APPENDIX E – SMALL PROJECTS SWM APPLICATION

Form SPA2012

WAYNE TOWNSHIP
Small Project Stormwater Management Application

Per Wayne Township's Act 167 Stormwater Management Ordinance, a stormwater management plan is required whenever more than 2,500 square feet of impervious surface are proposed. Impervious surfaces are areas that prevent the infiltration of water into the ground and shall include, but not be limited to, roofs, patios, garages, storage sheds and similar structures, and any new streets or sidewalks. If total Impervious Surface Area EXCEEDS 5000 square feet and the Single Family Residential EXEMPTION is not claimed, this application does not apply to your project.

To Calculate Impervious Surfaces Please Complete This Table					
Surface Type	**Length (feet)**	**X**	**Width (feet)**	**=**	**Proposed Impervious Area**
Building (area per downspout)		x		=	
		x		=	
		x		=	
		x		=	
Driveway		x		=	
		x		=	
		x		=	
Parking Areas		x		=	
		x		=	
		x		=	
Patios/Walks		x		=	
		x		=	
		x		=	
		x		=	
Other		x		=	
		x		=	
		x		=	
Proposed Impervious Surface Area to be managed (sum of all areas)					
Previous Impervious Surface Area installed since September 21, 2011					
Total Impervious Surface Area					

If the Total Impervious Surface Area is LESS THAN 2,500 Square Feet, please read, acknowledge and sign below.

Based Upon the information you have provided a ***Stormwater Management Plan IS NOT required*** for this regulated activity. Wayne Township may request additional information and/or SWM for any reason.

Property Owner Acknowledges that submission of inaccurate information may result in permit revocation. Acknowledgement of such is by signature below. I declare that I am the owner or owner's legal representative. I further acknowledge that the information provided is accurate and employees/agents of Wayne Township are granted access to the above described property for review and inspection as may be required.

Owner _____ **Date:** _____

If the Total Impervious Surface Area EXCEEDS 2,500 Square Feet, but is LESS THAN 5,000 Square Feet, or you are applying for the Single Family Residential Exemption, complete the remainder of this Application.

☐ CONSULTANT FEE REIMBURSEMENT AGREEMENT Attached

CREDITS: Credits can be used to reduce or eliminate the Required Capture Volume that must be managed.

Credit 1: DISCONNECTION OF IMPERVIOUS AREA

When runoff from impervious areas is directed to a pervious area that allows for infiltration, filtration, and increased time of concentration, all or parts of the impervious areas may qualify as Disconnected Impervious Area (DIA). Using the criteria below, determine the portion of the impervious area that can be excluded from the calculation of total impervious area.

Criteria: An impervious area is considered to be completely or partially disconnected if it meets the requirements listed below

- rooftop area draining to a downspout is ≤500 sf
- paved area draining to a discharge is ≤1,000 sf
- flow path of paved impervious area is not more than 75'
- soil at discharge is not designated as hydrologic soil group "D"
- flow path at discharge area has a positive slope of ≤5%
- gravel strip or other spreading device is required at paved discharges.

Length of Pervious Flow Path from discharge point * (ft)	**DIA Credit Factor**
0 – 14	1.0
15 – 29	0.8
30 – 44	0.6
45 – 59	0.4
60 – 74	0.2
75 or more	0

* Flow path cannot include impervious surfaces and must be at least 15 feet from any impervious surfaces.

Calculate DIA Credit & Required Capture Volume									
Surface Type	**Proposed Impervious Area** (from previous sheet)	**X**	**DIA Credit Factor**	**=**	**Impervious Area to be managed**	**÷**		**=**	**Required Capture Volume (ft^3)**
Building (area per downspout)		x		=		÷	6	=	
		x		=		÷	6	=	
		x		=		÷	6	=	
		x		=		÷	6	=	
Driveway		x		=		÷	6	=	
		x		=		÷	6	=	
		x		=		÷	6	=	
Parking Areas		x		=		÷	6	=	
		x		=		÷	6	=	
		x		=		÷	6	=	
Patios/Walks		x		=		÷	6	=	
		x		=		÷	6	=	
		x		=		÷	6	=	
		x		=		÷	6	=	
Other		x		=		÷	6	=	
		x		=		÷	6	=	
		x		=		÷	6	=	
								Total Req'd Capture Volume	

If after applying Credit 1, the required capture volume is zero, or if you are claiming the Single Family Residential Exemption, proceed to the last page of the application.

Credit 2: TREE PLANTING

Perhaps the best BMP is a tree as they intercept rainfall, increase evapotranspiration and increase time of concentration. A portion of the required capture volume can be reduced provided the criteria are met.

CREDITS

Deciduous Trees	Evergreen Trees
6 ft^3 per tree planted	10 ft^3 per tree planted

Criteria

To receive credit for planting trees, the following must be met:

- Trees must be native species (see below), minimum 1" caliper tree and 3 feet tall shrub (min).
- Trees shall be adequately protected during construction.
- Trees shall be maintained until redevelopment occurs.
- No more than 25% of the required capture volume can be mitigated through the use of trees.
- Dead trees shall be replaced within 12 months.
- Non-native species are not applicable.

		Req'd Capture Volume (ft^3)
–		**Tree Planting Credit (ft^3)**
		Capture Volume to be managed (ft^3)

Sizing of BMP

		How much of the Volume will you manage with a Rain Garden?
+		How much of the Volume will you manage with a Sump or Trench?
		Capture Volume to be managed (ft^3)

Enter the volumes into the **Small Project SWM Plan Worksheet** on the next sheet.

Native Species Trees (Common Name)

- Blackgum
- Cucumber magnolia
- Hophornbeam
- Maple, (sugar, red or silver)
- Pine, (pitch or eastern white)
- Ironwood
- Hickory, sweet pignut or shag-bark
- Sycamore, American
- Cotton-wood, eastern
- Aspen, big-tooth or quaking
- Cherry, black
- Oak, (white, swamp white, scarlet, pin, red, black)
- Dogwood (silky or red osier)
- Tuliptree
- Willow, black
- Chokeberry (red or black)
- Basswood, American
- Serviceberry, (downy or shadbush)
- Elderberry
- Witch hazel
- Mountain laurel

Form SPA2012

Small Project SWM Plan Worksheet

Regulated activities shall be conducted only after Wayne Township approves a stormwater management plan. **This document will constitute an approved plan if all of the relevant details are to be installed in their entirety AND no part of the stormwater system adversely affects any other property, nor adversely affect any septic systems or drinking water wells on this, or any other, parcel.** Alternative system proposed requires that a plan will need to be submitted to Wayne Township for approval. A design by a qualified professional may be required for more complex sites.

PLEASE INITIAL BELOW TO INDICATE THE STORMWATER MANAGEMENT PLAN FOR THIS SITE

☐ **Minimum Controls (Required)**
#1 Erosion & Sediment Pollution Control
#2: Source Control of Pollution
#3: Preservation of Natural Drainage Systems and Outfalls

The system will be located as not to adversely affect other property, nor any septic systems or drinking water wells on this, or any other, parcel.

☐ To meet this requirement, the following will be installed and maintained:

Capture Volume to be managed (ft^3)			Conversion	Surface Area of BMPs (ft^2)
	By Rain Garden 6" ponding; 2' soil depth	x	1.20	
	Dry Well or Infiltration Trench 2½' aggregate depth	x	1.25	
	Total		Total	

☐ In lieu of meeting the above, an alternative and/or professional design is attached for approval AND the system will be located as not to adversely affect other property, any septic systems or drinking water wells on this, or any other, parcel.

☐ **Site Sketch Plan showing (Required):**

- Property lines with dimensions
- Proposed buildings with dimensions
- Proposed impervious surfaces with dimensions
- Proposed septic system, if applicable
- Proposed well site, if applicable
- Proposed stormwater management system(s)

☐ **Operation and Maintenance Agreement**

☐ **Compliance with requirements for Single Family Residential Exemption as attached.**

Condition on approval - The stormwater management plan must be fully implemented prior to a request for final inspection of the building or zoning permit.

Acknowledgement - By executing below, the Owner acknowledges the following:

- I declare that I am the owner of the property.
- The information provided is accurate.
- I further acknowledge that municipal representatives are granted access to the above described property for review and inspection as may be required.

Owner **Date:**

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SINGLE FAMILY RESIDENTIAL EXEMPTION: Please Initial Below To Indicate Compliance

☐ Section 301.G. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the Applicant must document that adequate downstream conveyance facilities exist to safely transport the concentrated discharge, or otherwise prove no erosion, sedimentation, flooding, or other harm will result.
1. Applicant must provide an easement for proposed concentrated flow across adjacent properties to a drainage way or public right of way.
2. Such storm water flows remain subject to the requirements of this ordinance.

☐ Section 302.A. Applicant must
1. Comply with State Water Quality Standards and Requirements
2. Protect health, safety, and property
3. Meet special requirements for Protected watersheds.

☐ Section 302.B. Applicant must utilize the following BMPs to the maximum extent practicable:
1. Design around and limit disturbance of Floodplains, Wetlands, Natural Slopes over15%, existing native vegetation, and other sensitive and special value features.
2. Maintain riparian and forested buffers.
3. Limit grading and maintain non-erosive flow conditions in natural flow paths.
4. Maintain existing tree canopies near impervious areas.
5. Minimize soil disturbance and reclaim disturbed areas with topsoil and vegetation.
6. Direct runoff to pervious areas.

☐ Section 302.C Applicant's proposed development/additional impervious area may not adversely impact the following:
1. Capacities of existing drainageways and storm sewer systems.
2. Velocities and erosion.
3. Quality of runoff if direct discharge is proposed.
4. Existing known problem areas.
5. Safe conveyance of the additional runoff.
6. Downstream property owners.

☐ Building is setback seventy-five (75) feet from downstream property lines. Topographic maps must be submitted to confirm compliance.

☐ Driveways:
1. Runoff must discharge onto pervious surface with a gravel strip or other spreading device.
2. No more than 1,000 square feet of impervious surface may discharge to any one point.
3. The length of flow on the pervious must exceed the length of the impervious surface flow.

TOWNSHIP USE ONLY

Site Reviewed On: By:

Findings: