

Permit Fact Sheet

1 General Information

Permit Number:	WI-0065919-01-0
Permittee Name:	Ron Ziegler Farm
Address:	N368 Hwy 51
City/State/Zip:	DeForest, WI 53532
Discharge Location:	N368 Hwy 51; Deforest, WI 53532
Receiving Water:	Surface water and groundwater within the headwaters of the Yahara River Watershed, Lower Rock River Drainage Basin
StreamFlow (Q _{7,10}):	N/A
Stream Classification:	N/A

Animal Units

Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Approximate Date of Expansion
Dairy Calves (under 400 lbs.)	23	0	49	0	08/01/2015
Milking and Dry Cows	913	932	1204	1230	08/01/2015
Heifers (400 lbs. to 800 lbs.)	0	0	178	296	08/01/2015
Heifers (800 lbs. to 1200 lbs.)	63	57	286	260	08/01/2015
Total	999	932	1717	1230	

2 Facility Description

Ron Ziegler Farm is a proposed Concentrated Animal Feeding Operation (CAFO). Ron Ziegler Farm is owned and operated by Ron Ziegler. At the time of permit application, the operation held 999 animal units and has since expanded to 1717 animal units in the fall 2015. Ron Ziegler Farm has a total of 2415 acres available for land application of manure and process wastewater. Of this acreage, 312 acres are owned and 2103 acres are rented.

Sample Point Designation For Animal Waste

Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)	
001	Runoff Control System (RCS) 1 - This is the runoff control system for Feed Storage Area (FSA) 1. RCS1 is composed of Waste Containing Facility (WCF) 5, WCF6, and the Vegetated Treatment Area (VTA). This sample point represents the combined feed storage pad runoff control for FSA1. WCF6 is a concrete underground tank, constructed in 2012, that captures first-flush leachate from FSA1 and filters out solids. The runoff gravity flows over a weir to WCF5. WCF5 is a storage tank, constructed in 2012, that is pumped and released into the VTA. As-built documentation and/or a condition report were provided for these facilities prior to permit issuance.	
002	WCF2 - Liquid Manure - This sample point is an expanded manure lagoon. WCF2 is an existing earthen manure storage constructed in 1999. WCF2 was expanded in 2015, and WCF7 represented the area that was expanded and connected to WCF2. The total expanded volume (WCF2 and WCF7) is 9.2 million gallons, and the expanded volume/facility is represented by this sample point.	
003	WCF1 - Tank Liquid Storage - concrete underground tank constructed in 1999. This structure has inside dimensions of 36'4" x 16'8 x 8'. It has a volume of 36,239 gallons (Maximum Operating Level volume of 31,709 gallons) and holds parlor wastewater.	
004	WCF3 - Liquid Manure Reception Channel - This concrete reception channel was constructed in 1999 and is capable of holding 137,807 gallons of liquid manure in three sections (17,966 in the North Barn; 102,400 in the Center Barn; and 17,441 in the South Barn).	
005	Syrup Storage/Commodities Shed - this sample point is for the area that holds corn syrup in the commodities shed adjacent to FSA1. This facility will need a site assessment/condition report (and subsequent Department approval) to insure that none of that material is leaching to surface or groundwater if use of this area is continued.	

3 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 (Columbia County – 4.7 inches). 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 246 days of storage for liquid manure. The permittee currently handles solid manure by transferring it to another WPDES-permitted CAFO. This transfer is accounted for in the Nutrient Management Plans for the respective operations. 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 with 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 1717 AU consisting of 860 milking and dry cows, 556 heifers, and 245 calves, it is estimated that approximately 11,325,247 gallons of manure and process wastewater and 548 tons of solid manure will be produced per year. The permittee has a total of 2415 acres available for land application of manure and process wastewater. Of this acreage, 312 acres are owned and 2103 acres are rented. 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. 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.

3.1 Sample Point Number:001- Runoff Control System 1 and 005- Syrup Storage/Commodities Shed

3.1.1 Changes from Previous Permit

N/A

3.1.2 Explanation of Operation and Management Requirements

N/A

3.2 Sample Point Number:002- WCF2 - Liquid Manure; 003- WCF1 - Tank Liquid Storage, and 004- WCF3 - Reception Channel

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	

3.2.1 Changes from Previous Permit

N/A

3.2.2 Explanation of Operation and Management Requirements

N/A

4 Schedules

4.1 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.	09/07/2016

4.2 Nutrient Management Plan

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).	08/07/2016
Management Plan Annual Update #1: Submit an Annual Update to the Nutrient Management Plan at least 30 days before the start of each cropping season. 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.	03/31/2017
Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.	03/31/2018
Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.	03/31/2019
Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.	03/31/2020
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	03/31/2021

4.3 Emergency Response Plan

This item was satisfied via email from Dave Buss (NuSolutions Agronomy) to James Carlson (WDNR) on February 26, 2015.

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.	

4.4 Permanent Markers - Installation

Required Action	Due Date
Plans and Specifications: For liquid storage facilities without permanent markers specified in s. NR 243.14(9), Wis. Adm. Code, submit plans and specifications to install permanent markers for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	08/06/2016
Complete Installation: Complete installation of permanent markers. The facility shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	12/31/2016

4.5 Annual Reports

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

Required Action	Due Date
Submit Annual Report #1:	01/31/2017
Submit Annual Report #2:	01/31/2018
Submit Annual Report #3:	01/31/2019
Submit Annual Report #4:	01/31/2020
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	01/31/2021

4.6 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	10/02/2020

4.7 Explanation of Schedules

N/A

5 Special Reporting Requirements

N/A

6 Other Comments:

N/A

7 Attachments:

September 01, 2015 Walkover Inspection Report (containing water flow schematic(s), map(s), and photo-documentation)
Public Notice

8 Proposed Expiration Date:

03/31/2021

Prepared By:

James M. “Mike” Carlson – Agricultural Runoff Management Specialist

Date: 04/25/2016

**Wisconsin Department of Natural Resources (WDNR)
Compliance Report for a Concentrated Animal Feeding
Operation (CAFO) Wisconsin Pollutant Discharge Elimination
System (WPDES) Permit Reissuance**



Inspection Date: September 01, 2015

Inspection Type: Compliance for first-time issuance

Operation Name: Ron Ziegler Farm, LLC

WPDES Permit No: WI-0063274-02-0 (General Permit)

Operation Address: N3681 Highway 51; Deforest, WI 53532

On-Site Representatives at Inspection: Ron Ziegler (Owner); Todd Rietmann (Columbia County Land and Water Conservation Department); Jess Ray (Outland Design); Paul Haag (Crop Consultant)

WDNR Staff Present at Inspection: Mike Carlson – Agricultural Runoff Management Specialist

On September 01, 2015, WDNR staff Mike Carlson met with Ron Ziegler, Todd Rietmann, Jess Ray, and Paul Haag at Ron Ziegler Farm, LLC (site address above). Ron Ziegler Farm does not have an existing WPDES permit (this is a first-time issuance). The inspection described in this report was conducted to determine if Ron Ziegler Farm, LLC would meet WPDES requirements, or to determine what measures will be necessary to meet those requirements. The inspection was also conducted to determine what actions or deliverables are needed for a complete final WPDES application. This report summarizes on-site observations, the meeting discussion, and the permit file review. Photo documentation was recorded during this site inspection and is attached to this report.

Nomenclature Changes

There are no changes in the naming and labeling of features at this farm from those names and labels submitted on the 06-22-15 preliminary application map (Figure 1). The WDNR has worked with the applicant's engineering firm (Outland Design) to secure maps that add manure and stormwater flow to the map of all existing, labeled structures with up-to-date nomenclature (see March 15 and 16, 2016 emails and attachments from Outland Design).

Site Orientation and Descriptions of: Facilities, Manure Storage, Feed Leachate, and Feedlot Management at Ron Ziegler Farm

Ron Ziegler Farm, LLC is a dairy operation located in the Town of Leeds, Columbia County, WI. Ron Ziegler Farm raises about 652 milking and dry cows; 57 heifers; and 113 calves for a total of 999 animal units (AU). For 2015-2016, an expanded herd size of 1717 AU is planned consisting of 860 milking and dry cows; 556 heifers; and 245 calves. Expansion to 1717 AU is complete as of the completion of this report (March 16, 2016). Because expansion beyond 999 AU was not authorized until a final, signed WPDES permit was to be issued, the expansion will likely be documented in a Notice of Noncompliance.

This report represents the first WPDES-related walkover compliance inspection. The farm currently consists of one site with no satellite operations. The farm consists of the following structures:

- Feeds Storage Structures – concrete feed bunkers: *Feed Storage Area 1 (FSA1)*
 - o 8 bays – total area: approximately 62800 square feet (ft²) with a capacity of approximately 20000 tons of silage.
 - Jess Ray indicated this feed storage area has been designed to meet applicable Natural Resources Conservation Service Conservation Practice Standards (Standards) for up to nine bays.
- Animal Housing Structures:
 - o Four connected barns (“North,” “South” [freestall]; “Center” connecting North and South; and the “Young Stock Barn” [Figure 1]).
 - South Barn = 415’ x 124’
 - North Barn = 660’ x 124’
 - Center Barn = 77’ x 45’
 - Young Stock Barn = 265’ x 40’
- Manure Storage Structures
 - o *Waste Containing Facility 1 (WCF1)* – concrete underground tank, constructed in 1999. This structure has inside dimensions of 36’4” x 16’8” x 8’. It has a volume of 36,239 gallons (Maximum Operating Level volume of 31,709 gallons) and holds parlor wastewater (Photos 25 and 26)
 - o *WCF2* – existing 9.2-million-gallon, earthen, manure storage constructed in 1999 (with as-built documentation submitted and evaluation conducted post-walkover). This WCF was expanded in 2015 and that post-construction documentation has also been provided (Photo 12; WDNR document “EVAL R-2016-0024 DSN”). The total expanded volume (WCF2 and WCF7) is 9.2 million gallons.
 - o *WCF3* – concrete reception channel constructed in 1999 and capable of holding 137,807 gallons of liquid manure in three sections (17,966 in the North Barn; 102,400 in the Center Barn; and 17,441 in the South Barn). As-built documentation has been submitted and an evaluation conducted, post-walkover (Photos 17-19; WDNR document “EVAL R-2016-0024 DSN” and “POST R-2016-0025 DSN”).
 - o *WCF4* – Unroofed concrete pad constructed 2011 (Photo 22). No post-construction documentation exists for this area. The owner states that this area is no longer being used as a WCF. If it is ever reactivated (used to store feed or manure, including used bedding), an evaluation will be conducted prior to use. That evaluation should describe:
 - the type of manure/waste this area holds;
 - the operation and maintenance (scraping) schedule;
 - final disposition of this manure;
 - and how the area meets applicable Standards and the zero-discharge requirement when subjected to a 25-year, 24-hour storm event.
 - o *WCF5* – Photo 7 – storage tank receiving runoff water from feed pad storage. The storage was constructed in 2012. This volume is pumped and released into the Vegetated Treatment Area (VTA).
 - The VTA was engineered by Outland Design and contains four rock spreaders. As-built documentation and a condition report were provided prior to permit issuance. (Photos 9-11; WDNR document “EVAL R-2016-0024 DSN”)
 - o *WCF6* – Photo 8 – concrete underground tank, constructed in 2012, that captures first flush leachate from the feed storage area and filters out solids. The

- runoff gravity flows over a weir to WCF5. Solids that are collected from feed pad are added to WCF 2/7.
 - WCF7 – represents the area that was expanded and connected to WSF#2. The applicant opted not to submit plans and specifications to the WDNR and wait to receive WDNR approval for this structure prior to initiating construction, and a Notice of Noncompliance is pending as a result.
- Runoff Control System 1
 - consists of WCF5, WCF6, and the VTA, as previously described, and receives all runoff from FSA1
- Pastures and Outdoor Lots
 - Consist of *Confinement Areas 1-4*. *Confinement Areas 1-4* are currently abandoned and animals will not be repopulated, temporarily or permanently.
 - The calf hutch area runs parallel to Highway 51 from about the house/parking lot to the freestall barn, then angles toward WCF4. There are approximately 82 calves and hutches bedded on wood chips and straw (Photos 1, 2, and 20). The applicant articulated several reasons why he felt the calf hutch area met applicable Standards and did not pose a surface or groundwater concern. The applicant was advised to write these points up as a formal site assessment/evaluation and submit that evaluation to the WDNR, and did so (see WDNR document “EVAL R-2016-0024 DSN”)

Similarly, the area that holds corn syrup in the commodities shed will need a site assessment/condition report to insure that none of that material is leaching to surface or groundwater if use of this area is continued. That evaluation shall be submitted to the WDNR’s Terry Donovan.

For the facilities mentioned above and any reviewable facilities in the production area, evidence will be required by the end of the permit term that these facilities meet applicable Standards. The WDNR has no record of these existing facilities having been evaluated to insure their ability to continue to meet the WPDES permit *Production Area Discharge Limitations* and *Manure and Process Wastewater Storage* subsections, and s. NR 243.15, Wis. Adm. Code. If an evaluation or evidence is presented, prior to permit finalization, that certifies these structures as continuing to meet applicable Standards, then the requirement for an evaluation will be removed from the upcoming permit. (Update: WDNR document “EVAL R-2016-0024 DSN” submitted by Outland Design satisfied most of the evaluation requirements, with the exception of the syrup storage and unroofed solids stacking pad).

Future Plans

Ron Ziegler Farm has plans to expand as outlined in the preliminary application and the Nutrient Management Plan (NMP submitted by Dave Buss, NuSolutions Agronomy) that received revised final approval on March 3, 2016. The expansion was from 998 to 1717 AUs “in 2016.” No other expansion plans or plans for new facilities exist at this time.

Nutrient Management, Annual Reports, and Inspection and Monitoring Records

Annual Spreading Report, Nutrient Management Plan Update, and other reporting assistance can be found at: <http://dnr.wi.gov/topic/AgBusiness/CAFO/PermitForms.html> (see *Reporting and compliance*) and <http://dnr.wi.gov/topic/agbusiness/cafo/nutrientmanagementplan.html> (see *Annual NMP reporting requirements*). These reports will be required annually and will be outlined in the *Schedules* section of any issued WPDES permit. However, it is advised that the applicant familiarize himself and staff with the data-collection and reporting requirements now and to begin implementing routines for collecting the information.

Miscellaneous

If Mr. Ziegler would like more information on the WDNR's Green Tier Program (<http://dnr.wi.gov/topic/greentier/>), he can contact [Laurel Sukup](mailto:Laurel.Sukup@dnr.wisconsin.gov) (608.267.6817).

Also, Mr. Ziegler should be aware that he should contact the WDNR's Drinking and Groundwater Division if the farm reaches the threshold of 25 employees, as that may qualify the operation for status as a public water supply (see <http://dnr.wi.gov/topic/DrinkingWater/owneroperator.html>). He may also contact WDNR's David Blair at 608.275.3472 or David.Blair@Wisconsin.gov with questions.

While there was no evidence of burning, please be reminded not to burn agricultural plastics. Please see <http://dnr.wi.gov/files/PDF/pubs/wa/WA1592.pdf> for more information.

Items Needed For a Complete Application

As per NR 243.12(2), no components remain outstanding for a complete, final application.

Items Needing Attention

- 1) *WCF2* and *WCF7* – need permanent markers installed as per Appendix A.
- 2) Well distances from manure storage need to be confirmed as conforming to NR 243.15(1)(a)2 or variances need to be requested, if not done already.
- 3) Do not bury construction materials in the borrow pit area, and if this has occurred, remove those materials or you may be found in violation of other statutes.
- 4) Please complete the attached Manure Hauling Questionnaire (Appendix B).

Photo Documentation

Photos were taken at various locations, and those photos are described in the figures below, with photo orientation map (Figure 2).

Sincerely,

James M. "Mike" Carlson
Wastewater Specialist – Watershed Management Bureau, Runoff Management Section
Wisconsin Department of Natural Resources
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Horicon, WI 53032
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Figure 1.—Aerial photo including facility labels at Ron Ziegler Farm, LLC. Map generated by Outland Design, LLC and submitted by Jess Ray as part of preliminary application package on behalf of permittee.

LEGEND

- PROPOSED CONTOURS
- EXISTING WELL
- TEST PIT
- BENCH MARK



DATE	DESCRIPTION	BY	CHECKED

RON ZIEGLER FARM
 N368 HIGHWAY 51
 DEFOREST, WI 53532

PROPOSED LAYOUT
FACILITY EXPANSION PLAN

OUTLANDS DESIGN

539 D. DUNBRID DR., #17
 MADISON, WI 53719
 WWW.OUTLANDSDESIGN.COM

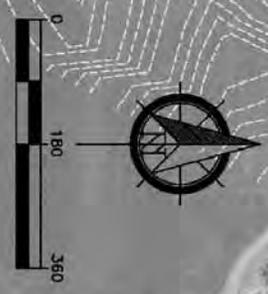
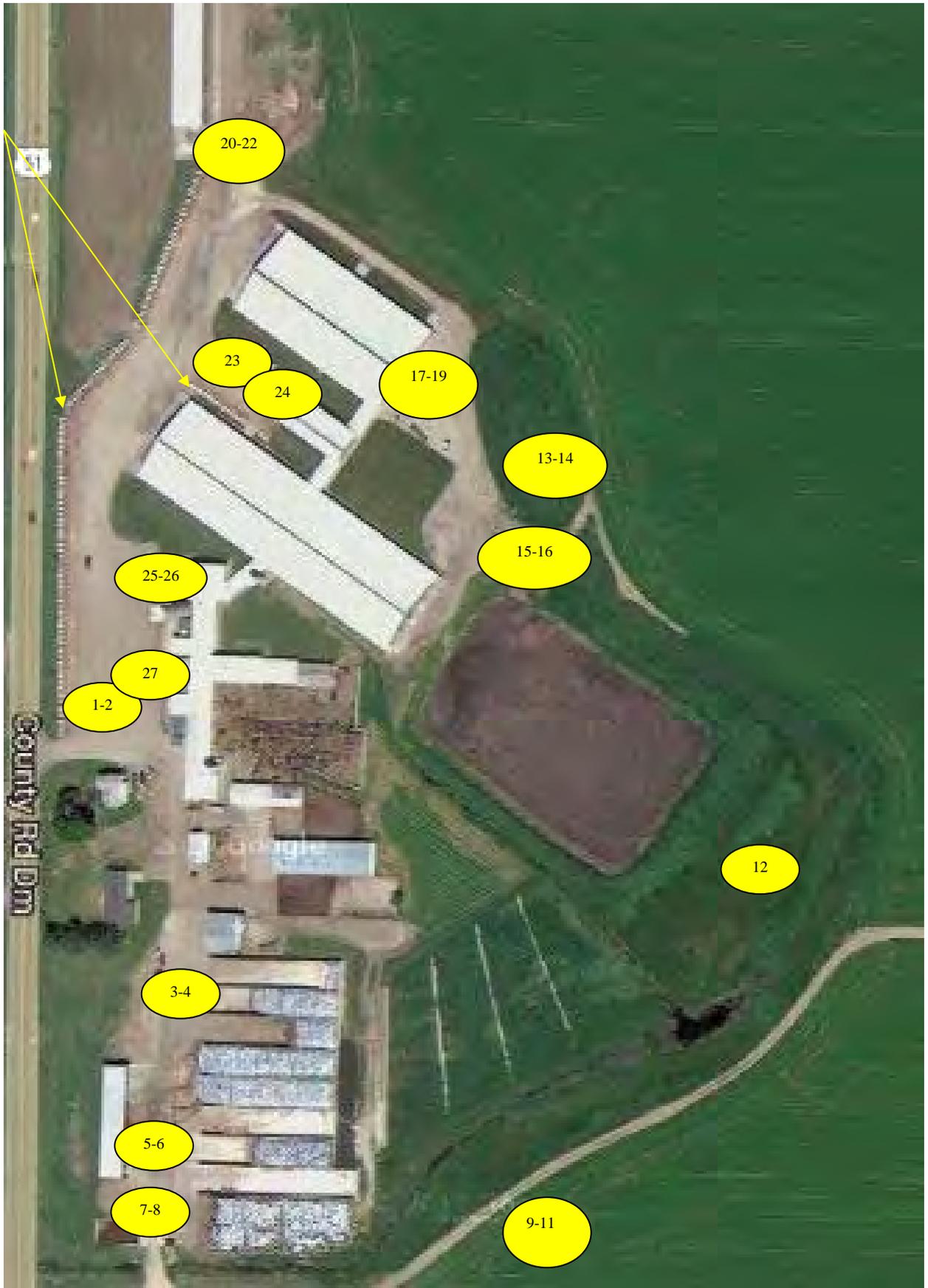


Figure 2.—Site walkover photo orientation map.

Hutches



Photos 1 and 2.—Looking west (top photo) and north (bottom) at calf hutch area bordering Highway 51.



Photos 3 and 4.—Looking east (top photo) and south (bottom) in *FSA1*.



Photos 5 and 6.—Looking southwest (top) and northwest (bottom) into shed used for syrup storage at the time of the walkover.



Photos 7 and 8.—Looking west at WCF5 (top photo) and southeast at WCF6 (bottom).



Photos 9, 10, and 11—Looking northwest and north across VTA from field road.



Photo 12.—Looking northwest across WCF2 and WCF7 (top) and southeast toward “Borrow pit” used for ongoing facility construction (bottom).



Photos 13 and 14.—Looking northwest across (then-proposed) Young Stock Barn construction area toward the North Barn.



Photos 15 and 16.—Looking northwest to stormwater swale that directs roof water away from barns.



Photos 17-19.—Looking at WCF3.



Photos 20-22.—Looking southwest along east edge of calf hutches (top), north along roofed animal housing (middle), and west into WCF4.



Photos 23 and 24.—Looking south to additional calf hutches (top) and southeast toward Central Barn.



09/01/2015 10:32



09/01/2015 10:33

Photos 25 and 26.—Looking east into parlor area.



Photo 27.—Looking east into hospital area.



Appendix 3.—Quarterly Monitoring Reporting Form for reference

QUARTERLY MONITORING REPORT FORM

For WPDES Permitted CAFO Operations

Date: _____ Monitoring Quarter (circle one): Jan-Mar Apr-June July-Sept Oct-Dec

Facility Name: _____ Name of person performing inspection: _____

Quarterly reporting forms should be completed at the end of each quarter and kept onsite until submitted to the Department on an annual basis as part of the Annual Report for a WPDES permitted CAFO (keep copies for your records). This information is due by the compliance date in the WPDES permit – typically January 31st of each year. This reporting form can be used for the quarterly monitoring requirements of your WPDES permit; you may also use your own quarterly monitoring form if you choose.

Per NR 243.19 WI Adm. Code, At minimum, quarterly report summaries shall include:
1) Identified permit violations including all discharges of manure or process wastewater to surface waters, overflows of liquid manure or process wastewater storage and containment structures, and number of missed inspections; Dates, times and approximate volume of discharges; Corrective actions taken.
2) A summary of the condition of runoff control systems and storage and containment structures; summary of recorded levels of materials in liquid storage and containment structures, including exceedances of the maximum operating level and margin of safety level.
3) Other information requested by the department in writing or in the permit.

Summary of permit violations, spills, discharges etc. (Attach additional sheets if necessary): _____

Manure Storage Condition

			Additional comments
Is fencing installed around all storages?	NO	YES	_____
Are there any rodent holes or erosion problems in berm walls?	NO	YES	_____
Are there any signs of leakage or seepage problems?	NO	YES	_____
Are transfer lines and/or overflow channels & berms functioning?	NO	YES	_____
Is vegetation on outside berm walls mowed regularly?	NO	YES	_____
Are there any large cracks visible in concrete?	NO	YES	_____
Are storage level markers missing or in need of repair?	NO	YES	_____

Feed Storage Area Condition

			Additional comments
Is there dead vegetation around perimeter of feed storage area?	NO	YES	_____
Are there cracks in bunker walls or floor?	NO	YES	_____
Are there any signs of leachate seepage along sidewalls or floor?	NO	YES	_____
Are good housekeeping practices in place (sweeping waste feed)?	NO	YES	_____
Is plastic being properly disposed of (not burned)?	NO	YES	_____

Feed Storage Runoff Controls (circle those relevant to your system)

Are designed runoff controls in place for the feed storage area?	NO	YES	_____
Is leachate collection sump and pump functioning properly?	NO	YES	_____
Does vegetated treatment area (VTA) have erosion problems?	NO	YES	_____
Is VTA adequately vegetated and mowed regularly?	NO	YES	_____
Are sedimentation collection areas and spreader stone areas cleaned out regularly?	NO	YES	_____

Outdoor Feedlot Area(s) Condition

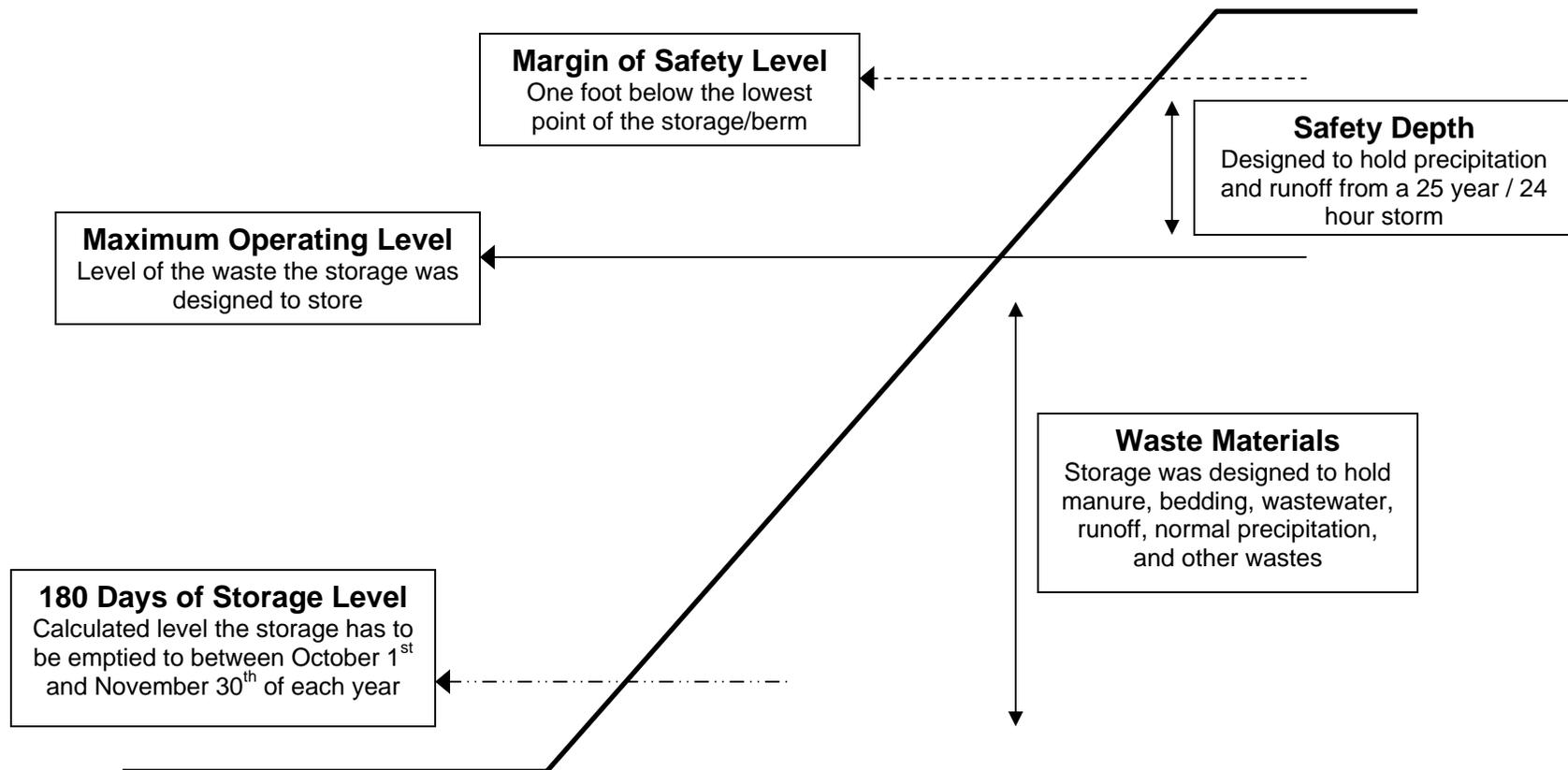
Are feedlots scraped on a regular basis?	NO	YES	_____
Are there any signs of erosion in or adjacent to feedlot area?	NO	YES	_____
Are runoff control systems being maintained and cleaned regularly?	NO	YES	_____
Are clean water diversions functioning (gutters, ditch diversions)?	NO	YES	_____
Is there a vegetated buffer area between lots and concentrated flow paths?	NO	YES	_____
Do CAFO vegetated areas (i.e. pasture) have vegetated cover?	NO	YES	_____
Are there any signs of runoff leaving calf hutch areas?	NO	YES	_____

Appendix 3.—Quarterly Monitoring Reporting Form for reference

Permanent Markers for Liquid Manure Storages

For WPDES Permitted CAFOs

The Department has received numerous questions regarding permanent markers for liquid manure storage facilities at Wisconsin Pollutant Discharge Elimination System (WPDES) permitted concentrated animal feeding operations (CAFOs). Below is a diagram, identifying the three permanent markers which need to be installed in all liquid manure storage facilities at WPDES permitted CAFOs. The WPDES permit for a CAFO as well as Chapter NR 243, Wisconsin Administrative Code, identifies the complete rules, regulations and requirements for permanent markers at WPDES permitted CAFOs.



- Liquid manure should not go above the *maximum operating level* unless there is a 25 year / 24 hour storm event (the amount of precipitation this type of storm event could produce is listed in the WPDES permit for the permitted farm). The operation and maintenance plan for the manure storage facility should require that waste be pumped out of the storage prior to levels reaching the *maximum operating level*.
- If there is a 25 year / 24 hour storm event, the manure storage facility is designed to hold the precipitation and runoff from the storm while staying below the *margin of safety level*. No liquids should ever be above the *margin of safety level* as this is a violation of the WPDES permit. On a weekly basis, the farm should record the level of liquid in the manure storage in feet or inches above or below the *margin of safety level*. If the level ever exceeds the *margin of safety level*, immediate actions should be taken to lower the level to within or below the *maximum operating level*.
- For under-floor or covered manure storage facilities that do not collect runoff, the *maximum operating level* and *margin of safety level* are the same marker.
- Between October 1st and November 30th, the farm needs to record seeing the *180 days of storage level* to ensure the manure storage is emptied enough to be able to contain 180 days worth of manure and other waste materials through the winter months. During the winter storage period the remaining storage volume must be calculated and documented on a weekly basis and this information is to be included with the annual report.
- If the installation of permanent markers will have the potential to adversely impact the liner integrity of the liquid manure storage facility, plans and specifications shall be submitted to the Department for review and approval prior to installation of the markers.

Examples of Permanent Markers

<i>Type of Marker Material</i>	<i>Pros</i>	<i>Cons</i>
Concrete Etchings	Permanent and low maintenance	Can be difficult to read and require cleaning
Steel Rods	Visible	Need to be located in low traffic areas
PVC Pipe	Visible	May freeze and easily damaged depending on location
<p><i>Note: This list is not meant to be an all-inclusive list of permanent marker ideas. Many other options may be available for permanent markers in liquid manure storage facilities.</i></p>		