MMP Input Data from AWM for: Walnutdale Dairy

Assisted by: Jason Stegink

Average Annual Manure Production Stored (for MMP "Analysis" tab)

Facility	Manure Tons	Manure Gallons	Bedding Tons	Bedding Gallons	Wash Water Gallons	Flush Water Gallons	Runoff and Extr Precip Gallons	Rainfall Gallons	Annual Throughput Volume w/o 25Yr Rainfall and Runoff Tons	Annual Throughput Volume w/o 25Yr Rainfall and Runoff Gallons
Storage Tank #1 Pit #1	NA	1485575	NA	1013	0	0	0	258359	NA	**1744947**
Storage Tank #2 Pit #2	NA	3030393	NA	2026	0	0	0	526891	NA	**3559310**
Storage Tank #3 Settling Tank	NA	85279	NA	0	0	0	0	14736	NA	**100015**
Storage Tank #4 Slurry Store	NA	355351	NA	0	1097919	731946	0	379685	NA	**2564901**
Storage Tank #5 Pit # 6	NA	981540	NA	1013	0	0	0	170768	NA	**1153321**
Storage Pond #1 Pit # 7	NA	2599756	NA	1013	0	0	0	451867	NA	**3052636**
Storage Pond #2 Catch Basin	NA	0	NA	0	0	0	3433544.4	670732	NA	**4104276.4**
Dry Stack (Covered) #1 Hosp. Pen	105	NA	4.6	NA	NA	NA	NA	NA	**109.6**	**NA**
Annual Total	105	8,537,894	5	5,065	1,097,919	731,946	3,433,544	2,473,038	**110**	**16,279,406**

+ 250,580 gal silage Leachate

Spreadable or Pumpable Capacity (for MMP "Storage" tab)

Facility	Manure Tons	Manure Gallons	Bedding Tons	Bedding Gallons	Wash Water Gallons	Flush Water Gallons	Runoff & Extrn Precip Gallons	Rainfall Gallons	Design Storage Period Months	Design Volume w/o 25Yr Rainfall and Runoff Tons	Design Volume w/o 25Yr Rainfall and Runoff Gallons
Storage Tank #1	NA	1485577	NA	1013	0	0	0	258325	12	NA	**1744915**
Storage Tank #2	NA	3030404	NA	2026	0	0	-1	526945	12	NA	**3559374**

Storage Tank #3	NA	85287	NA	0	0	0	0	14821	12	**NA**	**100108**
Storage Tank #4	NA	355351	NA	0	1097918	731946	0	379725	12	**NA**	**2564940**
Storage Tank #5	NA	981545	NA	1013	0	0	0	170739	12	**NA**	**1153297**
Storage Pond #1	NA	2599761	NA	1013	0	0	0	451937	12	**NA**	**3052711**
Storage Pond #2	NA	0	NA	0	0	0	3433544	670684	12	**NA**	**4104228**
Dry Stack (Covered) #1	105.4	NA	4.6	NA	NA	NA	NA	NA	12	**110**	**NA**

Animal Production Data

Animal	Type of Animal	Number	Weight in Lb	Manure Produced per Animal Unit in CF/Day	Total Manure Produced in CF/Day	Annual Manure Produced in CF	Annual Manure Produced in Gal
Group 1	Dairy	120	1400	1.70	285.60	104,530	781,881
Group 2	Dairy	120	1400	1.70	285.60	104,530	781,881
Group 3	Dairy	120	1100	1.70	224.40	82,130	614,335
Group 4 Fresh	Dairy	120	1100	1.70	224.40	82,130	614,335
Group 5 Heifers	Dairy	160	1100	1.70	299.20	109,507	819,114
Group 6	Dairy	160	1400	1.70	380.80	139,373	1,042,509
Group 7	Dairy	210	1400	1.70	499.80	182,927	1,368,292
Group 8	Dairy	210	1400	1.70	499.80	182,927	1,368,292
Group 9	Dairy	120	1100	1.70	224.40	82,130	614,335
Group 10	Dairy	75	1200	1.70	153.00	55,998	418,865
Hospital East pen	Dairy	20	1200	1.60	38.40	14,054	105,127
Hospital West Pen	Dairy	5	1200	1.60	9.60	3,514	26,282
Totals		1440	N/A	N/A	3125.00	1,143,750	8,555,250

Annual Production vs Storage

Manure Stored			Manure Not Captured		
(CF)	(Gal)	(Lbs)	(CF)	(Gal)	(Lbs)
1144943	8564174	68696580	-1193	-8924	-71580

Pit #8 Annual Production Data

AWM - \\gvsbs2k3\mydocuments$\jasons\CNMP Documents\Walnutdale Farms\2011 Plan\Walnutdale Pit 8.awm

File Edit Data View Tools Window Help

Start | Climate | Animals | Locations | Additions | Runoff | Mgmt Train | Eval | Design | Calculator | ManureMaster

Evaluate Waste Storage Structures

Storage Pond #1

Input Data

Shape:	Rectangle	
Total Depth:	15.8	ft
Top Length	330.0	ft
Top Width	260.0	ft
Permanent Add'l Storage:	0	cu. ft
Freeboard:	1.0	ft
Sideslope Ratio:	3	

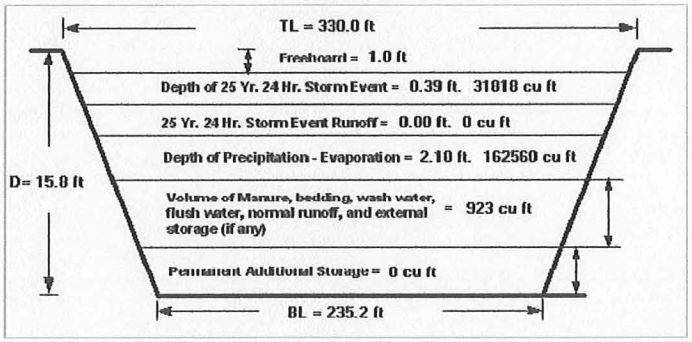
Max. Storage Volume Method
- (•) Define Withdrawal Months
- ( ) Define Storage Period

☑ Verified

Cross Section
Critical Months: Jan - Dec Bot W x L.: 165.2 x 235.2 ft Top W x L.: 260.0 x 330.0 ft

Facility Options
☑ Include Ramp Edit Parallel ramp uses 30458 cu. ft. of storage within the structure.

Storage Volumes (1000 cu ft)
Waste generated: 0.9 Existing capacity: 663.4 Remaining available: 662.5



Water Budget (1000 cu ft)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Withdrawal Dates	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	
Waste	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92
Prec-Evap	19.76	10.92	11.40	13.78	11.61	11.28	2.20	4.75	15.93	15.09	23.65	22.19	
Cum. Storage Vol	19.84	30.83	42.30	56.16	67.85	79.21	81.49	86.32	102.33	117.49	141.22	163.48	

Help OK

Direct Precipitation Collected/yr

162,560 ft^3 = 1,216,033 gallons

No other Direct inputs, only manure Transfers

MMP Input Data from AWM for: Walnutdale Dairy Pasture

Assisted by: Jason Stegink

Average Annual Manure Production Stored (for MMP "Analysis" tab)

Pasture Data

Facility	Manure		Bedding		Wash Water	Flush Water	Runoff and Extr Precip	Rainfall	Annual Throughput Volume w/o 25Yr Rainfall and Runoff	
	Tons	Gallons	Tons	Gallons	Gallons	Gallons	Gallons	Gallons	Tons	Gallons
Dry Stack (Uncovered) #1	99	NA	0	NA	NA	NA	NA	NA	**99**	**NA**
Annual Total	99	0	0	0	0	0	0	0	**99**	**0**

Spreadable or Pumpable Capacity (for MMP "Storage" tab)

Facility	Manure		Bedding		Wash Water	Flush Water	Runoff & Extrn Precip	Rainfall	Design Storage Period	Design Volume w/o 25Yr Rainfall and Runoff	
	Tons	Gallons	Tons	Gallons	Gallons	Gallons	Gallons	Gallons	Months	Tons	Gallons
Dry Stack (Uncovered) #1	20.1	NA	0	NA	NA	NA	NA	NA	1	**20.1**	**NA**

Animal Production Data

Animal	Type of Animal	Number	Weight in Lb	Manure Produced per Animal Unit in CF/Day	Total Manure Produced in CF/Day	Annual Manure Produced in CF	Annual Manure Produced in Gal
Heifer (970 lb)	Dairy	20	1200	0.90	21.60	7,906	59,134
Totals		20	N/A	N/A	21.60	7,906	59,134

Annual Production vs Storage

Manure Stored			Manure Not Captured		
(CF)	(Gal)	(Lbs)	(CF)	(Gal)	(Lbs)
3305	24721	198300	4601	34415	276060