

# APPENDIX G

## Improvements

## **Improvement Ranking System**

A ranking system was developed to determine which improvements should receive preference for implementation. The rating system includes scores for cost, location, and potential for increased storage. A detailed description of the ranking system is included below.

### Ranking Weight

- Potential new storage (50%)
- Cost (25%)
- Location (25%)

### Potential New Storage

- 1 point for improvements under 3 acre-feet of new storage.
- 2 points for improvements with between 3 and 6 acre-feet of new storage.
- 3 points for improvements with over 6 acre-feet of new storage.

### Cost

- 1 point for improvements with new construction or retrofitted costs >\$400,000.
- 2 points for improvements with new construction or retrofitted costs between \$150,000 and \$400,000.
- 3 points for improvements with new construction or retrofitted costs less than < \$150,000.

### Location

- 1 point for improvements that are outside of Management District B and not immediately upstream of a detailed problem area.
- 2 points for improvements that are either inside of Management District B or immediately upstream of a detailed problem area.
- 3 points for improvements that are both inside of Management District B and immediately upstream of a detailed problem area.

In general, proposed regional basins were ranked the highest. Regional basins can incorporate infiltration and volume control for water quality improvement in addition to peak rate control. Additionally, regional basins were generally located in areas of increased need of stormwater management, such as above a stream reach that is experiencing severe streambank erosion which contributed to a higher location score. Although the cost of implementing a regional basin is high, the benefits to the watershed are also high. Basin retrofits were generally had the next highest ranking, followed by riparian buffer restoration. This result is not unexpected as increased storage accounts for 50 percent of the ranking.

It should be noted that the ranking system is provided as a guide to help prioritize improvements, but it should in no way discourage the implementation of improvements with a lower ranking. Multiple factors, many of which cannot be incorporated into the ranking system, can affect the viability of a particular improvement. These include, but are not limited to, property ownership, access, available funding, permitting constraints, and short/long term maintenance.

# **APPENDIX G-1**

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## Proposed Regional Basins

Regional Basins

Basin ID	Municipality	Ownership	Current Land Use	Receiving Waters	Type of Measure	Existing Basin Area Sq-Ft	Existing Basin Depth Ft	Existing Storage Volume Acre-Ft	Potential Additional Extended Detention Acre-Ft	Estimated Catchment Area Acres
RB 7	Philadelphia	Private	Airport	Walton Run, Byberry Creek	Regional Basin	0	0	0	36.0	637.0
RB 4	Philadelphia	Private	Wooded	Byberry Creek	Regional Basin	0	0	0	21.2	88.0
RB 3	Philadelphia	Private	Golf Course	Byberry Creek	Regional Basin	0	0	0	26.6	185.6
RB 8	Bensalem Township	Private	Recreation	UNT Poquessing Creek	Regional Basin	0	0	0	23.7	141.5
RB 6	Philadelphia	Private	Wooded	Byberry Creek	Regional Basin	0	0	0	20.6	38.5
RSA 5	Philadelphia	Private	Wooded	Byberry Creek	Regional Basin	0	0	0	13.4	137.2
RB 2	Philadelphia	Private	Golf Course	Byberry Creek	Regional Basin	0	0	0	5.5	28.1
RB 1	Lower Southampton	Private	Wooded	UNT Poquessing Creek	Regional Basin	0	0	0	5.4	18.4

Regional Basins

Basin ID	Ratio of Catchment to Existing Storage	Storage Score	Cost for New Storage	Cost Score	Location Score	Total Score	Dam Permit Anticipated?	Notes
RB 7	9999.0	3	\$3,204,000	1	3	2.5	Yes	This storage area could consist of an embankment and outlet structure across the stream within the wooded area to the east North Philadelphia Airport. This area could detain a large amount of water and help to prevent downstream erosion. This storage area could also be an overflow floodplain storage facility. This type of storage would not detain as much flow but would not impact the area as much.
RB 4	9999.0	3	\$1,886,800	1	3	2.5	No	This storage area would be located in an open area within a large residential development. Ideally, this storage area would have an infiltration component, which would reduce peak flows and volumes while also increasing water quality.
RB 3	9999.0	3	\$2,370,960	1	2	2.25	Yes	This storage area would consist of a berm and outlet structure across the stream on the golf course that would be used as a cart path. During large events, parts of the course could flood. This is justifiable because the course would be unplayable during significant rainfall events. If desired, the storage area could be made smaller to only attenuate 2-5yr storms and have less impacts to surrounding areas.
RB 8	9999.0	3	\$2,109,300	1	2	2.25	Yes	This storage area would be constructed by building a low level berm at the down slope limits of the recreational fields. This will help by reducing peak rates and volumes of runoff to the downstream channel where erosion is occurring.
RB 6	9999.0	3	\$1,833,400	1	2	2.25	No	This storage area would consist of an embankment and outlet structure across the headwaters of a tributary within a wooded area downstream of the developed area. This should be constructed with minimal clearing of vegetation and will help to reduce peak rates and promote infiltration/filtration within the wooded area where ponding will occur.
RSA 5	9999.0	3	\$1,192,600	1	2	2.25	Yes	This storage area would be excavated on an empty lot between two industrial buildings downstream of a highly developed area.
RB 2	9999.0	3	\$491,280	1	2	2.25	No	This area is an unused portion of a golf course that could be used to detain water. The golf could potential use the detained water for irrigation.
RB 1	9999.0	3	\$480,600	1	2	2.25	No	This storage area would be constructed in the wooded area downstream of the commercial area. An embankment would be constructed near the downstream end of the wooded area and would provide storage in the undisturbed upstream area. This would require limited clearing of vegetation as construction would only occur in the area immediately surrounding the proposed embankment. This storage area has the potential to significantly reduce flow rates for both small and large storms, which would help mitigate severe erosion that is occurring in the downstream channel.

## **APPENDIX G-2**

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### Existing Basin Retrofits

Retrofitted Basins

Basin ID	Subbasin (SURVEY_PNT)	Original ID	Municipality	Address	Ownership	Current Land Use	Receiving Waters	Type of Measure
PHE49	PQMS50	PQ-119-0108-A	Philadelphia	14400 Mc Nulty Rd	Private	Manufacturing: Light Industrial	Poquessing Creek	Basin Retrofit
BEE12	PQMSE08		Bensalem Township		Private	Vacant	Poquessing Creek, unnamed trib (E)	Basin Retrofit
LME4	PQMSD12		Lower Moreland Township	Woodland Circle	Private	Wooded	Poquessing Creek, unnamed trib (D)	Basin Retrofit
PHE79	PQMS40	PQ-119-0093-A	Philadelphia	14700 Townsend Road	Private	Manufacturing: Light Industrial	Poquessing Creek	Basin Retrofit
BEE07	PQMSE08		Bensalem Township		Private	Parking	Poquessing Creek, unnamed trib (E)	Basin Retrofit
PHE18	PQCR12	PQ-110-0114-A	Philadelphia	Grant and Academy	Public	Transportation	Colbert's Run	Basin Retrofit
BEE40	PQMS72		Bensalem Township	Chancellor Circle	Private	Residential: Single-Family Detached	Poquessing Creek	Basin Retrofit
PHE74	PQMS74	PQ-111-0077-A	Philadelphia	4338 Byberry Rd	Private	Water	Poquessing Creek	Basin Retrofit
PHE94	PQMS50	PQ-119-0021-A	Philadelphia	3000 Meeting House Rd	Private	Agriculture	Poquessing Creek	Basin Retrofit
PHE10	PQCR08	PQ-032-0163-A	Philadelphia	2760 Red Lion Rd	Public	Vacant	Colbert's Run	Basin Retrofit
BEE11	PQMSE08		Bensalem Township	Tillman Drive	Private	Commercial	Poquessing Creek, unnamed trib (E)	Basin Retrofit
PHE14	PQBL02	PQ-119-0071-A	Philadelphia	14300 Townsend Road	Private	Manufacturing: Light Industrial	Black Lake Run	Basin Retrofit
PHE71	PQBL04	PQ-114-0018-A	Philadelphia	12401 McNulty Road	Private	Manufacturing: Light Industrial	Black Lake Run	Basin Retrofit
LME3	PQMSD12		Lower Moreland Township		Private	Residential: Single-Family Detached	Poquessing Creek, unnamed trib (D)	Basin Retrofit
LSE12	PQMSCB02		Lower Southampton Township		Private	Vacant	Poquessing Creek, unnamed trib (CB)	Basin Retrofit

Retrofitted Basins

Basin ID	Subbasin (SURVEY_PNT)	Original ID	Existing Basin Area Sq-Ft	Existing Basin Depth Ft	Existing Storage Volume Acre-Ft	Potential Additional Extended Detention Acre-Ft	Estimated Catchment Area Acres	Ratio of Catchment to Existing Storage	Storage Score	Cost for New Storage	Cost Score	Location Score	Total Score	Dam Permit Anticipated?
PHE49	PQMS50	PQ-119-0108-A	32,009	11.5	8.5	9.0	7.8	0.9	3	\$796,760	1	2	2.25	No
BEE12	PQMSE08		43,800	5.0	5.0	6.0	9.1	1.8	3	\$536,942	1	2	2.25	No
LME4	PQMSD12		39,200	8.3	7.4	7.4	17.4	2.3	3	\$660,758	1	1	2.00	No
PHE79	PQMS40	PQ-119-0093-A	42,000	3.7	3.6	4.3	23.3	6.5	2	\$378,499	2	2	2.00	No
BEE07	PQMSE08		22,500	6.0	3.1	3.6	4.8	1.5	2	\$321,798	2	2	2.00	No
PHE18	PQCR12	PQ-110-0114-A	204,000	9.8	46.0	3.1	136.0	3.0	2	\$277,870	2	2	2.00	Yes
BEE40	PQMS72		57,500	8.0	10.6	2.6	23.9	2.3	1	\$234,963	2	3	1.75	No
PHE74	PQMS74	PQ-111-0077-A	57,132	19.0	24.9	0.9	39.4	1.6	1	\$77,805	3	3	2.00	Yes
PHE94	PQMS50	PQ-119-0021-A	48,000	4.3	4.8	5.5	16.3	3.4	2	\$491,012	1	2	1.75	No
PHE10	PQCR08	PQ-032-0163-A	49,350	11.0	12.5	2.3	40.9	3.3	1	\$201,660	2	2	1.50	No
BEE11	PQMSE08		34,800	11.5	9.2	0.5	24.3	2.6	1	\$44,949	3	2	1.75	No
PHE14	PQBL02	PQ-119-0071-A	18,813	9.7	4.2	0.2	11.9	2.9	1	\$21,539	3	2	1.75	No
PHE71	PQBL04	PQ-114-0018-A	30,000	5.5	3.8	1.9	15.0	4.0	1	\$165,265	2	2	1.50	No
LME3	PQMSD12		22,400	9.0	4.6	2.8	11.6	2.5	1	\$251,717	2	1	1.25	No
LSE12	PQMSCB02		91,000	4.0	5.6	2.1	23.3	4.2	1	\$185,927	2	1	1.25	No



Retrofitted Basins

Basin ID	Subbasin (SURVEY_PNT)	Original ID	Notes
PHE49	PQMS50	PQ-119-0108-A	Double basin size and increase ponding depth by lowering basin floor or increasing berm height by 1'. Problem areas PHA7, PHA47, and PHA48 will benefit from these improvements. Could not access during field view.
BEE12	PQMSE08		Double size of basin, increase depth by 2', remove low flow channels, modify outlet structure, extend flow path and plant native vegetation within basin. Problem areas PHA20 and BEA8 will benefit from these improvements.
LME4	PQMSD12		Double basin size, increase berm height by 1', modify outlet structure. Cannot increase depth by lowering basin floor elevations because wetlands are present. Problem area PHA28 will benefit from these improvements.
PHE79	PQMS40	PQ-119-0093-A	Double basin size, add 1' depth to basin floor, modify outlet structure, extend flow path and plant native vegetation. Problem areas BEA9 and PHA20 will benefit from these improvements.
BEE07	PQMSE08		Double basin size, add 1' depth to basin floor. modify outlet structure, extend flow path and plant native vegetation. Problem areas PHA20 and BEA8 will benefit from these improvements.
PHE18	PQCR12	PQ-110-0114-A	Add 1' depth, extend flow path, and modify outlet structure. No room to expand basin. Problem areas PHA42 and PHA41 will benefit from these improvements.
BEE40	PQMS72		Increase depth by 2', remove concrete low flow channel, modify outlet structure, and plant native vegetation. The basin could also be planted with grass and used for a recreational field. No room to expand basin. Problem areas PHA54 and PHA55 will benefit from these improvements.
PHE74	PQMS74	PQ-111-0077-A	Increase berm height by 1', plant native vegetation, and other water quality improvements. No room to expand basin. Problem areas PHA3, PHA12, and PHA13 will benefit from these improvements.
PHE94	PQMS50	PQ-119-0021-A	Double basin size, increase basin depth by 1', plant native vegetation, and add forebay. Problem areas PHA7, PHA47, and PHA48 will benefit from these improvements.
PHE10	PQCR08	PQ-032-0163-A	Remove/modify low flow channel, modify outlet structure, plant native vegetation. No room to expand. Problem areas PHA42 and PHA41 will benefit from these improvements.
BEE11	PQMSE08		Modify outlet structure and plant native vegetation in/around basin. No room for expansion. Problem areas PHA20 and BEA8 will benefit from these improvements.
PHE14	PQBL02	PQ-119-0071-A	Modify outlet structure. No room to expand basin. Problem areas PHA7, PHA47, and PHA48 will benefit from these improvements.
PHE71	PQBL04	PQ-114-0018-A	Increase basin size by 25%, add 2' depth to basin floor, extend flow path, plant native vegetation, and modify outlet structure. Problem areas PHA7, PHA47, and PHA48 will benefit from these improvements.
LME3	PQMSD12		Increase basin size by 50%, add 1' depth to basin floor, extend flow path, modify outlet structure. Problem area PHA28 will benefit from these improvements.
LSE12	PQMSCB02		Increase basin depth by 1', remove low flow channels, extend flow path, plant native vegetation, and modify outlet structure. Problem area BEA13 will benefit from these improvements.

## **APPENDIX G-3**

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### Riparian Buffers

# Riparian Buffer Improvements

FID	Location	Side of Stream	Length	Buffer Area	Cost	Infiltration Storage	Cost / Storage	Storage Score	Cost Score	Location Score	Total Weighted Score
68	Byberry Creek	both	409.1	1.41	\$6,340	0.117	\$54,000	1	3	3	2
67	Byberry Creek	both	246.0	0.85	\$3,812	0.071	\$54,000	1	3	3	2
98	Byberry Creek	both	1141.3	3.93	\$17,685	0.327	\$54,000	1	3	2	1.75
45	Poquessing Creek	both	906.2	3.12	\$14,043	0.260	\$54,000	1	3	2	1.75
101	Byberry Creek	both	899.5	3.10	\$13,939	0.258	\$54,000	1	3	2	1.75
72	Byberry Creek	both	677.8	2.33	\$10,503	0.195	\$54,000	1	3	2	1.75
106	Byberry Creek	both	536.6	1.85	\$8,315	0.154	\$54,000	1	3	2	1.75
24	Poquessing Creek	both	505.6	1.74	\$7,835	0.145	\$54,000	1	3	2	1.75
83	Byberry Creek	both	504.9	1.74	\$7,825	0.145	\$54,000	1	3	2	1.75
82	Byberry Creek	one	954.7	1.64	\$7,397	0.137	\$54,000	1	3	2	1.75
70	Walton Run	both	462.6	1.59	\$7,168	0.133	\$54,000	1	3	2	1.75
71	Walton Run	both	423.7	1.46	\$6,565	0.122	\$54,000	1	3	2	1.75
97	Byberry Creek	one	831.0	1.43	\$6,439	0.119	\$54,000	1	3	2	1.75
46	Poquessing Creek	both	408.0	1.41	\$6,323	0.117	\$54,000	1	3	2	1.75
105	Byberry Creek	both	337.3	1.16	\$5,227	0.097	\$54,000	1	3	2	1.75
103	Poquessing Creek	both	303.3	1.04	\$4,700	0.087	\$54,000	1	3	2	1.75
78	Byberry Creek	both	282.0	0.97	\$4,370	0.081	\$54,000	1	3	2	1.75
84	Byberry Creek	both	240.8	0.83	\$3,732	0.069	\$54,000	1	3	2	1.75
26	Poquessing Creek	one	476.1	0.82	\$3,689	0.068	\$54,000	1	3	2	1.75
79	Byberry Creek	both	234.8	0.81	\$3,638	0.067	\$54,000	1	3	2	1.75
69	Walton Run	one	397.1	0.68	\$3,077	0.057	\$54,000	1	3	2	1.75
25	Poquessing Creek	one	396.1	0.68	\$3,069	0.057	\$54,000	1	3	2	1.75
99	Byberry Creek	both	191.2	0.66	\$2,963	0.055	\$54,000	1	3	2	1.75
43	Poquessing Creek	both	179.5	0.62	\$2,782	0.052	\$54,000	1	3	2	1.75
18	Poquessing Creek	both	175.5	0.60	\$2,720	0.050	\$54,000	1	3	2	1.75
28	Poquessing Creek	both	174.2	0.60	\$2,700	0.050	\$54,000	1	3	2	1.75
29	Poquessing Creek	one	318.2	0.55	\$2,466	0.046	\$54,000	1	3	2	1.75
108	Byberry Creek	both	153.2	0.53	\$2,374	0.044	\$54,000	1	3	2	1.75
90	Walton Run	both	147.9	0.51	\$2,292	0.042	\$54,000	1	3	2	1.75
44	Poquessing Creek	both	136.1	0.47	\$2,108	0.039	\$54,000	1	3	2	1.75
30	Poquessing Creek	both	118.3	0.41	\$1,834	0.034	\$54,000	1	3	2	1.75
22	Poquessing Creek	both	114.4	0.39	\$1,772	0.033	\$54,000	1	3	2	1.75
75	Byberry Creek	one	211.7	0.36	\$1,640	0.030	\$54,000	1	3	2	1.75
76	Byberry Creek	one	192.5	0.33	\$1,491	0.028	\$54,000	1	3	2	1.75
95	Byberry Creek	one	186.9	0.32	\$1,448	0.027	\$54,000	1	3	2	1.75
77	Byberry Creek	both	90.3	0.31	\$1,400	0.026	\$54,000	1	3	2	1.75
23	Poquessing Creek	one	179.3	0.31	\$1,389	0.026	\$54,000	1	3	2	1.75
81	Byberry Creek	one	176.2	0.30	\$1,365	0.025	\$54,000	1	3	2	1.75
19	Poquessing Creek	both	87.3	0.30	\$1,352	0.025	\$54,000	1	3	2	1.75
15	Poquessing Creek	one	173.1	0.30	\$1,341	0.025	\$54,000	1	3	2	1.75
102	Byberry Creek	one	167.3	0.29	\$1,296	0.024	\$54,000	1	3	2	1.75
20	Poquessing Creek	both	72.6	0.25	\$1,125	0.021	\$54,000	1	3	2	1.75
94	Byberry Creek	one	138.9	0.24	\$1,076	0.020	\$54,000	1	3	2	1.75
47	Poquessing Creek	one	127.6	0.22	\$988	0.018	\$54,000	1	3	2	1.75

# Riparian Buffer Improvements

FID	Location	Side of Stream	Length	Buffer Area	Cost	Infiltration Storage	Cost / Storage	Storage Score	Cost Score	Location Score	Total Weighted Score
104	Byberry Creek	one	125.3	0.22	\$971	0.018	\$54,000	1	3	2	1.75
73	Poquessing Creek	one	115.3	0.20	\$893	0.017	\$54,000	1	3	2	1.75
80	Byberry Creek	one	111.8	0.19	\$866	0.016	\$54,000	1	3	2	1.75
74	Byberry Creek	one	103.8	0.18	\$804	0.015	\$54,000	1	3	2	1.75
107	Byberry Creek	one	80.6	0.14	\$624	0.012	\$54,000	1	3	2	1.75
21	Poquessing Creek	one	59.0	0.10	\$457	0.008	\$54,000	1	3	2	1.75
100	Byberry Creek	one	0.1	0.00	\$1	0.000	\$54,000	1	3	2	1.75
58	Poquessing Creek	both	742.1	2.56	\$11,499	0.213	\$54,000	1	3	1	1.5
91	Byberry Creek	one	1338.5	2.30	\$10,370	0.192	\$54,000	1	3	1	1.5
96	Poquessing Creek	both	597.7	2.06	\$9,262	0.172	\$54,000	1	3	1	1.5
92	Byberry Creek	both	557.1	1.92	\$8,633	0.160	\$54,000	1	3	1	1.5
55	Poquessing Creek	both	543.3	1.87	\$8,419	0.156	\$54,000	1	3	1	1.5
5	Poquessing Creek	both	540.2	1.86	\$8,372	0.155	\$54,000	1	3	1	1.5
54	Poquessing Creek	both	495.5	1.71	\$7,679	0.142	\$54,000	1	3	1	1.5
17	Poquessing Creek	one	849.0	1.46	\$6,578	0.122	\$54,000	1	3	1	1.5
36	Poquessing Creek	one	842.2	1.45	\$6,525	0.121	\$54,000	1	3	1	1.5
16	Poquessing Creek	one	793.9	1.37	\$6,151	0.114	\$54,000	1	3	1	1.5
57	Poquessing Creek	both	355.0	1.22	\$5,502	0.102	\$54,000	1	3	1	1.5
2	Poquessing Creek	both	347.1	1.20	\$5,378	0.100	\$54,000	1	3	1	1.5
48	Poquessing Creek	both	346.7	1.19	\$5,372	0.099	\$54,000	1	3	1	1.5
42	Poquessing Creek	one	527.7	0.91	\$4,088	0.076	\$54,000	1	3	1	1.5
34	Poquessing Creek	one	487.6	0.84	\$3,778	0.070	\$54,000	1	3	1	1.5
14	Poquessing Creek	one	487.2	0.84	\$3,775	0.070	\$54,000	1	3	1	1.5
59	Poquessing Creek	both	242.1	0.83	\$3,752	0.069	\$54,000	1	3	1	1.5
62	Poquessing Creek	both	222.1	0.76	\$3,441	0.064	\$54,000	1	3	1	1.5
66	Poquessing Creek	one	406.5	0.70	\$3,149	0.058	\$54,000	1	3	1	1.5
63	Poquessing Creek	both	194.1	0.67	\$3,007	0.056	\$54,000	1	3	1	1.5
49	Poquessing Creek	both	189.9	0.65	\$2,942	0.054	\$54,000	1	3	1	1.5
41	Poquessing Creek	one	359.3	0.62	\$2,784	0.052	\$54,000	1	3	1	1.5
11	Poquessing Creek	one	343.9	0.59	\$2,665	0.049	\$54,000	1	3	1	1.5
7	Poquessing Creek	both	168.4	0.58	\$2,609	0.048	\$54,000	1	3	1	1.5
52	Poquessing Creek	both	163.5	0.56	\$2,534	0.047	\$54,000	1	3	1	1.5
27	Poquessing Creek	one	311.4	0.54	\$2,413	0.045	\$54,000	1	3	1	1.5
51	Poquessing Creek	both	139.5	0.48	\$2,161	0.040	\$54,000	1	3	1	1.5
85	Byberry Creek	both	139.5	0.48	\$2,161	0.040	\$54,000	1	3	1	1.5
53	Poquessing Creek	one	271.1	0.47	\$2,100	0.039	\$54,000	1	3	1	1.5
64	Poquessing Creek	one	269.6	0.46	\$2,089	0.039	\$54,000	1	3	1	1.5
38	Poquessing Creek	one	265.9	0.46	\$2,060	0.038	\$54,000	1	3	1	1.5
40	Poquessing Creek	one	261.1	0.45	\$2,023	0.037	\$54,000	1	3	1	1.5
39	Poquessing Creek	one	245.5	0.42	\$1,902	0.035	\$54,000	1	3	1	1.5
33	Poquessing Creek	one	241.7	0.42	\$1,872	0.035	\$54,000	1	3	1	1.5
1	Poquessing Creek	one	223.7	0.39	\$1,733	0.032	\$54,000	1	3	1	1.5
37	Poquessing Creek	one	220.4	0.38	\$1,708	0.032	\$54,000	1	3	1	1.5
3	Poquessing Creek	both	109.4	0.38	\$1,695	0.031	\$54,000	1	3	1	1.5

# Riparian Buffer Improvements

FID	Location	Side of Stream	Length	Buffer Area	Cost	Infiltration Storage	Cost / Storage	Storage Score	Cost Score	Location Score	Total Weighted Score
88	Byberry Creek	both	101.5	0.35	\$1,572	0.029	\$54,000	1	3	1	1.5
60	Poquessing Creek	both	100.7	0.35	\$1,560	0.029	\$54,000	1	3	1	1.5
61	Poquessing Creek	one	201.2	0.35	\$1,559	0.029	\$54,000	1	3	1	1.5
32	Poquessing Creek	one	196.8	0.34	\$1,525	0.028	\$54,000	1	3	1	1.5
93	Byberry Creek	one	184.7	0.32	\$1,431	0.026	\$54,000	1	3	1	1.5
31	Poquessing Creek	one	175.4	0.30	\$1,359	0.025	\$54,000	1	3	1	1.5
86	Byberry Creek	one	173.8	0.30	\$1,347	0.025	\$54,000	1	3	1	1.5
0	Poquessing Creek	one	169.4	0.29	\$1,312	0.024	\$54,000	1	3	1	1.5
4	Poquessing Creek	one	166.8	0.29	\$1,293	0.024	\$54,000	1	3	1	1.5
9	Poquessing Creek	one	164.3	0.28	\$1,273	0.024	\$54,000	1	3	1	1.5
8	Poquessing Creek	one	161.7	0.28	\$1,253	0.023	\$54,000	1	3	1	1.5
6	Poquessing Creek	one	159.6	0.27	\$1,236	0.023	\$54,000	1	3	1	1.5
35	Poquessing Creek	one	156.8	0.27	\$1,215	0.023	\$54,000	1	3	1	1.5
87	Byberry Creek	one	141.7	0.24	\$1,098	0.020	\$54,000	1	3	1	1.5
56	Poquessing Creek	one	132.0	0.23	\$1,023	0.019	\$54,000	1	3	1	1.5
65	Poquessing Creek	one	125.7	0.22	\$974	0.018	\$54,000	1	3	1	1.5
10	Poquessing Creek	both	61.7	0.21	\$956	0.018	\$54,000	1	3	1	1.5
89	Byberry Creek	one	114.4	0.20	\$886	0.016	\$54,000	1	3	1	1.5
12	Poquessing Creek	both	56.7	0.20	\$878	0.016	\$54,000	1	3	1	1.5
13	Poquessing Creek	one	58.7	0.10	\$455	0.008	\$54,000	1	3	1	1.5
50	Poquessing Creek	one	53.8	0.09	\$417	0.008	\$54,000	1	3	1	1.5