

Minimum Measure #5: Post Construction Site Control

Task Description and Cost Breakdown

Task Specific Multipliers	
Consultant Rate	\$120
Number of permittee-owned facilities for evaluating BMP options	5

	Cost		Hours	
	Low	High	Low	High
Annual	\$0	\$0	0	0
One-Time	\$20,000	\$40,100	142	284
Intermittent	\$0	\$0	0	0
Total	\$20,000	\$40,100	142	284

No.	Type of Action	Time from Effective Date	Frequency	Permit Deliverable	Post Construction Site Runoff Control Requirement	Reference	One Time Costs		Annual/Ongoing Costs				Total Costs/Hours										
							Hours		Fixed Costs		Hours per Year		Fixed Costs		Number of Years	Total Cost Over 5-Year Permit Period		Total Hours Over 5-Year Permit Period					
							Low	High	Low	High	Low	High	Low	High		Low	High	Low	High				
1							Update Ordinance or Bylaw																
1.1	Admin/ Tech/Legal	2 years	One-time		Adopt or amend a local ordinance to control projects that disturb an acre or more. Incorporate design standards included in the permit.	2.3.6 a ii	32	40	\$1,000	\$2,000	0		0		0	\$4,840	\$6,800	32	40				
1.2	Admin	2 years	One-time		Develop procedures to ensure O&M, such as dedicated funds or escrow accounts, acceptance of ownership by permittee, development of maintenance contracts between owner & permittee, submission of an annual certification documenting maintenance.	2.3.6 a iii	8	40	\$1,000	\$2,000	0		\$0		0	\$1,960	\$6,800	8	40				
1.3	Admin		Annual	x	Annual report shall include measures that the permittee has done to meet these requirements.	2.3.6 a iii	0		\$0		0		0		0	\$0	\$0	0	0				
2							Assess Street Design and parking Lot Guidelines																
2.1	Admin/ Tech/Legal	3 years	One-time		Develop report assessing local regulations that affect the creation of impervious cover. Include recommendations and proposed schedules to incorporate into regulations. Involve local planning board and local transportation board. Include in SWMP.	2.3.6 b	62	116	\$1,000	\$2,000	0		0		0	\$8,440	\$15,920	62	116				
2.2	Admin		Annual	x	Annual report shall contain an update on this requirement, including any planned or completed changes.	2.3.6 b	0		\$0		0		0		0	\$0	\$0	0	0				
3							LID Regulations and Guidelines																
3.1	Admin/ Tech/Legal	4 years	One-time		Develop report assessing local regulations to determine feasibility of making green roofs, infiltration practices and water harvesting devices allowable. Include recommendations and proposed schedules to incorporate into regulations.	2.3.6 c	0		\$0		0		0		0	\$0	\$0	0	0				
3.2	Admin		Annual	x	Annual report shall contain an update on this requirement, including any planned or completed changes.	2.3.6 c	0		\$0		0		0		0	\$0	\$0	0	0				
4							Directly Connected Impervious Area																
4.1	Admin		Annual	x	Estimate the annual increase or decrease in Impervious Area and Directly Connected Impervious Area using EPA initial estimates of IA and DCIA as baseline. Tabulate results by delineated catchment areas and break out by development, redevelopment, or retrofit projects by permittee; or by private developers and other parties in a voluntary manner or in compliance with the permittee's regulations. Include in annual report.	2.3.6 d & 2.3.6 d i & ii	0		\$0		0		0		0	\$0	\$0	0	0				
5							Inventory and Rank Municipal Properties																
5.1	Tech	4 years	One-time		Complete inventory and ranking of Municipal property (including ROWs) suitable for modification or retrofit to reduce runoff/pollutants from MS4. Perform screening level of ranking considering access, geology, depth to water table, proximity to aquifers & subsurface infrastructure, opportunities for public use and education, schedules for planned capital improvements to municipal infrastructure.	2.3.6 d iii	40	88	\$0		0		0		0	\$4,800	\$10,560	40	88				
5.2	Admin	Beginning fifth year	Annual	x	Starting with fifth year annual report, report on status of all such inventoried properties.	2.3.6 d iv	0		\$0		0		0		0	\$0	\$0	0	0				
																TOTAL FOR FIVE YEARS				\$20,000	\$40,100	142	284

Minimum Measure #5: Post Construction Site Control

Task Description and Cost Breakdown

Task Specific Multipliers	
Consultant Rate	\$120
Number of permittee-owned facilities for evaluating BMP options	10

	Cost		Hours	
	Low	High	Low	High
Annual	\$0	\$0	0	0
One-Time	\$24,800	\$44,900	182	324
Intermittent	\$0	\$0	0	0
Total	\$24,840	\$44,880	182	324

No.	Type of Action	Time from Effective Date	Frequency	Permit Deliverable	Post Construction Site Runoff Control Requirement	Reference	One Time Costs		Annual/Ongoing Costs						Total Costs/Hours				
							Hours		Fixed Costs		Hours per Year		Fixed Costs		Number of Years	Total Cost Over 5-Year Permit Period		Total Hours Over 5-Year Permit Period	
							Low	High	Low	High	Low	High	Low	High		Low	High	Low	High
1Update Ordinance or Bylaw																			
1.1	Admin/Tech/Legal	2 years	One-time		Adopt or amend a local ordinance to control projects that disturb an acre or more. Incorporate design standards included in the permit.	2.3.6 a ii	32	40	\$1,000	\$2,000	0		0		0	\$4,840	\$6,800	32	40
1.2	Admin	2 years	One-time		Develop procedures to ensure O&M, such as dedicated funds or escrow accounts, acceptance of ownership by permittee, development of maintenance contracts between owner & permittee, submission of an annual certification documenting maintenance.	2.3.6 a iii	8	40	\$1,000	\$2,000	0		\$0		0	\$1,960	\$6,800	8	40
1.3	Admin		Annual	x	Annual report shall include measures that the permittee has done to meet these requirements.	2.3.6 a iii	0		\$0		0		0		0	\$0	\$0	0	0
2Assess Street Design and parking Lot Guidelines																			
2.1	Admin/Tech/Legal	3 years	One-time		Develop report assessing local regulations that affect the creation of impervious cover. Include recommendations and proposed schedules to incorporate into regulations. Involve local planning board and local transportation board. Include in SWMP.	2.3.6 b	62	116	\$1,000	\$2,000	0		0		0	\$8,440	\$15,920	62	116
2.2	Admin		Annual	x	Annual report shall contain an update on this requirement, including any planned or completed changes.	2.3.6 b	0		\$0		0		0		0	\$0	\$0	0	0
3LID Regulations and Guidelines																			
3.1	Admin/Tech/Legal	4 years	One-time		Develop report assessing local regulations to determine feasibility of making green roofs, infiltration practices and water harvesting devices allowable. Include recommendations and proposed schedules to incorporate into regulations.	2.3.6 c	0		\$0		0		0		0	\$0	\$0	0	0
3.2	Admin		Annual	x	Annual report shall contain an update on this requirement, including any planned or completed changes.	2.3.6 c	0		\$0		0		0		0	\$0	\$0	0	0
4Directly Connected Impervious Area																			
4.1	Admin		Annual	x	Estimate the annual increase or decrease in Impervious Area and Directly Connected Impervious Area using EPA initial estimates of IA and DCIA as baseline. Tabulate results by delineated catchment areas and break out by development, redevelopment, or retrofit projects by permittee; or by private developers and other parties in a voluntary manner or in compliance with the permittee's regulations. Include in annual report.	2.3.6 d & 2.3.6 d i & ii	0		\$0		0		0		0	\$0	\$0	0	0
5Inventory and Rank Municipal Properties																			
5.1	Tech	4 years	One-time		Complete inventory and ranking of Municipal property (including ROWs) suitable for modification or retrofit to reduce runoff/pollutants from MS4. Perform screening level of ranking considering access, geology, depth to water table, proximity to aquifers & subsurface infrastructure, opportunities for public use and education, schedules for planned capital improvements to municipal infrastructure.	2.3.6 d iii	80	128	\$0		0		0		0	\$9,600	\$15,360	80	128
5.2	Admin	Beginning fifth year	Annual	x	Starting with fifth year annual report, report on status of all such inventoried properties.	2.3.6 d iv	0		\$0		0		0		0	\$0	\$0	0	0
TOTAL FOR FIVE YEARS																\$24,840	\$44,880	182	324

Minimum Measure #5: Post Construction Site Control

Task Description and Cost Breakdown

Task Specific Multipliers	
Consultant Rate	\$120
Number of permittee-owned facilities for evaluating BMP options	20

	Cost		Hours	
	Low	High	Low	High
Annual	\$0	\$0	0	0
One-Time	\$34,400	\$54,500	262	404
Intermittent	\$0	\$0	0	0
Total	\$34,400	\$54,500	262	404

No.	Type of Action	Time from Effective Date	Frequency	Permit Deliverable	Post Construction Site Runoff Control Requirement	Reference	One Time Costs		Annual/Ongoing Costs				Total Costs/Hours								
							Hours		Fixed Costs		Hours per Year		Fixed Costs		Number of Years	Total Cost Over 5-Year Permit Period		Total Hours Over 5-Year Permit Period			
							Low	High	Low	High	Low	High	Low	High		Low	High	Low	High		
1Update Ordinance or Bylaw																					
1.1	Admin/Tech/Legal	2 years	One-time		Adopt or amend a local ordinance to control projects that disturb an acre or more. Incorporate design standards included in the permit.	2.3.6 a ii	32	40	\$1,000	\$2,000	0		0		0	\$4,840	\$6,800	32	40		
1.2	Admin	2 years	One-time		Develop procedures to ensure O&M, such as dedicated funds or escrow accounts, acceptance of ownership by permittee, development of maintenance contracts between owner & permittee, submission of an annual certification documenting maintenance.	2.3.6 a iii	8	40	\$1,000	\$2,000	0		\$0		0	\$1,960	\$6,800	8	40		
1.3	Admin		Annual	x	Annual report shall include measures that the permittee has done to meet these requirements.	2.3.6 a iii	0		\$0		0		0		0	\$0	\$0	0	0		
2Assess Street Design and parking Lot Guidelines																					
2.1	Admin/Tech/Legal	3 years	One-time		Develop report assessing local regulations that affect the creation of impervious cover. Include recommendations and proposed schedules to incorporate into regulations. Involve local planning board and local transportation board. Include in SWMP.	2.3.6 b	62	116	\$1,000	\$2,000	0		0		0	\$8,440	\$15,920	62	116		
2.2	Admin		Annual	x	Annual report shall contain an update on this requirement, including any planned or completed changes.	2.3.6 b	0		\$0		0		0		0	\$0	\$0	0	0		
3LID Regulations and Guidelines																					
3.1	Admin/Tech/Legal	4 years	One-time		Develop report assessing local regulations to determine feasibility of making green roofs, infiltration practices and water harvesting devices allowable. Include recommendations and proposed schedules to incorporate into regulations.	2.3.6 c	0		\$0		0		0		0	\$0	\$0	0	0		
3.2	Admin		Annual	x	Annual report shall contain an update on this requirement, including any planned or completed changes.	2.3.6 c	0		\$0		0		0		0	\$0	\$0	0	0		
4Directly Connected Impervious Area																					
4.1	Admin		Annual	x	Estimate the annual increase or decrease in Impervious Area and Directly Connected Impervious Area using EPA initial estimates of IA and DCIA as baseline. Tabulate results by delineated catchment areas and break out by development, redevelopment, or retrofit projects by permittee; or by private developers and other parties in a voluntary manner or in compliance with the permittee's regulations. Include in annual report.	2.3.6 d & 2.3.6 d i & ii	0		\$0		0		0		0	\$0	\$0	0	0		
5Inventory and Rank Municipal Properties																					
5.1	Tech	4 years	One-time		Complete inventory and ranking of Municipal property (including ROWs) suitable for modification or retrofit to reduce runoff/pollutants from MS4. Perform screening level of ranking considering access, geology, depth to water table, proximity to aquifers & subsurface infrastructure, opportunities for public use and education, schedules for planned capital improvements to municipal infrastructure.	2.3.6 d iii	160	208	\$0		0		0		0	\$19,200	\$24,960	160	208		
5.2	Admin	Beginning fifth year	Annual	x	Starting with fifth year annual report, report on status of all such inventoried properties.	2.3.6 d iv	0		\$0		0		0		0	\$0	\$0	0	0		
														TOTAL FOR FIVE YEARS		\$34,400	\$54,500	262	404		

Minimum Measure #5: Post Construction Site Control

Task Description and Cost Breakdown

No.	Type of Action	Time from Effective Date	Frequency	Permit Deliverable	Post Construction Site Runoff Control Requirement	Reference	General Notes	Supporting Documentation
1 Update Ordinance or Bylaw								
1.1	Admin/ Tech/Legal	2 years	One-time		Adopt or amend a local ordinance to control projects that disturb an acre or more. Incorporate design standards included in the permit.	2.3.6 a ii	Low - Assume 8 hours for meeting with Town including meeting prep time, and 24 hours to review and provide recommendations on regulations. Assume additional legal fees of \$1,000. High - Increase meeting time to 8 hours and legal fees to \$2,000.	Reese: \$100,000 to work on major policy changes in land use regulations.
1.2	Admin	2 years	One-time		Develop procedures to ensure O&M, such as dedicated funds or escrow accounts, acceptance of ownership by permittee, development of maintenance contracts between owner & permittee, submission of an annual certification documenting maintenance.	2.3.6 a iii	Required in 2003 with less specificity. Low - Assume 8 hours to prepare documentation and \$1,000 in legal fees. High - Increase hours to 40 hours and legal fees to \$2,000. Note: There will also be an annual fee for the Town to track and follow-up on annual certifications, etc.	WV estimate
1.3	Admin		Annual	x	Annual report shall include measures that the permittee has done to meet these requirements.	2.3.6 a iii	See Annual Report cost breakdown	-
2 Assess Street Design and parking Lot Guidelines								
2.1	Admin/ Tech/Legal	3 years	One-time		Develop report assessing local regulations that affect the creation of impervious cover. Include recommendations and proposed schedules to incorporate into regulations. Involve local planning board and local transportation board. Include in SWMP.	2.3.6 b	Low - Assume 40 hours to review regulations and draft report with recommendations, 16 hours to draft regulatory changes, 8 hours for meetings with Town. Include legal fees of \$1,000. High - Assume 80 hours to review regulations and draft report with recommendations, 20 hours to draft regulatory changes, 16 hours for meetings with Town. Assume additional legal fees of \$2,000. Includes PAI 2.1 and 3.1. (Bumped up the hours a bit because this may be done by someone at a	Haverhill MA: total cost of \$7,200, combined with 3.1.
2.2	Admin		Annual	x	Annual report shall contain an update on this requirement, including any planned or completed changes.	2.3.6 b	See Annual Report cost breakdown	-
3 LID Regulations and Guidelines								
3.1	Admin/ Tech/Legal	4 years	One-time		Develop report assessing local regulations to determine feasibility of making green roofs, infiltration practices and water harvesting devices allowable. Include recommendations and proposed schedules to incorporate into regulations.	2.3.6 c	Costs included under 2.1.	Haverhill MA: total cost of \$7,200, combined with 2.1.
3.2	Admin		Annual	x	Annual report shall contain an update on this requirement, including any planned or completed changes.	2.3.6 c	See Annual Report cost breakdown	-
4 Directly Connected Impervious Area								
4.1	Admin		Annual	x	Estimate the annual increase or decrease in Impervious Area and Directly Connected Impervious Area using EPA initial estimates of IA and DCIA as baseline. Tabulate results by delineated catchment areas and break out by development, redevelopment, or retrofit projects by permittee, or by private developers and other parties in a voluntary manner or in compliance with the permittee's regulations. Include in annual report.	2.3.6 d & 2.3.6 d i & ii	Per EPA, removed from permit.	-
5 Inventory and Rank Municipal Properties								
5.1	Tech	4 years	One-time		Complete inventory and ranking of Municipal property (including ROWs) suitable for modification or retrofit to reduce runoff/pollutants from MSA. Perform screening level of ranking considering access, geology, depth to water table, proximity to aquifers & subsurface infrastructure, opportunities for public use and education, schedules for planned capital improvements to municipal infrastructure.	2.3.6 d iii	Low - Assume 8 hours per site to collect information on the site, visit the site in the field, develop preliminary BMP ideas, prepare preliminary maps, prepare rough cost estimates and prioritize sites and document in a report. High - Add 16 hours per selected site to develop conceptual designs of the top 3 sites. Although permit just says to prepare an inventory - really need to evaluate BMP options as well for them to take action on, which is included in this cost.	Haverhill MA: costs of \$4,800 for inventory only.
5.2	Admin	Beginning fifth year	Annual	x	Starting with fifth year annual report, report on status of all such inventoried properties.	2.3.6 d iv	See Annual Report cost breakdown	-