

Organization and Use of the Manual

The Manual is organized into three major functional components. Part 1 (Chapters 1 through 3) contains background information on the Manual and its use, the stormwater-related impacts of land development, and approaches for preventing and mitigating stormwater impacts. Part 2 (Chapters 4 through 13) provides design guidance and is organized around the recommended stormwater management planning and design process. The Manual appendices contain supplemental information on the planning, design, and implementation of stormwater management measures.

Part 1 – Background

- [Chapter 1 - Introduction](#) describes the Manual's purpose, current and future revisions, users and organization, and applicability and regulatory basis.
- [Chapter 2 - Stormwater Impacts](#) describes stormwater runoff and its impacts on watershed hydrology, water quality, and ecology. Chapter 2 also introduces the concept of

impervious cover and the importance of disconnecting Directly Connected Impervious Area (DCIA). Climate change impacts on stormwater quality and quantity are also discussed.

- [Chapter 3 - Preventing and Mitigating Stormwater Impacts](#), presents an overview of approaches for preventing and mitigating stormwater impacts through LID site planning and design, source controls and pollution prevention, construction soil erosion and sedimentation controls, and post-construction stormwater management.

Part 2 – Design

- [Chapter 4 - Stormwater Management Standards and Performance Criteria](#), describes updated stormwater management standards and performance criteria for new development, redevelopment, and retrofit projects. This chapter also provides updated design storm precipitation for stormwater quantity control and the water quality design storm, as well as a process for demonstrating compliance with the stormwater management standards and performance criteria.
- [Chapter 5 - Low Impact Development Site Planning and Design Strategies](#), addresses non-structural Low Impact Development (LID) site planning and design strategies that can be used to reduce or disconnect impervious surfaces and retain and infiltrate stormwater on-site, thereby eliminating or reducing the need for structural stormwater BMPs. [Chapter 5](#) integrates information from the 2011 LID Appendix and provides additional guidance on the LID site planning and design process, hydrologic analysis, and criteria/credits for reducing DCIA through simple disconnection and other non-structural site planning and design techniques.
- [Chapter 6 - Source Control Practices and Pollution Prevention](#), addresses source control and pollution prevention practices, which are operational practices to limit the generation of stormwater pollutants at their source. This chapter has been abbreviated to provide website links to current information on common source control and pollution prevention practices.
- [Chapter 7 - Overview of Structural Stormwater Best Management Practices](#), introduces functional categories of structural stormwater Best Management Practices (BMPs) that can be used after consideration and use of LID site planning and design techniques to meet the stormwater management standards and performance criteria described in [Chapter 4](#).
- [Chapter 8 - Selection Considerations for Stormwater BMPs](#), provides guidance on selecting appropriate structural stormwater BMPs for a development site based on the requirements and needs of the site. This chapter includes an updated selection process and selection factors.
- [Chapter 9 - Stormwater Retrofits](#), describes techniques for retrofitting existing developed sites to improve or enhance the water quality mitigation functions of the sites. [Chapter 9](#)

also discusses the conditions for which stormwater retrofits are appropriate and the potential benefits of stormwater retrofits. This updated chapter discusses the role of stormwater retrofits in meeting DCIA disconnection goals for municipal stormwater management programs.

- [Chapter 10 - General Design Guidance for Stormwater Infiltration Systems](#), addresses the design of stormwater infiltration systems, including updated guidance on site suitability, soil evaluation methods, sizing methods, and other general design requirements for stormwater infiltration systems.
- [Chapter 11 - Proprietary Stormwater BMPs](#), provides guidance on the appropriate use of proprietary stormwater BMPs, as well as new or emerging technologies, including criteria for evaluating the use of such systems and recommended third-party performance programs and testing criteria
- [Chapter 12 – Stormwater Management Plan](#), describes how to prepare a stormwater management plan for review by local and state regulatory agencies. The chapter includes a recommended plan format and contents, and a completeness checklist for use by the plan preparer and reviewer.
- [Chapter 13 - Structural Stormwater BMP Design Guidance](#), provides detailed technical design guidance for each of the structural stormwater BMPs. This chapter includes guidance on the selection, design, construction, and maintenance of these practices, as well as summary information on selection and sizing criteria addressed in previous chapters.