Ridge Breeze Dairy, LLC
Waste Storage Narrative

January 2024

Compiled By:

Auth Consulting & Associates, Inc. (AC/a)
406 Technology Drive E, Suite A
Menomonie, WI 54751
715-232-8490 ph.
715-232-8492 fx

Waste Storage Narrative

Waste Storage Narrative

Background

Ridge Breeze Dairy, LLC is located in the S1/2 of the N1/2 of Section 1 in the Township of Salem (T25N/R16W), Pierce County, Wisconsin. The facility is an operating WPDES permitted dairy farm, WPDES Permit #0062928. The project location is shown on Figure 1, “Site Location Map”. The site address is:

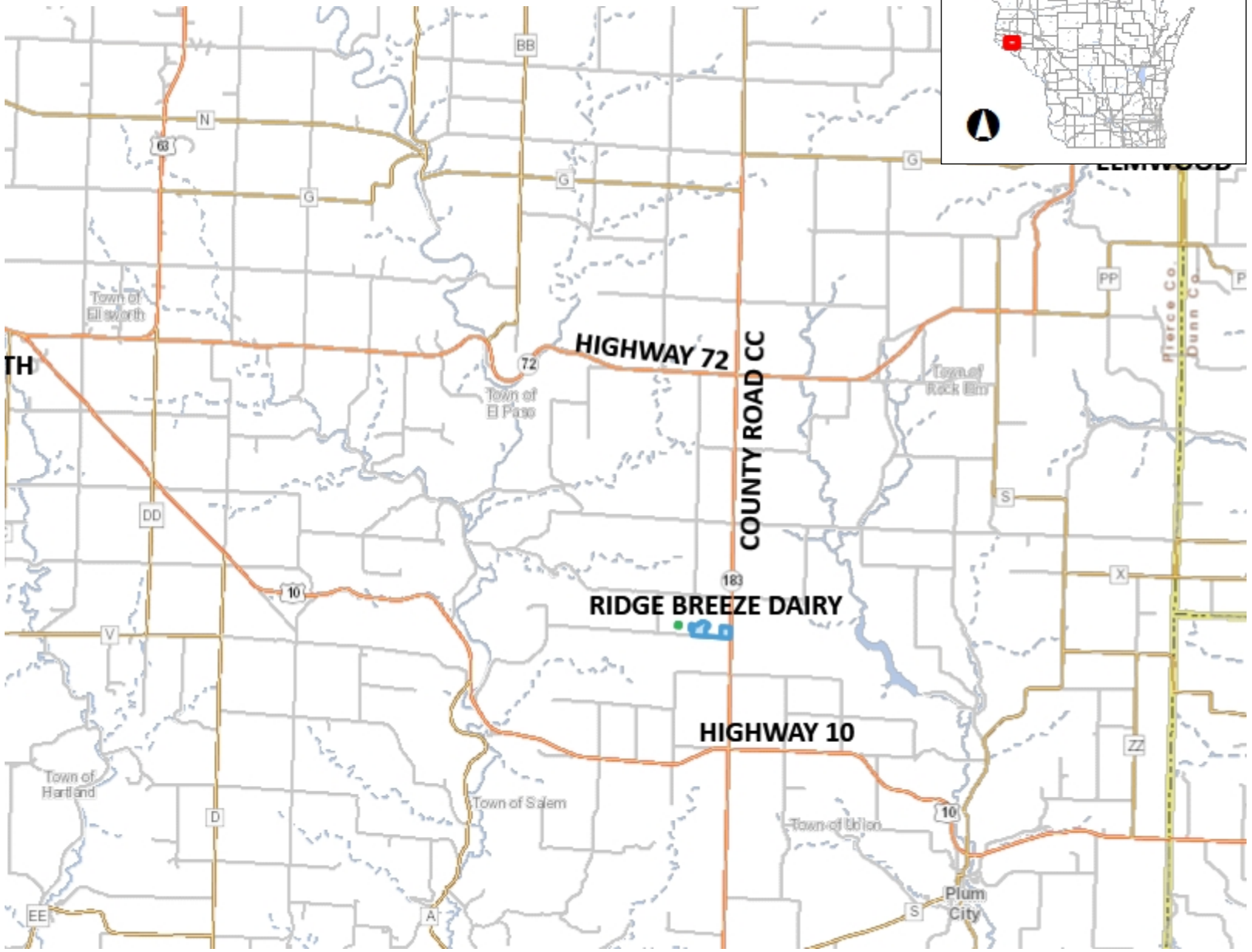
Ridge Breeze Dairy, LLC
W2686 390th Avenue
Maiden Rock, WI 54751
Contact: Brad Gerrits

The facility is an operating dairy farm with about 1,700 head of adult dairy cows. Cows are housed in three separate freestall barns as shown on Figure 2, “WPDES Site Plan”. Stalls in the freestall barn are bedded with solids. Animal waste deposited in the freestall barns is scraped to an existing flush flume in the center of the barns, where it flows to an existing solids separation building, west of the existing freestall barns. Solids is removed from the waste stream and is reused for bedding. Excess waste solids are stored on an existing solids separation pad, until it can be land applied according to their nutrient management plan. Low solids waste from the separation building is transferred to a waste treatment system that removes water from the waste stream, filters it until it able to be released to a waterway north of the barns, in accordance with approved permits. The remaining waste is transferred to one of the two earthen lined waste storage facilities that are located north of the barns, or the concrete/soils composite lined waste storage facility located west of the solids separation building.

Manure storage calculations show that the farm has over 9 months of storage (285 days) for their existing herd.

Figure 1 - Site Location Map

FIGURE 1 - LOCATION MAP



Legend

- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water

Notes

4.0 0 2.00 4.0 Miles

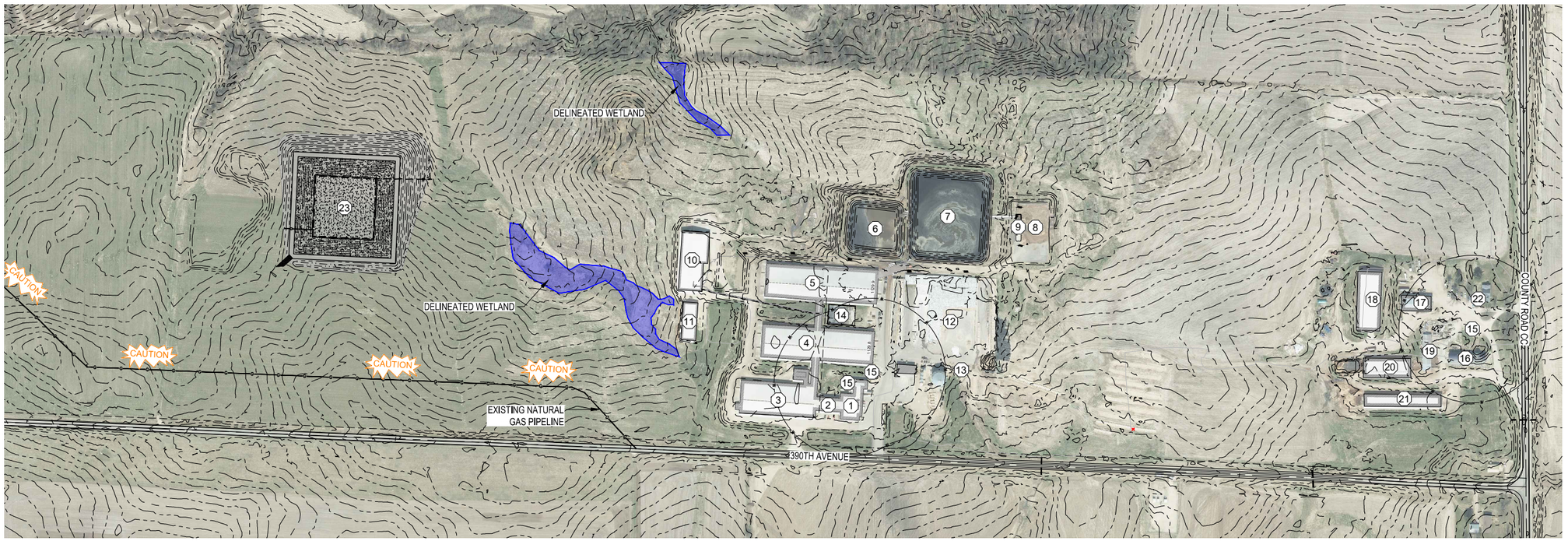
NAD_1983_HARN_Wisconsin_TM

1: 126,720

Figure 2 - WPDES Site Plan

WPDES SITE MAP SHEET KEY

1. EXISTING MILKING CENTER
2. EXISTING HOLDING AREA
3. EXISTING FREE STALL BARN (FSB-1)
4. EXISTING FREE STALL BARN (FSB-2)
5. EXISTING SPECIAL NEEDS BARN (FSB-3)
6. EXISTING WASTE STORAGE FACILITY 1
7. EXISTING WASTE STORAGE FACILITY 2
8. EXISTING WASTE STORAGE FACILITY 3 SOLIDS STACKING PAD
9. EXISTING RUNOFF COLLECTION FOR WASTE STORAGE FACILITY 3
10. EXISTING SAND/SOLIDS RECLAMATION CENTER
11. EXISTING WASTE WATER TREATMENT FACILITY
12. EXISTING FEED STORAGE AREA
13. EXISTING LEACHATE/STORM WATER RUNOFF COLLECTION SYSTEM
14. EXISTING SAND SEPARATION SYSTEM (NOT IN USE)
15. EXISTING WELL (TYPICAL 3)
16. EXISTING STANCHION BARN (DEMOLISHED IN 2023)
17. EXISTING MACHINE SHED
18. EXISTING MACHINE SHED
19. EXISTING HEIFER BARN (DEMOLISHED IN 2023)
20. EXISTING BARN (NOT USED)
21. EXISTING BARN (NOT USED)
22. EXISTING HOUSE
23. EXISTING WASTE STORAGE FACILITY 4



DRAWING PHASE:
- X OWNER REVIEW
- AGENCY REVIEW
- BID DOCUMENT
- FOR CONSTRUCTION
- AS-BUILT DOCUMENT

DRAWN BY: MJB
CHECKED BY: MJB
DATE: 02-13-23
DWG FILE: 1435-006 WPDES PLANS.DWG
REF FILE: 1435-006 WPDES PLANS.DWG
JOB NUMBER: 1435-006 WPDES PLANS

NAME:	REVISION DESCRIPTION:	DATE:

CORPORATE OFFICE
406 Technology Drive East
Suite A
Menomonie, WI 54751
Tel 715-233-8400

BRANCH OFFICE
2820 Kabe Street
Suite 101
Hudson, WI 54016
Tel 715-381-6277

authconsulting.com

A·C/a Auth·Consulting/associates
S&N Land Surveying a division of A·C/a

PROJECT:
RIDGE BREEZE DAIRY
2023 WASTE STORAGE FACILITY
TOWN OF SALEM, PIERCE COUNTY, WI

WPDES SITE PLAN

SHEET NO.
FIGURE 2

3400-025A - Current Animal Units Calculations

State of Wisconsin
Department of Natural Resources
PO Box 7185, Madison, WI 53707-7185
dnr.wi.gov

Animal Unit Calculation Worksheet
Form 3400-025A (R 3/2012)

The Current Animal Unit Calculation Worksheet must be filled out separately for the "main" site and each site which are owned or operated by your farm for the purposes of housing animals associated with your operation. The site name, for which you are filling this worksheet out, must be provided below and correlate with Form 3400-025 Site Information (Section II).

Current Animal Unit Calculation Numbers

Name of Site: Ridge Breeze Dairy

Animal Type		I. Mixed Animal Units			II. Non-mixed Animal Units		
		b. Equiv. factor	c. Current Number	d. No. of AUs	e. Equiv. factor	f. Current Number	g. No. of Aus
Example - Broilers (non-liquid manure):		*0.005 x*	***150,000***	*= 750*	*0.008 x*	***150,000***	*= 1200*
Dairy/Beef Calves (under 400 lbs)		0.20 x	0	= 0	*Fed.numbers in this column comply with 40 CFR s. 122.23*		
Dairy Cattle	Milking & Dry Cows	1.40 x	1,700	= 2,380	1.43 x	1,700	= 2,431
Dairy Cattle	Heifers (800 lbs to 1200 lbs)	1.10 x	0	= 0			
Dairy Cattle	Heifers (400 lbs to 800 lbs)	0.60 x	0	= 0	1.00 x	0	= 0
Beef	Steers or Cows (400 lbs to market)	1.00 x		=			
Beef	Bulls (each)	1.40 x		=	1.00 x		=
Veal Calves		0.50 x		=	1.00 x		=
Swine	Pigs (up to 55 lbs)	0.10 x		=	0.10 x		=
Swine	Pigs (55 lbs to market)	0.40 x		=			
Swine	Sows (each)	0.40 x		=			
Swine	Boars (each)	0.50 x		=	0.40 x		=
Chickens	Layers (each) -non-liquid manure system	0.01 x		=	0.0123 x		=
Chickens	Broilers/Pullets (each) -non-liquid manure system	0.005 x		=	0.008 x		=
Chickens	Per Bird -liquid manure system	0.033 x		=	0.0333 x		=
Ducks	Ducks (each) -liquid manure system	0.2 x		=	0.2 x		=
Ducks	Ducks (each) -non-liquid manure system	0.01 x		=	0.0333 x		=
Turkeys (each)		0.018 x		=	0.018 x		=
Sheep (each)		0.1 x		=	0.1 x		=
Horses (each)		2 x		=	2 x		=
Total Animal Units:		**Total Mixed Animal Units =** (add all rows above) 2,380			**Total Non-Mixed Animal Units =** (Enter the single highest number from any row above; DO NOT add the totals) 2,431		

☐ Check here if there are no proposed increases in animal numbers at this site within the next five years.

3400-025A - Projected Animal Units Calculations

State of Wisconsin
Department of Natural Resources
PO Box 7185, Madison, WI 53707-7185
dnr.wi.gov

Animal Unit Calculation Worksheet
Form 3400-025A (R 3/2012)

The Projected Animal Unit Calculation Worksheet must be filled out separately for the "main" site and each site which are owned or operated by your farm for the purposes of housing animals associated with your operation. The site name, for which you are filling this worksheet out, must be provided below and correlate with Form 3400-025 Site Information (Section II).

Projected Animal Unit Calculation Numbers

Name of Site: Ridge Breeze Dairy

Animal Type		I. Mixed Animal Units			II. Non-mixed Animal Units		
		b. Equiv. factor	c. Projected Number	d. No. of AUs	e. Equiv. factor	f. Projected Number	g. No. of Aus
Example - Broilers (non-liquid manure):		*0.005 x*	***150,000***	*= 750*	*0.008 x*	***150,000***	*= 1200*
Dairy/Beef Calves (under 400 lbs)		0.20 x		=	*Fed.numbers in this column comply with 40 CFR s. 122.23*		
Dairy Cattle	Milking & Dry Cows	1.40 x	6,200	= 8,680	1.43 x	6,200	= 8,866
Dairy Cattle	Heifers (800 lbs to 1200 lbs)	1.10 x	300	= 330			
Dairy Cattle	Heifers (400 lbs to 800 lbs)	0.60 x	0	= 0	1.00 x	300	= 300
Beef	Steers or Cows (400 lbs to market)	1.00 x		=			
Beef	Bulls (each)	1.40 x		=	1.00 x		=
Veal Calves		0.50 x		=	1.00 x		=
Swine	Pigs (up to 55 lbs)	0.10 x		=	0.10 x		=
Swine	Pigs (55 lbs to market)	0.40 x		=			
Swine	Sows (each)	0.40 x		=			
Swine	Boars (each)	0.50 x		=	0.40 x		=
Chickens	Layers (each) -non-liquid manure system	0.01 x		=	0.0123 x		=
Chickens	Broilers/Pullets (each) -non-liquid manure system	0.005 x		=	0.008 x		=
Chickens	Per Bird -liquid manure system	0.033 x		=	0.0333 x		=
Ducks	Ducks (each) -liquid manure system	0.2 x		=	0.2 x		=
Ducks	Ducks (each) -non-liquid manure system	0.01 x		=	0.0333 x		=
Turkeys (each)		0.018 x		=	0.018 x		=
Sheep (each)		0.1 x		=	0.1 x		=
Horses (each)		2 x		=	2 x		=

Total Animal Units:

Total Mixed Animal Units = (add all rows above) 9,010

Total Non-Mixed Animal Units = (Enter the single highest number from any row above; DO NOT add the totals) 8,866

Date of Proposed Expansion (MM/YY): 05/24 (Expansion starts 05/24. New cows onsite starting spring of 2025)

Waste Storage Calculations

Project Data

Client:	Ridge Breeze Dairy	
Project:	Waste Storage Calculations	
County:	**PIERCE**	**5.33**
Date:	6/6/2023	
By:	MJB	
Checked By:	DAM	
Checked By Date:	6/6/2023	

Waste Storage Facility Notes:

Start by selecting "Designed Values" or "Stage Storage" from drop down in cell L1. Enter the dimensions and depth for Design Values option. Enter Elevations and Areas into the Stage Storage cells (T10 through U44)

Feed Pad/Feed Lot Information:

Feed Pad Area:	92,400
Runoff Collected:	0.3
Solids Stacking Area	24,000
Runoff Collected:	6.5
Tons of Feed Stored:	31,500

Preliminary Animal Numbers & Waste Production

Waste Production		6/6/2023
Milking Cows (1,400 lbs average)		
Head		1700 head
Manure (2.4 cu.ft./cow)	=	30,518 gal./day
Bedding (0.3 cu.ft./cow)	=	3,815 gal./day
Waste Water for Operations	**=**	11,900 gal./day
Total Daily Waste Production		**46,233 gal./day**
		16,875,118 gal./year
Volume of Waste to Storage		
Animal Waste + Bedding		**34,333** gal./day
Waste Water		**11,900** gal./day
Total Daily Production		**46,233 gal./day**

Notes:

*Net Precipitation = surface area of lagoon(s) x net precipitation during storage duration

*Runoff = drainage area x runoff during storage duration

*Leachate collection is calculated to be 120% of that amount collected during the maximum 30 day production period

Project Name:	Ridge Breeze Dairy	County:	PIERCE
Computed by :	MJB	Date:	6/6/2023
Checked by:	DAM	Date:	6/6/2023

Existing Waste Storage Facility 1 Dimensions and Capacity

12 feet deep by **200** feet long by **200** feet wide

323,486 cf

Total Bottom to Top Capacity **2,419,676 gallons**

Required Storage for Precipitation

			Surface Area (SF)	Runoff Area (SF)	
25yr,24hr Precip	5.33	in	40000	0	**132895**
12 mo Precip	32.71	in	40000	0	**815569**
Evaporation	12.37	in	40000		**308425**

Total Storage Precip **640,039 gallons**

Required Volume for Freeboard & Solids

	ft^3	
12 inch Freeboard Volume	37931	**283727**
12 inch Solids	16384	**122552**

Volume of Unusable Freeboard and Solids Accumulation **406,279 gallons**

Available Capacity of Storage Structure

Bottom to Top	**2419676**
Volume for Precip and Runoff	**640039**
Volume for Solids and Freeboard	**406279**

Available Volume for Dairy Waste **1,373,359 gallons**

Project Name:	Ridge Breeze Dairy	County:	PIERCE
Computed by :	MJB	Date:	6/6/2023
Checked by:	DAM	Date:	6/6/2023

Existing Waste Storage Facility 2 Dimensions and Capacity

12 feet deep by **300** feet long by **300** feet wide

837,086 cf

Total Bottom to Top Capacity **6,261,404 gallons**

Required Storage for Precipitation

			Surface Area (SF)	Runoff Area (SF)	
25yr,24hr Precip	5.33	in	88888	0	**295317**
12 mo Precip	32.71	in	88888	0	**1812349**
Evaporation	12.37	in	88888		**685379**

Total Storage Precip **1,422,287 gallons**

Required Volume for Freeboard & Solids

	ft^3	
12 inch Freeboard Volume	86219	**644917**
12 inch Solids	51984	**388840**

Volume of Unusable Freeboard and Solids Accumulation **1,033,758 gallons**

Available Capacity of Storage Structure

Bottom to Top	**6261404**
Volume for Precip and Runoff	**1422287**
Volume for Solids and Freeboard	**1033758**

Available Volume for Dairy Waste **3,805,360 gallons**

Project Name:	Ridge Breeze Dairy	County:	PIERCE
Computed by :	MJB	Date:	6/6/2023
Checked by:	DAM	Date:	6/6/2023

Existing Waste Storage Facility 4 Dimensions and Capacity (ASBUILT)

20 feet deep by **330** feet long by **330** feet wide

1,482,248 cf

Total Bottom to Top Capacity **11,087,214 gallons**

Required Storage for Precipitation

			Surface Area (SF)	Runoff Area (SF)	
25yr,24hr Precip	5.33	in	96482	0	**320549**
6 mo Precip	22.43	in	96482	0	**1348950**
Evaporation	11.49	in	96482		**691014**

Total Storage Precip **978,485 gallons**

Required Volume for Freeboard & Solids

	ft^3	
12 inch Freeboard Volume	92849	**694511**
12 inch Solids	46420	**347222**

Volume of Unusable Freeboard and Solids Accumulation **1,041,732 gallons**

Available Capacity of Storage Structure

Bottom to Top	**11087214**
Volume for Precip and Runoff	**978485**
Volume for Solids and Freeboard	**1041732**

Available Volume for Dairy Waste **9,066,997 gallons**

Stage Storage Volume for WSF4 (ASBUILT)

Elev	Area (SF)	Incr (ft)	Average Area (SF)	Increment Volume (CF)	Cumulative Volume (CF)	Cumulative Volume (gal)
1089.5	44870				0	0
		0.5	45645	22822.5		
1090	46420				22822.5	170712
		1	47723.5	47723.5		
1091	49027				70546	527684
		1	50398.5	50398.5		
1092	51770				120944.5	904665
		1	53143	53143		
1093	54516				174087.5	1302175
		1	55936	55936		
1094	57356				230023.5	1720576
		1	58797.5	58797.5		
1095	60239				288821	2160381
		1	61725.5	61725.5		
1096	63212				350546.5	2622088
		1	64716.5	64716.5		
1097	66221				415263	3106167
		1	67772	67772		
1098	69323				483035	3613102
		1	70900.5	70900.5		
1099	72478				553935.5	4143438
		1	74094	74094		
1100	75710				628029.5	4697661
		1	77355	77355		
1101	79000				705384.5	5276276
		1	80682.5	80682.5		
1102	82365				786067	5879781
		1	84076	84076		
1103	85787				870143	6508670
		1	87538	87538		
1104	89289				957681	7163454
		1	91069	91069		
1105	92849				1048750	7844650
		1	94665.5	94665.5		
1106	96482				1143415.5	8552748
		1	98319.5	98319.5		
1107	100157				1241735	9288178
		1	102027.5	102027.5		
1108	103898				1343762.5	10051344
		1	105830.5	105830.5		
1109	107763				1449593	10842956
		0.3	108849.5	32654.85		
1109.3	109936				1482247.85	11087214

Liquid Waste Storage Volume Calculation Worksheet

Ridge Breeze Dairy **:Permittee Name** **# of A.U.'s:** 2431 **Dsn by:** MJB **Date:** 6/6/2023

Total Annual Liqud Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding	12,531,618
Parlor Wastewater	4,343,500
Feed Storage Leachate	117,810
Feed Storage Area 1 Runoff Collected *	735,717
Stacking Pad Runoff Collected*	476,838
Net Precipitation on Storage Surface(s) **	2,857,370
Other	
Other	
Other	
Other	
Other	
Other	
Other	
TOTAL:	**21,062,853**

Total Annual Liquid Waste from Hauling Logs	**N/A**

Total Liquid Waste Storage Capacity (gallons)						
Waste Storage	Total Vol. from Settled Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip. on Storage	25-yr, 24-hr Collected Runoff ***	-Freeboard Vol.	Max. Operating Level (MOL) Vol.
#1	2,419,676	122,552	132,895	0	283,727	1,880,503
#2	6,261,404	388,840	295,317	79,737	644,917	4,852,593
#3	0	0	0	0	0	0
#4	11,087,214	347,222	320,549	0	694,511	9,724,933
#5	0	0	0	0	0	0
#6	0	0	0		0	0
					Total MOL Vol:	**16,458,029**
					Days of Storage:	**285**
					Meets Days of Storage Criteria:	**YES**

1 Total Annual Volume Source (1=NRCS Table Values; 2=Hauling Log Values)

Jan. 2018

NOTE 1: The volumes above can be calculated in the NRCS "Waste Storage Design" spreadsheet downloaded from the Wisconsin NRCS Engineering Resources website

NOTE 2: The NRCS "Waste Storage Design" spreadsheet can be used to calculate the days of storage as well, however it is designed to be used with only one waste storage

NOTE 3: Formula for days of storage: (Total Storage Capacity/Annual Liquid Waste Generation)*365 = Days of storage

* Collected Runoff Volumes can be calculated in the NRCS "Waste Storage Design" spreadsheet Monthly Runoff Section. Set the Days of Storage to 365.

** Net Precipitation on Storage Surface depth can be calculated in the NRCS "Waste Storage Design" spreadsheet and then multiplied by the storage top area to get the net

*** 25-yr Collected Runoff Volumes can be calculated in the NRCS "Waste Storage Design" spreadsheet 25-yr Runoff section.

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/wi/technical/engineering/?cid=nrcs142p2_025422

	gal/day	Annual Gal.	Animal Breakdown:					
Manure and Bedding	34,333	12,531,618	1700	Milk Cows	2.4	cf/hd/day Manure	0.3	cf/hd/day bedding
			0	Dry Cows	2.4	cf/hd/day Manure	0.3	cf/hd/day bedding
			0	Heifers	2.1	cf/hd/day Manure	0	cf/hd/day bedding
			0	Heifers	1.4	cf/hd/day Manure	0.1	cf/hd/day bedding
			0	Heifers	1.0	cf/hd/day Manure	0.1	cf/hd/day bedding
			0	Heifers	0.7	cf/hd/day Manure	0.1	cf/hd/day bedding
			0	Steers	1.7	cf/hd/day Manure	0.2	cf/hd/day bedding
			0	Calves	0.3	cf/hd/day Manure	0.1	cf/hd/day bedding
Parlor Wastewater	11,900	4,343,500	Parlor Wastewater:		7	Gal/MilkCow/Day		

	Area (SF)	Annual Gal.	Calculation:
Feed Storage Leachate	92,400	117,810	=31,500 tons x 0.50 ton leachate/ton feed x 7.48
Feed Storage Runoff Collected	92,400	735,717	Note: From Avg Annual Vol of Runoff Spreadsheet (FeedRunoff)

	Area (SF)	Annual Gal.	Calculation:
Solids Stacking Runoff Collected	24,000	476,838	Note: From Avg Annual Vol of Runoff Spreadsheet (FeedlotRunoff)

Net Precip on Storage Surfaces	Area (SF)	Misc Area (SF)	Misc Area Description	Precipitation (gal)	Evaporation (gal)		Net (gal)
Waste Storage #1	40,000	0	Descrip	815,569	308,425		507,144
Waste Storage #2	88,888	0	Descrip	1,812,349	685,379		1,126,970
Waste Storage #3	0	0	Descrip	0	0		0
Waste Storage #4	96,482	0	Descrip	1,967,194	743,937		1,223,257
Waste Storage #5	0	0	Descrip	0	0		0
Waste Storage #6	0	0	Descrip	0	0		0
						Total=	2,857,370

	Area (SF)	Annual Gal.	Calculation:
Stacking Pad Runoff Collected	0	0	=(000sf x (32.71/12)) x 7.48

25yr, 24hr Collected Runoff	Area (SF)	Area Description	25yr, 24hr Vol (Gal)	Calculation:
Waste Storage #1	0	Description	0	=(000sf x (25yr24hr/12)) x 7.48
Waste Storage #2	0	Description	0	=(000sf x (25yr24hr/12)) x 7.48
Waste Storage #3	0	Description	0	=(000sf x (25yr24hr/12)) x 7.48
Waste Storage #4	0	Description	0	=(000sf x (25yr24hr/12)) x 7.48
Waste Storage #5	0	Description	0	=(000sf x (25yr24hr/12)) x 7.48
Waste Storage #6	0	Description	0	=(000sf x (25yr24hr/12)) x 7.48

Average Annual Volume of Runoff Collected from Feed Storage Area 1

Mean Number of Days per Year that Precip. Exceeds 0.01 inches =	125	
Annual Precipitation=	32.71	inches
Feed Storage Area=	92,400	square feet
Runoff You Want to Collect=	0.25	inches
Runoff Curve Number (RCN)=	98	
Annual Volume of Runoff Collected=	**12.77**	inches
Annual Volume of Runoff Collected=	**98,358**	cubic feet
Annual Volume of Runoff Collected=	**735,717**	gallons

Rainfall Event, inches	Cumulative % Less Than	Cumulative # of Events	# of Events per Category	Cumulative Precipitation, inches	RCN = 98 Runoff, inches	Collected Runoff per Event, inches	(Collected Runoff per Event) x (# of Events) inches
0.00	0	0.00	0.0000	0.00	0.00	0.00	0.00
0.02	18.64	23.30	23.3000	6.10	0.00	0.00	0.00
0.04	26.92	33.65	10.3500	8.81	0.00	0.00	0.00
0.06	32.76	40.95	7.3000	10.72	0.00	0.00	0.01
0.08	38.20	47.75	6.8000	12.50	0.01	0.01	0.04
0.10	41.92	52.40	4.6500	13.71	0.01	0.01	0.06
0.12	45.24	56.55	4.1500	14.80	0.02	0.02	0.09
0.14	47.76	59.70	3.1500	15.62	0.03	0.03	0.10
0.16	50.44	63.05	3.3500	16.50	0.04	0.04	0.15
0.18	52.52	65.65	2.6000	17.18	0.06	0.06	0.15
0.20	53.96	67.45	1.8000	17.65	0.07	0.07	0.13
0.22	56.68	70.85	3.4000	18.54	0.08	0.08	0.28
0.24	58.32	72.90	2.0500	19.08	0.10	0.10	0.20
0.26	60.00	75.00	2.1000	19.63	0.11	0.11	0.24
0.28	61.68	77.10	2.1000	20.18	0.13	0.13	0.27
0.30	64.68	80.85	3.7500	21.16	0.15	0.15	0.54
0.32	66.52	83.15	2.3000	21.76	0.16	0.16	0.37
0.34	67.92	84.90	1.7500	22.22	0.18	0.18	0.31
0.36	69.32	86.65	1.7500	22.67	0.19	0.19	0.34
0.38	70.80	88.50	1.8500	23.16	0.21	0.21	0.39
0.40	71.96	89.95	1.4500	23.54	0.23	0.23	0.33
0.42	73.24	91.55	1.6000	23.96	0.25	0.25	0.39
0.44	74.24	92.80	1.2500	24.28	0.26	0.25	0.31
0.46	75.32	94.15	1.3500	24.64	0.28	0.25	0.34
0.48	76.20	95.25	1.1000	24.93	0.30	0.25	0.27
0.50	77.28	96.60	1.3500	25.28	0.32	0.25	0.34
0.52	78.12	97.65	1.0500	25.55	0.34	0.25	0.26
0.54	78.80	98.50	0.8500	25.78	0.35	0.25	0.21
0.56	79.24	99.05	0.5500	25.92	0.37	0.25	0.14
0.58	80.08	100.10	1.0500	26.19	0.39	0.25	0.26
0.60	80.92	101.15	1.0500	26.47	0.41	0.25	0.26
0.62	81.76	102.20	1.0500	26.74	0.43	0.25	0.26
0.64	82.48	103.10	0.9000	26.98	0.45	0.25	0.22
0.66	83.24	104.05	0.9500	27.23	0.47	0.25	0.24
0.68	83.64	104.55	0.5000	27.36	0.48	0.25	0.13
0.70	84.12	105.15	0.6000	27.52	0.50	0.25	0.15
0.72	84.64	105.80	0.6500	27.69	0.52	0.25	0.16
0.74	85.24	106.55	0.7500	27.88	0.54	0.25	0.19
0.76	85.80	107.25	0.7000	28.07	0.56	0.25	0.18

Average Annual Volume of Runoff Collected from Solids Stacking Slab

Mean Number of Days per Year that Precip. Exceeds 0.01 inches =	125	
Annual Precipitation=	32.71	inches
Feed Storage Area=	24,000	square feet
Runoff You Want to Collect=	6.50	inches
Runoff Curve Number (RCN)=	98	
Annual Volume of Runoff Collected=	**31.87**	inches
Annual Volume of Runoff Collected=	**63,748**	cubic feet
Annual Volume of Runoff Collected=	**476,838**	gallons

Rainfall Event, inches	Cumulative % Less Than	Cumulative # of Events	# of Events per Category	Cumulative Precipitation, inches	RCN = 98 Runoff, inches	Collected Runoff per Event, inches	(Collected Runoff per Event) x (# of Events) inches
0.00	0	0.00	0.0000	0.00	0.00	0.00	0.00
0.02	18.64	23.30	23.3000	6.10	0.00	0.00	0.00
0.04	26.92	33.65	10.3500	8.81	0.00	0.00	0.00
0.06	32.76	40.95	7.3000	10.72	0.00	0.00	0.01
0.08	38.20	47.75	6.8000	12.50	0.01	0.01	0.04
0.10	41.92	52.40	4.6500	13.71	0.01	0.01	0.06
0.12	45.24	56.55	4.1500	14.80	0.02	0.02	0.09
0.14	47.76	59.70	3.1500	15.62	0.03	0.03	0.10
0.16	50.44	63.05	3.3500	16.50	0.04	0.04	0.15
0.18	52.52	65.65	2.6000	17.18	0.06	0.06	0.15
0.20	53.96	67.45	1.8000	17.65	0.07	0.07	0.13
0.22	56.68	70.85	3.4000	18.54	0.08	0.08	0.28
0.24	58.32	72.90	2.0500	19.08	0.10	0.10	0.20
0.26	60.00	75.00	2.1000	19.63	0.11	0.11	0.24
0.28	61.68	77.10	2.1000	20.18	0.13	0.13	0.27
0.30	64.68	80.85	3.7500	21.16	0.15	0.15	0.54
0.32	66.52	83.15	2.3000	21.76	0.16	0.16	0.37
0.34	67.92	84.90	1.7500	22.22	0.18	0.18	0.31
0.36	69.32	86.65	1.7500	22.67	0.19	0.19	0.34
0.38	70.80	88.50	1.8500	23.16	0.21	0.21	0.39
0.40	71.96	89.95	1.4500	23.54	0.23	0.23	0.33
0.42	73.24	91.55	1.6000	23.96	0.25	0.25	0.39
0.44	74.24	92.80	1.2500	24.28	0.26	0.26	0.33
0.46	75.32	94.15	1.3500	24.64	0.28	0.28	0.38
0.48	76.20	95.25	1.1000	24.93	0.30	0.30	0.33
0.50	77.28	96.60	1.3500	25.28	0.32	0.32	0.43
0.52	78.12	97.65	1.0500	25.55	0.34	0.34	0.35
0.54	78.80	98.50	0.8500	25.78	0.35	0.35	0.30
0.56	79.24	99.05	0.5500	25.92	0.37	0.37	0.20
0.58	80.08	100.10	1.0500	26.19	0.39	0.39	0.41
0.60	80.92	101.15	1.0500	26.47	0.41	0.41	0.43
0.62	81.76	102.20	1.0500	26.74	0.43	0.43	0.45
0.64	82.48	103.10	0.9000	26.98	0.45	0.45	0.40
0.66	83.24	104.05	0.9500	27.23	0.47	0.47	0.44
0.68	83.64	104.55	0.5000	27.36	0.48	0.48	0.24
0.70	84.12	105.15	0.6000	27.52	0.50	0.50	0.30
0.72	84.64	105.80	0.6500	27.69	0.52	0.52	0.34
0.74	85.24	106.55	0.7500	27.88	0.54	0.54	0.41
0.76	85.80	107.25	0.7000	28.07	0.56	0.56	0.39