

ARTICLE VIII

SWM SITE PLAN & REPORT REQUIREMENTS

§21-801. General Requirements

For any of the activities regulated by this Chapter and not eligible for the exemptions provided in Section 21-302, the final approval of subdivision and/or land development plans, the issuance of any building or occupancy permit, or the commencement of any land disturbance activity, may not proceed until the Applicant has received written approval of a SWM Site Plan from the Municipality.

§21-802. SWM Site Plan & Report Contents

The SWM Site Plan & SWM Site Report shall consist of all applicable calculations, maps, and plans. All SWM Site Plan materials shall be submitted to the Municipality in a format that is clear, concise, legible, neat and well organized; otherwise, the SWM Site Plan shall be rejected.

Appropriate sections from the Municipal Subdivision and Land Development Ordinance, and other applicable local ordinances, shall be followed in preparing the SWM Site Plan.

- A. SWM Site Plan shall include, but not be limited to:
 1. Plans shall be of one size and in a form that meets the requirements for recording in the Office of the Recorder of Deeds of Butler County.
 - a. Plans for tracts of less than 20 acres shall be drawn at a scale of one inch equals no more than 50 ft.;
 - b. Plans for tracts of 20 acres or more, plans shall be drawn at a scale of one inch equals no more than 100 ft.;
 - c. Lettering shall be drawn to a size to be legible if the plans are reduced to ½ size.
 2. The name of the development; name and location address of the property site; name, address, and telephone number of the Applicant/Owner of the property; and name, address, telephone number, e-mail address, and engineering seal of the individual preparing the SWM Site Plan.
 3. The date of submission and dates of all revisions.
 4. A graphical and written scale on all drawings and maps.
 5. A north arrow on all drawings and maps.

6. A location map at a minimum scale of one (1) inch equals one-thousand (1,000) feet and illustrates the project relative to highways, municipalities or other identifiable landmarks.
7. Metes and bounds description of the entire tract perimeter.
8. Existing and final contours at intervals:
 - a. Slopes less than 5%: no greater than one (1) foot;
 - b. Slopes between 5 and 15%: no greater than two (2) feet;
 - c. Steep slopes (greater than 15%), 5-foot contour intervals may be used.
9. Perimeters of existing waterbodies within the project area including stream banks, lakes, ponds, springs, field delineated wetlands or other bodies of water, sinkholes, flood hazard boundaries (FEMA delineated floodplains and floodways), areas of natural vegetation to be preserved, the total extent of the upstream area draining through the site, and overland drainage paths. In Addition, any areas necessary to determine downstream impacts, where required for proposed stormwater management facilities must be shown.
10. The location of all existing and proposed utilities, on-lot wastewater facilities, water supply wells, sanitary sewers, and water lines on and within fifty (50) feet of property lines including inlets, manholes, valves, meters, poles, chambers, junction boxes, and other utility system components.
11. A key map showing all existing man-made features beyond the property boundary that may be affected by the project.
12. Soil names and boundaries with identification of the Hydraulic Soil Group classification including rock outcroppings.
13. Proposed impervious surfaces (structures, roads, paved areas, and buildings), including plans and profiles of roads and paved areas and floor elevations of buildings.
14. Existing and proposed land use(s).

15. Horizontal alignment, vertical profiles, and cross sections of all open channels, pipes, swales and other BMPs.
16. The location and clear identification of the nature of permanent stormwater BMPs.
17. The location of all erosion and sedimentation control facilities, shown on a separate from the SWM Site Plan (typically an E&S Plan).
18. A minimum twenty (20) foot wide access easement around all stormwater management facilities that would provide ingress to and egress from a public right-of-way. In lieu of providing an easement to the public right-of-way, a note may be added to the plan granting the Municipality or their designees access to all easements via the nearest public right-of-way.
19. Construction details for all drainage and stormwater BMPs.
20. Construction sequence.
21. Identification of short-term and long-term ownership, operations, and maintenance responsibilities.
22. Notes and Statements:
 - a. A statement, signed by the landowner, acknowledging that the stormwater BMPs are fixtures that cannot be altered or removed without prior approval by the Municipality.
 - b. A statement referencing the Operation and Maintenance (O&M) Agreement and stating that the O&M Agreement is part of the SWM Site Plan.
 - c. A note indicating that Record Drawings will be provided for all stormwater facilities prior to occupancy, or the release of the surety bond.
 - d. The following signature block for the registered professional preparing the Stormwater Management Plan:

"I, _____, hereby certify that the Stormwater Management Plan meets all

design standards and criteria of the Center Township's Stormwater Management Ordinance."

- e. The following signature block for the Municipal Engineer reviewing the Stormwater Management Plan:

"I, _____, have reviewed this Stormwater Management Plan in accordance with the Design Standards and Criteria of the Center Township's Stormwater Management Ordinance."

B. SWM Site Report shall include (but not limited to):

1. General data including:
 - a. Project Name
 - b. Project location - address of the property site
 - c. Name, address, and telephone number of the Applicant/Owner of the property;
 - d. Name, address, telephone number, e-mail address, and engineering seal of the individual preparing the SWM Site Report;
 - e. Date of submission and revisions.
2. Project description narrative that clearly discusses the project and provides the following information, where applicable:
 - a. Narrative
 - 1) Statement of the regulated activity describing what is being proposed. Overall stormwater management concept with description of permanent stormwater management techniques, including construction specifications and materials to be used for stormwater management facilities.
 - 2) Expected project schedule

- 3) Location map showing the project site and its location relative to release rate districts.
- 4) Detailed description of the existing site conditions including a site evaluation completed for projects proposed in areas of carbonate geology or karst topography, and other environmentally sensitive areas such as brownfields.
- 5) Total site area – pre and post, which must be equal or have an explanation as to why it is not
- 6) Total site impervious area
- 7) Total off-site areas
- 8) Number and description of stormwater management facilities
- 9) Type of development
- 10) Pre-development land use
- 11) Whether site is a water quality sensitive (WQS) development
- 12) Whether site is in a defined sensitive area
- 13) Types of water quality and recharge systems used, if applicable
- 14) Complete hydrologic, hydraulic, and structural computations for all stormwater management facilities.
- 15) A written maintenance plan for all stormwater features including detention facilities and other stormwater management elements.
- 16) Identification of ownership and maintenance responsibility for all permanent stormwater management facilities.
- 17) Other pertinent information, as required

b. Summary Tables

- 1) Pre-development Hydrologic soil group (HSG) assumptions, curve numbers (CN), Computation of average slope, hydraulic length, computed time of concentration
- 2) Existing conditions runoff volume & peak rate of runoff
- 3) Post-development runoff volume & peak rate of runoff
- 4) Undetained areas, areas to ponds
- 5) Land use for each subarea
- 6) Hydrologic soil group (HSG) assumptions, curve numbers (CN)
- 7) Time of concentration computed for each subarea
- 8) Post-development peak rate of runoff routed to ponds and out
- 9) Pond maximum return period design data including: maximum water surface elevation, berm elevation, and emergency spillway elevation
- 10) Water quality depth and volume requirements

c. Calculations

- 1) Complete hydrologic, hydraulic and structural computations, calculations, assumptions, and criteria for the design of all stormwater BMPs.
- 2) Details of the berm embankment and outlet structure indicating the embankment top elevation, embankment side slopes, top width of embankment, emergency spillway elevation, perforated riser dimensions, pipe barrel dimensions and dimensions and spacing of

antiseep collars. - Design computations for the control structures (pipe barrel and riser, etc).

- 3) A plot or table of the stage-storage (volume vs. elevation) and all supporting computations.
- 4) Routing computations.

d. Drawings

- 1) Drainage area maps for all watersheds and inlets depicting the time of concentration path for both existing conditions and post developed condition.
- 2) All stormwater management facilities must be located on a plan and described in detail including easements and buffers boundaries.

3. Reports that do not clearly indicate the above information may be rejected for review by the Municipality and will be returned to the applicant.
4. Description of, justification, and actual field results for infiltration testing with respect to the type of test and test location for the design of infiltration BMPs.
5. The effect of the project (in terms of runoff volumes, water quality, and peak flows) on surrounding properties and aquatic features and on any existing municipal stormwater collection system that may receive runoff from the project site.
6. Description of the proposed changes to the land surface and vegetative cover including the type and amount of impervious area to be added.
7. Identification of short-term and long-term ownership, operation, and maintenance responsibilities as well as schedules and costs for inspection and maintenance activities for each permanent stormwater or drainage BMP, including provisions for permanent access or maintenance easements.

- C. Supplemental information to be provided prior to recording of the SWM Site Plan, as applicable:

1. Signed and executed Operations and Maintenance Agreement (Appendix D).
2. Signed and executed easements, as required for all on-site and off-site work.
3. An Erosion and Sedimentation Control Plan & approval letter from the Butler County Conservation District.
4. A NPDES Permit.
5. Permits from PADEP and ACOE.
6. Geologic Assessment.
7. Soils investigation report, including boring logs, compaction requirements, and recommendations for construction of detention basins.
8. A Highway Occupancy Permit from PENNDOT when utilization of a PENNDOT storm drainage system is proposed or when proposed facilities would encroach onto a PENNDOT right-of-way.

§21-803. SMW Site Plan & Report Submission

- A. The Applicant shall submit the SWM Site Plan & Report for the Regulated Activity.
- B. Five (5) copies of the SWM Site Plan & Report shall be submitted and be distributed as follows:
 1. Two (2) copies to the Municipality accompanied by the requisite executed Review Fee Reimbursement Agreement, as specified in this Chapter
 2. One (1) copy to the Municipal Engineer
- C. Additional copies shall be submitted as requested by the Municipality or PADEP.

§21-804. SMW Site Plan & Report Review

- A. The Municipality shall require receipt of a complete SWM Site Plan & Report as specified in this Chapter. The Municipality shall review

the SWM Site Plan & Report for consistency with the purposes, requirements, and intent of this Chapter.

- B. The Municipality shall not approve any SWM Site Plan & Report that is deficient in meeting the requirements of this Chapter. At its sole discretion and in accordance with this Article, when a SWM Site Plan & Report is found to be deficient, the Municipality may disapprove the submission and require a resubmission, or in the case of minor deficiencies, the Municipality may accept submission of modifications.
- C. The Municipality shall notify the Applicant in writing within forty-five (45) calendar days whether the SWM Site Plan & Report is approved or disapproved if the SWM Site Plan & Report is not part of a Subdivision or Land Development Plan. If the SWM Site Plan & Report involves a Subdivision or Land Development Plan, the timing shall follow the Subdivision and Land Development process according to the Municipalities Planning Code.
- D. The Municipal Building Permit Office shall not issue a building permit for any Regulated Activity if the SWM Site Plan & Report has been found to be inconsistent with this Chapter, as determined by the Municipality. All required permits from PADEP must be obtained prior to issuance of a building permit.

§21-805. Modification of Plans

A modification to a submitted SWM Site Plan & Report for a development site that involves a change in stormwater management facilities or techniques, or that involves the relocation or re-design of stormwater management facilities, or that is necessary because soil or other conditions are not as stated on the SWM Site Plan as determined by the Municipality, shall require a resubmission of the modified SWM Site Plan in accordance with this Chapter.

§21-806. Resubmission of Disapproved SWM Site Plan & Report

A disapproved SWM Site Plan & Report may be resubmitted with the revisions addressing the Municipality's concerns documented in writing, to the Municipality in accordance with this Chapter. The applicable Municipal Review Fee must accompany a resubmission of a disapproved SWM Site Plan & Report.

§21-807. Authorization to Construct and Term of Validity

The Municipality's approval of a SWM Site Plan & Report authorizes the Regulated Activities contained in the SWM Site Plan for a maximum term of validity of five (5) years following the date of approval. The Municipality may specify a term of validity shorter than five (5) years in the approval for any specific SWM Site Plan. Terms of validity shall commence on the date the Municipality signs the

approval for a SWM Site Plan. If stormwater management facilities included in the approved SWM Site Plan have not been constructed, or if an Record Drawing of these facilities has not been approved within this time, then the Municipality may consider the SWM Site Plan disapproved and may revoke any and all permits or approvals.

§21-808. Record Drawings, Completion Certificate and Final Inspection

- A. The Applicant shall be responsible for providing Record Drawings of all stormwater BMPs included in the approved SWM Site Plan. The Record Drawing and an explanation of any discrepancies with the approved SWM Site Plan shall be submitted to the Municipality as a prerequisite for the release of the guarantee or issuance of an occupancy permit.
- B. The Record Drawing shall include a certification of completion signed by a Qualified Professional verifying that all permanent stormwater BMPs have been constructed according to the approved SWM Site Plan & Report.
 - 1. Drawings shall show all approved revisions and elevations and inverts to all manholes, inlets, pipes, and stormwater control facilities.
 - 2. Submission shall include a comparison of the constructed stage-storage (volume vs. elevation) of all above ground and below ground stormwater storage facilities to the approved design.
- C. After receipt of the Record Drawing and certification of completion by the Municipality, the Municipality may conduct a final inspection.