

# 2 Applicability and Approval

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### 2.0 Introduction


All projects that generate earth disturbance of 5,000 square feet or more must have their Building Permit application signed by the Philadelphia Water Department (PWD) before it will be issued. The requirements that must be met to obtain PWD's signature depend on the project size and location. The requirements include six main components. In general terms these are the Water Quality, Channel Protection, Flood Control, Non-structural Project Control, Erosion and Sediment Pollution Control, and the Post-Construction Stormwater Management Plan requirements.

<b>Table 2.1: Primary Components of Requirements</b>	
<b>Stormwater Requirements</b>	<b>Technical Details</b>
Water Quality: Management of the first one inch of runoff from Directly Connected Impervious Areas (DCIA) within the limits of earth disturbance.	<b>Section 4.3.1:</b> Estimate Level of Control Needed
Channel Protection: Management of the 1-year, 24-hour, NRCS Type II storm event such that the peak rate of discharge does not exceed 0.24 cfs/acre.	
Flood Control: Attenuation of runoff from larger storm events required depending upon project location within the City.	
Non-structural Project Control: Use of practical alternatives to surface discharges of stormwater, creation of impervious surfaces and protection of Waters of the Commonwealth.	<b>Section 4.1:</b> Protect and Utilize Existing Site Features <b>Section 4.2:</b> Reduce Impervious Cover to be Managed
Erosion and Sediment Pollution Control (E & S): Plan must be prepared in accordance with Pennsylvania Department of Environmental Protection (PADEP) guidelines.	<b>Section 5.1:</b> Erosion and Sediment Pollution Control Plan
Post-Construction Stormwater Management Plan (PCSMP): Submittal to PWD demonstrating compliance with the PWD Stormwater Management Regulations (Stormwater Regulations).	<b>Section 5.2:</b> Components of the Post-Construction Stormwater Management Plan
Note: Some redevelopment projects may be exempt from the Channel Protection and Flood Control requirements.	

### 2.1 Earth Disturbance

It is important for the applicant to properly assess the limits of earth disturbance associated with the construction project in order to determine applicable requirements and the level of review and approval required. A project may have multiple boundaries, each of which has significance when determining applicability during the development process. For example, the parcel boundary, earth disturbance, and area that must be managed for stormwater may all be different. The trigger for determining the Stormwater Regulations apply to a project is the area of earth that is disturbed as part of the project. However, some areas with the limits of earth disturbance do not require stormwater management. In the discussion that follows descriptions of earth disturbance boundaries provide guidance on determining the area that is subject to the Stormwater Regulations.

#### **What is earth disturbance:**

 Earth disturbance is defined as any human activity which moves or changes the surface of land, including, but not limited to, clearing and grubbing, grading, excavation, embankments, land development, agricultural plowing or tilling, timber harvesting activities, road maintenance activities, mineral extraction, moving, depositing, stockpiling or storing of soil, rock or earth materials. All earth disturbance activities must be included on all E & S Plans.

- Land Development
- Utility Connections (Including work in public rights-of-way: sidewalks and roads)
- Private Roads
- Rock Construction Entrances
- Stockpiles
- Temporary Stockpiles
- Construction Vehicle Paths
- Grading
- Excavation
- Clearing and Grubbing
- Embankments

#### **What is not earth disturbance:**

- Interior renovations
- Restriping or milling and repaving of paved areas, parking lots, basketball courts, tennis courts etc., as long as the subbase remains undisturbed.

#### **What earth disturbance area does not have to manage stormwater?**

- Replacement of public sidewalks
- Replacement of existing roads when stormwater runoff characteristic are not significantly affected
- Temporary Stockpiles on existing impervious surfaces as long as all necessary E & S pollution control measures are implemented.

#### **What earth disturbance area in the public right-of-way does have to manage stormwater?**

- New public streets that are determined by City Streets Department, Philadelphia City Planning Commission (PCPC) and PWD to not conform to the grid
- New private streets and private sidewalks

## When in doubt be conservative:

- Projects that are close to 15,000 square feet of earth disturbance are required to provide a Pennsylvania P.E. stamped and sealed E & S Plan clearly delineating the limits of disturbance before PWD will confirm that Stormwater Management requirements are not applicable to the project. Should a site inspection reveal that more than 15,000 square feet have been disturbed the site will be issued an immediate Stop Work Order and will be subject to the Stormwater Regulations.
- Should a site inspection reveal that more than 1 acre of earth disturbance the site will be issued an immediate Stop Work Order and be required to apply for a PADEP NPDES (National Pollutant Discharge Elimination System) permit. The Stop Work Order will not be lifted until the applicant receives an approved NPDES Permit.


## 2.2 Determining Applicability

The review components for both Stormwater Management and Erosion and Sediment Control depend on the limits of earth disturbance associated with the project as well as the watershed in which the project is located. Table 2.1 summarizes the requirements that each site must meet. Additional information on each the requirements is provided below.

**Table 2.2: Applicability of Requirements**

Site Information		Project Requirements					
Earth Disturbance Area (square feet)	Project Location	Submit an ERSA	Comply with Stormwater Management Regulations	Implement E & S BMPs as needed	Submit an E & S Plan to PWD	Have an E & S Plan Approved by PWD	Obtain a NPDES Permit
Less than 5,000 square feet	Project is <b>not</b> located in the Wissahickon Watershed			X			
	Project is located in the Wissahickon Watershed	Contact PWD and PCPC for instructions.	Contact PWD and PCPC for instructions.	X	Contact PWD and PCPC for instructions.	Contact PWD and PCPC for instructions.	
More than 5,000 square feet and less than 15,000 square feet	Project is <b>not</b> located in the Darby-Cobbs or Wissahickon Watershed	X		X	X		
	Project is located in the Wissahickon Watershed	X	Contact PWD and PCPC for instructions.	X	Contact PWD and PCPC for instructions.	Contact PWD and PCPC for instructions.	
	Project is located in the Darby-Cobbs Watershed	X	X	X	X	X	
More than 15,000 square feet and less than 1 acre (43,560 square feet)	All project locations	X	X	X	X	X	
More than 1 acre (43,560 square feet)	All project locations	X	X	X	X	X	X

**Note:** Some projects can physically be located in one watershed while connecting project infrastructure to another watershed. Projects that are in close proximity to watershed and sewershed boundaries will have the receiving watershed reviewed as part of the conceptual plan review process.

 If during the course of construction additional area is disturbed which changes the applicable requirements, construction will have to cease until new plans are prepared and approved by all relevant regulatory agencies.

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### 2.2.1 Conceptual Review

All projects with that generate an earth disturbance of 5,000 square feet or more must submit an Existing Resources and Site Analysis (ERSA) worksheet to PWD for conceptual review. See **Section 3: Site Planning** for more information.

### 2.2.2 Erosion and Sediment Control


The Owner is responsible for ensuring that their active construction site is not creating violations of 25 Pa. Code Chapters 92 and/or 102 and the Clean Streams Law, the act of June 22, 1937, P.L. 1987, 35 P.S. §691.1 et seq. Depending on the limit of earth disturbance associated with a project there are specific preparation, review, and approval requirements. All E & S Plans must be prepared in accordance with PADEP guidelines as laid out in the following Manual:

PADEP, Bureau of Watershed Management. April 15, 2000. *Erosion and Sediment Pollution Control Program Manual*. Document 363-2134-008.

It is important for the applicant to properly assess the limits of earth disturbance associated with the construction project in order to determine the level of review and approval required. Once the limits of earth disturbance have been accurately determined the applicant will follow one of the four E & S review paths listed below:

- A. Less than 5,000 square feet (not located in the Wissahickon Watershed\*)
  - E & S Plan is not mandatory.
  - Owner **must** implement E & S Best Management Practices in accordance with the PADEP *Erosion and Sediment Pollutant Control Program Manual* (2000).
- B. More than 5,000 square feet, less than 15,000 square feet\*\*
  - E & S Plan must be **prepared**, implemented, and kept on site at all times during construction.
  - The E & S Plan, which complies with the PADEP *Erosion and Sediment Pollutant Control Program Manual* (2000), must be maintained and submitted to PWD, but does not need to be approved.
  - If the site is not subject to the Stormwater Regulations, then submit E & S Plans as an attachment to the ERSA online application at [www.PhillyRiverInfo.org/PWDDevelopmentReview](http://www.PhillyRiverInfo.org/PWDDevelopmentReview).
- C. More than 15,000 square feet, less than 1 acre (43,560 square feet)\*\*
  - E & S Plan must be prepared, **approved**, implemented and kept on site at all times during construction.
  - The E & S Plan **must** be reviewed and approved by PWD before earth disturbance can begin.
  - Project is subject to Stormwater Regulations and requires a full PCSMP submittal.
  - A copy of the approved E & S Plan must be forwarded to the PWD E & S Unit.
  - Notify the PWD E & S Unit of any pre-construction meetings, and notify the PWD E & S Unit three days prior to commencement of construction activities.
- D. More than 1 acre (43,560 square feet)
  - E & S Plan must be prepared, **approved**, implemented and kept on site at all times during construction.
  - A **NPDES permit application** must be submitted to PADEP. Proof of issuance of the NPDES permit must be provided to PWD before PWD will sign the applicant's Building Permit application. A Building Permit must be issued prior to commencement of any earth disturbance.

- Project is subject to Stormwater Regulations and requires a full PCSMP submittal.
- A copy of the approved E & S Plan must be forwarded to the PWD E & S Unit.
- Notify the PWD E & S Unit of any pre-construction meetings, and notify the PWD E & S Unit three days prior to commencement of construction activities.

 \*Projects located in the Wissahickon Watershed may be subject to additional requirements which will be assessed as part of the project review performed by PCPC staff.

\*\*If during the course of construction additional area is disturbed which changes the applicable requirements, construction will have to cease until new plans are prepared and approved by all relevant regulatory agencies.

### 2.2.3 Watershed Specific Requirements

The Stormwater Regulations apply to all projects that generate an earth disturbance of 15,000 square feet or more. However, watershed based Regulations can supersede the Stormwater Regulations. Projects will be required to meet the more stringent of the two requirements. There are currently two watersheds in Philadelphia that have specific Regulations which affect the applicability of the Stormwater Regulations. Additional watershed Regulations may be created. For updated information on watershed specific Regulations go to [www.PhillyRiverInfo.org/PWDDDevelopmentReview](http://www.PhillyRiverInfo.org/PWDDDevelopmentReview).

#### Darby-Cobbs Creek Watershed

Projects located in the Darby-Cobbs Creek Watershed are subject to the *Darby and Cobbs Creeks Watershed Act 167 Stormwater Management Plan*. Because of this, all projects of over 5,000 square feet of earth disturbance located in the Darby-Cobbs Creek Watershed are subject to the Stormwater Regulations as described below in **Section 2.2.4**: Stormwater Management Requirements.

#### Wissahickon Watershed

Projects located in Wissahickon Watershed are subject to §14-1603.2 *Environmental Controls for the Wissahickon Watershed* of the Philadelphia Code. The requirements that must be met depend on the location of the project within the watershed, the impervious cover proposed by the project, and the amount of earth disturbance associated with the project. Contact PCPC for more information on the requirements of a specific site.

### 2.2.4 Stormwater Management Requirements

The following steps and flow charts assist in determining applicability and exemption possibilities for a development project.

**Step 1:** Does my proposed project result in earth disturbance of 15,000 sq ft or more (5,000 sq ft or more in the Darby-Cobbs Creek Watershed)?

**Yes.** Continue to Step 2 and comply with PADEP (E & S) Controls.

**No.** Is my proposed project located in the Wissahickon Watershed?

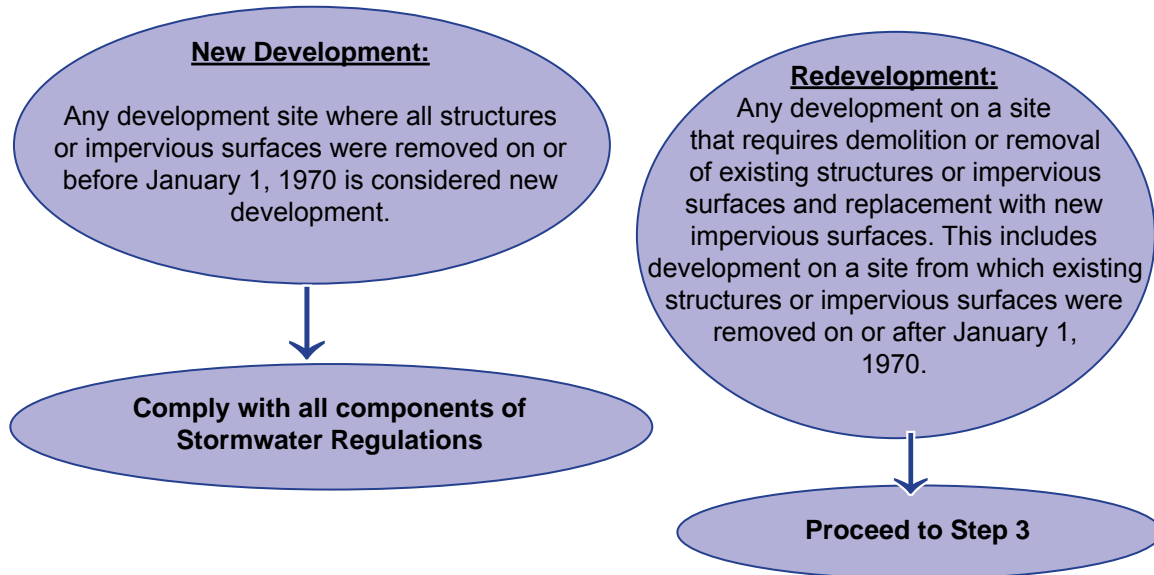
**Yes.** Contact PCPC for instructions.

**No.** See **Appendix K**: Voluntary Small Sites Checklist and comply with PADEP E & S Controls for earth disturbances.

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**Step 2:** Is my development project new development or redevelopment?

Development encompasses both new development and redevelopment and includes the entire development, even when the development is performed in stages. The project will fit into one of the following two categories:



**Step 3:** Which components of the Stormwater Regulations are required for my development project?

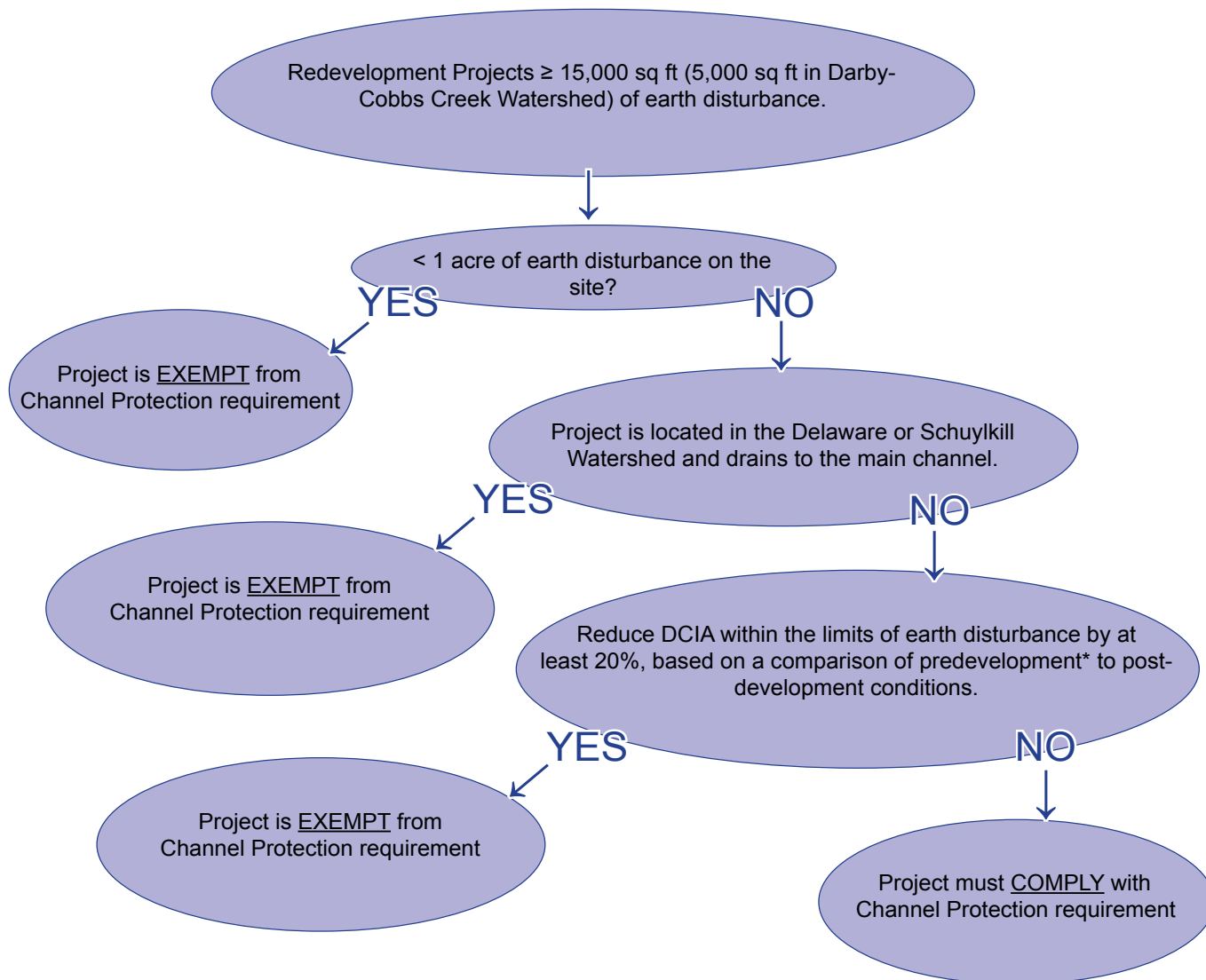
**Table 2.3: Required Components of the Stormwater Regulations**

Requirement	New Development	Redevelopment
Water Quality	Comply	Comply
Channel Protection	Comply	May be <u>Exempt</u> (see step 4)
Flood Control	Comply	May be <u>Exempt</u> (see step 5)
Nonstructural Site Design	Comply	Comply

New Development projects must comply with all components of the Stormwater Regulations.

Redevelopment projects must comply with Nonstructural Project Design, and Water Quality requirements. Exemptions and alternative criteria for Channel Protection and Flood Control requirements may be applicable to your project as detailed in the following flow chart.

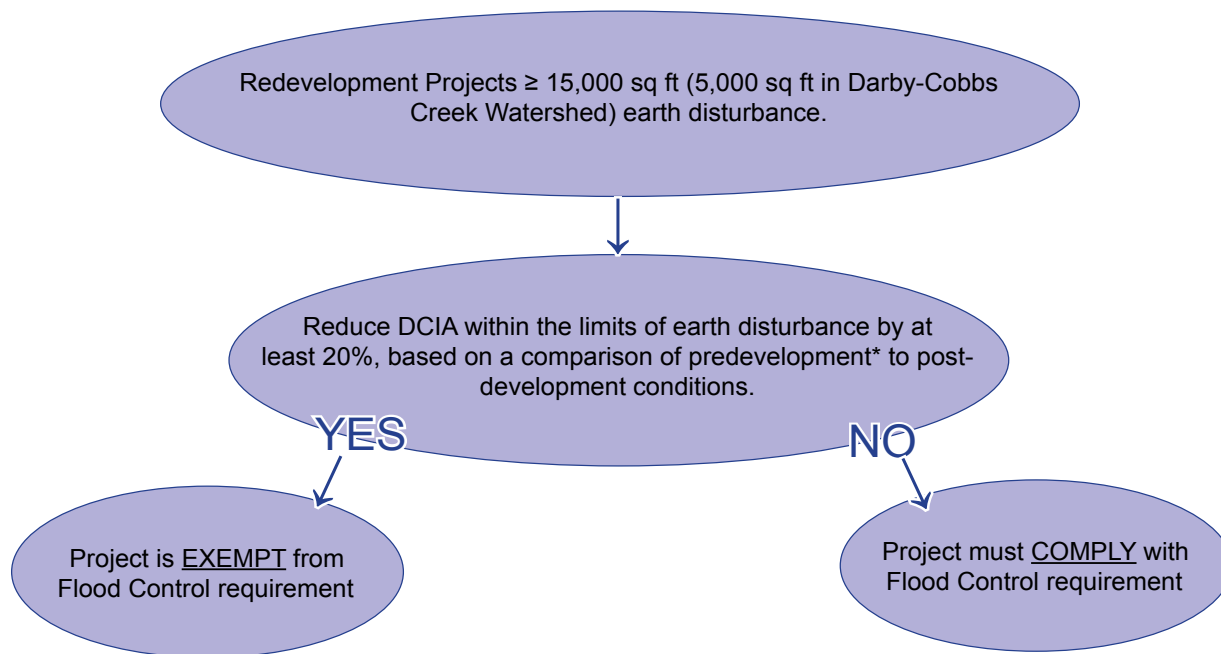
### Step 4: Do I have to comply with the Channel Protection requirement?



\* For the purposes of calculating reduction in DCIA from the predevelopment to post-development condition, the predevelopment condition DCIA is determined by the dominant land use for the ten (10) years preceding the planned project.

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**Step 5:** Do I have to comply with the Flood Control requirement?



\*For the purposes of calculating reduction in DCIA from the predevelopment to post-development condition, the predevelopment condition DCIA is determined by the dominant land use for the ten (10) years preceding the planned project.

**Step 6:** What happens next?

After determining which Stormwater Regulations apply to your project site, refer to **Section 3:** Site Planning, **Section 4:** Integrated Site Design, and **Section 5:** Post Construction Stormwater Management Plans for guidance, directions, and requirements before submitting a PCSMP to PWD for approval.

### 2.2.5 Public Health and Safety Rates

Sites located in areas where known flooding has occurred are required to comply with a maximum release rate (cfs/acre) for the 1-10 year storms. This rate is determined by PWD based on analysis of available capacity for the project within the sewershed. If a public health and safety (PHS) release rate is required for your site, it will be noted during the Conceptual Review process. Applicants should contact PWD when they start technical design for their project, to obtain a calculated PHS rate. Note, this PHS release rate applies to the entire site, not just DCIA.

## 2.3 The Development Review Process

Stormwater management is one part of the PWD approval process and is only one step in the overall development review process. When a developer has a conceptual idea for a project in Philadelphia, the first step is to conduct an Initial Plan Review with the PCPC. After guidance from PCPC, the developer prepares the ERSA Worksheet, ERSA Map, site photographs, and a Conceptual Site Plan and submit to PWD (See **Section 3: Site Planning**). These must be submitted prior to scheduling a PWD Development Review Meeting. Staff from PWD will provide a Conceptual Review of these materials and, if needed, meet with the developer and their engineers to discuss the Conceptual Site Plan in terms of water and sewer connections, and stormwater management. This meeting is designed to give PWD and developers an opportunity early in the design process to address any potential problem areas and maximize the site's potential.

Upon completion of the PWD Conceptual Review, PWD Staff will send an electronic version followed by a paper copy of the signed and stamped Checklist A: PWD Conceptual Review to the developer. The developer will then complete their Site Plan based on comments received during the Development Review Meeting. A signed and stamped copy of Checklist A: PWD Conceptual Review is one of the required components of a complete Zoning Application.

PWD approval is a required prerequisite on the City's Building Permit application. **Before a Building Permit can be issued by the City of Philadelphia, full PWD approval for Water, Sewer, Erosion and Sediment Control, and Stormwater Management must be obtained.** In order to obtain Stormwater Management approval, the developer must submit a complete PCSMP as described in this Manual (See **Section 5: Post Construction Stormwater Management Plans**). In addition, if more than one (1) acre of earth disturbance will take place on the site, a PADEP issued NPDES Permit must also be obtained before PWD will sign a Building Permit Application.

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