

# Permit Fact Sheet

## General Information

Permit Number:	WI-0059374-05-0
Permittee Name:	Pagels Ponderosa Dairy, LLC
Address:	N4893 Hwy C
City/State/Zip:	Kewaunee WI 54216
Discharge Location:	N4893 County Road C, Kewaunee, WI 54216 N ½ NW ¼ S4 T23N R24E, Township of West Kewaunee N5318 County Road E, Kewaunee, WI 54216 SE ¼ SW ¼ S27 T24N R24E, Township of Casco E3470 County Rd F, Kewaunee, WI 54216 SE ¼ SW ¼ S16 T23N R24E, Township of West Kewaunee
Receiving Water:	Unnamed tributaries within the Kewaunee River Watershed, Lake Michigan Drainage Basin, and groundwaters of the State

<b>Animal Units</b>					
<b>Animal Type</b>	<b>Current AU</b>		<b>Proposed AU</b>		
	<b>Mixed</b>	<b>Individual</b>	<b>(Note: If all zeroes, expansions are not expected during permit term)</b>		
	<b>Mixed</b>	<b>Individual</b>	<b>Mixed</b>	<b>Individual</b>	<b>Date of Proposed Expansion</b>
Dairy Calves (under 400 lbs.)	376	0	380	0	05/31/2029
Milking and Dry Cows	9,627	9,834	9800	10010	05/31/2029
Heifers (400 lbs. to 800 lbs.)	1,114	1,856	756	1260	05/31/2029
Heifers (800 lbs. to 1200 lbs.)	277	242	1650	1500	05/31/2029
Steers or Cows (400 lbs. to market)	0	0	70	70	05/31/2029
<b>Total</b>	<b>11,394</b>	<b>9,834</b>	<b>12,656</b>	<b>10010</b>	

## Facility Description

Pagel’s Ponderosa Dairy LLC is an existing Concentrated Animal Feeding Operation in Kewaunee County, WI. Pagel’s Ponderosa Dairy is owned and operated by the Pagel Family. As of January of 2024, it has 6,877 milking and dry cows, 252 large heifers, 1,856 small heifers, and 1,881 calves (11,394 animal units). Pagel’s Ponderosa Dairy will annually generate approximately 104,314,148 gallons of liquid manure and process wastewater and 5,364 tons of solid manure. As of March 2024, Pagel’s Ponderosa Dairy has greater than the required minimum of 180 days of storage. Pagel’s Ponderosa Dairy has 10,964 acres in its approved nutrient management plan, of which 7,923 acres are rented or in contract agreements and 3,041 acres are owned. Pagel’s Ponderosa Dairy has 10,548.5 acres available for land application.

## Substantial Compliance Determination

**Enforcement During Last Permit:** During the previous permit term, Pagel’s Ponderosa Dairy LLC was issued several Notice of Violations pertaining to noncompliance associated with permit compliance schedules and multiple production area discharges to waters of the State. The facility has completed all previously required actions as part of the enforcement process and has returned to compliance.

After a desk top review of all compliance schedule items and associated reporting records, and a site visit on July 7, 2020, this facility has been found to be in substantial compliance with their current permit.

**Compliance determination entered by James Salscheider, CAFO Compliance and Enforcement Coordinator on April 3, 2024.**

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
017		Liquid industrial wastewater generated from an onsite cheese processing operation. Representative samples of the wastewater shall be obtained from the injection pit prior to discharge to the manure storage system. The wastewater is comprised primarily of washwater generated from cleaning cheese processing equipment.

Sample Point Designation For Animal Waste		
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)	
001	Sample point 001 is for liquid waste storage facility 1 (WSF 1) located at the Main Dairy. WSF 1 is a concrete storage and is the northernmost WSF at the Main Dairy. The facility has a capacity of 1,087,487 gallons and was modified in 2008. This storage accepts manure and process wastewater from the digester at the Main Dairy. WSF 1 was last evaluated in 2008 when it was modified and met permit requirements.	
002	Sample point 002 is for liquid waste storage facility 2 (WSF 2) located at the Main Dairy. WSF 2 is a clay-lined storage located south of WSF 1. The facility has a capacity of 5,917,996 gallons and was constructed in 1997. This storage accepts manure and process wastewater from WSF 1 and the feed storage runoff control system. WSF 2 was last evaluated in 2007 and met permit requirements.	
003	Sample point 003 is for liquid waste storage facility 3 (WSF 3) located at the Main Dairy. WSF 3 is a clay-lined storage located south of WSF 3. The facility has a capacity of 10,063,816 gallons and was constructed in 1999. This storage accepts manure and process wastewater from WSF 2 and is located south of WSF 2. WSF 3 will require an engineering evaluation due to age, see Schedules section for due dates.	
004	Sample point 004 is for liquid waste storage facility 4 (WSF 4) located at the Main Dairy. WSF 4 is a clay-lined storage located south of Ryan Radio Rd. The facility has a capacity of 23,320,788 and was constructed in 2009. This storage accepts manure and process wastewater from WSF 3. WSF 4 was last	

<b>Sample Point Designation For Animal Waste</b>	
<b>Sample Point Number</b>	<b>Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)</b>
	evaluated in 2009 when it was constructed and met permit requirements.
005	Sample point 005 is for digested and separated manure solids. These are typically reused as bedding and stored in the storage bays located in the solid separator building. Digested and separated solids may also be distributed to another party according to Department approval and Distribution of Manure and Process Wastewater section of permit.
006	Sample point 006 is for liquid waste storage facility 5 (WSF 5) located at the Heifer Site. WSF 5 is a concrete/earthen storage and is the first stage of a two-stage system, located north of WSF 6. The facility has a capacity of 1,500,000 gallons and was constructed in 2005. This storage accepts manure and process wastewater from the animal housing buildings and the manure stacking pad. WSF 5 was last evaluated in 2005 at the time of construction and met permit requirements.
007	Sample point 007 is for liquid waste storage facility 6 (WSF 6) located at the Heifer Site. WSF 6 is an in-place earthen storage and is the second stage of a two-stage system, located south of WSF 5. The facility has a capacity of 7,000,000 gallons and was constructed in 2005. This storage accepts manure and process wastewater from the animal housing buildings, manure stacking pad, and the calf hutch washing area. WSF 6 was last evaluated in 2005 at the time of construction and met permit requirements.
010	Sample point 010 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, steer manure, etc. Representative samples shall be taken for each manure source type.
011	Sample point 011 is for solid manure land applied from approved headland stacking sites. Stacks are defined as part of the production area and therefore subject to the production area discharge limitations section of this permit. Quarterly inspections while stacks are present are required and shall be recorded according to monitoring program.
012	Sample point 012 is for visual monitoring and inspection of the feed storage area and associated runoff control system located at Main Dairy. Proper operation and maintenance is required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program. An engineering evaluation of the feed storage area and runoff control system shall be submitted according to the Schedules section of the permit.
013	Sample point 013 is for visual monitoring and inspection of the anaerobic digester and associated digested solids storage. Proper operation and maintenance is required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program.
016	Sample point 016 is for visual monitoring and inspection of outdoor vegetated areas located at Heifer Site. Proper operation and maintenance is required to ensure vegetative cover is sustained across lot areas. Quarterly inspections are required and shall be recorded according to monitoring program. For proposed areas, a pasture management plan shall be submitted according to Schedules section of permit. Outdoor lot areas not managed to sustain vegetation are not permitted and shall be properly abandoned.
018	Sample point 018 is for liquid waste storage facility 7 (WSF 7) located at the Hilltop Ponderosa site. WSF 7 is an in-place earthen storage located on the northeast corner of the production site. The facility has a capacity of 5,398,347 gallons and was constructed in 1977. This storage accepts manure and process wastewater from the freestall barns and milking parlor at Hilltop Ponderosa. WSF 7 was last evaluated in

<b>Sample Point Designation For Animal Waste</b>	
<b>Sample Point Number</b>	<b>Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)</b>
	2018 and met permit requirements.
019	Sample point 019 is for visual monitoring and inspection of the feed storage area and associated runoff control system located at Hilltop Ponderosa. Proper operation and maintenance is required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program. An engineering evaluation of the feed storage area and runoff control system shall be submitted according to the Schedules section of the permit.
020	Sample point 020 is for solid waste storage facility 8 (WSF 8) located at the Heifer Site. WSF 8 is a liquid-tight concrete storage pad located east of WSF 5 and WSF 6. The facility has a capacity of 3,500 tons and was constructed in 2014. This storage accepts manure and process wastewater from barns at the Heifer Site. WSF 8 was last evaluated in 2014 when it was constructed and met 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 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 submitted to the Department for approval.

The permittee currently has approximately 6 months of storage for liquid manure. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

## 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 6,877 milking and dry cows, 252 large heifers, 1,856 small heifers, and 1,881 calves, it is estimated that approximately 104,314,148 gallons and 5,364 tons of manure and process wastewater will be produced per year. The permittee owns *approximately* 3,041 acres of cropland and rents about 7,923 acres. Given the rotation commonly used by the permittee, 10,548.5 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. 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 of 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 permittee 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. Beginning June 1, 2024, 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. 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: 001- WSF 1; 002- WSF 2; 003- WSF 3; 004- WSF 4; 006- WSF 5; 007- WSF 6; 018- WSF 7**

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	

**1.1.1 Changes from Previous Permit**

Sample Point 018 was added to the permit to cover the liquid waste storage facility at the Hilltop Ponderosa site.

**1.1.2 Explanation of Operation and Management Requirements**

Liquid manure sources must be properly sampled, and land applied according to the permit and nutrient management plan.

**Sample Point Number: 005- Separated Solids; 010- Solid Manure; 011- Headland Stacking Sites, and 020- WSF 8**

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lbs/ton	2/Month	Grab	
Nitrogen, Available		lbs/ton	2/Month	Calculated	
Phosphorus, Total		lbs/ton	2/Month	Grab	
Phosphorus, Available		lbs/ton	2/Month	Calculated	
Solids, Total		Percent	2/Month	Grab	

### 1.1.3 Changes from Previous Permit

Sample Point 020 was added to the permit to cover the solid manure stacking area at the Clyde Hill site.

### 1.1.4 Explanation of Operation and Management Requirements

Solid manure sources must be properly sampled and land applied according to the permit and nutrient management plan

### Sample Point Number: 012- Feed Storage Area ; 013- Digester and Digested Solids; 016- CAFO Outdoor Vegetated Area , and 019- Hilltop FSA

### 1.1.5 Changes from Previous Permit

Sample Point 019 was added to the permit to cover the feed storage area at the Hilltop Ponderosa site.

### 1.1.6 Explanation of Operation and Management Requirements

Proper operation and maintenance is required to ensure unlawful discharges to waters of the state do not occur. Weekly or quarterly inspections are required and shall be recorded according to the monitoring plan.

## 2 Land Application - Sludge/By-Product Solids (industrial only)

### Sample Point Number: 017- Cheese Processing Wastewater

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Daily	Total Daily	
Solids, Total		Percent	Annual	Grab	
Chloride		mg/L	Monthly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Phosphorus, Total		mg/L	Quarterly	Grab	

### Changes from Previous Permit:

No changes from the previous permit.

### Explanation of Limits and Monitoring Requirements

Required monitoring and reporting requirements are consistent with the industrial wastewater program requirements and the current issuance of the WPDES general permit for Land Application of Liquid Industrial Wastes (0055867-06). Requirements for land application of liquid industrial wastes are determined in accordance with ch. NR 214, Wis. Adm. Code.

### 3 Schedules

#### 3.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	07/01/2024

#### 3.2 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 update and submit a proposed monitoring and inspection program within 60 days of the effective date of this permit.	08/01/2024

#### 3.3 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.	01/31/2025
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2026
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2027
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2028
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2029
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

#### 3.4 Nutrient Management Plan

Required Action	Due Date
Management Plan Submittal: 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.	
Management Plan Annual Update #1: To include actual cropping, tillage, and nutrient application	03/31/2025



data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	
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 for 3400-025D.	03/31/2026
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 for 3400-025D.	03/31/2027
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 for 3400-025D.	03/31/2028
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 for 3400-025D.	03/31/2029
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

### 3.5 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	11/30/2028

### 3.6 Manure Storage Facility - Engineering Evaluation

Engineering Evaluation for Waste Storage Facility 3 at the Main Site.

Required Action	Due Date
Retain Expert: Retain a qualified expert to complete an engineering evaluation for WSF 3 at the Main Site and report the name of the expert to the Department.	08/01/2024
Written Report: Submit a written report evaluating the existing manure storage facility's ability to meet the conditions in the Production Area Discharge Limitations and Manure and Process Wastewater Storage subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	04/01/2025
Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code, to permanently correct any adverse manure storage conditions.	12/31/2025
Corrections and Post Construction Documentation: Complete construction on the manure storage facility that permanently corrects any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	12/31/2026

### 3.7 Explanation of Schedules

Schedules 3.1 through 3.5 are general compliance schedule items required by the permit. Schedule 3.6 is included to evaluate WSF 3 at the Main Site due to age.

## **Special Reporting Requirements**

N/A

## **Other Comments:**

N/A

## **Attachments:**

July 7, 2020 Permit Reissuance Inspection Report

March 20, 2024 Days of Storage Review Letter

March 29, 2024 Condition NMP Approval Letter

Site Maps

## **Expiration Date:**

May 31, 2029

## **Justification Of Any Waivers From Permit Application Requirements**

N/A

**Prepared By: James Salscheider**

**Agricultural Runoff Management Specialist**

**Date: 4/15/2024**

Notice of reissuance was published in the Green Bay Press Gazette and WDNR website on **DATE**