

## **ARTICLE IV – STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS**

### **Section 401. General Requirements**

For any Regulated Activity, unless exempt per the provisions of Section 106:

- A. Preparation and implementation of an approved SWM Site Plan is required.
- B. No Regulated Activity shall commence until the Borough or Borough designee issues a written permit for the project, which demonstrates compliance with the requirements of this Ordinance and, if required, a letter of adequacy has been issued by the Conservation District for an Erosion and Sediment Control Plan.
- C. The preliminary or final approval of subdivision and/or land development plans and the issuance of any building or occupancy permit shall not proceed until the Applicant has received written approval of a SWM Site Plan from the Borough.
- D. The SWM Site Plan approved by the Borough shall be on Site throughout the duration of the Regulated Activity.

### **Section 402. SWM Site Plan Contents**

The SWM Site Plan shall consist of a general description of the project including items described in Section 304, calculations, maps, and plans. A note on the plans shall refer to the associated computations and Erosion and Sediment Control Plan by title and date. The cover sheet of the computations and Erosion and Sediment Control Plan shall refer to the associated plan by title and date. All SWM Site Plan materials shall be submitted to the Borough in a format that is clear, concise, legible, neat, and well organized; otherwise, the SWM Site Plan shall not be accepted for review and shall be returned to the Applicant.

The following items shall be included in the SWM Site Plan:

- A. General
  - 1. A general description of the proposed project;
  - 2. A listing of all regulatory approvals required for the proposed project and the status of the review and approval process for each. Final approval or adequacy letters must be submitted to the Borough prior to (or as a condition of) the Borough's issuing final approval of the SWM Site Plan. Proof of application or documentation of required permit(s) or approvals for the programs listed below shall be part of the SWM Site Plan, if applicable:
    - a. NPDES Permit for Stormwater Discharges from Construction Activities;
    - b. PADEP permits as needed;

- i. PADEP Joint Permit Application,
  - ii. Chapter 105 (Dam Safety and Waterway Management),
  - iii. Chapter 106 (Floodplain Management);
  - c. PennDOT Highway Occupancy Permit;
  - d. Erosion and Sediment Control Plan letter of adequacy; and
  - e. Any other permit under applicable State or Federal regulations.
3. A statement, signed by the Applicant, acknowledging that any revision to the approved SWM Site Plan shall be submitted to and approved by the Borough, and that a revised Erosion and Sediment Control Plan shall be submitted to, and approved by, the Conservation District or Borough (as applicable) for a determination of adequacy prior to construction of the revised features.
  4. The Stormwater Management Certification to be signed and sealed by the qualified Licensed Professional responsible for the preparation of the SWM Site Plan (Refer to Appendix A-6).

B. Maps or Plan Sheets

Map(s) or plan sheets of the Site shall be submitted on minimum twenty-four (24)-inch by thirty-six (36)-inch sheets and shall be prepared in a form that meets the requirements for recording at the Chester County Office of the Recorder of Deeds and the requirements of the Operation and Maintenance (O&M) Plan and O&M Agreement (Article VII). If the SALDO has additional or more stringent criteria than this Ordinance, then the SALDO criteria shall also apply. Unless otherwise approved by the Municipal Engineer, the contents of the maps or plan sheets shall include, but not be limited to:

1. A location map, with a scale of one (1) inch equals two thousand (2,000) feet or greater, showing the Site location relative to highways, municipal boundaries, or other identifiable landmarks.
2. The name of the project, tax parcel number(s), and the names, addresses and phone numbers of the owner of the property, the Applicant, and firm preparing the plan.
3. Signature and seal of the qualified Licensed Professional(s) responsible for preparation of the maps and plan sheets.
4. The date of SWM Site Plan submission and revision dates, as applicable.
5. A graphic and written scale of one (1) inch equals no more than fifty (50) feet.
6. A north arrow.

7. Legal property boundaries, including:
  - a. The total project property boundary and size with distances marked to the nearest foot and bearings to the nearest degree.
  - b. Boundaries, size and description of purpose of all existing easements and deed-restricted areas of the project property, with distances marked to the nearest foot and bearings to the nearest degree.
8. Existing natural resources and natural or man-made hydrologic features that are located within the Site or receiving discharge from, or that may otherwise be impacted by, the proposed Regulated Activity, including but not limited to:
  - a. All existing natural resources, hydrologic features and drainage patterns including natural waterways, water bodies, wetlands, streams (intermittent and perennial), ponds, lakes, vernal pools, etc., natural infiltration areas and patterns, areas of significant natural evapotranspiration, and other water features and aquatic resources.
  - b. Any existing man-made drainage features, BMPs, Conveyances, facilities, open channels, swales, drainage patterns, or other flood, stormwater or drainage control features.
  - c. For the Site, discharge points and locations of concentrated flows and their drainage areas.
  - d. For named waters, show names and their watershed boundaries within the Site.
  - e. Special management areas (as per Subsection 301.P).
  - f. For the water bodies, streams and wetlands identified in Subsection 402.B.8.a, label or otherwise show the following attributes, if applicable:
    - i. The Designated Use as determined by PADEP (25 PA Code Chapter 93);
    - ii. Impairments listed on the PADEP “Integrated List” (as updated) and the listed source and cause of impairment;
    - iii. Name, date, and target pollutant(s) for any approved Total Maximum Daily Load (TMDL); and
    - iv. Drainages to water supply reservoirs.
  - g. Areas that are part of the Pennsylvania Natural Diversity Inventory (PNDI) and a list of potential impacts and clearances received (for Regulated Activities involving one (1) acre or more proposed Earth Disturbance).
  - h. Woods, vegetated, riparian buffers and other areas of natural vegetation.

- i. Topography using contours (with elevations based on established bench marks) at intervals of two (2) feet. In areas of slopes greater than fifteen (15) percent five (5)-foot contour intervals may be used. The datum used and the location, elevation and datum of any bench marks used shall be shown.
  - j. Areas classified by the Borough as steep slopes.
  - k. Soil names and boundaries, general type of soils with Hydrologic Soil Group noted, and in particular note areas most conducive to infiltration BMPs, such as groups A and B, etc., estimated permeabilities in inches per hour, and location and other results of all soil tests and borings.
  - l. If present, areas with underlying carbonate geologic units, existing sinkholes, subsidence or other karst features, and any associated groundwater recharge areas with increased vulnerability to contamination.
  - m. Any contaminated surface or subsurface areas of the Site.
  - n. Water supply wells –
    - i. Location of existing well(s) on the project property and delineation of the(ir) recharge area(s) (if known), or a fifty (50) foot diameter assumed recharge area;
    - ii. Location of existing well(s) within fifty (50) feet beyond the boundary of the project property boundary (if public water supply is proposed for the Regulated Activity); and
  - o. Current FEMA one hundred (100)-year floodplain boundaries, elevations, and Floodway boundaries for any Special Flood Hazard Areas on or within one hundred (100) feet of the property.
  - p. Boundaries of riparian buffers(s) as required by Section 312.
9. Location of the proposed Regulated Activity, limits of Earth Disturbance (Disturbed Area), and BMPs and Conveyances relative to the location of existing natural resources and hydrologic features and special management areas resulting from the Site design process of Section 304.
10. Description of existing and proposed ground cover and land use including the type and total area.
11. Existing and proposed man-made features including roads, paved areas, buildings, and other Impervious and Pervious Surfaces on the project property (or an appropriate portion of the property as determined in consultation with the Borough Engineer) and within the proposed Disturbed Area, and including the type and total area of the following:
- a. Existing Impervious Surfaces;

- b. Existing Impervious Surfaces proposed to be replaced;
  - c. Existing Impervious Surfaces to be permanently removed and replaced with pervious ground cover;
  - d. New or additional Impervious Surfaces; and
  - e. Percent of the Site covered by Impervious Surfaces for both the existing and proposed Post-construction conditions.
12. The total extent of the upstream area draining through the Site.
13. A plan note shall be included on the plan and in the stormwater management agreement noting the amount of Impervious Surface that the stormwater facilities have been designed to handle.
14. All BMPs, Conveyances and other stormwater management facilities shall be located on the plan sheets, including design drawings, profile drawings, construction details, materials to be used, description of function, etc.
15. Complete delineation of the flow paths used for calculating the time of concentration for the Predevelopment and Post-construction conditions shall be included.
16. The locations of all existing and proposed utilities, sanitary sewers, on-lot wastewater facilities (including subsurface tanks and leach fields), and water supply lines within the Site and within fifty (50) feet beyond the proposed limits of Earth Disturbance.
17. A grading plan, including all areas of proposed Earth Disturbance and the proposed Regulated Activity and delineating the boundary or limits of Earth Disturbance of the Site. The total Disturbed Area of the Site shall be noted in square feet and acres.
18. Proposed final grade elevations and contours at intervals of two (2) feet. In areas of steep slopes (greater than fifteen (15) percent), five (5)-foot contour intervals may be used.
19. For each proposed BMP and Conveyance included in the SWM Site Plan (including any to be located on any property other than the property being developed by the Applicant), the following shall be included on the SWM Site Plan map or plan sheets:
- a. Identification of the person responsible for ongoing inspections, operation, repair, and maintenance of the BMP or Conveyance after completion of construction.
  - b. Delineation of the land area, structures, Impervious Surfaces, and Conveyances draining to and from the BMP or Conveyance.
  - c. Easements, as per the requirements of Article VII, that shall include:
    - i. Boundaries labeled with distances shown in feet and bearings to the nearest degree;

- ii. Notes or other documentation, as needed, to grant the Borough the right of access to all BMPs and Conveyances for the purposes of inspection and enforcement of the requirements of this Ordinance, and any applicable O&M Plans and O&M Agreements;
  - iii. Notes or other documentation, as needed, to grant the Borough the right of access to all roadways necessary to access all BMPs and Conveyances, where roadways are not to be dedicated to the Borough;
  - iv. Notes or other documentation as needed to grant the owner of any BMP or Conveyance the right of access for the purpose of inspection, operation, maintenance, and repair of the BMP or Conveyance that is to be owned, operated and maintained by a person other than the Borough, and other than the owner of the property on which the BMP or Conveyance is located;
  - v. A minimum twenty (20) foot wide perimeter (or other width as determined in consultation with the Municipal Engineer) around all BMPs and Conveyances;
  - vi. Sufficient vehicular ingress to and egress from a public right-of-way or roadway, as determined in consultation with the Borough Engineer; and
  - vii. Accompanying notes or other documentation as needed, and in accordance with Article VII describing the type, purpose and total area of easements, who the easement is granted to, and the rights, duties and obligations of the parties with respect to every BMP or Conveyance.
- d. Boundaries of land areas (if any) for which deed restrictions are required for the purpose of protecting and prohibiting disturbance to a BMP or Conveyance, indicating the area to which the restriction applies with distances shown in feet and bearings to the nearest degree, and a written description of the type, purpose and nature of the restriction.
  - e. Other items that may be needed to comply with all other requirements of Article VII.
- C. A written description of the following information shall be included in the SWM Site Plan:
- 1. Existing features, conditions, natural resources, hydrologic features, and special management areas (as listed in Subsection 402.B.8);
  - 2. How the Site design achieves the requirements of Section 304, and if applicable, where they could not be achieved and why;
  - 3. The overall stormwater management design concept for the project and how the Site design achieves the requirements of Article III;
  - 4. Proposed features and conditions, proposed erosion and sediment control features, proposed BMPs, Conveyances, and any other stormwater facilities;

5. A description of the effect of the project (in terms of flow alteration and runoff volumes, water quality and peak flows, etc.) on existing natural resources, hydrologic features and special management areas, adjacent and downgradient properties, and any existing municipal or other stormwater Conveyance system(s), that may be affected by or receive runoff from the Regulated Activity (whether located within or outside of the area of the Regulated Activity), and specifics of how erosion, water quality and flow impacts will be avoided or otherwise mitigated;
  6. Proposed nonpoint source pollution controls and justification and confirmation that the proposed project will not result in any increased pollutant loadings to any existing stream or stream impairment identified by PADEP, or to any receiving water body;
  7. Expected project time schedule; and
  8. Description of construction stages or project phases, if so proposed.
- D. A detailed Site evaluation conducted by a qualified Licensed Professional for projects proposed in areas of carbonate geology or karst topography, and other environmentally sensitive areas, such as contaminated sites and brownfields, as described in Subsections 301.O and 301.R of this Ordinance.
- E. Stormwater runoff design computations and documentation, such as hydrologic, hydraulic, and structural computations, assumptions, BMP loading ratios, etc., consistent with the guidelines and criteria presented in the PA BMP Manual (as amended) or other guidance acceptable to the Municipal Engineer, and used in the design of the BMPs, Conveyances and other features proposed to be utilized for stormwater management, or as otherwise necessary to demonstrate that the requirements of this Ordinance have been met, specifically including the requirements in Sections 301 and 304 through 309.
- F. Inspections, Operation and Maintenance Requirements

The following documents shall be prepared and submitted to the Borough for review and approval as part of the SWM Site Plan, in accordance with the requirements of Article VII, for each BMP and Conveyance included in the SWM Site Plan (including any to be located on any property other than the property being developed by the Applicant):

1. An O&M Plan;
2. An O&M Agreement;
3. Any easement agreements that are needed to ensure access, inspection, maintenance, operation, repair and permanent protection of any permanent BMP(s) and Conveyances associated with the Regulated Activity;
4. Any written deed, deed amendment or equivalent document (if needed) to be recorded against a subject property, as shown on the SWM Site Plan maps or plan sheets, or recorded plan sheets for the purpose of protecting and prohibiting disturbance to a BMP or Conveyance; and

5. Written approval, easement agreements, or other documentation for discharges to adjacent or downgradient properties when required to comply with Subsection 301.G and Article VII of this Ordinance.
- G. An Erosion and Sediment Control Plan, where applicable, as prepared for and submitted to the Conservation District and/or Borough. A letter of adequacy from the Conservation District, if applicable, must be submitted to the Borough prior to (or as a condition of) the Borough's final approval of the SWM Site Plan.
- H. A Highway Occupancy Permit from the Pennsylvania Department of Transportation (PennDOT) District Office must be submitted to the Borough prior to (or as a condition of) the Borough's final approval of the SWM Site Plan when utilization of a PennDOT storm drainage system is proposed.

### **Section 403. SWM Site Plan Submission**

A complete SWM Site Plan that complies with all applicable provisions of Section 402 shall be submitted to the Borough for review and approval, as follows:

- A. The SWM Site Plan shall be coordinated with the applicable State and Federal permit process and the Borough SALDO review process. All permit approvals or letters of adequacy not yet received by the Applicant at the time of submittal of the SWM Site Plan to the Borough must be submitted to the Borough prior to (or as a condition of) the Borough's final approval of the SWM Site Plan, in the form of issuance of a SWM Permit.
- B. For projects that require SALDO approval, the SWM Site Plan shall be submitted by the Applicant as part of the preliminary plan submission where applicable for the Regulated Activity.
- C. For Regulated Activities that do not require SALDO approval, the SWM Site Plan shall be submitted by the Applicant for review by the Borough or its designee, as determined by Borough staff.
- D. The number of copies of the SWM Site Plan to be submitted by the Applicant for review shall be in accordance with instructions from the Borough. The applicant is responsible for distributing the required plan copies to the Borough Engineer and Solicitor.
- E. The corresponding review fee shall be submitted to the Borough simultaneously with the SWM Site Plan, per the Borough's fee schedule.
- F. Any submissions to the Borough that are found to be incomplete shall not be accepted for review and shall be returned to the Applicant within 30 days with a notification in writing of the specific manner in which the submission is incomplete.
- G. Financial security, per the requirements of Section 110, shall be submitted to the Borough prior to approval of the SWM Site Plan.

## Section 404. SWM Site Plan Review

- A. The SWM Site Plan shall be submitted to the Borough for review by the Borough Engineer for consistency with this Ordinance and the respective PA Act 167 Stormwater Management Plan(s). The Borough Engineer will review the SWM Site Plan for any subdivision or land development for compliance with this Ordinance and the Borough SALDO provisions not otherwise superseded by this Ordinance.
- B. If applicable, the Applicant shall have received a “letter of adequacy” from the Conservation District or other PADEP approval for the proposed Regulated Activity prior to (or as a condition of) final approval by the Borough.
- C. The Borough Engineer will notify the Applicant and the Borough in writing, within 30 calendar days, whether the SWM Site Plan is consistent with the requirements of this Ordinance. If the SWM Site Plan involves a subdivision and land development Plan, the notification shall occur within the time period allowed by the MPC (as amended). If a longer notification period is provided by other statute, regulation, or ordinance, the Applicant will be so notified by the Borough.
  - 1. If the Borough Engineer determines that the SWM Site Plan is consistent with this Ordinance, the Borough Engineer shall forward a letter of consistency to the Borough, who shall then forward a copy to the Applicant.
  - 2. The Borough may approve the SWM Site Plan with conditions reasonably defined to make the SWM Site Plan compliant with the terms of this Ordinance, and, if so, shall provide the conditions for approval in writing.
  - 3. If the Borough Engineer determines that the SWM Site Plan is inconsistent or noncompliant with this Ordinance, the Borough Engineer will forward a letter to the Borough, with a copy to the Applicant citing the reason(s) and specific Ordinance sections for the inconsistency or noncompliance. Inconsistency or noncompliance may be due to inadequate information to make a reasonable judgment as to compliance with this Ordinance. Any SWM Site Plans that are inconsistent or noncompliant may be revised by the Applicant and resubmitted in accordance with Section 406 when consistent with this Ordinance. Resubmission will commence a new municipal review and notification time period.
- D. The Borough will not grant final approval to any proposed subdivision, land development, or Regulated Activity specified in this Ordinance if the SWM Site Plan has been found to be inconsistent with this Ordinance.
- E. All required permits from PADEP shall be obtained and submitted to the Borough prior to (or as a condition of) final approval of any proposed subdivision, land development, or other Regulated Activity by the Borough.
- F. No building permits for any Regulated Activity will be approved by the Borough if the SWM Site Plan has been found to be inconsistent with this Ordinance, as determined by the Borough Engineer. All required permits from PADEP shall be obtained prior to issuance of a building permit.

- G. The Borough's approval of a SWM Site Plan shall be valid for a period one (1) year with annual renewals by the Borough not to exceed a total of five (5) years commencing on the date that the Borough approved the SWM Site Plan. If stormwater management facilities included in the approved SWM Site Plan have not been constructed, or if constructed, As-Built Plans of these facilities have not been approved within the year time period the Borough may approve another year extension annually until the fifth year, then the Applicant may seek reinstatement of approval of the expired SWM Site Plan. If the Borough determines that the expired SWM Site Plan is consistent and compliant with current regulations and requirements, then the expired SWM Site Plan will be reinstated; otherwise, it will be rejected. The Applicant will be prohibited from conducting any Regulated Activity until a reinstated or newly approved SWM Site Plan is obtained in accordance with Section 406 of this Ordinance.
- H. All or portions of the final approved SWM Site Plan shall be recorded (as "record plans") per the instructions of the Borough.
- I. Upon completion of construction, the Applicant shall be responsible for completing final As-Built Plans of all BMPs, Conveyances, or other stormwater management facilities included in the approved SWM Site Plan as per the requirements of Section 502 of this Ordinance.

#### **Section 405. Revision of SWM Site Plans**

- A. A submitted SWM Site Plan under review by the Borough shall be revised and resubmitted for any of the following reasons:
  - 1. A change in stormwater management BMPs, Conveyances, facilities or techniques;
  - 2. Relocation or redesign of stormwater management BMPs, Conveyances, or facilities;OR
  - 3. Soil or other Site conditions are not as stated on the SWM Site Plan as determined by the Borough Engineer, and the new conditions necessitate design changes.

The revised SWM Site Plan shall be resubmitted in accordance with Section 403 and subject to review as specified in Section 404 of this Ordinance.

- B. A revision to an approved SWM Site Plan shall be submitted to the Borough, accompanied by the applicable municipal review fee.

#### **Section 406. Resubmission of Inconsistent or Noncompliant SWM Site Plans**

Any SWM Site Plan deemed inconsistent or noncompliant may be revised and resubmitted with the revisions addressing the Borough Engineer's concerns documented in writing. The submission shall be addressed to the Borough in accordance with Section 403 of this Ordinance, distributed accordingly, and be subject to review as specified in Section 404 of this Ordinance. The applicable

Borough review fee shall accompany a resubmission of a SWM Site Plan previously determined to be inconsistent or noncompliant.