

## Sarah Burdette

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**From:** Sarah Burdette  
**Sent:** Friday, January 4, 2019 2:37 PM  
**To:** 'jasonpansier@gmail.com'  
**Cc:** 'eric.mcleod@huschblackwell.com'; 'lkonopacki@staffordlaw.com';  
'vwishart@staffordlaw.com'; 'pkent@staffordlaw.com'  
**Subject:** Ledgeview Farm, LLC Second Application for Livestock Siting Approval  
**Attachments:** 19-01-04 ATCP51 checklist.pdf; 19-01-04 Pansier Itr.pdf

Good Afternoon Mr. Pansier,

Please find attached to this email, a response from the Town of Ledgeview relative to Ledgeview Farm, LLC Second Application for Livestock Siting Approval and an ATCP 51 Application Review Checklist.

Regards,  
Sarah

Sarah K. Burdette  
Administrator  
Town of Ledgeview



3700 Dickinson Road  
De Pere, WI 54115  
Phone: 920.336.3360, ext. 108  
Cell/Text: 920-639-6083  
[sburdette@ledgeviewwisconsin.com](mailto:sburdette@ledgeviewwisconsin.com) [www.LedgeviewWisconsin.com](http://www.LedgeviewWisconsin.com)



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January 4, 2019

VIA EMAIL AND U.S. MAIL  
(jasonpansier@gmail.com)

Ledgeview Farm, LLC  
c/o Jason Pansier  
3875 Dickinson Road  
DePere, WI 54115

RE: Ledgeview Farm, LLC  
Second Application for Livestock Siting Approval

Dear Mr. Pansier:

You submitted a request to the Town of Ledgeview for a livestock siting approval and made additional insertions to that submittal through November 20, 2018. The Town is in the process of evaluating whether this submittal was untimely or inappropriately filed with the Town. In the interest of avoiding delay, the Town provides the following as a completeness determination for the application so that your work toward completion can continue should the Town subsequently determine that the submittal is appropriately before it for a Town decision. The issuance of this completeness determination is not an acknowledgement by the Town that the application was timely and appropriately filed with the Town.

Wis. Stat. § 93.90 (4) (a) provides in part that “[n]o later than 45 days after a political subdivision receives an application for approval, the political subdivision shall notify the applicant whether the application for approval is complete and, if it is not complete, what information is needed to complete the application for approval.”

Your application of November 20, 2018, is incomplete. The following information is needed:

- A. The following comments correspond to the ATCP 51 Application Review Checklist Completeness Determination:

3) Cluster B Site Maps – Map 1 is missing north arrow and Map 2 north arrow in wrong orientation.

4) Location of Livestock Structures- Well Variance not provided for existing well at Heifer Site not 250' from Detention Basin.

22) Total acres of cropland in Worksheet 3 Part B #4 not consistent with Worksheet 3 Part C. (2,752 acres versus 2,759 acres)

30) Verify modifications on Animal Lot Y1 at Headquarters site provides 6" of freeboard. Plans callout addition of 1ft wall. Does this wall provide the required freeboard? Does existing wall provide required freeboard?

NCSS 634-Reception structures receiving runoff and/or precipitation shall be sized to contain a minimum of one full day's manure production, plus six inches extra depth for safety, and the volume of runoff and/or precipitation from a 25-year, 24-hour rainfall event. The increase in storage volume due to runoff and/or precipitation may be reduced if a portion of this runoff and/or precipitation can be safely routed to and contained within the waste management system

30) Future runoff collection system for the FSA at the Headquarters site were noted in the Waste Storage Calculations in Exhibit 6-1. No plans or specifications were attached.

B. The following identify additional information needed for the Town to conduct an application review:

- For clarity it would be beneficial for the documents to be updated to be consistent regarding labelling of the animal lot at Headquarters as Y1 and the animal lot at the Heifer Site as Y2.
- How will manure and precipitation collected in the animal lot Y1 at the Headquarters site be transferred to storage?
- Was nutrient management plan approved by DNR?
- Was Evaluation of WSF1 at Headquarters site approved by DNR?
- Documentation or calculations of volume of WSF1 at Headquarters site?
- Has closure to Pit 1 and Pit 2 occurred? Were there impacted soils? Outlet installed? Explain need for waste transfer in Inspection Plan section of Closure Plan.
- Does proposed FSA meet requirements of Worksheet 5 3 c) and d)?
- The Application does not include sufficient information about the current number of animal units present on the site. The narrative lists the milking and dry cow numbers, the heifer numbers, and the steer numbers, but does not provide

January 4, 2019

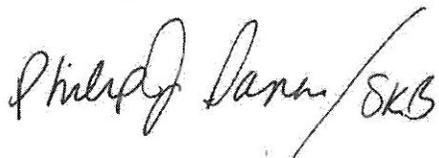
Page 3

information about the corresponding animal unit calculation for (at least the latter two of) these categories to allow accurate current total animal unit calculations.

- Exhibit 6-3 lists 550 calf steers and 525 steers at the Heifer Site; this not match Worksheet 1 – Animal Units which lists 675 steers and 400 steer calves. Please clarify.
- Exhibit 6-13 lists the area of the Headquarters Animal Lot as 6,050 sqft, the Odor Score spreadsheet lists the lot area as 5,953 sqft and Exhibit 15 lists the lot area as 5,976 sqft. Please clarify.

The ATCP 51 Application Review Checklist is enclosed.

Sincerely,



Philip J. Danen, Chairman  
Town of Ledgeview

Enclosure

cc: Stafford Rosenbaum, LLP (via email)  
Eric M. McLeod, Husch Blackwell (via email)

## ATCP 51 Application Review Checklist Completeness Determination

This review is confined to considerations related to completeness of the application, including selective checks for consistency. This completeness review does not include an evaluation of the underlying documentation submitted with the application (e.g. plans and specifications) to determine compliance with state standards. Review for compliance with the siting standards is the next step after the completeness determination.

Applicant (Livestock Facility Name): Ledgeview Dairy  
Local unit of government: Town of Ledgeview

The application was provided by (e.g. applicant / consultant / political subdivision): Mead Hunt  
Date application and related documentation was submitted to DATCP: 11/2/18  
Reviewed by (staff): REA Bob Pofahl and Dan Wierzba  
Date review completed: 12/27/2018

### Review of Application, Worksheets and Attachments (numbers refer to sections of the referenced application materials)

#### Application Form pages 390-11 to 390-20 Completeness Considerations

	Complete	Incomplete	Not submitted
1) Area map # 9 – legible, scaled properly, appropriately labeled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Site map (plan) # 10 - legible, scaled properly, appropriately labeled	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Location of livestock structures # 11 - map or narrative	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Employee Training Plan # 12 - addresses required elements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Environmental Incident Response Plan # 13 - addresses required elements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Optional Odor Management Plan # 14 - addresses required elements (only submitted if credit taken on Worksheet 2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Page 390-20 is signed (last page)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

#### Worksheet 1 – Animal Units Completeness Considerations

	Complete	Incomplete	Not submitted
8) Animal units for each livestock type are calculated, and all types are summed for a total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Total animal units calculated in Worksheet 1 is consistent with the maximum number of animal units listed in # 8 on p. 390-17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Worksheet is signed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

**Worksheet 2 – Odor Management**  
Completeness Considerations

	Complete	Incomplete	Not submitted
11) Facility is exempt and the appropriate box checked Note: Expanding facilities under 1000 AU, new facilities under 500 AU, and any facility greater than 2500 feet from nearest affected neighbor are exempt, but may voluntarily complete and comply with this standard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) Tables A and B are completed, or a copy of the spreadsheet printout is attached (skip this if exempt)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Worksheet is signed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Notes:</b>			

**WPDES permit substitution for Worksheets 3, 4, and 5**  
 (If completed, skip sections of this checklist for Worksheets 3, 4, and 5)

<u>Completeness Considerations</u>	Complete	Incomplete	Not applicable
14) A current WPDES permit is attached (at minimum includes a cover letter demonstrating the permit has not expired)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15) The WPDES permit covers an equal or greater number of animal units housed in the same locations proposed in the siting application	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Notes:</b>			

**Worksheet 3 – Waste and Nutrient Management**  
Completeness Considerations

	Complete	Incomplete	Not submitted
16) Worksheet 3 Part A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17) Worksheet 3 Part B, including maps required by # 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18) Worksheet 3 Part B - animal unit number in # 1 is consistent with the maximum animal unit number in Worksheet 1 and # 8 on p. 390-17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19) Worksheet 3 Parts A and B are signed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20) Worksheet 3 Part C (required when > 500 AU or less than the ratio in Worksheet 3 Part B # 6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21) Worksheet 3 Part C is signed by a Qualified Nutrient Management Planner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22) The total acres of cropland available for land application listed in Worksheet 3 Part B # 4 is consistent with the total acres listed in Worksheet 3 Part C	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23) Worksheet 3 Part C is signed if required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Notes:</b>			

**Worksheet 4 – Waste Storage Facilities**

Completeness Considerations

	Complete	Incomplete	Not submitted
24) All new or substantially altered storage facilities are identified, and design specifications attached	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25) All existing storage facilities are identified, and the appropriate verification checkbox marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26) Closure specifications are attached (if applicable)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27) Combined useable storage capacity is consistent with the total waste storage capacity on Worksheet 3 Part A (sum of numbers in column A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28) Signed by registered professional engineer (whose license number and seal are provided) or a certified agricultural engineering practitioner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

**Worksheet 5 – Runoff Management**

Completeness Considerations

	Complete	Incomplete	Not submitted
29) All the following are identified (map or narrative): new or substantially altered animal lots, existing animal lots, new or substantially altered feed storage, existing feed storage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30) For each new and substantially altered animal lot (# 1), design specifications are attached	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31) An explanation is attached for any existing lots with minor alterations (# 2 and # 3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
32) For each new and substantially altered feed storage for high moisture feed (# 3), design specifications are attached	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33) Signed by registered professional engineer (whose license number and seal are provided) or a certified agricultural engineering practitioner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34) Worksheet is signed by applicant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

**If applicable, additional documentation for more stringent requirements (can only be required if the local government meets requirements for more stringent regulation)**

Completeness Considerations

	Complete	Incomplete	Not submitted
35) Required submissions are provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36) Design specifications are attached (if required)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

I:\w\LIVESTOCK FACILITY SITING\Information and Education\checklists\Completeness Review  
Checklist 4-2009.doc

## Sarah Burdette

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**From:** Courtney Roach <Courtney@jmroach.com>  
**Sent:** Friday, January 11, 2019 2:03 PM  
**To:** Sarah Burdette  
**Cc:** John Roach; 'jasonpansier@gmail.com'; McLeod, Eric  
**Subject:** Response to Town of Ledgeview Letter for 2018 Livestock Siting  
**Attachments:** 2018 Ledgeview Livestock Siting Comments Response Combined.pdf

Sara,

Here is the Response on Behalf of Ledgeview Farms to the letter dated January 4<sup>th</sup>, 2019 in regards to the 2018 Livestock Siting Application, submitted November 5<sup>th</sup>, 2018.

Please contact our office if you have any questions or concerns.

Thanks

Courtney

Courtney M. Roach  
Roach and Associates, LLC  
856 North Main St  
Seymour, WI 54165  
Office 920-833-6340



## Table of Contents

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### **Attachments (In the order attached)**

Letter with Intercalated Responses

(3) Cluster B Site Map 1

(3) Cluster B Site Map 2

(4) Well Variance for Detention Basin Info, Exhibit 18

(22) Corrected Worksheet 3 - Part B

(30) Updated Exhibit 15, Y1 Yard Runoff Controls

(30 and B) Updated Exhibit 6, Waste Storage Facility Summary

(B) Updated Exhibit 16, Operation and Maintenance

(B) Updated Exhibit 14, Abandonment Plan WSFs Cluster A

(B) Exhibit 19, Worksheet 5 - Additional Information

(B) Updated Worksheet 1

(B) Updated Exhibit 10, Odor Scores, Cluster A

(B) Updated Worksheet 2, Cluster A

Updated Narrative to Reflect some of the above changes

***Roach and Associates, LLC responses to the town of Ledgeview's comments are intercalated below in bold and italic.***

January 4, 2019

Ledgeview Farm, LLC  
c/o Jason Pansier  
3875 Dickinson Road  
DePere, WI 54115

RE: Ledgeview Farm, LLC  
Second Application for Livestock Siting Approval

Dear Mr. Pansier:  
VIA EMAIL AND U.S. MAIL  
([jasonpansier@gmail.com](mailto:jasonpansier@gmail.com))

You submitted a request to the Town of Ledgeview for a livestock siting approval and made additional insertions to that submittal through November 20, 2018. The Town is in the process of evaluating whether this submittal was untimely or inappropriately filed with the Town. In the interest of avoiding delay, the Town provides the following as a completeness determination for the application so that your work toward completion can continue should the Town subsequently determine that the submittal is appropriately before it for a Town decision. The issuance of this completeness determination is not an acknowledgement by the Town that the application was timely and appropriately filed with the Town.

Wis. Stat. § 93.90 (4) (a) provides in part that "[n]o later than 45 days after a political subdivision receives an application for approval, the political subdivision shall notify the applicant whether the application for approval is complete and, if it is not complete, what information is needed to complete the application for approval."

Your application of November 20, 2018, is incomplete. The following information is needed:

A. The following comments correspond to the ATCP 51 Application Review Checklist Completeness Determination:

3) Cluster B Site Maps- Map 1 is missing north arrow and Map 2 north arrow in wrong orientation.

***Response:***

- ***The north arrow has been added to Cluster B Site - Map 1 and is attached.***
- ***The north arrow direction has been changed to Cluster B Site - Map 2 and is attached.***

4) Location of Livestock Structures- Well Variance not provided for existing well at Heifer Site not 250' from Detention Basin.

***Response:***

- ***The DNR Well Variance for the Detention Basin is found attached (page 7, labeled Exhibit 18).***

22) Total acres of cropland in Worksheet 3 Part B #4 not consistent with Worksheet 3

Part C. (2,752 acres versus 2,759 acres).

**Response:**

- **The correct total cropland acres appear in Worksheet 3 Part C (2,759).**
- **A corrected Part B worksheet is attached.**

30) Verify modifications on Animal Lot Y1 at Headquarters site provides 6" of freeboard. Plans callout addition of 1ft wall. Does this wall provide the required freeboard? Does existing wall provide required freeboard?

NCSS 634-Reception structures receiving runoff and/or precipitation shall be sized to contain a minimum of one full day's manure production, plus six inches extra depth for safety, and the volume of runoff and/or precipitation from a 25-year, 24-hour rainfall event. The increase in storage volume due to runoff and/or precipitation may be reduced if a portion of this runoff and/or precipitation can be safely routed to and contained within the waste management system

**Response:**

- **An updated design package (Exhibit 15) is included. The design and calculations that were included in the Livestock Siting Application were based on an early design and not the construction plans that were constructed. The updated Exhibit 15 is attached.**
  - **The Y1 Yard provides >6 inches of freeboard.**
  - **The one foot wall is an extension of the feeding curb to the drivable curb to maintain containment. Containment structures for the Y1 Yard are the following:**
    - **South side; containment is provided by the feeding curb.**
    - **East and west sides; containment is provided by the drivable curb.**
    - **North side; containment is provided by the L5 barn.**

30) Future runoff collection system for the FSA at the Headquarters site were noted in the Waste Storage Calculations in Exhibit 6-1. No plans or specifications were attached.

**Response:**

- **The Reference “\*Allowance for future runoff collection system” is included as a reference to the reviewer, to note that the volume of the runoff and leachate includes a future expansion of the Feed Storage Area (FSA). The plans and Specifications have not yet been developed and are not part of this Livestock Siting Application.**
- **The updated Exhibit 6 is attached**

B. The following identify additional information needed for the Town to conduct an application review:

- For clarity it would be beneficial for the documents to be updated to be consistent regarding labelling of the animal lot at Headquarters as Y1 and the animal lot at the Heifer Site as Y2.

**Response:**

- **The documents have already been updated with the exception of the approved plans under seal.**

- How will manure and precipitation collected in the animal lot Y1 at the Headquarters site be transferred to storage?

**Response:**

- **Exhibit 16 has been updated to include an O&M plan for the Y1 Yard. The O&M Plan addresses manure removal from the Y1 Yard.**

• Was nutrient management plan approved by ON R?

**Response:**

- **Yes, the Nutrient Management Plan was approved by DNR on June 29, 2017**

• Was Evaluation of WSF1 at Headquarters site approved by DNR?

**Response:**

- **Yes, the Evaluation of WSF 1 was approved by DNR on May 3, 2018**

• Documentation or calculations of volume of WSF1 at Headquarters site?

**Response:**

- **WSF 1 has a ramp into it and is irregularly shaped. We have determined the volume of WSF 1 in CAD. Exhibit 6-14 shows the volume of WSF 1 and Exhibit 6-1 is updated. An updated Exhibit 6 is attached.**

• Has closure to Pit 1 and Pit 2 occurred? Were there impacted soils? Outlet installed?

**Response:**

- **Pits 1 & 2 have not yet been abandoned. The abandonment is expected to take place in 2019.**

Explain need for waste transfer in Inspection Plan section of Closure Plan.

**Response:**

- **The reference to “waste transfer Inspection” has been removed. An updated Exhibit 14 is attached.**

• Does proposed FSA meet requirements of Worksheet 5 3 c) and d)?

**Response:**

- **The FSA is not required to meet the requirements found in Worksheet 5 – Feed Storage 3(c) (d). This section applies only if the feed stored has moisture content of 70% or higher. The moisture content of the forages stored by Ledgeview Farms, LLC is substantially below 70%. We have attached historical forage test reports as evidence of the forage moisture below 70%.**
- **Ledgeview Farms, LLC meets the requirements of Worksheet 5 – Feed Storage 1. General. “The operator agrees to manage feed storage to prevent significant discharge of leachate or polluted runoff to waters of the state.”**
- **Evidence is provide in Exhibit 19**

• The Application does not include sufficient information about the current number of animal units present on the site. The narrative lists the milking and dry cow numbers, the heifer numbers, and the steer numbers, but does not provide information about the corresponding animal unit calculation for (at least the latter two of) these categories to allow accurate current total animal unit calculations.

**Response:**

- **Ledgeview Farms, LLC is applying for approval because it meets the requirements found in ATCP 51.06(2). The animal units Ledgeview Farms, LLC is seeking approval for is found on Worksheet 1. We are not aware of a requirement in ATCP 51 where the existing Animal Unit calculations are required. Please site the reference in ATCP 51 where this requirement can be found.**

• Exhibit 6-3 lists 550 calf steers and 525 steers at the Heifer Site; this not match Worksheet 1-Animal Units which lists 675 steers and 400 steer calves. Please clarify.

**Response:**

➤ **Exhibit 6-3 is correct. Worksheet 1 is updated and is attached.**

• Exhibit 6-13 lists the area of the Headquarters Animal Lot as 6,050 sqft, the Odor Score spreadsheet lists the lot area as 5,953 sqft and Exhibit 15 lists the lot area as 5,976 sqft. Please clarify.

**Response:**

➤ **Exhibit 15 is correct at 5,976 ft<sup>2</sup>.**

➤ **Exhibit 6-13 is updated and attached, in Exhibit 6**

➤ **Worksheet 2 – Odor Management, Cluster A and Exhibit 10 have been updated and are attached.**

The ATCP 51 Application Review Checklist is enclosed.

Sincerely,

Philip J. Danen, Chairman

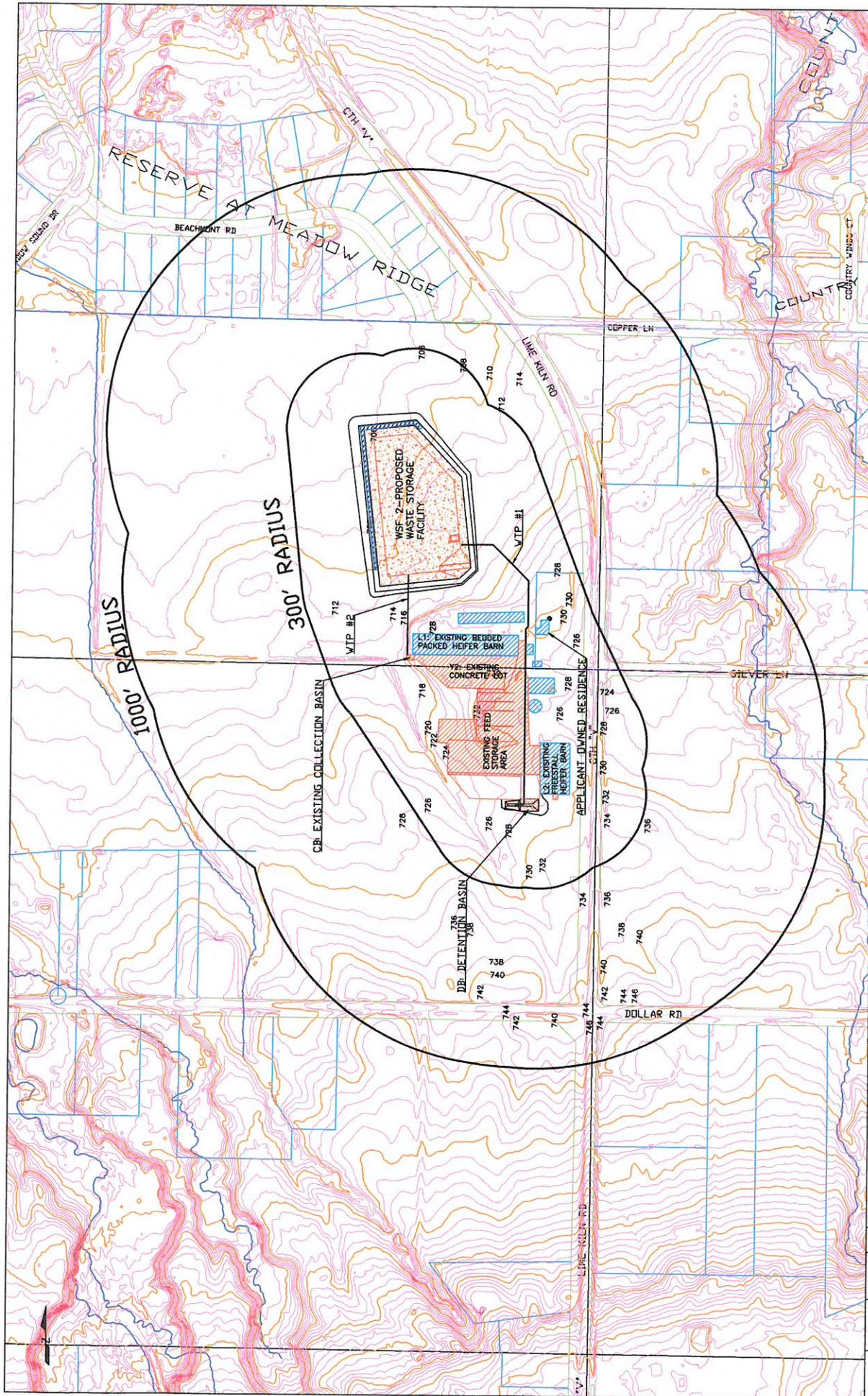
Town of Ledgeview

Enclosure

cc: Stafford Rosenbaum, LLP (via email)

Eric M. Mcleod, Husch Blackwell (via email)





DATE	10/26/17	BY	MR
REVISION DATE		BY	
DESCRIPTION OF REVISION			
REVISION DATE		BY	
DESCRIPTION OF REVISION			
SCALE:	1" = 350'		
SITE MAP 2 OF LIVESTOCK FACILITIES	PROPERTY LINES/ROADWAYS/AVAILABLE WATERS/		
MAP FEATURES/ 2' TOPOGRAPHIC LINES			
PROJECT:	LEDGERVIEW FARM LLC CLUSTER B-HEIFER FACILITY BROWN COUNTY, WISCONSIN		
CLIENT:	Roach & Associates, LLC Dairy Business and Management Consulting 1000 W. Main Street, Seymour, WI 54155 PH: 920-833-6340 Fax: 920-833-9851		
SHEET NO.	23		

## **Exhibit 18 - ATCP 51 Appendix A Worksheet 4 – Waste Storage Facilities**

### **Heifer Site Proposed W2 Waste Storage Facility, Detention Basin, Transfer Pipe and Feed Storage Area Runoff Controls**

- 1) The full Plans and Specifications for the above described facilities can be found in Attachment 1.
- 2) On December 6, 2017 Roach & Associates, LLC submitted plans and Specifications to the Wisconsin Department of Natural Resources (WDNR) for the construction of a Waste Storage Facility, Detention Basin, Transfer system and Feed Storage Area Runoff Controls at the Ledgeview Farms, LLC Heifer Site. On January 18, 2018 WDNR issued an approval for the above described facilities as well as granted a Waiver to allow the waste transfer pipe to be installed within 250' of a groundwater supply well. The WDNR approval letter is attached.
- 3) On June 26, 2018 WDNR granted a Waiver to allow the Detention Basin to be installed within 250' of a groundwater supply well. The WDNR approval letter is attached.
- 4) On November 5, 2018 Jeff Kreider of WDNR issued an email approval to allow the W2 WSF to be rotated to its current footprint as is shown on the Plans and Specifications found in Attachment 1. The WDNR approval email is attached.
- 5) On November 6, 2018, Dave Wetenkamp, Brown County Engineering Technician, issued an email approval to allow the W2 WSF to be rotated to its current footprint as is shown on the Plans and Specifications found in Attachment 1. The approval email is attached.



January 18, 2018

FILE REF: R-2017-0226  
WPDES Permit #: WI-0065421

Jason Pansier  
Ledgeview Farms, LLC  
3875 Dickinson Rd.  
DePere, WI 54115

Subject: Conditional Approval of Plans & Specifications for a Waste Storage Facilities and Transfer Systems and a Grant of Waiver for Well Setback at, Ledgeview Farms, LLC, (Heifer Farm) at Sec 28, T23N, R21E, Ledgeview Township, Brown County

Dear Mr. Pansier:

The Division of External Services conditionally approves the above referenced plans and specifications, submitted by Richard Seas, P.E., Roach & Associates, LLC and received on December 6, 2017. The evaluation was submitted because of a permit issuance. The review was conducted in accordance with s. 281.41 Wis. Stats., chs. NR 151 and NR 243, Wis. Adm. Code, and applicable NRCS Standards. Construction is approved to commence for a period of two years from the approval date. If work will commence later, or will occur over a longer period without continuous work (other than due to weather) a new written approval must be obtained. Questions may be directed to the regional office, or the review engineer Jeff Kreider, DNR Madison Office (contact information is at the end of this letter).

**Proposed Project:** The proposed project will construct a waste storage pond and detention basin that will collect manure and leachate runoff from an existing animal lot and feed storage areas. Final disposition of wastes will be land applied in accordance with an approved nutrient management plan (NMP).

**Site Assessment:** Geographical features of the site include soils that are Kewaunee silt loam. There are no streams or wetlands, other than what was identified at the farm, within proposed construction area. Clean runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. One ground water supply well is located within 250 feet of the proposed facilities or systems. A well waiver was submitted along with the proposed plans and specifications. A wetland delineation was conducted and concurred by the Department on November 7, 2017 at the construction site. Wetlands were outlined and the construction sites will not be located within these designated areas.

Fifteen test pits were collected with soils analysis finding the percent passing a 200 sieve ranges between 78.9% to 82.6% and plasticity index range between 17 to 28.9. Bedrock was not found. Saturated soils were found in one test pit at 9.2 feet below the bottom of the proposed waste storage pond 2.

**Waste Storage:** The proposed design was submitted to meet NRCS Standard 313 (10/17) and 522, Table 2 and 2A – Concrete Liner With Waterstop, Column 1 (10/17). The design is in compliance with ss. NR 213 and NR 243.15(3), Wis. Adm. Code. Below is a summary of what is proposed.

- The proposed irregular shaped waste storage designated as WSF2 will be 146-312 ft x 545 ft x 13.4 ft deep. Six inch PVC waterstop will be used at construction joints.
- The embankment walls and floor are designed with 5 inch and 7 inch thick steel reinforced concrete respectively. An 8-inch clay subliner will be constructed beneath the proposed concrete liner.
- The proposed storage will have a maximum operating level (MOL) volume of 14,749,062 gallons. This will provide the permittee a total of 291 days of storage.
- The floor elevation will be 706.6 ft and the MOL elevation will be 718.4 ft. Interior and exterior embankment slopes will be 2.5:1 and 4:1 respectively with a berm width of 20 ft.
- A core trench will be constructed along the western side and a portion of the northern side.

- The agitation pad and sump will be 30 ft x 20 ft x 1 ft deep. A 20 ft wide ramp will extend down the side of the proposed storage pond on the southeast corner to the sump. The MOL, MOS and elevation markers will be located along the ramp side.

**Detention Basin:** The proposed design was submitted to meet with NRCS Standard 313 (10/17) and 522, Table 2 and 2A – Concrete Liner With Waterstop, Column 1 (10/17). The design is in compliance with ss. NR 213 and NR 243.15(3), Wis. Adm. Code. Below is a summary of what is proposed.

- The proposed rectangular shaped detention basin will be 48 ft x 130 ft x 3.5 ft deep.
- The embankment walls and floor are designed with 7-inch thick steel reinforced concrete. An 8-inch clay subliner will be constructed beneath the proposed concrete liner.
- The floor elevation will be 724.5 ft. Interior and exterior embankment slopes will be 3:1 and 20:1 respectively.
- The proposed basin will have a volume of 49,353 gallons and is designed to be empty. A 4 ft diameter x 6 ft deep manhole will be placed in the bottom of the basin. All runoff will flow into the manhole, which will be connected to a transfer pipe that gravity flows to WSF2.

**Transfer Pipe:** The proposed design was submitted to meet with NRCS Standard 634 (1/14). The design is in compliance with s. NR 243.15(4), Wis. Adm. Code.

- The proposed transfer pipes are approved, but have not been reviewed. The transfer pipes are still subject to the requirements of ch. NR 243, Wis. Adm. Code and all applicable technical standards.

**Feed Storage Area Runoff Controls:** The proposed design is in compliance with s. NR 243.15(2), Wis. Adm. Code. Below is a summary of what is proposed.

- The existing feed storage area is sloped towards the south. Runoff from the feed storage area will then flow into the proposed detention basin which is designed to detain up to a 25-year/24-hour storm event. A proposed 18-inch ASTM F679 PVC gravity pipe will transfer the runoff from the basin to the proposed WSF2.
- The existing animal lot is sloped towards the west. Runoff from the animal lot will flow into an existing collection tank which is designed to detain up to a 25-year/24-hour storm event. A proposed 15-inch SDR35 PVC gravity pipe will transfer the runoff from the collection tank to the proposed WSF2.

**Days of Storage:** When the proposed projects are constructed, the permittee will have 291 days of storage. Below is a summary of what was submitted in determining the days of storage.

- Waste storage pond #1 has an MOL volume of 5,006,618 gallons.
- Waste storage pond #2 has an MOL volume of 14,749,062 gallons.
- Manure and wastewater generated: 18,207,479 gallons.
- Leachate and runoff from the Head Quarters Farm: 110,042 gallons.
- Leachate and runoff from the Heifer Farm: 2,257,696 gallons.
- Animal lot runoff from the Head Quarters Farm: 110,869 gallons.
- Animal lot runoff from the Heifer Farm: 634,723 gallons.
- Runoff from animal lots and feed storage areas from a 25-year/24-hour storm event: 448,487 gallons.

**Conditions of Approval:** The plans and specifications for project number R-2017-0226 are hereby approved and subject to chs. NR 151 and NR 243, Wis. Adm. Code, and the conditions listed below:

1. **Notification:** Prior to construction and when construction is complete, notify the DNR regional contact and county contact provided a copy of the approval (contact information is at the end of this letter).
2. **Inspection:** During the construction of critical components, inspection shall be performed by a Wisconsin registered professional engineer or other qualified third party (excludes the owner and construction contractor and their employees).
3. **Post-Construction Documentation:** Within 60 days of completing construction, submit to the DNR's e-Permitting website (<http://dnr.wi.gov/permits/water>) the post-construction report and send one paper copy to the DNR's regional contact. The report shall include the requirements within s. NR 243.15(10) and ch. NR 108, Wis. Adm. Code.

**Grant of Waiver:** In accordance with s. NR 243.15(1)(c), Wis. Adm. Code, a waiver is hereby granted from s. NR 243.15(1)(a)2., Wis. Adm. Code, to allow a waste transfer pipe from the proposed detention basin to the proposed waste storage pond #2. to be located within 250 ft of a groundwater supply well, based on justifications set forth in the proposed plans and specifications.

**Limitation of Approval:** The DNR reserves the right to order changes or additions should conditions arise making this necessary. This approval is not to be construed as a DNR determination on the issuance of a Wisconsin Pollutant Discharge Elimination System Permit or opinion as to the ability of the proposed system to comply with effluent limitations in such a permit, approval of an Environmental Impact Statement that may be prepared, or approval for any activities requiring a permit under chs. 30 or 31, Wis. Stats. Where necessary, plans and specifications should be submitted to the Department of Safety and Professional Services (formerly Department of Commerce) or other state or local agencies to ensure conformance with applicable codes or regulations of such agencies.

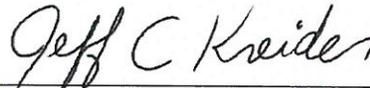
**Tax Treatment:** Tangible personal property, that becomes part of a waste treatment of pollution abatement plant or equipment, may be exempt from sales tax under s. 77.45(26), Wis. Stats. Similarly, property purchased or constructed as a waste treatment facility and used for industrial waste treatment may be exempt from general property taxes under s. 70.11(21), Wis. Stats. A prerequisite to exemption is filing a statement on prescribed forms. To obtain the forms, and information about this sales tax exemption, please contact the Department of Revenue, P.O. Box 8933, Madison, WI 53708, or check their website <http://www.revenue.wi.gov/>.

**Appeal Notice:** If you believe that you have a right to challenge this decision, you should know that the Wisconsin Statutes and Administrative Rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent. To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with s. NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with s. NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
For the Secretary



Mary Anne Lowndes  
Chief, Runoff Management Section  
Bureau of Watershed Management



Jeff C. Kreider  
Engineer, Runoff Management Section  
Bureau of Watershed Management

email: Richard Seas, P.E.; Roach & Associated, LLC  
(920) 833-6340; richard@jmroach.com

Mike Mushinski; Brown County Conservationist  
(920) 391-4621; mushinski\_ML@co.brown.wi.us

Matt Woodrow, P.E.; DATCP  
(920) 427-8505; matthew.woodrow@wisconsin.gov

Heidi Schmitt Marquez; DNR, Northeast Region  
(920) 662-5187; Heidi.SchmittMarquez@Wisconsin.gov

Jeff Kreider; DNR, Central Office  
(608) 266-0856; jeff.kreider@wisconsin.gov

State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES  
101 S. Webster Street  
Box 7921  
Madison WI 53707-7921

Scott Walker, Governor  
Daniel L. Meyer, Secretary  
Telephone 608-266-2621  
FAX 608-267-3579  
TTY Access via relay - 711



June 26, 2018

FILE REF: R-2017-0226  
WPDES Permit #: WI-0065421

Jason Pansier  
Ledgeview Farms, LLC  
3875 Dickinson Rd.  
DePere, WI 54115

Subject: Conditional Modification to Previously Approved Plans & Specifications of a Detention Basin and a Grant of Waiver for Well Setback, Ledgeview Farms, LLC, (Heifer Farm) at, Ledgeview Township, Brown County

Dear Mr. Pansier:

The Division of External Services conditionally approves the modification for the above referenced modification to the previously approved plans and specifications dated January 18, 2018, submitted by Richard Seas, PE, Roach & Associates, LLC and received on June 22, 2018. The review was conducted in accordance with s. 281.41 Wis. Stats., chs. NR 151 and NR 243, Wis. Adm. Code, and applicable NRCS Standards. Questions may be directed to the regional office, or the review engineer Jeff Kreider, DNR Madison Office (contact information is at the end of this letter).

**Proposed Project:** The proposed modification will move the previously approved detention basin to the east approximately 100 feet. The modification does not change the previously approved design and will be located closer to the original design test pits. Therefore, the modification is approved. However the new location places the detention basin within 250 feet of a groundwater supply well.

**Grant of Waiver:** In accordance with s. NR 243.15(1)(c), Wis. Adm. Code, a waiver is hereby granted from s. NR 243.15(1)(a)2., Wis. Adm. Code, to allow a detention basin to be located within 250 ft of a groundwater supply well, based on justifications set forth in the proposed plans and specifications. The detention basin is designed to be empty on a daily basis.

**Limitation of Approval:** The DNR reserves the right to order changes or additions should conditions arise making this necessary. This approval is not to be construed as a DNR determination on the issuance of a Wisconsin Pollutant Discharge Elimination System Permit or opinion as to the ability of the proposed system to comply with effluent limitations in such a permit, approval of an Environmental Impact Statement that may be prepared, or approval for any activities requiring a permit under chs. 30 or 31, Wis. Stats. Where necessary, plans and specifications should be submitted to the Department of Safety and Professional Services (formerly Department of Commerce) or other state or local agencies to ensure conformance with applicable codes or regulations of such agencies.

**Tax Treatment:** Tangible personal property, that becomes part of a waste treatment of pollution abatement plant or equipment, may be exempt from sales tax under s. 77.45(26), Wis. Stats. Similarly, property purchased or constructed as a waste treatment facility and used for industrial waste treatment may be exempt from general property taxes under s. 70.11(21), Wis. Stats. A prerequisite to exemption is filing a statement on prescribed forms. To obtain the forms, and information about this sales tax exemption, please contact the Department of Revenue, P.O. Box 8933, Madison, WI 53708, or check their website <http://www.revenue.wi.gov/>.

**NOTICE OF APPEAL RIGHTS**

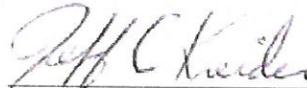
If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to WIS. STAT. §§ 227.52 and 227.53, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to WIS. STAT. § 227.42, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with WIS. ADMIN. CODE § NR 2.05(5), and served on the Secretary in accordance with WIS. ADMIN. CODE § NR 2.03. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
For the Secretary



Mary Anne Lowndes  
Chief, Runoff Management Section  
Bureau of Watershed Management



Jeff Kreider  
Engineer, Runoff Management Section  
Bureau of Watershed Management

Enclosures: State of Wisconsin Engineering Report

email: Richard Seas; Engineer  
Roach & Associates, LLC  
(920) 833-6340; richard@jmroach.com

Heidi Schmitt Marquez  
DNR, Northeast Region  
(920) 662-5187; Heidi.SchmittMarquez@Wisconsin.gov

Mike Mushinski; County Conservationist  
Brown County  
(920) 391-4621; mushinski\_ML@co.brown.wi.us

Jeff Kreider  
DNR, Central Office  
(608) 266-0856; Jeff.Kreider@wisconsin.gov

Matt Woodrow, P.E.  
DATCP  
(920) 427-8505; matthew.woodrow@wisconsin.gov

## Courtney Roach

---

**From:** Kreider, Jeff C - DNR <Jeff.Kreider@wisconsin.gov>  
**Sent:** Monday, November 5, 2018 10:38 AM  
**To:** John Roach  
**Cc:** Courtney Roach; Matthew Schwalenberg; Pat Roach  
**Subject:** RE: Ledgeview Farm, LLC

Hi John,

This email serves as my approval for the rotating the waste storage pond at the satellite farm that has been approved. The change doesn't require a letter approval. This email should be included with the post-construction report as well as all changes from what was originally approved.

Jeff Kreider

We are committed to service excellence.  
Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Jeff Kreider  
Water Resources Engineer – Bureau of Watershed Management  
Wisconsin Department of Natural Resources  
Phone: (608) 266-0856; Cell Phone: (608) 212-6547  
[jeff.kreider@wisconsin.gov](mailto:jeff.kreider@wisconsin.gov)

-----Original Message-----

**From:** John Roach [[john@jmroach.com](mailto:john@jmroach.com)]  
**Received:** Thursday, 01 Nov 2018, 11:33AM  
**To:** Kreider, Jeff C - DNR [[Jeff.Kreider@wisconsin.gov](mailto:Jeff.Kreider@wisconsin.gov)]  
**CC:** Pat Roach [[Pat@jmroach.com](mailto:Pat@jmroach.com)]; Courtney Roach [[Courtney@jmroach.com](mailto:Courtney@jmroach.com)]; Matthew Schwalenberg [[matt@jmroach.com](mailto:matt@jmroach.com)]  
**Subject:** Ledgeview Farm, LLC

Jeff,

As we discussed at the Ledgeview site we want to rotate the WSF to meet setback requirements. Attached is a planview that shows the location of the WSF that you approved and the location of the WSF that we are proposing. If you agree that we can document the change in the inspection logs and the asbuilt plans, please provide a statement that we can include with the construction plans that we will submit to the Town of Ledgeview for the Livestock Facility Siting application.

Thank you.

Regards,

John Roach  
General Manager  
Office: 920.833.6340  
Cell: 920.858.5868  
Email: [john@jmroach.com](mailto:john@jmroach.com)

## Courtney Roach

---

**From:** Wetenkamp, Dave L. <Wetenkamp\_DL@co.brown.wi.us>  
**Sent:** Tuesday, November 6, 2018 10:39 AM  
**To:** John Roach  
**Cc:** Mushinski, Michael L.; Bechle, Jon E.  
**Subject:** RE: Ledgeview Farm, LLC

John,

Thanks for the update and related email documentation for Ledgeview Farms manure storage permit. The information was shared with our department, corporation counsel and county conservationist. After review it has been determined that plans do not need to be re-submitted for this change in orientation of the proposed Storage to meet the new setback requirements. Please inform us of any new changes and of any proposed construction activity related to this project. Please submit approved as-built plans with any changes included to the proposed project after construction to Brown County LWCD.  
Thanks,  
Dave

**From:** John Roach <john@jmroach.com>  
**Sent:** Monday, November 5, 2018 10:50 AM  
**To:** Wetenkamp, Dave L. <Wetenkamp\_DL@co.brown.wi.us>  
**Cc:** Courtney Roach <Courtney@jmroach.com>; Pat Roach <Pat@jmroach.com>; Vicki Geiger <vicki@jmroach.com>; Barb Baranczyk <Barb@jmroach.com>  
**Subject:** FW: Ledgeview Farm, LLC

Dave,

Here is the approval from DNR to rotate the Ledgeview WSF to meet the setback requirements.

Does the County also agree that the changes can be documented in the asbuilt plans?

Regards,

John Roach  
General Manager  
Office: 920.833.6340  
Cell: 920.858.5868  
Email: [john@jmroach.com](mailto:john@jmroach.com)

---

**From:** Kreider, Jeff C - DNR [<mailto:Jeff.Kreider@wisconsin.gov>]  
**Sent:** Monday, November 05, 2018 10:38 AM  
**To:** John Roach  
**Cc:** Courtney Roach; Matthew Schwalenberg; Pat Roach  
**Subject:** RE: Ledgeview Farm, LLC

Hi John,

This email serves as my approval for the rotating the waste storage pond at the satellite farm that has been approved.

The change doesn't require a letter approval. This email should be included with the post-construction report as well as all changes from what was originally approved.

Jeff Kreider

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Jeff Kreider

Water Resources Engineer – Bureau of Watershed Management

Wisconsin Department of Natural Resources

Phone: (608) 266-0856; Cell Phone: (608) 212-6547

[jeff.kreider@wisconsin.gov](mailto:jeff.kreider@wisconsin.gov)

-----Original Message-----

**From:** John Roach [john@jmroach.com]

**Received:** Thursday, 01 Nov 2018, 11:33AM

**To:** Kreider, Jeff C - DNR [Jeff.Kreider@wisconsin.gov]

**CC:** Pat Roach [Pat@jmroach.com]; Courtney Roach [Courtney@jmroach.com]; Matthew Schwalenberg [matt@jmroach.com]

**Subject:** Ledgeview Farm, LLC

Jeff,

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Thank you.

Regards,

John Roach

General Manager

Office: 920.833.6340

Cell: 920.858.5868

Email: [john@jmroach.com](mailto:john@jmroach.com)

Arr-1wr - 11/04 January 2006	<b>Worksheet 3 (continued)</b>
<b>Part B – Land Base for Applying Nutrients</b>	
1. Enter total <i>animal units</i> in proposed <i>livestock facility</i> (from worksheet 1)	3408
2. What percentage of the waste from the <i>livestock facility</i> will be:	
a. Applied to land: 100 _____ %	Attach map showing where waste will be applied to land.
b. Processed and sold as commercial fertilizer, under a fertilizer license: 0 _____ %	
c. Disposed of in other ways: 0 _____ %	Describe ways: NA
3. Multiply the percent in line 2a by the number of <i>animal units</i> in line 1.	Result (# of <i>animal units</i> ): 3408
4. Total acres of cropland currently available for land application (owned, rented, or landspreading agreement):	2759
5. Divide # of acres in line 4 by # of <i>animal units</i> in line 3 to obtain ratio of acres to <i>animal units</i> :	0.81
6. Is the ratio in line 5 equal to or greater than the applicable ratio in Table 1?	
No	
If YES, and if the # of <i>animal units</i> in line 1 is less than 500, you need NOT complete Part C. Otherwise, complete Part C.	

**Table 1: Acreage per Animal Unit**

Animal Type	Acres per <i>Animal Unit</i>
Dairy	1.5
Beef	1.5
Swine	1.0
Chickens/Ducks	2.5
Turkeys	5.0
Sheep/Goats	2.0

\* NOTE: A *livestock facility* is NOT required to attain or exceed this ratio of acres to *animal units*. But IF your *livestock facility* will attain or exceed this ratio and will have fewer than 500 *animal units*, you need NOT complete Part C of this worksheet.

Applicant affirms that the information provided in Part B is accurate.

*Jason Pavin*

1/10/19

Signature of Applicant or Authorized Representative

Date

## **Design Rational for the Headquarters Site Y1 Yard Runoff Control Measures - Amended**

### **Introduction**

Ledgeview Farm, LLC (LF) is an existing dairy that conducts operations under a WPDES Permit Number: WI-0065421 and conducts operations at two sites in the Town of Ledgeview, Brown County. The Headquarters Farm is located at 3875 Dickinson Road, De Pere, WI 54115 and the Heifer Farm is located at 3688 Lime Kiln Road, Green Bay, WI 54311.

The Headquarters Site, Y1 Yard and the L5 Barn provides housing for 300 cattle weighing approximately 250 pounds. The Y1 Yard is an unroofed concrete yard on the south side of the L5 Barn. There is a 1 foot tall feeding curb along the south side, drivable curbs on the east and west sides, and the L5 barn along the north side. No roof water from the L5 Barn falls on the Y1 Yard. Together these structures provide containment for manure and runoff within the Y1 Yard. The Y1 Yard provides containment for one days manure, the runoff from a 25-yr, 24-hr rain event and 6 inches of depth for safety.

The surface of the Y1 Yard is irregular and therefore the storage volume has been calculated in CAD, and is found in the attached Cut/Fill Report.

### **Design Assumptions**

- The housing system is defined by the Y1 Yard (5976 ft<sup>2</sup>) and the L5 Barn (15103 ft<sup>2</sup>).
- The cattle in the housing system have equal access to the Y1 Yard and L5 Barn bedded pack area and therefore, the manure is distributed equally between both areas.
- 300 head of 250 pound cattle housed on the Y1 Yard & L5 Barn
- Daily manure generation 300 hd. x .32 ft<sup>3</sup> per day = 96 ft<sup>3</sup>.
- The area of the Y1 Yard is 28% of the total area.
- One days manure on the Y1 Yard is 96 ft<sup>3</sup> x 28.35% = 27.2 ft<sup>3</sup>/day.
- Volume of a 25-yr, 24-hr rain event is 1817 ft<sup>3</sup> NRCS 313 Design Worksheet
- 0.5 feet for safety is 5976 ft<sup>3</sup> x 0.5 ft. = 2988 ft<sup>3</sup>
- Storage volume on the Y1 Yard is 5462 ft<sup>3</sup>
- Storage is calculated as 5462 ft<sup>3</sup> – 2988 ft<sup>3</sup> – 1817 ft<sup>3</sup> - 27.2 ft<sup>3</sup> =629.8 ft<sup>3</sup> reserve capacity for additional safety.
- Freeboard therefore, is greater than 0.5 feet.

Y1 Yard Capacity

# Cut/Fill Report

**Generated:** 2019-01-10 15:27:14  
**By user:** matt  
**Drawing:** F:\Clients\Ledgeview Farms, LLC\CADD\F:\Clients\Ledgeview Farms, LLC\CADD\Ledgeview-y1.dwg

Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Y1 Concrete Yard Volume	full	1.0000	1.0000	5976.00	0.2	202.3	202.1<Fill>

Totals				
	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total	5976.00	0.2	202.3	202.1<Fill>

\* Value adjusted by cut or fill factor other than 1.0

202.3 CUFT x 27CUFT/CUYD = 5462 CUFT





**Exhibit 6-1  
Waste Storage Facility Summary-Annual Storage Period Expanded Conditions  
Leachate, Runoff Generation and Storage Capacity  
Ledgview Farm, LLC**

Source	Volume		Comments
	(ft <sup>3</sup> )	(gallons)	
<b>Waste Generation</b>			
Manure and Wastewater-Dairy	2,051,871	15,347,995	Exhibit 6-2
Manure and Wastewater-Steers	382,284	2,859,484	Exhibit 6-3
FSA Leachate-Heifer Farm*	16,786	125,556	Exhibit 6-4
FSA Runoff-Heifer Farm*	283,137	2,117,865	Exhibit 6-6
FSA Leachate-HQ	1,683	12,589	Exhibit 6-9
FSA Runoff-HQ	13,029	97,453	Exhibit 6-11
Y2 Heifer Farm Lot Runoff	100,076	748,568	Exhibit 6-8
Y1 HQ Farm Lot Runoff	15,364	114,923	Exhibit 6-13
<b>Sub-total</b>	<b>2,864,229</b>	<b>21,424,433</b>	
<b>Net Precipitation**</b>			
WSF 1	101,378	758,307	Exhibit 6-14
WSF 2	351,609	2,630,038	
<b>Sub-total</b>	<b>452,987</b>	<b>3,388,345</b>	
<b>Total Waste Generated</b>	<b>3,317,216</b>	<b>24,812,778</b>	
<b>Waste Stored Above the MOL</b>			
FSA-Heifer Farm 25-yr,24-hr	41,427	309,873	Exhibit 6-5
FSA-HQ 25 yr-24hr	3,199	23,927	Exhibit 6-10
Y1 Hefier Farm Lot Runoff 25-yr,24-hr	13,263	99,204	Exhibit 6-7
Y1 HQ Farm Lot 25-yr,24-hr	2,070	15,483	Exhibit 6-12
<b>Total Waste Above MOL</b>	<b>59,958</b>	<b>448,487</b>	
<b>Waste Storage Facilities***</b>			
WSF 1	684,097	5,117,046	Exhibit 6-14
WSF 2	1,971,800	14,749,062	
<b>Total Storage Volume</b>	<b>2,655,897</b>	<b>19,866,107</b>	
<b>Storage Capacity Evaluation</b>			
Total Storage Volume	2,655,897	19,866,107	
Average Annual Storage Period	292	days	

\*Allowance for future runoff collection system  
\*\*Net precipitation; 1.7 ft/year x WSF surface area  
\*\*\*MOL volume, determined by CADD

**Ex 6-2**

**WASTE STORAGE FACILITY DESIGN - 313 STANDARD**

Ver. March 2015

CLIENT: Ledgeview Farm, LLC	COUNTY: BROWN	DATE: 1/10/19
DSN BY: JMR	CHK BY: _____	DATE: _____
COMMENTS Waste Generation - Dairy Expanded Conditions		

ANIMAL TYPE>  (1=DAIRY, 2=BEEF, 3=VEAL, 4=SWINE(finishing), 5=SWINE(farrowing), 6=POULTRY, 0=OTHER)

For Dairy: Rolling Herd Average  lbs/cow/yr Is it a stanchion barn?  (Y or N)

**MANURE AND WASTEWATER**

LIVESTOCK		AVG. WT. PER HEAD	DAILY OUTPUT, CU FT			DAYS OF STORAGE	VOLUME REQUIRED	ANIMAL UNITS
KIND	NUMBER		MANURE	BEDDING	TOTAL			
Cows Milkir	1125	1,400	2.53	0.3	3183.8	365	1,162,069	1,575
Cows Dry	230	1,400	2.00	0.3	529.0	365	193,085	322
Heifers	450	1,000	1.60	0.3	855.0	365	312,075	450
Heifers	270	600	0.96	0.3	340.2	365	124,173	162
Calves	270	350	0.56	0.4	245.7	365	89,681	95
WASTEWATER:			3500	GAL/DAY	467.9	CU FT/DAY		2,604 TOT. A.U.
TOTAL DAILY VOLUME:					5621.6	CU FT / DAY		
<b>Total Manure and Wastewater</b>							<input type="text" value="15,347,995"/>	GALLONS
Expected % solids in waste (Includes runoff and precip.)							<input type="text" value="2,051,871"/>	CU FT
							<input type="text" value="9.9"/>	%

**Ex 6-3**

**WASTE STORAGE FACILITY DESIGN - 313 STANDARD**

Ver. March 2015

CLIENT: Ledgeview Farm, LLC COUNTY: BROWN DATE: 1/10/19  
 DSN BY: JMR CHK BY: \_\_\_\_\_ DATE: \_\_\_\_\_

COMMENTS Waste Generation Steers - Expanded Conditions

ANIMAL TYPE> 2 (1=DAIRY, 2=BEEF, 3=VEAL, 4=SWINE(finishing), 5=SWINE(farrowing), 6=POULTRY, 0=OTHER)

**MANURE AND WASTEWATER**

LIVESTOCK		AVG. WT. PER HEAD	DAILY OUTPUT, CU FT			DAYS OF STORAGE	VOLUME REQUIRED	ANIMAL UNITS
KIND	NUMBER		MANURE	BEDDING	TOTAL			
Beef	550	350	0.35	0.3	357.5	365	130,488	193
Beef	525	850	1.00	0.3	682.5	365	249,113	446
Beef								

WASTEWATER: 55 GAL/DAY 7.4 CU FT/DAY 639 TOT. A.U.

TOTAL DAILY VOLUME: 1047.4 CU FT / DAY

<b>Total Manure and Wastewater</b> Expected % solids in waste (Includes runoff and precip.)	2,859,483	GALLONS
	<b>382,284</b>	<b>CU FT</b>
	10.1	%

**Exhibit 6-4**

**Leachate and First Flush Volume Calculation Worksheet  
Ledgeview Farm, LLC - Heifer Farm**

**Prepared By: Roach**

**Date: 2017**

Input Data	Dimensions*		
	Length	Width	Area ft <sup>2</sup>
Existing FSA	varies	varies	93,253
			-
			-
			-
Total Area With Apron			93,253 ft <sup>2</sup>
Total Area With Apron			2.1 Acres
Total Feed Storage Area Less Apron			93,253 ft <sup>2</sup>

**Volume of Feed Stored In the Facility**

Silage Height	12	ft
Silage Density (default)	60	lbs/ft <sup>3</sup>
Silage Volume	33,571	tons

**Calculated Annual Leachate Volume**

Silage Stored	33,571	tons
Leachate Volume Generated per Ton	0.5	ft <sup>3</sup> /ton
Annual Leachate Generated	16,786	ft <sup>3</sup>
Annual Leachate Generated	125,556	gal
Leachate Generated Per Day (30 day period)	4,185	gal/day
Leachate Generated Per Day (30 day period)	560	ft <sup>3</sup> /day

**Calculated First Flush Runoff Generation**

Total Feed Storage Area Less Apron	93,253	ft <sup>2</sup>
First Flush Runoff Depth Collected per Rain Event	0	in
First Flush Volume Collected per Rain Event	-	ft <sup>3</sup> /event
First Flush Volume Collected per Rain Event	-	gal
Number of Rain Events (annual)		
Total Annual First Flush Volume Generated	-	ft <sup>3</sup>
Total Annual First Flush Volume Generated	-	gal

**Total Annual Leachate & First Flush Volume**

Total Annual Leachate & First Flush Volume	125,556	gal
Total Daily Leachate & First Flush Volume	4,185	gal
Volume to Use For Calculation	7,500	gal

Leachate Collection Tank Volume		
Leachate Volume	560	ft <sup>3</sup> /day
1st Flush Volume	-	ft <sup>3</sup> /event
<b>Total Design Volume</b>	<b>560</b>	<b>ft<sup>3</sup></b>

20.72

Summary		
Annual Leachate Generated	16,786	ft <sup>3</sup>
Annual First Flush Runoff Generated	-	ft <sup>3</sup>
Total Annual Volume to Store	16,786	ft <sup>3</sup>
Total Annual Volume to Store	125,556	gal

Cell to Enter Data Into

Cell has Formula and is Calculated

Exhibit 6-5

TR 55 PEAK RUNOFF CALCULATION (GRAPHICAL METHOD)

ver 5-2008

CLIENT: Ledgeview Farm, LLC COUNTY: BROWN DATE: 11/27/2017  
 DSN BY: Roach CHK BY: DATE:

COMMENTS: Feed Storage Area-Heifer Farm

Drainage Area 2.78 Acres  
 Runoff Curve Number 98.00

Time of Concentration 0.07 Hours

	2	5	10	25	50	100
Frequency	1.00	3.2	3.7	4.3	4.8	5.1
Rainfall, P (24 hour)	0.00	0	0	0	0	0
Initial Abstraction, Ia	0.00	0.000	0.000	0.000	0.000	0.000
Ia/P ratio	1.72	1.720	1.720	1.720	1.720	1.720
Unit Peak Discharge, qu	0.83	3.01	3.51	4.11	4.60	4.90
Runoff	0.19	0.70	0.81	0.95	1.07	1.14
Peak Discharge, qp	<b>3.97</b>	<b>14.4</b>	<b>16.8</b>	<b>19.6</b>	<b>22.0</b>	<b>23.4</b>

Total Runoff One Inch Rain = 0.19 ac-ft = 8,381 cubic feet = 62,690 gallons  
 Total Runoff 25 year Event = 0.95 ac-ft = 41,427 cubic feet = 309,873 gallons  
 Peak Flow = 19.63 cfs = 8,810 gpm

Exhibit 6-6

Monthly Runoff - FSA Heifer Farm

Ledgeview Farm, LLC

Month	* Runoff					
	RCN-98	(ft <sup>3</sup> )	(gallons)	(ft <sup>3</sup> )	(gallons)	(gallons)
Jan**	0.70640	7,136	53,380	0	0	
Feb**	0.6404	6,470	48,393	0	0	
March	1.4856	15,008	112,262	15,008	112,262	
April	2.6104	26,372	197,259	26,372	197,259	
May	3.3417	33,760	252,521	33,760	252,521	
June	4.3165	43,607	326,184	43,607	326,184	
July	4.0736	41,154	307,829	41,154	307,829	
Aug	4.1995	42,425	317,342	42,425	317,342	
Sept	3.8389	38,782	290,093	38,782	290,093	
Oct	2.6817	27,092	202,647	27,092	202,647	
Nov***	1.9252	19,449	145,481	9,725	72,741	
Dec***	1.0319	10,425	77,977	5,212	38,989	
		311,680	2,331,369	283,137	2,117,866	
Winter Months (Nov-April)				56,317	421,250	

121,230 sq ft FSA, RCN 98

\* From 313 Design Worksheet

\*\* 100% Snow Removal

\*\*\* 50% Snow Removal

	ft3	Gallons
25 year, 24 hour rainfall runoff	41,427	309,873

Enter Data Cells

**Exhibit 6-7**

**TR 55 PEAK RUNOFF CALCULATION (GRAPHICAL METHOD)**

ver 5-2008

CLIENT: **Ledgeview Farm, LLC** COUNTY: **BROWN**

DATE: **5/24/2011**

DSN BY: **Roach** CHK BY:

DATE:

COMMENTS: **Y1 Animal Lot - Heifer Farm**

Drainage Area 0.89 Acres  
 Runoff Curve Number 98.00

Time of Concentration **0.07** Hours

	2	5	10	25	50	100
Frequency	1.00	2.5	3.2	3.7	4.3	4.8
Rainfall, P (24 hour)	0.00	0	0	0	0	0
Initial Abstraction, Ia	0.00	0.000	0.000	0.000	0.000	0.000
Ia/P ratio	1.72	1.720	1.720	1.720	1.720	1.720
Unit Peak Discharge, qu	0.83	2.31	3.01	3.51	4.11	4.60
Runoff	0.06	0.17	0.22	0.26	0.30	0.34
Peak Discharge, qp	<b>1.27</b>	<b>3.5</b>	<b>4.6</b>	<b>6.3</b>	<b>7.0</b>	<b>7.5</b>

Total Runoff One Inch Rain = 0.06 ac-ft      2,683 cubic feet      20,070 gallons

Total Runoff 25 year Event = 0.30 ac-ft      13,263 cubic feet      99,204 gallons

Peak Flow = 6.28 cfs      2,821 gpm

Exhibit 6-8

Monthly Runoff - Y2 Yard Heifer Farm

Ledgeview Farm, LLC

Month	* Runoff				
	RCN-98	(ft <sup>3</sup> )	(gallons)	(ft <sup>3</sup> )	(gallons)
Jan**	0.70640	2,291	17,140	2,291	17,140
Feb**	0.6404	2,077	15,538	2,077	15,538
March	1.4856	4,819	36,045	4,819	36,045
April	2.6104	8,467	63,337	8,467	63,337
May	3.3417	10,840	81,081	10,840	81,081
June	4.3165	14,002	104,732	14,002	104,732
July	4.0736	13,214	98,839	13,214	98,839
Aug	4.1995	13,622	101,894	13,622	101,894
Sept	3.8389	12,452	93,144	12,452	93,144
Oct	2.6817	8,699	65,067	8,699	65,067
Nov***	1.9252	6,245	46,712	6,245	46,712
Dec***	1.0319	3,347	25,037	3,347	25,037
		100,076	748,565	100,076	748,565
Winter Months (Nov-April)				27,247	203,809

38,925 sq ft FSA, RCN 98

\* From 313 Design Worksheet

\*\* 100% Snow Removal

\*\*\* 50% Snow Removal

	ft3	Gallons
25 year, 24 hour rainfall runoff	13,263	309,873

Enter Data Cells

**Exhibit 6-9**

**Leachate and First Flush Volume Calculation Worksheet  
Ledgeview Farm, LLC - Headquarters Farm**

**Prepared By: Roach**

**Date: 2017**

Input Data	Dimensions*		Area ft <sup>2</sup>
	Length	Width	
FSA Home Farm	170	55	9,350
			-
			-
			-
			-
Total Area With Apron			9,350 ft <sup>2</sup>
Total Area With Apron			0.2 Acres
Total Feed Storage Area Less Apron			9,350 ft <sup>2</sup>

**Volume of Feed Stored In the Facility**

Silage Height	12	ft
Silage Density (default)	60	lbs/ft <sup>3</sup>
Silage Volume	3,366	tons

**Calculated Annual Leachate Volume**

Silage Stored	3,366	tons
Leachate Volume Generated per Ton	0.5	ft <sup>3</sup> /ton
Annual Leachate Generated	1,683	ft <sup>3</sup>
Annual Leachate Generated	12,589	gal
Leachate Generated Per Day (30 day period)	420	gal/day
Leachate Generated Per Day (30 day period)	56	ft <sup>3</sup> /day

**Calculated First Flush Runoff Generation**

Total Feed Storage Area Less Apron	9,350	ft <sup>2</sup>
First Flush Runoff Depth Collected per Rain Event	0	in
First Flush Volume Collected per Rain Event	-	ft <sup>3</sup> /event
First Flush Volume Collected per Rain Event	-	gal
Number of Rain Events (annual)		
Total Annual First Flush Volume Generated	-	ft <sup>3</sup>
Total Annual First Flush Volume Generated	-	gal

**Total Annual Leachate & First Flush Volume**

Total Annual Leachate & First Flush Volume	12,589	gal
Total Daily Leachate & First Flush Volume	420	gal
Volume to Use For Calculation		gal

Leachate Collection Tank Volume		
Leachate Volume	56	ft <sup>3</sup> /day
1st Flush Volume	-	ft <sup>3</sup> /event
<b>Total Design Volume</b>	<b>56</b>	<b>ft<sup>3</sup></b>

2.08

Summary		
Annual Leachate Generated	1,683	ft <sup>3</sup>
Annual First Flush Runoff Generated	-	ft <sup>3</sup>
Total Annual Volume to Store	1,683	ft <sup>3</sup>
Total Annual Volume to Store	12,589	gal

Cell to Enter Data Into

Cell has Formula and is Calculated

**Exhibit 6-10**

**TR 55 PEAK RUNOFF CALCULATION (GRAPHICAL METHOD)**

ver 5-2008

CLIENT: **Ledgeview Farm, LLC** COUNTY: **BROWN**  
 DSN BY: **Roach** CHK BY:  
 COMMENTS: **Feed Storage Area Headquartrs Farm**

DATE: **5/24/2011**  
 DATE:

Drainage Area 0.21 Acres  
 Runoff Curve Number 98.00

Time of Concentration 0.07 Hours

	2	5	10	25	50	100
Frequency						
Rainfall, P (24 hour)	1.00	2.5	3.2	3.7	4.3	4.8
Initial Abstraction, Ia	0.00	0	0	0	0	0
Ia/P ratio	0.00	0.000	0.000	0.000	0.000	0.000
Unit Peak Discharge, qu	1.72	1.720	1.720	1.720	1.720	1.720
Runoff	0.83	2.31	3.01	3.51	4.11	4.60
Peak Discharge, qp	0.01	0.04	0.05	0.06	0.07	0.08
	<b>0.31</b>	<b>0.9</b>	<b>1.1</b>	<b>1.3</b>	<b>1.5</b>	<b>1.7</b>

Total Runoff One Inch Rain = 0.01 ac-ft      647 cubic feet      4,841 gallons  
 Total Runoff 25 year Event = 0.07 ac-ft      3,199 cubic feet      23,927 gallons

**Exhibit 6-11**  
**Monthly Feed Storage Area Runoff-Headquarters Farm**  
**Ledgeview Farm, LLC**

Month	FSA Runoff Volume*		Runoff Volume to WSF	
	(ft <sup>3</sup> )	(gallons)	(ft <sup>3</sup> )	(gallons)
Jan**	834	6,238	0	0
Feb**	779	5,827	0	0
March***	1,340	10,023	670	5,012
April	1,792	13,404	1,792	13,404
May	1,434	10,726	1,434	10,726
June	1,348	10,083	1,348	10,083
July	982	7,345	982	7,345
Aug	1,286	9,619	1,286	9,619
Sept	1,683	12,589	1,683	12,589
Oct	1,675	12,529	1,675	12,529
Nov	1,621	12,125	1,621	12,125
Dec***	<u>1,075</u>	<u>8,041</u>	<u>538</u>	<u>4,021</u>
	15,849	118,551	13,029	97,453
Winter Months (Nov-April)			4,621	34,561

\*9,350 sq ft FSA, RCN 98

\*\*Snow removal

\*\*\*Fifty percent snow removal

25 year, 24 hour rainfall runoff                      2,070      cu ft      15,481      gallons

**Exhibit 6-12**

**TR 55 PEAK RUNOFF CALCULATION (GRAPHICAL METHOD)**

ver 5-2008

CLIENT: Ledgeview Farm, LLC COUNTY: BROWN  
 DSN BY: Roach CHK BY:  
 COMMENTS: Y1 Animal Lot Headquarters Farm

DATE: 5/24/2011  
 DATE:

Drainage Area 0.14 Acres  
 Runoff Curve Number 98.00

Time of Concentration 0.07 Hours

	2	5	10	25	50	100
Frequency yr	1.00	2.5	3.2	3.7	4.3	5.1
Rainfall, P (24 hour) in	0.00	0	0	0	0	0
Initial Abstraction, Ia in	0.00	0.000	0.000	0.000	0.000	0.000
Ia/P ratio	1.72	1.720	1.720	1.720	1.720	1.720
Unit Peak Discharge, qu in	0.83	2.31	3.01	3.51	4.11	4.60
Runoff ac-ft	0.01	0.03	0.03	0.04	0.05	0.06
Peak Discharge, qp cfs	<b>0.20</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>1.0</b>	<b>1.2</b>

Total Runoff One Inch Rain = 0.01 ac-ft      419 cubic feet      3,132 gallons  
 Total Runoff 25 year Event = 0.05 ac-ft      2,070 cubic feet      15,483 gallons

Exhibit 6-13

Monthly Animal Lot Runoff - Y1 Lot Headquarters Farm

Ledgeview Farm, LLC

Month	* Runoff					
	RCN-98	(ft <sup>3</sup> )	(gallons)	(ft <sup>3</sup> )	(gallons)	(gallons)
Jan	0.70640	352	2,631	352	2,631	
Feb	0.6404	319	2,386	319	2,386	
March	1.4856	740	5,534	740	5,534	
April	2.6104	1,300	9,724	1,300	9,724	
May	3.3417	1,664	12,448	1,664	12,448	
June	4.3165	2,150	16,079	2,150	16,079	
July	4.0736	2,029	15,174	2,029	15,174	
Aug	4.1995	2,091	15,643	2,091	15,643	
Sept	3.8389	1,912	14,300	1,912	14,300	
Oct	2.6817	1,335	9,989	1,335	9,989	
Nov	1.9252	959	7,171	959	7,171	
Dec	1.0319	514	3,844	514	3,844	
		15,364	114,924	15,364	114,924	
Winter Months (Nov-April)				4,183	31,290	

5,976 sq ft FSA, RCN 98

\* From 313 Design Worksheet

\*\* 100% Snow Removal

\*\*\* 50% Snow Removal

25 year, 24 hour rainfall runoff 2,044 15,292

Enter Data Cells

Exhibit 6-14

Roach & Associates, LLC - Waste Storage Volumes Model

Exhibit :	6-14
Title:	WSF1 Volume
Client:	Ledgeview
By:	Roach/BLS
Date:	1/7/2019
County	BROWN
Type:	Outdoor storage
EL <sub>TOB</sub> (ft):	806
EL <sub>BASE</sub> (ft):	781

Depth (ft)	Elevation	Acres	Area ft <sup>2</sup> (from AutoCAD)	Volume ft <sup>3</sup>	Volume gallons	ac-ft
Top of Berm	806.00	1	59,928	763,705	5,712,911	18
Highest topo = HT	806.00	1	59,928	763,705	5,712,911	18
H1-1	805.00	1	57,139	705,172	5,275,051	16
H1-2	804.00	1	54,429	649,388	4,857,761	15
H1-3	803.00	1	51,817	596,266	4,460,377	14
H1-4	802.00	1	49,341	545,687	4,082,021	13
H1-5	801.00	1	46,938	497,547	3,721,911	11
H1-6	800.00	1	44,610	451,773	3,379,497	10
H1-7	799.00	1	42,366	408,285	3,054,185	9
H1-8	798.00	1	40,230	366,987	2,745,255	8
H1-9	797.00	1	38,126	327,810	2,452,186	8
H1-10	796.00	1	36,080	290,707	2,174,637	7
H1-11	795.00	1	34,204	255,564	1,911,754	6
H1-12	794.00	1	32,400	222,262	1,662,638	5
H1-13	793.00	1	30,641	190,742	1,426,848	4
H1-14	792.00	1	28,916	160,963	1,204,089	4
H1-15	791.00	1	25,333	133,839	1,001,183	3
H1-16	790.00	1	22,915	109,715	820,722	3
H1-17	789.00	0	20,562	87,976	658,107	2
H1-18	788.00	0	18,200	68,595	513,128	2
H1-19	787.00	0	15,889	51,551	385,627	1
H1-20	786.00	0	13,660	36,776	275,106	1
H1-21	785.00	0	11,494	24,199	181,024	1
H1-22	784.00	0	9,314	13,795	103,197	0
H1-23	783.00	0	5,918	6,180	46,227	0
H1-24	782.00	0	2,819	1,811	13,550	0
H1-25	781.00	0	804	0	0	0
H1-26	781.00	#VALUE!	Leave Blank	0	0	0
H1-27	781.00	#VALUE!	Leave Blank	0	0	0

Volume Description	IN	Cu. Ft	Gallons	Elevation
Total Settled Volume	TOB	763,705	5,712,911	806.00
Volume at Margin of Safety (MOS)	12	705,172	5,275,051	805.00
MOS Volume	12	58,533	437,859	NA
Maximum Operating Level (MOL)	NA	684,097	5,117,402	804.62
25yr-24hr Storm Precip	4.22	21,075	157,649	NA
Average Net Precipitation	20.3	101,378	758,361	NA

<sup>1</sup> 25yr-24hr Storm Depth for "the County indicated above", NR243 Table 1

<sup>2</sup> The difference between precipitation and evaporation, State Average, NRCS WI Waste Storage Design spreadsheet 3/4/2016

<sup>3</sup> 25year storm

4.22 Inches

**Ledgeview Farm, LLC**  
**Operation and Maintenance Plan for Feed Storage Area Runoff Transfer System**

Introduction:

The DB: Detention Basin is a component of the feed storage area runoff collection and transfer system. Runoff and leachate from the feed storage area will flow by gravity to the DB: Detention Basin. A gravity flow pipe will transfer runoff from the DB: Detention Basin to the W2 waste storage facility. The DB: Detention Basin will function as short-term equalization for the aerobic runoff from the feed storage area. Depending on the intensity of the rain event and the overall amount of rain fall, the DB: Detention Basin will drain dry within hours following a rain event and will remain empty until the next rain event. The DB: Detention Basin is designed to contain leachate and the 25-yr. 24-hr. rain event.

The following is the detailed Operation and Maintenance plan that will be used to ensure the Feed Storage Area Runoff Transfer System operates as designed.

- Each day the employee operating the feeding equipment at the Feed Storage Area will observe the level of runoff in the DB: Detention Basin.
- If there is runoff in the DB: Detention Basin the maintenance employee will be notified to determine the cause and make corrections.
- When solids accumulate in the bottom of the basin, a loader will be used to remove the solids.
- The solids will be stored in the W2 waste storage facility or applied onto cropland according to the current Nutrient Management Plan.

**Ledgeview Farm, LLC**  
**Operation and Maintenance Plan for Maintaining a Bio-Cover on the W2 Waste Storage Facility**

**Introduction:**

In periods when the waste storage facility is not completely frozen, Ledgeview Farm, LLC (LF) will maintain an 8" straw Bio-cover over the surface of the W2 waste storage facility. The straw bio-cover will be established and maintained by use of the existing Valmetal, Model 6500 Agri-Chopper. The PTO powered chopper will travel around the W2 berm and chop/blow straw out into W2 to form the 8" straw Bio-cover. The following is the detailed Operation and Maintenance plan that will be used to ensure the Bio-cover is maintained.

- In the spring of the year before the temperatures begin to warm, the straw bio-cover will be established.
- The straw bio-cover will be established by traveling around the berm top and blowing straw onto the surface of the waste storage.
- In the event the straw does not cover the entire surface, several applications may be required as wind shifts the straw mat around the waste storage.
- Repeat the straw applications until the entire surface of the waste storage facility has the straw bio-cover installed.
- Each week a representative of LF will inspect the straw bio-cover and determine the % of surface area that is covered by the straw bio-cover.
- The representative of LF will determine if additional chopped straw is needed to maintain or supplement the straw bio-cover.
- If necessary additional chopped straw will be added to the waste storage facility surface until the straw bio-cover is restored.

## Valmetal

[Valmetal - Dairy Farm Feeding Equipment \(https://valmetal.valmetal.com/\)](https://valmetal.valmetal.com/)

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- [Figures](#)

# Agri-Chopper – Big bale chopper

A powerful chopper / shredder for big bales



The Agri-Chopper chops big bales of straw, cardboard or paper to make fluffy and spongy bedding. Thanks to its powerful blower, it can be used to spread bedding evenly up to 40' (12 m) in free stall barns, hog barns and poultry barns.

Fast, accurate, the Agri-Chopper allows you to save time, energy as well as materials. Indeed, it has been proven that it takes twice as much compressed straw in comparison to chopped straw to make decent bedding, resulting in lower bedding cost and less manure handling.

[Download the Brochure \(https://valmetal.valmetal.com/wp-content/uploads/2013/11/VM-74\\_brochure\\_agrichopper\\_v3\\_pll\\_en.pdf\)](https://valmetal.valmetal.com/wp-content/uploads/2013/11/VM-74_brochure_agrichopper_v3_pll_en.pdf)



## Adjustable deflector

To direct the flow, the deep sided chute has an adjustable deflector and can be pivoted 360° either manually or from the tractor (optional).



## Large tub

The large diameter tub features two (2) large doors to facilitate the loading of big bales when used inside farm buildings.

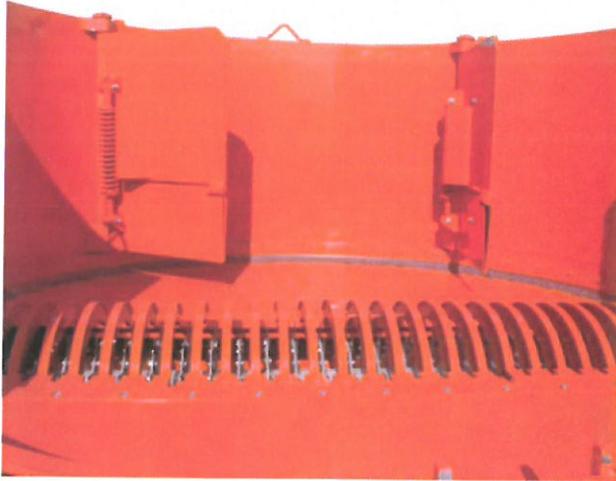
## Available models



### **AGRI-CHOPPER STATIONARY**

A stationary model, with an electric motor, is also available.

## Features



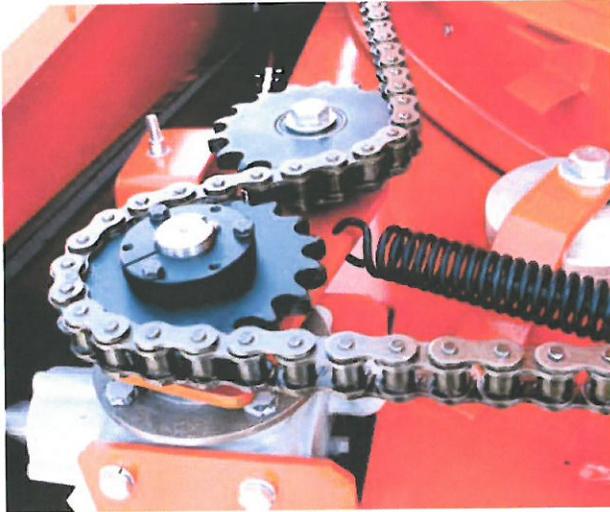
### Retractable baffles

Inside the tub, two (2) sturdy retractable baffles ensure the bale pivots over the knives and completely empty the tub.



### High quality knives

The high quality knives of the Agri-Chopper have an incredible lifespan !



## Drive chain system

A positive drive chain system rotates the tub and delivers materials into the path of the rotor knives.

Agri-Chopper – Big bale chopper: Adjustable grate

## Adjustable grate

The system is equipped with a grate hydraulically adjustable from the tractor seat, to control the penetration of the bale on the rotating knives.

Agri-Chopper – Big bale chopper: Also available

## Also available

Hydraulic motor with a Flow control to manage the speed of the tub independantly of the PTO.

Agri-Chopper – Big bale chopper: Rotor

## Rotor

The biggest on the market !

Agri-Chopper – Big bale chopper: Hydraulic motor

## Hydraulic motor

Hydraulic motor (in option) with a Flow control to manage the speed of the tub independantly of the PTO .

Agri-Chopper – Big bale chopper: Conical extension

## Conical extension

A conical extension (in option) to avoid spillage when filling big, long rectangular bales.

Agri-Chopper – Big bale chopper: Electric Agri-Chopper

## Electric Agri-Chopper

A fully electric Agri-Chopper is also available.

Agri-Chopper – Big bale chopper: Stationary

## Stationary

A stationary model (fully Electric) is also available.

Previous

Next

## Benefits

Facilitates handling and distribution of large bales

Significantly reduces the cost of feed and bedding

Produces a more appetizing feed and ideal fiber length (as recommended by nutritionists)

Aids in the addition of hay in the ration for a more homogeneous mixture (TMR)

Produces a more effective litter using less material

Allows you to blow litter over a long distance or height (40 feet/12 m)

Saves you time and energy!

## Improved feed quality

Designed to process big bales of hay, round or square, dry or wet (baleage), the Agri-Chopper:

- helps to reduce the time spent on feeding,
- aids in the addition of fiber in the diet
- allows full utilization of forage bales (while significantly reducing losses on leftovers).

For producers who feed TMR, the Agri-Chopper:

- allows the addition of the exact quantity of chopped hay into every recipe,
- ensures a more thorough mix
- lessens the stress on the mixer and extends its life

## Accurate, fast and Durable

Under the rotor, a 16" (40 cm) diameter auger carries the chopped product into a powerful blower capable of projecting the ration over a distance of more than 40' (12 m) (depending on density, moisture content, etc).

PTO driven, the sturdy rotor features rigid knives. Special blades are used to chop cardboard or paper. The weight of the rotor acts like a flywheel and minimizes stress on the tractor PTO. The large central tube reduces the possibility of twine wrapping.



[\(https://valmetal.valmetal.com/produits/agri-chopper/dsc\\_0305-2/\)](https://valmetal.valmetal.com/produits/agri-chopper/dsc_0305-2/)
[\(https://valmetal.valmetal.com/produits/agri-chopper/photo-002-2/\)](https://valmetal.valmetal.com/produits/agri-chopper/photo-002-2/)
[\(https://valmetal.valmetal.com/produits/agri-chopper/photo-007-2/\)](https://valmetal.valmetal.com/produits/agri-chopper/photo-007-2/)
[\(https://valmetal.valmetal.com/produits/agri-chopper/dsc\\_0693-2/\)](https://valmetal.valmetal.com/produits/agri-chopper/dsc_0693-2/)
[\(https://valmetal.valmetal.com/produits/agri-chopper/cuve-rehaussee-double-avec-grapin-2/\)](https://valmetal.valmetal.com/produits/agri-chopper/cuve-rehaussee-double-avec-grapin-2/)

## Options



Hydraulic Controlled Chute



Manual Controlled Chute



## Tub extension

Agri-Chopper – Big bale chopper: Regular grate

## Regular grate

Agri-Chopper – Big bale chopper: Fine cut grate

## Fine cut grate

Previous

Next

[Find a dealer near you \(https://valmetal.valmetal.com/contact/find-a-dealer/\)](https://valmetal.valmetal.com/contact/find-a-dealer/)

## Figures

5500

H-5500 model: 90" diameter for 60 HP

5600

H-5600 model: 102" diameter for 70 HP

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## **Y1 Yard Operation and Maintenance Plan**

### **Introduction**

Ledgeview Farm, LLC (LF) is an existing dairy that conducts operations at two sites in the Town of Ledgeview, Brown County. The Headquarters Farm is located at 3875 Dickinson Road, De Pere, WI 54115 and the Heifer Farm is located at 3688 Lime Kiln Road, Green Bay, WI 54311.

### **System**

The Headquarters Site, Y1 Yard and the L5 Barn provide housing for 300 cattle weighing approximately 250 pounds. The Y1 Yard is an unroofed concrete yard on the south side of the L5 Barn. There is a feeding curb along the south side, drivable curbs on the east and west sides, and the L5 barn along the north side. Together these structures provide containment for manure and runoff within the Y1 Yard. The Y1 Yard provides containment for one full days manure, the runoff from a 25-year 24-hour rain and  $\geq 6$  inches of extra depth for safety.

### **Safety and Emergency Response**

- In the event the Y1 Yard was to overflow, sand bedding would be used to create a dike to contain the spill. A vacuum tanker would be used to remove the spilled manure from the emergency containment structure.

### **Operating Procedures**

- Manure is removed from the Y1 Yard daily, and applied onto cropland, headland stacked or transported to waste storage.
- Manure/bedding pack is removed from the L5 Barn as needed and applied onto cropland, headland stacked or transported to waste storage.
- Following all rain events, bedding from the L5 Barn will be mixed with runoff and the mixture loaded onto watertight spreader for transfer to cropland or waste storage.

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# Waste Storage Facility Closure Plan – Pits 1 & 2

for

Ledgeview Farm, LLC  
3875 Dickinson Road  
DePere, WI 54115

Submitted January 29, 2018  
Amended January 7, 2019

Prepared by

Roach & Associates, LLC  
856 N. Main Street  
Seymour, WI 54165



Ledgeview Farm, LLC  
Table of Contents

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	Page
Waste Storage Facility Closure Plan Narrative.....	1-2

<b>Attachments</b>	<b>Exhibit</b>
Aerial Photo .....	1
Heavy Use Area Protection .....	2
Closure of Waste Impoundments .....	3

## **Waste Storage Facility Closure Plan – Pits 1 and 2 Ledgeview Dairy**

### **Introduction**

Ledgeview Dairy is an existing dairy operation with the Headquarters Site located at 3875 Dickinson Road, De Pere, WI in the Town of Ledgeview, Brown County (Exhibit 1). Two vertical wall Waste Storage Facilities (Pits 1, 2) were constructed at the site in the 1990's. Both Waste Storage Facilities were constructed as water tight concrete structures in accordance with the contemporary standards. Neither facility is used for waste storage and the owner desires to convert both facilities to Machine Storage Areas.

Conversion of Pits 1 and 2 to Machine Storage Areas and/or dry goods will require that both facilities be abandoned and the facilities evaluated to verify that they meet the requirements of Natural Resources Conservation Service (NRCS), Field Office Technical Guide (FOTG), Section IV, Standard 561 Heavy Use Area Protection (10/17) (Exhibit 2). Closure of the facilities will be conducted according to NRCS, FOTG, Section IV, Standard 360 Closure of Waste Impoundments (12/02) (Exhibit 3). Details of the closure process are presented below.

### **Waste Storage Facility Closure**

Both the Waste Storage Facilities were designed or reviewed by the Brown County Land and Water Department (BCLWCD). A minimum separation from bedrock of two (2) feet for each facility was documented. No groundwater was reported within two (2) feet of either facility.

All waste from both facilities has been previously removed. The facilities are sloped to the north and currently contain accumulated rain water.

The closure criteria include:

#### General Requirements

1. The contents of each facility will be removed and applied onto cropland according to the current 590 Nutrient Management Plan (NMP).
2. The concrete surface of each facility will be inspected.
3. Soils adjacent to any area where the concrete has deteriorated or failed will be examined for evidence of manure contamination.
4. Soils showing evidence of contamination by manure, based on color, consistency or odor will be removed.
5. All soil impacted by manure shall be applied onto cropland according to the current NMP.

### **Waste Impoundment Closure Process**

The closure process is outlined below.

All local permits and approvals that are needed to carry out the proposed closure procedure will be obtained prior to the start of the work. Roach & Associates, LLC (R&A) will provide a qualified inspector to conduct or direct all of the inspections associated with this plan.

A Pre-Construction meeting will be held with the contractor and appropriate regulatory agencies, including the Brown County Land and Water Conservation Department (BCWCD)

and the Wisconsin Department of Natural Resources (WDNR) personnel to explain the plan and answer questions.

#### Closure Process

1. Remove the contents from each facility.
2. Identify and remove soils impacted by manure.
3. All waste shall be tested by an entity certified to perform manure analysis.
4. The waste and any waste-soil mixture shall be spread on cropland that has been approved. The application rate shall be in accordance with the NMP for each field.
5. The contractor and owner shall record the number and size of each load of waste that is hauled away and the field location to which each load was hauled for spreading.
6. Any waste that may fall off any truck onto a roadway shall be immediately contained and removed from the road.
7. An inspector from R&A shall be on site at the start and throughout the closure process to assure that the proper amount of soil is removed.
8. Pictures shall be taken throughout the closure process.
9. Each impoundment has a concrete liner.
10. Following completion of the closure process, install an outlet in each facility to drain any precipitation. The outlets shall allow each facility to be completely drained by gravity.
11. Install outlet protection (rip-rap) to allow rain water to flow from each facility in a non-erosive manner.
12. Runoff from the facilities will be directed toward the existing storm water conveyance system.

#### Erosion Protection

1. All areas disturbed during the closure process shall be seeded and mulched.
2. During the closure process, measures to control erosion shall be implemented. Measures to be used include silt fences and hay bale barriers.

#### Considerations

1. Neither WSF has been used for storage of manure for several years. Therefore, the current contents consist largely of collected precipitation.
2. All material that is applied to cropland shall be applied according to the NMP.

#### **Inspection Plan**

R&A shall inspect this project in the following areas:

1. Removal of the contents, accumulated rain, from Pits 1 and 2.
2. Removal of the soil from the bottom and sides of the impoundment excavations.
3. Determine when enough soil has been excavated to remove manure contamination.
4. Inspect the erosion control measures to insure that they are adequate.
5. The seeding and mulching.
6. The final project upon completion.

#### **Conversion**

Once the closures are completed, the owners will use each impoundment for storage of machinery. Each storage area will meet the requirements of NRCS, FOTG, Section IV, Standard 561 Heavy Use Area Protection (10/17), Table 1, Option H.





## NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE STANDARD HEAVY USE AREA PROTECTION

CODE 561  
(SQ. FT.)

### DEFINITION

Heavy use area protection is used to stabilize a ground surface that is frequently and intensively used by people, animals, or vehicles.

### PURPOSE

Heavy use area protection is used:

- To provide a stable, non-eroding surface for areas frequently used by animals, people or vehicles.
- To protect or improve water quality.

### CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all land uses where a frequently or intensively used area requires treatment to address one or more resource concerns.

### CRITERIA

#### General Criteria Applicable To All Purposes

**Design Load.** Base the design load on the type and frequency of traffic, (vehicular, animal, or human) anticipated on the heavy use area.

**Foundation.** Evaluate the site foundation to ensure that the presumptive bearing capacity of the soil meets the intended design load and frequency use.

When necessary, prepare the foundation by removal and disposal of materials that are not adequate to support the design loads.

Use a base course of gravel, crushed stone, other suitable material, geotextile, or a combination of materials on all sites that need increased load bearing strength, drainage, separation of material and soil reinforcement. Refer to Natural

Resources Conservation Service (NRCS), National Engineering Handbook (NEH), Part 642, Design Note 24, Guide for Use of Geotextiles; or NEH, Part 550, Engineering Field Handbook (EFH), Chapter 17, WI Supplement.

If there is the potential for ground water contamination from the heavy use area, select another site or provide an impervious barrier. Option G in Table 1, Surface Material Criteria and Separation Distances, shall be used if protection from groundwater contamination is the primary objective.

**Separation From Subsurface Saturation or Bedrock.** The separation is the closest distance from any point on the top surface of the heavy use area protection to the feature from which separation is required. Separation distances are listed in Table 1.

Subsurface saturation and bedrock are defined in WI NRCS Conservation Practice Standard (WI CPS), Waste Storage Facility (Code 313). The criteria for handling subsurface saturation and bedrock separation is also included in WI CPS 313.

**Surface Treatment.** Select a surface treatment that is stable and appropriate to the purpose of the heavy use area. Surfacing options are included in Table 1. Surface treatments must meet the following requirements according to the material used.

Concrete. Slabs-on-ground subject to cattle traffic or infrequent use by light agricultural equipment may utilize the surfacing options in Table 1.

Design slabs-on-ground subject to distributed stationary loads, light vehicular traffic, or infrequent use by heavy trucks or agricultural equipment in accordance with American Concrete Institute (ACI) Guide for the Design and Construction of Concrete Parking Lots (ACI 330R). Design slabs-on-ground subject to regular or frequent heavy truck or heavy agricultural equipment traffic in accordance with ACI Guide to Design of Slabs-on-Ground (ACI 360R). Design liquid-tight slabs in accordance with ACI Code Requirements for Environmental Concrete Structures, Slabs-on-Soil (ACI 350, Appendix H).

Design concrete structures in accordance with NRCS National Engineering Manual (NEM), Part 536, Structural Engineering.

Bituminous Concrete Pavement. Refer to AASHTO Guide for Design of Pavement Structures or the applicable State highway department's specification for design criteria for bituminous concrete paving.

In lieu of a site-specific design for areas that will be subject to light use, pave with a minimum of 4 inches of compacted bituminous concrete over a subgrade of at least 4 inches of well-compacted gravel. Use bituminous concrete mixtures commonly used for road paving in the area.

Aggregate. Design aggregate surfaces for expected wear and intended use. In lieu of a site-specific design for areas that will be subject to cattle traffic or infrequent use by light agricultural equipment, utilize the surfacing options in Table 1.

For other applications, use NRCS Agricultural Engineering Note 4, Earth and Aggregate Surfacing Design Guide, or other appropriate methodology to design aggregate thickness.

Mulches. Use a minimum layer thickness of 6 inches for materials such as limestone screenings, cinders, tanbark, bark mulch, brick chips, or shredded rubber. Mulches are not recommended for livestock or vehicular applications.

Vegetation. Select vegetation that can withstand the intended use. Establish the vegetation in accordance with the criteria in WI CPS, Critical Area Planting (Code 342).

Other. Other materials can be used if they will serve the intended purpose and design life.

**Structures.** When a roof is needed to address the resource concern, use WI CPS, Roofs and Covers (Code 367). For non-waste applications, design structures according to the accepted engineering practice.

**Drainage and Erosion Control.** Include provisions in the design for surface and subsurface drainage, as needed. Include provisions for disposal and runoff without causing erosion or water quality impairment. To the extent possible, prevent surface water from entering the heavy use area.

Stabilize all areas disturbed by construction as soon as possible after construction. Refer to the criteria in WI CPS, Critical Area Planting (Code 342), for establishment of vegetation. If vegetation is not appropriate for the site, use the criteria in WI CPS, Mulching (Code 484) to stabilize the disturbed area.

#### **Additional Criteria for Livestock Heavy Use Areas**

Other practices shall be utilized to collect, store, utilize, or treat manure and contaminated runoff where contaminated runoff will cause a resource concern.

Animal yards or lots shall be located a minimum of 50 feet from any well or sinkhole.

The animal yard area for various animal types and sizes; lot surfacing and feeding requirements shall be in accordance with the areas shown in the Wisconsin Supplement to Chapter 10 in the NRCS NEH Part 651, Agricultural Waste Management Field Handbook (AWMFH), or in livestock planning handbooks published by Midwest Plan Service.

#### **Additional Criteria for Recreation Areas**

The American Disabilities Act of 1990 (ADA) requires recreation areas that are used by the public to be accessible to people with disabilities. Address accessibility requirements for new construction and when existing facilities are being altered.

## **CONSIDERATIONS**

Heavy use areas can have a significant impact on adjoining land uses. These impacts can be environmental, visual and cultural. Select a treatment that is compatible with adjoining areas.

Consider such things as proximity to neighbors and the land use where the stabilization will take place.

Vegetated heavy use areas may need additional materials such as geogrids or other reinforcing techniques, or planned periods of rest and recovery to ensure that vegetative stabilization will succeed.

Consider the safety of the users during the design. Avoid slippery surfaces, sharp corners, or surfaces and structures that might entrap users. For heavy use areas used by livestock, avoid the use of sharp aggregates that might injure livestock.

Paving or otherwise reducing the permeability of the heavily used area can reduce infiltration and increase surface runoff. Depending on the size of the heavy use area, this can have an impact on the water budget of the surrounding area. Consider the effects to ground and surface water.

Installation of heavy use area protection on muddy sites can improve animal health. Mud transmits bacterial and fungal diseases and provides a breeding ground for flies. Hoof suction makes it difficult for cattle to move around in muddy areas. In addition, mud negates the insulation value of hair coat and the

animals must use more energy to keep warm. As temperatures fall, animal bunching may occur, which can reduce or eliminate vegetative cover and lead to erosion and water quality concerns.

To reduce the negative water quality impact of heavy use areas, consider locating them as far as possible from waterbodies or water courses. In some cases, this may require relocating the heavily used area rather than just armoring an area that is already in use.

To reduce the potential for air quality problems from particulate matter associated with a heavy use area, consider the use of WI CPS, Windbreak/ Shelterbelt Establishment (Code 380), Herbaceous Wind Barriers (Code 603), Dust Control from Animal Activity on Open Lot Surfaces (Code 375), or Dust Control on Unpaved Roads and surfaces (Code 373) to control dust from heavy use areas.

Consider ways to reduce the size of the heavy use areas as much as possible. This may require changes in how the livestock are managed, but in the long run, may result in less maintenance and a more efficient operation.

For areas that will need to be cleaned frequently by scraping, loose aggregate or other non-cementitious materials may not be the best choice. Consider a more durable surface such as concrete.

## PLANS AND SPECIFICATIONS

Prepare plans and specifications for heavy use area protection that describe the requirements for installing the practice according to this standard. As a minimum, the plans and specifications should include:

- A plan view showing the location and extent of the practice. Include the location and distances to adjacent features and known utilities.
- Typical section(s) showing the type and required thickness of paving or stabilization materials.
- A graded plan, as needed.
- Where appropriate, plans for required structural details.
- Method and materials used to stabilize areas disturbed by construction.
- Construction specifications with site specific installation requirements.

## OPERATION AND MAINTENANCE

Prepare an Operation and Maintenance (O&M) plan and review with the operator prior to practice installation. The minimum requirements to be addressed in the O&M plan are:

- Periodic inspections – annually and immediately following significant rain fall events.
- Prompt repair or replacement of damaged components especially surfaces that are subjected to wear or erosion.
- For livestock heavy use areas, include requirements for the regular removal and management of manure, as needed.
- For vegetated heavy use areas, restrict use as needed to protect the stand and to allow vegetative recovery.

## REFERENCES

American Concrete Institute (2006). *Guide to Design of Slabs-on-Ground (ACI Standard 360R-06)*. Farmington Hills, MI: American Concrete Institute.

American Concrete Institute. *Guide for the Design and Construction of Concrete Parking Lots (ACI 330R-08)*. Farmington Hills, MI: American Concrete Institute.

American Concrete Institute. *Requirements for Environmental Concrete Structures, Slabs on Soil (ACI 350, Appendix H)*. Farmington Hills, MI: American Concrete Institute.

USDA, NRCS. *National Engineering Handbook, Part 650, Engineering Field Handbook, Chapter 10*.

USDA, NRCS (2014). *Agricultural Engineering Note 4, Earth and Aggregate Surfacing Design Guide*, Washington, DC.

**TABLE 1: SURFACE MATERIAL CRITERIA AND SEPARATION DISTANCES**

Option	Foundation Condition	Cross Section Option	Separation to Bedrock or Subsurface Saturation (ft.)
A	Firm	Raised Earth	3
B	Firm	Minimum 6" crushed stone	3
C	Firm	Minimum 6" crushed stone over NRCS Wisconsin Construction Specification (WCS)-13, Geotextile, Class IV	3
D	Firm	Minimum 4" crushed stone over 6" base course of graded rock	3
E	Firm	5" non-reinforced concrete with maximum control joint spacing of 16' in both length and width, over 6" sand/gravel	2
F	Firm	5" reinforced concrete with designed control joint spacing over 6" sand/gravel	2
G	Firm	5" reinforced concrete with waterstop, over 6" sand/gravel	2
H	Firm	5" concrete reinforced with temperature and shrinkage steel only	2
I	Firm	Minimum 4" asphalt over 6" sand/gravel	3
J	Soft <sup>1</sup>	Minimum 4" crushed stone over 8" base course of graded rock over 6" of sand and fine gravel	3
K	Soft	Minimum 4" crushed stone over 8" base course of graded rock over NRCS WCS-13, Geotextile, Class IV	3
L	Soft	Minimum 4" crushed stone over 18" base course of graded rock	3
M	Soft	Minimum 4" crushed stone over 18" base course of graded rock over 6" sand and gravel	3
N	Soft	Minimum 8" crushed stone over geogrid over NRCS WCS-13, Geotextile, Class III	3

<sup>1</sup>Guidance can be found in EFH Chapter 4 and Figure 4-14 for information regarding bearing capacity and foundation properties.

<sup>2</sup>Crushed Stone: 100% passing 3/4" sieve and 10% maximum passing the #200 sieve.

<sup>3</sup>Graded Rock: 100% passing the base course thickness dimension and a maximum of 10% passing the 3/4" sieve. All sizes between the limits shown on the drawings are to be represented.

<sup>4</sup>Reinforcing and control joint spacing according to Subgrade Drag Theory Design as found in ACI 360, Design of Slabs on Grade, or Engineering Field Handbook (EFH), Chapter 17.

Option G is the only option that can be used where the potential for groundwater contamination is the resource concern.

- Option G requires deformed steel reinforcing bars and control joint spacing, according to Subgrade Drag Theory Design.
- Option G requires the installation of embedded waterstops at all control, construction, and isolation joints.
- Waterstop to be in accordance with NRCS Wisconsin Construction Specification 4, Concrete.
- Maximum wheel load of 5000 pounds at spacing of 8 feet or to be designed using ACI 360, Design of Slabs on Grade.

# CLOSURE OF WASTE IMPOUNDMENTS

(No.)  
Code 360

Natural Resources Conservation Service  
Conservation Practice Standard

## I. Definition

The closure of waste impoundments, that are no longer used for their intended purpose, in an environmentally safe manner.

## II. Purpose

This practice may be applied as part of a conservation management system to support one or more of the following purposes.

- To protect the quality of surface water and groundwater resources.
- To eliminate a safety hazard for humans and livestock.
- To safeguard the public health.

## III. Conditions Where Practice Applies

This practice applies to agricultural waste impoundments that are no longer needed as a part of a waste management system and are to be permanently closed or converted.

Where these impoundments are to be converted to fresh water storage and the original impoundment was not constructed to NRCS standards, this practice will only apply where an investigation and evaluation shows structural integrity.

## IV. Federal, State, and Local Laws

The closure of waste impoundments shall comply with all federal, state, and local laws, rules or regulations. The operator is responsible for securing required permits. This standard does not contain the text of the federal, state, or local laws governing closure of waste impoundments.

## V. Criteria

- A. Waste impoundment closure will require a site-specific design and inspection during closure.

Additional procedures may be required for remediation. A local permit may be required for the closure operation. The minimum procedure for closure shall include:

1. Removal and proper disposal of accumulated wastes in the facility in accordance with NRCS, Field Office Technical Guide (FOTG), Section IV, Standard 590, Nutrient Management.
2. Soil that is mixed with waste shall be removed and uniformly spread on cropland.
3. An additional 6 inches to 24 inches of soil shall be removed from the sides and bottom of the facility. The amount of soil to be removed shall be determined by the color and consistency indicating permeation or saturation of waste in the soil. Removed soil shall be uniformly spread on cropland.
4. Concrete or synthetic liners may be buried in the existing facility if all listed requirements are met.
  - a. Liner is broken up or holes are made to allow movement of water through the profile after the facility is closed.
  - b. Soil borings are made below the liner to check for soil mixed with waste. If soil mixed with waste is present, the liner must be pulled back to allow for the removal of the soil as stated in 3 above.

The liner material may then be buried in the closed facility. If the liner is removed from the closed site, it must be properly disposed of according to Wisconsin Department of Natural Resources (WDNR) regulations.

5. The transfer system shall be removed or permanently plugged.
  6. The site shall be filled with clean mineral soil meeting the quality of materials contained in Wisconsin Construction Specification 3, Earthfill, and shaped to insure surface drainage away from the site after settlement. Brick, building stone, concrete, reinforced concrete, broken pavement, and unpainted or untreated wood may be used in the fill pursuant to Chapter NR 500.08 (Wisconsin Administrative Code); however, the upper 3 feet of the fill shall be clean mineral soil as defined previously. Backfill height shall exceed the planned finished grade by a minimum of 5 percent to allow for settlement.
  7. Concrete floors for above-ground facilities may be left in place if water is not impounded on the floor surface and the conditions listed in paragraph V.A.4.b. are satisfied.
- B. **Conversion.** The waste storage impoundment may be converted to other uses if applicable groundwater standards are met. The converted impoundment shall meet the requirements as set forth in the NRCS, FOTG, Section IV, practice standard for the intended purpose.

**Safety.** Precautions (fencing and warning signs) shall be used to ensure that the pond is not used for incompatible purposes such as swimming and livestock watering until water quality is adequate for these purposes.

- C. **Protection.**
1. All disturbed areas not returned to crop production shall be seeded and mulched in accordance with NRCS, FOTG, Section IV, Standard 342, Critical Area Planting, or other suitable measures used to control erosion and restore the esthetic value of the site.
  2. Measures shall be taken during construction to minimize site erosion and pollution of downstream water resources. This may include such items as silt fences, hay bale barriers, temporary vegetation, and mulching.

## VI. Considerations

Additional recommendations relating to design which may enhance the use of or avoid problems with this practice, but are not required to ensure its basic conservation function, are as follows.

1. Reduce pumping effort to empty waste impoundments where the surface is covered by a dense mat of floating vegetation by first breaking up this surface crust.
2. Minimize the impact of odors associated with emptying and land-applying wastewater and sludge from a waste impoundment by using an incorporation application method at a time when the humidity is low, when winds are calm, and when wind direction is away from populated areas.

## VII. Plans and Specifications

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its intended use. A construction plan and inspection plan are required.

## VIII. Operation and Maintenance

The proper closure of a waste impoundment should require little or no operation and maintenance; however, if it is converted to another use, such as a fresh water pond, operation and maintenance shall be in accordance with the needs as set forth in the NRCS conservation practice standard for the intended purpose.

## IX. References

United States Department of Agriculture, Natural Resources Conservation Service, Agriculture Waste Management Field Handbook, Part 651, 1992.

United States Department of Agriculture, Natural Resources Conservation Service, Wisconsin Field Office Technical Guide, Section IV.

Wisconsin Administrative Code, Chapter NR 500, General Solid Waste Management Requirements.

## Exhibit 19 - ATCP 51 Appendix A Worksheet 5 – Runoff Management

### Feed Storage

Ledgeview Farms is only required to meet the criteria found in; **1. General.** *The operator agrees to manage feed storage to prevent significant discharge of leachate or polluted runoff to waters of the state.* In addition, Ledgeview operates under a WPDES Permit and is required to meet the production site discharge limits found in NR 243.13.

**Worksheet 5 – Runoff Management; Feed Storage, Number 2 Existing Feed Storage (High Moisture Feed) and Number 3 New or Substantially Altered Feed Storage Structures (High Moisture)** apply only to Feed Storage Structures that store High Moisture Feed. High Moisture Feed is defined as feed with 70% or higher moisture content.

Ledgeview Farms, LLC harvests and stores feed with a moisture content that is substantially lower than 70%. We reviewed the moisture content from nineteen (19) forage tests that include entries beginning in 2017 to 2019. The average moisture content of the 19 samples is 54.58%. A summary Table as well as the forage test reports are included in the attachment.

Based upon the documented moisture content of the forages harvest by Ledgeview Farms, LLC we believe that Ledgeview Farms, LLC, Feed Storage Structures are required to meet the criteria found in #1. General and are exempt from the criteria found in #2 and #3.

## Ledgeview Farms, LLC

### Historical Feed Moisture Content

No.	Date	Feed Type	Moisture Content (%)
1	1/3/2019	Corn Silage	48.64
2	1/3/2019	Haylage	31.19
3	11/16/2018	Haylage	41.46
4	9/26/2018	Corn Silage	67.68
5	9/26/2018	Haylage	58.94
6	8/15/2018	Haylage	53.08
7	8/1/2018	Haylage	59.68
8	6/25/2018	Haylage	48.78
9	5/1/2018	Haylage	60.44
10	4/4/2018	Corn Silage	61.58
11	4/4/2018	Haylage	49.58
12	3/9/2018	Ryelage	52.29
13	3/9/2018	Haylage	42.68
14	3/9/2018	Corn Silage	59.59
15	2/14/2018	Haylage	51.89
16	1/17/2018	Haylage	56.63
17	1/17/2018	Corn Silage	64.96
18	1/17/2018	Corn Silage	61.71
19	12/27/2017	Corn Silage	66.3
Average			54.58

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 9/26/2018  
Sample number: 006-1809-005699

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: C SILAGE BUNKER (2 - N8 )

Moisture % 67.68%  
Dry Matter % 32.32%  
pH 3.90

		Dry Basis	Average	Normal Range
Crude Protein	%DM	7.38%	7.82	5.72 - 9.92
ADF	%DM	21.73%	24.66	17.06 - 32.26
aNDF	%DM	35.85%	41.00	30.08 - 51.92
aNDFom	%DM	34.99%	40.10	29.71 - 50.76
Lignin (Sulfuric Acid)	%DM	3.07%	3.67	2.23 - 5.11
Lignin	%NDF	8.77%	8.01	5.30 - 10.72
NDFD 30	%NDF	52.96%	53.87	43.57 - 64.17
NDFD 240	%NDF	74.31%	73.90	65.70 - 83.20
uNDFom30	%DM	16.46%	18.20	13.30 - 23.30
uNDFom240	%DM	8.99%	10.50	6.00 - 14.90
AD-ICP	%DM	0.57%	0.69	0.35 - 1.03
ND-ICP w/ SS	%DM	1.09%	0.96	0.55 - 1.97
Protein Sol.	%CP	35.91%	37.50	16.33 - 58.68
Starch	%DM	40.66%	31.84	18.46 - 45.22
Fat (EE)	%DM	2.81%	3.17	2.15 - 4.19
Total Fatty Acid (TFA)	%DM	2.14%	2.26	1.50 - 2.81
Ash	%DM	5.12%	3.80	1.42 - 6.18
Calcium	%DM	0.22%	0.24	0.12 - 0.36
Phosphorus	%DM	0.22%	0.24	0.18 - 0.30
Magnesium	%DM	0.18%	0.20	0.12 - 0.28
Potassium	%DM	0.88%	1.05	0.63 - 1.47
Sulfur	%DM	0.11%	0.11	0.09 - 0.13
Sugar (ESC)	%DM	1.49%	1.72	0.02 - 4.67
Sugar (WSC)	%DM	1.89%	3.76	2.18 - 6.51
Adjusted Crude Protein	%	7.38%		
NFC	%	50.46%		
NDF kd rate Van Amb	%/hr	3.41%		

		ADF	OARDC	MLK06 NonProc	MLK06 Proc	ISU BEEF
TDN 1x	%DM	72.63	72.31	73.77	73.77	66.09
Nel 3x	Mcal/cwt	75.51	75.07	73.75	73.75	
Neg	Mcal/cwt	47.49	47.83	50.84	50.84	44.28
Nem	Mcal/cwt	75.11	75.50	78.92	78.92	71.11
Milk per ton	lb/ton DM			3515	3515	
Beef per ton	lb/ton DM					253.8

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 9/26/2018  
Sample number: 006-1809-005699

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: C SILAGE BUNKER (2 - N8 )

-----BILLING INFORMATION-----

SAMPLED BY: Randy Marx  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: C SILAGE BUNKER

Reference: 0605454  
Date: 9/26/2018  
Sample: 006-1809-005699

\$ 24.50 PACKAGE N8  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 1/17/2018  
Sample number: 006-1801-001452

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEGDEVIEW FARMS

PRODUCT: CORN SILAGE N BUNKER (2 - N8 )

Moisture % 61.71%  
Dry Matter % 38.29%  
pH 3.64

		Dry Basis	Average	Normal Range
Crude Protein	%DM	7.36%	7.82	5.72 - 9.92
ADF	%DM	20.63%	24.66	17.06 - 32.26
aNDF	%DM	34.31%	41.00	30.08 - 51.92
aNDFom	%DM	33.50%	40.10	29.71 - 50.76
Lignin (Sulfuric Acid)	%DM	2.43%	3.67	2.23 - 5.11
Lignin	%NDF	7.25%	8.01	5.30 - 10.72
NDFD 30	%NDF	58.93%	53.87	43.57 - 64.17
NDFD 240	%NDF	69.91%	73.90	65.70 - 83.20
uNDFom30	%DM	13.76%	18.20	13.30 - 23.30
uNDFom240	%DM	10.08%	10.50	6.00 - 14.90
AD-ICP	%DM	0.30%	0.69	0.35 - 1.03
ND-ICP w/ SS	%DM	0.76%	0.96	0.55 - 1.97
Protein Sol.	%CP	66.30%	37.50	16.33 - 58.68
Starch	%DM	41.13%	31.84	18.46 - 45.22
Fat (EE)	%DM	3.38%	3.17	2.15 - 4.19
Total Fatty Acid (TFA)	%DM	2.19%	2.26	1.50 - 2.81
Ash	%DM	4.44%	3.80	1.42 - 6.18
Calcium	%DM	0.17%	0.24	0.12 - 0.36
Phosphorus	%DM	0.22%	0.24	0.18 - 0.30
Magnesium	%DM	0.13%	0.20	0.12 - 0.28
Potassium	%DM	0.92%	1.05	0.63 - 1.47
Sulfur	%DM	0.10%	0.11	0.09 - 0.13
Sugar (ESC)	%DM	1.49%	1.72	0.02 - 4.67
Sugar (WSC)	%DM	1.89%	3.76	2.18 - 6.51
Adjusted Crude Protein	%	7.36%		
NFC	%	52.27%		
NDF kd rate Van Amb	%/hr	3.82%		

		ADF	OARDC	MLK06 NonProc	MLK06 Proc
TDN 1x	%DM	73.40	74.73	72.49	75.70
Nel 3x	Mcal/cwt	76.37	77.77	70.87	74.90
Neg	Mcal/cwt	48.03	50.83	54.50	54.50
Nem	Mcal/cwt	75.73	78.90	83.11	83.11
Milk per ton	lb/ton DM			3368	3628

FEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 1/17/2018  
Sample number: 006-1801-001452

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEGDEVIEW FARMS

PRODUCT: CORN SILAGE N BUNKER (2 - N8 )

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEGDEVIEW FARMS  
PRODUCT: CORN SILAGE N BUNKER

Reference: 0632357  
Date: 1/17/2018  
Sample: 006-1801-001452

\$ 24.50 PACKAGE N8  
\$ 24.50 TOTAL

FEEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 1/17/2018  
Sample number: 006-1801-001453

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEGDEVIEW FARMS

PRODUCT: CORN SILAGE BIG BNKR (2 - N8 )

Moisture % 64.96%  
Dry Matter % 35.04%  
pH 3.57

		Dry Basis	Average	Normal Range
Crude Protein	%DM	8.04%	7.82	5.72 - 9.92
ADF	%DM	21.34%	24.66	17.06 - 32.26
aNDF	%DM	35.30%	41.00	30.08 - 51.92
aNDFom	%DM	34.46%	40.10	29.71 - 50.76
Lignin (Sulfuric Acid)	%DM	2.85%	3.67	2.23 - 5.11
Lignin	%NDF	8.27%	8.01	5.30 - 10.72
NDFD 30	%NDF	57.52%	53.87	43.57 - 64.17
NDFD 240	%NDF	73.30%	73.90	65.70 - 83.20
uNDFom30	%DM	14.64%	18.20	13.30 - 23.30
uNDFom240	%DM	9.20%	10.50	6.00 - 14.90
AD-ICP	%DM	0.39%	0.69	0.35 - 1.03
ND-ICP w/ SS	%DM	0.82%	0.96	0.55 - 1.97
Protein Sol.	%CP	62.19%	37.50	16.33 - 58.68
Starch	%DM	39.89%	31.84	18.46 - 45.22
Fat (EE)	%DM	3.73%	3.17	2.15 - 4.19
Total Fatty Acid (TFA)	%DM	2.48%	2.26	1.50 - 2.81
Ash	%DM	4.94%	3.80	1.42 - 6.18
Calcium	%DM	0.18%	0.24	0.12 - 0.36
Phosphorus	%DM	0.23%	0.24	0.18 - 0.30
Magnesium	%DM	0.16%	0.20	0.12 - 0.28
Potassium	%DM	0.88%	1.05	0.63 - 1.47
Sulfur	%DM	0.11%	0.11	0.09 - 0.13
Sugar (ESC)	%DM	1.34%	1.72	0.02 - 4.67
Sugar (WSC)	%DM	2.14%	3.76	2.18 - 6.51
Adjusted Crude Protein	%	8.04%		
NFC	%	49.90%		
NDF kd rate Van Amb	%/hr	3.85%		

		ADF	OARDC	MLK06 NonProc	MLK06 Proc
TDN 1x	%DM	72.90	73.54	73.84	75.77
Nel 3x	Mcal/cwt	75.81	76.44	72.85	75.27
Neg	Mcal/cwt	47.88	49.66	53.42	53.42
Nem	Mcal/cwt	75.55	77.58	81.86	81.86
Milk per ton	lb/ton DM			3487	3643

FEEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913

Telephone 920-336-4521

Report date: 1/17/2018

Sample number: 006-1801-001453

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)

SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEGDEVIEW FARMS

PRODUCT: CORN SILAGE BIG BNKR (2 - N8 )

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEGDEVIEW FARMS  
PRODUCT: CORN SILAGE BIG BNKR

Reference: 0632358  
Date: 1/17/2018  
Sample: 006-1801-001453

\$ 24.50 PACKAGE N8  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 12/27/2017  
Sample number: 006-1712-013633

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW

PRODUCT: CORN SILAGE SM BNKR (2 - N8 )

Moisture % 66.30%  
Dry Matter % 33.70%  
pH 3.65

		Dry Basis	Average	Normal Range
Crude Protein	%DM	7.35%	7.82	5.72 - 9.92
ADF	%DM	24.96%	24.66	17.06 - 32.26
aNDF	%DM	40.99%	41.00	30.08 - 51.92
aNDFom	%DM	39.98%	40.10	29.71 - 50.76
Lignin (Sulfuric Acid)	%DM	3.11%	3.67	2.23 - 5.11
Lignin	%NDF	7.78%	8.01	5.30 - 10.72
NDFD 30	%NDF	56.68%	53.87	43.57 - 64.17
NDFD 240	%NDF	72.66%	73.90	65.70 - 83.20
uNDFom30	%DM	17.32%	18.20	13.30 - 23.30
uNDFom240	%DM	10.93%	10.50	6.00 - 14.90
AD-ICP	%DM	0.43%	0.69	0.35 - 1.03
ND-ICP w/ SS	%DM	0.92%	0.96	0.55 - 1.97
Protein Sol.	%CP	56.05%	37.50	16.33 - 58.68
Starch	%DM	31.16%	31.84	18.46 - 45.22
Fat (EE)	%DM	3.65%	3.17	2.15 - 4.19
Total Fatty Acid (TFA)	%DM	2.66%	2.22	1.18 - 3.26
Ash	%DM	4.97%	3.80	1.42 - 6.18
Calcium	%DM	0.21%	0.24	0.12 - 0.36
Phosphorus	%DM	0.23%	0.24	0.18 - 0.30
Magnesium	%DM	0.16%	0.20	0.12 - 0.28
Potassium	%DM	1.08%	1.05	0.63 - 1.47
Sulfur	%DM	0.11%	0.11	0.09 - 0.13
Sugar (ESC)	%DM	1.15%	1.72	0.02 - 4.67
Sugar (WSC)	%DM	1.44%	3.76	2.18 - 6.51
Adjusted Crude Protein	%	7.35%		
NFC	%	44.96%		
NDF kd rate Van Amb	%/hr	3.66%		

		ADF	OARDC	MLK06 NonProc	MLK06 Proc
TDN 1x	%DM	70.37	71.69	73.08	73.83
Nel 3x	Mcal/cwt	72.99	74.38	72.02	72.96
Neg	Mcal/cwt	45.66	47.17	50.80	50.80
Nem	Mcal/cwt	73.04	74.76	78.87	78.87
Milk per ton	lb/ton DM			3428	3489

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 12/27/2017  
Sample number: 006-1712-013633

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW

PRODUCT: CORN SILAGE SM BNKR (2 - N8 )

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW  
PRODUCT: CORN SILAGE SM BNKR

Reference: 0631049  
Date: 12/27/2017  
Sample: 006-1712-013633

\$ 24.50 PACKAGE N8  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 3/ 9/2018  
Sample number: 006-1803-004326

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: CORN SILAGE (2 - N8 )

Moisture % 59.59%  
Dry Matter % 40.41%  
pH 3.68

		Dry Basis	Average	Normal Range
Crude Protein	%DM	7.50%	7.82	5.72 - 9.92
ADF	%DM	22.88%	24.66	17.06 - 32.26
aNDF	%DM	37.48%	41.00	30.08 - 51.92
aNDFom	%DM	36.57%	40.10	29.71 - 50.76
Lignin (Sulfuric Acid)	%DM	2.89%	3.67	2.23 - 5.11
Lignin	%NDF	7.90%	8.01	5.30 - 10.72
NDFD 30	%NDF	57.01%	53.87	43.57 - 64.17
NDFD 240	%NDF	74.92%	73.90	65.70 - 83.20
uNDFom30	%DM	15.72%	18.20	13.30 - 23.30
uNDFom240	%DM	9.17%	10.50	6.00 - 14.90
AD-ICP	%DM	0.43%	0.69	0.35 - 1.03
ND-ICP w/ SS	%DM	0.77%	0.96	0.55 - 1.97
Protein Sol.	%CP	65.20%	37.50	16.33 - 58.68
Starch	%DM	37.38%	31.84	18.46 - 45.22
Fat (EE)	%DM	3.38%	3.17	2.15 - 4.19
Total Fatty Acid (TFA)	%DM	2.30%	2.26	1.50 - 2.81
Ash	%DM	4.93%	3.80	1.42 - 6.18
Calcium	%DM	0.18%	0.24	0.12 - 0.36
Phosphorus	%DM	0.22%	0.24	0.18 - 0.30
Magnesium	%DM	0.16%	0.20	0.12 - 0.28
Potassium	%DM	0.90%	1.05	0.63 - 1.47
Sulfur	%DM	0.10%	0.11	0.09 - 0.13
Sugar (ESC)	%DM	1.18%	1.72	0.02 - 4.67
Sugar (WSC)	%DM	1.47%	3.76	2.18 - 6.51
Adjusted Crude Protein	%	7.50%		
NFC	%	48.47%		
NDF kd rate Van Amb	%/hr	3.72%		

		ADF	OARDC	MLK06 NonProc	MLK06 Proc
TDN 1x	%DM	71.82	72.59	69.40	73.00
Nel 3x	Mcal/cwt	74.61	75.38	67.35	71.88
Neg	Mcal/cwt	46.93	48.29	52.09	52.09
Nem	Mcal/cwt	74.48	76.02	80.34	80.34
Milk per ton	lb/ton DM			3129	3421

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 3/ 9/2018  
Sample number: 006-1803-004326

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: CORN SILAGE (2 - N8 )

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: CORN SILAGE

Reference: 0635519  
Date: 3/ 9/2018  
Sample: 006-1803-004326

\$ 24.50 PACKAGE N8  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

REGENERATED REPORT  
Report date: 4/ 4/2018  
Sample number: 006-1804-005529

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: CORN SILAGE (2 - N8 )

Moisture % 61.58%  
Dry Matter % 38.42%  
pH 3.72

		Dry Basis	Average	Normal Range
Crude Protein	%DM	7.27%	7.82	5.72 - 9.92
ADF	%DM	23.29%	24.66	17.06 - 32.26
aNDF	%DM	38.97%	41.00	30.08 - 51.92
aNDFom	%DM	38.02%	40.10	29.71 - 50.76
Lignin (Sulfuric Acid)	%DM	2.91%	3.67	2.23 - 5.11
Lignin	%NDF	7.65%	8.01	5.30 - 10.72
NDFD 30	%NDF	57.73%	53.87	43.57 - 64.17
NDFD 240	%NDF	65.62%	73.90	65.70 - 83.20
uNDFom30	%DM	16.07%	18.20	13.30 - 23.30
uNDFom240	%DM	13.07%	10.50	6.00 - 14.90
AD-ICP	%DM	0.42%	0.69	0.35 - 1.03
ND-ICP w/ SS	%DM	0.92%	0.96	0.55 - 1.97
Protein Sol.	%CP	68.09%	37.50	16.33 - 58.68
Starch	%DM	34.73%	31.84	18.46 - 45.22
Fat (EE)	%DM	3.54%	3.17	2.15 - 4.19
Total Fatty Acid (TFA)	%DM	2.05%	2.26	1.50 - 2.81
Ash	%DM	3.90%	3.80	1.42 - 6.18
Calcium	%DM	0.21%	0.24	0.12 - 0.36
Phosphorus	%DM	0.21%	0.24	0.18 - 0.30
Magnesium	%DM	0.15%	0.20	0.12 - 0.28
Potassium	%DM	1.07%	1.05	0.63 - 1.47
Sulfur	%DM	0.10%	0.11	0.09 - 0.13
Sugar (ESC)	%DM	0.81%	1.72	0.02 - 4.67
Sugar (WSC)	%DM	0.98%	3.76	2.18 - 6.51
Adjusted Crude Protein	%	7.27%		
NFC	%	48.68%		
NDF kd rate Van Amb	%/hr	3.75%		

		ADF	OARDC	MLK06 NonProc	MLK06 Proc
TDN 1x	%DM	71.54	72.91	71.01	73.76
Nel 3x	Mcal/cwt	74.30	75.74	69.19	72.64
Neg	Mcal/cwt	46.35	48.57	51.95	51.95
Nem	Mcal/cwt	73.82	76.33	80.19	80.19
Milk per ton	lb/ton DM			3252	3475

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

REGENERATED REPORT  
Report date: 4/ 4/2018  
Sample number: 006-1804-005529

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: CORN SILAGE (2 - N8 )

-----BILLING INFORMATION-----

SAMPLED BY: Randy Marx  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: CORN SILAGE

Reference: 0636858  
Date: 4/ 4/2018  
Sample: 006-1804-005529

\$ 24.50 PACKAGE N8  
\$ 24.50 TOTAL

\*THIS REPORT WAS REGENERATED ON 4/ 6/2018

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 1/ 3/2019  
Sample number: 006-1901-000642

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: DRY SILAGE (2 - N8 )

Moisture % 48.64%  
Dry Matter % 51.36%  
pH 3.93

		Dry Basis	Average	Normal Range
Crude Protein	%DM	7.49%	7.82	5.72 - 9.92
ADF	%DM	20.43%	24.66	17.06 - 32.26
aNDF	%DM	33.43%	41.00	30.08 - 51.92
aNDFom	%DM	32.64%	40.10	29.71 - 50.76
Lignin (Sulfuric Acid)	%DM	2.73%	3.67	2.23 - 5.11
Lignin	%NDF	8.36%	8.01	5.30 - 10.72
NDFD 30	%NDF	52.57%	53.87	43.57 - 64.17
NDFD 240	%NDF	71.48%	73.90	65.70 - 83.20
uNDFom30	%DM	15.48%	18.20	13.30 - 23.30
uNDFom240	%DM	9.31%	10.50	6.00 - 14.90
AD-ICP	%DM	0.46%	0.69	0.35 - 1.03
ND-ICP w/ SS	%DM	0.98%	0.96	0.55 - 1.97
Protein Sol.	%CP	52.74%	37.50	16.33 - 58.68
Starch	%DM	40.11%	31.84	18.46 - 45.22
Fat (EE)	%DM	3.11%	3.17	2.15 - 4.19
Total Fatty Acid (TFA)	%DM	2.31%	2.26	1.50 - 2.81
Ash	%DM	4.50%	3.80	1.42 - 6.18
Calcium	%DM	0.21%	0.24	0.12 - 0.36
Phosphorus	%DM	0.22%	0.24	0.18 - 0.30
Magnesium	%DM	0.16%	0.20	0.12 - 0.28
Potassium	%DM	0.81%	1.05	0.63 - 1.47
Sulfur	%DM	0.10%	0.11	0.09 - 0.13
Sugar (ESC)	%DM	2.57%	1.72	0.02 - 4.67
Sugar (WSC)	%DM	3.83%	3.76	2.18 - 6.51

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 1/ 3/2019  
Sample number: 006-1901-000642

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: DRY SILAGE (2 - N8 )

Adjusted Crude Protein % 7.49%  
NFC % 53.04%  
NDF kd rate Van Amb %/hr 3.31%

		ADF	OARDC	MLK06 NonProc	MLK06 Proc	ISU BEEF
		-----	-----	-----	-----	-----
TDN 1x	%DM	73.54	74.44	66.52	70.53	67.65
Nel 3x	Mcal/cwt	76.52	77.44	64.69	69.73	
Neg	Mcal/cwt	48.39	50.47	52.80	52.80	46.07
Nem	Mcal/cwt	76.13	78.50	81.15	81.15	73.12
Milk per ton	lb/ton DM			2928	3253	
Beef per ton	lb/ton DM					266.7

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: DRY SILAGE

Reference: 0612941  
Date: 1/ 3/2019  
Sample: 006-1901-000642

\$ 24.50 PACKAGE N8  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 1/17/2018  
Sample number: 006-1801-001454

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEGDEVIEW FARMS

PRODUCT: 3RD CROP HAYLAGE (1C - N9 )

Moisture % 56.63%  
Dry Matter % 43.37%  
pH 3.99

		Dry Basis	Average	Normal Range
Crude Protein	%DM	18.12%	20.11	14.79 - 25.43
ADF	%DM	30.30%	32.28	25.22 - 39.34
aNDF	%DM	37.01%	42.72	31.14 - 54.30
aNDFom	%DM	35.67%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	7.21%	8.28	5.70 - 10.86
Lignin	%NDF	20.21%	19.39	12.45 - 26.32
NDFD 30	%NDF	61.65%	47.10	36.04 - 58.16
NDFD 240	%NDF	69.97%	52.00	37.60 - 66.50
uNDFom30	%DM	13.68%	23.30	14.60 - 32.10
uNDFom240	%DM	10.71%	20.40	12.90 - 27.80
AD-ICP	%DM	2.11%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	2.53%	2.93	1.44 - 4.70
Protein Sol.	%CP	59.55%	48.76	34.82 - 62.70
Fat (EE)	%DM	3.60%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.67%	1.45	0.65 - 2.25
Ash	%DM	8.91%	11.41	7.99 - 14.83
Calcium	%DM	1.09%	1.27	0.85 - 1.69
Phosphorus	%DM	0.32%	0.37	0.29 - 0.45
Magnesium	%DM	0.31%	0.31	0.21 - 0.41
Potassium	%DM	2.53%	2.89	1.97 - 3.81
Sulfur	%DM	0.19%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	4.22%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	5.59%	4.35	1.91 - 6.80

Adjusted Crude Protein % 17.64%  
NFC % 37.16%  
RFV 164.01  
RFQ 207.31

		ADF	OARDC	MLK13
TDN 1x	%DM	65.30	61.23	69.43
Nel 3x	Mcal/cwt	67.34	62.73	71.54
Neg	Mcal/cwt	35.52	37.83	48.39
Nem	Mcal/cwt	61.75	64.30	76.14
Milk per ton	lb/ton DM			3496

FEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 1/17/2018  
Sample number: 006-1801-001454

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEGDEVIEW FARMS

PRODUCT: 3RD CROP HAYLAGE (1C - N9 )

These NDFD30, uNDFom240... values were outliers.  
Please contact the lab within 2 business days  
if you want the wet chemistry analysis performed  
Wet Chemistry verification will take 5-10 business days.

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEGDEVIEW FARMS  
PRODUCT: 3RD CROP HAYLAGE

Reference: 0632359  
Date: 1/17/2018  
Sample: 006-1801-001454

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 11/16/2018  
Sample number: 006-1811-009767

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE BUNKER (1C - N9 )

Moisture % 41.46%  
Dry Matter % 58.54%  
pH 4.99

		Dry Basis	Average	Normal Range
Crude Protein	%DM	24.98%	20.11	14.79 - 25.43
ADF	%DM	27.34%	32.28	25.22 - 39.34
aNDF	%DM	32.87%	42.72	31.14 - 54.30
aNDFom	%DM	30.09%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	7.68%	8.28	5.70 - 10.86
Lignin	%NDF	25.52%	19.39	12.45 - 26.32
NDFD 30	%NDF	45.43%	47.10	36.04 - 58.16
NDFD 240	%NDF	51.28%	52.00	37.60 - 66.50
uNDFom30	%DM	16.42%	23.30	14.60 - 32.10
uNDFom240	%DM	14.66%	20.40	12.90 - 27.80
AD-ICP	%DM	2.09%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	3.31%	2.93	1.44 - 4.70
Protein Sol.	%CP	55.80%	48.76	34.82 - 62.70
Starch	%DM	2.25%	1.68	0.01 - 3.68
Fat (EE)	%DM	3.26%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.58%	1.45	0.65 - 2.25
Ash	%DM	11.21%	11.41	7.99 - 14.83
Calcium	%DM	1.32%	1.27	0.85 - 1.69
Phosphorus	%DM	0.39%	0.37	0.29 - 0.45
Magnesium	%DM	0.43%	0.31	0.21 - 0.41
Potassium	%DM	2.69%	2.89	1.97 - 3.81
Sulfur	%DM	0.31%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	4.25%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	5.44%	4.35	1.91 - 6.80

Adjusted Crude Protein % 24.98%  
NFC % 34.45%  
RFV 191.27  
RFQ 187.76  
NDF kd rate Van Amb %/hr 9.72%

		ADF	OARDC	MLK13
TDN 1x	%DM	67.60	60.90	65.06
Nel 3x	Mcal/cwt	69.91	62.37	70.00
Neg	Mcal/cwt	39.83	40.28	45.69
Nem	Mcal/cwt	66.53	67.03	73.08
Milk per ton	lb/ton DM			3263

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 11/16/2018  
Sample number: 006-1811-009767

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE BUNKER (1C - N9 )

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: HAYLAGE BUNKER

Reference: 0609978  
Date: 11/16/2018  
Sample: 006-1811-009767

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 11/16/2018  
Sample number: 006-1811-009767

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE BUNKER (1C - N9 )

Moisture % 41.46%  
Dry Matter % 58.54%  
pH 4.99

		Dry Basis	Average	Normal Range
Crude Protein	%DM	24.98%	20.11	14.79 - 25.43
ADF	%DM	27.34%	32.28	25.22 - 39.34
aNDF	%DM	32.87%	42.72	31.14 - 54.30
aNDFom	%DM	30.09%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	7.68%	8.28	5.70 - 10.86
Lignin	%NDF	25.52%	19.39	12.45 - 26.32
NDFD 30	%NDF	45.43%	47.10	36.04 - 58.16
NDFD 240	%NDF	51.28%	52.00	37.60 - 66.50
uNDFom30	%DM	16.42%	23.30	14.60 - 32.10
uNDFom240	%DM	14.66%	20.40	12.90 - 27.80
AD-ICP	%DM	2.09%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	3.31%	2.93	1.44 - 4.70
Protein Sol.	%CP	55.80%	48.76	34.82 - 62.70
Starch	%DM	2.25%	1.68	0.01 - 3.68
Fat (EE)	%DM	3.26%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.58%	1.45	0.65 - 2.25
Ash	%DM	11.21%	11.41	7.99 - 14.83
Calcium	%DM	1.32%	1.27	0.85 - 1.69
Phosphorus	%DM	0.39%	0.37	0.29 - 0.45
Magnesium	%DM	0.43%	0.31	0.21 - 0.41
Potassium	%DM	2.69%	2.89	1.97 - 3.81
Sulfur	%DM	0.31%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	4.25%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	5.44%	4.35	1.91 - 6.80

Adjusted Crude Protein % 24.98%  
NFC % 34.45%  
RFV 191.27  
RFQ 187.76  
NDF kd rate Van Amb %/hr 9.72%

		ADF	OARDC	MLK13
TDN 1x	%DM	67.60	60.90	65.06
Nel 3x	Mcal/cwt	69.91	62.37	70.00
Neg	Mcal/cwt	39.83	40.28	45.69
Nem	Mcal/cwt	66.53	67.03	73.08
Milk per ton	lb/ton DM			3263

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 11/16/2018  
Sample number: 006-1811-009767

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE BUNKER (1C - N9 )

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: HAYLAGE BUNKER

Reference: 0609978  
Date: 11/16/2018  
Sample: 006-1811-009767

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 2/14/2018  
Sample number: 006-1802-003035

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE 4TH (1C - N9 )

Moisture % 51.89%  
Dry Matter % 48.11%  
pH 4.53

		Dry Basis	Average	Normal Range
Crude Protein	%DM	18.39%	20.11	14.79 - 25.43
ADF	%DM	28.37%	32.28	25.22 - 39.34
aNDF	%DM	37.35%	42.72	31.14 - 54.30
aNDFom	%DM	35.98%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	7.90%	8.28	5.70 - 10.86
Lignin	%NDF	21.96%	19.39	12.45 - 26.32
NDFD 30	%NDF	56.84%	47.10	36.04 - 58.16
NDFD 240	%NDF	67.26%	52.00	37.60 - 66.50
uNDFom30	%DM	15.53%	23.30	14.60 - 32.10
uNDFom240	%DM	11.78%	20.40	12.90 - 27.80
AD-ICP	%DM	2.29%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	3.58%	2.93	1.44 - 4.70
Protein Sol.	%CP	40.57%	48.76	34.82 - 62.70
Fat (EE)	%DM	2.98%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.34%	1.45	0.65 - 2.25
Ash	%DM	9.62%	11.41	7.99 - 14.83
Calcium	%DM	1.16%	1.27	0.85 - 1.69
Phosphorus	%DM	0.35%	0.37	0.29 - 0.45
Magnesium	%DM	0.38%	0.31	0.21 - 0.41
Potassium	%DM	2.14%	2.89	1.97 - 3.81
Sulfur	%DM	0.25%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	4.35%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	7.29%	4.35	1.91 - 6.80

Adjusted Crude Protein % 17.67%  
NFC % 37.25%  
RFV 166.22  
RFQ 190.64

		ADF	OARDC	MLK13
TDN 1x	%DM	66.80	59.47	67.12
Nel 3x	Mcal/cwt	69.02	60.77	69.86
Neg	Mcal/cwt	35.46	35.58	45.69
Nem	Mcal/cwt	61.68	61.82	73.09
Milk per ton	lb/ton DM			3351

FEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 2/14/2018  
Sample number: 006-1802-003035

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE 4TH (1C - N9 )

The NDFD240 value was an outlier.  
Please contact the lab within 2 business days  
if you want the wet chemistry analysis performed.  
Wet Chemistry verification will take 5-10 business days.

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: HAYLAGE 4TH

Reference: 0634103  
Date: 2/14/2018  
Sample: 006-1802-003035

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 3/ 9/2018  
Sample number: 006-1803-004327

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245 SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE (1C - N9 )

Moisture % 42.68%  
Dry Matter % 57.32%  
pH 4.82

		Dry Basis	Average	Normal Range
Crude Protein	%DM	19.02%	20.11	14.79 - 25.43
ADF	%DM	30.30%	32.28	25.22 - 39.34
aNDF	%DM	38.10%	42.72	31.14 - 54.30
aNDFom	%DM	36.68%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	8.68%	8.28	5.70 - 10.86
Lignin	%NDF	23.66%	19.39	12.45 - 26.32
NDFD 30	%NDF	55.78%	47.10	36.04 - 58.16
NDFD 240	%NDF	67.18%	52.00	37.60 - 66.50
uNDFom30	%DM	16.22%	23.30	14.60 - 32.10
uNDFom240	%DM	12.04%	20.40	12.90 - 27.80
AD-ICP	%DM	2.66%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	3.78%	2.93	1.44 - 4.70
Protein Sol.	%CP	44.74%	48.76	34.82 - 62.70
Fat (EE)	%DM	2.43%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.23%	1.45	0.65 - 2.25
Ash	%DM	10.72%	11.41	7.99 - 14.83
Calcium	%DM	1.35%	1.27	0.85 - 1.69
Phosphorus	%DM	0.34%	0.37	0.29 - 0.45
Magnesium	%DM	0.41%	0.31	0.21 - 0.41
Potassium	%DM	2.46%	2.89	1.97 - 3.81
Sulfur	%DM	0.23%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	4.65%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	7.48%	4.35	1.91 - 6.80

Adjusted Crude Protein % 17.81%  
NFC % 35.13%  
RFV 159.45  
RFQ 180.66

		ADF	OARDC	MLK13
TDN 1x	%DM	65.30	56.88	65.33
Nel 3x	Mcal/cwt	67.34	57.89	67.74
Neg	Mcal/cwt	35.31	32.31	43.73
Nem	Mcal/cwt	61.51	58.22	70.88
Milk per ton	lb/ton DM			3206

FEEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 3/ 9/2018  
Sample number: 006-1803-004327

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE (1C - N9 )

The NDFD240 value was an outlier.  
Please contact the lab within 2 business days  
if you want the wet chemistry analysis performed.  
Wet Chemistry verification will take 5-10 business days.

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: HAYLAGE

Reference: 0635520  
Date: 3/ 9/2018  
Sample: 006-1803-004327

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

REGENERATED REPORT  
Report date: 4/ 4/2018  
Sample number: 006-1804-005530

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE 4TH (1C - N9 )

Moisture % 49.58%  
Dry Matter % 50.42%  
pH 4.39

		Dry Basis	Average	Normal Range
Crude Protein	%DM	20.74%	20.11	14.79 - 25.43
ADF	%DM	32.54%	32.28	25.22 - 39.34
aNDF	%DM	39.58%	42.72	31.14 - 54.30
aNDFom	%DM	38.06%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	10.03%	8.28	5.70 - 10.86
Lignin	%NDF	26.35%	19.39	12.45 - 26.32
NDFD 30	%NDF	56.02%	47.10	36.04 - 58.16
NDFD 240	%NDF	65.61%	52.00	37.60 - 66.50
uNDFom30	%DM	16.74%	23.30	14.60 - 32.10
uNDFom240	%DM	13.09%	20.40	12.90 - 27.80
AD-ICP	%DM	3.19%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	3.29%	2.93	1.44 - 4.70
Protein Sol.	%CP	50.72%	48.76	34.82 - 62.70
Fat (EE)	%DM	3.35%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.63%	1.45	0.65 - 2.25
Ash	%DM	10.18%	11.41	7.99 - 14.83
Calcium	%DM	1.26%	1.27	0.85 - 1.69
Phosphorus	%DM	0.37%	0.37	0.29 - 0.45
Magnesium	%DM	0.40%	0.31	0.21 - 0.41
Potassium	%DM	2.43%	2.89	1.97 - 3.81
Sulfur	%DM	0.25%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	2.97%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	4.89%	4.35	1.91 - 6.80

Adjusted Crude Protein % 18.95%  
NFC % 31.68%  
RFV 149.27  
RFQ 175.28

		ADF	OARDC	MLK13
TDN 1x	%DM	63.55	55.30	65.50
Nel 3x	Mcal/cwt	65.39	56.13	67.84
Neg	Mcal/cwt	35.20	30.76	44.62
Nem	Mcal/cwt	61.39	56.53	71.88
Milk per ton	lb/ton DM			3215

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

REGENERATED REPORT  
Report date: 4/ 4/2018  
Sample number: 006-1804-005530

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE 4TH (1C - N9 )

-----BILLING INFORMATION-----

SAMPLED BY: Randy Marx  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: HAYLAGE 4TH

Reference: 0636859  
Date: 4/ 4/2018  
Sample: 006-1804-005530

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

\*THIS REPORT WAS REGENERATED ON 4/ 6/2018

FEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913

Telephone 920-336-4521

Report date: 5/ 1/2018

Sample number: 006-1805-006797

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)

SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW DIARY

PRODUCT: HAYLAGE 1ST (1C - N9 )

Moisture % 60.44%  
Dry Matter % 39.56%  
pH 4.60

		Dry Basis	Average	Normal Range
Crude Protein	%DM	20.67%	20.11	14.79 - 25.43
ADF	%DM	35.51%	32.28	25.22 - 39.34
aNDF	%DM	41.10%	42.72	31.14 - 54.30
aNDFom	%DM	39.47%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	9.00%	8.28	5.70 - 10.86
Lignin	%NDF	22.80%	19.39	12.45 - 26.32
NDFD 30	%NDF	48.75%	47.10	36.04 - 58.16
NDFD 240	%NDF	58.15%	52.00	37.60 - 66.50
uNDFom30	%DM	20.23%	23.30	14.60 - 32.10
uNDFom240	%DM	16.52%	20.40	12.90 - 27.80
AD-ICP	%DM	2.44%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	2.55%	2.93	1.44 - 4.70
Protein Sol.	%CP	68.17%	48.76	34.82 - 62.70
Fat (EE)	%DM	2.78%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.11%	1.45	0.65 - 2.25
Ash	%DM	10.11%	11.41	7.99 - 14.83
Calcium	%DM	1.55%	1.27	0.85 - 1.69
Phosphorus	%DM	0.35%	0.37	0.29 - 0.45
Magnesium	%DM	0.37%	0.31	0.21 - 0.41
Potassium	%DM	2.70%	2.89	1.97 - 3.81
Sulfur	%DM	0.23%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	2.54%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	3.61%	4.35	1.91 - 6.80

Adjusted Crude Protein % 20.07%  
NFC % 30.19%  
RFV 138.62  
RFQ 148.33  
NDF kd rate Van Amb %/hr 9.24%

		ADF	OARDC	MLK13
TDN 1x	%DM	61.24	55.72	61.42
Nel 3x	Mcal/cwt	62.82	56.60	64.64
Neg	Mcal/cwt	34.48	31.58	39.50
Nem	Mcal/cwt	60.60	57.42	66.16
Milk per ton	lb/ton DM			2947

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 5/ 1/2018  
Sample number: 006-1805-006797

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW DIARY

PRODUCT: HAYLAGE 1ST (1C - N9 )

-----BILLING INFORMATION-----

SAMPLED BY: Randy Marx  
SAMPLED FOR: LEDGEVIEW DIARY  
PRODUCT: HAYLAGE 1ST

Reference: 0638238  
Date: 5/ 1/2018  
Sample: 006-1805-006797

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 6/25/2018  
Sample number: 006-1806-009856

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: 2018 1ST HAYLAGE (1C - N9 )

Moisture % 48.78%  
Dry Matter % 51.22%  
pH 4.96

		Dry Basis	Average	Normal Range
Crude Protein	%DM	20.95%	20.11	14.79 - 25.43
ADF	%DM	33.16%	32.28	25.22 - 39.34
aNDF	%DM	39.25%	42.72	31.14 - 54.30
aNDFom	%DM	37.37%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	7.73%	8.28	5.70 - 10.86
Lignin	%NDF	20.69%	19.39	12.45 - 26.32
NDFD 30	%NDF	46.88%	47.10	36.04 - 58.16
NDFD 240	%NDF	51.16%	52.00	37.60 - 66.50
uNDFom30	%DM	19.85%	23.30	14.60 - 32.10
uNDFom240	%DM	18.25%	20.40	12.90 - 27.80
AD-ICP	%DM	1.63%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	2.48%	2.93	1.44 - 4.70
Protein Sol.	%CP	56.28%	48.76	34.82 - 62.70
Fat (EE)	%DM	2.91%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.23%	1.45	0.65 - 2.25
Ash	%DM	9.82%	11.41	7.99 - 14.83
Calcium	%DM	1.28%	1.27	0.85 - 1.69
Phosphorus	%DM	0.34%	0.37	0.29 - 0.45
Magnesium	%DM	0.33%	0.31	0.21 - 0.41
Potassium	%DM	2.77%	2.89	1.97 - 3.81
Sulfur	%DM	0.25%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	3.82%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	4.78%	4.35	1.91 - 6.80

Adjusted Crude Protein % 20.95%  
NFC % 32.11%  
RFV 149.61  
RFQ 153.81  
NDF kd rate Van Amb %/hr 5.93%

		ADF	OARDC	MLK13
TDN 1x	%DM	63.07	59.15	62.26
Nel 3x	Mcal/cwt	64.86	60.42	66.28
Neg	Mcal/cwt	35.42	36.55	40.67
Nem	Mcal/cwt	61.64	62.89	67.45
Milk per ton	lb/ton DM			3036

FEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 6/25/2018  
Sample number: 006-1806-009856

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: 2018 1ST HAYLAGE (1C - N9 )

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: 2018 1ST HAYLAGE

Reference: 0641589  
Date: 6/25/2018  
Sample: 006-1806-009856

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 8/15/2018  
Sample number: 006-1808-001604

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: 3RD HLG IN CS BUNK (1C - N9 )

Moisture % 53.08%  
Dry Matter % 46.92%  
pH 4.81

		Dry Basis	Average	Normal Range
Crude Protein	%DM	21.52%	20.11	14.79 - 25.43
ADF	%DM	28.89%	32.28	25.22 - 39.34
aNDF	%DM	34.75%	42.72	31.14 - 54.30
aNDFom	%DM	32.31%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	7.21%	8.28	5.70 - 10.86
Lignin	%NDF	22.32%	19.39	12.45 - 26.32
NDFD 30	%NDF	47.76%	47.10	36.04 - 58.16
NDFD 240	%NDF	50.45%	52.00	37.60 - 66.50
uNDFom30	%DM	16.88%	23.30	14.60 - 32.10
uNDFom240	%DM	16.01%	20.40	12.90 - 27.80
AD-ICP	%DM	1.69%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	2.75%	2.93	1.44 - 4.70
Protein Sol.	%CP	54.23%	48.76	34.82 - 62.70
Starch	%DM	2.57%	7.32	.01 - 27.80
Fat (EE)	%DM	3.03%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.28%	1.45	0.65 - 2.25
Ash	%DM	11.85%	11.41	7.99 - 14.83
Calcium	%DM	1.42%	1.27	0.85 - 1.69
Phosphorus	%DM	0.35%	0.37	0.29 - 0.45
Magnesium	%DM	0.46%	0.31	0.21 - 0.41
Potassium	%DM	2.86%	2.89	1.97 - 3.81
Sulfur	%DM	0.29%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	3.48%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	5.11%	4.35	1.91 - 6.80

Adjusted Crude Protein % 21.52%  
NFC % 34.79%  
RFV 177.55  
RFQ 177.14  
NDF kd rate Van Amb %/hr 7.29%

		ADF	OARDC	MLK13
TDN 1x	%DM	66.39	59.69	63.38
Nel 3x	Mcal/cwt	68.56	61.02	67.30
Neg	Mcal/cwt	37.75	37.47	42.29
Nem	Mcal/cwt	64.21	63.90	69.27
Milk per ton	lb/ton DM			3110

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 8/15/2018  
Sample number: 006-1808-001604

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: 3RD HLG IN CS BUNK (1C - N9 )

-----BILLING INFORMATION-----

SAMPLED BY: Randy Marx  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: 3RD HLG IN CS BUNK

Reference: 0600938  
Date: 8/15/2018  
Sample: 006-1808-001604

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 1/ 3/2019  
Sample number: 006-1901-000641

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE (1C - N9 )

Moisture % 31.19%  
Dry Matter % 68.81%  
pH 5.11

		Dry Basis	Average	Normal Range
Crude Protein	%DM	23.78%	20.11	14.79 - 25.43
ADF	%DM	27.21%	32.28	25.22 - 39.34
aNDF	%DM	33.18%	42.72	31.14 - 54.30
aNDFom	%DM	30.66%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	8.56%	8.28	5.70 - 10.86
Lignin	%NDF	27.92%	19.39	12.45 - 26.32
NDFD 30	%NDF	41.16%	47.10	36.04 - 58.16
NDFD 240	%NDF	45.21%	52.00	37.60 - 66.50
uNDFom30	%DM	18.04%	23.30	14.60 - 32.10
uNDFom240	%DM	16.80%	20.40	12.90 - 27.80
AD-ICP	%DM	2.44%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	4.09%	2.93	1.44 - 4.70
Protein Sol.	%CP	45.04%	48.76	34.82 - 62.70
Starch	%DM	2.30%	1.68	0.01 - 3.68
Fat (EE)	%DM	2.43%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.24%	1.45	0.65 - 2.25
Ash	%DM	9.61%	11.41	7.99 - 14.83
Calcium	%DM	1.31%	1.27	0.85 - 1.69
Phosphorus	%DM	0.36%	0.37	0.29 - 0.45
Magnesium	%DM	0.42%	0.31	0.21 - 0.41
Potassium	%DM	2.49%	2.89	1.97 - 3.81
Sulfur	%DM	0.28%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	5.30%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	7.67%	4.35	1.91 - 6.80

Adjusted Crude Protein % 23.68%  
NFC % 37.80%  
RFV 189.98  
RFQ 180.55  
NDF kd rate Van Amb %/hr 9.40%

		ADF	OARDC	MLK13
TDN 1x	%DM	67.70	60.93	65.31
Nel 3x	Mcal/cwt	70.02	62.40	71.32
Neg	Mcal/cwt	39.28	39.65	45.52
Nem	Mcal/cwt	65.91	66.32	72.89
Milk per ton	lb/ton DM			3308

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 1/ 3/2019  
Sample number: 006-1901-000641

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE (1C - N9 )

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: HAYLAGE

Reference: 0612940  
Date: 1/ 3/2019  
Sample: 006-1901-000641

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 9/26/2018  
Sample number: 006-1809-005697

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE UP TOP (1C - N9 )

Moisture % 58.94%  
Dry Matter % 41.06%  
pH 4.85

		Dry Basis	Average	Normal Range
Crude Protein	%DM	16.28%	20.11	14.79 - 25.43
ADF	%DM	40.92%	32.28	25.22 - 39.34
aNDF	%DM	47.32%	42.72	31.14 - 54.30
aNDFom	%DM	44.67%	40.72	30.28 - 50.93
Lignin (Sulfuric Acid)	%DM	9.66%	8.28	5.70 - 10.86
Lignin	%NDF	21.63%	19.39	12.45 - 26.32
NDFD 30	%NDF	43.34%	47.10	36.04 - 58.16
NDFD 240	%NDF	50.06%	52.00	37.60 - 66.50
uNDFom30	%DM	25.31%	23.30	14.60 - 32.10
uNDFom240	%DM	22.31%	20.40	12.90 - 27.80
AD-ICP	%DM	2.30%	1.35	0.43 - 2.27
ND-ICP w/ SS	%DM	2.85%	2.93	1.44 - 4.70
Protein Sol.	%CP	48.16%	48.76	34.82 - 62.70
Starch	%DM	1.55%	7.32	.01 - 27.80
Fat (EE)	%DM	2.67%	3.30	2.16 - 4.44
Total Fatty Acid (TFA)	%DM	1.04%	1.45	0.65 - 2.25
Ash	%DM	10.15%	11.41	7.99 - 14.83
Calcium	%DM	1.31%	1.27	0.85 - 1.69
Phosphorus	%DM	0.30%	0.37	0.29 - 0.45
Magnesium	%DM	0.35%	0.31	0.21 - 0.41
Potassium	%DM	1.97%	2.89	1.97 - 3.81
Sulfur	%DM	0.20%	0.28	0.20 - 0.36
Sugar (ESC)	%DM	3.34%	2.94	0.66 - 5.23
Sugar (WSC)	%DM	5.41%	4.35	1.91 - 6.80

Adjusted Crude Protein % 15.20%  
NFC % 29.71%  
RFV 112.27  
RFQ 111.03  
NDF kd rate Van Amb %/hr 5.43%

		ADF	OARDC	MLK13
TDN 1x	%DM	57.02	53.17	56.84
Nel 3x	Mcal/cwt	58.12	53.76	60.61
Neg	Mcal/cwt	30.17	26.27	31.82
Nem	Mcal/cwt	55.88	51.64	57.69
Milk per ton	lb/ton DM			2638

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.  
De Pere, WI 54115-3913  
Telephone

Report date: 9/26/2018  
Sample number: 006-1809-005697

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: HAYLAGE UP TOP (1C - N9 )

-----BILLING INFORMATION-----

SAMPLED BY: Randy Marx  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: HAYLAGE UP TOP

Reference: 0605420  
Date: 9/26/2018  
Sample: 006-1809-005697

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913

Telephone 920-336-4521

Report date: 3/ 9/2018

Sample number: 006-1803-004328

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)

SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: RYELAGE/HAYLAGE (7 - N9 )

Moisture % 52.29%  
Dry Matter % 47.71%  
pH 4.56

		Dry Basis	Average	Normal Range
Crude Protein	%DM	11.44%	13.32	6.28 - 20.36
ADF	%DM	36.86%	37.98	28.02 - 47.94
aNDF	%DM	50.77%	53.07	39.75 - 66.39
aNDFom	%DM	48.72%	51.68	39.29 - 63.02
Lignin (Sulfuric Acid)	%DM	6.96%	5.81	3.11 - 8.51
Lignin	%NDF	14.29%		
NDFD 30	%NDF	46.24%	53.00	31.00 - 75.00
NDFD 240	%NDF	55.58%	67.90	47.80 - 87.90
uNDFom30	%DM	26.19%	25.10	11.70 - 38.60
uNDFom240	%DM	21.64%	17.60	7.30 - 28.00
AD-ICP	%DM	1.64%	1.11	0.39 - 1.83
ND-ICP w/ SS	%DM	2.11%	1.79	0.45 - 3.64
Protein Sol.	%CP	53.15%	51.37	25.63 - 77.11
Starch	%DM	0.36%	3.80	0.10 - 15.10
Fat (EE)	%DM	3.02%	3.36	1.76 - 4.96
Total Fatty Acid (TFA)	%DM	0.87%	1.51	0.10 - 2.20
Ash	%DM	7.98%	10.94	4.10 - 17.78
Calcium	%DM	0.60%	0.57	0.11 - 1.03
Phosphorus	%DM	0.27%	0.35	0.21 - 0.49
Magnesium	%DM	0.19%	0.22	0.06 - 0.38
Potassium	%DM	1.50%	2.37	0.91 - 3.83
Sulfur	%DM	0.16%	0.21	0.11 - 0.31
Sugar (ESC)	%DM	2.88%	2.48	0.01 - 5.02
Sugar (WSC)	%DM	11.04%	3.86	1.22 - 6.58

Adjusted Crude Protein % 10.65%  
NFC % 32.10%  
RFV 110.12  
RFQ 109.37  
NDF kd rate Van Amb %/hr 3.62%

		ADF	OARDC	MLK13
TDN 1x	%DM	64.77	57.36	57.58
Nel 3x	Mcal/cwt	66.68	58.42	64.68
Neg	Mcal/cwt	31.71	30.06	30.81
Nem	Mcal/cwt	57.57	55.76	56.58
Milk per ton	lb/ton DM			2840

FEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 3/ 9/2018  
Sample number: 006-1803-004328

TO: James Downey  
16322 W Washington St.

ACCOUNT # 138 ( 17)  
SAMPLED BY: James Downey

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: RYELAGE/HAYLAGE (7 - N9 )

The Sugar (WSC) value was an outlier.  
Please contact the lab within 2 business days  
if you want the wet chemistry analysis performed.  
Wet Chemistry verification will take 5-10 business days.

-----BILLING INFORMATION-----

SAMPLED BY: James Downey  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: RYELAGE/HAYLAGE

Reference: 0635521  
Date: 3/ 9/2018  
Sample: 006-1803-004328

\$ 24.50 \*PACKAGE N9  
\$ 24.50 TOTAL

FEED AND FORAGE REPORT

DAIRYLAND LABS  
De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 8/ 1/2018  
Sample number: 006-1808-000522

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: 2018 WHEAT STRAW (1B - N7 )

Moisture % 19.34%  
Dry Matter % 80.66%

		Dry Basis	Average	Normal Range
Crude Protein	%DM	3.72%	9.91	2.91 - 16.91
ADF	%DM	55.92%	41.70	28.20 - 55.20
aNDF	%DM	82.63%	63.31	46.37 - 80.25
aNDFom	%DM	80.79%	61.92	45.91 - 78.30
Lignin (Sulfuric Acid)	%DM	9.43%	7.08	3.84 - 10.32
Lignin	%NDF	11.67%		
NDFD 240	%NDF	59.39%	67.00	52.00 - 82.00
uNDFom240	%DM	32.81%	20.00	7.00 - 34.50
AD-ICP	%DM	1.02%	1.05	0.33 - 1.77
ND-ICP w/ SS	%DM	2.39%	2.53	0.56 - 6.42
Protein Sol.	%CP	10.48%	20.00	3.50 - 36.50
Starch	%DM	0.44%	2.65	0.20 - 11.65
Fat (EE)	%DM	1.94%	2.43	1.25 - 3.61
Total Fatty Acid (TFA)	%DM	0.31%	1.18	0.10 - 2.26
Ash	%DM	6.45%	9.76	5.44 - 14.08
Calcium	%DM	0.05%	0.61	0.07 - 1.15
Phosphorus	%DM	0.16%	0.24	0.08 - 0.40
Magnesium	%DM	0.09%	0.19	0.05 - 0.33
Potassium	%DM	1.63%	1.68	0.46 - 2.90
Sulfur	%DM	0.09%	0.15	0.03 - 0.27
Sugar (ESC)	%DM	1.69%	6.02	1.05 - 10.99
Sugar (WSC)	%DM	2.17%	7.65	2.33 - 12.97

Adjusted Crude Protein % 2.68%  
NFC % 10.12%  
RFV 50.96

		ADF	OARDC
TDN 1x	%DM	45.34	45.40
Nel 3x	Mcal/cwt	45.11	45.10
Neg	Mcal/cwt	15.33	9.84
Nem	Mcal/cwt	39.90	34.09

COMMENT: VOM TO FOLLOW

FEEED AND FORAGE REPORT

DAIRYLAND LABS

De Pere, WI 54115-3913  
Telephone 920-336-4521

Report date: 8/ 1/2018  
Sample number: 006-1808-000522

TO: Randy Marx  
16322 W Washington St.

ACCOUNT # 138 ( 1)  
SAMPLED BY: Randy Marx

Valders , WI 54245

SAMPLED FOR: LEDGEVIEW FARMS

PRODUCT: 2018 WHEAT STRAW (1B - N7 )

-----BILLING INFORMATION-----

SAMPLED BY: Randy Marx  
SAMPLED FOR: LEDGEVIEW FARMS  
PRODUCT: 2018 WHEAT STRAW

Reference: 0645260  
Date: 8/ 1/2018  
Sample: 006-1808-000522

\$ 19.00 \*N7-NIR SELECT  
\$ 19.00 TOTAL

am-lwr- 11/04 January 2006



**Wisconsin Department of Agriculture, Trade and Consumer Protection**  
 2811 Agriculture Drive, PO Box 8911, Madison WI 53708-8911  
 Phone: (608) 224-4622 or (608) 224-4500

**Worksheet 1 – Animal Units**

**Instructions:** Use this worksheet to determine the number of *animal units* for which you request approval. You may request approval for a number that is large enough to accommodate current and potential future expansions. If the local government approves the requested number of *animal units*, that is the maximum number that you may keep for 90 days or more in any 12-month period. You may not exceed that number without additional approval.

To complete this worksheet:

1. Identify each type of *livestock* that you might keep at the proposed facility. Enter the maximum number of animals of each type that you might keep for at least 90 days in any 12-month period.
2. Multiply the number of animals of each type by the relevant Animal Unit Factor to obtain *animal units* of each type.
3. Sum the *animal units* for all *livestock* types to obtain the Total *Animal Units* for which you request approval.

	Livestock Type	Animal Unit Factor	Animal Units For Proposed Facility	
Example – Milking & Dry Cows			1.4 x	800 = 1120 AU
Dairy	Milking and Dry Cows	1.4	1.4 x	1355 = 1897
	Heifers (800 lbs. to 1200 lbs.)	1.1	1.1 x	450 = 495
Cattle	Heifers (400 lbs. to 800 lbs.)	0.6	0.6 x	270 = 162
	Calves (up to 400 lbs.)	0.2	0.2 x	270 = 54
Beef	Steers or Cows (600 lbs. to market)	1.0	1.0 x	525 = 525
	Calves (under 600 lbs.)	0.5	0.5 x	550 = 275
Swine	Bulls (each)	1.4	1.4 x	=
	Pigs (55 lbs. to market)	0.4	0.4 x	=
	Pigs (up to 55 lbs.)	0.1	0.1 x	=
	Sows (each)	0.4	0.4 x	=
	Boars (each)	0.5	0.5 x	=
Poultry	Layers (each)	0.01	0.01 x	=
	Broilers (each)	0.005	0.005 x	=
	Broilers – continuous overflow watering	0.01	0.01 x	=
	Layers or Broilers – liquid manure system	0.033	0.033 x	=
	Ducks – wet lot (each)	0.2	0.2 x	=
	Ducks – dry lot (each)	0.01	0.01 x	=
	Turkeys (each)	0.018	0.018 x	=
	Sheep (each)	0.1	0.1 x	=
	Goats (each)	0.1	0.1 x	=
<b>Total Animal Units for Which Applicant Requests Approval</b>			<b>=</b>	<b>3,408</b>

*Jason Pankin*  
 Signature of Applicant or Authorized Representative

1/10/19  
 Date



**Ledgeview Farm, LLC**  
**Cluster A**  
**Livestock Siting Distance to Neighbors**

Livestock Structures	Nearest Neighbors			
	N1	E1	W1	S1
	(feet)			
L1 Barn	649	429	736	573
L2 Barn	1,170	1,163	376	492
L3 Barn	1,051	1,159	594	618
L4 Barn	1,138	1,273	465	704
L5 Barn	1,179	1,134	567	398
L6 Barn	1,239	1,161	594	285
Waste Storage Facility - W1	334	600	1,116	1,061
Concrete Yard - Y1	1,218	1,161	664	368

1. Animal Housing

ID	Manure Management	Generation number	Occupied Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
L1	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	90,743	649	Diet manipulation	0.8	None	1	29
L2	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	31,758	1,170	Diet manipulation	0.8	None	1	10
L3	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	16,523	1,051	Diet manipulation	0.8	None	1	5
L4	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	18,578	1,138	Diet manipulation	0.8	None	1	6
L5	Bedded Pack - Dairy and Beef	2	15,103	1,179	Diet manipulation	0.8	None	1	2
L6	Bedded Pack - Dairy and Beef	2	17,378	1,239	Diet manipulation	0.8	None	1	3
L7					None				
1H									
1I									
1J									
1K									
1L									

2. Waste Storage

ID	Storage type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
W1	Liquid storage - Long term (pit and tank) Open anaerobic	13	56,189	334	None	1	None	1	73
2C									
2D									
2E									
2F									

3. Animal Lots

ID	Lot type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
Y1	Paved	4	5,976	1,218	Clean frequently (within 3 days)	0.4	None	1	1
					None		None		

4. Separation Distance

Weighted Distance to Neighbor	576
Direction of Nearest Neighbor	North
Adjusted Weighted Distance	576
Density (neighbors within 1,300 ft.)	High

5. Management

Basic Management Plans	Required
Advanced Odor Management Plan?	Yes

Total Predicted Odor

Separation Score	542
Basic Management Score	80
Advanced Management Score	20
<b>Odor Score</b>	<b>513</b>

**1. Animal Housing**

ID	Manure Management	Generation number	Occupied Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
L1	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	90,743	429	Diet manipulation	0.8	None	1	29
L2	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	31,758	1,163	Diet manipulation	0.8	None	1	10
L3	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	16,523	1,159	Diet manipulation	0.8	None	1	5
L4	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	18,578	1,273	Diet manipulation	0.8	None	1	6
L5	Bedded Pack - Dairy and Beef	2	15,103	1,134	Diet manipulation	0.8	None	1	2
L6	Bedded Pack - Dairy and Beef	2	17,378	1,161	Diet manipulation	0.8	None	1	3
L7					None				
1H									
1I									
1J									
1K									
1L									

**2. Waste Storage**

ID	Storage type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
W1	Liquid storage - Long term (pit and tank) Open anaerobic	13	56,189	600	None	1	None	1	73
2C					None				
2D									
2E									
2F									

**3. Animal Lots**

ID	Lot type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
Y1	Paved	4	5,976	1,161	Clean frequently (within 3 days)	0.4	None	1	1
					None				

**4. Separation Distance**

Weighted Distance to Neighbor	684
Direction of Nearest Neighbor	East
Adjusted Weighted Distance	752
Density (neighbors within 1,300 ft.)	High

**5. Management**

Basic Management Plans	Required
Advanced Odor Management Plan?	Yes

**Total Predicted Odor** 129  
**Separation Score** 569  
**Basic Management Score** 80  
**Advanced Management Score** 20  
**Odor Score** 540

Location: W1 West Neighbor

1. Animal Housing

ID	Manure Management	Generation number	Occupied Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
L1	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	90,743	736	Diet manipulation	0.8	None	1	29
L2	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	31,758	376	Diet manipulation	0.8	None	1	10
L3	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	16,523	594	Diet manipulation	0.8	None	1	5
L4	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	18,578	465	Diet manipulation	0.8	None	1	6
L5	Bedded Pack - Dairy and Beef	2	15,103	567	Diet manipulation	0.8	None	1	2
L6	Bedded Pack - Dairy and Beef	2	17,378	594	Diet manipulation	0.8	None	1	3
L7					None				
1H									
1I									
1J									
1K									
1L									

2. Waste Storage

ID	Storage type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
W1	Liquid storage - Long term (pit and tank) Open anaerobic	13	56,189	1,116	None	1	None	1	73
2C									
2D									
2E									
2F									

3. Animal Lots

ID	Lot type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
Y1	Paved	4	5,976	664	Clean frequently (within 3 days)	0.4	None	1	1
					None		None		

4. Separation Distance

Weighted Distance to Neighbor	899
Direction of Nearest Neighbor	West
Adjusted Weighted Distance	1,168
Density (neighbors within 1,300 ft.)	High

5. Management

Basic Management Plans	Required
Advanced Odor Management Plan?	Yes

Total Predicted Odor

Separation Score	637
Basic Management Score	80
Advanced Management Score	20
<b>Odor Score</b>	<b>608</b>

1. Animal Housing

ID	Manure Management	Generation number	Occupied Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Control Practice	Predicted Odor
L1	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	90,743	573	Diet manipulation	0.8	None	1	None	29
L2	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	31,758	492	Diet manipulation	0.8	None	1	None	10
L3	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	16,523	618	Diet manipulation	0.8	None	1	None	5
L4	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	18,578	704	Diet manipulation	0.8	None	1	None	6
L5	Bedded Pack - Dairy and Beef	2	15,103	398	Diet manipulation	0.8	None	1	None	2
L6	Bedded Pack - Dairy and Beef	2	17,378	285	Diet manipulation	0.8	None	1	None	3
L7					None					
1H										
1I										
1J										
1K										
1L										

2. Waste Storage

ID	Storage type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Control Practice	Predicted Odor
W1	Liquid storage - Long term (pit and tank) Open anaerobic	13	56,189	1,061	None	1	None	1	None	73
2C					None		None		None	
2D										
2E										
2F										

3. Animal Lots

ID	Lot type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Control Practice	Predicted Odor
Y1	Paved	4	5,976	368	Clean frequently (within 3 days)	0.4	None	1	None	1
					None		None		None	

4. Separation Distance

Weighted Distance to Neighbor	840
Direction of Nearest Neighbor	South
Adjusted Weighted Distance	1,008
Density (neighbors within 1,300 ft.)	High

5. Management

Basic Management Plans	Required
Advanced Odor Management Plan?	Yes

Total Predicted Odor	129
Separation Score	619
Basic Management Score	80
Advanced Management Score	20
Odor Score	590

1. Animal Housing

ID	Manure Management	Generation number	Occupied Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
L1	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	90,743	519	Diet manipulation	0.8	None	1	29
L2	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	31,758	586	Diet manipulation	0.8	None	1	10
L3	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	16,523	718	Diet manipulation	0.8	None	1	5
L4	Freestall - Dairy - Scrape (incl. Beef and Heifers on forage ration)	4	18,578	826	Diet manipulation	0.8	None	1	6
L5	Bedded Pack - Dairy and Beef	2	15,103	478	Diet manipulation	0.8	None	1	2
L6	Bedded Pack - Dairy and Beef	2	17,378	379	Diet manipulation	0.8	None	1	3
L7					None				
1H									
1I									
1J									
1K									
1L									

2. Waste Storage

ID	Storage type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
W1	Liquid storage - Long term (pit and tank) Open anaerobic	13	56,189	1,000	None	1	None	1	73
2C					None		None		
2D									
2E									
2F									

3. Animal Lots

ID	Lot type	Generation number	Surface Area (Ft. <sup>2</sup> )	Dist. to Nearest Neighbor (Ft.)	Control Practice	Reduction Factor	Control Practice	Reduction Factor	Predicted Odor
Y1	Paved	4	5,976	455	Clean frequently (within 3 days)	0.4	None	1	1
					None		None		

4. Separation Distance

Weighted Distance to Neighbor	814
Direction of Nearest Neighbor	South
Adjusted Weighted Distance	977
Density (neighbors within 1,300 ft.)	High

5. Management

Basic Management Plans	Required
Advanced Odor Management Plan?	Yes

Total Predicted Odor

Separation Score	601
Basic Management Score	80
Advanced Management Score	20
<b>Odor Score</b>	<b>572</b>

Am-lwr-11/04 January 2006



Wisconsin Department of Agriculture, Trade and Consumer Protection  
2811 Agriculture Drive, PO Box 8911, Madison WI 53708-8911  
Phone: (608) 224-4622 or (608) 224-4500

### Worksheet 2 – Odor Management Cluster A - Exhibit 10

**Instructions:** This worksheet addresses odor from *livestock structures*. You are NOT required to complete this worksheet if any of the following apply (check box if applicable):

- I am requesting approval for a *new livestock facility* with fewer than 500 animal units.
- I am requesting approval for an *expanded livestock facility* with fewer than 1,000 animal units.
- All *livestock structures* will be at least 2500 ft. from the nearest affected neighbor.

If you checked any of the above boxes, just sign below and submit this page with your application. If you did NOT check any of the above boxes, you must complete this worksheet to calculate the odor score (Box 4) for your proposed *livestock facility*. To meet the odor management standard, you must have a total odor score of 500 or more.

If *livestock structures* are located in *clusters* that are separated by more than 750 feet, you may elect to complete a separate worksheet for each *cluster*. If you choose that option, each *cluster* must meet the odor management standard.

A complete worksheet must include Tables A and B. You may use a convenient automated spreadsheet in place of Tables A and B if you prefer (submit spreadsheet output instead of tables, results will be identical). However, you must still sign and submit this signature page. The spreadsheet is available at the DATCP website, <http://www.datcp.state.wi.us>

#### TO COMPLETE THIS WORKSHEET, FOLLOW THESE STEPS:

**Step 1:** Complete Table A to determine the Predicted Odor from your *livestock structures*. Enter the Predicted Odor in Box 3 below (NOT Box 1).

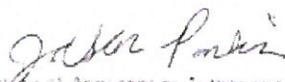
**Step 2:** Complete Table B to determine your Separation Score. Enter your Separation Score in Box 1 below. (NOT Box 2).

**Step 3:** Enter your management credits in Box 2 (maximum 100 points). All applicants may enter 30 points for compliance required incident response and employee training plans (described on page A-2). Applicants completing an optional odor management plan (described on page A-3) may add an additional 20 points. Applicants determine plan contents, as long as the plan addresses the required topics.

**Step 4:** Add Box 1 and Box 2. Subtract Box 3 and enter the total in Box 4. This is your Odor Score.

542	+	100	-	129	=	513
Box 1 Separation Score from Step 2		Box 2 Management Score from Step 3		Box 3 Predicted Odor from Step 1		Box 4 Odor Score

A local government must approve a *livestock facility* with an odor score of 500 or more (Box 4). You may add odor control practices to increase your odor score to 500 or more. A local government may approve, but is not required to approve, a *livestock facility* with an odor score less than 500 but not less than 470.

  
Signature of Applicant or Authorized Representative

1/10/19  
Date

# **Ledgeview Farm, LLC**

## **Livestock Facility Siting Application Narrative**

### **Environmental Compliance**

Ledgeview Farms, LLC has dedicated significant efforts and capital towards constructing facilities that have reduced the environmental impacts of its two production sites. Ledgeview has been unfairly characterized as unresponsive and unwilling to make improvements to correct environmental conditions. The following is a partial list of improvements that have completed by Ledgeview Farms, LLC that highlights their resolve to reduce the environmental impacts of their operations:

- Construction of a freestall barn and milking center at the HQ site - Eliminate runoff from yards, lots and milkhouse.
- Construct new Waste Storage Facility at HQ site – Eliminate runoff from Pits 1 & 2. Pits 1 & 2 no longer are used to store manure and currently are used for machinery storage. Included is an abandonment plan for Pits 1 & 2.
- Install roof gutters on heifer barns at HQ and HS – Elimination of clean water contamination and reduce runoff from Y1 & Y2 Yards.
- Interim measures installed to collect and store Feed Storage Area leachate and runoff.
- Interim measures installed to collect and store runoff from heifer concrete yards.

Based upon discussions with DNR, Ledgeview Farms, LLC will be issued their WPDES permit in 2018. Ledgeview Farms, LLC is eager to enact its current plan to construct the facilities required to protect the environment and comply with the discharge requirements of its pending WPDES permit. At this time, the DNR and Brown County have issued the required approvals & permits that could allow construction to proceed. However, the remaining obstacle is approval of the Livestock Siting License by the Town of Ledgeview. After this approval is granted, Ledgeview can complete the remaining planned modifications that are required to provide for protection of the environment and good stewardship of their lands.

### **Background Information & Current Operations**

Ledgeview Farm, LLC is an existing farm owned and managed by Roy, Glen and Jason Pansier. Currently the farm is operating under a Wisconsin Pollution Discharge Elimination System (WPDES) Permit; however, the WPDES Permit has not yet been issued.

The farm enterprise conducts livestock activities at two production sites. The Headquarters Site (HQ) located at 3875 Dickinson Road DePere. The Heifer Site (HS) is located at 3499 Lime Kiln Road, in Ledgeview Township, in Brown County Wisconsin. The Livestock Facility Siting Application is for new facilities that will be constructed at the Heifer Site.

Ledgeview Farm, LLC (LF) currently has approximately 1,084 milking and dry cows. In addition, the entity raises the replacement heifers (770) and steers (838) from birth to 24

months housed at the HQ and Heifer Sites. This application is to allow expanding livestock Animal Units to 3,408 (Worksheet 1).

#### Headquarters Site

Structures include:

- Milking Center
- Four (4) Freestall Barns
- Calf Barn (Straw Bedding)
- Heifer Barn (Bedded Pack).
- Shop/ Machinery Storage
- Residence (Owned by Applicant)
- Waste Storage Facility (W1)
- Feed Storage Area
- Pits 1 & 2 – Waste removed and not used for manure storage (to be abandoned)

#### Heifer Site

Structures include:

- Heifer - Freestall Barn (L2)
- Heifer – Bedded Pack (L1)
- Concrete Yard (Y2)
- Feed Storage Area
- Machinery Storage
- Commodity Building
- Residence (Owned by Applicant)

At present, LF has no Waste Storage Facility at the HS. Ledgeview Farm, LLC operates under a Nutrient Management Plan (NMP) and works with Kevin Beckard, of Ag Source to develop the Nutrient Management Plan.

#### **Heifer Site Expansion Plans**

The Wisconsin Department of Natural Resources (WDNR) and the Environmental Protection Agency (EPA) are requiring LF to install Y2 Yard Runoff Collection System and a Leachate Management System (LMS) to collect leachate and contaminated runoff. In addition, the agencies require LF to construct additional waste storage capacity, to allow for storage of manure and processed wastewater for a minimum of 180 days. Currently LF has waste storage capacity of approximately 100 days.

#### New Facilities

- Heifer Site - LMS to collect leachate and contaminated runoff from the FSA and transfer to the proposed waste storage
- Heifer Site – Y2 Yard Runoff Transfer System to the proposed waste storage
- Heifer Site - Waste Storage Facility

#### Modification to Existing Facilities

- Headquarters Site - Pits 1 & 2 will be abandoned according to NRCS, CPS 360 Waste Facility Closure (5/18) and NR 243 requirements.

## Siting Application Supplemental Information

**Exhibit 1** contains Area Maps of the Livestock Facility. **Exhibit 2** contains Site Maps of the Livestock Facility. The maps are required by the Livestock Facility Siting Application.

### Setback Requirements

The proposed LMS, Y2 Yard transfer system and Waste Storage Facility meet the applicable setback requirements outlined in Wisconsin Administrative Code ATCP 51 as well as the requirements of Brown County. The Town of Ledgeview operates under Wisconsin Administrative Code ATCP 51.

### Wells

There are two (2) well installations at the HS. The existing wells that serve the production site, meets the requirements contained in Wis. Adm. Code NR 811 and NR 812 Table A, as well as the requirements found in Wis. Adm. Code NR 243.15 (1) (2), with the approved variances.

### Pits 1 & 2 Closure Plan

As part of the Livestock Facility Siting Application, LF has developed a Waste Facility Closure plan for Pits 1 & 2. The Closure plan meets the criteria found in NRCS, CPS 360 Waste Facility Closure (5/18), and ATCP 51.18(4). The Closure plan can be found in **Exhibit 14**. Pits 1 & 2 have not been used for waste storage since 2015. All manure has been removed and Pits 1 & 2 currently are used for machinery storage.

### Employee Training Plan

As part of the Livestock Facility Siting Application, LF has developed an employee-training plan used to train new and existing employees. **Exhibit 3** contains LF Employee Training Plan.

### Environmental Incident Response Plan (EIRP)

Ledgeview Farm, LLC has an Environmental Incident Response Plan (EIRP) in place and a copy of the plan is contained in **Exhibit 4**. A Manure or Hazardous Material Spill Accident Worksheet is included as part of the EIRP.

### Odor Management Plan

Ledgeview Farm, LLC has developed an Odor Management Plan to reduce the effect of odors produced by the production sites on local residences. **Exhibit 5** contains the LF Odor Management Plan.

### Y1 & Y2 Yard Runoff Management Plan

The BARNY Model has been completed for the Y1 and Y2 Yards and the results show a Phosphorus output of zero lbs. of P per year after the buffer.

To achieve zero lbs. of phosphorus release annually, the paved area has been entered into BARNY as 0.1 ft<sup>2</sup>. This reflects the condition that no runoff will flow onto a buffer as the Y1 and Y2 Yard management is to collect and store the runoff in a waste storage facility. Runoff will be mixed with manure and bedding and applied on to a crop field according to the current Nutrient Management Plan.

The management of the Y1 and Y2 Yards meets the requirements of the BARNY Model and achieves zero lbs. of P discharge per year at the edge of the buffer, were it present.

#### Y1 & Y2 Roof Water Controls

Gutters are installed on the Headquarters Site L5 Barn to prevent roof water from flowing onto the Y1 Yard. It is confirmed the roof gutters will divert the flow from a 25-yr. 24-hr. rain event.

Gutters are installed on the Heifer Site L1 Barn to prevent roof water from flowing onto the Y2 Yard. It is confirmed the roof gutters will divert the flow from a 25-yr. 24-hr. rain event.

#### Feed Storage Area – Heifer Site

The drainage from the Feed Storage Area is to the east to the apron. The apron drains to the south to the proposed DB: Detention Basin for collection and transfer to the proposed W2 Waste Storage Facility. Runoff will not leave the Feed Storage Area to the west. The Feed Storage Area at the Heifer site is used to store feed with a moisture content of less than 70%. The Feed Storage Area is managed to prevent any significant discharge of leachate or polluted runoff from stored feed to waters of the state. Until the proposed modifications are constructed, Ledgerview Farms has installed an interim detention basin to collect leachate and runoff. Leachate and runoff is pumped from the interim detention basin into tankers and applied onto cropland according to the NMP or transferred to the W1 waste storage facility. On October 30, 2018 the DNR inspected the interim detention basin and found it to be functioning as designed and meeting the NR 243 production site discharge requirements.

#### Feed Storage Area – Headquarters Site

The Feed Storage Area at the Headquarters Site is used to store feed with a moisture content of less than 70%. The Feed Storage Area is managed to prevent any significant discharge of leachate or polluted runoff from stored feed to waters of the state.

#### Unconfined Stacking Areas

There are no unconfined stacking areas at the Headquarters site or the Heifer site.

#### Animal Units:

The HQ site existing housing will allow milking cow numbers to be expanded internally without purchasing cattle or adding additional housing. There are no plans to expand the livestock housing. The intent is to hold heifer and steer numbers at levels that can be housed in the existing facilities. Heifer and steer above housing limitations will be sold or custom raised.

Worksheet 1 of the Livestock Facility Siting application contains the animal unit numbers that are supported by the current NMP and allow for the expansion of livestock from the current numbers. If additional animal units are proposed in the future, beyond the animal units requested in Worksheet 1, LF will file an amendment to the Livestock Siting Application as well as updated the NMP to show the land base will support the proposed additional livestock.

#### Odor Management:

As part of the Livestock Facility Siting Law, expanded livestock operations with more than 1,000 animal units are required to pass the odor standard.

For the purpose of calculating the Odor Score, Chapter ATCP 51 – Livestock Siting allows an applicant to group livestock structures separated by greater than 750 feet into Clusters. The distance between the livestock structures at the Headquarter Site and the Heifer Site is greater than 1,500 feet. Ledgeview Farm, LLC has elected to designate the livestock structures located at the Headquarters Site as Cluster A and the livestock structures located at the Heifer Site as Cluster B. The Odor scores and maps determined a closest neighbor for each Cluster.

#### **Cluster A – Headquarters Site**

For Cluster A there are four (4) residences owned by others for which, Odor Scores were calculated. The residence identified as **N1** is the residence closest to the WSF at 334 feet. The residence identified as **E1** is the residence closest to the L1 Barn (429'). The residence identified as **W1** is the residence closest to the L2 Barn (376'), L3 Barn (594') & L4 Barn (465'). The residence identified as **S1** is the residence closest to the L5 Barn (398'), L6 Barn (285') and the Y1 Yard (368'). All of the closest neighbors have odor scores above the Livestock Siting Application minimum score of 500. The Nearest Neighbor Site Plan, Odor Score Worksheets and Distance to Neighbor Table are found in **Exhibit 10**.

#### **Cluster B – Heifer Site**

For Cluster B there are three (3) residences owned by others for which, Odor Scores were calculated. The residence identified as **N1** is the residence closest to the WSF at 414 feet. The residence identified as **E1** is the residence closest to the Collection Basin (1,156'), L1 Barn (855') and Y2 Yard (930'). The residence identified as **S1** is the residence closest to the L2 Barn (1,043'). All of the closest neighbors have odor scores above the Livestock Siting Application minimum score of 500. The Nearest Neighbor Site Plan, Odor Score Worksheets and Distance to Neighbor Table are found in **Exhibit 11**.

#### Waste Storage Facility W2 Odor Control Practice

The W2 will have straw Bio-cover as an odor control practice. The heifer barns with bedded pack manure will be the primary manure source delivered to W2. It is projected that a natural crust will form on the majority of the W2 waste storage facility surface because of the bedded pack manure source, making it easier to form and maintain the straw bio-cover. The farm owns a large PTO powered bedding chopper that it will utilize to distribute chopped straw onto the surface of the W2 waste storage facility. An Operation & Maintenance Plan to generate and maintain the bio-cover has been developed and appears in **Exhibit 16**.

#### DB: Detention Basin

The DB: Detention basin is a component of the waste transfer system that will collect and transfer feed storage area runoff via gravity to the W2 waste storage facility. The runoff will be aerobic. According to ATCP 51.01(20) the DB: Detention Basin is a *Livestock Structure* and is not a “*Waste storage facility*” as defined in ATCP 51.01(43) or a “*Waste storage structure*” as defined in ATCP 51.01(44). In addition, in the Odor

Score Worksheet under Waste Storage Type, the following options are available; 1) Liquid storage – Long term (pit and tank) Open anaerobic, 2) Liquid storage – Short term (pit and tank) Open anaerobic, and 3) Solid storage (stack). As none of the options are for an aerobic liquid waste stream, the Odor Score worksheet does not recognize an aerobic waste transfer system basin as waste storage. The DB: Detention Basin is not a Waste Storage Facility and therefore, is not entered in the Odor Score Worksheet.

Waste and Nutrient Management:

At expanded conditions, it is estimated that approximately 24.8 million gallons of manure and wastewater is generated annually at both production sites. According to the Nutrient Management Plan (NMP), there is adequate cropland to land apply manure and wastewater for the expanded livestock numbers.

Waste Storage and Transfer Facilities:

Roach & Associates, LLC designed the proposed facilities including the W2 Waste Storage Facility, Manure Transfer Systems, and LMS to meet the criteria found in the Natural Resources Conservation Service (NRCS), Field Office Technical Guide (FOTG), Section IV, Standard 313 Waste Storage Facility, Standard 522 Pond Sealing or Lining – Concrete, Standard 634 Waste Transfer and Standard 629 Waste Treatment. In addition; all of the criteria found in Wis. Admin. Code ch. NR 243 are met.



## Sarah Burdette

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**From:** Sarah Burdette  
**Sent:** Wednesday, January 16, 2019 11:37 AM  
**To:** 'John Roach'  
**Cc:** 'jasonpansier@gmail.com'  
**Subject:** Ledgeview Farms Conditional Use Permit Application - January 7, 2019

John,

On January 7, 2019, you electronically submitted a partial conditional use permit application for a livestock siting approval on behalf of Ledgeview Farms. For this application to be considered to have been received by the Town, and for the Town to begin to evaluate its completeness, you will have to submit the entire application electronically. See Town Code of Ordinances Sec. 135-251C.; see also Conditional Use Permit Application (providing that only electronic applications will be accepted).

In addition, the Town is already in the process of evaluating the completeness of an application for a conditional use permit for a siting approval submitted on behalf of Ledgeview Farms, submitted in November of last year. That application is still being pursued by Ledgeview Farms, as evidenced by your response to the Town's request for additional information relating to that application that was received by the Town on January 11, 2019. The Town will not simultaneously evaluate multiple efforts to obtain siting approvals for Ledgeview Farms. If you choose to submit a new, full conditional use permit application to the Town, you must first rescind the application filed in November. No new application will be considered received by the Town when an existing application is pending.

Because the Town is only in receipt of one full application for a siting approval at this time (the November application), and because the most recent communication that the Town has received on behalf of Ledgeview Farms indicates a desire to continue to pursue that application, the Town will continue to review that application for completeness, and thereafter for approvability, until such time as the Town makes its decision on that application or the application is rescinded. If Ledgeview Farms decides to file a different application, it may do so by first rescinding the November application and submitting a full electronic application for its subsequent request.

Regards,

Sarah

Sarah K. Burdette  
Administrator  
Town of Ledgeview



3700 Dickinson Road  
De Pere, WI 54115  
Phone: 920.336.3360, ext. 108  
Cell/Text: 920-639-6083  
sburdette@ledgeviewwisconsin.com [www.LedgeviewWisconsin.com](http://www.LedgeviewWisconsin.com)





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## Charlotte Nagel

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**From:** Sarah Burdette  
**Sent:** Friday, February 15, 2019 10:03 AM  
**To:** Jane Tenor  
**Cc:** 'Dustin Wolff'; Charlotte Nagel  
**Subject:** ZPC Application Referral

Chairperson Tenor,

The Town of Ledgeview has received a Conditional Use Permit (CUP) application and related Livestock Siting Permit Application from Ledgeview Farm, LLC. The applications are hereby referred to the Zoning and Planning Commission.

Sarah

Sarah K. Burdette  
Administrator  
Town of Ledgeview



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## Sarah Burdette

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**From:** Sarah Burdette  
**Sent:** Monday, February 18, 2019 2:33 PM  
**To:** 'jasonpansier@gmail.com'  
**Cc:** 'eric.mcleod@huschblackwell.com'; Vanessa Wishart; 'Larry Konopacki'  
**Subject:** Ledgeview Farm, LLC Second Application for Livestock Siting/CUP  
**Attachments:** 19-02-18 ledgeview farm.pdf

Good Afternoon Mr. Pansier,

Please find attached to this email, a response from the Town of Ledgeview relative to Ledgeview Farm, LLC Second Application for Livestock Siting.

Regards,  
Sarah

Sarah K. Burdette  
Administrator  
Town of Ledgeview



3700 Dickinson Road  
De Pere, WI 54115  
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February 18, 2019

VIA EMAIL AND U.S. MAIL  
(jasonpansier@gmail.com)

Ledgeview Farm, LLC  
c/o Jason Pansier  
3875 Dickinson Road  
DePere, WI 54115

RE: Ledgeview Farm, LLC  
Second Application for Livestock Siting Approval

Dear Mr. Pansier:

You submitted a request to the Town of Ledgeview for a livestock siting approval and made additional insertions to that submittal through November 20, 2018. On January 4, 2019, the Town provided a request for additional information to complete your application. In a response to that request dated January 11, some, but not all, of the requested information was provided.

In particular, the Town noted that the application did not include sufficient information about the current number of animal units present on the site to allow accurate total animal unit calculations, and requested sufficient information to do so. In its response to that request, Ledgeview Farms declined to provide that information, despite the siting requirements contained in Wis. Stat. § 93.90 (3) (e) and Wis. Admin. Code § 51.06 (2) (b).

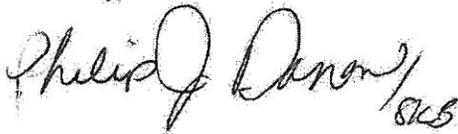
Under Wis. Stat. § 93.90 (4) (a), the Town is required to notify you that your application is complete as soon as you provide the information identified by the Town as being required to complete your application. We recognize that you dispute whether the information that you declined to share with the Town is required to complete your application. Therefore, in the interest of moving this matter forward, the Town is hereby notifying Ledgeview Farms that it will treat the application as complete under Wis. Stat. § 93.90 (4) (a), despite the fact that you declined to provide all requested information. Please note that the Town remains willing to consider the additional requested information if it is presented to the Town within sufficient time to be considered in this application review process.

Therefore, the Town will proceed with a decision on the appropriateness of this this application and the application's approvability within 90 days of the date of this letter.

February 18, 2019  
Page 2

Please note that the issuance of this completeness determination is not an acknowledgement by the Town that the application was timely or appropriately filed with the Town, and does not constitute an approval of the application or a determination that the application is approvable.

Sincerely,

A handwritten signature in black ink that reads "Philip J. Danen" with the initials "SJS" written below the name.

Philip J. Danen, -Chairman  
Town of Ledgeview

Enclosure

cc: Stafford Rosenbaum, LLP (via email)  
Eric M. McLeod, Husch Blackwell (via email)