

1.0 Introduction

The negative impacts of unmanaged stormwater runoff present a challenge to the City of Philadelphia. Such negative impacts include increased runoff pollutant concentrations, reduced groundwater recharge, increased stream channel and bank erosion, loss of aquatic habitat, increased flood frequency, and increased quantity, frequency, and duration of combined sewer overflows. In the United States, some of the largest increases in the frequency and intensity of extreme precipitation are already being observed in the Northeast U.S., which includes the Philadelphia region. Additionally, climate change projections for the Philadelphia region indicate that rainfall events will continue to increase in volume and intensity, leading to the potential for increased stormwater runoff and the exacerbation of negative impacts.

To confront these various challenges, the Philadelphia Water Department (PWD) has developed the **PWD Stormwater Regulations** water.phila.gov/development/stormwater-plan-review/manual/appendices/c-pwd-stormwater-regulations/ (Stormwater Regulations) to ensure the City has an up-to-date and effective stormwater management program that meets State and Federal requirements and can be coordinated with the evolving regulations adopted by upstream municipalities. The Philadelphia Stormwater Management Guidance Manual (Manual) provides detailed information on how to efficiently comply with the Stormwater Regulations and PWD design criteria for development projects and other stormwater projects. Through compliance with the Stormwater Regulations and these design standards, each project helps to improve the health of Philadelphia's waterways and mitigate the effects of increasing rainfall from climate change.

Chapter 1, Stormwater Management Requirements, provides an overview of the Stormwater Regulations and design criteria and allows the applicant to determine if a project is regulated, and if so, which requirements apply to a particular project, based on the project's characteristics. Once the Stormwater Regulations' applicability to a project is determined, the applicant can find guidance on the necessary submission, review, and approval procedures in **Chapter 2** water.phila.gov/development/stormwater-plan-review/manual/chapter-2.

Section 1.1 water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-1-applicability-factors contains guidance on the project characteristics that determine if a project is regulated, and if so, which requirements of the Stormwater Regulations apply to an applicant's project. The three key applicability factors that determine whether and which specific requirements of the Stormwater Regulations apply to a project are the following:

- **Development Type** – **Section 1.1.1** water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-1-applicability-factors#1.1.1
- **Watershed** – **Section 1.1.2** water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-1-applicability-factors#1.1.2
- **Earth Disturbance** – **Section 1.1.3** water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-1-applicability-factors#1.1.3

Section 1.2 water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-2-stormwater-regulations provides guidance on how the Stormwater Regulations may be applicable to a project, allowing the applicant to determine the specific requirement(s) of the Stormwater Regulations to which a project would be subject. It contains an overview of the Stormwater Regulations, their objectives, and project-specific exemptions. Specific requirements and Section references within this Chapter are as follows:

- Post-Construction Stormwater Management Requirements – **Section 1.2.1** water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-2-stormwater-regulations#1.2.1
 - Water Quality requirement
 - Channel Protection requirement
 - Flood Control requirement
 - Public Health and Safety Release Rate requirement
- Erosion and Sediment Control Requirement – **Section 1.2.2** water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-2-stormwater-regulations#1.2.2

Section 1.3 water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-3-stormwater-retrofits provides guidance on implementing a Stormwater Retrofit project. These projects are not subject to Stormwater Regulations and have different submission and review standards. This Section provides additional information to interpret the Manual for these projects.

After determining the project’s development type, watershed, and earth disturbance area using **Section 1.1** water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-1-applicability-factors, the applicant will use this information in conjunction with the requirement-specific exemptions detailed in **Section 1.2** water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-2-stormwater-regulations to determine which Stormwater Regulation requirements apply to the project. If the applicant is working with a voluntary Stormwater Retrofit, they will also reference **Section 1.3** water.phila.gov/development/stormwater-plan-review/manual/chapter-1/1-3-stormwater-retrofits for guidance on interpreting the Manual for their project.