purpose of analysis. Monitoring groundwater over a defined period of time gives us several individual snapshots which are compiled to form an image of groundwater behavior, water quality, and quantity. Just like more pixels per inch gives us a clearer picture on a television, more data points in a smaller area over a shorter amount of time delivers a higher resolution image of the groundwater system and how it may be behaving.

Groundwater monitoring does not prevent contamination from happening or remove the contaminants that are present. Rather, groundwater monitoring networks are generally installed to assist in the detection or definition of a known or suspected contamination problem. Several factors are considered by CAFO engineers, permit drafters, and hydrogeologists when assessing whether groundwater monitoring will be required at a WPDES-permitted facility. These factors fall broadly into four categories:

- Generation and Source – How the contaminant is being made, and structures or points where it is stored.
- Characterization – What the chemical and physical properties, behavior, and persistence of the contaminant is in the environment to which it is being released.
- Activation – How the contaminant may be released to the environment, and how it may move, or be transported around in the unsaturated and saturated subsurface
- Receptors – What vulnerable resources or populations may also be using the same aquifer at a point down gradient from the facility.

The analysis of these factors allows regulators to gauge the risk that a facility poses to groundwater quality and quantity within the design management zone specified in the submitted site plans. Department staff have reviewed these factors and are not proposing any groundwater monitoring wells for this facility during this permit reissuance process.

Drinking and Groundwater – Public Water System Status

When regulating public water systems, the department considers water distribution systems and all wells connected to those systems (one well or multiple wells) as the regulated units. A single property can have multiple public water systems (distribution systems) of the same or different regulatory classifications. However, if previously separated distribution systems were combined (distribution systems connected) they would thereafter be considered one unit with one classification.

Drinking water systems for larger CAFOs are often regulated as non-transient non-community (NTNCWS) or transient non-community (TNCWS) public water systems. NTNCWS and TNCWS public water systems are subject to inspection (every five years), must complete required sampling and must comply with NR 809, 810, and 812 WI Admin Code regulations and construction requirements. If drinking water systems (including those at CAFOs) don't meet the definition of a public water system, they are classified as "private" and are unregulated.

Definitions of "NTNCWS", "TNCWS" and "Public water systems" from NR 810.02 WI Admin Code follow;

(30) "Non-transient non-community water system" or "NTNCWS" means a non-community water system that regularly serves at least 25 of the same persons over 6 months per year.

Note: Examples of non-transient non-community water systems include those serving schools, day care centers and factories.

(35) "Public water system" or "system" or "PWS" means a system for the provision to the public of piped water for human consumption through pipes or other constructed conveyances, if the system has at least 15 service connections or

regularly serves an average of at least 25 individuals daily at least 60 days out of the year. A public water system is either a “community water system" or a “non-community water system". A system:

(a) Includes any collection, treatment, storage and distribution facilities under the control of the operator of a system and used primarily in connection with the system.

(b) Includes any collection or pretreatment storage facilities not under the system's control which are used primarily in connection with the system.

Note: The definition of public water system as regulated by this chapter is broader and includes more water systems than those governed by the public service commission under its definition of a public utility in ch. 196, Stats.

(42) “Transient non-community water system" or “TNCWS" means a non-community water system that serves at least 25 people at least 60 days of the year but does not regularly serve at least 25 of the same persons over 6 months per year.

Note: Examples of transient non-community water systems include those serving taverns, motels, restaurants, churches, campgrounds and parks.

A few CAFOs (those with 25 or more people living there at least six months per year) would be regulated under a third category - other than municipal community water systems (OTMs) but this category is rare for CAFOs and doesn’t apply to any Daybreak Creekwood facilities.

Regulatory Status Review of Daybreak Creekwood-Lake Mills Drinking Water Distribution Systems

Old main production facility at corner of Crossman Rd and County Highway A

This long time non-transient non-community public drinking water system located at the corner of Crossman Rd and Hwy A was called by the drinking water program “Daybreak Foods, Creekwood Complex- Egg Pkg Plant (PWSID # 12802735)” and was served by one well (WUWN WN980).

Through the fall of 2019 and winter of 2020 animals were moved out of this facility and employee numbers were reduced.

Although the facility still contains several offices and continues to serve water to those in the building, it was deactivated as a public water system on 1/27/2020 as the number of people using this system dropped below the threshold for a public water system.

**Prior to deactivation, the facility had confirmed bacteria detections in the water system. Although the system was subsequently deactivated the operator continued with the follow-up as if they were still an active system, completing corrective actions, disinfecting and completing substantial follow-up sampling through the end of February.

New production facility on east side of Crossman Rd – Creekwood Cage Free

This new and expanding non-transient non-community public water system where the main production and processing of eggs occurs is called by the drinking water program Creekwood Cage Free (PWSID# 12813141) and is served by four wells (WUWNs ZT990, ZT923, ZT884 and ZU003 all located within 100 feet of each other). This drinking water system also serves the millhouse building immediately across Crossman Rd to the west.

They began moving chickens and staff into the new buildings in fall of 2019, the department activated the Non-transient non-community water system (NN) public drinking water system on 10/28/2019 and we completed our first Sanitary Survey Inspection there on 11/12/2019.

To date they have corrected all deficiencies noted in the sanitary survey and they have been in compliance with all of the required sampling requirements. The initial start-up sampling requirements for NN systems constitute a pretty heavy sampling load, however they have been able to collect all required compliance samples to-date, have provided public noticing when required and have certified results where needed. Recently there has been a shift in the sampling duties at the facility, but they appear to be adjusting to that.

The facility will be expanding over time as additional buildings are constructed. They currently only operate two wells (ZT923 and ZU003) but the other two wells will be added as needed when additional buildings are ready to be used.

"Pullet" facility far west of Crossman Rd with driveway on County Highway A

The facility on the property where Daybreak raises young chickens in preparation for moving them to the egg laying facility has been referred to as the "Pullet Barns" by the public water staff. This facility currently does not meet the definition of a public water system and we have not assigned it a PWSID#. Unless the staffing population grows it will not be one in the future.

During the period it was being constructed we were informed that they planned to have 18 fulltime staff (in shifts) working at the facility as well as teams periodically coming in to move the animals. With relatively high levels of security no additional transient populations were expected. Although we anticipated that it was unlikely to be a public water system we did attend meetings, well installation, groutings and well pitless installations in the event that the site did turn out to be a public water system. In the end the numbers did not change much from the preliminary estimates so this will remain a "private" unregulated system unless their future population increases.

More information regarding public drinking water systems can be found on the Department's web page at http://dnr.wi.gov/topic/drinkingwater/. Additional information about what it means to a small business that will be regulated as a public drinking water supply system is available at: http://dnr.wi.gov/topic/SmallBusiness/DrinkingWater.html

Previous Environmental Assessments and Environmental Impact Statements

The Department has completed many Environmental Assessments (EA) and a few Environmental Impact Statements (EIS) for Large Farm CAFOs in the past. This includes the EA for the large Farm Dairy Cafo General Permit in 2010/2011 which can be found at http://dnr.wi.gov/topic/AgBusiness/documents/LargeDairyCAFOGP-EnvironmentalAssessment.pdf

These documents provide additional analysis of impacts from projects such as this one.

Other Attachments:

Substantial Compliance Determination

Map(s)

Plan Approval Letter(s)

Proposed Expiration Date: September 30, 2025

Prepared By:

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South Central Region

Date: June 16, 2020