

Wisconsin Department of Natural Resources  
 Bureau of Watershed Management (WT/3)  
 101 S. Webster Street  
 PO Box 7921  
 Madison, WI 53707-7921  
[dnr.wi.gov](http://dnr.wi.gov)

**Final Report**  
 Agricultural Targeted Runoff Management &  
 Notice of Discharge Grant Programs  
 Form 3400-189A (R 11/18) Page 1 of 2

**NOTICE:** This document is required under s. 281.65, Wis. Stats., and chs. NR 153 and 154, Wis. Adm. Code. A final project report must be submitted as part of the final reimbursement request. Personally identifiable information contained in this form will be used for determining reimbursement eligibility in the Targeted Runoff Management and Notice of Discharge Grant Programs and will not be used for any other purpose.

**INSTRUCTIONS:** Send the completed, electronic copy of this form and all attachments to the Department of Natural Resources (DNR) Region Nonpoint Source Coordinator. Please read all instructions prior to completion.

<b>Grant Type</b>		
Select Grant Type <b>Notice of Discharge</b> ▼		
<b>Grant Information</b>		
Grantee - Governmental Unit Name <b>Shawano County</b>		Grant Number <b>NOD59000Y17</b>
Project Name <b>Zernicke Landstad Dairy LLC</b>		
Project Contact Name <b>Blake Schuebel</b>	Phone Number <b>(715) 526-4633</b>	E-mail Address <b>Blake.Schuebel@co.shawano.wi.us</b>

<b>Site 1 - Location &amp; Watershed Information</b>				Additional sites may be added to the project by clicking on the [+Loc] button			
Name of Cost-Share Recipient <b>Zernicke's Landstad Dairy LLC</b>			Animal Units <b>772</b>	Latitude <b>44.6645</b>	Longitude <b>-88.4622</b>		
County <b>Shawano</b> ▼	12-Digit HUC <b>040302020801</b> ▼	12-Digit Watershed Name <b>East Branch of the Shioc River</b> ▼					
Nearest Receiving Waterbody <b>Unnamed order 1</b>			Primary Waterbody addressed by project <b>East Branch of the Shioc River</b>				

<b>Site 1 - BMP &amp; Load Reduction Information</b>								Additional BMPs for this site may be added by clicking on the [+] button	
Best Management Practice Installed	Quantity	Unit of Measure	Performance Standard/Prohibition Addressed	Phosphorus lbs/yr	Nitrogen lbs/yr	Sediment Tons/yr	Total Installation Cost		
- Feed Storage Runoff Control System	1	No.	Code(s) 7	634	3,168		\$304,596.26		
- Manure Storage Systems	1	No.	Code(s) 7				\$75,191.00		
- Nutrient Management	1,161	acres	Code(s) 9				\$0.00	+	

**Model(s)/Methods Used to Calculate Load Reduction (check all that apply)**  
 STEPL  SNAP+  BARNY  RUSLE 2  Other (specify) **VTA Leachate collection System**

<b>Site 1 - Compliance Requirements</b>				
Performance Standard or Prohibition Addressed	Chs. NR 151 or 243 Wis. Adm. Code	Notice Letter Attached?	Compliance Achieved?	Compliance letter attached?
Process wastewater handling.	NOI / NOD ▼	Yes ▼	Yes ▼	Yes ▼
Nutrient management.	NOI / NOD ▼	Yes ▼	Yes ▼	Yes ▼

**Check all of the true statements below.**

- 1. A copy the compliance letter for site 1 has been placed in county files.
- 2. The attached compliance letter for site 1:
  - a. has been provided by the county to the landowner and cost-share recipient;
  - b. identifies each of the performance standards & prohibitions (PS&Ps) on cropland and livestock facilities brought into compliance by the project, and listed in the table above;
  - c. identifies the name and location of the facility where compliance has been achieved; and
  - d. states that the landowner is obligated to maintain compliance with each PS&P addressed by the project in perpetuity regardless of future cost sharing.

**Site 1 - Required attachments**

Check the box if the required information for the site is attached:

- Photos of pre-and post-implementation of BMP(s)
- Aerial photo map of site with BMPs labeled
- Load reduction modeling documents
- Water quality monitoring results/summary, if applicable

**Site 1 - Information**

## Final Report

*Narrative space will expand to fit*

At the time of the NOD grant application three BMP's were the target of this grant. They were identified as:

- 1) Manure Storage System
- 2) Feed Storage Runoff Control System.
- 3) Nutrient Management

This project is a concrete composite feed pad, which flows into a liquid tight concrete lined manure storage. Pad dimensions are 260'x340', the waste storage is 84'x220'x8' deep. This will hold about 180 days of leachate from feed pad. All nutrients will be land applied according to their nutrient management plan. By completing all of these BMP's on this property, it is now in complete compliance with all of the applicable NR 151 ag-performance standards and prohibitions.

DNR may use this site as a success story to meet state and federal reporting needs.

+ Loc

### Additional Project Information and/or Comments

*Narrative space will expand to fit*

### Grantee Certification

A responsible government official (authorized signatory) must authorize and date the final report form prior to submittal to DNR.

I certify that, to the best of my knowledge, the project is complete and the information contained in this final report and attachments are correct and true.

Name of Authorized Government Official	Title of Authorized Government Official	Date
Scott M. Frank	Conservationist	12/18/2018

### For DNR Use Only

Received complete reports with all attachments       Practices implemented were consistent with the grant agreement

Comments about this project:

Conducted on-site inspection of completed project on 11/8/2018. Everything was installed and was functioning as designed. Compliance letter from DNR will be sent out in the next week.

Name of Region Nonpoint Source Coordinator	Date
Eric Evensen	01/07/2019

Send the Final Report and attachments to the Community Financial Assistance Grants Manager and to the Runoff Management Grant Coordinator. Keep a printed copy for the Region file.

SHAWANO



COUNTY

**LAND CONSERVATION DEPARTMENT**

311 N MAIN STREET – COURTHOUSE

SHAWANO, WI 54166-2145

Phone (715) 526-6766 Fax (715) 526-6273

[www.co.shawano.wi.us](http://www.co.shawano.wi.us)

December 14, 2018

ZERNICKE'S LANDSTAD DAIRY LLC  
ATTN: DAN ZERNICKE  
N2156 TWO CREEKS ROAD  
BONDUEL, WI 54107

**RE: Notice to Maintain Compliance with Agricultural Performance Standards and Prohibitions** on property described as: SW ¼, SW ¼ SEC 5 T25N - R17E INCL V5 CSM P198 MAP #1416 (PARCEL # 028-05330-0000), NW ¼, SW ¼ SEC 5 T25N - R17E (PARCEL # 028-05320-0000 and other lands owned/operated for Nutrient Management requirements.

Dear Mr. Zernicke:

The purpose of this letter is to provide notice of the requirement to maintain compliance with state Agricultural Performance Standards and Prohibitions at the livestock facility and cropland addressed in your cost share agreement (NOD-59-18-01).

As a result of installing the conservation practices, the livestock facility has been brought into compliance with following state standards and prohibitions:

- 1) Sheet, Rill and Wind Erosion Performance Standard (s. NR 151.02)
- 2) Manure Storage Facilities Performance Standards (s. NR 151.05)
- 3) Process Wastewater Handling Performance Standard (s. NR 151.055)
- 4) Nutrient Management (s. NR 151.07)
- 5) Manure Management Prohibitions (s. NR 151.08)

In accordance with ch. NR 151, Wis. Adm. Code, any cropland practice or livestock facility that is brought into compliance with a state ag-performance standard or prohibition must remain in compliance in perpetuity regardless of future cost sharing. It is required that you and any future landowners or operators maintain compliance with the standards and prohibitions at the parcels and lands identified. I have enclosed a copy of Chapter NR151 Runoff Management (Subchapters I & II) for your reference.

Thank you for your conservation efforts. They contribute significantly to improved water quality within the Shioc River Watershed. If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Scott M. Frank". The signature is written in a cursive style.

Scott M. Frank  
County Conservationist  
(715) 526-4632

[Scott.Frank@co.shawano.wi.us](mailto:Scott.Frank@co.shawano.wi.us)



# Surface Water Data Viewer Map



- Legend**
- Intermittent Streams
  - 24K Hydrography Streams and Rivers
  - 24K Hydrography Lakes and Open Water
  - Municipality
  - State Boundaries
  - County Boundaries
  - Major Roads
    - Interstate Highway
    - State Highway
    - US Highway
  - County and Local Roads
    - County HWY
    - Local Road
  - + Railroads
  - Tribal Lands
  - Rivers and Streams
  - Intermittent Streams
  - Lakes and Open water
  - Index to EN\_Image\_Basemap\_Leaf\_Off



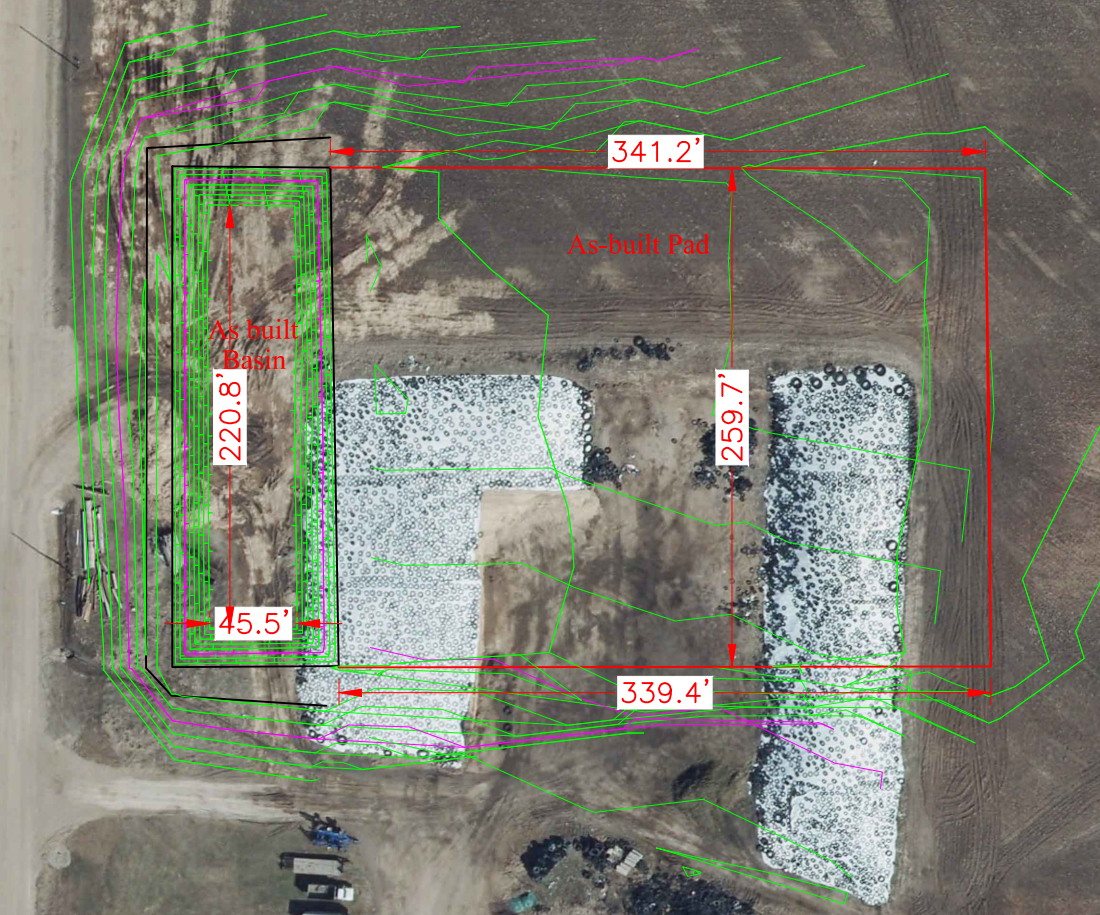
NAD\_1983\_HARN\_Wisconsin\_TM

1: 3,960

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

**Notes**

# Post Consturction



Zernicke Dairy LLC  
OWNER  
Designed: ---- Checked: ----  
SHEET \_\_\_ OF \_\_\_

Leachate Running off of feed pad, on to driveway. Feed sitting in water.



Leachate on driveway running directly to road ditch and ditching to creek.

Looking West Runoff entering road ditch



Looking at contaminated runoff flowing down ditch towards waters of the state.





Aerial of pad being poured, with temporary basin south next to road



Completed basin looking south, with pad to east.



Looking east at the north edge of basin, an new feed pad.



Looking west towards road at basin with safety fence installed.



**Leachate Collection System and Vegetative Treatment Area (VTA) Design**

**Design Computations**

*for*

ver 2-2018

LANDOWNER: Zernicke Landstad Dairy Before

COUNTY: Shawano

**Before**

DESIGNED BY: Blake Schuebel

DATE:

CHECKED BY:

DATE:

**FEED STORAGE AREA NUTRIENT BALANCE**

**Runoff Calculations**

Feed Storage Area 86000 ft<sup>2</sup>  
Other Tributary Area 0 ft<sup>2</sup>

Feed Storage CN 95  
Other Area CN 0

Annual Precipitation 32.71 inches  
Annual Runoff 21.39 inches

Weighted avg. RCN 95.00  
Drainage area 1.97 Acres

Annual Runoff 153,313 ft<sup>3</sup>  
Annual Runoff 42.23 acre-inches

**VTA Calculations (Nutrient Balance)**

Feed Storage Area Maintenance	Poor	
N Content in Runoff	75	lb/acre-in
Annual N in runoff applied to VTA	3168	lbs
P content in runoff	15	lb/acre-in
Annual P in runoff applied to VTA	634	lbs
Yield of VTA vegetation	#N/A	tons/acre
N uptake	#N/A	lbs/acre
P uptake	#N/A	lbs/acre
Min. VTA size based on N	#N/A	acres
Min. VTA size based on P	#N/A	acres
Min. VTA size	#N/A	acres

If waste stream is sampled, enter nutrient values below

N Content in Runoff  lb/acre-in  
P Content in Runoff  lb/acre-in

Type of Vegetation

**VTA Calculations (Water Balance)**

Annual Wastewater Depth to Apply  inches  
Min. VTA Size #DIV/0! acres

**Summary**

Min. VTA Size	#DIV/0!	acres
Depth per Application	<input type="text"/>	inches
Volume per Application	#DIV/0!	ft <sup>3</sup>
Volume per Application	#DIV/0!	gallons

# Leachate Collection System and Vegetative Treatment Area (VTA) Design

## Design Computations

for

ver 2-2018

LANDOWNER: Zernicke Landstad Dairy after

COUNTY: Shawano

After

DESIGNED BY: Blake Schuebel

DATE:  

CHECKED BY:  

DATE:  

### FEED STORAGE AREA NUTRIENT BALANCE

#### Runoff Calculations

Feed Storage Area	86000	ft <sup>2</sup>	Feed Storage CN	98
Other Tributary Area	0	ft <sup>2</sup>	Other Area CN	0
Annual Precipitation	32.71	inches	Weighted avg. RCN	98.00
Annual Runoff	30.85	inches	Drainage area	1.97 Acres
Annual Runoff	221,105	ft <sup>3</sup>		
Annual Runoff	60.91	acre-inches		

#### VTA Calculations (Nutrient Balance)

Feed Storage Area Maintenance	Good			
N Content in Runoff	25	lb/acre-in	If waste stream is sampled, enter nutrient values below	
<b>Annual N in runoff applied to VTA</b>	1523	lbs	N Content in Runoff	
P content in runoff	5	lb/acre-in	P Content in Runoff	
<b>Annual P in runoff applied to VTA</b>	305	lbs	Type of Vegetation	
Yield of VTA vegetation	#N/A	tons/acre		
N uptake	#N/A	lbs/acre		
P uptake	#N/A	lbs/acre		
Min. VTA size based on N	#N/A	acres		
Min. VTA size based on P	#N/A	acres		
Min. VTA size	#N/A	acres		

All collected

#### VTA Calculations (Water Balance)

Annual Wastewater Depth to Apply		inches
Min. VTA Size	#DIV/0!	acres

#### Summary

Min. VTA Size	#DIV/0!	acres
Depth per Application		inches
Volume per Application	#DIV/0!	ft <sup>3</sup>
Volume per Application	#DIV/0!	gallons