

Sort	Section	Description of Detail Covered	Minutes
1.00		Training Module No. 1: Introduction to Stormwater Management	
1.01	1	Introduction & Learning Objectives	5
1.02		Learning Objective 1.1: Explain basics concepts underlying watersheds and stormwater management	
1.04	2	Watershed Basics	15
1.05		Learning Objective 1.2 – Apply the key concepts of basic hydrology/hydrologic function	
1.12	3	Stormwater Management	15
1.13		Learning Objective 1.3: Describe the basic concept and environmental benefits of stormwater management	
1.17	3A	Approaches for managing stormwater – Grey Infrastructure	15
1.18		Learning Objective 1.3.1: Describe the various approaches for managing stormwater.	
1.26	3B	Approaches for managing stormwater - Ponds and Vaults	10
1.31	3C	Approaches for managing stormwater – Green Infrastructure	20
1.32		Learning Objective 1.3.2: Describe the objectives of green infrastructure.	
1.40	4	Stormwater Management All Around Us	30
1.46		<i>Estimated Length of Module</i>	110
2.00		Training Module No. 2: Common Green Infrastructure Construction Materials	
2.01	1	Introduction & Learning Objectives	5
2.02		Learning Objective 2.1: Recognize the purpose of common GI construction materials.	
2.06	2	Soils and Aggregates	10
2.07		Learning Objective 2.1.1: Understand the characteristics of soil and aggregates and why those characteristics are important to the proper function of various GI technologies	
2.12	2A	Top Soil	5
2.17	2B	Compost	5
2.23	2C	Sand	5
2.29	2D	Washed Uniform Stone (#57 Stone)	5
2.35	2E	Crusher Run or Bank Run Gravel	5
2.40	2F	Rip Rap	5
2.44	3	Compaction Methods	10
2.45		Learning Objective 2.1.2: Understand how compaction occurs and how to achieve it or avoid it as required	
2.47	4	Compaction Testing	5
2.48		Learning Objective 2.1.3: Identify different tools used to test soil compaction and explain how they work	
2.50	5	Other Materials	
2.51		Learning Objective 2.1.4: Identify basic types of other materials frequently found in GI and understand the purpose for using them.	
2.52	5A	Geotextile Fabric	5
2.53		Learning Objective 2.1.5: Identify basic types of geotextile fabric and understand the purpose for using it in GI.	
2.58	5B	Waterproofing Membranes	5
2.59		Learning Objective 2.1.6: Identify waterproofing membrane and understand the purpose for using it in GI.	
2.64	5C	Underdrain Pipes Perforated pipes	5
2.65	5D	Conveyance Pipes PVC pipe and corrugated HDPE pipe, others?	5
2.66	5E	Mulch	5
2.67	6	Review and test on materials	5
2.99		<i>Estimated Length of Module</i>	90
3.00		Training Module No. 3: Vegetation in GI	
3.01	1	Purpose of vegetation in green infrastructure	10
3.02		Learning Objective 3.1: Understanding the role of vegetation in GI	
3.03	2	Trees	5
3.04		Learning Objective 3.2: Describe the role of trees, shrubs, and ground covers in GI facilities	
3.08	2A	Protecting existing trees	5
3.13	2b	Handling/planting/establishing new trees	5
3.14		Learning Objective 3.2.1: Explain procedures for handling/transporting/planting trees.	
3.18	3	Other vegetation	10
3.19		Learning Objective 3.3: Describe the function and needs of shrubs and groundcovers in GI.	
3.22	4	Site Analysis For Planting Design	10
3.23		Learning Objective 3.4: Identify key information needed that will influence site design and species selection.	
3.24	5	Reading planting plans	15
3.25		Learning Objective 3.5: Identify the key components in a vegetation/planting plan	
3.28	6	Soil/growing media	10
3.29		Learning Objective 3.6: Describe the function of soil/growing media for various facility types and the relationship of each type of media to vegetation in GI.	
3.34	7	Transporting & storing vegetation on site	10
3.35		Learning Objective 3.7: Identify best practices to transport and store vegetation on site.	
3.38	8	Plant Establishment and Maintenance	20
3.39		Learning Objective 3.8: Understand the basics of plant establishment, health, and long-term maintenance	

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3.40		Introduce proper planting techniques and timing	
3.53	10	Watering and Irrigation	10
3.54		Learning Objective 3.10: Understand General Watering Requirements	
3.57		Learning Objective 3.11: Reasons for using irrigation systems in GI.	
3.60		Estimated Length of Module	110
4.00		Training Module No. 4: Safety In and Around GI Sites	
4.01	1	Overview	10
4.02		Learning Objective 4.1: Recognize potential site safety hazards associated with GI practices and ways to reduce these hazards	
4.03		Learning Objective 4.2: Identify the proper PPE that should be used to mitigate GI safety hazards as appropriate	
4.06	2	Utilities	10
4.07		Learning Objective 4.1.1: Recognize potential site safety hazards associated with utilities located in and adjacent to GI sites and ways to reduce these hazards	
4.12	2A	Overhead Power	5
4.15	2B	Underground Power	5
4.18	2C	Underground Gas	5
4.21	2D	Force Mains – Water or Sewer	5
4.24	3	Adjacent Roadways and Vehicle Traffic	10
4.25		Learning Objective 4.1.2: Recognize the potential hazards while working in or adjacent to a roadway and ways to reduce these hazards	
4.31	4	Slips, Trips and Falls	10
4.32		Learning Objective 4.1.3: Recognize site- specific hazards in a GI site that would lead to slips, trips and falls	
4.37	5	Confined Spaces	10
4.38		Learning Objective 4.1.4: Recognize the potential hazards during confined space entry	
4.43		Learning Objective 4.2.1: List extra PPE that may be required for confined space entry	
4.44	6	Animals/Pests	10
4.45		Learning Objective 4.1.5: Be aware of the possible presence of animals and pests and how to avoid interaction/injury	
4.49	7	Excavation/Trenching	10
4.50		Learning Objective 4.1.6: Recognize the potential hazards during excavation/trenching	
4.57	8	Heat Stress	5
		Learning Objective 4.1.7: Recognize the potential hazards associated with heat stress	
4.62	9	Cold Stress	5
		Learning Objective 4.1.8: Recognize the potential hazards associated with cold stress	
4.99		Estimated Length of Module	100
5.00		Training Module No. 5: GI Site Management	
5.01	1	Overview	15
5.02		Learning Objective 5.1.6: Explain basics of compaction and common equipment used to achieve it	
5.03		Learning Objective 5.1.7: Explain the basics of excavation and scarify sub-base as well as equipment often used to achieve it.	
5.04		Learning Objective 5.1.8: Explain the basics of reading drawings and identify basic site information.	
5.05		Learning Objective 5.1: Identify site management goals during the construction of a GI project.	
5.06		Learning Objective 5.2: Identify site management goals after the practice is fully constructed and in operation	
5.07	2	Site Management During Construction	30
5.13		Learning Objective 5.1.1: Identify pollutants that could be added to stormwater on a construction site and ways to prevent that from occurring	
5.16		Learning Objective 5.1.3: Identify survey/layout marking and explain the purpose and method of protecting survey markings, layout stakes, etc	
5.17	3	Site Management During On-going Maintenance	15
5.18		Learning Objective 5.4.1: Explain different site management aspects that occur during on-going maintenance.	
5.22		Estimated Length of Module	60
6.00		Training Module No. 6: Bioretention	
6.01	1	Bioretention - General Overview	10
6.02		Learning Objective 6.1: Describe the basic functionality of bioretention.	
6.08	2	Types of Bioretention Facilities	10
6.09	2A	Rain Gardens	20
6.10		Learning Objective 6.2.1 Describe the basic functionality of a rain garden	
6.11		Learning Objective 6.2.2: Explain the purpose and functionality, and properties of the basic physical components of a rain garden.	
6.16	2B	Bioswales/Vegetated Swales	20
6.17		Learning Objective 6.2.3 Describe the basic functionality of bioswales/vegetated swales	
6.18		Learning Objective 6.2.4: Explain the purpose and functionality, and properties of the basic physical components of a bioswale	
6.19		Learning Objective 6.2.5: Identify the typical routine maintenance tasks for a bioswale	
6.23	2C	Vegetated Curb Extensions	20
6.24		Learning Objective 6.2.6 Describe the basic functionality of a vegetated curb extension	
6.25		Learning Objective 6.2.7: Explain the purpose and functionality, and properties of the basic physical components of a vegetated curb extension	

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6.29	2D	Bioretention Planters	20
6.30		Learning Objective 6.2.8 Describe the basic functionality of bioretention planters	
6.31		Learning Objective 6.2.9: Explain the purpose and functionality, and properties of the basic physical components of a bioretention planters	
6.37	2E	Components	
6.51	3	Construction Basics (See 3A-3B)	20
6.52	3A	Sequence	
6.58	3B	Special Tools/Equipment	
6.59		Learning Objective 6.3.1: Recognize the appropriate application of equipment for the construction & maintenance of a bioretention practice	
6.64	4	Testing	20
6.65		Learning Objective 6.4.1: Frequency of inspection & inspection checklist	
6.66		Learning Objective 6.4.2: Understand testing - need for it, testing requirements and procedure	
6.67		Learning Objective 6.4.3: Recognize the important inspection points during construction phase of a bioretention facility	
6.73	5	Bioretention Operation and Maintenance	20
6.74	5A	Typical Equipment Needed	
6.75		Learning Objective 6.5.1: Identify potential site safety hazards and the proper personal protective equipment (PPE) to reduce these risks	
6.78	5B	Routine Maintenance/ Maintenance Assessment	
6.79		Learning Objective 6.5.2: Identify the various activities related to routine maintenance of a bioretention facility - Routine Maintenance	
6.80		Learning Objective 6.5.3: Identify the various activities related to non-routine maintenance of a bioretention facility - Maintenance Assessment	
6.81	5C	Identifying Proper Operation	
6.83	5D	Inspection Documentation	
6.85	5E	Inspection Checklist	
6.87	5F	Safety	
6.89	5G	Visual Indicators/Observations	
6.92	6	On-going Inspection Maintenance/ Performance	20
6.93	6A	Flow	
6.96	6B	Water Quality	
6.99		Estimated Length of Module	180
7.00		Training Module No. 7: Permeable/Porous Pavements	
7.01	1	Permeable/Porous Pavements - General Overview	10
7.02		Learning Objective 7.1: Provide an overview of permeable/porous pavements and how they work and are used	
7.04	2	Types of Permeable/Porous Pavement	10
7.05		Learning Objective 7.2: Identify the basic types, components and appropriate uses of permeable pavement systems	
7.06	2A	Porous Asphalt	30
7.07		Learning Objective 7.3 Describe the components and basic functionality of porous asphalt	
7.09	2B	Pervious Concrete	30
7.10		Learning Objective 7.4 Describe the components and basic functionality of pervious concrete	
7.11	2C	Permeable Paver Systems	30
7.12		Learning Objective 7.5. Describe the components and basic functionality of permeable paver systems	
7.13	2D	Plastic Grid Systems	30
7.14		Learning Objective 7.6 Describe the components and basic functionality of plastic grid systems	
7.15		Learning Objective 7.7: Explain the basic construction sequence	
7.20		Learning Objective 7.8 Identify the signs that a permeable pavement system is not working properly	
7.21		Learning Objective 7.9.1: Identify the basic maintenance necessary to keep a permeable pavement system working properly	
8.00		Training Module No. 8: Rainwater Harvesting	
8.01	1	Rainwater Harvesting - General Overview	10
8.02		Learning Objective 8.1: Define rainwater harvesting.	
8.03	2	Types of Rainwater Harvesting Practices	10
8.04		Learning Objective 8.2: Provide an overview of rain barrels and cisterns	
8.08	2A	Rain Barrels	30
8.09		Learning Objective 8.2.1 Describe the components and basic functionality of rain barrels	
8.10		Learning Objective 8.2.2 Explain the installation sequence of rain barrels	
8.11		Learning Objective 8.2.3: Identify the signs that a rain barrel is working properly or not working properly	
8.12	2B	Cisterns	30
8.13		Learning Objective 8.2.5 Describe the components and basic functionality of cisterns	
8.14		Learning Objective 8.2.6: Explain the basic installation/construction sequence	
8.15		Learning Objective 8.2.7 Identify the signs that a cistern is working properly or not working properly	
8.16		Learning Objective 8.2.8: Identify the basic maintenance necessary to keep a cistern working properly	
8.99		Length of Module	80
9.00		Training Module No. 9: Rooftop Practices	

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9.01	1	Green Roofs/Blue Roofs - General Overview	10
9.02		Learning Objective 8.1: Explain what green roofs and blue roofs are	
9.03	2	Rooftop Practices	10
9.04		Learning Objective 8.2: Provide an overview of green roofs and blue roofs	
9.05	2A	Green Roofs	30
9.06		Learning Objective 8.2.1 Describe the components and basic functionality of green roofs	
9.09		Learning Objective 8.2.2 Explain the installation sequence of green roofs	
9.10		Learning Objective 8.2.3: Identify the signs that a green roof is working properly or not working properly	
9.11		Learning Objective 8.2.4: Identify the basic maintenance necessary to keep a green roof working properly	
9.13	2B	Blue Roofs	30
9.14		Learning Objective 8.2.5 Describe the components and basic functionality of blue roofs	
9.15		Learning Objective 8.2.6: Explain the basic installation/construction sequence of blue roofs	
9.16		Learning Objective 8.2.7 Identify the signs that a blue roof is working properly or not working properly	
9.17		Learning Objective 8.2.8: Identify the basic maintenance necessary to keep a blue roof working properly	
9.99		Length of Module	80
10.00		Training Module No. 10: Dry Wells	
10.01	1	Dry Wells - General Overview	10
10.02		Learning Objective 10.1: Explain what dry wells are Temporary storage, infiltration	
10.03	2	Different Dry Well Configurations	10
10.04		Learning Objective 10.2: Provide an overview of different dry well configurations	
10.05		Learning Objective 10.2.1 Describe the components and basic functionality of dry wells	
10.08		Learning Objective 10.2.2 Explain the installation sequence of dry wells	
10.10		Learning Objective 10.2.3: Identify the signs that a dry well is working properly or not working properly	
10.19		Typical Maintenance Learning Objective 10.2.4: Identify the basic maintenance necessary to keep a dry well working properly	
10.99		Length of Module	20
11.00		Training Module No. 11: Stormwater Wetlands	
11.01	1	Stormwater Wetlands - General Overview	5
11.02		Learning Objective 11.1: Explain what stormwater wetlands are	
11.04		Learning Objective 11.2: Provide an overview of stormwater wetlands	
11.05	2	Stormwater Wetlands	15
11.06		Learning Objective 11.2.1 Describe the components and basic function of stormwater wetlands	
11.07		Learning Objective 11.2.2 Explain the installation sequence of stormwater wetlands - Installation	
11.08		Learning Objective 11.2.3: Identify the signs that a stormwater wetland is functioning properly or not functioning properly	
11.09		Learning Objective 11.2.4: Identify the basic maintenance necessary to keep a stormwater wetland functioning properly	
11.99		Length of Module	20
12.00		Training Module No. 12: Long-Term Planning	
12.01	1	Record Drawings	10
12.02		Learning Objective 12.1: Significance of record drawings	
12.05	2	Documentation	10
12.06		Learning Objective 12.2.2: Other related documents	
12.08		Learning Objective 12.2.1: Photo documentation	
12.10	3	Inspection Reports	10
12.11		Learning Objective 12.3: Recognize the significance of and best practices for an Inspection Report	
12.15	4	Asset/Maintenance Management	10
12.16		Learning Objective 12.4: Describe asset management and its significance	
12.99		Length of Module	40