6. Criteria to Measure Progress Toward Meeting Watershed Goals

This section describes criteria to measure progress toward meeting our watershed goals. Milestones were developed for pollutant load and water quality leading to achievement of DEP standards for water quality and recommended use. Tailored milestones are included to the character and magnitude of impairments in each subwatershed, specifying parameters, location and frequency of sampling. Consideration of local priorities for implementation, availability of funding, personnel, analytic capability, seasonal weather conditions, coordination with existing monitoring programs, etc., is given. Finally, a schedule and parties responsible for monitoring and reporting progress is indicated.

6.1. Milestones for pollutant load and water quality leading to achievement of DEP standards for water quality and recommended use

Table 6-1 gives milestones for pollutant load reduction and water quality improvements leading to achievement of DEP standards for water quality and recommended use. Sediment and phosphorus load reductions were derived from the existing TMDL for the South Branch Codorus Creek, and from Oil Creek's TMDL for sediment only. Consistent with the Chesapeake Bay model, both sediment and phosphorus load will be determined on a pounds per year basis for tracking and evaluation purposes.

6.2. Milestones tailored to the character and magnitude of impairments in each subwatershed, specifing parameters, location and frequency of sampling

Table 6-2 gives milestones tailored to the character and magnitude of impairments in each subwatershed, specifying parameters, location and frequency of sampling. For all subwatersheds, restoration effectiveness indicators for streambank erosion rates and stability, in-stream pebble counts, and live riparian buffer plants per acre will be monitored annually for at least three consecutive years. Additionally, Penn State York's Biology Department operates and maintains dedicated, in-stream monitoring stations at Graydon Road in the East Branch Subwatershed and Larue Station in the South Branch. Both sampling stations monitor stream flow, discharge, turbidity, specific conductivity, nitrate, phosphate, and temperature. The PADEP's unified watershed assessment program will be conducting in-stream macroinvertebrate sampling and analysis again on a 5-year cycle, beginning in 2006 and ending in 2010, which will be used to evaluate attainment with water quality standards.

Table 6-1. Milestones for Achieving Pollutant Load and Water Quality Standards by Subwatershed and Watershed

EAST BRANCH CODORUS CREEK WATERSHED	Priority 1	Priority 2	Priority 3	Other	Total	Short-Term (<2 yrs) P-1 Sediment Load Reductions	Mid-Term (<5 yrs) P-2 Sediment Load Reductions	Long-Term (≥5 yrs) TP Load Reductions
Stream Priority	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(lbs/yr)	(lbs/yr)	(lbs/yr)
1. East Branch CC-3 (Lower)	20,793	45,128	16,288	949	83,158	16,634,400	18,051,200	693,712
2. Dunkard Valley Trib	11,025	9,016	15,728	366	36,135	8,820,000	3,606,400	248,528
3. Seaks Run	8,995	13,471	16,137	3,366	41,969	7,196,000	5,388,400	251,688
4. Barshinger Creek	7,924	45,553	2,053	0	55,530	6,339,200	18,221,200	491,208
5. Inners Creek	6,257	11,255	21,500	1,045	40,057	5,005,600	4,502,000	190,152
6. Graydon Road Trib	3,327	7,103	0	0	10,430	2,661,600	2,841,200	110,056
7. Ridgeview Road Trib	1,991	3,902	816	0	6,709	1,592,800	1,560,800	63,072
8. Blymire Hollow Trib	1,985	42,431	29,482	500	74,398	1,588,000	16,972,400	371,208
9.Winterstown Boro S Trib	1,975	1,247	4,280	0	7,502	1,580,000	498,800	41,576
10.Winterstown Boro N Trib	1,302	9,265	8,965	0	19,532	1,041,600	3,706,000	94,952
11. Jacobus Boro N. Trib	1,176	3,000	0	0	4,176	940,800	1,200,000	42,816
12. Dallastown South Trib	759	13,558	2,465	0	16,782	607,200	5,423,200	120,608
13. Nixon Park Trib	234	21,168	18,114	0	39,516	187,200	8,467,200	173,088
14. Reynolds Mill Trib	210	1,291	1,548	0	3,049	168,000	516,400	13,688
15. Mt. Zion Trib	0	11,661	1,119	0	12,780	0	4,664,400	93,288
16. Arlington Park Trib	0	11,078	4,074	0	15,152	0	4,431,200	88,624
17. Hametown Trib	0	9,084	6,262	135	15,481	0	3,633,600	72,672
18. East Branch CC-2 (Mid)	0	9,022	7564	0	16,586	0	3,608,800	72,176
19. I-83 Exit Three Trib	0	7,028	2,611	0	9,639	0	2,811,200	56,224
20. Jacobus Boro W. Trib	0	4,359	198	0	4,557	0	1,743,600	34,872
21. I-83 Exit Four Trib	0	3,245	1,280	640	5,165	0	1,298,000	25,960
22. Jacobus Boro E.	0	1,974	3,337	0	5,311	0	789,600	15,792
23. Rehmeyer Hollow Trib	0	1,089	7,306	521	8,916	0	435,600	8,712
24. Spartan Road Trib	0	265	3,646	0	3,911	0	106,000	2,120
25. Mt. Olivet Trib	0	41	12,914	181	13,136	0	16,400	328
26. Leaders Heights S. Trib	0	0	2,392	0	2,392	0	0	0
27. East Branch CC-1	0	0	0	0	0	0	0	0
TOTAL	67,953	286,234	190,079	7,703	551,969	54,362,400	114,493,600	3,377,120
SOUTH BRANCH CODORUS CREEK WATERSHED	Priority 1	Priority 2	Priority 3	Other	Total	Short-Term (<2 yrs) P-1 Sediment Load Reductions	Mid-Term (<5 yrs) P-2 Sediment Load Reductions	Long-Term (≥5 yrs) TP Load Reductions
Stream Priority	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(lbs/yr)	(lbs/yr)	(lbs/yr)
1. South Branch CC	31,125	44,759	68,820	358	145,062	24,900,000	17,903,600	856,072
2. Fishel Creek	7,752	11,220	29,407	0	48,379	6,201,600	4,488,000	213,792
3. Foust Creek	2,914	4,973	12,056	0	19,943	2,331,200	1,989,200	86,408
4. Glen Rock Valley Trib	2,735	17,848	18,309	0	38,892	2,188,000	7,139,200	186,544
5. Travis Trib	2,518	5,761	12,995	0	21,274	2,014,400	2,304,400	86,376
6. Pierceville Run	2,485	33,290	38,529	0	74,304	1,988,000	13,316,000	306,080
7. Centerville Creek	2,336	24,163	51,398	0	77,897	1,868,800	9,665,200	230,680
8. Stricthouser Trib	940	31,898	15,862	0	48,700	752,000	12,759,200	270,224

9. Hungerford Trib	898	2,204	9,560	942	13,604	718,400	881,600	32,000
10. Seven Valleys N. Trib	436	2,523	8,244	0	11,203	348,800	1,009,200	27,160
11. Trout Run	227	8,421	25,403	204	34,255	181,600	3,368,400	71,000
12. Krebs Valley Trib	0	33,412	13,893	0	47,305	0	13,364,800	267,296
13. Hanover Junction Trib	0	19,476	0	0	19,476	0	7,790,400	155,808
14. Wangs Trib	0	13,821	0	0	13,821	0	5,528,400	110,568
15. Zeiglers Church Trib	0	10,367	5,725	0	16,092	0	4,146,800	82,936
16. Brush Valley Trib	0	5,642	13,567	0	19,209	0	2,256,800	45,136
17. New Freedom Trib	0	4,745	0	0	4,745	0	1,898,000	37,960
18. Cherry Run	0	4,203	12,367	0	16,570	0	1,681,200	33,624
19. Bens Trib	0	4,153	0	0	4,153	0	1,661,200	33,224
20. Buffalo Valley Trib	0	2,730	25,079	0	27,809	0	1,092,000	21,840
21. New Freedom Ch Trib	0	2,350	23,944	0	26,294	0	940,000	18,800
22. Seven Valleys S. Trib	0	2,291	14,523	0	16,814	0	916,400	18,328
23. Larue Trib	0	1,839	10,643	0	12,482	0	735,600	14,712
24. Glen Rock South Trib	0	1,437	1,966	2,228	5,631	0	574,800	11,496
25. Railroad Trib	0	989	2,786	845	4,620	0	395,600	7,912
26. Golf Course Trib	0	626	4,247	0	4,873	0	250,400	5,008
27. Peter & Paul Trib	0	254	4,963	0	5,217	0	100,800	2,016
28. North Railroad Trib	0	0	2,619	0	2,619	0	0	0
TOTAL	54,366	295,395	426,905	4,577	781,243	43,492,800	118,157,200	3,233,000
WEST BRANCH CODORUS CREEK WATERSHED	Priority 1	Priority 2	Priority 3	Other	Total	Short-Term (<2 yrs) P-1 Sediment Load Reductions	Mid-Term (<5 yrs) P-2 Sediment Load Reductions	Long-Term (≥5 yrs) TP Load Reductions
Stream Priority	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(lbs/yr)	(lbs/yr)	(lbs/yr)
1. Mill Creek	44,130	58,069	79,084	18,865	200,148	35,304,000	23,227,600	1,170,632
2.Upper Codorus Creek	39,021	52,694	91,122	0	182,837	31,216,800	20,848,800	1,041,312
3. Codorus Creek	32,478	90,252	173,459	7,445	303,634	25,982,400	36,100,800	1,241,664
4. Willis Run	20,528	5,449	0	0	25,977	16,422,400	2,179,600	372,040
5. Oil Creek	16,368	86,053	39,362	206	141,989	13,094,400	34,421,200	950,312
6. Long Run	14,684	58,471	50,508	0	123,663	11,747,200	23,388,400	702,712
7. Spring Garden Park Trib	7,883	1,367	412	5,449	15,111	6,306,400	546,800	137,064
8. Violet Hill Trib	6,262	31,896	18,144	0	56,302	5,009,600	12,758,400	355,360
9. Furnace Creek	5,518	32,446	6,510	0	44,474	4,414,400	12,978,400	347,856
10. Stoverstown Branch	5,057	12,597	23,105	0	40,759	4,045,600	5,038,800	181,688
11. South Branch CC	4,990	0	18,601	0	23,591	3,992,000	0	79,840
12. Porters Creek	4,404	6,051	6,574	0	17,029	3,523,200	2,420,400	118,872
13. Old Paths Trib	3,384	8,369	42,383	0	54,136	2,707,200	3,347,600	121,096
14. West Branch CC	3,319	34,357	56,881	0	94,557	2,655,200	13,742,800	327,960
15. Leaders Heights Trib	3,168	24,468	12,155	0	39,791	2,534,400	9,787,200	246,432
16. Lightners School Trib	2,988	10,555	8,226	1,452	23,221	2,390,400	4,222,000	132,248
17. Lehman Trib	1,927	5,903	24,404	0	32,234	1,541,600	2,361,200	78,056
18. New Salem Trib	1,874	13,659	15,581	0	31,114	1,499,200	5,463,600	139,256
19. Nashville Trib	1,431	9,192	1,352	0	11,975	920,880	1,119,200	40,802
19. Nashville Trib 20. Prospect Hill Trib	1,431 1,151	9,192 2,798	1,352 2,445	0	11,975 6,394	920,880 1,144,800	1,119,200 3,676,800	40,802 96,432
		·			-	•		

23. Bunch Creek	0	16,278	20,302	0	36,580	0	6,511,200	130,224
24. Dee Run	0	16,236	9,493	0	25,729	0	6,494,400	129,888
25. Lincolnway Trib	0	15,412	9,203	0	24,615	0	6,164,800	123,296
26. Spring Grove Trib	0	7,096	1,356	0	8,452	0	2,838,400	56,768
27. Starview Trib	0	3,316	11,972	0	15,288	0	1,326,400	26,528
28. Sunnyside Trib	0	2,867	3,347	0	6,214	0	1,146,800	22,936
29. Lischy Church Trib	0	1,352	12,155	0	13,507	0	540,800	10,816
30. Gitts Run	0	528	23,037	0	23,565	0	211,200	4,224
31. Trout Run	0	0	8,806	0	8,806	0	0	0
TOTAL	221,759	626,671	810,545	33,981	1,692,956	177,407,280	250,439,600	8,556,938

Sampling locations and frequencies where know are shown below. For those projects not yet planned, these locations will be decided during the design phase of the project. In all cases, one or more latitudinal stream cross-sections will be sampled annually and monitored for a minimum of 3 years.

Table 6-2. Milestones to the character and magnitude of impairments in each subwatershed, specifying parameters, location and frequency of sampling.

EAST BRANCH CODORUS CREEK WATERSHED	Impai	rment		Para	meters		Location	Frequency
Stream Priority	Character	Magnitude (Feet)	Biological	Chemical	Physical	Other		
1. East Branch CC-3 (Lower)	Sediment	83,158	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
2. Dunkard Valley Trib	Sediment	36,135	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
3. Seaks Run	Sediment	41,969	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
4. Barshinger Creek	Sediment	55,530	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
5. Inners Creek	Sediment	40,057	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
6. Graydon Road Trib	Sediment	10,430	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
7. Ridgeview Road Trib	Sediment	6,709	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
8. Blymire Hollow Trib	Sediment	74,398	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
9. Winterstown Boro S Trib	Sediment	7,502	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
10.Winterstown Boro N Trib	Sediment	19,532	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
11. Jacobus Boro N. Trib	Sediment	4,176	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
12. Dallastown South Trib	Sediment	16,782	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
13. Nixon Park Trib	Sediment	39,516	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
14. Reynolds Mill Trib	Sediment	3,049	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
15. Mt. Zion Trib	Sediment	12,780	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
16. Arlington Park Trib	Sediment	15,152	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
17. Hametown Trib	Sediment	15,481	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years

18. East Branch CC-2 (Mid)	Sediment	16,586	Periphyton Macro- invertebrates (optional)	Dissolved oxygen Nitrate-N Ortho-P	X-section Pebble count Discharge Sed-load Temperature Turbidity	Visual assessment	Riffle	Annually 3-Years
19. I-83 Exit Three Trib	Sediment	9,639	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
20. Jacobus Boro W. Trib	Sediment	4,557	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
21. I-83 Exit Four Trib	Sediment	5,165	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
22. Jacobus Boro E.	Sediment	5,311	-	-	X-section	Visual	Riffle	Annually
23. Rehmeyer Hollow Trib	Sediment	8,916	-	-	Y-section	assessment Visual	Riffle	3-Years Annually
24. Spartan Road Trib	Sediment	3,911	-	-	Pebble count X-section	assessment Visual	Riffle	3-Years Annually
25. Mt. Olivet Trib	Sediment	13,136	_	_	Pebble count X-section	assessment Visual	Riffle	3-Years Annually
		•	-	-	Pebble count	assessment	Killie	3-Years
26. Leaders Heights S. Trib	Sediment	2,392	-	-	-	-	-	-
27. East Branch CC-1	Sediment	0	-	-	-	-	-	-
TOTAL		551,969						
SOUTH BRANCH CODORUS CREEK WATERSHED	Impair	rment		Parai	meters		Location	Frequency
Stream Priority	Character	Magnitude (Feet)	Biological	Chemical	Physical	Other		
1. South Branch CC	Sediment Phosphorus	145,062	Periphyton Macro- invertebrates (optional)	Dissolved oxygen Nitrate-N Ortho-P	X-section Pebble count Discharge Sed-load Temperature Turbidity	Visual assessment	Riffle	Annually 3-Years
2. Fishel Creek	Sediment	48,379	_		X-section	Visual	Riffle	Annually
	бесинен	40,577	-	-	Pebble count	assessment	KIIIIC	,
3. Foust Creek	Sediment	19,943	-	-	Pebble count X-section Pebble count	Visual assessment	Riffle	3-Years Annually
		,		-	X-section Pebble count X-section	Visual assessment Visual		3-Years Annually 3-Years Annually
3. Foust Creek	Sediment Phosphorus	19,943	-	-	X-section Pebble count X-section Pebble count X-section	Visual assessment Visual assessment Visual	Riffle	3-Years Annually 3-Years Annually 3-Years Annually
Foust Creek Glen Rock Valley Trib	Sediment Phosphorus Sediment Sediment Sediment	19,943 38,892	-	-	X-section Pebble count X-section Pebble count X-section Pebble count X-section Y-section	Visual assessment Visual assessment Visual assessment Visual	Riffle Riffle	3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run	Sediment Phosphorus Sediment Sediment Sediment Phosphorus	19,943 38,892 21,274 74,304	-	-	X-section Pebble count X-section Pebble count X-section Pebble count X-section Pebble count Pebble count	Visual assessment Visual assessment Visual assessment Visual assessment	Riffle Riffle Riffle Riffle	3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually 3-Years
Foust Creek Glen Rock Valley Trib Travis Trib	Sediment Phosphorus Sediment Sediment Sediment	19,943 38,892 21,274	-	- - -	X-section Pebble count X-section Pebble count X-section Pebble count X-section Y-section	Visual assessment Visual assessment Visual assessment Visual assessment Visual assessment	Riffle Riffle Riffle	3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually 3-Years
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run	Sediment Phosphorus Sediment Sediment Sediment Phosphorus Sediment	19,943 38,892 21,274 74,304	-	- - - -	X-section Pebble count	Visual assessment Visual assessment Visual assessment Visual assessment Visual	Riffle Riffle Riffle Riffle	3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually 3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek	Sediment Phosphorus Sediment Sediment Phosphorus Sediment Phosphorus Sediment Phosphorus	19,943 38,892 21,274 74,304 77,897	- - - -	-	X-section Pebble count X-section	Visual assessment Visual assessment Visual assessment Visual assessment Visual	Riffle Riffle Riffle Riffle Riffle	3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek 8. Stricthouser Trib	Sediment Phosphorus Sediment Sediment Phosphorus Sediment Phosphorus Sediment Phosphorus Sediment	19,943 38,892 21,274 74,304 77,897 48,700	- - - - -	-	X-section Pebble count X-section	Visual assessment Visual	Riffle Riffle Riffle Riffle Riffle Riffle	3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek 8. Stricthouser Trib 9. Hungerford Trib	Sediment Phosphorus Sediment Sediment Phosphorus Sediment Phosphorus Sediment Phosphorus Sediment Sediment	19,943 38,892 21,274 74,304 77,897 48,700 13,604	- - - - -	-	X-section Pebble count X-section	Visual assessment Visual	Riffle Riffle Riffle Riffle Riffle Riffle Riffle	3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek 8. Stricthouser Trib 9. Hungerford Trib 10. Seven Valleys N. Trib	Sediment Phosphorus Sediment Sediment Phosphorus Sediment Phosphorus Sediment Phosphorus Sediment Sediment Sediment Sediment Sediment	19,943 38,892 21,274 74,304 77,897 48,700 13,604 11,203	- - - - -	-	X-section Pebble count X-section	Visual assessment Visual	Riffle Riffle Riffle Riffle Riffle Riffle Riffle Riffle Riffle	3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek 8. Stricthouser Trib 9. Hungerford Trib 10. Seven Valleys N. Trib 11. Trout Run	Sediment Phosphorus Sediment Sediment Phosphorus Sediment Phosphorus Sediment Phosphorus Sediment Sediment Sediment Sediment	19,943 38,892 21,274 74,304 77,897 48,700 13,604 11,203 34,255	- - - - - -		X-section Pebble count X-section	Visual assessment Visual	Riffle	3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek 8. Stricthouser Trib 9. Hungerford Trib 10. Seven Valleys N. Trib 11. Trout Run 12. Krebs Valley Trib	Sediment Phosphorus Sediment Sediment Sediment Phosphorus Sediment Phosphorus Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment	19,943 38,892 21,274 74,304 77,897 48,700 13,604 11,203 34,255 47,305	- - - - - - -		X-section Pebble count X-section	Visual assessment Visual	Riffle	3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek 8. Stricthouser Trib 9. Hungerford Trib 10. Seven Valleys N. Trib 11. Trout Run 12. Krebs Valley Trib 13. Hanover Junction Trib	Sediment Phosphorus Sediment Sediment Sediment Phosphorus Sediment Phosphorus Sediment	19,943 38,892 21,274 74,304 77,897 48,700 13,604 11,203 34,255 47,305 19,476	- - - - - - - -	- - - -	X-section Pebble count X-section	Visual assessment	Riffle	3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek 8. Stricthouser Trib 9. Hungerford Trib 10. Seven Valleys N. Trib 11. Trout Run 12. Krebs Valley Trib 13. Hanover Junction Trib 14. Wangs Trib	Sediment Phosphorus Sediment Sediment Sediment Phosphorus Sediment Phosphorus Sediment	19,943 38,892 21,274 74,304 77,897 48,700 13,604 11,203 34,255 47,305 19,476 13,821	- - - - - - - -	- - - -	X-section Pebble count X-section	Visual assessment	Riffle	3-Years Annually
3. Foust Creek 4. Glen Rock Valley Trib 5. Travis Trib 6. Pierceville Run 7. Centerville Creek 8. Stricthouser Trib 9. Hungerford Trib 10. Seven Valleys N. Trib 11. Trout Run 12. Krebs Valley Trib 13. Hanover Junction Trib 14. Wangs Trib 15. Zeiglers Church Trib	Sediment Phosphorus Sediment Sediment Sediment Phosphorus Sediment Phosphorus Sediment	19,943 38,892 21,274 74,304 77,897 48,700 13,604 11,203 34,255 47,305 19,476 13,821 16,092	- - - - - - - - -	- - - -	X-section Pebble count	Visual assessment	Riffle	3-Years Annually 3-Years

					Pebble count	assessment		3-Years
19. Bens Trib	Sediment	4,153	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
20. Buffalo Valley Trib	Sediment	27,809	-	-	X-section	Visual	Riffle	Annually
21. New Freedom Ch Trib	Phosphorus Sediment	26,294	_		Pebble count X-section	assessment Visual	Riffle	3-Years Annually
					Pebble count X-section	assessment Visual		3-Years Annually
22. Seven Valleys S. Trib	Sediment	16,814	-	-	Pebble count	assessment	Riffle	3-Years
23. Larue Trib	Sediment	12,482	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
24. Glen Rock South Trib	Sediment	5,631	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
25. Railroad Trib	Sediment	4,620	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
26. Golf Course Trib	Sediment	4,873	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
27. Peter & Paul Trib	Sediment	5,217	-	-	X-section	Visual	Riffle	Annually
28. North Railroad Trib	Sediment	2,619	-	-	Pebble count	assessment -	-	3-Years
TOTAL		781,243						
WEST BRANCH CODORUS CREEK WATERSHED	Impair	rment		Para	meters		Location	Frequency
Stream Priority	Character	Magnitude (Feet)	Biological	Chemical	Physical	Other		
1. Mill Creek	Sediment	200,148	Periphyton Macro- invertebrates (optional)	Dissolved oxygen Nitrate-N Ortho-P	X-section Pebble count Discharge Sed-load Temperature Turbidity	Visual assessment	Riffle	Annually 3-Years
2.Upper Codorus Creek	Sediment	182,837	Periphyton Macro- invertebrates (optional)	Dissolved oxygen Nitrate-N Ortho-P	X-section Pebble count Discharge Sed-load Temperature Turbidity	Visual assessment	Riffle	Annually 3-Years
3. Codorus Creek	Sediment	303,634	Periphyton Macro- invertebrates (optional)	Dissolved oxygen Nitrate-N Ortho-P	X-section Pebble count Discharge Sed-load Temperature Turbidity	Visual assessment	Riffle	Annually 3-Years
4. Willis Run	Sediment	25,977	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
5. Oil Creek	Sediment	141,989	-	-	X-section Pebble count	Visual	Riffle	Annually
6. Long Run	Sediment	123,663	-		X-section	assessment Visual	Riffle	3-Years Annually
7. Spring Garden Park Trib	Sediment	,	-		Pebble count X-section	assessment Visual		3-Years Annually
		15,111	-	-	Pebble count X-section	assessment Visual	Riffle	3-Years Annually
8. Violet Hill Trib	Sediment	56,302	-	-	Pebble count	assessment	Riffle	3-Years
9. Furnace Creek	Sediment	44,474	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
10. Stoverstown Branch	Sediment	40,759	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
11. South Branch CC	Sediment	23,591	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
12. Porters Creek	Sediment	17,029	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
13. Old Paths Trib	Sediment	54,136	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
14. West Branch CC	Sediment	94,557	Periphyton Macro- invertebrates	Dissolved oxygen Nitrate-N	X-section Pebble count Discharge	Visual assessment	Riffle	Annually 3-Years

			(optional)	Ortho-P	Sed-load			
					Temperature			
					Turbidity			
15. Leaders Hieghts Trib	Sediment	39,791	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
16. Lightners School Trib	Sediment	23,221	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
17. Lehman Trib	Sediment	32,234	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
18. New Salem Trib	Sediment	31,114	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
19. Nashville Trib	Sediment	11,975	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
20. Prospect Hill Trib	Sediment	6,394	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
21. Swimming Pool Trib	Sediment	19,331	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
22. Emigsville Trib	Sediment	41,933	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
23. Bunch Creek	Sediment	36,580	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
24. Dee Run	Sediment	25,729	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
25. Lincolnway Trib	Sediment	24,615	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
26. Spring Grove Trib	Sediment	8,452	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
27. Starview Trib	Sediment	15,288	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
28. Sunnyside Trib	Sediment	6,214	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
29. Lischy Church Trib	Sediment	13,507	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
30. Gitts Run	Sediment	23,565	-	-	X-section Pebble count	Visual assessment	Riffle	Annually 3-Years
31. Trout Run	-	8,806	-	-	-	-	-	-
TOTAL		1,692,956						

6.3. Consideration of local priorities for implementation, availability of funding/personnel/analytic capability, seasonal weather conditions, coordination with existing monitoring programs, etc.

Consideration of local priorities for restoration, availability of funding, personnel and equipment, seasonal weather conditions, and coordination opportunities are discussed below.

Local priorities to restore an ecosystem as complex as the Codorus Creek Watershed will require everyone to address numerous and extremely unique issues. Commitments important to the Codorus Creek Watershed restoration are organized into five strategic focus areas:

• Protecting and Restoring Living Resources – Aims to restore, enhance and protect the finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem.

- Protecting and Restoring Vital Habitats Aims to preserve, protect and restore those habitats and natural areas that are vital to the survival and diversity of the living resources of the Bay and its rivers.
- *Improving Water Quality* Improving water quality in the Codorus Creek and Susquehanna River is the most critical element in ensuring the future health of Chesapeake Bay.
- *Managing Lands Soundly* Because pollutants on land are easily washed into streams and rivers, our actions on land ultimately affect the watershed and Bay.
- Engaging Individuals and Local Communities To contribute to watershed restoration, we have to be concerned about resource stewardship in our own communities, homes and backyards.

Funding is the most limiting factors of the watershed restoration process. Sources of funding include public and private grants, donations of cash, materials, equipment and supplies matched in-kind, and volunteer time committed to landowner meetings, planning, public education and outreach, grant writing and administration, technical advisory meetings, construction, monitoring, and maintenance activities. Grants programs typically require a cash match ranging from 15% to 50%. The remaining 50% to 85% can be a local match of in-kind products and services.

Human resources are considered to be adequate for the successful implementation of the plan, both short- and long-term. Short-term limitations include one qualified contractor with experienced personnel and equipment. In order to sustain watershed restoration progress long-term, a minimum of three restoration contract teams will be necessary, one each working in the East, South, and West Branches, year-round.

Construction activities in stocked trout streams from March 1 through June 15, in wild trout streams from October 1 through December 31, is prohibited unless approval is obtained from the Pennsylvania Fish and Boat Commission's Division of Environmental Services, seasonally.

The Codorus Implementation Committee will use this plan as its primary coordination tool for implementation opportunities as time and resources allow.

6.4. Schedule and parties responsible for monitoring and reporting progress

A schedule and parties responsible for monitoring and reporting progress is given in table 6-3.

Table 6-3. Schedule and Parties Responsible for Monitoring and Reporting Progress.

Responsible Party	Monitoring	Reporting Progress
Aquatic Resource Restoration Company	Quarterly	Annually
City of York	Quarterly	Annually
Codorus Creek Improvement Partnership	Quarterly	Annually
Codorus Creek Watershed Association	Quarterly	Annually
Codorus Implementation Committee	Quarterly	Annually
Glatfelter	Quarterly	Annually
Izaak Walton League of America, York Chapter 67	Quarterly	Annually
Pennsylvania Department of Environmental Protection	Annually	Biennially
Pennsylvania Fish and Boat Commission	Annually	Biennially
PennDOT District 8 Maintenance	Annually	Biennially
Penn State York	Quarterly	Annually
Trout Unlimited, Codorus Chapter	Quarterly	Annually
U.S. Army Corps of Engineers – Baltimore District	Annually	Biennially
U.S. Environmental Protection Agency	Annually	Biennially
Watershed Alliance of York (WAY)	Quarterly	Annually
York County Conservation District	Quarterly	Annually
York County Department of Parks and Recreation	Quarterly	Annually
York County Planning Commission	Quarterly	Annually
York County Community Foundation	Quarterly	Annually
York Water Company	Ouarterly	Annually