

SURFACE RUNOFF FROM FIELDS 1, 5A AND 12

Field Site Description

Surface runoff from Fields 1, 5a, and 12 has been collected after storm rainfall-induced runoff. The catchment area for each flume located on Fields 1, 5a, and 12 is depicted in Figures 1, 2, and 3, respectively. The catchment area is that which contributes runoff water to our monitoring site. Due to natural slope and elevation changes in all fields, the flumes do not collect runoff water from the entire field. Also depicted on Figures 1, 2, and 3, are buffers imposed by the C&H ADEQ permit for ponds, school, slope, and stream, where no slurry can be applied to Fields 1, 5a, and 12, respectively. On field 12, the farm owners have implemented a 100 ft buffer along the south neighboring field.

The field area, flume catchment area, and area to which slurry can be applied to Fields 1, 5a, and 12 is given in Table 1. Annual amounts and rates of commercial fertilizer (Field 5a) and slurry from the C&H operation (Fields 1 and 12) are given in Table 2. The slurry rates are obtained from ADEQ annual management reports for the farm and commercial fertilizer application from the landowner.

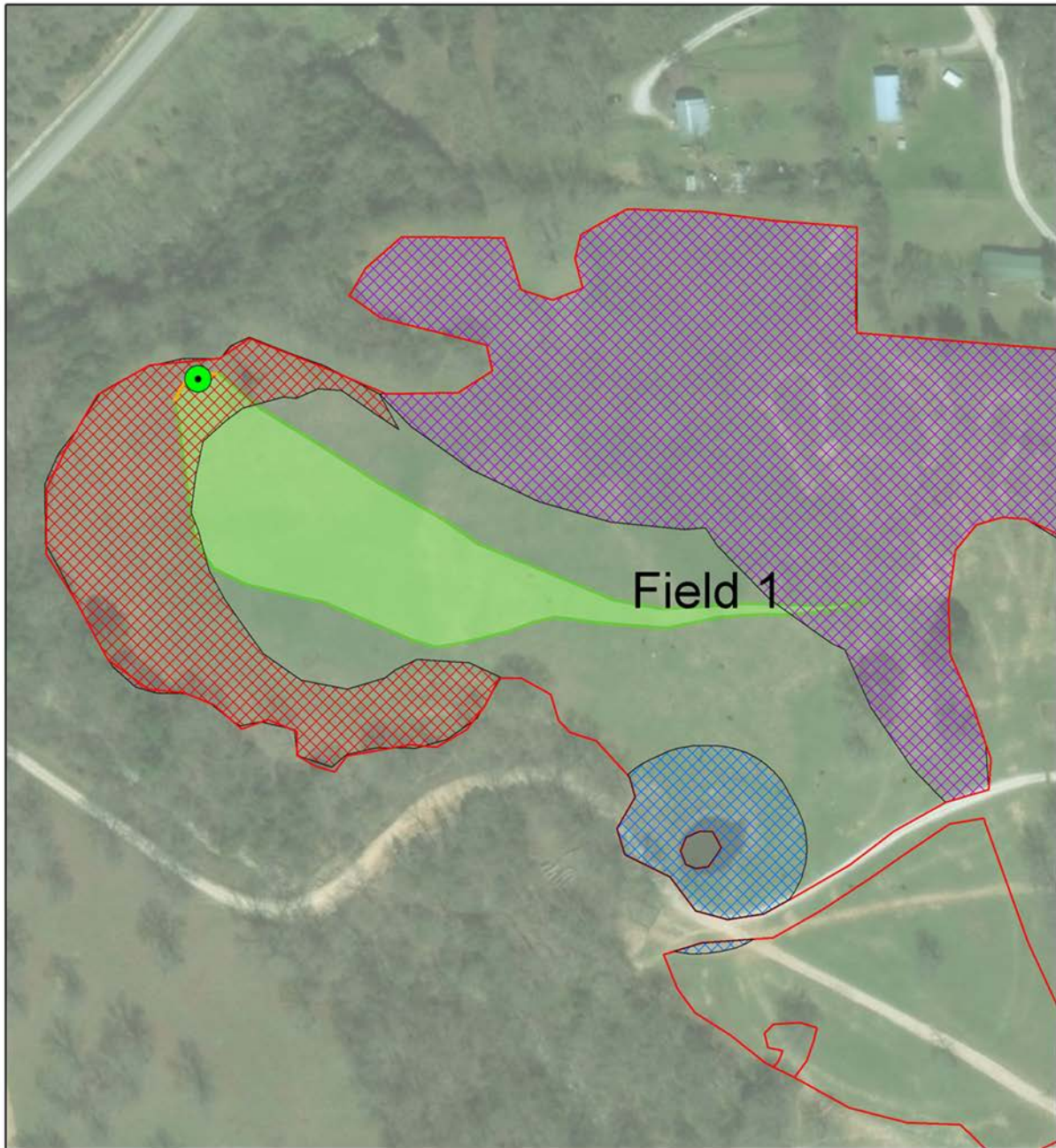
Surface Runoff of Nutrient and Sediment

All surface runoff samples are collected by ISCO autosamplers programmed to initiate sample collection when a critical stage height is exceeded (Table 3). Pacing of sample collection is subsequently programmed to a specific volume of flow, as detailed in Table 3. This standard operating procedure for ISCO autosamplers results in the collection of one flow-weighted sample, which is subsequently analyzed. The flow-weighted event concentration of nutrients and sediment in surface runoff from each Field are detailed in Table 4, along with runoff volume.

Based on flow-weighted concentration and flow for each surface runoff event, the amount of nutrients and sediment based on flume catchment area are determined and presented in Table 5 in English units (i.e., lbs/acre) and in Table 6 in metric units (i.e., g/ha). There was no surface runoff as measured at the flume for Field 12 in 2014.

The annual flow and mean annual flow-weighted concentrations of P, N, and sediment in runoff for 2014, 2015, 2016, and 2017 are given in Table 7. The annual loss of P, N, and sediment in surface runoff from Fields 1, 5a, and 12 for 2014, 2015, 2016, and 2017 is given Table 8 in English and metric units.

Finally, the amount of P and N applied to the flume catchment area of Fields 1, 5a, and 12, loss in runoff, and percent of applied lost in runoff for 2014, 2015, 2016, and 2017 are given in Table 9. Losses are dominated by high rainfall in 2015 than the other years of monitoring, which led to large runoff volumes (Table 9).



- Field 1 Boundary
- BC1 WQ Sampler
- BC1 Catchment
- 100 ft Pond Buffer
- 500 ft School Buffer
- > 15% Slope Buffer

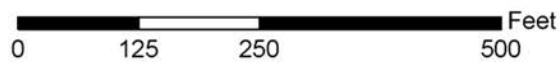


Figure 1. Map of Field 1 showing catchment area for surface runoff flume and buffers where no slurry can be applied.

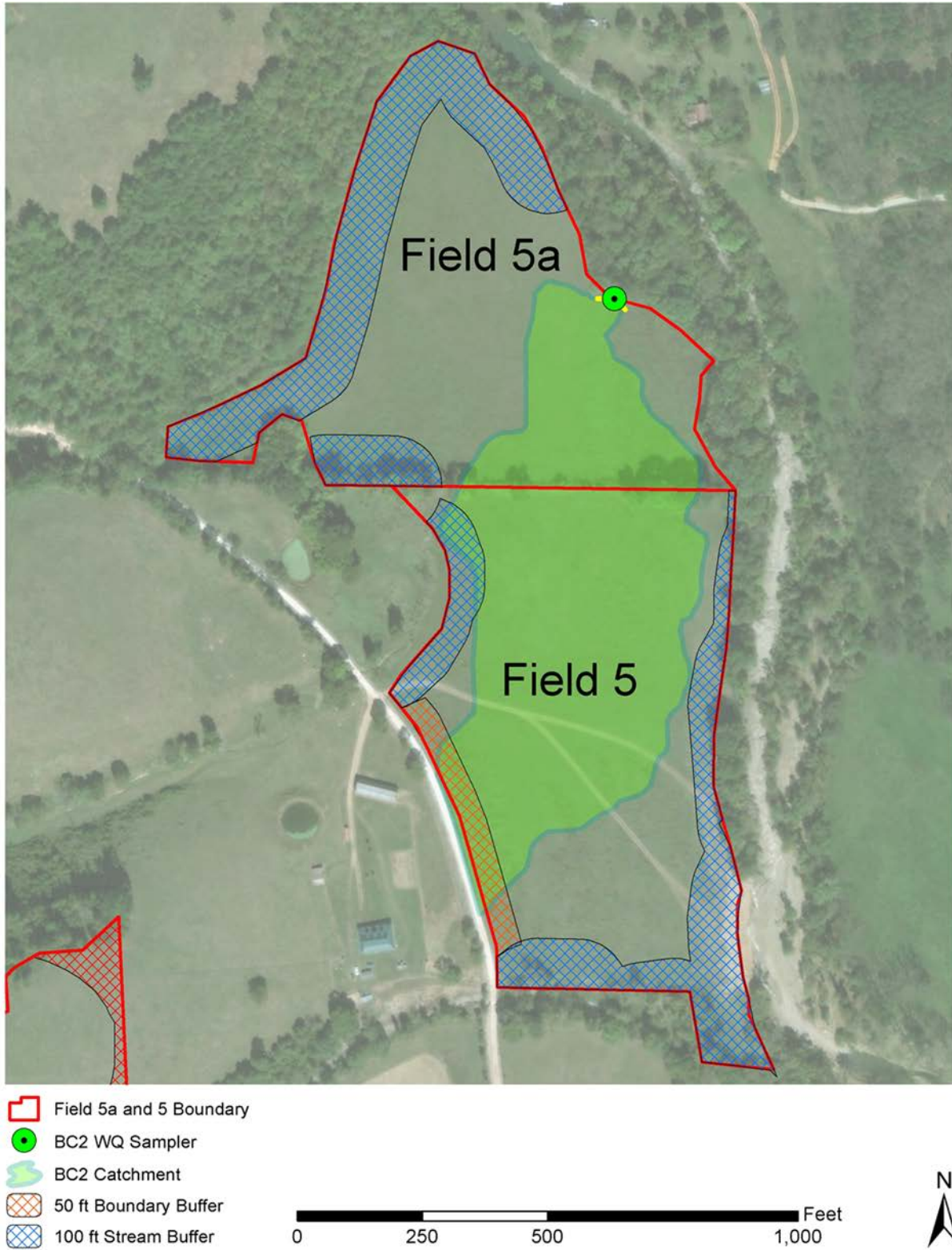
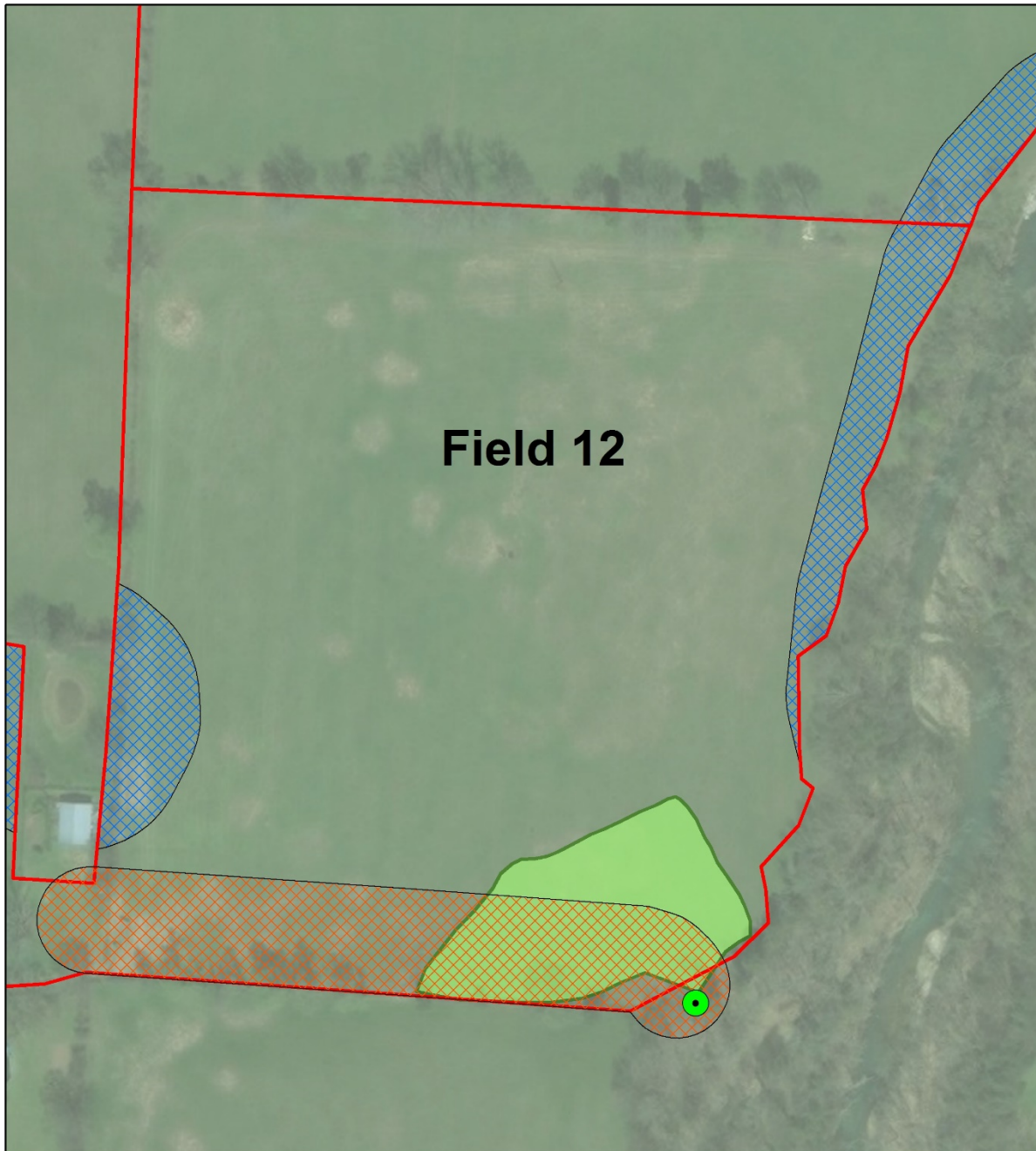


Figure 2. Map of Field 5a showing catchment area for surface runoff flume and buffers where no slurry can be applied.



- Field 12 Boundary
- BC3 WQ Sampler
- BC3 Catchment
- 100 ft Stream Buffer
- 100 ft Property Buffer

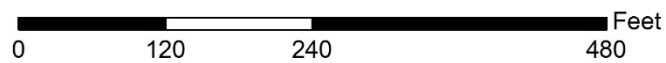


Figure 3. Map of Field 12 showing catchment area for surface runoff flume and buffers where no slurry can be applied.



Table 1. Area of Field 1, 5a, and 12 monitored for surface runoff, area of flume catchment, area of buffers where no slurry is applied, and area of flume receiving slurry.

Site	Site ID	Field area		Flume catchment area		Buffer		Flume catchment area minus buffer		Flume catchment receiving slurry	Area of flume catchment in designated field	
		acres	hectares	acres	hectares	acres	hectares	acres	hectares	%	acres	hectares
Field 1	BC 1	15.6	6.31	1.76	0.71	0.15	0.06	1.61	0.65	91.4	1.76	0.71
Field 5a	BC 2	23.5	9.51	9.58	3.88	0.54	0.22	9.04	3.66	0 ¹	2.21	0.89
Field 12	BC 3	28.7	11.61	0.84	0.34	0.48	0.19	0.36	0.15	43	0.84	0.34

¹ Slurry has not been applied to Field 5a or the adjacent Field 5.

Table 2. Slurry (i.e., Fields 1 and 12) and fertilizer (i.e., Fields 5a) application to the monitored fields for 2014 to 2017.

Site	2014		2015		2016		2017	
Slurry applied, gals								
Field 1	46,000		48,000		78,000		60,000	
Field 12	48,000		93,000		156,000		90,000	
Nutrients applied in slurry, lbs/1000 gallons								
	P	N	P	N	P	N	P	N
Field 1	18.1	16.8	60.4	53.2	17.5	30.3	60.3	47.2
Field 12	18.1	16.8	4.8	20.1	17.5	30.3	60.3	47.2
Nutrients applied to field, lbs/acre								
Field 1	53.4	49.5	185.8	163.7	87.5	151.5	231.9	181.5
Field 5a ¹	25.0	57.2	25.0	57.2	25.0	57.2	25.0	57.2
Field 12	30.3	28.1	15.6	65.1	95.1	164.7	189.1	148.0
Nutrients applied to flume catchment, lbs								
Field 1	86	80	299	263	141	244	373	292
Field 5a ¹	55	126	55	126	55	126	55	126
Field 12	10.9	10.1	5.6	23.4	34.2	59.3	68.1	53.3
Nutrients applied to field, kg/ha								
Field 1	60	55	208	183	98	170	260	203
Field 5a ¹	28	64	28	64	28	64	28	64
Field 12	34	31	17	73	107	184	212	166
Nutrients applied to flume catchment, kg								
Field 1	39	36	136	120	64	111	169	133
Field 5a ¹	25	57	25	57	25	57	25	57
Field 12	5	5	3	11	16	27	31	24

1. Nutrient applied as 19-19-19 mineral fertilizer (i.e., 19% N, 19% P₂O₅, and 19% K₂O) in early spring at a rate of 300 lbs/acre.



Table 3. Parameters used to enable ISCO auto-samplers at BCRET edge-of-field sites Field 1, 5a, and 12.

Site	Identifier	ISCO enabled when stage height (inches) above	Volume pacing, 100 mL water collected per gallon of water		
			Rainfall, inches		
			<2.5	2.5 to 4	>4
Field 1	BC1	> 0.75	500	1,000	5,000
Field 5a	BC2	> 0.75	5,000	10,000	50,000
Field 12	BC3	> 0.75	500	1,000	5,000

Table 4. Flow and flow-weighted concentration of phosphorus and nitrogen in each runoff event for Fields 1, 5a, and 12 in 2014, 2015, 2016, and 2017.

Date	Flow	Flow	Flow	Flow	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
	gal	L	gal/acre	L/ha	----- mg/L -----					
Field 1										
4/4/2014	20,795	78,709	11,815	110,520	0.181	0.638	0.250	0.106	2.080	207.0
5/9/2014	15,956	60,393	9,066	84,802	0.079	0.312	0.170	0.209	1.630	125.9
5/13/2014	15,420	58,365	8,761	81,953	0.190	0.366	0.100	0.126	1.330	42.1
5/28/2014	17,600	66,616	10,000	93,539	0.235	0.310	0.000	0.000	0.000	56.1
6/24/2014	1,440	5,450	818	7,653	0.228	0.498	0.180	0.114	2.390	23.2
6/27/2014	41,380	156,623	23,511	219,924	1.166	1.374	0.100	0.333	1.180	12.3
7/25/2014	4,920	18,622	2,795	26,149	0.648	0.794	0.160	0.388	1.650	5.6
10/14/2014	970	3,671	551	5,155	0.529	0.746	0.980	0.698	2.890	65.7
3/25/2015	4,642	17,570	2,638	24,671	0.143	0.346	0.410	0.216	2.680	65.5
5/8/2015	12,510	47,350	7,108	66,487	0.525	0.714	0.160	0.475	2.190	16.9
5/11/2015	53,439	202,265	30,363	284,013	0.251	0.386	0.090	0.055	0.860	44.4
5/18/2015	960	3,634	545	5,102	0.208	0.512	0.540	0.410	3.590	53.7

Date	Flow	Flow	Flow	Flow	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
5/26/2015	6,010	22,748	3,415	31,942	0.245	0.432	0.200	0.174	1.660	37.8
6/29/2015	6,133	23,214	3,485	32,596	0.354	0.524	0.370	0.226	1.640	11.0
7/7/2015	20,060	75,927	11,398	106,614	0.387	0.444	0.230	0.345	1.300	4.9
10/13/2016	3,755	14,212	2,133	19,955	0.940	1.231	0.130	0.335	2.360	59.0
3/27/2017	19,430	73,543	11,040	103,265	0.420	0.670	0.430	0.090	1.870	124.4
4/24/2017	21,120	79,939	12,000	112,247	0.395	0.592	0.130	0.143	1.500	43.1
4/27/2017	33,110	125,321	18,813	175,971	0.550	0.784	0.080	0.107	1.320	52.2
5/1/2017	49,820	188,569	28,307	264,780	0.534	0.760	0.330	0.321	2.200	36.7
6/6/2017	559,309	2,116,985	317,789	2,972,581	0.747	0.998	0.510	0.438	2.340	56.0
Field 5a										
6/27/2014	20,630	78,085	2,154	20,148	0.506	0.656	0.060	0.000	0.530	39.7
7/25/2014	2,000	7,570	209	1,953	0.625	0.754	0.090	0.000	0.610	9.0
10/13/2014	11,720	44,360	1,224	11,446	0.707	0.926	0.360	0.068	0.910	38.1

Date	Flow	Flow	Flow	Flow	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
3/26/2015	42,743	161,782	4,463	41,745	0.813	1.330	0.390	0.225	2.590	72.3
5/11/2015	5,158,670 ¹	19,525,566	538,621	5,038,229	0.248	0.968	0.260	0.127	1.500	320.1
7/7/2015	155,650	589,135	16,252	152,016	0.094	0.448	0.130	0.172	1.010	261.3
3/31/2016	139,510	528,045	14,566	136,253	1.154	1.352	0.270	0.302	1.670	26.5
5/10/2016	153	580	16	150	1.114	1.458	1.690	2.894	6.350	79.9
4/24/2017	46,638	176,525	4,870	45,549	0.961	1.212	0.120	0.321	1.530	11.7
4/27/2017	251,410	951,587	26,250	245,540	0.686	0.846	0.070	0.063	0.860	11.3
5/1/2017	381,570	1,444,242	39,840	372,661	0.734	0.916	0.220	0.281	1.560	13.1
6/6/2017	359,490	1,360,670	37,535	351,097	1.000	1.430	0.050	1.861	2.380	10.0
Field 12										
5/8/2015	13,630	51,590	16,226	151,779	0.675	0.956	0.140	0.303	1.820	57.0
5/11/2015	853,555	3,230,706	1,016,137	9,504,884	0.194	0.364	0.090	0.135	0.830	36.7
6/1/2015	110	416	131	1,225	0.235	0.482	0.120	0.210	1.110	33.2
6/29/2015	470	1,779	560	5,234	0.396	0.687	0.020	0.143	1.230	22.8



Date	Flow	Flow	Flow	Flow	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
7/6/15	7,000	26,495	8,333	77,950	0.796	0.910	0.130	0.567	1.580	29.0
3/10/2016	2,496	9,445	2,971	27,789	0.411	0.522	1.170	0.852	4.490	621.5
5/2/2016	209	791	249	2,327	0.381	0.600	0.100	0.093	1.268	321.0
5/10/2016	183	694	218	2,042	0.370	0.666	0.120	0.062	1.030	96.7
4/27/2017	73,890	279,674	87,964	822,813	0.326	0.544	0.020	0.105	0.710	102.3
5/1/2017	226,240	856,318	269,333	2,519,328	0.224	0.374	0.030	0.166	1.060	40.6
6/6/2017	102,970	389,741	122,583	1,146,637	0.316	0.470	0.030	0.166	1.660	280.8

¹ Flow measurement by the flume on Field 5a was affected by Big Creek breaching its banks during the 5-11-2015 rainfall – runoff event.

Table 5. Loss of phosphorus and nitrogen in each runoff event as pounds per acre for Fields 1, 5a, and 12 in 2014, 2015, 2016, and 2017.

Date	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
----- lbs/ac -----						
Field 1						
4/4/2014	0.018	0.063	0.025	0.010	0.205	20.393
5/9/2014	0.006	0.024	0.013	0.016	0.123	9.517
5/13/2014	0.014	0.027	0.007	0.009	0.097	3.075
5/28/2014	0.020	0.026	0.000	0.000	0.000	4.678
6/24/2014	0.002	0.003	0.001	0.001	0.016	0.158
6/27/2014	0.229	0.269	0.020	0.065	0.231	2.411
7/25/2014	0.015	0.019	0.004	0.009	0.038	0.131
10/14/2014	0.002	0.003	0.005	0.003	0.013	0.302
3/25/2015	0.003	0.008	0.009	0.005	0.059	1.440
5/8/2015	0.031	0.042	0.009	0.028	0.130	1.002
5/11/2015	0.064	0.098	0.023	0.014	0.218	11.240
5/18/2015	0.001	0.002	0.002	0.002	0.016	0.244
5/26/2015	0.007	0.012	0.006	0.005	0.047	1.076
6/29/2015	0.010	0.015	0.011	0.007	0.048	0.320
7/7/2015	0.037	0.042	0.022	0.033	0.124	0.466
10/13/2016	0.017	0.022	0.002	0.006	0.042	1.049
3/27/2017	0.039	0.062	0.040	0.008	0.172	11.451

Date	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
4/24/2017	0.040	0.059	0.013	0.014	0.150	4.312
4/27/2017	0.086	0.123	0.013	0.017	0.207	8.188
5/1/2017	0.126	0.179	0.078	0.076	0.519	8.662
6/6/2017	1.979	2.644	1.351	1.161	6.200	148.383
Field 5a						
6/27/2014	0.009	0.012	0.001	0.000	0.010	0.713
7/25/2014	0.001	0.001	0.000	0.000	0.001	0.016
10/13/2014	0.007	0.009	0.004	0.001	0.009	0.389
3/26/2015	0.030	0.049	0.015	0.008	0.096	2.690
5/11/2015	1.114	4.347	1.168	0.570	6.736	1437.560
7/7/2015	0.013	0.061	0.018	0.023	0.137	35.407
3/31/2016	0.140	0.164	0.033	0.037	0.203	3.219
5/10/2016	0.000	0.000	0.000	0.000	0.001	0.011
4/24/2017	0.039	0.049	0.005	0.013	0.062	0.475
4/27/2017	0.150	0.185	0.015	0.014	0.188	2.473
5/1/2017	0.244	0.304	0.073	0.093	0.518	4.352
6/6/2017	0.313	0.448	0.016	0.582	0.745	3.130
Field 12						
5/8/2015	0.091	0.129	0.019	0.041	0.246	7.712
5/11/2015	1.644	3.084	0.763	1.144	7.032	310.939
6/1/2015	0.000	0.001	0.000	0.000	0.001	0.036



Date	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
6/29/2015	0.002	0.003	0.000	0.001	0.006	0.106
7/6/15	0.055	0.063	0.009	0.039	0.110	2.015
3/10/2016	0.010	0.013	0.029	0.021	0.111	15.395
5/2/2016	0.001	0.001	0.000	0.000	0.003	0.666
5/10/2016	0.001	0.001	0.000	0.000	0.002	0.176
4/27/2017	0.239	0.399	0.015	0.077	0.521	75.031
5/1/2017	0.503	0.840	0.067	0.373	2.380	91.174
6/6/2017	0.323	0.480	0.031	0.170	1.697	287.002

Table 6. Loss of phosphorus and nitrogen in each runoff event as grams per hectare for Fields 1, 5a, and 12 in 2014, 2015, 2016, and 2017.

Date	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
	----- g/ha -----					
Field 1						
4/4/2014	20.0	70.5	27.6	11.7	229.9	22,877.6
5/9/2014	6.7	26.5	14.4	17.7	138.2	10,676.6
5/13/2014	15.6	30.0	8.2	10.3	109.0	3,450.2
5/28/2014	22.0	29.0	0.0	0.0	0.0	5,247.6
6/24/2014	1.7	3.8	1.4	0.9	18.3	177.6
6/27/2014	256.4	302.2	22.0	73.2	259.5	2,705.1
7/25/2014	16.9	20.8	4.2	10.1	43.1	146.4
10/14/2014	2.7	3.8	5.1	3.6	14.9	338.7
3/25/2015	3.5	8.5	10.1	5.3	66.1	1,616.0
5/8/2015	34.9	47.5	10.6	31.6	145.6	1,123.6
5/11/2015	71.3	109.6	25.6	15.6	244.3	12,610.2
5/18/2015	1.1	2.6	2.8	2.1	18.3	274.0
5/26/2015	7.8	13.8	6.4	5.6	53.0	1,207.4
6/29/2015	11.5	17.1	12.1	7.4	53.5	358.6
7/7/2015	41.3	47.3	24.5	36.8	138.6	522.4
10/13/2016	18.8	24.6	2.6	6.7	47.1	1,177.4
3/27/2017	43.4	69.2	44.4	9.3	193.1	12,846.2

Date	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
4/24/2017	44.3	66.5	14.6	16.1	168.4	4,837.9
4/27/2017	96.8	138.0	14.1	18.8	232.3	9,185.7
5/1/2017	141.4	201.2	87.4	85.0	582.5	9,717.4
6/6/2017	2,220.5	2,966.6	1,516.0	1,302.0	6,955.8	166,464.5
Field 5a						
6/27/2014	10.2	13.2	1.2	0.0	10.7	799.9
7/25/2014	1.2	1.5	0.2	0.0	1.2	17.6
10/13/2014	8.1	10.6	4.1	0.8	10.4	436.1
3/26/2015	33.9	55.5	16.3	9.4	108.1	3,018.2
5/11/2015	1,249.5	4,877.0	1,309.9	639.9	7,557.3	1,612,737.1
7/7/2015	14.3	68.1	19.8	26.1	153.5	39,721.8
3/31/2016	157.2	184.2	36.8	41.1	227.5	3,610.7
5/10/2016	0.2	0.2	0.3	0.4	1.0	12.0
4/24/2017	43.8	55.2	5.5	14.6	69.7	532.9
4/27/2017	168.4	207.7	17.2	15.5	211.2	2,774.6
5/1/2017	273.5	341.4	82.0	104.7	581.4	4,881.9
6/6/2017	351.1	502.1	17.6	653.4	835.6	3,511.0
Field 12						
5/8/2015	102.5	145.1	21.2	46.0	276.2	8,651.4
5/11/2015	1,843.9	3,459.8	855.4	1,283.2	7,889.1	348,829.2



Date	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
6/1/2015	0.3	0.6	0.1	0.3	1.4	40.7
6/29/2015	2.1	3.6	0.1	0.7	6.4	119.3
7/6/15	62.0	70.9	10.1	44.2	123.2	2,260.5
3/10/2016	11.4	14.5	32.5	23.7	124.8	17,270.9
5/2/2016	0.9	1.4	0.2	0.2	3.0	747.1
5/10/2016	0.8	1.4	0.2	0.1	2.1	197.5
4/27/2017	268.2	447.6	16.5	86.4	584.2	84,173.7
5/1/2017	564.3	942.2	75.6	418.2	2,670.5	102,284.7
6/6/2017	362.3	538.9	34.4	190.3	1,903.4	321,975.7

Table 7. Annual flow and flow-weighted concentrations of phosphorus, nitrogen, and sediment in runoff for 2014, 2015, 2016, and 2017.

	Flow	Flow	Flow	Flow	Dissolved P	TP	Ammonia-N	Nitrate-N	Total N	Solids
	gal	L	gal/acre	L/ha	----- mg/L -----					
Field 1										
2014	118,481	448,451	67,319	629,696	0.407	0.630	0.243	0.247	1.644	67.238
2015	103,754	392,708	58,951	551,425	0.302	0.480	0.286	0.272	1.989	33.457
2016	3,755	14,212	2,133	19,955	0.940	1.231	0.130	0.335	2.360	59.000
2017	682,789	2,584,356	387,948	3,628,845	0.529	0.761	0.296	0.220	1.846	62.480
Field 5a										
2014	34,350	130,015	3,587	33,548	0.613	0.779	0.170	0.023	0.683	28.933
2015	5,357,063	20,276,483	559,335	5,231,990	0.385	0.915	0.260	0.175	1.700	217.900
2016	139,663	528,625	14,582	136,402	1.134	1.405	0.980	1.598	4.010	53.200
2017	1,039,108	3,933,024	108,494	1,014,848	0.845	1.101	0.115	0.632	1.583	11.525
Field 12										
2014	N.D. ¹	N.D.	N.D.	N.D.						
2015	874,765	3,310,986	1,041,387	9,741,071	0.459	0.680	0.100	0.272	1.314	35.740



	Flow	Flow	Flow	Flow	Dissolved P	TP	Ammonia-N	Nitrate-N	Total N	Solids
2016	2,888	10,931	3,438	32,159	0.387	0.596	0.463	0.336	2.263	346.400
2017	403,100	1,525,734	479,881	4,488,778	0.289	0.463	0.027	0.146	1.143	141.233

¹⁻ No runoff occurred from Field 12, while the site was operational in 2014.

Table 8. Annual loss of phosphorus and nitrogen in surface runoff from Fields 1, 5a, and 12 for 2014, 2015, 2016, and 2017.

Date	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
----- lbs/ac -----						
Field 1						
2014	0.30	0.43	0.07	0.11	0.72	41
2015	0.15	0.22	0.08	0.09	0.64	16
2016	0.02	0.02	0.00	0.01	0.04	1
2017	2.27	3.07	1.49	1.28	7.25	181
Field 5a						
2014	0.02	0.02	0.00	0.00	0.02	1
2015	1.16	4.46	1.20	0.60	6.97	1,476
2016	0.14	0.16	0.03	0.04	0.20	3
2017	0.75	0.99	0.11	0.70	1.51	10
Field 12						
2014	N.D. ¹	N.D.	N.D.	N.D.	N.D.	N.D.
2015	1.79	3.28	0.79	1.23	7.40	321
2016	0.01	0.02	0.03	0.02	0.12	16
2017	1.07	1.72	0.11	0.62	4.60	453
----- g/ha -----						
Field 1						
2014	342.1	486.6	82.8	127.6	813.0	45,620
2015	171.4	246.5	92.0	104.3	719.4	17,712
2016	18.8	24.6	2.6	6.7	47.1	1,177
2017	2,546.4	3,441.5	1,676.5	1,431.2	8,132.1	203,052



Date	Dissolved P	Total P	Ammonia-N	Nitrate-N	Total N	Solids
Field 5a						
2014	19.5	25.3	5.5	0.8	22.3	1,254
2015	1,297.7	5,000.6	1,346.0	675.4	7,819.0	1,655,477
2016	157.4	184.4	37.0	41.6	228.5	3,623
2017	836.8	1,106.4	122.2	788.2	1,697.8	11,700
Field 12						
2014	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2015	2,010.8	3,680.0	887.1	1,374.4	8,296.2	359,901
2016	13.1	17.3	33.0	24.0	129.8	18,215
2017	1,194.9	1,928.8	126.4	694.9	5,158.1	508,434

¹⁻ No runoff occurred from Field 12, while the site was operational in 2014.

Table 9. Amount of phosphorus and nitrogen applied to the flume catchment area of Fields 1, 5a, and 12, loss in runoff, and percent of applied lost in runoff for 2014, 2015, 2016, and 2017.

Date	Rain	Phosphorus			Nitrogen		
		Applied	Loss in runoff	Percent applied lost in runoff	Applied	Loss in runoff	Percent applied lost in runoff
	inches	lbs		%	lbs		%
Field 1							
2014	25.13	86	0.76	0.9	80	1.28	1.6
2015	52.84	299	0.39	0.1	263	1.13	0.4
2016	29.50	141	0.04	0.0	244	0.07	0.0
2017	29.13	373	5.40	1.4	292	12.76	4.4
Field 5a							
2014	25.13	55	0.22	0.4	126	0.19	0.2
2015	52.84	55	42.70	77.3	126	66.77	52.9
2016	29.50	55	1.57	2.9	126	1.95	1.5
2017	29.13	55	9.45	17.1	126	14.50	2.8
Field 12							
2014	25.13	11	0	0.0	10	0	0.0
2015	52.84	6	2.76	49.2	23	6.21	26.5
2016	29.50	34	0.01	0.0	59	0.10	0.2
2017	29.13	68	1.44	2.1	53	3.86	7.2