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DESIGNING SOLUTIONS.]

ACT 167 IMPLEMENTATION WORKSHOP
ORDINANCE ENFORCEMENT

STORMWATER MANAGEMENT

Keys to Success:

Education

Staff Training
Know the Ordinance
Public Outreach

Consistency

Standard reviews & inspections

Documentation

Make & keep records

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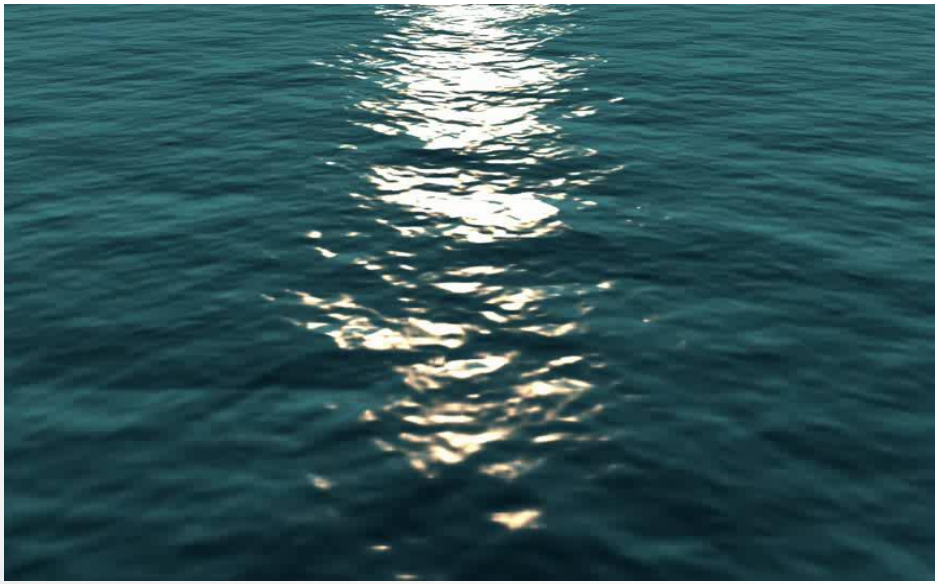
AGENDA

1. Stormwater Regulations
2. Stormwater Ordinance
3. Ordinance Enforcement
4. MS4



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Importance of Stormwater Management

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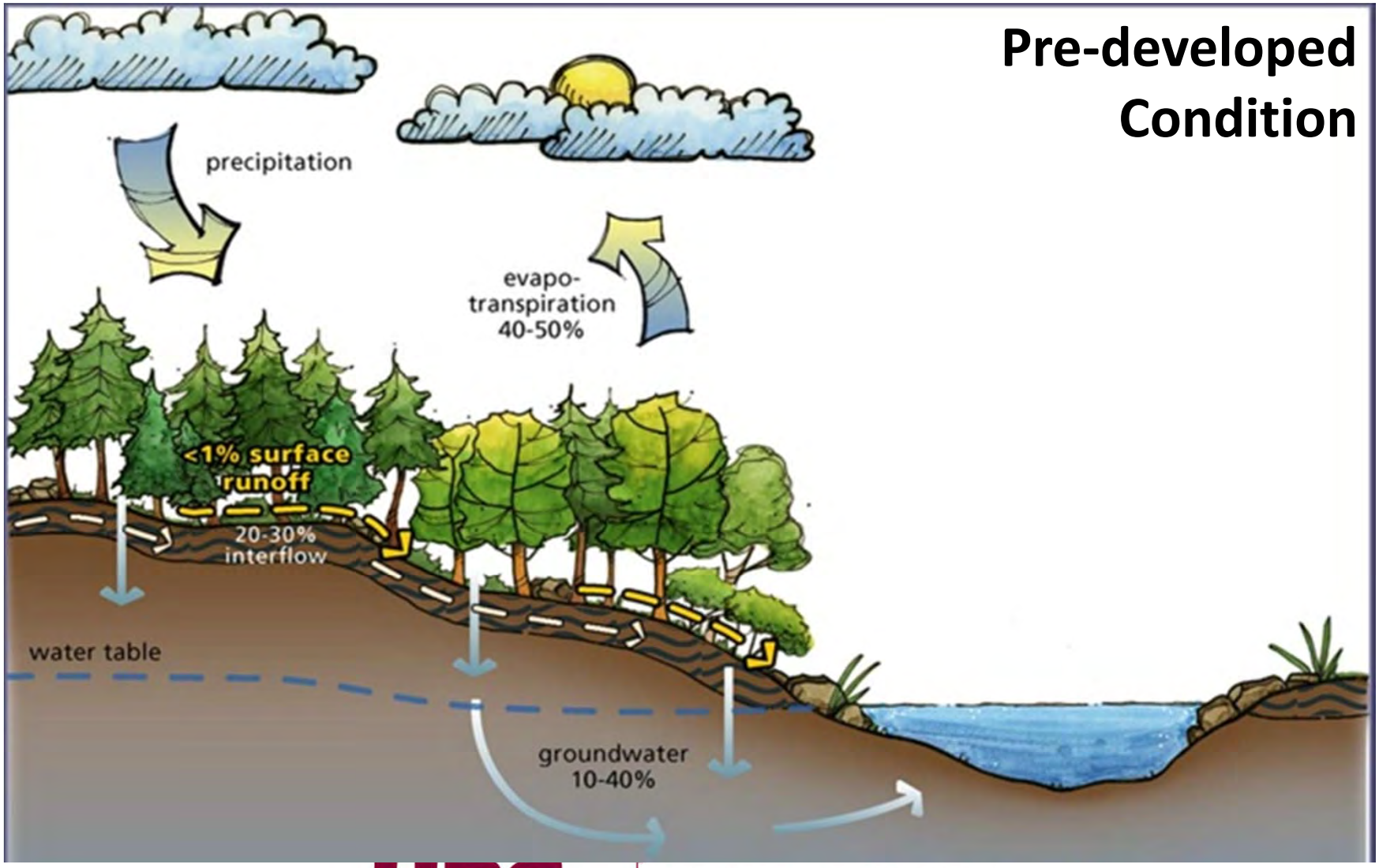
Importance of Stormwater Management



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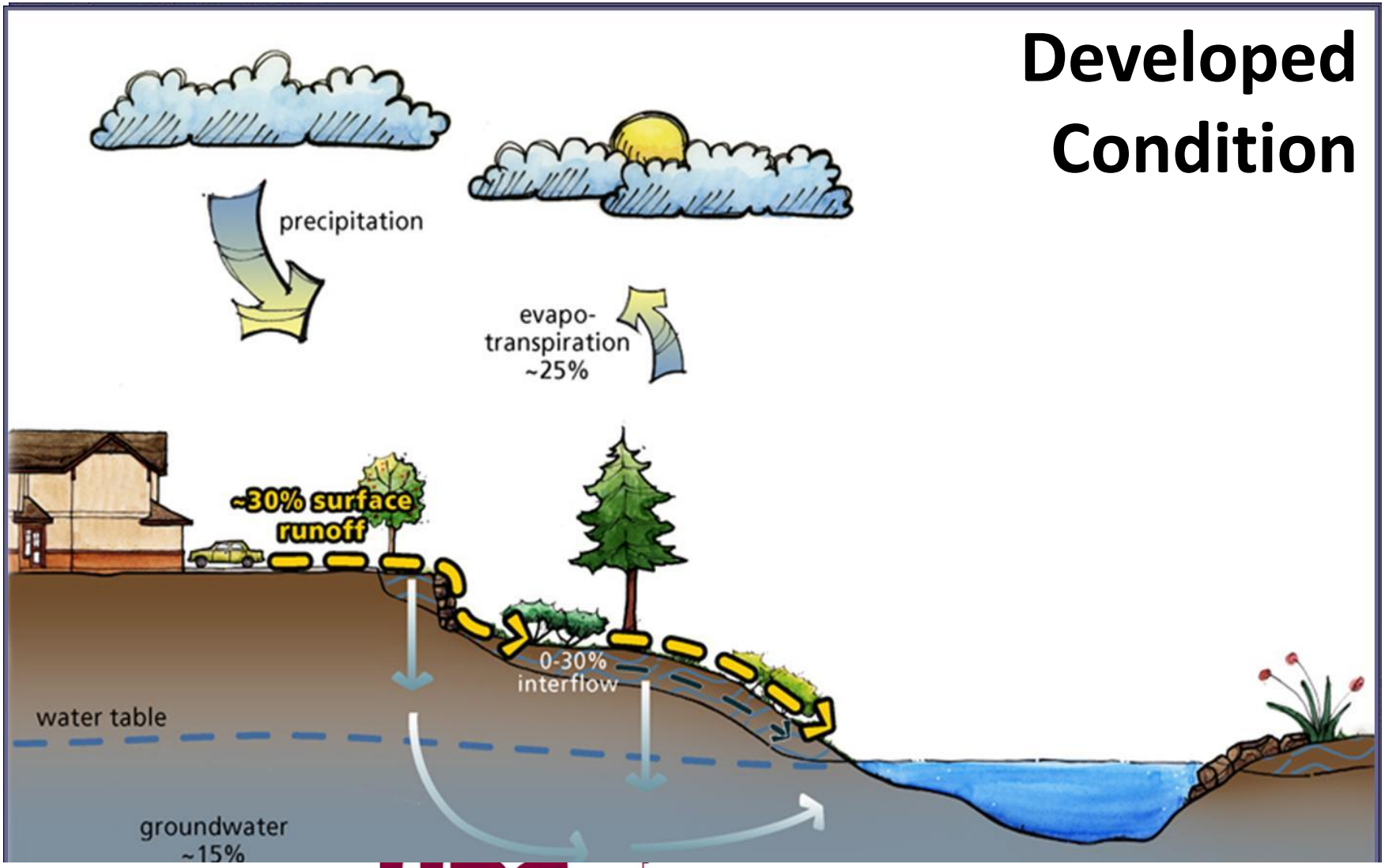

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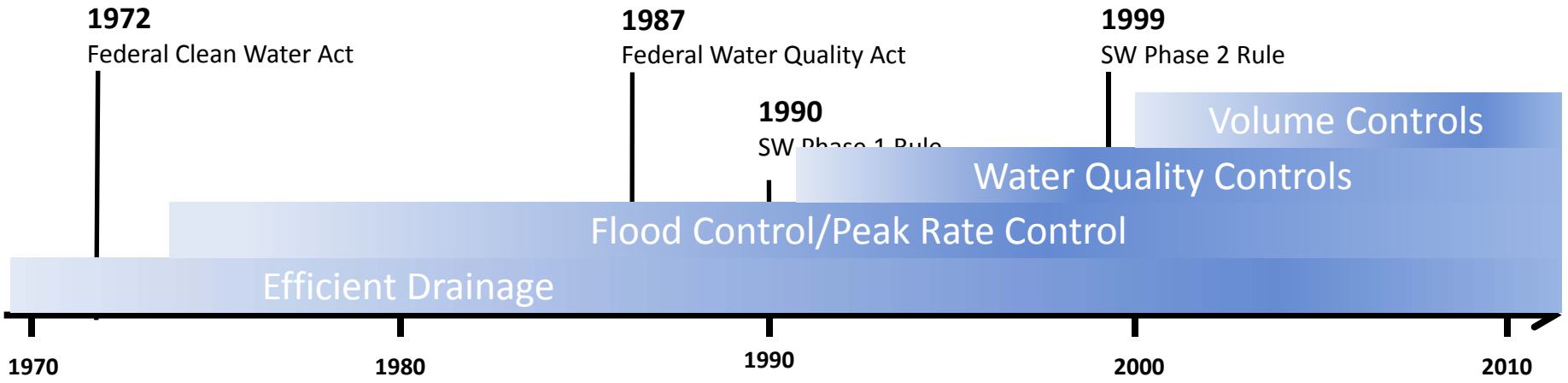
IMPACTS
from Land Development & Poorly Managed Stormwater

- Compacted Soils
- Less Evapotranspiration
- Less Groundwater Recharge
- Increased Runoff Volume
- Faster Conveyance of Water
- Increased Frequency of Runoff Events
- Erosion and Stream Channel Impacts
- Decreased Baseflow
- Pollution and Thermal Impacts
- Impacted Aquatic Life

Stormwater regulations



Clean Water Act: NPDES Program is established; Focus is primarily on POTWs and industrial discharges

Water Quality Act: Amends CWA and calls for a phased approach; SW now explicitly regulated

Stormwater Phase 1 Rule: NPDES program covers (i) "medium & large" MS4s (ii) Earth Disturbances > 5 ac (iii) 10 categories of industrial activity

Stormwater Phase 2 Rule: NPDES program expands to cover "small" MS4s & Earth Disturbances > 1 ac

Energy Independence and Security Act: Requires federal agencies to use LID on projects > 5,000 sf

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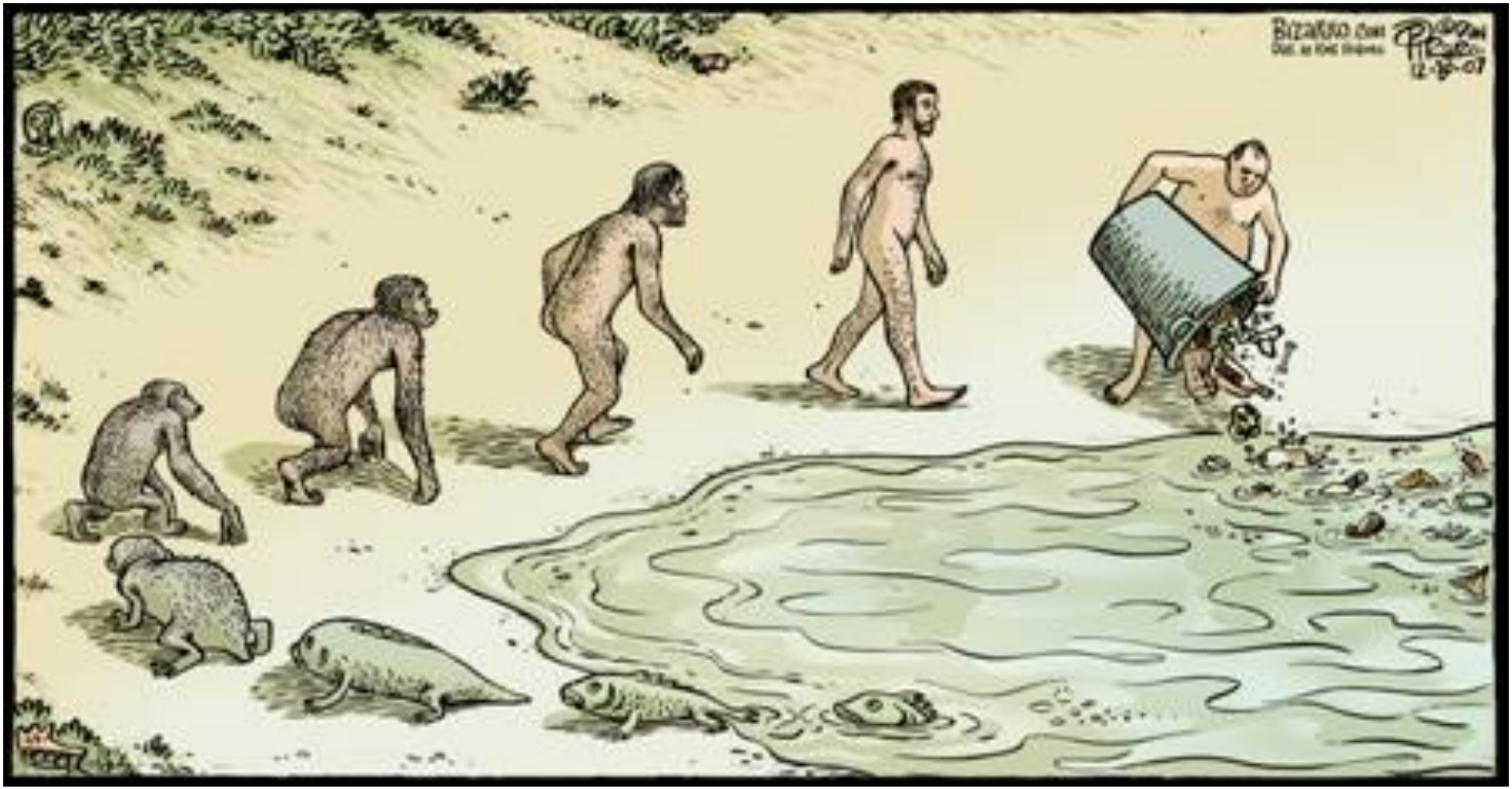
Stormwater regulations



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Conventional Stormwater Management

- Controls Peak **Rate** of Runoff to Existing Conditions for Large Storms (theoretically)
- No Runoff **Volume** Control
- No NPS **Pollutants** Control

Conventional Stormwater Management

Detention Basins may only slow the runoff

Still have…

- Flooding
- Polluted Runoff
- Eroded Streams

Perhaps Worse

- Concentration of flow

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New Approach to SWM

Non-structural BMP's

First – Protect & Preserve
- Avoid & Minimize Impacts
- Riparian Buffers/Woodlands

Maximize **Green Infrastructure**
- Conservation Corridors
- Green belts

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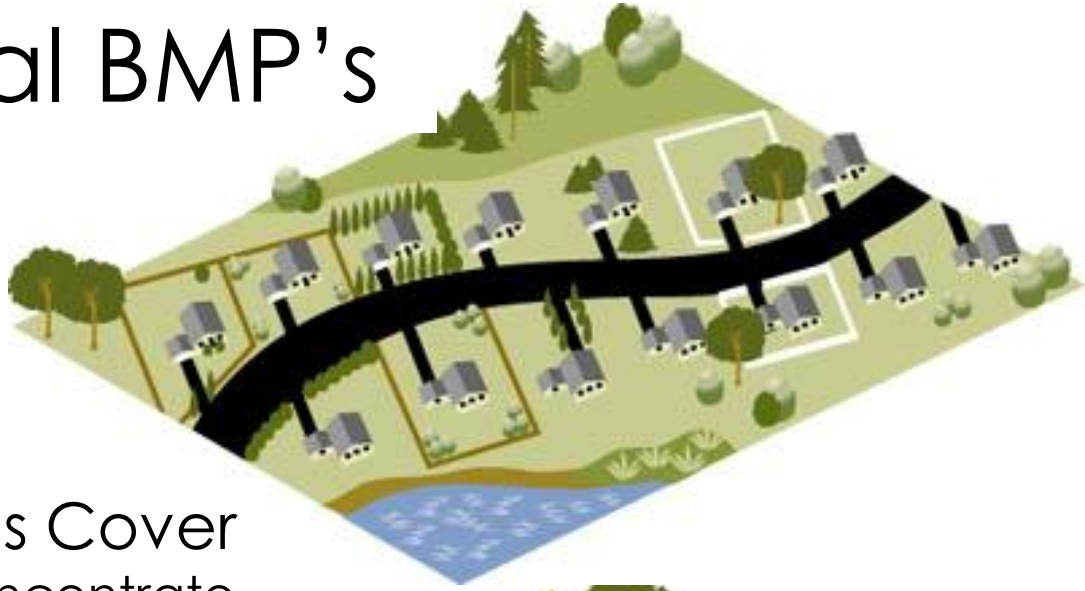
New Approach to SWM

Non-structural BMP's



Reduce Impervious Cover

- Cluster & Concentrate Development

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New Approach to SWM

Non-structural BMP's

Decentralize
Disconnect
Distribute

Slow down runoff

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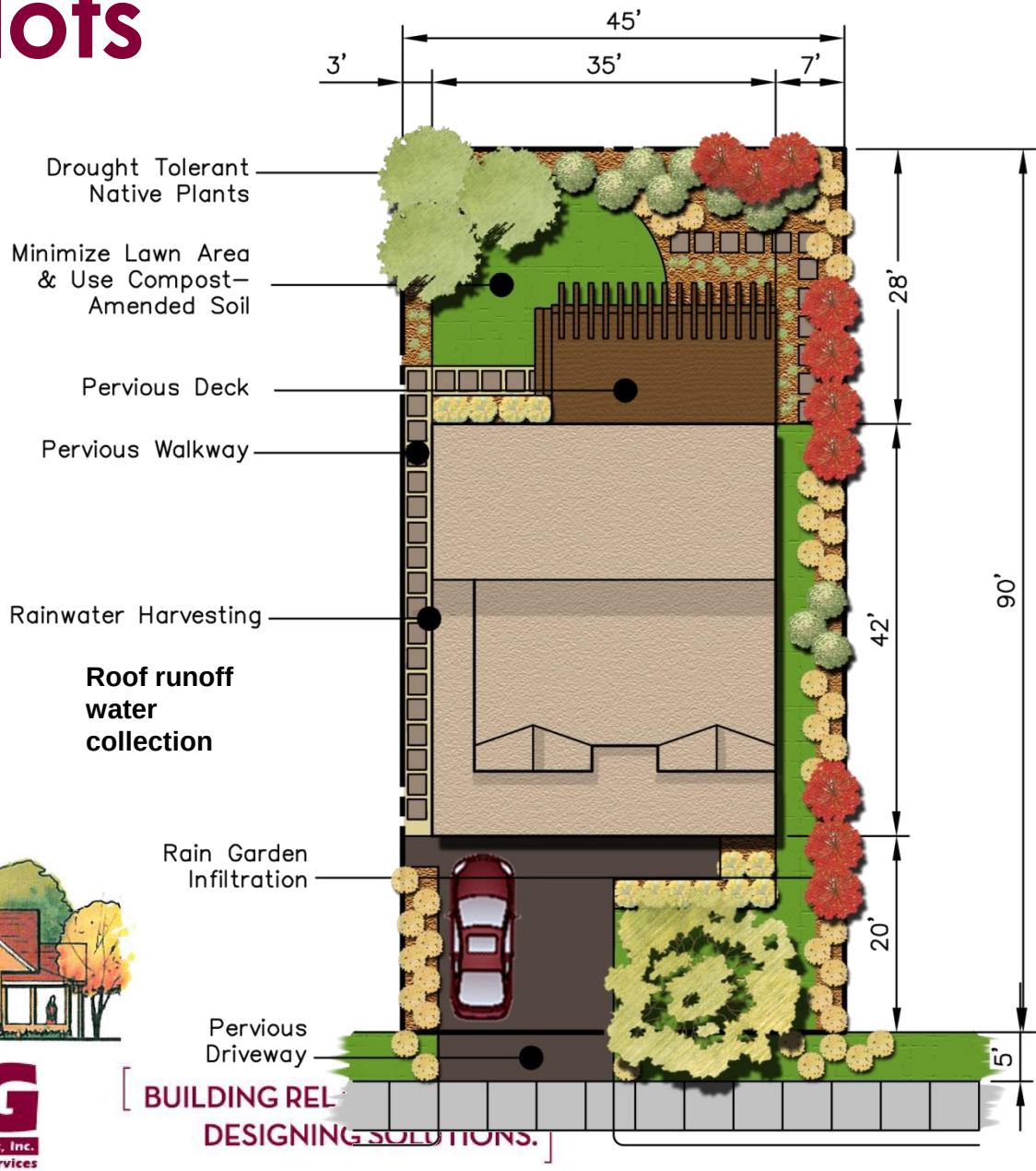
Source: LID Technical Guidance Manual for Puget Sound (2005)

SWM on small lots

Lot = 0.1 acre (4050 sf)

Impervious: 2360 sf

- **1470 sf home**
- **240 sf deck**
- **500 sf driveway**
- **150 sf walkway**



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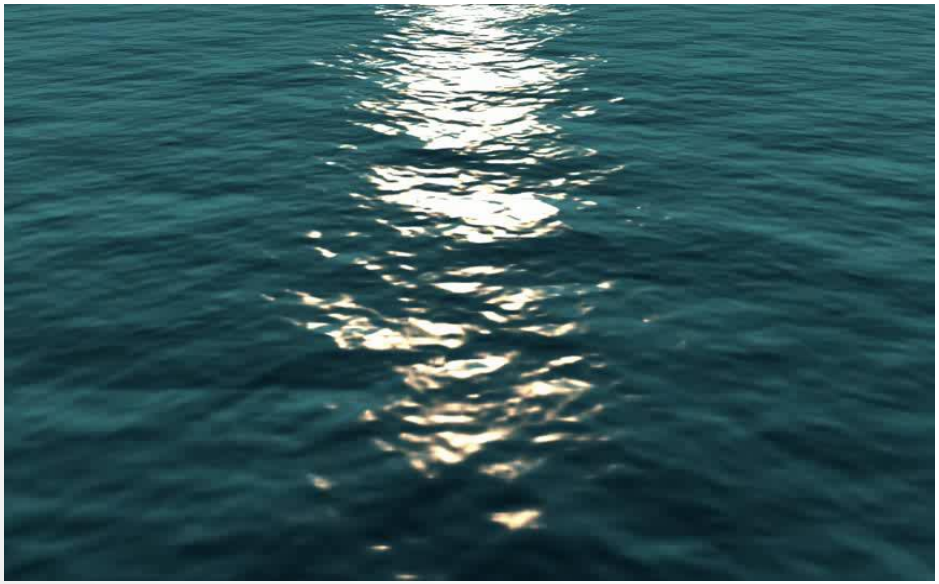

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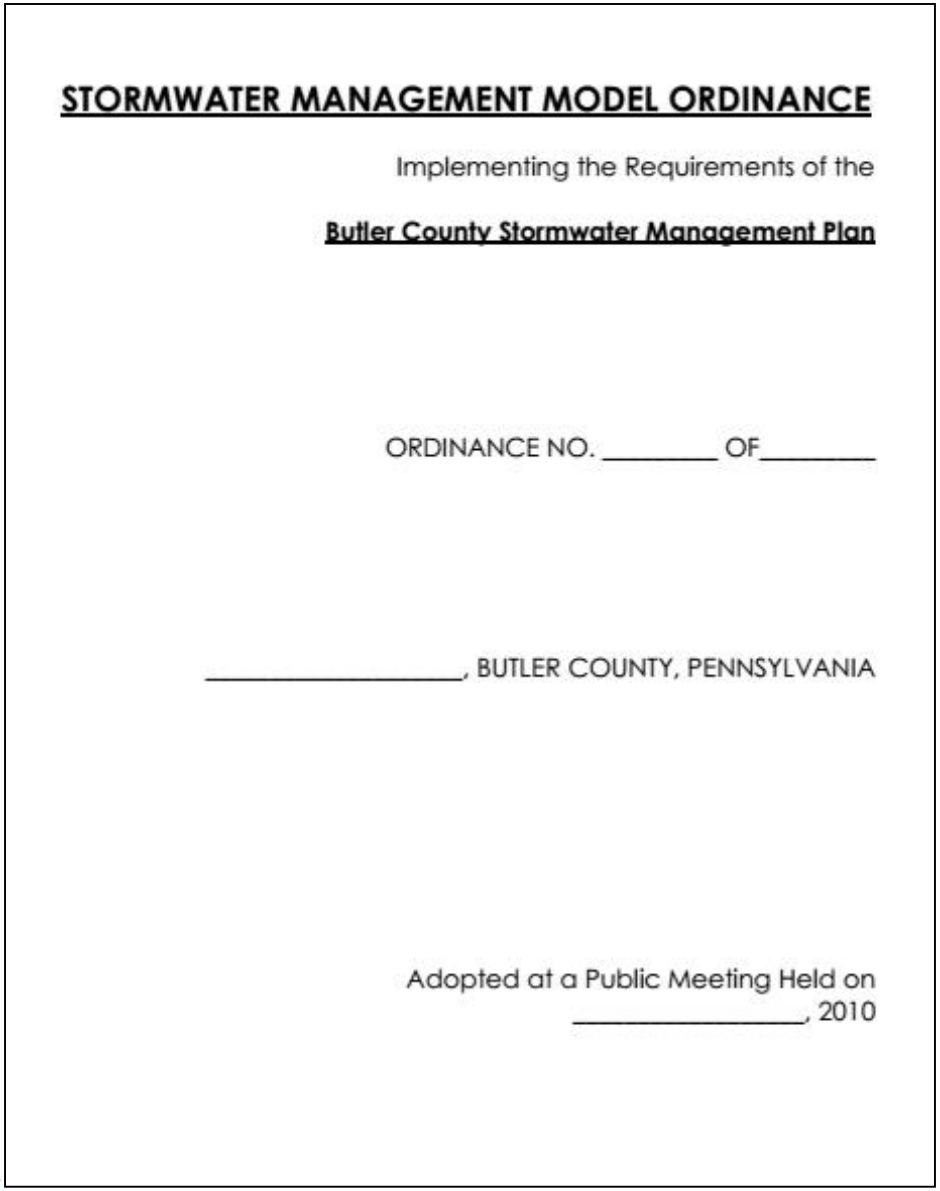
Model Ordinance

Butler County's 2010 Act 167 Model Ordinance.



STORMWATER MANAGEMENT MODEL ORDINANCE

Implementing the Requirements of the

Butler County Stormwater Management Plan

ORDINANCE NO. _____ OF_____

_____, BUTLER COUNTY, PENNSYLVANIA

Adopted at a Public Meeting Held on
_____, 2010

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Model Ordinance

Article I - General Provisions

Section 101. Short Title
Section 102. Statement of Findings
Section 103. Purpose
Section 104. Statutory Authority
Section 105. Applicability
Section 106. Repealer
Section 107. Severability
Section 108. Compatibility with Other Requirements
Section 109. Duty of Persons Engaged in the Development of Land
Section 110. Municipal Liability Disclaimer

REVIEW WITH SOLICITORS!

Model Ordinance

Section 109. Duty of Persons Engaged in the Development of Land

Notwithstanding any provision(s) of this Ordinance, including exemptions, any landowner or any person engaged in the alteration or development of land which may affect stormwater runoff characteristics shall implement such measures as are reasonably necessary to prevent injury to health, safety, or other property. Such measures also shall include actions as are required to manage the rate, volume, direction, and quality of resulting stormwater runoff in a manner which otherwise adequately protects health, property, and water quality.

Model Ordinance

Section 110. Municipal Liability Disclaimer

A. Neither the granting of any approval under this Ordinance, nor the compliance with the provisions of this Ordinance, or with any condition imposed by a municipal official hereunder, shall relieve any person from any responsibility for damage to persons or property resulting there from, or as otherwise imposed by law nor impose any liability upon the Municipality for damages to persons or property.

B. The granting of a permit which includes any storm water management facilities shall not constitute a representation, guarantee or warranty of any kind by the Municipality, or by an official or employee thereof, of the practicability or safety of any structure, use or other plan proposed, and shall create no liability upon or cause of action against such public body, official or employee for any damage that may result pursuant thereto.

Model Ordinance

Article II – Definitions

Agricultural Activity: …construction of new buildings or impervious area is not considered an agricultural activity.

Impervious Area: A surface that prevents the infiltration of water into the ground.

Regulated Activities: Any earth disturbance activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff.

Model Ordinance

Article III - Stormwater Management Standards

Section 301. General Requirements
Section 302. Exemptions
Section 303. Waivers
Section 304. Volume Controls
Section 305. Rate Controls
Section 306. Sensitive Areas and Stormwater Hotspots

Model Ordinance

Article III - Stormwater Management Standards

Section 301. General Requirements

F. Impervious Areas:

1. The measurement of impervious areas shall include all of the impervious areas in the total proposed development, even if development is to take place in stages.
2. For developments taking place in stages, the entire development plan must be used in determining conformance with this Ordinance.
3. **[OPTIONAL] For projects that add impervious area to a developed parcel, to the maximum extent practicable and at the discretion of the Municipal Engineer, the total impervious area on the parcel may be subject to the requirements of this Ordinance.**

Model Ordinance - EXEMPTIONS

New Impervious Area[1, 2] (square footage)	Applicant Must Provide
0 – 2,500	---
2,500 < 5,000	Documentation of new impervious surfaces[3]
> 5,000	Rate Controls, Volume Controls & SWM Site Plan

NOTES:

[1] New Impervious Area since the date of Adoption of this Ordinance.

[2] Gravel in existing condition shall be considered pervious and gravel in proposed condition shall be considered impervious.

[3] The Small Project Stormwater Management Application included in Appendix E **shall** be used to document new impervious surfaces.

Model Ordinance - EXEMPTIONS

302.E. Single Family Residential Exemption

Single Family Residential activities are exempt from these requirements provided the construction:

1. Comply with Sections 302.A, 302.B, and 302.C
2. Buildings setback 75’ from downstream property lines
3. Driveways:

- Discharge onto pervious surface w/gravel strip or other spreading device.
- Max 1,000 sf of paved surface may discharge to any one point.
- Length of flow on the pervious must exceed the length of the paved surface flow.

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Model Ordinance – Additional Provisions

SECTION 306. Sensitive Areas and Stormwater Hotspots

ADDED PERFORMANCE STANDARDS

1. Sensitive areas have the potential to endanger a water supply. These areas consist of the delineated 1-year zone of contribution and direct upslope areas tributary to the water supply wells.
2. Stormwater Hotspots are projects that have a high potential to endanger local water quality, and could potentially threaten ground water reservoirs. The PADEP wellhead protection contaminant source list shall be used as a guide in these determinations. Industrial manufacturing site and hazardous material storage areas must provide NPDES SIC codes.

Model Ordinance – VOLUME CONTROL

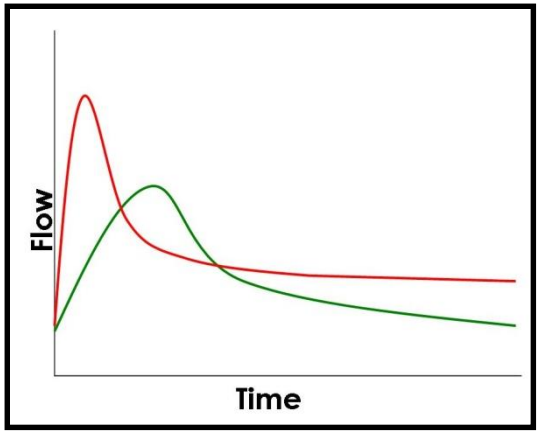
Sizing Criteria	Description of Stormwater Sizing Criteria
Design Storm Method (CG1)	Regulation of the 2-year storm event: -No increase in total runoff volume for the 2-yr/24-yr event -Consider existing non-forest pervious area as meadow -20% of existing impervious area considered as meadow
Simplified Method (CG2)	Regulation of stormwater runoff from new impervious (1 ac max): -capture of first 2" of runoff -1" of captured runoff shall be permanently removed -½"of captured runoff shall be infiltrated
Water Quality Calculations	Where infiltration is not possible or desirable (document justification) -Specific BMP's for Pollution Prevention to reduce Total Suspended Solids (TSS) 85% Total Phosphate (TP) 85% Total Nitrate (NO_3) 50%

Model Ordinance – RATE

Runoff volume and peak disch

Peak rate control criteria:

- The post-development pea
  the 1-year through 100-ye
  exceed the pre-developme
- Post-development release



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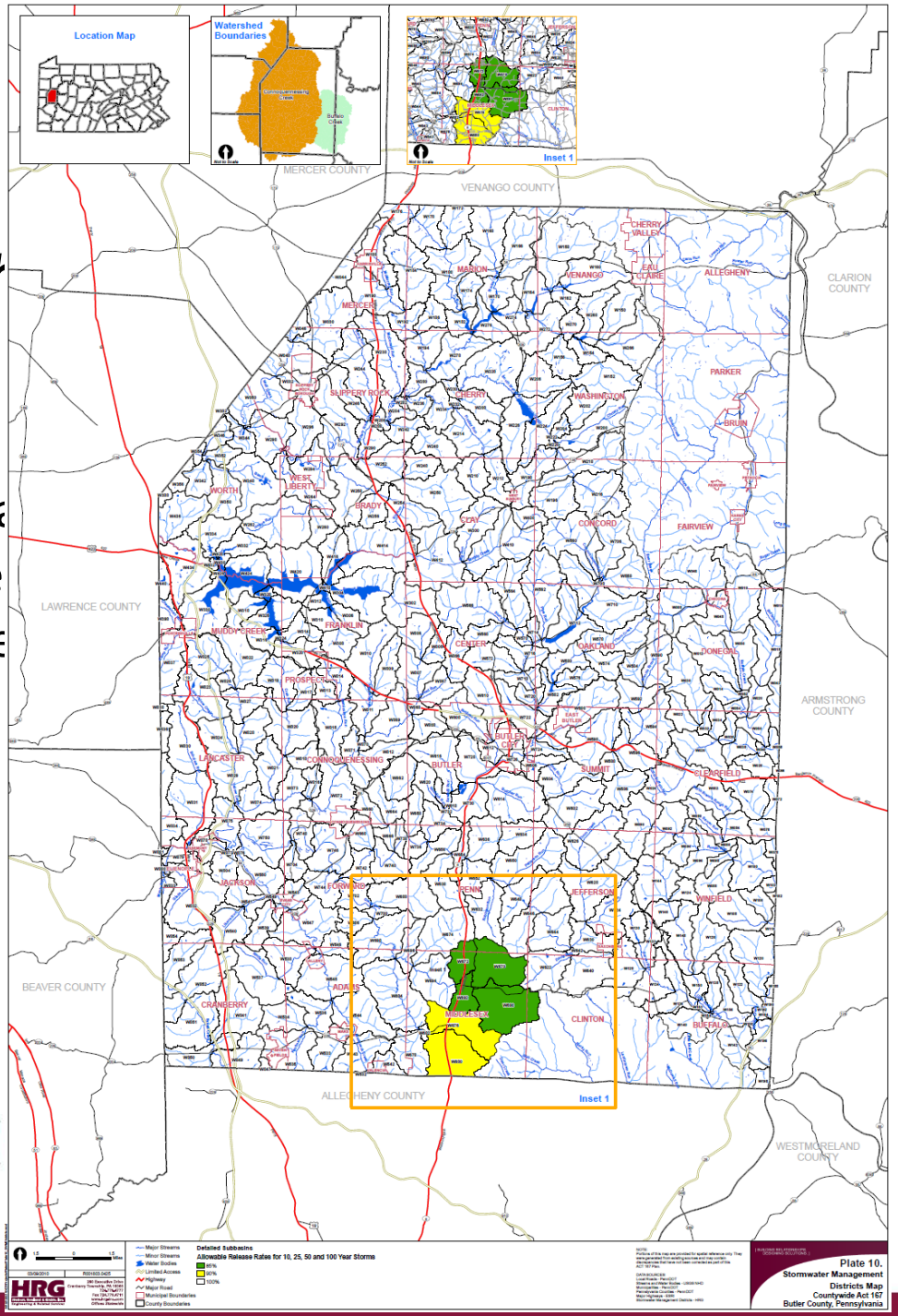


Model Ordinance

Article IV – E&S STANDARDS [OPTIONAL]

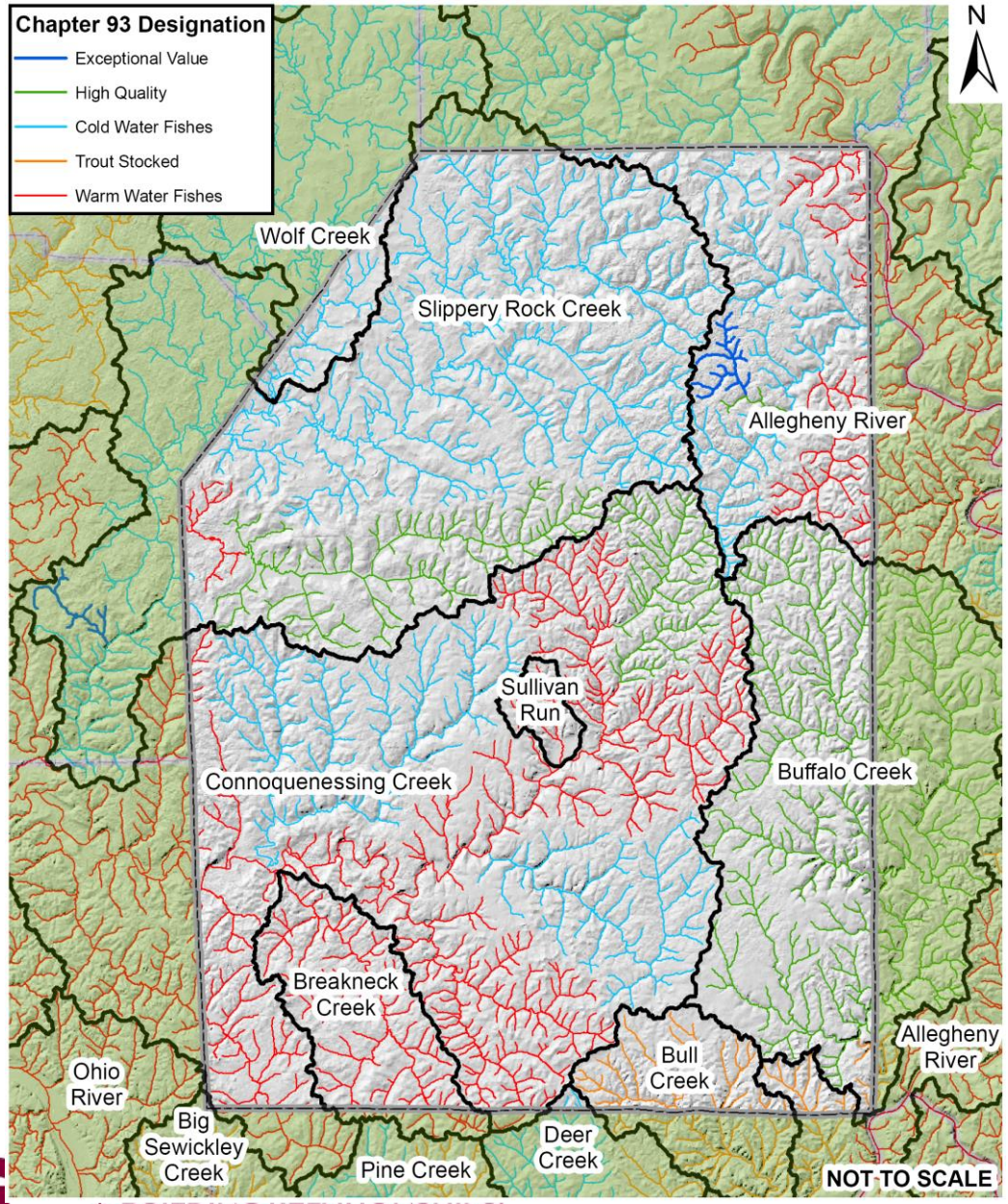
Section 401. Erosion And Sedimentation Requirements During Earth Disturbance Activities

E&S Standards to reinforce the importance of BMP's during the construction process.

Model Ordinance

ARTICLE V – Protected Watersheds Standards

Due Diligence Review in Protected Watershed Areas



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Model Ordinance

Article VI – RIPARIAN BUFFER STANDARDS [OPTIONAL]

SECTION 601. RIPARIAN BUFFER REQUIREMENTS

SECTION 602. RIPARIAN BUFFER EASEMENTS

Riparian Buffers

- Require natural areas adjacent to streams
- Use of areas adjacent to streams
- Refer to DEP's new Chapter 102 Requirements

Model Ordinance

Article VII – DESIGN CRITERIA

SECTION 701. Design Criteria For Stormwater Management & Drainage Facilities

[LARGELY OPTIONAL]

SECTION 702. Calculation Methodology

SECTION 703. Downstream Hydraulic Capacity Analysis

Standards are recommended so that everyone is using the same

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Model Ordinance

Article VIII - SWM Site Plan Requirements

SECTION 801. General Requirements

SECTION 802. SWM Site Plan & Report Contents

SECTION 803. SWM Site Plan & Report Submission

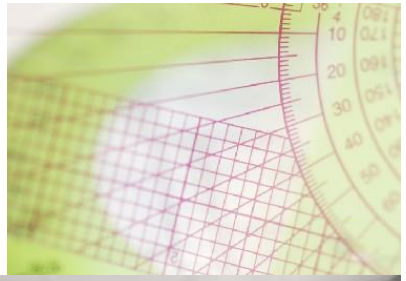
SECTION 804. SWM Site Plan & Report Review

SECTION 805. Modification Of Plans

SECTION 806. Resubmission Of Disapproved SWM Site Plan & Report

SECTION 807. Authorization To Construct And Term Of Validity

SECTION 808. Record Drawings, Completion & Final Inspection



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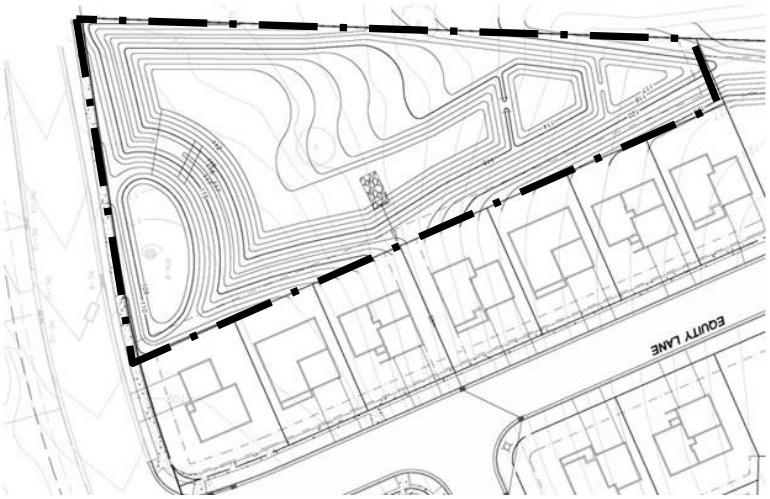
Article IX – EASEMENTS

SECTION 901. Easements

- Requirements for SWM Facilities
- If diffused flow is concentrated, downstream easement required.



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Model Ordinance

Article X – Maintenance Responsibilities

SECTION 1001. FINANCIAL GUARANTEE

- 110% Bond; As-Builts; Final Inspection

SECTION 1002. MAINTENANCE RESPONSIBILITIES

- Owner provided; Municipal rights; record as covenant w/land

SECTION 1003. MAINTENANCE AGREEMENT FOR PRIVATELY OWNED STORMWATER FACILITIES

- O&M Agreement

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Model Ordinance

Article XI – Inspections

SECTION 1101. SCHEDULE OF INSPECTIONS

-
-

1. Annually for the first 5 years following construction.
2. Once every 3 years thereafter.
3. During or immediately after a 10-yr storm.

SECTION 1102. RIGHT-OF-ENTRY

- Municipal rights

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Model Ordinance

ARTICLE XII – ENFORCEMENT AND PENALTIES

SECTION 1201. NOTIFICATION

SECTION 1202. ENFORCEMENT

SECTION 1203. PUBLIC NUISANCE

SECTION 1204. SUSPENSION AND REVOCATION

SECTION 1205. PENALTIES

SECTION 1206. APPEALS

Model Ordinance

Article XIII – PROHIBITIONS

SECTION 1301. Prohibited Discharges and Connections

What you can connect to SWM

SECTION 1302. Roof Drains

Discharge to vegetated surface

SECTION 1303. Alteration of BMPs

Can't change BMP once approved

Model Ordinance

Article VIII - Fees and Expenses

Section 1401. General - review fees paid by applicant

Section 1402. Expenses Covered by Fees

- Administration, review, inspections, enforcement

Section 1403. Recording of Approved SWM Site Plan & Related Agreements

- SWM Site Plan
- O&M Agreement
- Easements
- Riparian buffers

Model Ordinance

Appendices

APPENDIX A – Operation And Maintenance Agreement

APPENDIX B – Low Impact Development Practices

APPENDIX C – Stormwater Management Design Criteria

APPENDIX D – Review Fee Reimbersement Agreement

APPENDIX E – Small Project Swm Plan Application

APPENDIX F – Release Rate Map

AGENDA

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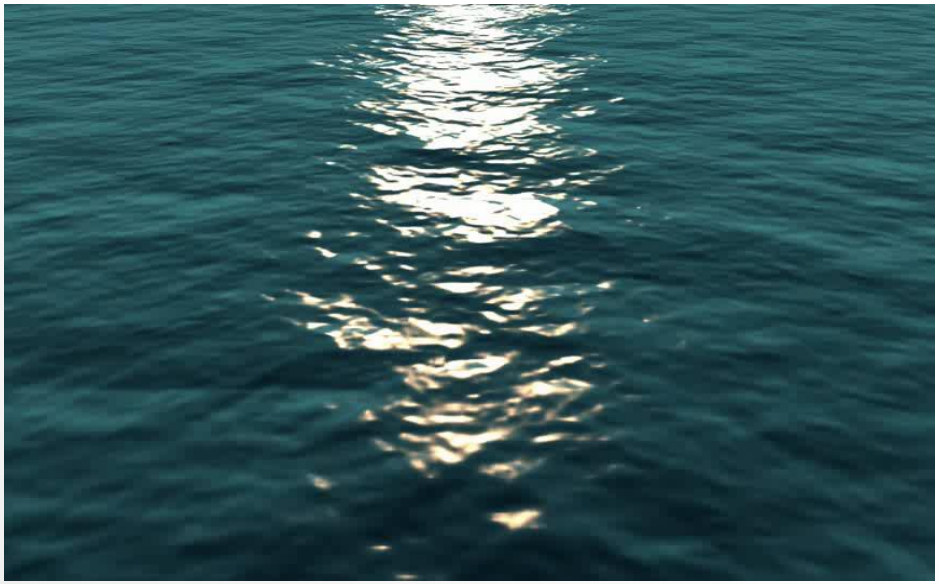
2. *Stormwater Ordinance*
3. **Ordinance Enforcement**
4. **MS4**



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IMPLEMENTATION

Models to consider:

MODEL	DESCRITION
Individual Municipal	Each municipality passes, implements, and enforces the SWM ordinance individually.
Multi-Municipal	Several municipalities cooperate through a new, or existing, service-sharing agreement (COG, Sewage Association, etc.)
County Service Provider	County department, or office, (e.g. County Planning Entity or County Conservation District) provides SWM ordinance implementation and enforcement services to municipalities.

IMPLEMENTATION - Administration

Information tracked:	• Project status • Construction & Post Construction Inspections • Enforcement Actions • Complaints • Completion
Plan Review	• Size threshold for plan review? • Pre-project meetings conducted with developer? • Engineering approval? • Criteria checklist used? • BMPs adequately incorporated into the plan to address erosion control, sediment control, housekeeping? • Design specifications & details for all BMPs included on the plans? • Standards conditions include E&S or stormwater provisions?

IMPLEMENTATION - Administration

Parcel Stormwater File

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SMALL PROJECT SWM PLAN

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Small Project SWM Plan

Simpler Process using Application

2,500 sf threshold for Documentation (could be for Volume Control)

[Municipality]

Small Project Stormwater Management Application

Per [municipality]'s Act 167 Stormwater Management Ordinance, a stormwater management plan is required whenever more than 2,500 square feet of impervious surface is 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.

To Calculate Impervious Surfaces Please Complete This Table					
Surface Type	**Length**	**X**	**Width**	**=**	**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		=	
Total Impervious Surface Area to be managed (sum of all areas)					

If the Total Impervious Surface Area is **LESS THAN 2,500 Square Feet**, a Stormwater Management Plan **IS NOT** required for this regulated activity. Please read, acknowledge and sign below.

If the Total Impervious Surface Area is **MORE THAN 2,500 Square Feet**, complete the rest of the Application.

Municipality] may request additional information and/or SWM for any reason.

Property Owner Acknowledges that submission of inaccurate information may result in a stop work order or 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 of [municipality] are granted access to the above described property for review and inspection as may be required.

Owner **Date:**

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Small Project SWM Plan

Reduce size of Surfaces that need treatment with no cost BMP's (Credits)

CREDITS

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	

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Small Project SWM Plan

Reduce size of BMP's with common, low cost BMP's

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 2" caliper and 6 feet tall (min).
- Trees shall be adequately protected during construction.
- Trees shall be maintained until redevelopment occurs.
- No more than 25% of the runoff volume can be mitigated through the use of trees.
- Dead trees shall be replaced within 6 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
- Arrow-wood, southern
- Box-elder
- Maple, (red or silver)
- Birch, (river or gray)
- Ironwood
- Hickory, sweet pignut or shag-bark
- Cedar, (Atlantic white or eastern red)
- Beech, American
- Ash, (white, black or green)
- Holly, American
- Tuliptree
- Sycamore, American
- Cotton-wood, eastern
- Aspen, big-tooth or quaking
- Cherry, black
- Oak, (white, swamp white, scarlet, pin, willow, red)
- Willow, black
- Bald Cypress
- Basswood, American
- Serviceberry, (downy or shadbush)
- Redbud, eastern
- Dogwood, flowering
- Magnolia, sweetbay
- Pine, (pitch or eastern white)

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Small Project SWM Plan

Documentation w/ O&M Agreement

Small Project SWM Plan Worksheet

Based upon the information you have provided a ***Stormwater Plan IS Required*** for this development activity. The Stormwater Management Ordinance developed through the *Erie County Act 167 Stormwater Management Plan* regulates compliance requirements for Stormwater Management in this jurisdiction. A complete copy of the *Plan* can be found on the Erie County Planning website.

Regulated activities shall be conducted only after [municipality] approves a stormwater management plan. The *Erie County Act 167 Stormwater Management Plan* will assist you in preparing the necessary information and plans for [municipality] to review and approve. **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.** If an alternative system is to be used a plan will need to be submitted to [municipality] 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 Control #1 Erosion & Sediment Pollution Control (Elements 1-10)
Minimum Control #2: Source Control of Pollution
Minimum Control #3: Preservation of Natural Drainage Systems and Outfalls

The relevant details from *Erie County Act 167 Stormwater Management Plan* will be installed in their entirety AND 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:**

- 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**

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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INSPECTIONS

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IMPLEMENTATION – Construction Inspection

Inspector Training/Knowledge

1. Is the inspector knowledgeable about:
   - Erosion and sediment control BMPs,
   - Stormwater/pollution prevention BMPs,
   - Legal authority (ordinances)?
2. Is the inspector familiar with the requirements in the State stormwater construction general permit?
3. What type of stormwater training did the inspector receive? When, and how often?

IMPLEMENTATION – Construction Inspection

Inspection Procedures

1. Is a checklist used during the inspection?
2. Is the inspector aware of previous stormwater inspection results at this site?
3. Does the inspector review the approved plans required to be at the construction site?
4. Does the inspector walk the entire site and inspect all points of discharge?
5. Does the inspection address:
   - E&S control
   - Waste management practices
   - Non-stormwater discharges?
6. Are inspection findings documented in writing and presented to the site contact?

IMPLEMENTATION – Construction Inspection

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FIELD OBSERVATION REPORT

Municipality: _____ Report Number: _____

Project: _____ HRG Project Number: _____

Owner: _____ Time Charge: _____

Property ID: _____ Date [Pick the date] Time: _____

Weather
☐ Clear ☐ Snow ☐ Warm
☐ Overcast ☐ Foggy ☐ Hot
☐ Rain ☐ Cold ☐ _____

Site Conditions
☐ Clear ☐ Dusty
☐ Muddy ☐ _____
☐ Temperature Range _____

Day
☐ Monday ☐ Thursday
☐ Tuesday ☐ Friday
☐ Wednesday ☐ _____

Reason for site visit: ☐ Routine Visit ☐ Contractor/Developer Request ☐ Municipality Request ☐

Contractor Company: _____ Phone: _____

Contact Person: _____ E-Mail: _____

Persons Contacted:

Work Force: **Equipment at Site**

Classification	[Contractor X]	[Contractor Y]	[Contractor Z]		
Supervisor					

Work Observed:

Items Discussed:

Nonconforming Work Reported this Date to Contractor:

Remarks:

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FIELD OBSERVATION REPORT

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Property ID: _____ Date [Pick the date] Time: _____

Weather
☐ Clear ☐ Snow ☐ Warm
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☐ Rain ☐ Cold ☐ _____

Site Conditions
☐ Clear ☐ Dusty
☐ Muddy ☐ _____
☐ Temperature Range _____

Day
☐ Monday ☐ Thursday
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Reason for site visit: ☐ Routine Visit ☐ Contractor/Developer Request ☐ Municipality Request ☐

Contractor Company: _____ Phone: _____

Contact Person: _____ E-Mail: _____

Persons Contacted:

Work Force: **Equipment at Site**

Classification	[Contractor X]	[Contractor Y]	[Contractor Z]		
Supervisor					

Work Observed:

Items Discussed:

Nonconforming Work Reported this Date to Contractor:

Remarks:

IMPLEMENTATION – Enforcement

FOLLOW THE ORDINANCE!

Municipality has the <u>duty</u> and right to enforce ordinance provisions

Operation

Plan Approval

Construction

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IMPLEMENTATION – Enforcement

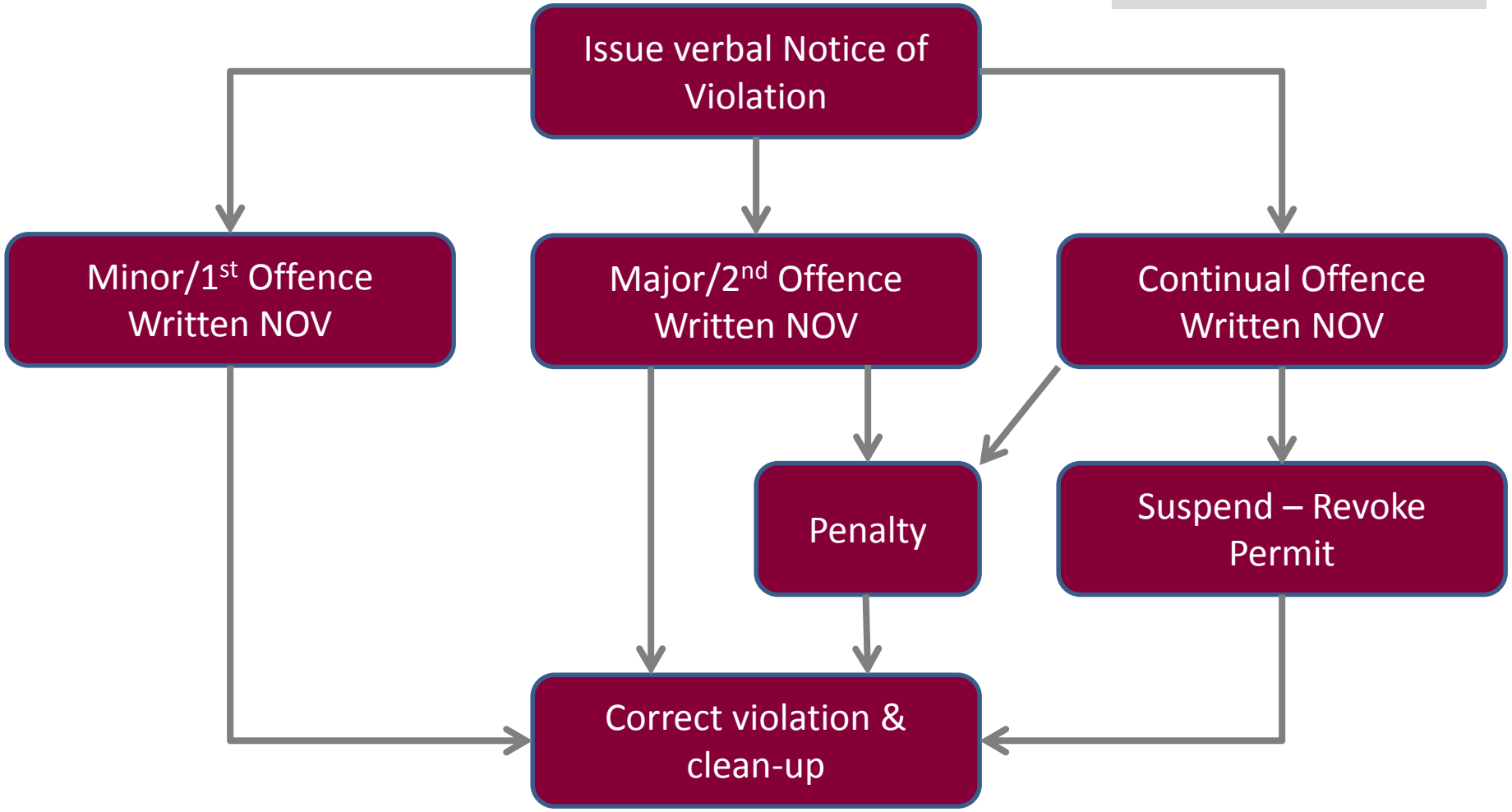
VIOLATIONS

Investigate reported or observed violations

1. Speak to person alleged to be in violation
2. Observe discharge area, storm drain system, surface waters
3. Take pictures
4. Obtain additional information
5. Explain findings to alleged violator
6. Document all findings in writing

IMPLEMENTATION – Enforcement

IF VIOLATION CONFIRMED



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IMPLEMENTATION – Enforcement

Notice of Violation

- Location of violation
- Description of each violation
- Enforcement Action and potential penalties
- Deadline to correct violation
- Suggest requiring a written response from violator

Suspension And Revocation

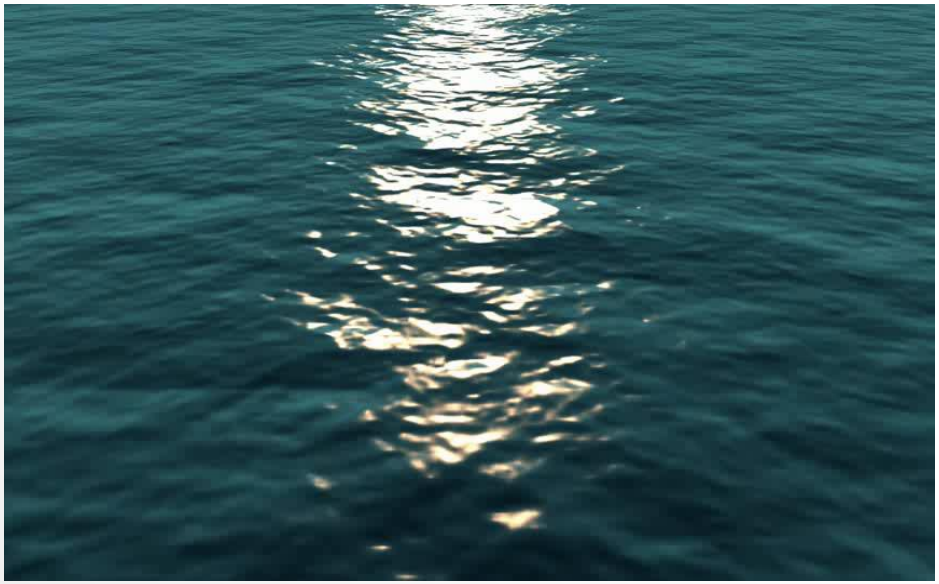
- Suspend for violation (can reinstate)
- Revoke = new approval

Appeals

- To Municipality within 30 days;
- Butler Court within 30 days

AGENDA

1. *Stormwater Regulations*
2. *Stormwater Ordinance*
3. *Ordinance Enforcement*
4. **MS4**



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MS4 – Minimum Control Measures

MCM #1 - Public Education and Outreach

MCM #2 - Public Involvement and Participation

MCM #3 - Illicit Discharge Detection and Elimination

MCM #4 - Construction Site Stormwater Runoff Control

MCM #5 - Post-Construction Stormwater Management in New and Re-Development Activities

MCM #6 - Pollution Prevention / Good Housekeeping

MCM #4: Construction Site Stormwater Runoff Control

BMP #1 – Develop your program consisting of all procedures necessary to comply with the requirements of this MCM.

BMP #2 – Enact, implement, and enforce an ordinance to require the implementation of erosion and sediment control BMPs, as well as sanctions to ensure compliance.

BMP #3 – Develop and implement requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality.

BMP #4 – Develop and implement procedures for the receipt and consideration of public inquiries, concerns, and information submitted by the public regarding local construction activities.

MCM #5 - Post-Construction Stormwater Management in New and Re-Development Activities

BMP #1 – Develop a written procedure that describes how the permittee will address all required components of this plan.

BMP #2 – Require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to the local community, that minimize water quality impacts, and that are designed to maintain predevelopment runoff conditions.

BMP #3 – Ensure that controls are installed that will prevent or minimize water quality impacts.

BMP #4 – The permittee should enact, implement, and enforce an ordinance or other regulatory mechanism to address PCSW runoff from new and re-development projects, as well as sanctions and penalties associated with non-compliance, to the extent allowable under state law.

BMP #5 - Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new and redevelopment. Measures also should be included to encourage retrofitting LID into existing development.

BMP #6 – Ensure adequate operation and maintenance of all postconstruction stormwater management BMPs installed at all qualifying development or redevelopment projects (including those owned or operated by the permittee).

IMPLEMENTATION – Construction Inspection

MCM #4 – CONSTRUCTION SITE SW RUNOFF CONTROL					Approval No.	Approval Date
☐ E/S Approval Obtained			☐ N/A			
☐ NPDES Permit Obtained			☐ N/A			
E/S BMPs Onsite:		**Date Installed**	**Properly Functioning**		**Comments**	
			Yes	**No**		
Inlet Protection	☐		☐	☐		
Silt Fence	☐		☐	☐		
Silt Sock	☐		☐	☐		
RCE	☐		☐	☐		
Sediment Basin	☐		☐	☐		
Sediment Trap	☐		☐	☐		
Truck Washout	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
MCM #5 – POST CONSTRUCTION SW (PCSM) ACTIVITIES						
PCSM BMPs Onsite:		**Date Installed**	**Properly Functioning**		**Comments**	
			Yes	**No**		
Swales	☐		☐	☐		
Rain Garden	☐		☐	☐		
Bio Retention	☐		☐	☐		
Detention Basin	☐		☐	☐		
Underground Basin	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
	☐		☐	☐		
Comments:						

☐Attachments

Signed by: Date:

Copies: ☐ Municipality ☐ Owner ☐ Contractor ☐ Consultants ☐ _____ ☐ _____ ☐ File

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MCM #4 – CONSTRUCTION SITE SW RUNOFF CONTROL				Approval No.	Approval Date
☐	E/S Approval Obtained	☐	N/A		
☐	NPDES Permit Obtained	☐	N/A		

E/S BMPs Onsite:		Date Installed	Properly Functioning		Comments
			Yes	No	
Inlet Protection	☐		☐	☐	
Silt Fence	☐		☐	☐	
Silt Sock	☐		☐	☐	
RCE	☐		☐	☐	
Sediment Basin	☐		☐	☐	
Sediment Trap	☐		☐	☐	
Truck Washout	☐		☐	☐	
	☐		☐	☐	
	☐		☐	☐	
	☐		☐	☐	
	☐		☐	☐	

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PCSM BMPs Onsite:		Date Installed	Properly Functioning		Comments
			Yes	No	
Swales	☐		☐	☐	
Rain Garden	☐		☐	☐	
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	☐		☐	☐	
	☐		☐	☐	
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	☐		☐	☐	
	☐		☐	☐	
	☐		☐	☐	
Comments:					

Questions

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