

## State of Maine Stormwater Program Overview

*Chapter 500 Steering Committee Meeting 12/5/2023*  Kerem Gungor, P.E. Senior Environmental Engineer Stormwater Engineering Team Bureau of Land Resources

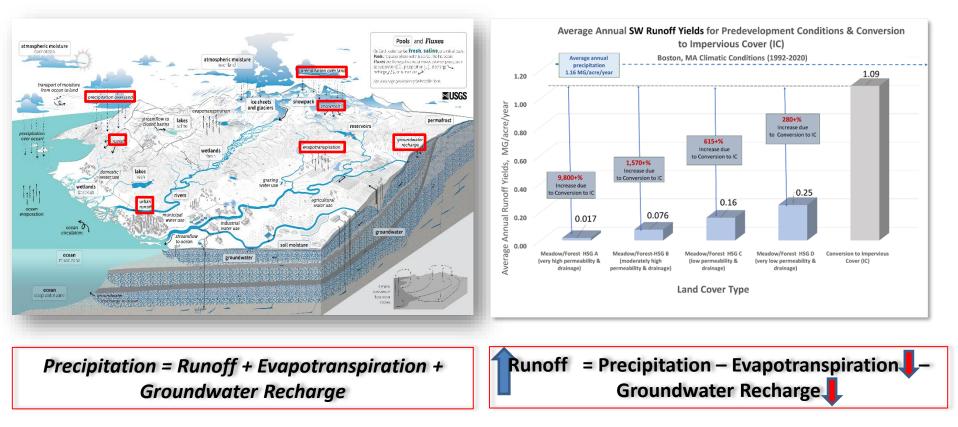
### MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

Protecting Maine's Air, Land and Water

# Outline

- Why Do We Regulate Stormwater?
- Key Definitions (Chapter 500)
- DEP Structure
- DEP Stormwater Programs: State vs. Federally Delegated
- BLR Stormwater Program
  - Background
  - Important Components: Technical Guidance, Transportation MOA, Municipal Capacity & Delegation
  - Licensing Workflow
  - Interoperation of MCGP & Chapter 500 Programs & New MCGP
  - Chapter 500 Program Permits & Historic Data
  - Chapter 500 502 Overview
  - Chapter 500 Standards
  - Post-construction Stormwater BMPs
  - Post Permitting Standard Conditions on Stormwater Maintenance
- 2023-2024 Stakeholder Engagement: Goals, Scope, Organization and Schedule

# The Water Cycle & Budget

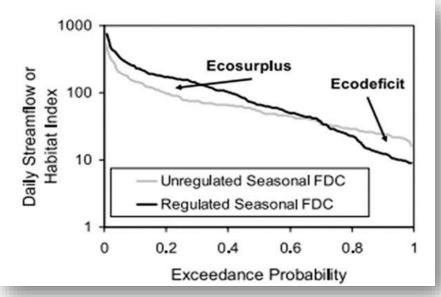


Reference: USGS. The Water Cycle Diagram: Water Cycle Diagrams | U.S. Geological Survey (usgs.gov)

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Pre-versus Post-development Hydrology**

In-stream Flow Duration Curve (FDC):

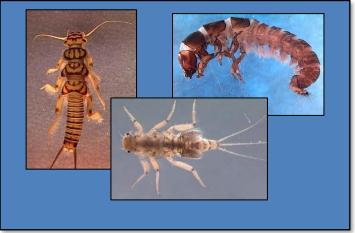


Unregulated Seasonal FDC: Undeveloped watershed FDC Regulated Seasonal FDC: Developed watershed FDC

- Ecosurplus: Increased probability of high in-stream flows → flooding, negative impact on stream channel and aquatic biota
- Ecodeficit: Increased probability of low in-stream flows → drought, negative impact on aquatic biota

Reference: Holistic Watershed Management for Existing and Future Land Use Development Activities: Opportunities for Action for Local Decision Makers: Modeling and Development of Flow Duration Curves (FDC 1 and 2 Projects) | US EPA





## **Stormwater Pollutants & Water Quality**



MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION



**Disturbed Area** 

Developed

Area

 the part of precipitation, including runoff from rain or melting ice and snow, that flows across the surface as sheet flow, shallow concentrated flow, or in drainageways.

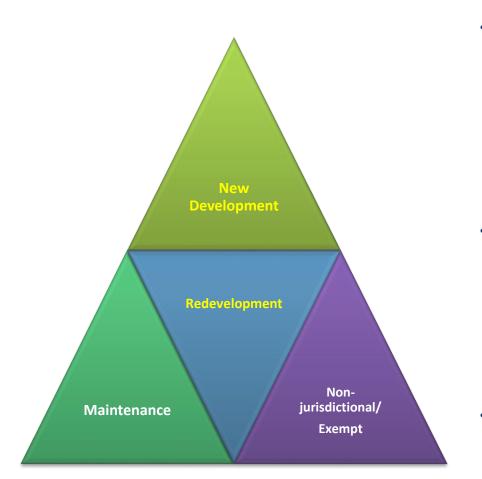
**Disturbed Area:** 

- all land areas that are stripped, graded, grubbed, filled, bulldozed or excavated at any time during the site preparation or removal of vegetation for, or construction of, a project. "Disturbed area" does not include maintenance. A land area on which the cutting of trees, without grubbing, stump removal, disturbance or exposure of soil has taken place is not considered a "disturbed area".



the total area of a parcel covered with a low-permeability material that is highly resistant to infiltration by water, such as asphalt, concrete, or rooftop, and areas such as gravel roads and unpaved parking areas that will be compacted through design or use to reduce their permeability [...]

an area of land that has been disturbed and re-planted or covered with one or more of the following: grass or other herbaceous plants, shrubs, trees, or mulch; but not including area that has reverted to a natural, vegetated condition. An area of grass is considered landscaped if it is mowed more than twice per twelve month period. an impervious area, landscaped area, or unrevegetated area. Developed area includes all disturbed areas except an area that is returned to a condition that existed prior to the disturbance and is revegetated within one calendar year of being disturbed, provided the area is not mowed more than twice per year.



#### Maintenance:

 an activity undertaken to maintain operating condition, original line and grade, footprint, and original purpose of the project. Paving an impervious gravel surface at original line and grade is considered maintenance. Activities that alter existing stormwater conveyance structures and reduce their hydraulic capacity are not considered maintenance. Replacement of a building is not considered maintenance of the building.

#### Redevelopment:

 an activity, not including maintenance, undertaken to redevelop or otherwise improve property in which the newly developed area, is located within the same footprint as the existing developed area. A minor amount of undeveloped land, as determined by the Department on a case-by-case basis, may be included within the perimeter of the existing developed area.

#### New Development:

 activity undertaken to develop property, including but not limited to: the construction of buildings, parking lots, roads and other new impervious surfaces; landscaping; and other activities that disturb land areas. New development or construction does not include redevelopment or maintenance.

### MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### • Low Impact Development (LID) or Green Infrastructure:

site planning and design strategies intended to replace or replicate predevelopment hydrology through the use of source control and relatively small-scale measures integrated throughout a site to disconnect impervious surfaces and enhance treatment and management of stormwater runoff as close to its source as possible. Low impact development strategies may be either nonstructural or structural, except that low impact development strategies utilizing structural stormwater management techniques shall be limited to an impervious contributing drainage area equal to or less than 1 acre. Low impact development strategies include, but are not limited to: bioretention filters, grass swales and channels, vegetated filter strips, permeable pavements, rain gardens, and vegetated rooftops.

#### • Infiltration:

 the process by which runoff percolates through the unsaturated overburden and fractured bedrock to the water table, including any process specifically used to meet all or part of the stormwater standards of this Chapter by actively directing all or part of the stormwater into the soil. For the purposes of this Chapter, infiltration does not include:

(1) Incidental wetting of soil in ditches, detention basins or the equivalent;

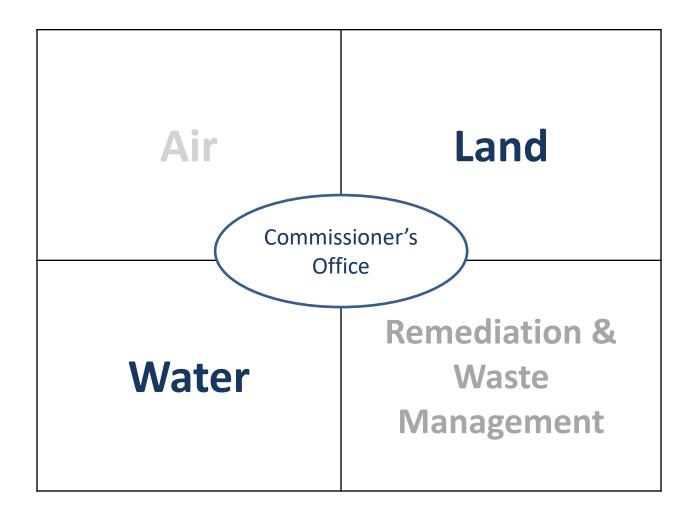
(2) Wetting of underdrained basins, dry swales, or similar filtration systems that do not subsequently discharge to groundwater; or

(3) Wetting of buffers meeting Department requirements for use as stormwater control.

Discharge of runoff to areas of the site where the water will collect and percolate into the ground is considered infiltration if the volume, rate, or quality of the discharge does not meet Department standards for use of the area as a stormwater treatment buffer. Underdrained swales, underdrained ponds, and similar practices that discharge to surface waters or to buffer strips meeting Department requirements in Appendix F of this Chapter for stormwater buffers are not considered infiltration systems, although these may be used to treat runoff prior to discharge to an infiltration area.

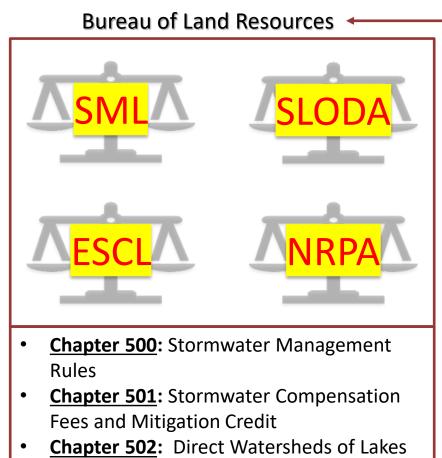
## MA

# **DEP Organizational Structure**



MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Stormwater Programs: State vs. Federally Delegated**



State Laws

Rules

Most at Risk from New Development and Urban Impaired Streams

<u>Acronyms</u>: Stormwater Management Law (SML); Site Location of Development Act (SLODA); Erosion and Sedimentation Control Law (ESCL); Natural Resources Protection Act (NRPA) ; Clean Water Act (CWA) **Bureau of Water Quality** 



National Pollutant Discharge Elimination System

- <u>Municipal Separate Storm Sewer System</u>
   <u>(MS4)</u>: Municipal, Transportation, State or Federally Owned General Permits
  - Multi-sector General Permit (MSGP)
  - <u>Post-construction Discharge of</u>
     <u>Stormwater in the Long Creek Watershed:</u> General Permit under EPA's residual designation authority
- <u>Maine Construction General Permit</u>
   (MCGP)

## Land Bureau Stormwater Program

Site Law

Stormwater Quantity (Peak Flow)
 Control



#### Phosphorus

 Stormwater Phosphorus Control for Lake Watersheds



Stormwater Management Law

 <u>First Chapter 500</u>: Sliding scale for "Total Suspended Solids" removal



- Major revisions: Performance based standards replaced the sliding scale.
- No pollutant removal target except for phosphorus (i.e., phosphorus standard)
- Five-year recertification requirement was introduced.

## 2015

### Chapter 500 Revision & New Chapter 501

- "Compensation & Mitigation Credit" removed from Chapter 500. A new stand-alone chapter, Chapter 501, was created to include the revised compensation & mitigation credit rules.
- •New "General Standards" provisions increasing the flexibility for meeting the stormwater treatment requirements:
  - •A new low impact development (LID) credit is introduced: eligible projects can use the credit to reduce the developed area requiring treatment by 10-20%
  - •A method for calculating the treatment requirement of redevelopment projects was introduced
  - •Treatment as low as 75% of the developed and 90% of the impervious area can be allowed based on the size of the proposed development with respect to the developable area,
  - •A road crossing a wetland is not required to meet the general standards provided its design allows flow passage,
  - •Runoff from sloped, non-asphalt roofs of non-industrial facilities need to be treated for thermal impact and for channel protection only.
- •Infiltration Systems (Appendix D): The Department may require
  - Groundwater quality monitoring to determine the effectiveness of any infiltration system,
  - A "mounding analysis" demonstrating that the water table will be below the bottom of an infiltration system within 48 hours after the end of a storm event.
- •Sensitive Watersheds:
  - Permittees may be required to hire a department-approved inspector to oversee construction projects in the watersheds of lakes most at risk or urban impaired streams.

## BLR Stormwater Program: Major Technical Guidance Documents





Maine ESC Practices Field Guide for Contractors (Abridged ESC Manual) Maine ESC Best Management Practices Manual for Designers and Engineers Maine Stormwater Best Management Practices Manual (Three Volumes)

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Transportation Memorandum of Agreement (MOA)**

- Stormwater management of MTA and MaineDOT projects is handled through the MOA between pursuant to the Stormwater Management Law:
  - MOA for Stormwater Management between the MaineDOT, MTA, and Maine DEP
- MaineDOT and MTA design stormwater management systems per the MOA and their SWMP through consultation with SET (DEP BLR)
- MaineDOT and MTA submit annual MOA reports to BLR and they also have SLODA general permits.

Year 2022 MOA Reports	
Transportation Agency	Projects Undergoing Construction in 2022 With Post-construction BMPs
MTA	<ul> <li>Exit 45 (Scarborough and South Portland)</li> <li>Portland Area Widening &amp; Safety Improvements Phase I and II</li> </ul>
MaineDOT	<ul> <li>Brewer-Eddington I395-Rte. 9 Connector</li> <li>Two I295 Bridges in Freeport</li> </ul>

MOA Full Text: https://www.maine.gov/mdot/env/documents/2017 MOA 06-2017.pdf

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Municipal Capacity & Delegation**

#### A. Site Location of Development Act (SLODA)

		_			
Subsection Name in the Law	Subsection in the Law		Type of Development	# of Municipalities	
Municipal Capacity*	§488(19)	• Cert subc	10 acres of structure (impervious area) ain residential single-family ivisions: 15 or more lots, aggregate from 30 acres up to and including 100 s	10	
Municipal Review of Development**	§489-A	• Cert	10 acres of structure (impervious area) ain subdivisions: more than 20 and less 100 acres	6	
B. Stormwater Management La	B. Stormwater Management Law (SML)				
Exemptions***	§420- D(7)(C)	• Any	development requiring SML permit	7	
*: Site Capacity; **: Delegated Site; ***: Stormwater Capacity					
Full list is available from https://www.maine.gov/dep/land/sitelaw/delegated-authority.pdf					
Stormwater Management Plan Technical Review					
Authorized to Review Stormwater Management Plants Submitted with SML and SLODA Applications under the Memorandum of Understanding*					
Cumberland County Soil Water Conservation District Oxford County Soil Water Conservation District					
*: in lieu the DEP BLR in-house technical review by the Stormwater Engineering Team.					

## **BLR Stormwater Licensing Workflow**

### **Pre-application**

- Meetings
- Communication



**Application** 

• Review

Approval



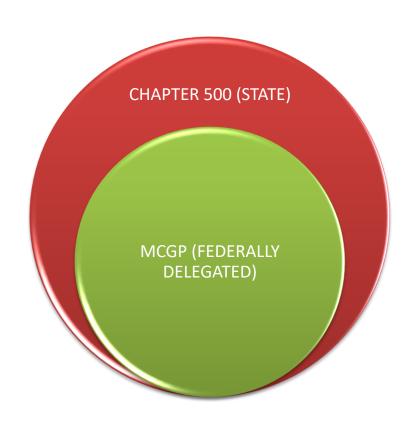
### Compliance & Enforcement

- Inspection
- Documentation



MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Interoperation of MCGP and Chapter 500 Programs



	MCGP	Chapter 500 (SML & SLODA)	
Jurisdictional Threshold	Disturb one or more acres of soil		
Stormwater Management Focus	Construction	Construction & Post-construction	
Submission	NOI ESC Plan NOT	Stormwater Management Plan Including ESC Plan	
Common Standards	<ul> <li>ESC (Appendix A)</li> <li>Inspection &amp; Maintenance (Appendix B)</li> <li>Housekeeping (Appendix C)</li> </ul>		

#### Acronyms:

Notice of Intent (NOI), ESC (Erosion and Sedimentation Control), Notice of Termination (NOT)

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

# **New MCGP**

- MCGP expired on 1/20/2008 and was administratively continued.
- The BLR is working to issue a new MCGP.
- The new MCGP will have a new appendix addressing the "large construction" activities disturbing five or more acres.



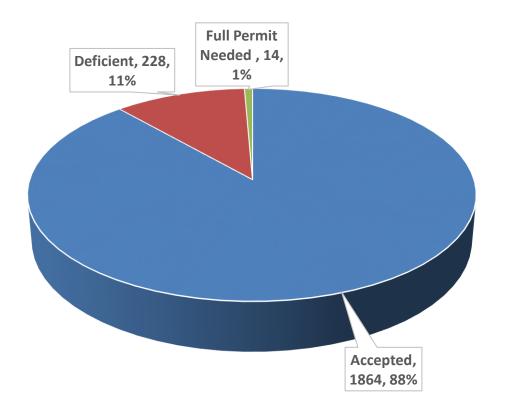
## **Chapter 500 Program Permits**

	NO DEF Fermit Required if Soli Disturbance Cone Acre:				
	Permit Type	Jurisdictional Threshold	DEP Review By	Applicable Standard(s)	Example
Application Review Time Application Review Time Application Review Time Application Review Time Stormwater Permit Stormwater Permit-By- Rule (PBR) BLR: Bureau of Land Resources LMAR: Lake most at risk from new development (Chapter 502)	Stormwater PBR	< 20,000 sf impervious (LMAR, UIS) < One acre impervious (other watersheds)	BLR Field Services Staff	Only Basic (Mainly Construction ESC, No Post- construction Stormwater Standard)	A 19.9-acre solar array project meeting
	Full Stormwater	<ul> <li>≥ 20,000 sf</li> <li>impervious</li> <li>(LMAR, UIS)</li> <li>≥ One acre</li> <li>impervious</li> <li>(other</li> <li>watersheds)</li> </ul>	BLR Stormwater Engineering Team (SET)	Basic, General (Phosphorus )	impervious area requiremen ts
	Site Law	<ul> <li>≥ Three acres</li> <li>impervious</li> <li>≥ 20 acres</li> <li>project area*</li> </ul>	BLR SET	Basic, General (Phosphorus , UIS), Flooding	A 20.1-acre solar array project regardless its impervious area

#### No DEP Permit Required if Soil Disturbance < One Acre!

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

# PBR Data (Jan. 2006-Dec. 2022)



#### Accepted Deficient Full Permit Needed

- Stormwater PBR is available since the Chapter 500 revision in 2005,
- Processing time is 14 days,
- Average PBR application for 2006-2022 → 132 per year.

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

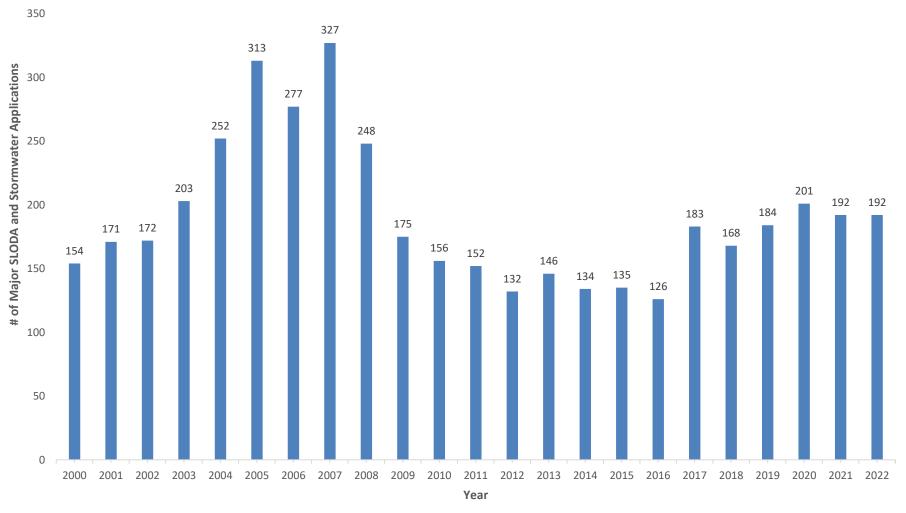
## **Permit Application Types**

#### Application Tracking System (ATS) Data for the Period of 1/1/2000-8/16/2023

Activity Description	Activity Code	SML	SLODA	
New Application	N	<mark>1,966</mark>	<mark>1,000</mark>	
Minor Revision	М	403	2,589	
Amendment	A	<mark>155</mark>	<mark>522</mark>	
Minor Amendment	В	15	<mark>926</mark>	
Condition Compliance	С	24	712	
Notification of Project in Delegated Authority Town	D	8	525	
Transfer	т	144	559	
Appeal	Z	4	22	
<b>Total</b> 2,719 6,857				
Annual Average $\approx 120$ $\approx 300$				
Activities that create significant developed area are highlighted.				

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

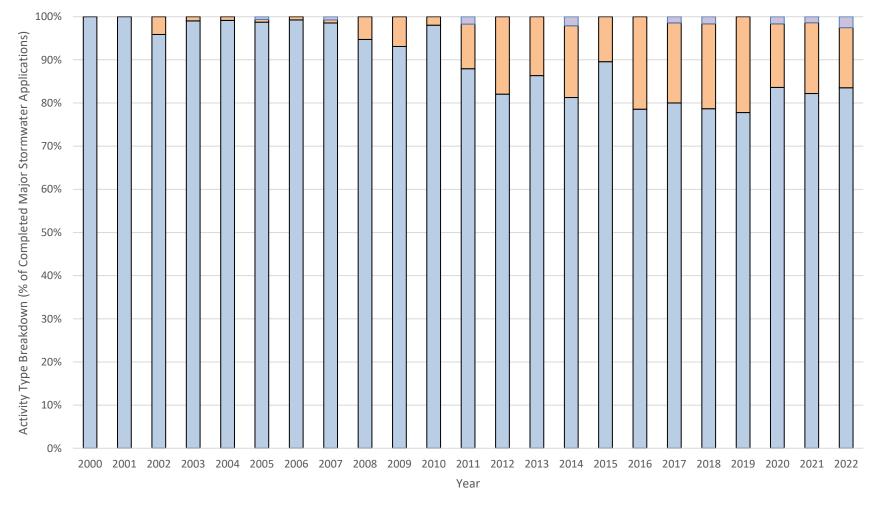
## **Completed Major SML & SLODA Applications**



Major Application = New Application (N) + Minor Amendment (B) + Amendment (A)

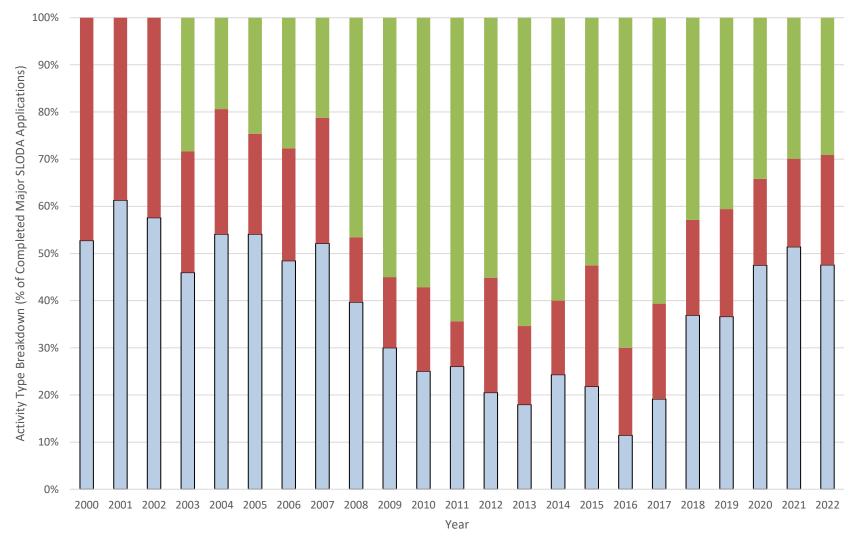
MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Completed SML Applications: New vs. Amendment**



■ New Application ■ Amendment (A) ■ Minor Amendment (B)

## **Completed SLODA Applications: New vs. Amendment**



New Application (N) Arr

Amendment (A) Minor Amendment (B)

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Top 20 Towns: SLODA & SML Applications (2000-2022)

• **43%** of the SLODA & SML applications completed for the regulated activities were in **20** towns.

Town	MS4	Total SLODA	Total SML	Total SLODA and SML
		Application	Application	Application
BANGOR	MS4	5.56%	3.31%	4.95%
SCARBOROUGH	MS4	3.77%	5.42%	4.22%
AUGUSTA		2.89%	1.67%	2.56%
SOUTH PORTLAND	MS4	2.95%	1.45%	2.55%
GORHAM	MS4	2.13%	2.56%	2.25%
WELLS		2.12%	2.56%	2.24%
PORTLAND	MS4	2.81%	0.44%	2.16%
BRUNSWICK		2.10%	2.20%	2.13%
SACO	MS4	2.63%	0.26%	1.98%
WINDHAM	MS4	1.25%	3.26%	1.79%
SANFORD		1.43%	2.60%	1.75%
WESTBROOK	MS4	1.85%	1.45%	1.75%
AUBURN	MS4	1.87%	1.37%	1.73%
FALMOUTH	MS4	1.64%	1.94%	1.72%
NEWRY		2.26%	0.09%	1.67%
KITTERY	MS4	1.81%	1.10%	1.61%
LEWISTON	MS4	1.81%	0.97%	1.58%
WATERVILLE		1.84%	0.84%	1.57%
BIDDEFORD	MS4	1.49%	1.72%	1.55%
ORONO	MS4	1.89%	0.31%	1.46%

### MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Chapter 500 - 502 Overview**

Chapter 500	Chapter 501	Chapter 502
Stormwater Management Rules	Stormwater Management Compensation Fees and Mitigation Credit	Direct Watersheds of Lakes Most at Risk from New Development, and Urban Impaired Streams
17	3	3
<ul> <li>Definitions</li> <li>Stormwater Standards</li> <li>Stormwater PBR</li> <li>Submissions &amp; Preapplication Meetings</li> <li>Standard Conditions of Approval</li> </ul>	<ul> <li>Definitions</li> <li>Mitigation through Compensation Fees or Projects: UIS, Lake, and Other Watersheds</li> </ul>	<ul> <li>Criteria: Lakes Most at Risk from New Development, Urban Impaired Streams</li> </ul>
8	1	2
73	16	7
8/12/2015	5/22/2016	5/23/2018
	Rules 17 • Definitions • Stormwater Standards • Stormwater PBR • Submissions & Pre- application Meetings • Standard Conditions of Approval 8 73	RulesCompensation Fees and Mitigation Credit173• Definitions• Definitions• Stormwater Standards • Stormwater PBR • Submissions & Pre- application Meetings • Standard Conditions of Approval• Definitions • Mitigation through Compensation Fees or Projects: UIS, Lake, and Other Watersheds817316

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Chapter 500 Standards: Level of Control**

Level of Control for Stormwater Management			
Level of Control	Chapter 500 Standards		
Groundwater Recharge and Evapotranspiration	Not Provided		
General Water Quality Phosphorus Urban Impaired Stream			
Channel Protection General			
Large and Infrequent Storms Flooding			
Reference: Design of Urban Stormwater Controls. 2012. WEF Manual of Practice No. 23 & ASCE/EWRI Manuals & Reports on Engineering Practice No. 87			

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Chapter 500 Standards (Section 4)**

### Basic

### Section 4(B) $\rightarrow$ Appendices A thru C

- Appendix A: Erosion and Sedimentation Control (Construction)
- Appendix B: Inspection and Maintenance (Construction and Post-construction)
- Appendix C: Housekeeping (Spill Prevention, Groundwater Protection, Debris, Excavation Dewatering, Authorized & Unauthorized Discharges)
- Technical Guidance: Maine ESC BMP Manual

General

Section 4(C)  $\rightarrow$  Appendices D thru G

- Minimum treatment level must be met for the impervious and/or developed areas
- Allowable stormwater treatment measures (or BMPs) must be used: wetpond, vegetated soil filter, infiltration, buffers, innovative treatment measures
- Technical Guidance: Maine Stormwater BMP Manual Volume III

### Phosphorus

Section 4(D)  $\rightarrow$  Maine Stormwater BMP Manual Volume II

- Projects in lake watersheds ("Lakes Most at Risk from New Development" in Chapter 502) must meet its "Project Phosphorus Budget"
- Compensation option is available if certain conditions are met (Chapter 501)

## **Chapter 500 Standards (Section 4)**

## Flooding

Section 4(F)  $\rightarrow$  Appendix H

- Post-development peak flows cannot exceed pre-development peak flows for the 2-, 10-, and 25-year 24-h storms
- Hydraulic capacity standard for the stormwater conveyance (10-year 24-h storm)
- Flooding considerations for structures, roads, and downstream properties (10- and 25-year 24-h storms)
- Appendix H: 24-hour Duration Rainfalls for Various Return Periods
- Technical Guidance: Maine ESC BMP Manual Volume III

Urban Impaired	
Stream	Section 4(E) $\rightarrow$ Chapter 501

• In addition to the other applicable standards, compensation or mitigation is required for SLODA projects in the direct watersheds of the Urban Impaired Streams listed in Chapter 502.

Discharge to	
Wetlands	Section 4(I)

• Mean storage depth of a wetland cannot be increased more than 2 inches above pre-development level for more than 24 hours from the end of a 2-year storm event.

## **Chapter 500 Standards (Section 4)**

Easements & Deed **Restrictions** 

Section 4(G)  $\rightarrow$  Appendix G

- Easement is required if a project affects the following in a downstream property not owned by the applicant:
  - The flow type changes (sheet  $\rightarrow$  channel),
  - The flow channel changes,
  - The flow causes or increases flooding.
- Stormwater buffers must be protected with deed restrictions.

**Redistribution of** Stormwater Discharges Section 4(H)

- If project discharges to a point that is not an impoundment or storm conveyance, the concentrated flow must be converted to sheet flow by a properly designed level spreader:
- 10-year 24-h storm peak flow rate to level spreader must be less than 0.25 cfs per level spreader lip.

**Discharges to Public** Storm Sewer Systems

Section 4(J)

• If a project flows into a publicly-owned storm sewer system, the applicant must obtain authorization from the owner of this system.

## **Post-construction Stormwater BMPs: Main Objectives**

- Effective pollutant removal: BMPs must effectively remove the fine particles that carry much of the nutrient and heavy metal load, as well as dissolved pollutants, and hydrocarbons.
- **Cooling:** BMPs discharging within a river, stream, or brook watershed must effectively cool down (22°C or cooler) stormwater runoff before its discharge to protect aquatic life. This may also be accomplished through measures that avoid heating the stormwater.
- Channel protection: BMPs discharging within a river, stream, or brook watershed must slowly release the discharge to avoid the destabilization and resulting sedimentation of receiving stream channels. This can also be accomplished through site planning and operation that minimizes the volume and rate of discharge of stormwater by minimizing impervious area, maximizing infiltration and evapotranspiration, and maximizing time of concentration of storm flows.
- Flood control: Traditional flood control detention for large, infrequent storms will be necessary for some large sites to avoid the flooding of downstream infrastructure.

Reference: Maine Stormwater BMP Manual Volume III Chapter 1

## **Post-construction Stormwater BMPs**



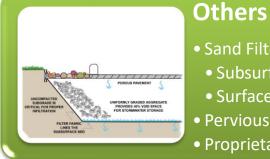
### Vegetated

- Buffers: Meadow, Forested (Vegetative)
- Filters: Grassed Underdrained Soil Filter, Bioretention Filter (Structural)
- Gravel Wetland (Structural)
- Vegetated Roof (Structural)



#### **Basins**

- Surface: Wetpond, Dry Detention Basin (Only for Peak Flow Control)
- Subsurface: Pre-fabricated Storage Structures

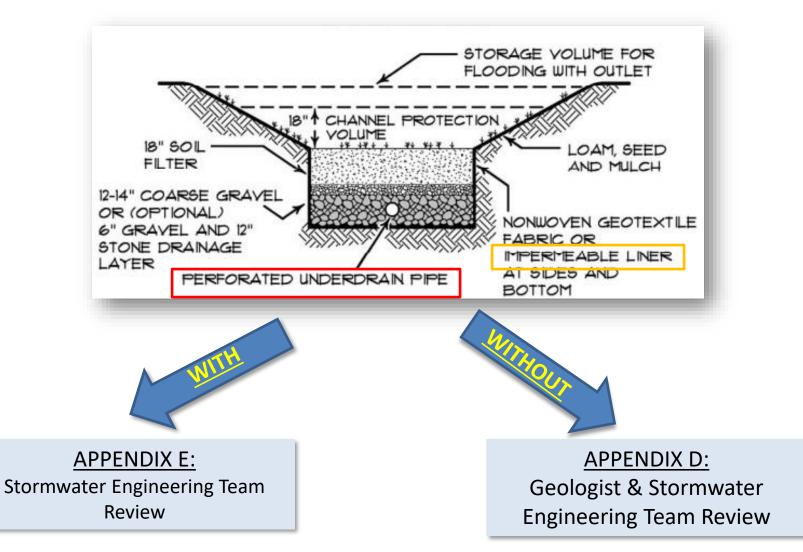


### • Sand Filter:

- Subsurface Application: Combined with Pre-fabricated Storage Structures
- Surface Application: Dripline Filter
- Pervious Pavement
- Proprietary BMPs Approved by the Department

### MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Infiltration



MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

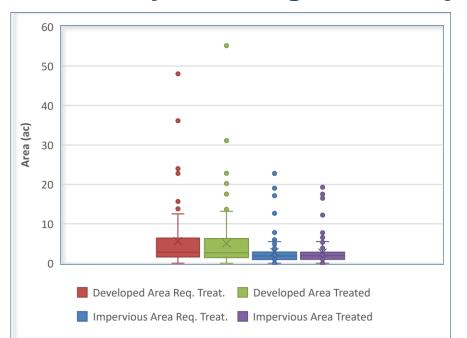
## Breakdown of the Post-construction BMPs in the Recent Projects

#### Projects Reviewed by SET (Spring 2022-November 2023).

Treatment Measure	Number of Projects Using the Treatment Measure
Roadside Buffer	14
Buffer without Level Spreader	11
Buffer with Level Spreader	19
Grassed Underdrain Soil Filter	46
Bioretention Filter	10
Wetpond	12
Subsurface Sand Filter	11
Porous Pavement	5
Proprietary	7
Infiltration	6
Gravel Wetland	4
Dripline Filter	15
Only Buffer	12
Only Structural	33

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

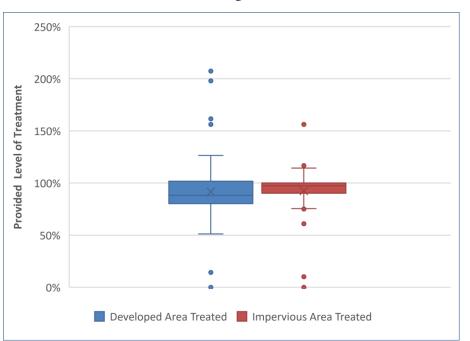
## **Key Area Figures: Projects Reviewed by SET**



	Number of Projects	Range* (acres)	Median (acres)
DART	93	0-12.5	2.8
DAT	93	0-13.2	2.7
IART	89	0-5.5	1.9
IAT	89	0-5.5	1.9

\*: Outliers Excluded

DART: Developed Area Requiring Treatment (DART); Developed Area Treated (DAT); Impervious Area Requiring Treatment (IART); Impervious Area Treated (IAT)



	Number of Projects	Range* (%)	Median (%)
DAT	90	51-207	88
IAT	84	75-114	97
*: Outliers Excluded Developed Area Treated (DAT); Impervious Area Treated (IAT)			

### MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

### **Post Permitting: Continuous Maintenance Standard Conditions**

#### L-30213-NJ-A-N

6 of 6

be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

(7) Maintenance. The components of the stomwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.

(8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.

(b) All aspects of the stomwater control system are operating as approved, have been inspected for damage, wear, and malfinction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.

(c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.

(d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.

(e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.

(9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be included must be included by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions their removal or modification is approved by the Department, and must be include the same restrictions must be written to be enforceable by the Department, and must reference the permit number.

(10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

November 16, 2005 (revised August 15, 2015)

Sample Standard Conditions Page from a Recent SML Permit

 Every SML and SLODA permit comes with the standard conditions regarding the <u>maintenance</u> of the stormwater management system approved by the permit:

#### Maintenance:

"The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department.

If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity."

(Five-year) Recertification Requirement

## **Five-year Recertification Standard Condition**

## **1. Review your License**

## 2. Walk the project site

- Are there bare spots, areas with sparse vegetation growth? Is there rill erosion, slumping?
- Take representative photos during the inspection

# 3. Inspect all aspects of the stormwater control system:

 Structures and measures that capture, convey, and treat the stormwater within the project site. 8226 Hannaford Buxton



Bank erosion in spillway



https://www.maine.gov/dep/land/stormwater/stormwaterbmps/five-year-recertification.html



## **2023-2024 Stakeholder Engagement for Improved Stormwater Regulations for Maine**



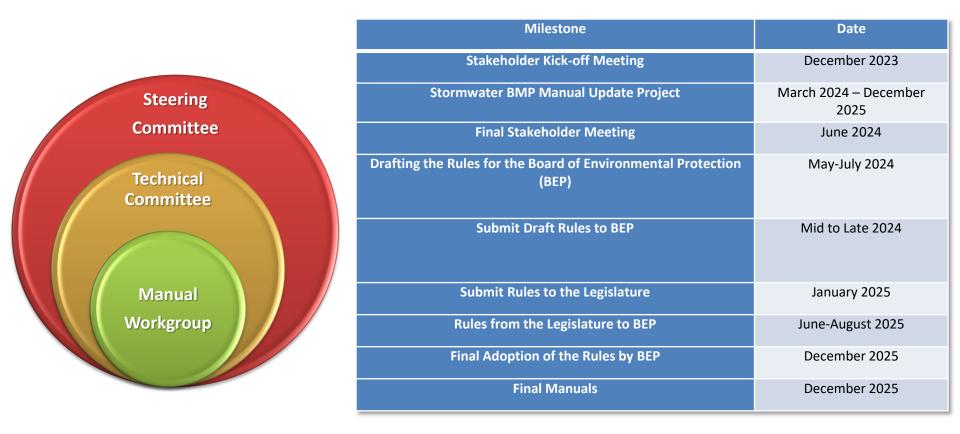
MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

# **Goals & Scope**

- Promote Low Impact Development (LID)
- Address Climate Adaptation & Resiliency
- Streamline Rules (Improve Day-to-day Implementation)
- Incorporation of new LID standards into Chapter 500:
  - Balance between MS4 and non-MS4 communities (rural vs. urban)
  - Consider watershed-specific development trends and stormwater stressors
- Improving Chapter 500 standards for climate adaptation and resiliency of stormwater infrastructure:
  - Consider Maine Climate Council's Recommendations
- Consistency between Chapter 500 and the Maine Construction General Permit (MCGP):
  - MCGP will be issued before Chapter 500 rulemaking is completed
- Update Stormwater BMP Manual
  - Retain a contractor through RFP process (RFP Preparation Underway)

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

# **Organization & Schedule**



MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

## **Inclusive Stakeholder Engagement**



For Questions, Comments, and Feedback: <u>Chapter500.DEP@maine.gov</u>

To Receive Regular Updates & Information on the Upcoming Meetings and Activities, Send a Request to Subscriber to the ListServe: <u>Chapter500.DEP@maine.gov</u>

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION