

Biglerville Borough Council 33 Musselman Avenue Biglerville, PA 17307 PH: 717-677-9488 / FAX: 717-677-4027 Email: office@biglerville.us / <u>www.biglerville.us</u>

# STORMWATER MANAGEMENT PERMIT Simplified Design Approach Worksheet A

Property Owner's Name:	
Applicant Name:	
Applicant/ Owner Address:	
Phone Number:	
Address of Property:	
Parcel Number:	
Parcel Size (approx.):	
A Sketch Plan must be included and show the following:	
Total existing impervious area on the property:	
New impervious area proposed:	
Total impervious area on the property after project completion:	
Are there any known existing drainage problems or the potential for <i>(if yes, please explain)</i> Yes No	the proposed project to create drainage problems?
provided is accurate to the best of my knowledge. I understand that properties or be directed onto another property without written perm result in a stop work or revocation of permits. Municipal representation review and/or inspection of this project if necessary.	t stormwater may not adversely affect adjacent ission. I also understand that false information may tives are also granted access to the property for
Applicant Signature:	Date:
Notary:	Date:
My commission Expires:	
To Be Completed by Authorize	ed Municipal Official
Type of Stormwater Management Required:	
Exempt from Stormwater Management Plan Preparation	
Minor Stormwater Management Site Plan Preparation	
Formal Stormwater Management Plan Preparation	
Determined By:	Date:



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## STORMWATER MANAGEMENT PERMIT Simplified Design Approach Worksheet B

**Step 1:** Determine the amount of impervious area created by the proposed projects. This includes any new surface area that inhibits the infiltration of stormwater into the ground. New stone and gravel area considered impervious. Existing impervious areas are not included in this calculation.

#### Table #1

Surface	Length	*	Width =	Total Impervious Area (SF)
Buildings		*		
Buildings		*		
Driveways		*		
Parking Areas		*		
Patio/ Walkways		*		
Decks		*		
Others		*		
	Тс	tal Proposed Im	pervious Area =	

**Step 2:** Determine the Disconnect Impervious Area (DIA). All or parts of proposed impervious surfaces may qualify as Disconnect Impervious Area if runoff is directed to the pervious area that allows for infiltration, filtration and increased time of concentration. The volume of stormwater that needs to be managed could be reduced through DIA. Prepare a Minor Stormwater Management Site Plan to determine DIA.

Determine Status of DIA:

- 1. Determine contributing area of the roof/ driveway to each disconnected discharge. If it's 500 ft2 or less (for a roof) or 1,000 ft2 or less (for a driveway), continue to "B". If it's greater than these amounts, the area does not qualify as a DIA.
- 2. Determine the length of down slope pervious flow path available for each disconnected discharge
- 3. Determine the % slope of the pervious flow path, % slope= (rise/run) x 100. Must be 5% or less.
- 4. See the table on the next page to determine the percentage of the area that can be treated as disconnected. If the available length of the flow path is equal to or greater than 75 ft. the discharge qualifies as entirely disconnected.



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Partial Disconnected				
Length of Pervious Flow Path * (ft) Lots 10,000 ft2 and under	Length of Pervious Flow Path * (ft) Lots > 10,000 ft2	DIA Credit Factor		
0 – 7.9	0 – 14	1.0		
8 – 15.9	15 – 29	0.8		
16 – 22.9	30 – 44	0.6		
12 – 29.9	45 – 59	0.4		
30 – 34.9	60 – 74	0.2		
35 or more	75 r more	0		
*Pervious flow path must be at least 15	feet from any impervious surface and	d cannot include impervious surfaces		

Using Step 2 calculations calculated from the minor stormwater site plan, complete the table below. This will determine the impervious area that may be excluded from the area that needs to be managed through stormwater management BMP's. If the total impervious area to be managed is zero, the area can be considered entirely disconnected and further calculations are not needed.

#### Table #2

Surface	Area (SF)	*	DIA Credit =	Impervious Area to be Managed (SF)
Buildings		*		
Driveways		*		
Driveways		*		
Parking Areas		*		
Patio/ Walkways		*		
Decks		*		
Others		*		
Total Prop	osed Impervious S	urface Area to	be Managed (SF) =	

\*If the total impervious surface area to be managed is greater than zero, continue to Step 3.



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Step 3: Calculate the volume of stormwater runoff created by proposed impervious surfaces.

Impervious Area (SF) to be Managed (Sum from table 2)	≫	2.8in/12in = 0.233 (from 24 hr. rainfall)	Volume of Stormwater to be Managed (CF)
	$\approx$	0.233	

Step 4: Select BMP's and size according to the volume of stormwater that needs to be managed in Step 3.

### Table #3 – BMP Sizing Table\*

ВМР Туре	Necessary Volume** (from Step 3 above)	Length	Width	Depth	Void Ratio	Volume ***
Infiltration Bed or Trench					0.4	
Infiltration Berm					1	
Rain Garden					0.4 in stone 1.0 above ground	
Rain Barrel or other Usable Storage		Use known volume of rain barrel, etc. 1 cubic foot is equal to 7.48 gallons			1	
Other						

 $^{*}$ Chart should only be used when a formal SWM Site Plan is not required

\*\*Should not include areas that were proven to be 100% disconnected

\*\*\*Volume = Length x Width x Depth x Void Ratio