

# Permit Fact Sheet

## General Information

Permit Number:	WI-0061760-05-0
Permittee Name:	Double S Dairy
Address:	N3447 Marshview Rd
City/State/Zip:	Markesan WI 53946
Discharge Location:	South Branch of Rock River and groundwaters of the State
Discharge Type:	Existing Discharge

Animal Units					
	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Dairy Calves (under 400 lbs.)	160	0	0	0	
Milking and Dry Cows	1800	1800	0	0	
Heifers (800 lbs. to 1200 lbs.)	150	150	0	0	
Steers or Cows (400 lbs. to market)	40	40	0	0	
<b>Total</b>	<b>2757</b>	<b>2574</b>	<b>0</b>	<b>0</b>	

## Facility Description

Double S Dairy is a Concentrated Animal Feeding Operation (CAFO) within the Township of Alto, in Fond du Lac County. The operation is owned and operated by the Smits Family and currently has 2,757 animal units. Double S Dairy has a total of 5,993 acres, of this acreage 2,731 acres are owned and 3,262 acres are rented. The dairy currently has 5,848 acres available for land application of manure and process wastewater. Annually, the dairy will produce approximately 21,642,685 gallons of liquid waste, and approximately 1,392 tons of solid manure.

## Substantial Compliance Determination

### Enforcement During Last Permit:

This facility was issued a notice of noncompliance (NON) on 10/26/2022 for failure to submit a permit reissuance application by the permit schedule deadline and a NON on 05/25/2023 due to the submittal of an incomplete permit reissuance application (specifically the NMP). A complete NMP was submitted to the department on 02/02/2024, and

conditionally approved by the department on 03/12/2024. The facility has completed all previously required actions as part of the enforcement process.

After a desk top review of this facility’s permit records and a site visit on July 6, 2022, this facility has been found to be in substantial compliance with their current permit.

**Compliance determination entered by: Danielle Block on 03/13/2024**

<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>	
004	Sample point 004 is for visual monitoring and inspection of the steer feedlot area and associated runoff control system. Proper operation and maintenance is required to ensure discharges to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program.	
005	Sample point 005 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.	
006	Sample point 006 is for visual monitoring and inspection of the feed storage area and associated runoff control system. 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.	
007	Sample point 007 is for liquid waste storage facility 1 (WSF 1). WSF 1 is a liquid-tight concrete storage located northeast of the Solids Separator Building. The facility has a Maximum Operating Level (MOL) volume of approximately 12.9 million gallons and was constructed in 2012. This facility accepts manure and process wastewater from the milking parlor and all freestall barns.	
008	Sample point 008 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.	
009	Sample point 009 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance is required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.	
010	Sample point 010 is for liquid waste storage facility 2 (WSF 2). WSF 2 is a liquid-tight concrete storage located east of WSF 1. The facility has a Maximum Operating Level (MOL) volume of approximately 1.3 million gallons and was constructed in 2022. This facility accepts process wastewater from the feed storage area.	

## **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 approximately 7 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.

### **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 2,757 animal units (1,800 milking & dry cows, 150 heifers, 160 calves & 40 steers), it is estimated that approximately 21,642,685 gallons/ 1,392 tons of manure and process wastewater will be produced per year. The permittee owns *approximately* 2,731 acres of cropland and rents about 3,262. Given the rotation commonly used by the permittee, 5,848 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: 004- Feedlot & Runoff Controls; 006- Feed Storage Area; 009- Storm Water Runoff Controls**

### **1.1.1 Changes from Previous Permit**

Sample point 003- CAFO Outdoor Vegetated Area removed- no longer in use

Sample point 005-Sweet Corn Bunker removed- All feed is stored within a storage area with complete containment

### **1.1.2 Explanation of Operation and Management Requirements**

There is no required sampling for the runoff controls. Rather, there is required inspection and routine maintenance that should be recorded on a monitoring and inspection sheet or calendar. A copy of the record of inspection shall be submitted with the Annual Report.

**Sample Point Number: 005- Headland Stacking; 008- Solid Manure Sources**

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	

**1.1.3 Changes from Previous Permit**

Sample point 005- Headland Stacking- Added

**1.1.4 Explanation of Operation and Management Requirements**

Wastes shall be stored and land applied according to permit and nutrient management requirements.

**Sample Point Number: 007- Waste Storage Facility 1 and 010- Leachate Basin WSF2**

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	

**1.1.5 Changes from Previous Permit**

Sample point 010-Leachate Basin- Added

**1.1.6 Explanation of Operation and Management Requirements**

Wastes shall be stored and land applied according to permit and nutrient management requirements.

**2 Schedules**

**2.1 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

## 2.2 Monitoring & Inspection Program

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 90 days of the effective date of this permit.	09/01/2024

## 2.3 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:	01/31/2025
Submit Annual Report #2:	01/31/2026
Submit Annual Report #3:	01/31/2027
Submit Annual Report #4:	01/31/2028
Submit Annual Report #5:	01/31/2029
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

## 2.4 Nutrient Management Plan

Required Action	Due Date
Management Plan Annual Update #1: Submit an Annual Update to the Nutrient Management Plan by March 31st of each year. Note: In addition to Annual Updates, submit Management Plan Amendments to the Department for written approval prior to implementation of any changes to nutrient management practices, in accordance with the Nutrient Management requirements in the Livestock Operational and Sampling Requirements section.	03/31/2025
Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.	03/31/2026
Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.	03/31/2027
Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.	03/31/2028
Management Plan Annual Update #5: Submit an Annual Update to the Nutrient Management Plan.	03/31/2029
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

## 2.5 Runoff Control System - Engineering Evaluation

For steer feedlot runoff controls system

Required Action	Due Date
Complete Engineering Evaluation: Retain a qualified expert to complete an engineering evaluation for the steer feedlot runoff control system and report the name of the expert to the Department.	09/01/2024
Written Description of Existing System: Submit a written description of the existing runoff control system and its adequacy to permanently meet the conditions in the Production Area Discharge Limitations and Runoff Control subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	02/01/2025
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse runoff control conditions in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	02/01/2026
Corrections and Post Construction Documentation: Complete construction of runoff controls that permanently correct any adverse runoff control 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

## 2.6 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	12/01/2028

## 2.7 Explanation of Schedules

Schedules are included in the permit to monitor and fulfill requirements of permit discharge limitations, and to ensure compliance with s. NR 243, Wis. Admin. Code, requirements.

## Special Reporting Requirements

N/A

## Other Comments:

N/A

## Attachments:

## Expiration Date:

May 31, 2029

# Justification Of Any Waivers From Permit Application Requirements

N/A

Prepared By: Danielle Block Agricultural Runoff Management Specialist

Date: 3/22/2024

Notice of [\[Enter one: issuance/reissuance/modification\]](#) was published in the [\[Enter name of publication\]](#) ,  
[\[Enter address of publication\]](#) .