

APPENDIX C

Rutgers Cooperative Extension Agricultural and Recreational Field Study Information

8. Is manure used as a nutrient additive for land on this property?
 YES NO Not Sure (explain)
9. Are there active pasture fields on this property?
 YES NO Not Sure (explain)
10. Are any methods employed to manage manure on this property?
 YES NO Not Sure (explain)

11. Please circle the following methods that are employed to manage manure on this property.

- Manure is stored in a location that is away from water bodies and drainage areas
- Roof or tarp over storage area
- Manure is placed on a flat, solid pad . Pad is constructed of ? _____
- Manure is stored in a bin enclosed on at least three sides
- Manure is hauled away periodically. Frequency? _____
- Fencing or other means of preventing/limiting livestock access to streams
- Active manure composting performed on site
- Have had cropland soil tested to determine appropriate fertilizer ratios
- Manure application to fields only as needed. General frequency _____

Other (please explain):

12. Are there substantial wildlife populations on this property?
 YES NO Not Sure (explain)

If there are substantial wildlife populations, please fill in the grid with an estimate of the numbers of wildlife that are regularly seen on your property.

Deer	Ducks	Geese	Raccoons	Other

Demographic/Need for Education Section

13. Are you familiar with the term “Best Management Practice” ?
 YES NO Not Sure (explain)
14. Are you aware of agencies and organizations that can assist you with the management of manure on your property?
 YES NO Not Sure (explain)

15. Please list the organizations you are aware of that provide assistance with water or environmental quality improvements on farmland to the agricultural community .

16. Would you or your staff be interested in attending free workshops that highlighted methods of manure management to better protect water quality ?
YES NO Not Sure (explain)

17. Would you be willing to let RCRE staff take a tour of your agricultural property to assess the use of manure and management practices?
YES NO Not Sure (explain)

18. Would you be willing to let RCRE staff record the locations of your manure storage areas/ application areas to help assess the agricultural input in the watershed?
YES NO Not Sure (explain)

19. If a manure management issue was identified, would you be interested in participating in a manure management best management practice demonstration project on your agricultural property?
YES NO Not Sure (explain)

20. Would you be interested in doing a demonstration project only if grant funding could be provided to cover some of the expenses?
YES NO Not Sure (explain)

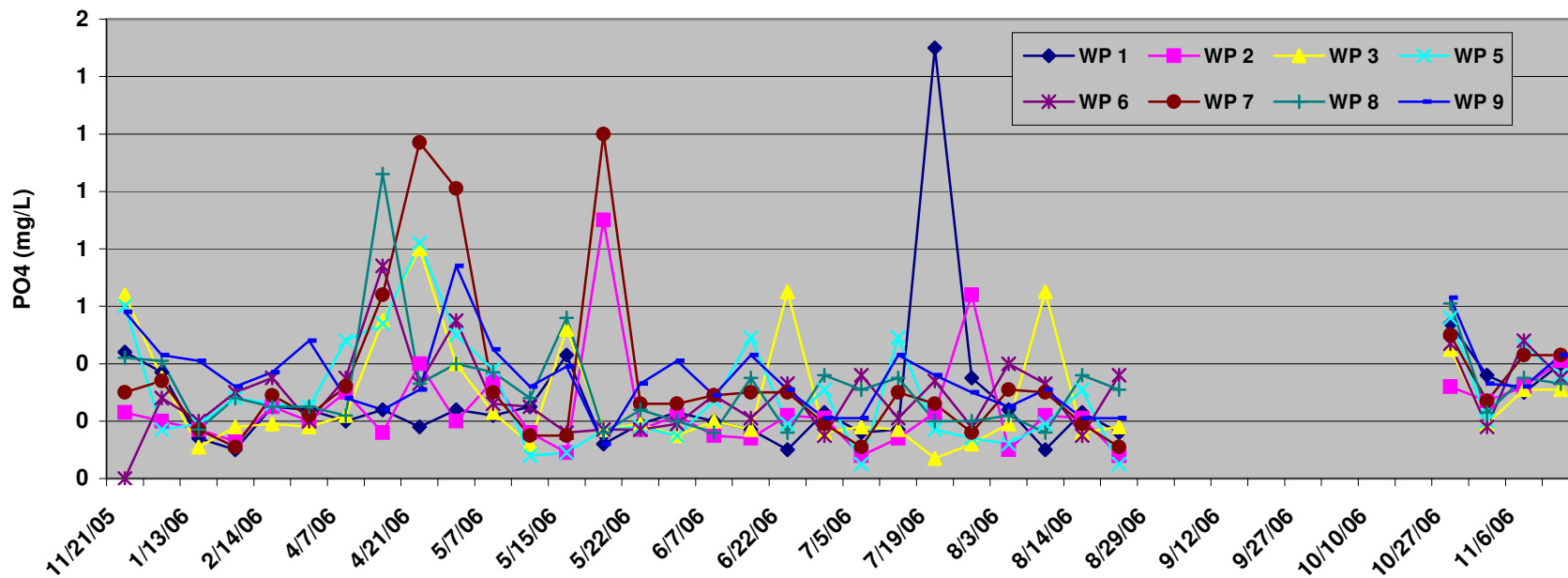
21. Would you be interested in doing a demonstration project only if grant funding could be provided to cover all of the expenses?
YES NO Not Sure (explain)

22. If you participated in a best management practice demonstration project, would you allow RCRE staff to monitor the effectiveness of the project in order make better recommendations for future projects?
YES NO Not Sure (explain)

Thank you for cooperating with this research request, and for your time. Please send response in the enclosed envelope. If you wish to participate further in this research, please indicate on this form, or contact:

Cara Muscio
Rutgers Cooperative Research and
Extension
1623 Whitesville RD
Toms River, NJ 08755
(732) 349-1210
Muscio@rcre.rutgers.edu

**Wreck Pond Brook Watershed
Rutgers Cooperative Extension- Orthophosphorus Monitoring**



**Wreck Pond Brook Watershed
Rutgers Cooperative Extension- pH Monitoring**

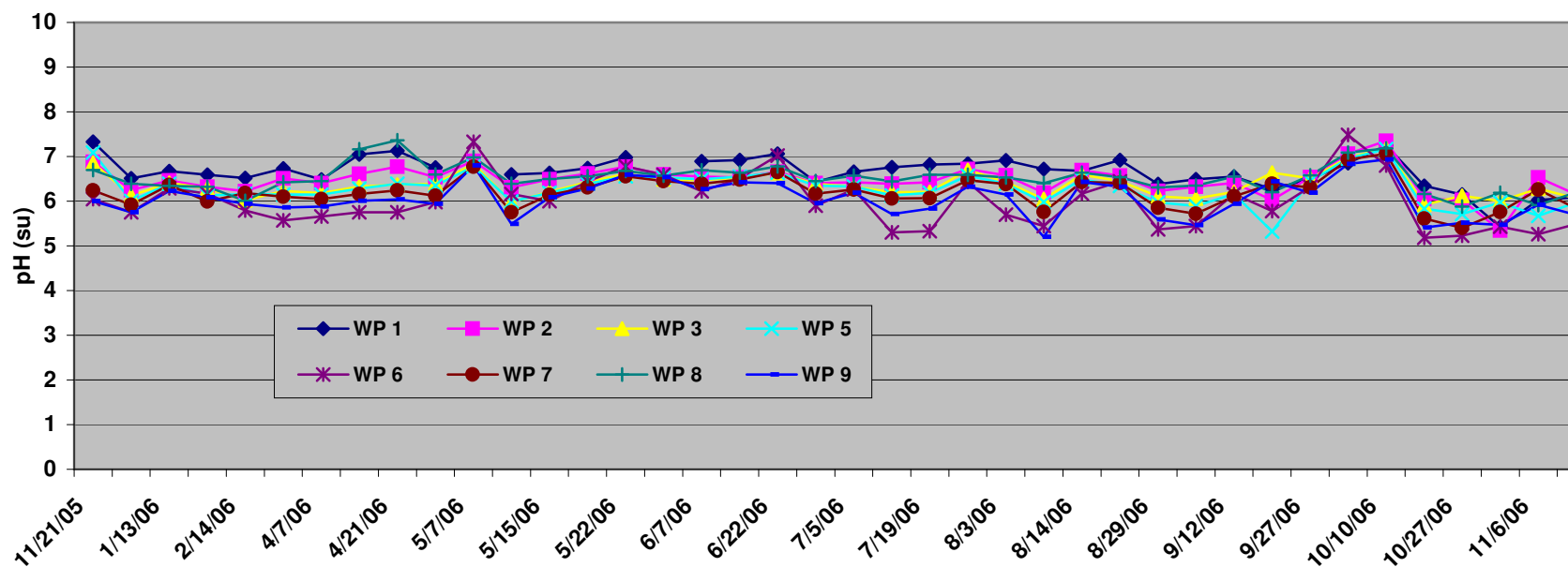


Table 1. Agricultural Stream Bank Soil Results

Sample ID	pH	Phosphorus (lbs./acre)	Potassium (lbs./acre)	Magnesium (lbs./acre)	Calcium (lbs./acre)	Micronutrients (ppm)	Organic Matter (%)	Organic Carbon (%)	Nitrate-N (ppm)	Ammonium-N (ppm)
A1a	4.90	40	83	160	1226	Iron - High	14.70	8.53	4	3
A1b	5.05	39	127	175	825	Iron - High	4.25	2.46	10	1
A2a	5.20	266	170	202	982	Iron - High	3.06	1.78	8	1
A2b	5.10	87	138	233	820	Iron - High	3.60	2.09	5	3
A3	5.05	117	106	192	953	Iron - High	5.14	2.98	2	2
A4	4.15	45	134	105	477	Iron - High	3.98	2.31	8	1

Table 2. Mixed Stream Bank Soil Results

Sample ID	pH	Phosphorus (lbs./acre)	Potassium (lbs./acre)	Magnesium (lbs./acre)	Calcium (lbs./acre)	Micronutrients (ppm)	Organic Matter (%)	Organic Carbon (%)	Nitrate-N (ppm)	Ammonium-N (ppm)
B1	6.25	39	116	139	1849	Iron - High	3.58	2.08	7	4
B2	4.55	39	126	101	768	Iron - High	7.52	4.36	5	7
B3	5.45	58	116	162	873	Iron - High	2.74	1.59	3	2
B4	4.50	74	64	96	688	Iron - High	10.22	5.93	9	7

Table 3. Developed Stream Bank Soil Results

Sample ID	pH	Phosphorus (lbs./acre)	Potassium (lbs./acre)	Magnesium (lbs./acre)	Calcium (lbs./acre)	Micronutrients (ppm)	Organic Matter (%)	Organic Carbon (%)	Nitrate-N (ppm)	Ammonium-N (ppm)
D1	5.65	9	69	188	1324	Iron - High	3.25	1.89	7	12
D2	5.10	95	211	137	936	Iron - High	2.49	1.44	11	7
D3	5.40	30	122	237	1092	Iron - High	4.90	2.84	13	20
D4	6.00	44	244	277	1999	Iron - High, Zinc - High	4.25	2.46	10	4

Table 4. Control Stream Bank Soil Results

Sample ID	pH	Phosphorus (lbs./acre)	Potassium (lbs./acre)	Magnesium (lbs./acre)	Calcium (lbs./acre)	Micronutrients (ppm)	Organic Matter (%)	Organic Carbon (%)	Nitrate-N (ppm)	Ammonium-N (ppm)
C1	4.65	4	131	89	329	Iron - High	4.29	2.49	2	5
C2	5.15	1	44	80	343		1.86	1.08	2	1
C3	6.60	1	51	101	731	Iron - High	1.82	1.05	2	0
C4	5.50	17	162	153	797	Iron - High	3.25	1.88	2	8

Table 5. Agricultural Land Soil Results

Description	pH	Phosphorus (lbs./acre)	Potassium (lbs./acre)	Magnesium (lbs./acre)	Calcium (lbs./acre)	Micronutrients (ppm)	Organic Matter (%)	Organic Carbon (%)	Nitrate-N (ppm)	Ammonium -N (ppm)
Hay	4.1	3	73	58	274	Iron - High	2.29	1.33	2	2
Hay	4.85	143	125	84	396	Iron - High	1.03	0.6	2	0
Hay	5.15	55	128	82	648		1.33	0.77	2	0
Hay	5	43	147	91	642	Iron - High	1.6	0.93	2	0
Hay	5.2	45	303	185	880	Iron - High	2.32	1.35	5	4
Hay	5.35	113	333	148	716	Iron - High	1.6	0.93	4	0
Hay	5.1	78	222	92	465	Iron - High	1.6	0.93	4	0
Hay	5.55	102	259	125	912	Iron - High	2.59	1.5	5	9
Hay	5.15	35	182	85	619	Iron - High	2.59	1.5	3	0
Hay	5.05	227	216	88	733	Iron - High	1.67	0.97	2	3
Hay	5.6	1037	183	91	2188	Iron - High	2.69	1.56	7	11
Mixed Vegetables	6.65	493	642	303	1874	Iron - High	3.03	1.76	4	0
Steer	7.8	113	179	224	1363	Iron - High	2.65	1.54	5	2
Steer	6.1	176	220	212	1413	Iron - High	3.03	1.76	5	3
Steer	5.9	211	290	240	1744	Iron - High	3.22	1.87	7	4
Mini Donkeys	6.15	64	69	197	1229	Iron - High				
Mini Donkeys	6.1	138	167	226	1362	Iron - High	2.58	1.5	4	3
Mini Donkeys	5.25	90	74	153	956	Iron - High	2.05	1.19	3	2
Hay	5.15	25	180	136	610	Iron - High	3.41	1.98	2	2
Mixed Vegetables	6.55	284	246	282	2321	Iron - High	4.28	2.48	6	1
Christmas Trees	5.15	275	46	57	479	Iron - High	1.56	0.91	1	0
Christmas Trees	4.75	376	47	37	203	Iron - High	1.17	0.68	1	0
Christmas Trees	4.75	344	80	42	211	Iron - High	1.01	0.59	2	1
Christmas Trees	4.85	353	82	52	305	Iron - High	1.09	0.63	1	1
Christmas Trees	5	377	83	51	371	Iron - High	1.33	0.77	1	3

Table 5. Agricultural Land Soil Results (continued)

Description	pH	Phosphorus (lbs./acre)	Potassium (lbs./acre)	Magnesium (lbs./acre)	Calcium (lbs./acre)	Micronutrients (ppm)	Organic Matter (%)	Organic Carbon (%)	Nitrate-N (ppm)	Ammonium -N (ppm)
Christmas Trees	4.95	221	47	64	560	Iron - High	1.37	0.79	2	1
Christmas Trees	4.85	370	50	45	421	Iron - High	0.94	0.54	2	1
Mixed Vegetables	6.5	587	421	129	1561	Iron - High	1.09	0.63	9	2
Mixed Vegetables	6.8	631	446	158	2127	Iron - High	1.8	1.04	3	3
Mixed Vegetables	6.7	611	488	137	1510	Iron - High	1.09	0.63	3	0
Mixed Vegetables	7.25	433	343	135	2652	Iron - High	1.52	0.88	4	0
Sweet Corn	6.8	439	340	112	1553	Iron - High	1.01	0.59	2	0
Sweet Corn	7.05	401	314	158	2282	Iron - High	1.6	0.93	4	1
Sweet Corn	6.75	373	343	154	1555	Iron - High	1.05	0.61	3	0
Sweet Corn	6.75	362	401	190	1780	Iron - High	1.56	0.91	4	1
Sweet Corn	7.2	334	453	169	2232	Iron - High	1.68	0.97	5	0
Sweet Corn	7.1	243	306	133	1488	Iron - High	1.01	0.59	3	0
Timber	4.3	143	101	62	341	Iron - High				
Timber	4.25	238	56	39	216	Iron - High				
Timber	4.15	191	103	51	355	Iron - High				
Timber	4.4	110	45	56	319	Iron - High				
Christmas Trees	5.35	221	137	108	463	Iron - High				
Christmas Trees	5.4	157	177	180	861	Iron - High				
Christmas Trees	5.6	106	64	192	817	Iron - High				
Horse Pasture	5.55	99	72	189	1041	Iron - High	2.64	1.53	7	2
Horse Pasture	5.75	141	284	224	1282	Iron - High	2.3	1.33	15	0
Mums	4.8	654	473	153	1202	Iron - High	2.41	1.4	5	0
Horse Pasture	6.3	137	282	259	1690	Iron - High	2.87	1.67	6	0
Horse Pasture	6.1	106	319	189	1183	Iron - High	1.45	0.84	5	0

Table 6. Recreational / Homeowner Land Soil Results

Description	pH	Phosphorus (lbs./acre)	Potassium (lbs./acre)	Magnesium (lbs./acre)	Calcium (lbs./acre)	Micronutrients (ppm)	Organic Matter (%)	Organic Carbon (%)	Nitrate-N (ppm)	Ammonium-N (ppm)
Soccer Field	5.35	64	184	182	1245	Iron - High	3.06	1.78	4	0
Baseball Field	5.05	97	198	170	1035	Iron - High	3.33	1.93	4	0
Soccer Field	6	122	345	336	1560	Iron - High	3.41	1.98	7	4
Soccer Field	6.45	66	244	462	1928	Iron - High	3.94	2.29	5	1
Golf Course	6	168	441	209	1517	Iron - High	4.5	2.61	4	5
Golf Course	6.4	123	284	195	1459	Iron - High	2.55	1.48	2	2
Golf Course	5.5	125	311	164	1254	Iron - High	3.54	2.05	4	2
Golf Course	5.7	117	267	179	1155	Iron - High	3.28	1.9	3	2
Golf Course	6.25	317	184	234	2494	Iron - High	3.58	2.07	1	2
Golf Course	6.2	212	174	244	1444	Iron - High	2.48	1.44	3	2
Baseball Field	6.45	43	141	219	1221	Iron - High	1.71	0.99	2	5
Soccer Field	5.95	42	89	155	834	Iron - High	1.6	0.93	2	2
Driving Range	5.95	42	127	395	2045	Iron - High	4.54	2.63	4	4
Driving Range	5.45	155	92	154	860	Iron - High	3.42	1.99	4	3
Playground	4.85	116	155	88	409	Iron - High	2.62	1.52	2	13
Soccer Field	4.95	68	117	90	384	Iron - High	2.12	1.23	2	9
Homeowner	5.45	39	94	240	1030	Iron - High				
Homeowner	5.4	50	130	245	1207	Iron - High				
Homeowner	5.8	143	69	206	1570	Iron - High, Copper - High				
Homeowner	6.95	347	417	470	4105	Iron - High				
Homeowner	5.35	135	283	259	1323	Iron - High				
Homeowner	5.55	316	287	290	1491	Iron - High				
Homeowner	6.6	32	49	126	1176	Iron - High				
Homeowner	5.35	32	133	146	1760	Iron - High				
Homeowner	4.6	137	300	161	1134	Iron - High				
Homeowner	7.15	33	201	384	2312	Iron - High				
Homeowner	6.75	30	148	252	1337	Iron - High				
Homeowner	6.5	20	130	301	1725	Iron - High				

Homeowner	7.15	170	93	573	2642	Iron - High
Homeowner	6.75	151	130	366	2889	Iron - High
Homeowner	8.1	233	202	506	13585	Iron - High
Homeowner	6.7	382	244	377	3779	Iron - High
	6.7	229	281	247	2318	Iron - High