

Appendix F

**Tables from the 2005 TMDL Report
Revised by this TMDL Report**

Appendix F

The following tables are from the April 2005 Christina River Basin Nutrient/DO TMDL report for which revisions are proposed.

Table 4-1. Total nitrogen and total phosphorus allocations at PA-DE state line

Location	Baseline Load (kg/day)	Pennsylvania Allocation (kg/day)	Reduction
Total Nitrogen			
Brandywine Creek (at PA-DE Line)	6981.0	4002.7	42.7%
White Clay Creek (at PA-DE Line)	1166.7	818.4	29.9%
Red Clay Creek (at PA-DE Line)	438.9	320.6	27.0%
Burroughs Run (at PA-DE Line)	34.2	34.2	0.0%
Total Phosphorus			
Brandywine Creek (at PA-DE Line)	368.2	355.2	3.5%
White Clay Creek (at PA-DE Line)	111.1	111.1	0.0%
Red Clay Creek (at PA-DE Line)	57.6	34.4	40.2%
Burroughs Run (at PA-DE Line)	0.7	0.7	0.0%

Table 4-2. Total nitrogen and total phosphorus allocations at MD-DE state line

Location	Baseline Load (kg/day)	Maryland Allocation (kg/day)	Reduction
Total Nitrogen			
Christina River West Branch (MD-DE Line)	65.1	34.6	46.9%
Total Phosphorus			
Christina River West Branch (MD-DE Line)	3.6	1.8	48.0%

Table 4-3. TMDL summary for Brandywine Creek Watershed

Subbasin	Baseline Loads (kg/day)			Allocations (kg/day)				Percent Reduction
	PS	NPS	Total	WLA	MS4 WLA	MOS	TMDL	
Total Nitrogen								
B01	0.038	379.770	379.808	0.038	216.467	11.395	227.900	40.0%
B02	16.295	63.651	79.946	16.295	35.466	2.724	54.486	31.8%
B03	0.704	156.047	156.751	0.704	133.385	7.057	141.146	10.0%
B04	0.000	9.380	9.380	0.000	9.380	0.000	9.380	0.0%
B05	517.319	134.617	651.936	517.319	50.866	29.904	598.090	8.3%
B06	0.076	213.433	213.509	0.076	141.929	7.474	149.479	30.0%
B09	0.038	224.511	224.549	0.038	174.892	9.207	184.137	18.0%
B10	1.077	465.938	467.015	1.077	362.912	19.157	383.146	18.0%
B17	0.566	158.854	159.420	0.566	147.865	7.812	156.243	2.0%
B32	0.000	29.010	29.010	0.000	24.804	1.305	26.109	10.0%

Subbasin	Baseline Loads (kg/day)			Allocations (kg/day)				Percent Reduction
	PS	NPS	Total	WLA	MS4 WLA	MOS	TMDL	
B33	0.203	95.181	95.384	0.203	81.370	4.293	85.866	10.0%
Total Phosphorus								
B01	0.019	7.408	7.427	0.019	4.222	0.223	4.464	39.9%
B02	4.484	0.433	4.917	4.484	0.023	0.237	4.744	3.5%
B03	0.386	16.693	17.079	0.386	14.253	0.770	15.410	9.8%
B04	0.000	1.020	1.020	0.000	1.020	0.000	1.020	0.0%
B05	25.825	15.089	40.914	25.825	7.309	1.744	34.878	14.8%
B06	0.038	25.876	25.914	0.038	17.206	0.908	18.151	30.0%
B09	0.019	2.873	2.892	0.019	2.237	0.119	2.375	17.9%
B10	0.161	34.096	34.257	0.161	26.553	1.406	28.120	17.9%
B17	0.156	8.071	8.227	0.156	7.506	0.403	8.066	2.0%
B32	0.000	2.148	2.148	0.000	1.837	0.097	1.933	10.0%
B33	0.091	1.732	1.823	0.091	1.476	0.082	1.650	9.5%

Table 4-4. WLA summary for Brandywine Creek Watershed

Subbasin	NPDES	Flow mgd	Baseline Point Source Loads				WLA				Percent Reduction	
			TN mg/L	TP mg/L	TN kg/day	TP kg/day	TN mg/L	TP mg/L	TN kg/day	TP kg/day	TN	TP
B01	PA0057339	0.0005	20.00	10.00	0.038	0.019	20.00	10.00	0.038	0.019	0.0%	0.0%
B02	PA0036412	0.0550	7.02	1.90	1.462	0.396	7.02	1.90	1.462	0.396	0.0%	0.0%
B02	PA0044776	0.6000	6.53	1.80	14.833	4.089	6.53	1.80	14.833	4.089	0.0%	0.0%
B03	PA0052728	0.0004	20.00	10.00	0.030	0.015	20.00	10.00	0.030	0.015	0.0%	0.0%
B03	PA0055697	0.0490	3.63	2.00	0.673	0.371	3.63	2.00	0.673	0.371	0.0%	0.0%
B05	PA0011568-001	0.6400	5.30	0.30	12.842	0.727	5.30	0.30	12.842	0.727	0.0%	0.0%
B05	PA0011568-016	0.5045	12.00	0.30	22.919	0.573	12.00	0.30	22.919	0.573	0.0%	0.0%
B05	PA0026859	3.8500	30.00	1.48	437.264	21.572	30.00	1.48	437.264	21.572	0.0%	0.0%
B05	PA0036897	0.3900	30.00	2.00	44.294	2.953	30.00	2.00	44.294	2.953	0.0%	0.0%
B06	PA0053228	0.0005	20.00	10.00	0.038	0.019	20.00	10.00	0.038	0.019	0.0%	0.0%
B06	PA0053236	0.0005	20.00	10.00	0.038	0.019	20.00	10.00	0.038	0.019	0.0%	0.0%
B09	PA0054691	0.0005	20.00	10.00	0.038	0.019	20.00	10.00	0.038	0.019	0.0%	0.0%
B10	PA0050547	0.0375	7.26	1.00	1.031	0.142	7.26	1.00	1.031	0.142	0.0%	0.0%
B10	PA0055492	0.0005	20.00	10.00	0.038	0.019	20.00	10.00	0.038	0.019	0.0%	0.0%
B17	PA0053082	0.0206	7.26	2.00	0.566	0.156	7.26	2.00	0.566	0.156	0.0%	0.0%
B33	PA0012416	0.1400	0.24	0.10	0.127	0.053	0.24	0.10	0.127	0.053	0.0%	0.0%
B33	PA0052990	0.0005	20.00	10.00	0.038	0.019	20.00	10.00	0.038	0.019	0.0%	0.0%
B33	PA0056073	0.0005	20.00	10.00	0.038	0.019	20.00	10.00	0.038	0.019	0.0%	0.0%

Table 4-5. TMDL summary for Red Clay Creek Watershed

Subbasin	Baseline (kg/day)			Allocations (kg/day)				Percent Reduction
	PS	NPS	Baseline	WLA	MS4 WLA	MOS	TMDL	
Total Nitrogen								
R01	0.227	143.230	143.457	0.227	68.023	3.592	71.842	49.9%
R02	20.114	182.702	202.816	20.114	85.778	5.573	111.465	45.0%
R03	2.749	132.076	134.825	2.749	62.599	3.439	68.787	49.0%
R04	2.085	72.099	74.184	2.085	34.143	1.907	38.135	48.6%
R05	0.206	63.244	63.450	0.206	30.031	1.591	31.828	49.8%
R06	0.038	52.210	52.248	0.038	37.694	1.986	39.718	24.0%
R07	0.000	3.015	3.015	0.000	3.015	0.000	3.015	0.0%

Subbasin	Baseline (kg/day)			Allocations (kg/day)				Percent Reduction
	PS	NPS	Baseline	WLA	MS4 WLA	MOS	TMDL	
R08	0.318	43.799	44.117	0.318	43.799	0.000	44.117	0.0%
R09	0.000	13.423	13.423	0.000	13.423	0.000	13.423	0.0%
Total Phosphorus								
R01	0.095	1.025	1.120	0.095	0.482	0.030	0.608	45.8%
R02	5.330	46.122	51.452	5.330	8.497	0.728	14.554	71.7%
R03	1.136	1.093	2.229	1.136	0.462	0.084	1.683	24.5%
R04	32.918	6.665	39.583	32.918	0.317	1.749	34.984	11.6%
R05	0.114	4.484	4.598	0.114	4.484	0.000	4.598	0.0%
R06	0.019	1.270	1.289	0.019	1.270	0.000	1.289	0.0%
R07	0.000	0.424	0.424	0.000	0.424	0.000	0.424	0.0%
R08	0.133	1.594	1.727	0.133	1.594	0.000	1.727	0.0%
R09	0.000	0.430	0.430	0.000	0.430	0.000	0.430	0.0%

Table 4-6. WLA summary for Red Clay Creek Watershed

Subbasin	NPDES	Flow mgd	Baseline Point Source Loads				WLA				Percent Reduction	
			TN mg/L	TP mg/L	TN kg/day	TP kg/day	TN mg/L	TP mg/L	TN kg/day	TP kg/day	TN	TP
R01	PA0050679	0.2500	0.24	0.10	0.227	0.095	0.24	0.10	0.227	0.095	0.0%	0.0%
R02	PA0024058	1.1000	4.83	1.28	20.114	5.330	4.83	1.28	20.114	5.330	0.0%	0.0%
R03	PA0055107	0.1500	4.84	2.00	2.749	1.136	4.84	2.00	2.749	1.136	0.0%	0.0%
R04	DE0000451	2.1700	0.24	0.30	1.972	2.465	0.24	0.30	1.972	2.465	0.0%	0.0%
R04	DE0050067	0.0015	20.00	10.00	0.114	0.057	20.00	10.00	0.114	0.057	0.0%	0.0%
R05	DE0021709	0.0150	3.63	2.00	0.206	0.114	3.63	2.00	0.206	0.114	0.0%	0.0%
R06	PA0055425	0.0005	20.00	10.00	0.038	0.019	20.00	10.00	0.038	0.019	0.0%	0.0%
R08	DE0000230	0.3500	0.24	0.10	0.318	0.133	0.24	0.10	0.318	0.133	0.0%	0.0%

Table 4-7. TMDL summary for White Clay Creek Watershed

Subbasin	Baseline Loads (kg/day)			Allocations (kg/day)				Percent Reduction
	PS	NPS	Baseline	WLA	MS4 WLA	MOS	TMDL	
Total Nitrogen								
W01	0.550	157.120	157.670	0.550	74.605	3.956	79.110	49.8%
W02	10.998	133.823	144.821	10.998	56.659	3.561	71.218	50.8%
W03	0.000	154.723	154.723	0.000	73.493	3.868	77.362	50.0%
W04	0.000	83.403	83.403	0.000	39.616	2.085	41.702	50.0%
W06	58.211	168.697	226.908	58.211	77.221	7.128	142.560	37.2%
W07	8.010	29.485	37.495	8.010	13.605	1.138	22.753	39.3%
W08	0.000	216.797	216.797	0.000	102.979	5.420	108.399	50.0%
W09	0.091	141.336	141.427	0.091	67.130	3.538	70.759	50.0%
W10	0.000	59.065	59.065	0.000	28.056	1.477	29.533	50.0%
W11	0.000	71.329	71.329	0.000	71.329	0.000	71.329	0.0%
W12	0.027	96.990	97.017	0.027	96.990	0.000	97.017	0.0%
W13	0.000	23.795	23.795	0.000	23.795	0.000	23.795	0.0%
W14	0.000	25.388	25.388	0.000	25.388	0.000	25.388	0.0%
W15	0.000	34.814	34.814	0.000	34.814	0.000	34.814	0.0%
W16	0.000	39.049	39.049	0.000	39.049	0.000	39.049	0.0%
W17	0.000	84.315	84.315	0.000	84.315	0.000	84.315	0.0%
Total Phosphorus								

Subbasin	Baseline Loads (kg/day)			Allocations (kg/day)				Percent Reduction
	PS	NPS	Baseline	WLA	MS4 WLA	MOS	TMDL	
W01	0.151	1.924	2.075	0.151	0.815	0.051	1.017	51.0%
W02	1.893	1.420	3.313	1.893	0.512	0.127	2.532	23.6%
W03	0.000	17.214	17.214	0.000	7.359	0.387	7.746	55.0%
W04	0.000	1.173	1.173	0.000	0.501	0.026	0.528	55.0%
W06	4.816	2.208	7.024	4.816	0.284	0.268	5.368	23.6%
W07	0.074	1.892	1.966	0.074	0.805	0.046	0.925	52.9%
W08	0.000	60.821	60.821	0.000	16.178	0.851	17.030	72.0%
W09	0.045	15.989	16.034	0.045	6.833	0.362	7.240	54.8%
W10	0.000	5.098	5.098	0.000	2.179	0.115	2.294	55.0%
W11	0.000	5.736	5.736	0.000	5.736	0.000	5.736	0.0%
W12	0.011	4.576	4.587	0.011	4.576	0.000	4.587	0.0%
W13	0.000	1.174	1.174	0.000	1.174	0.000	1.174	0.0%
W14	0.000	0.755	0.755	0.000	0.755	0.000	0.755	0.0%
W15	0.000	0.495	0.495	0.000	0.495	0.000	0.495	0.0%
W16	0.000	0.833	0.833	0.000	0.833	0.000	0.833	0.0%
W17	0.000	2.158	2.158	0.000	2.158	0.000	2.158	0.0%

Table 4-8. WLA summary for White Clay Creek Watershed

Subbasin	NPDES	Flow mgd	Baseline Point Source Loads				WLA				Percent Reduction	
			TN mg/L	TP mg/L	TN kg/day	TP kg/day	TN mg/L	TP mg/L	TN kg/day	TP kg/day	TN	TP
W01	PA0053783	0.0200	7.26	2.00	0.550	0.151	7.26	2.00	0.550	0.151	0.0%	0.0%
W02	PA0024066	0.2500	11.62	2.00	10.998	1.893	11.62	2.00	10.998	1.893	0.0%	0.0%
W06	PA0029343	0.0270	7.26	2.00	0.742	0.204	7.26	2.00	0.742	0.204	0.0%	0.0%
W06	PA0040436	0.0090	20.00	2.00	0.681	0.068	20.00	2.00	0.681	0.068	0.0%	0.0%
W06	PA0025488	0.3000	50.00	4.00	56.788	4.543	50.00	4.00	56.788	4.543	0.0%	0.0%
W07	PA0056898	0.0650	32.55	0.30	8.010	0.074	32.55	0.30	8.010	0.074	0.0%	0.0%
W09	PA0052451	0.0012	20.00	10.00	0.091	0.045	20.00	10.00	0.091	0.045	0.0%	0.0%
W12	DE0000191	0.0300	0.24	0.10	0.027	0.011	0.24	0.10	0.027	0.011	0.0%	0.0%

Table 4-9. Baseline and WLA nitrogen and phosphorus loads for CSO discharges

Location	CSO ID numbers	Baseline (kg/day)	WLA (kg/day)	Reduction
Total Nitrogen				
Little Mill Creek (C05)	27, 28, 29	4.14	0.62	85.0%
Christina River (C09)	5, 6, 7, 9a, 9c, 10, 11, 12, 13, 14, 15, 16, 17, 30	9.40	1.41	85.0%
Brandywine Cr. (B34)	3, 4a, 4b, 4c, 4d, 4e, 4f, 18, 19, 20, 21a, 21b, 21c, 22b, 22c, 23, 24, 25, 26, RR	17.10	2.56	85.0%
Total CSO load	-	30.64	4.60	85.0%
Total Phosphorus				
Little Mill Creek (C05)	27, 28, 29	0.64	0.10	85.0%

Location	CSO ID numbers	Baseline (kg/day)	WLA (kg/day)	Reduction
Christina River (C09)	5, 6, 7, 9a, 9c, 10, 11, 12, 13, 14, 15, 16, 17, 30	1.46	0.22	85.0%
Brandywine Cr. (B34)	3, 4a, 4b, 4c, 4d, 4e, 4f, 18, 19, 20, 21a, 21b, 21c, 22b, 22c, 23, 24, 25, 26, RR	2.54	0.38	85.0%
Total CSO load	-	4.64	0.70	85.0%