

# **Landowner Manual for Stormwater Management in Small Projects & Exemptions**

**April 2023**

## Introduction

This manual is designed as a tool to help East Cocalico Township property owners manage stormwater runoff resulting from small scale construction projects. The management of stormwater runoff, notably the flows that result from the construction of impervious surfaces like buildings, patios and driveways, is regulated by the Township's Stormwater Management Ordinance (Chapter 185 of the Codified Code). East Cocalico Township recognizes that this process can be streamlined for qualifying small projects creating no more than 2,000 ft<sup>2</sup> of new impervious surfaces in order to reduce obligations on landowners.

Stormwater is the runoff produced by precipitation and snow or ice melt. Land development activities can affect stormwater runoff characteristics, including its rate, volume, and water quality. When stormwater is not managed, the increased volume can lead to aggravated flooding and diminished water quality in our community. Therefore, the principal objective of stormwater management is to prevent or mitigate the adverse impacts of the increase in rate and volume of stormwater runoff, while also protecting health, safety, and property.

Stormwater basins and similar facilities have been used for decades to reduce flooding impacts, but a group of Best Management Practices (BMPs) are becoming a more suitable way to deal with runoff and do the following:

- encourage infiltration (in appropriate areas)
- promote groundwater recharge
- maintain the natural drainage characteristics of a site
- maintain or improve water quality
- protect stream banks and beds

Sections 185-12 & 185-13 of the Stormwater Management Ordinance establish exemption criteria and the streamlined small project process outlined in this manual. This process is not intended to be used with large-scale subdivision or land development projects or activities that include public infrastructure like roadways. The stormwater BMPs mentioned within serve as examples and are not a comprehensive list of options. Please review the *PA Stormwater Management BMP Manual* and contact East Cocalico Township with any questions or to discuss alternative solutions for site-specific applications.

## Standard Terms Used in the Manual

### Best Management Practice (BMP)

Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "structural" or "non-structural." In this Ordinance, non-structural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff, whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. Structural stormwater BMPs are permanent appurtenances to the project site.

**Disturbed Area** – A land area where an earth disturbance activity is occurring or has occurred.

**Earth Disturbance Activity** – A construction or other human activity which disturbs the surface of the land, including, but not limited to: clearing and grubbing; grading; excavations; embankments; road maintenance activities; building construction; and the moving, depositing, stockpiling, or storing of soil, rock, or earth materials.

**Flow Path** – The path that stormwater follows from the discharge point to the nearest property line or channelized flow (i.e. stream, drainage ditch, swale, etc.). The length of the path is measured along the ground slope.

**High Tunnel** – A structure which meets the following:

(1) Is used for the production, processing, keeping, storing, sale or shelter of an agricultural commodity as defined in Section 2 of the Act of December 19, 1974 (P.L. 973, No. 319), known as the "Pennsylvania Farmland and Forest Land Assessment Act of 1974,"[1] or for the storage of agricultural equipment or supplies.

(2) Is constructed consistent with all of the following:

(a) Has a metal, wood or plastic frame.

(b) When covered, has a plastic, woven textile or other flexible covering.

(c) Has a floor made of soil, crushed stone, matting, pavers or a floating concrete slab.

**Impervious Surface (or Impervious Area)** – Surfaces which prevent the infiltration of water into the ground. All structures, buildings, parking areas, driveways, roads, streets, sidewalks, decks, and any areas of concrete, asphalt, packed stone, and compacted soil shall be considered impervious surface if they prevent infiltration. In addition, other areas determined by the Township Engineer to be impervious within the meaning of this definition will also be classed as impervious surfaces.

**Karst** – A type of topography or landscape characterized by features including but not limited to surface depressions, sinkholes, rock pinnacles/uneven bedrock surface, underground drainage, and caves. Karst is formed on carbonate rocks, such as limestone or dolomite.

**Minor Stormwater Site Plan** – A site plan prepared and submitted for regulated activities which meet the small project and minor stormwater site plan criteria. The plan depicts existing conditions on the property, proposed impervious areas, and, if required, the location of proposed BMPs.

**Regulated Activities** – Activities, including earth disturbance activities that involve the alteration or development of land in a manner that may affect stormwater runoff. Regulated activities shall include, but not be limited to:

- Land development subject to the requirements of Chapter 194, Subdivision and Land Development Ordinance;
- Removal of ground cover, grading, filling or excavation;
- Construction of new or additional impervious or semi-impervious surfaces (driveways, parking lots, etc.), and associated improvements;
- Construction of new buildings or additions to existing buildings;

- Installation or alteration of stormwater management facilities and appurtenances thereto;
- Diversion or piping of any watercourse; and,
- Any other regulated activities where the Township determines that said activities may affect any existing watercourse's stormwater management facilities, or stormwater drainage patterns.

**Runoff** – Any part of precipitation that flows over the land surface.

**SWM Ordinance** – The East Cocalico Township Stormwater Management Ordinance.

## **What Type of Stormwater Management Submission is Needed?**

Under the SWM Ordinance, regulated activities require the preparation and submission of an engineered stormwater management plan to be reviewed and approved by the Township. Alternative provisions have been adopted for projects that propose no more than 2,000 ft<sup>2</sup> of impervious area and meet certain criteria. These categories are referred to as “exemptions” and “small projects”, and the criteria listed below will help determine eligibility. Ultimately, Sections 185-12 (Exemptions) & 185-13 (Alternate processing of applications for small projects) of the SWM Ordinance govern and should be consulted to determine eligibility.

### ***EXEMPTIONS TO THE SWM ORDINANCE***

A. **NON-CONSTRUCTION:** Are you proposing any of the following non-construction projects? These activities are specifically exempt from the plan preparation and submission requirements of the SWM Ordinance.

- (1) Agricultural activity, as defined by this chapter, provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
- (2) Forest management and timber operations, as defined by this chapter, provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.(3)  
Conservation practices, as defined by the SWM Ordinance, being installed as part of the implementation of a conservation plan, as defined by this chapter, written by an NRCS certified planner. (4) Domestic landscaping and/or vegetable gardening.

B. **CONSTRUCTION:** Certain construction activities resulting in increased impervious areas may also be eligible for an exemption from the plan preparation and submission requirements. Does your project fit either of these two scenarios?

- (1) Your lot is subject to a previously approved stormwater management plan – likely part of a subdivision plan – that includes future impervious surface coverage assigned to individual lots. And:
  - (a) *The lot has a previously approved stormwater management plan which included stormwater management facilities to handle such future impervious surface coverage.*
  - (b) *The stormwater management facilities on the approved stormwater management plan were installed and inspected and approved by the Township Engineer.*

*(c) The Township approved the stormwater management plan not more than five years before the application to add the impervious surface coverage was submitted to the Township or, if the Township approved the stormwater management plan more than five years before the application to add the impervious surface coverage was submitted to the Township, there have been no amendments to the design standards of this chapter between the date of approval of the stormwater management plan and the submission of the application to add impervious surface coverage.*

**If so, contact the Township Zoning Officer for details and to determine eligibility.**

- (2) Your lot is NOT subject to an approved stormwater management plan, and the construction project will create no more than 1,000 ft<sup>2</sup> of added impervious area (measured cumulatively from August 6, 2003). If so, your project may be exempt from the requirements for submitting an engineered stormwater management plan if all the following criteria can be met:
  - (a) No earth disturbance shall take place within environmentally sensitive areas including, but not limited to, floodplains, wetlands, riparian buffers, wellhead protection areas, existing natural drainageways, karst features, or slopes greater than 15%.
  - (b) No impervious surface coverage shall be installed and no grading or excavation shall be conducted within any existing drainage or stormwater easement created by or shown on any recorded plan or document.
  - (c) Soil disturbance and erosion during construction activity will be minimized, and all disturbed areas will be promptly stabilized with topsoil and vegetation.
  - (d) Runoff shall be directed to pervious areas on the subject property and maximize isolation distances to downstream properties. No runoff shall be directed onto an abutting street or neighboring property.
  - (e) The proposed impervious surface shall not adversely impact any known problem areas or downstream property owners or the quality of runoff entering any municipal separate storm sewer system.
  - (f) Runoff from the proposed impervious surface shall not create erosion.
- (3) An application shall not be exempt if the proposed impervious surface coverage is to be located on a lot subject to a Township-approved subdivision plan, land development plan, or stormwater management plan that was designed with stormwater management facilities and associated assumptions regarding impervious coverage, except where the conditions of § **185-12.A.(5)** are met.
- (4) If the proposed activity does not meet all of the criteria set forth in § **185-12.A** above, but meets the small projects criteria, the applicant may follow the small project processing procedure in § **185-13** of this chapter.
- (5) An applicant proposing an installation of more than 1,000 total cumulative square feet of impervious surface coverage, cumulative from August 6, 2003, shall be required to manage the stormwater for the total square footage of the installation, and shall not deduct any unused exemption square footage from the amount of impervious surface coverage that must be managed.
- (6) No applicant and no activity is exempt from complying with any state or federal requirements applicable if the subject property is located in a high quality (HQ) or exceptional value (EV) watershed.

- (7) No applicant and no activity shall violate or cause to be violated: The Federal Clean Water Act, the Pennsylvania Clean Streams Law, or any regulation issued thereunder, an NPDES permit, any recorded stormwater management or operations and maintenance agreement, or any requirement applicable to a municipal separate storm sewer system.
- C. A person seeking to erect a high tunnel shall in all cases be required to file an application under this chapter. A person seeking an exemption under this chapter on the basis that the high tunnel is exempted pursuant to the Stormwater Management Act, as amended by Act 15 of 2018, shall provide all information necessary to demonstrate that the high tunnel meets the definition set forth herein and that the proposed high tunnel meets all of the following requirements:
- (1) The high tunnel or its flooring does not result in impervious area exceeding 25% of all structures located on the owner's total contiguous land area; and
  - (2) The high tunnel meets one of the following:
    - (a) The high tunnel is located at least 100 feet from any perennial stream or watercourse, public road or neighboring property line.
    - (b) The high tunnel is located at least 35 feet from any perennial stream or watercourse, public road or neighboring property line and is located on land with a slope not greater than 7%.
    - (c) Runoff from the high tunnel flows into a buffer or diversion system that does not directly drain into a stream or other watercourse by managing stormwater runoff in a manner consistent with requirements of this chapter.
  - (3) Nothing in this subsection shall be construed to exempt high tunnels from other requirements applicable under federal, state or Township ordinances, including, but not limited to, Chapter 220 Zoning.
  - (4) Nothing in this subsection shall apply to impervious surfaces, including, but not limited to, driveways, parking areas, and loading areas which may be installed in connection with the high tunnel.
- D. The Township may deny or revoke any exemption pursuant to this section at any time for any project that the Township believes may pose a threat to public health, safety, property or the environment, including, but not limited to, where the potential exists for stormwater runoff to adversely affect adjacent or downstream public or private properties.

**NEXT STEP: Submit the following to the Township Zoning Officer to request an exemption:**

- Completed *Exemption & Small Project Application*
- Zoning permit application
- Information sufficient to show that each of the conditions in sections B(2) through B(7) will be met for this project.
- Filing fee

#### ***STORMWATER MANAGEMENT THROUGH THE SMALL PROJECT PROCESS***

If your construction project does not meet the exemption criteria above, the small project process may be right for you. Although this streamlined process does not allow for a full exemption from the submission

of a stormwater management plan, the *Small Project Stormwater Management Worksheet* and sample BMP details included in this manual are provided to help you, your contractor or consultant prepare a minor stormwater site plan. More information on how to prepare the site plan can be found in the worksheet itself.

The primary criteria for this process are:

- The project meets all of the all of the standards found in this section.
- The project does not involve the alteration of stormwater facilities or watercourses.
- The project proposes regulated activities that, measured on a cumulative basis from August 6, 2003, creates new impervious areas of less than 2,000 square feet.
- The distance between any structural BMP(s) managing the resultant runoff and any property boundary will be at least 5 feet.
- The project does not involve earth disturbance activity of an area greater than 5,000 square feet.
- No application is exempt from complying with any state or federal requirements applicable if the subject property is located in a high quality (HQ) or exceptional value (EV) watershed.
- No applicant and no activity shall violate or cause to be violated the Federal Clean Water Act or any regulation issued thereunder, an NPDES permit, any recorded stormwater management or operations and maintenance agreement, or any requirement applicable to a municipal separate storm sewer system.
- Any application that is not eligible for an exemption based on the criteria in sections B through D above may be processed under this section, subject to all applicable standards found herein.

**NEXT STEP: Contact the Township Zoning Officer to discuss whether this is appropriate for your project, and then submit the following to begin the application process:**

- Completed *Exemption & Small Project Application* (form on file at Township or on the website, ECT.town).
- Completed *Small Project Stormwater Management Worksheet* (form on file at Township or on the website).
- Signed *Owner Acknowledgement for Minor Stormwater Site Plan* (form on file at Township or on the website).
- Minor stormwater site plan, in accordance with applicable standards with supporting information including related standard details (form on file at Township or on the website) and applicable soil testing information.
- Zoning permit application.
- Information sufficient to show that each of the conditions in this section will be met for this project.
- Filing fee (as approved by the Board of Supervisors).

### Subsequent Additional Information Required

- The *Stormwater Management Agreement and Declaration of Easement* must be signed and notarized following the Township's approval of the application. Although the executed document will not be submitted with the application, it is required prior to commencement of construction. It will be recorded at Lancaster County Office of the Recorder of Deeds so it will be connected to the property's title for future reference.

Note: Applications that meet the above criteria may be required to manage stormwater and provide formal plans and calculations as required by the SWM Ordinance if the Township determines that the activity poses a potential for runoff to adversely affect adjacent or downstream property or to harm downstream water quality.

## The Small Project Application Package

After the Township has determined that your project can be submitted under the small project process, the application package must be prepared. Complete the *Exemption & Small Project Application* and the *Small Project Stormwater Management Worksheet* to get started. The worksheet includes step-by-step instructions for calculating the amount of runoff from the proposed impervious area that must be managed and the volume of the BMP to accommodate it. Steps 1-3 use simple tables and arithmetic to guide these calculations, which lead into the subsequent steps.

### **SELECTING A STORMWATER BMP**

The minimum size of the BMP is determined by the amount of stormwater that must be managed and the type of facility used. However, there are other considerations that should be evaluated when deciding which BMP is best for your lot and construction project; such as size, maintenance responsibilities, existing soil conditions and constraints of the site. Generally speaking, above-ground BMPs such as rain gardens and earth berms detain water while allowing the vegetated area to provide some pollution reduction benefits. Subsurface BMPs like infiltration trenches and beds are hidden from sight, but need to be sized 250% larger than the volume to be managed since they are filled with stone. The voids between the stone provide the storage area for the stormwater which equates to approximately 40% of the volume.

As referenced in Step 4 of the worksheet, several stock stormwater BMP construction details can be found at the rear of this manual or at the Township Office and are available for you or your contractor to use. Depending on the volume calculations and desired type of stormwater facility, the stock details can be customized with the required dimensions and submitted to the Township with the application package. If another type of BMP is desired, the *PA Stormwater Management BMP Manual* (which is available for download on the East Cocalico Township website or for viewing at the Township Office) should be consulted. This document identifies stormwater BMPs that have been deemed to be of a nature and cost that will accomplish the goals of the Lancaster County Stormwater Management Plan and DEP requirements, while not unduly burdening East Cocalico Township's landowners. It is your decision to use a stock detail available through the Township or have a qualified professional design a facility found in the BMP Manual. Multiple BMPs may be ideal for your situation and acceptable to the Township.

### **CREATING THE MINOR STORMWATER SITE PLAN**

An essential requirement of the small project application package is the minor stormwater site plan. This plan depicts the existing conditions of a property, new impervious areas, stormwater BMP(s), and routing



or grading to convey the runoff to the BMP(s). Illustrating the relationship between the proposed activities and distances to features like property lines, streams, and vegetated areas will help determine how best to accommodate the stormwater runoff and minimize impacts to other properties.

It is your responsibility to prepare and submit the site plan with the application package, but assistance may be available from the Township to obtain access to property maps or GIS information with some existing features. Please note that the larger or more complex the project is, the more appropriate it may be for a contractor, surveyor, or other professional to prepare the site plan and to consider having a professional evaluate the viability and potential economic benefits of modeling, designing and installing detention facilities. Step 5 of the *Small Project Stormwater Management Worksheet* contains a thorough list of features to be shown on the plan, in addition to considerations for its preparation.

### **FORMS & AGREEMENTS**

The final elements of the small project application package are a signed *Owner Acknowledgement for Minor Stormwater Site Plan* and payment of the filing fee. The acknowledgement form helps ensure that the Township's expectations of stormwater management with your project are fully understood. A mutual understanding of the project and the requirements is exemplified by both parties signing this document prior to the application being processed. As previously mentioned, execution of the *Stormwater Management Agreement and Declaration of Easement* is not necessary at the time of application, but is required before construction can commence.

## Exemption & Small Project Application

Applicant Name(s) \_\_\_\_\_

Property Owner's Name (if different from Applicant) \_\_\_\_\_

Address of Property \_\_\_\_\_

Parcel ID # (can be filled in by Township Staff if unknown) \_\_\_\_\_

Phone Number (\_\_\_\_) \_\_\_\_\_ Email Address \_\_\_\_\_

Stormwater Management Submission Type: \_\_\_\_\_ Exempt  
\_\_\_\_\_ Small Project / Minor Stormwater Site Plan

### For an Exempt Project submission:

Current Proposed  
Impervious Area \_\_\_\_\_ sq. ft.

Prior Impervious Area Installed  
Since August 6, 2003\* \_\_\_\_\_ sq. ft.

Total  
ft. \_\_\_\_\_ sq.  
(must not exceed 1,000 sq. ft.)

### For a Small Project submission:

Current Proposed  
Impervious Area \_\_\_\_\_ sq.  
ft.  
(include Worksheet on following page)

Prior Impervious Area Installed  
Thru Other Small Projects\* \_\_\_\_\_ sq.  
ft.

Total  
ft. \_\_\_\_\_ sq.  
(must not exceed 2,000 sq. ft.)

\*Information may be obtained from the East Cocalico Township office.

**Property Owner Acknowledgement** - I declare that I am the property owner, or authorized representative of the owner, and that the information provided is true and accurate to the best of my knowledge. I understand that stormwater may not adversely affect adjacent properties or be directed onto another property without written permission. I also understand that false information may result in a stop work order or revocation of permits. Township representatives are also granted reasonable access to the property for review and/ or inspection of this project if necessary.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

### **East Cocalico Township Receipt**

Date Received \_\_\_\_\_

Fee Submitted \_\_\_\_\_

### **East Cocalico Township Approval**

Signature \_\_\_\_\_

Date \_\_\_\_\_

## Small Project Stormwater Management Worksheet

**Step 1:** Calculate the amount of new impervious surface area and total disturbed area to be created by the proposed project by completing the table below. New stone and gravel areas are considered to be impervious.

Surface	Length (ft)	x	Width (ft)	=	Impervious Area (ft <sup>2</sup> )
Buildings		x		=	
Driveway		x		=	
Parking Areas		x		=	
Patios/ walkways		x		=	
Other		x		=	
<b>Total Proposed Impervious Surface Area = Impervious Area to be Managed</b> (Sum of all impervious areas)					
Area of Grading, Filling, Earth Disturbance (excluding Impervious Area)					
<b>Total Proposed Disturbed Area</b> (Impervious Area plus Area of Grading, Filling, Earth Disturbance)					

NOTE: The small project process can only be used if the earth disturbance area is less than 5,000 square feet.

**Step 2:** Calculate the volume of stormwater runoff created by new impervious surfaces. Use the following table to determine this volume.

Impervious Area (ft <sup>2</sup> ) to be Managed (See Step 1)	x	3.0 in/12 in = 0.25 ft (3.0 in is approx. 2-year 24-hour rainfall amount)	=	Volume of Stormwater to be Managed (ft <sup>3</sup> )
	x	0.25 ft	=	

**Step 3:** Determine the techniques to be used to manage the stormwater volume calculated in Step 2 and prepare the minor stormwater management plan. The sizing of the structural BMPs depends on the type of facility – surface or subsurface. For the purposes of this worksheet, use the applicable table below to calculate the required volume of the facility.

**(a) Surface BMP Facilities (e.g. rain garden or earth berm)**

Volume of Stormwater to be Managed (ft <sup>3</sup> )	x	Conversion Factor	=	Minimum Volume of Surface BMP (ft <sup>3</sup> )
	x	1.0	=	

**(b) Subsurface BMP Facilities (e.g. dry well or infiltration trench)**

Volume of Stormwater to be Managed (ft <sup>3</sup> )	X	Conversion Factor	=	Minimum Volume of Subsurface BMP (ft <sup>3</sup> )
	X	2.5*	=	

\* Assumes clean stone with 40% voids is used as storage volume

**Step 4:** Provide construction details for the BMP(s) with dimensions sufficient to provide the required storage volume as determined in Step 3. Sample construction details for selected BMPs, including those mentioned in Step 3, are available at the Township Office for use and customization. The sample details can easily be filled in with the proper dimensions. Alternatively, you may have custom details prepared by your contractor or design professional.

EXAMPLE: 1,100 ft<sup>2</sup> of impervious area is proposed to be constructed on a lot. The table in Step 2 shows that 275 ft<sup>3</sup> of volume of stormwater runoff must be managed from this new area. A decision must be made to use a surface or a subsurface BMP. Based on Step 3, the volume of the BMP depends on this decision.

Either a surface BMP with a volume of 275 ft<sup>3</sup> or a subsurface BMP with 690 ft<sup>3</sup> can be used to accommodate the project. A rain garden with dimensions of 11'x 25'x 1' could be used to achieve the necessary storage volume. Alternatively, an infiltration trench with dimensions of 23'x 10'x 3' will achieve this storage volume underground.

**Step 5:** Prepare a minor stormwater site plan and submit it to the Township Office for review and approval. The plan must depict the following site features, be drawn to scale, and show the following:

- 1) Property owner name, address, email and phone number
- 2) Property address (if different from owner address)
- 3) Tax account number
- 4) Name, address, phone number & email address of plan preparer
- 5) Property boundary
- 6) Site conditions (e.g. grassed areas, agricultural fields, direction of slope and stormwater flow on the property)
- 7) Location and dimensions of all existing and proposed structures, and any existing and proposed downspouts
- 8) Distance from proposed downspouts to downstream property line(s)
- 9) All existing and proposed driveways and other impervious areas (stone and gravel driveways are considered impervious)
- 10) Natural features such as streams, wetlands, floodplains, tree lines and other vegetation on the property and within 50 feet of property lines
- 11) Distance from proposed structures or downspouts along the stormwater flow path to any stream or wooded area

- 12) Any other pertinent information that may be significant to the project site (e.g. existing drainage ways, steep slopes, exposed bedrock, upslope drainage areas, etc.)
- 13) Wells and on-lot sanitary sewer systems (e.g. septic tank, drain field, etc.)
- 14) Surface and subsurface utilities
- 15) Existing and proposed easements (e.g. gas, electric, stormwater, water, sewer, etc.)
- 16) Location and size of proposed stormwater BMPs

The following should be considered in the preparation of minor stormwater management site plans:

- Soil testing is required to select and apply the appropriate stormwater BMPs. The use of soil maps, prior infiltration tests, and/or perc tests may provide the applicant basic information about soil characteristics. In order to use the small projects approach soil testing is required.
- Proposed stormwater BMPs must be designed to handle flows from the contributing area.
- The site shall not have any pre-existing stormwater drainage-related problems (as verified by the Township), at the discretion of the Township.
- Water quality shall be protected per Chapter 93 of PA Code.
- East Cocalico Township may inspect all stormwater BMPs during and after construction and installation.
- Infiltration BMPs should not be constructed nor receive runoff until the entire contributory drainage area has achieved final stabilization.
- Ensure that infiltration in geologically susceptible areas such as, but not limited to, carbonate geology/karst topography do not cause adverse effects. The site plan should incorporate steps to ensure that salt or chloride will not contaminate the groundwater.
- Selected stormwater BMPs shall be designed, constructed, and maintained in accordance with the manufacturer's recommendation, acceptable construction details, the *PA Stormwater Management BMP Manual*, or other written guidance acceptable to the Township.
- Proposed sump pumps shall discharge to infiltration or vegetated stormwater BMPs to the maximum extent practicable, with maximum separation from downstream property lines in order to avoid adverse impacts to adjacent and downstream properties.

**Step 6:** Sign the *Owner Acknowledgement for Minor Stormwater Site Plan*, and execute the *Stormwater Management Agreement and Declaration of Easement*. These documents are available at the Township Office as an electronic file or hard copy.

## **Owner Acknowledgment For Minor Stormwater Site Plan**

- Development activities shall begin only after East Cocalico Township approves the minor stormwater site plan.
- The installed stormwater BMPs shall not adversely affect any property, septic systems, or drinking water wells on this or any other property.
- If, after approval of the minor stormwater site plan by East Cocalico Township, the applicant wishes to pursue alternative stormwater management measures in support of the project, the applicant shall submit a revised minor stormwater site plan to East Cocalico Township for approval. If a site requires a more complex system or if problems arise, the applicant may need the assistance of a licensed professional.
- The applicant acknowledges that the proposed stormwater BMPs shall be a permanent fixture of the property that cannot be altered or removed without approval by East Cocalico Township.
- East Cocalico Township shall have the ability to perform periodic inspections and/or a final inspection of the proposed stormwater BMPs to ensure installation in accordance with the approved minor stormwater site plan.
- The applicant acknowledges that they shall be responsible for paying applicable and reasonable fees associated with the Township staff and/or Township consultants processing, reviewing and inspecting the *Stormwater Management Worksheet*, minor stormwater site plan and installed BMPs.

I (we) \_\_\_\_\_, hereby acknowledge the above statements and agree to assume full responsibility for the implementation, construction, operation, and maintenance of the proposed stormwater management facilities. Furthermore, I (we) also acknowledge that the steps, assumptions, and guidelines provided in this submission, including but not limited to the minor stormwater site plan, the *Stormwater Management Worksheet*, and the *Stormwater Management Agreement and Declaration of Easement* (if applicable) will be adhered to.

### Applicant Acknowledgement of Submission

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

### East Cocalico Township Acknowledgement of Receipt

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **Stormwater Management Agreement and Declaration of Easement**

It is the landowner's responsibility to properly maintain BMPs and to inform any future buyers of the function, operation, and maintenance of BMPs on the property prior to its sale. The *Stormwater Management Agreement and Declaration of Easement* outlines the responsibilities of the landowner for the various BMP(s) that could be installed as part of the project as well as the rights of the Township to inspect the facility and enforce the maintenance requirements.

The *Stormwater Management Agreement and Declaration of Easement* must be signed, notarized and submitted to East Cocalico Township prior to commencing construction. Following approval and signature by the Township, the agreement must be recorded at the Lancaster County Office of the Recorder of Deeds so it will be available to future landowners and title searches. The document can be obtained from the Township Office in electronic or hard copy format.

## **Sample Stormwater BMP Construction Details**

The following pages contain sample construction details of acceptable BMPs for use with small projects. If custom details from a design professional are not needed, these can be modified to incorporate the necessary dimensions to provide the minimum volume needed to manage the runoff calculated in the *Small Project Stormwater Management Worksheet*. For an electronic copy of the details or assistance with adapting them to your project, contact the Township Office.