

## **APPENDIX F**

### **Priority Ranking of Stormwater Retrofits**

This appendix presents the methodology used in ranking the priority stormwater retrofits. The actual ranking in the text may be altered slightly due to the ability to implement some of the retrofits in conjunction with one another or other restoration efforts. Best professional judgment, stakeholder interest and feedback from County staff were also taken into consideration in the ranking presented in Section 4 of the report.



## APPENDIX F RETROFIT RANKING SYSTEM FOR THE CENTENNIAL AND WILDE LAKE WATERSHEDS

The retrofit ranking system is based on a 20 point scoring system. The basic concept is to evaluate the relative merit of proposed retrofit sites by assigning points to a site based on its ability to meet various criteria under each of the four major factors that reflect the goals set by watershed stakeholders. Summing the assigned points for each of the factors gives an overall site score. Sites with the highest score represent the good overall candidates for implementation from a stormwater management technical vantage point. The proposed retrofit ranking system includes the following major factors:

1. Water Quality – Does the practice treat the Water Quality Volume (WQv)?
2. Channel Protection – To what extent does the project assist with the protection of stream channels from erosion? Does the practice provide recharge or would the practice reduce downstream erosion by reducing flow volume or erosive velocities
3. Feasibility – How feasible is the construction or retrofit of that practice in that location based on property ownership, cost, access, maintenance, utility, and permit issues?
4. Education – Does the site provide good educational opportunities for the community and general public?

<b>Scoring Criteria</b>	
<b>1) WQv</b>	
<i>WQv is the ability of the practice to treat the 1st inch of runoff, less points are given for partial treatment or improvement of an existing facility.</i>	
<b>Standard</b>	<b>Points</b>
Yes, the practice can treat the WQv	5
Partially treat or improve WQv	2 to 4
<b>2) CPv</b>	
<i>CPv is the ability of the practice to provide downstream channel protection, reduce runoff volume or reduce erosive velocities</i>	
<b>Standard</b>	<b>Points</b>
Yes, the practice will provide CPv	5
Some infiltration will be provided	3
Small site less infiltration	2
<b>3) Feasibility</b>	
<i>How feasible is the construction or retrofit of that practice in that location based on property ownership, cost, access, maintenance, utility, and permit issues?</i>	

<b>Scoring Criteria</b>	
<b>Standard</b>	<b>Points</b>
Good location/access/support/cost	5
3 of 4 or some uncertainty	3
2 of 4 or higher uncertainty	2
Low probability	1
<b>4) Education</b>	
<i>Does the site provide good educational opportunities for the community and the general public?</i>	
<b>Standard</b>	<b>Points</b>
Good location with a lot of visibility	5
Good community visibility only	3 to 4
Less visibility	1 to 2

Centennial Lake Retrofit Prioritization

Site	Date	Type	Reach	Acres	IC	Imperv Acres	Treatment/Drainage Description	Staff	Facility	WQ	CPv	Education	Feasibility	Total	Priority
CL-105	10/15/2004	Bioretention	B	1.6	0.95	1.5	Centennial HS parking lot	EWB/PES	New	3	2	5	5	15	
CL-1	10/14/2004	Weipond retro	G	13.0	0.80	10.4	Laboratory school expansion of ex	PRR/PES	Existing	5	4	4	2	15	
CL-2	10/15/2004	Bioretention	Lake	17.8	0.20	3.6	Retrofit for parking area of Centennial	EWB/PES	New	4	2	5	4	15	
CL-6	10/14/2004	Bioretention/ Pipe maintenance	E	8.2	0.2	1.2	Cul-du-sac off of Hermitage Drive	PRR/PES	New	4	3	4	3	14	
CL-101	10/14/2004	Sand Fill or bioretention	Lake	0.71	0.70	0.5	Pollution Prevention Centennial Pa	SCHKL	New	4	1	5	4	14	
CL-102	10/14/2004	Bioretention	Lake	2.74	0.60	1.6	Daylight to bioretention cells next to	SCHKL	New	5	1	5	3	14	High
CL-7	10/14/2004	Grassed Island Knob's End	B	0.6	0.5	0.3	Create grass island Knob's End Ct	PRR/PES	New	3	3	4	3	13	
CL-9	10/14/2004	Bioretention Burleigh Manor Middle	B	0.7	0.9	0.6	Bioretention for rear parking lot	PES/AMR	New	3	2	4	4	13	
CL-11	10/14/2004	Bioretention Covenant Park	A	2.0	0.9	1.8	Bioretention for parking area	PES/AMR	New	3	2	5	3	13	
CL-104	10/14/2004	Bioretention/ wetland soil amend/wetland	Lake	2.25	0.50	1.1	Soil amendments, vegetation to in	SCHKL	New	4	1	4	4	13	
CL-4	10/14/2004	Bioretention	E	0.5	0.0	0.0	Centennial Park off of old Annapo	PRR/PES	New	3	1	5	4	13	
CL-8	10/14/2004	Maint - Small pond prior to Lake	D	95.5	0.2	14.3	Maintenance and improved functio	PES/AMR	Existing	3	2	3	4	12	
CL-103	10/14/2004	Permeable pavers or WQ swale	Lake	9.77	0.08	0.8	To treat drainage to boat ramp	SCHKL	New	4	1	5	2	12	Medium
CL-10	10/14/2004	Bioretention Burleigh Manor Middle	B	0.2	0.5	0.1	Bioretention for rear loading dock	PES/AMR	New	3	2	4	2	11	
CL-3	10/14/2004	Weipond retro	G	13.6	0.1	1.4	Pond seems like it was never much	PRR/PES	Existing	4	1	1	4	10	
CL-5	10/14/2004	Weipond retro	E	3.4	0.2	0.7	Clogged office in weipond in the	PRR/PES	Existing	1	1	1	4	7	Low

Wildie Lake Retrofit Prioritization

Site	Date	Type	Reach	Acres	IC	Imperv Acres	Treatment/Drainage Description	Staff	Facility	WQ	CPv	Education	Feasibility	Total	Status
WL-15	10/14/2004	Drypond retro	G	4.4	0.70	3.1	Harpers Choice Middle Add forebay, infiltration gallery, and convert to bioretention	SCH/KL	Existing	5	4	5	4	18	High Priority
WL-101	10/13/2004	Drypond retro	A	17.4	0.25	4.4	Inflow next to outflow in Beaverbrook	PRR/PES	Existing	5	5	5	3	18	
WL-102a	10/13/2004	SEStreets	B	7.8	0.35	2.7	Durham Road West Beaverbrook Sea Streets	PRR/PES	New	4	5	5	4	18	
WL-102b	10/13/2004	SEStreets	B	3.2	0.35	1.1	Sea Streets concept Lake Circle Drive	PRR/PES	New	4	5	5	4	18	
WL-01b	10/13/2004	Bioretention	C	4.1	0.50	2.1	Tennis courts, Wilde Lake Middle road and parking	PRR/PES	New	4	3	5	5	17	
WL-03	10/13/2004	Shallow marsh	C	14.1	0.25	3.5	WQ and CPv for an area with an existing eroding stream and headcut experiencing migration	EWB/KL	New	5	5	4	3	17	
WL-13	10/14/2004	Bioretention	H	2.4	0.30	0.7	Twin Rivers and Trumpeter	SCH/KL	New	4	4	5	4	17	
WL-104-1	10/13/2004	Bioretention	A	5.4	0.15	0.8	Parking Lot	PRR/PES	New	4	4	5	4	17	
WL-104-5	10/13/2004	Bioretention	A			0.2	Parking Lot	PRR/PES	New	4	4	5	4	17	
WL-104-6	10/13/2004	Rain garden	A	0.25	0.50	0.1	To treat access road	PRR/PES	New	4	4	4	4	16	Medium Priority
WL-10b	10/13/2004	Wetpond	D	32.2	0.55	17.7	Reach D For WQv and CPv (70% of target) Would be a major loss in open space for condos	EWB/KL	New	5	5	4	2	16	
WL-14	10/14/2004	Infiltriveg Island	D	1.9	0.55	1.0	Marble Fawn Ct Faulkner Ridge Center	SCH/KL	New	4	3	5	3	15	
WL-16	10/14/2004	Drypond retro	G	13.8	0.30	4.1	Harpers Choice Middle turn into sand filter or infiltration	SCH/KL	Existing	4	4	3	4	15	
WL-17	10/14/2004	Drypond retro	G	3.6	0.65	2.4	CA Sports Complex and Adult day care maintenance, forebay and micropool or infiltration bioretention	SCH/KL	Existing	4	3	4	4	15	If keeps geese out
WL-103	10/13/2004	Aquatic Fringe	E	24.5	0.15	3.7	Beaverbrook	PRR/PES	Existing	4	3	4	4	15	
WL-114	10/15/2004	Multiple opportunities	A	2.2	0.80	1.7	BMP themepark Board of Education	EWB/PES	New	4	4	4	3	15	
WL-104-2	10/13/2004	Bioretention	A	0.5	0.90	0.5	Tennis Court	PRR/PES	New	4	2	4	4	14	*Implement w/WL-104
WL-09	10/13/2004	Rain garden	C	3.5	0.80	2.8	80% of target, excess treated by infiltration trench	EWB/KL	New	4	4	3	3	14	
WL-105	10/13/2004	Drypond retro	A	14.4	0.20	2.9	Forebay, outlet control structure, Cedar Lane Park	PRR/PES	Existing	4	3	4	3	14	
WL-113	10/14/2004	Drypond retro	A	9.2	0.60	5.5	Board of Education Drypond	PRR/PES	Existing	4	2	4	4	14	
WL-01a	10/13/2004	Bioretention	C	4.1	0.50	2.1	Tennis courts, Wilde Lake Middle road and parking	EWB/KL	New	4	3	3	3	13	
WL-02	10/13/2004	Bioretention	C	2.6	0.90	2.3	.5 in of treatment for Century 21 building	EWB/KL	New	3	2	4	4	13	
WL-04	10/13/2004	Rain garden	C	3.3	0.50	1.7	Harpers Forest Apartments Flow splitter to rain garden fingerprinted in site to avoid tree impacts	EWB/KL	New	4	2	4	3	13	
WL-07	10/13/2004	Rain garden	C	2.0	0.15	0.3	Turf circle retrofit demo projects High Tide and Bishop Head Ct	EWB/KL	New	3	2	4	4	13	
WL-12a	10/13/2004	Infiltration	I	5.9	0.30	1.8	May Wind Ct and Thicket Ln	SCH/KL	New	4	4	2	3	13	

WL-12b	10/13/2004	Outfall	I	12.2	0.25	3.1	May Wind Ct and Thicket Ln	SCH/KL	New	4	4	2	3	13
WL-106	10/14/2004	Stabilization	A	2.4	0.40	0.9	Cedar Lane softball area	PRR/PES	New	3	2	4	4	13
WL-109	10/14/2004	Bioretention	Lake	3.0	0.25	0.8	End of Hyla Brook Rd Drainage may be able to be increased to .5 by blocking an inlet	PRR/PES	New	4	2	3	4	13
WL-104-4	10/13/2004	Rain garden	A	tiny		30sq. ft.	Near bathrooms	PRR/PES	New	3	1	4	4	12
WL-06	10/13/2004	Rain garden	C	3.4	0.15	0.5	West of Harper's Forest rain garden with about 75% of target storage volume	EWB/KL	New	4	2	3	3	12
WL-08b	10/13/2004	Infiltration	C	2.2	0.35	0.8	Deering Woods 59% of target in internal green space with yard inlets	EWB/KL	New	3	3	3	3	12
WL-10a	10/13/2004	Plunge/Step pool	D	32.2	0.55	17.7	Mostly for outfall stabilization, some velocity dissipation	EWB/KL	Existing	2	2	3	5	12
WL-104-3	10/13/2004	Storage	A	100	0.30	30.0	Near tennis court	PRR/PES	New	2	2	4	4	12
WL-05	10/13/2004	Rain garden	C	1.5	0.30	0.5	Rideout Heath Apts into existing forest 57% of storage volume	EWB/KL	New	4	2	3	3	12
WL-08a	10/13/2004	Bioretention	C	9.3	0.40	3.7	Deering Woods ~ 60% if target storage volume	EWB/KL	New	3	3	3	2	11
WL-110	10/14/2004	Micropond wetpond	Lake	13.2	0.20	2.6	Hyla Brook Road -- mid way near the Lake (space may be inadequate)	PRR/PES	New	4	2	4	1	11
WL-112	10/14/2004		E and A	1.0	0.40	0.4	Lynngate Ct applicable throughout Beaverbrook	PRR/PES	New	3	2	3	3	11
WL-111	10/14/2004	Island Cul-du-sac	Below WL	0.5	0.80	0.4	Snowy Brook Road	PRR/PES	New	3	1	3	3	10
WL-107	10/14/2004	WQV/CPv	A	63.1	0.30	18.9	Olde Woods and Beach Creek Rd above three risers pond	PRR/PES	New	2	2	2	2	8
WL-18	10/14/2004	Plunge/outfall stabil	C	16.5	0.40	6.6	Outfall draining Produce Galore and Shopping Center	SCH/KL	New	2	2	1	1	6

\*Implement w/WL-104

Med Low

Very Low