

# Table of Contents

Preface and Disclaimer	i
History of Publication Development	i
History of Authorship	ii
Contributors	iii
<b>Chapter 1</b>	
<b>Purpose and Scope of this Guide</b>	
Importance of Community Stormwater Management	1-1
The Evolution of Best Management Practices	1-2
Current Legislation	1-2
Training and Certification Information	1-8
<b>Chapter 2</b>	
<b>Erosion, Sediment and Stormwater Runoff Control</b>	
Types of Erosion	2-1
Factors that Influence Water Erosion	2-3
Basic Principles of Erosion Control	2-3
Hydrologic Changes	2-6
<b>Chapter 3</b>	
<b>Interpreting Stormwater Features in the Site Development Plan</b>	3-1
Increased Use of Environmental site Designs	3-3
Environmental Site Design Principles and Features	3-3
Midwest Examples of Green Infrastructure	3-6
Combining Stormwater Treatment Practices	3-11
Receiving Waters	3-11
<b>Chapter 4</b>	
<b>Stormwater Pollution Prevention Plan or Erosion and Sediment Control Plan</b>	
Purpose	4-1
The Plan	4-2
Understanding the Site Plan and Design	4-3
Developing the SWPPP	4-4
Design Dos and Dents	4-10
Additional Resources	4-11

<b>Chapter 5</b>	
<b>Inspection for Erosion, Sediment and Stormwater Control</b>	5-1
The Inspection	5-1
Regulatory Inspections	5-2
Example Inspection Scenarios	5-3
Stormwater Construction Site Inspection Report	5-5
<b>Chapter 6</b>	
<b>Installation and Maintenance of BMPs</b>	6-1
<b>SECTION 1: Site Preparation</b>	<b>6-5</b>
Temporary Rock Construction Exit Pad	6-7
Wheel Wash	6-11
Rumble Plates	6-13
Bamboo Mats	6-15
Stream Setback	6-17
Tree Protection	6-23
Parking and Laydown Areas	6-27
Temporary Stream Crossing	6-29
Slope Breaks and Surface Roughening	6-35
Topsoiling: Removal, Stockpiling and Replacement	6-39
<b>SECTION 2: Pollution Prevention And Good Housekeeping</b>	<b>6-43</b>
Materials Management	6-45
Solid Waste Management	6-47
Sanitary Waste Management	6-51
Petroleum and Hazardous Waste Management	6-55
Spill Prevention and Control	6-59
Concrete Washout	6-63
Dust Control and Air Emissions	6-67
General Housekeeping Reminders	6-69
<b>SECTION 3: Surface Stabilization – Erosion Controls</b>	<b>6-71</b>
Temporary Seeding	6-71
Permanent Seeding	6-77
Hydroseeding	6-87
Mulch and Hydromulch	6-91
Erosion Control Blankets	6-97
Dust Control	6-103
Sodding	6-107
Soil Bioengineering for Slope Protection	6-111
<b>SECTION 4: Runoff Control-Sediment Controls</b>	<b>6-121</b>
Fabric Drop Inlet Protection	6-121
Excavated Drop Inlet Protection	6-125
Block and Gravel Inlet Protection	6-129
Domed Inlet Protection	6-133
Inlet Bag or Insert	6-135
Sediment Fence	6-137
Temporary Diversions	6-143
Right of Way/Diversion Bars	6-149

Temporary Slope Drains	6-153
Subsurface Drains	6-157
Rock Outlets	6-163
Compost Blankets, Berms and Socks	6-167
Transition Mats	6-173
Temporary Sediment Trap	6-177
Energy Dissipators	6-183
Rock Check Dam	6-187
Ditch Checks	6-191
Wattles	6-195
Straw Bale Barrier	6-197
Vegetative Buffer Strip	6-201
Dewatering	6-207
Sediment Basin	6-209
Chemical Application for Turbidity Reduction	6-215
Particle Curtains	6-217
Flock Logs	6-219
Skimmers	6-221
Baffles	6-223
Dispersion Fields	6-225
Sand Media Particulate Filter	6-227

<b>SECTION 5: Permanent Stormwater Control Measures For Post-Construction Runoff Management</b>	<b>6-229</b>
General Contractor and Site Superintendent Responsibilities	6-229
Design Considerations When Selecting Vegetated Practices	6-230
Coordinating Long-Term Operation, Maintenance and Inspection	6-230
Preparing the Operation, Maintenance and Inspection Manual	6-231
Additional References and Resources	6-231
Selecting Permanent Stormwater Control Measures	6-231
Rooftop Runoff Control Practices	6-235
Rain Gardens	6-235
Disconnected Downspouts	6-243
Rain Barrels	6-245
Cisterns	6-249
Green Roofs	6-253
Surface Runoff Control Practices	6-257
Bioretention System	6-257
Bioswales (Vegetated Swales)	6-261
Dry Swales	6-263
Wetland Swales	6-269
Turf Swales (Grass)	6-273
Dry Ponds (Detention)	6-277
Wet Ponds (Retention)	6-285
Stormwater Wetlands (Constructed)	6-291
Infiltration Basin	6-301
Infiltration Trench	6-305
Porous Pavement and Pervious Pavers	6-309
Sand Filters	6-313
Hydrodynamic Separation	6-317

Catch Basin Inserts	6-319
Baffle Boxes and Oil/Grit Separators	6-321
Streambank Protection:	
Preservation, Enhancement and Restoration	6-323
Bioengineered Streambank and Channel Protection	6-324
Vegetative Streambank Protection	6-325
Structural Streambank Protection	6-327

## **APPENDICES**

Appendix A: Site Map, Detail Sheet and Grading Plan	AA-1
Appendix B: Glossary	AB-1
Appendix C: References	AC-1
Appendix D: Additional Resources	AD-1
Appendix E: Guide to Metric System	AE-1
Appendix F: Acronyms	AF-1
Appendix G: Innovative Uses of Compost: Erosion Control, Turf Remediation and Landscaping; EPA 350-F-97-043	AG-1