State of Maine Stormwater Regulations: Overview

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Commission to Study Unmanaged Storm Water Pollution Committee Meeting
9/9/2026

Outline

- Stormwater Regulatory Scope
- DEP Stormwater Programs
- Stormwater Management Law & Site Law
- Stormwater Management Rules (Chapter 500)

Point versus Nonpoint

- **Point Source:** Stormwater discharge can be attributed to a discrete point
  - Example: urban stormwater from land development projects, storm sewer outfalls

- **Nonpoint Source:** Runoff is diffused and does not have a discrete point of discharge
  - Example: Agricultural fields, rural development

↳ there are some incentive progs.

- **Regulatory focus is on the point sources of stormwater which are primarily associated with urban areas**

Stormwater Programs: State vs. Federally Delegated

Bureau of Land Resources

State Laws

Rules

- **Chapter 500:** Stormwater Management Rules
- **Chapter 501:** Stormwater Compensation Fees and Mitigation Credit
- **Chapter 502:** Direct Watersheds of Lakes Most at Risk from New Development and Urban Impaired Streams

Acronyms: Stormwater Management Law (SML); Site Location of Development Act (SLODA); Erosion and Sedimentation Control Law (ESCL); Clean Water Act (CWA)

Bureau of Water Quality

National Pollutant Discharge Elimination System

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

State Stormwater Regulatory Milestones

1970 Site Location of Development Act (aka Site Law)

- Stormwater Quantity (Peak Flow) Control => Concern was drainage not concerned @ storms

1980 Phosphorus

- Stormwater Phosphorus Control for Lake Watersheds - 1st DEP to reg. stmwtr pollutant

1997 Stormwater Management Law

- *First Chapter 500*: Sliding scale for "Total Suspended Solids" removal - more modern SW mgt.

Overview of Key Legislation

- **Stormwater Management Law** (Key Legis.)
- **Site Location of Development Act**

Stormwater Management Law Summary

- The law only applies to Maine's organized area

- Sets jurisdictional threshold ≥ one acre of disturbed area

- Mandates stormwater quality and quantity control standards:
  - Stormwater Management Law Permits
  - Chapter 500

Stormwater Management Law Exemptions

- Certain activities are exempted from Stormwater Law permit requirements
  - Forest management
  - Farming
  - Single-family, detached residences
  - MaineDOT & Maine Turnpike projects
  - Trails and trail management
  - Activities in municipalities with stormwater ordinances meeting or exceeding Chapter 500 standards

SLODA Summary

- Regulates developments which may have substantial effect upon the environment.

- Applies statewide.

- Jurisdictional thresholds:
  - >3 acres of structure (impervious area),
  - >20 acres of occupied area, or
  - Subdivision as defined in SLODA

SLODA Standards: Stormwater

- Stormwater management is one of the SLODA standards
  - SLODA mainly refers to the Stormwater Management Law

- Chapter 500 applies to projects requiring SLODA permit

Understanding Jurisdictional Areas

Cumulative Approach

- Jurisdictional area is determined using set dates for Stormwater Law or SLODA permitting purposes.

  Generally,
  - Pre-1970: non-jurisdictional for SLODA (grandfathered)
  - Pre-2005: non-jurisdictional for Stormwater Law (grandfathered)

- Gradual expansion of a development in a parcel may amount to sufficient jurisdictional area triggering permitting requirements!

Permitted Sites

- Expansion (new development) or redevelopment at a site already permitted under a Stormwater or Site Law permit is generally subject to:
  - The Department's review and approval (permit revision or amendment)
  - Chapter 500

- Some exceptions for limited expansions under Site Law, e.g., expansion of existing manufacturing facility (38 M.R.S. §488(7))

Chapter 500

Importance

- Sets the baseline for stormwater management in Maine
  - Most municipalities *do not* have stormwater ordinances

They rely on the State's Rules & laws

- Leverages investment in stormwater management infrastructure
  - Stormwater management infrastructure on parcels alleviates land development pressure on watershed scale

Chapter 500 - 502 Overview

	Chapter 500	Chapter 501	Chapter 502
Title	Stormwater Management Rules	Stormwater Management Compensation Fees and Mitigation Credit	Direct Watersheds of Lakes Most at Risk from New Development, and Urban Impaired Streams
# of Sections	17	3	3
Main Sections	• Definitions • Stormwater Standards • Stormwater PBR • Submissions & Pre-application Meetings • Standard Conditions of Approval	• Definitions • Mitigation through Compensation Fees or Projects: UIS, Lake, and Other Watersheds	• Criteria: Lakes Most at Risk from New Development, Urban Impaired Streams
# of Appendices	8	1	2
# of Pages	73	16	7
Latest Revision/ Amendment Date	8/12/2015	5/22/2016	5/23/2018
The rules are accessible from https://www.maine.gov/dep/land/rules/index.html			

Evolution of Chapter 500

1997 Stormwater Management Law

- *First Chapter 500*: Sliding scale for "Total Suspended Solids" removal

2005 Chapter 500 Revision

- 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.

Chapter 500 Standards: Level of Control

Level of Control for Stormwater Management	
Level of Control	**Chapter 500 Standards**
Runoff Volume	Not Provided
Water Quality	General 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

Current Chapter 500 Standards (Section 4)

Basic

Section 4(B) → 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*)

General

Section 4(C) → 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*

Phosphorus

Section 4(D)

- 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)

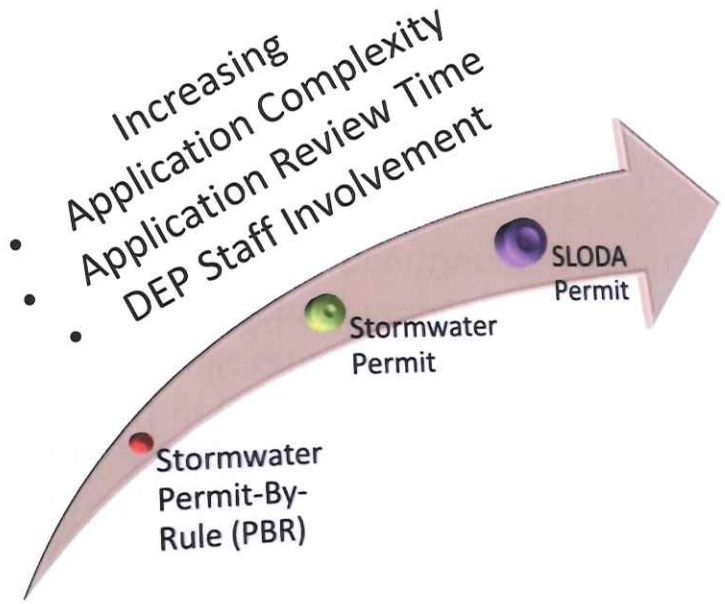
Chapter 500 Standards (Section 4)

Flooding

Section 4(F) → 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

Chapter 500 Program Permits

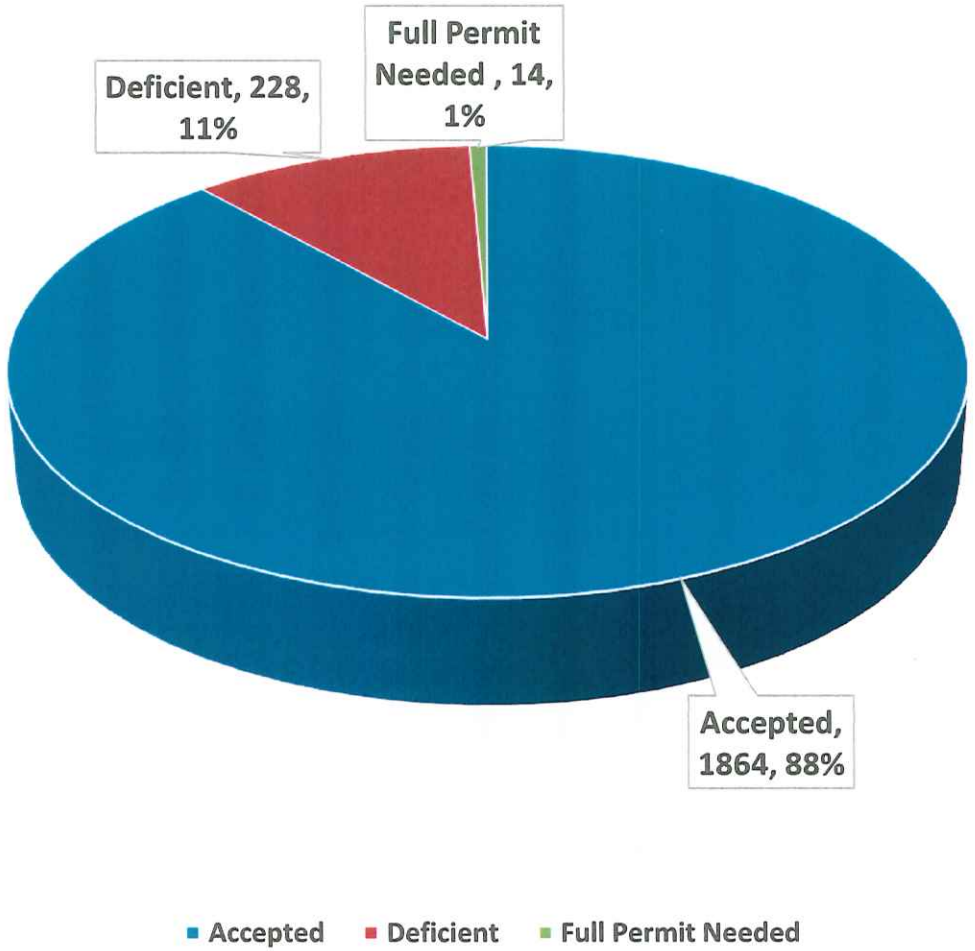


Acronyms:
BLR: Bureau of Land Resources
LMAR: Lake most at risk from new development (Chapter 502)
UIS: Urban impaired stream (Chapter 502)

No DEP Permit Required if Soil Disturbance < One Acre!			
Permit Type	**Jurisdictional Threshold**	**DEP Review By**	**Applicable Standard(s)**
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)
Full Stormwater	≥ 20,000 sf impervious (LMAR, UIS) ≥ One acre impervious (other watersheds)	BLR Stormwater Engineering Team (SET)	Basic, General (Phosphorus)
Site Law	≥ Three acres impervious ≥ 20 acres project area*	BLR SET	Basic, General (Phosphorus, UIS), Flooding

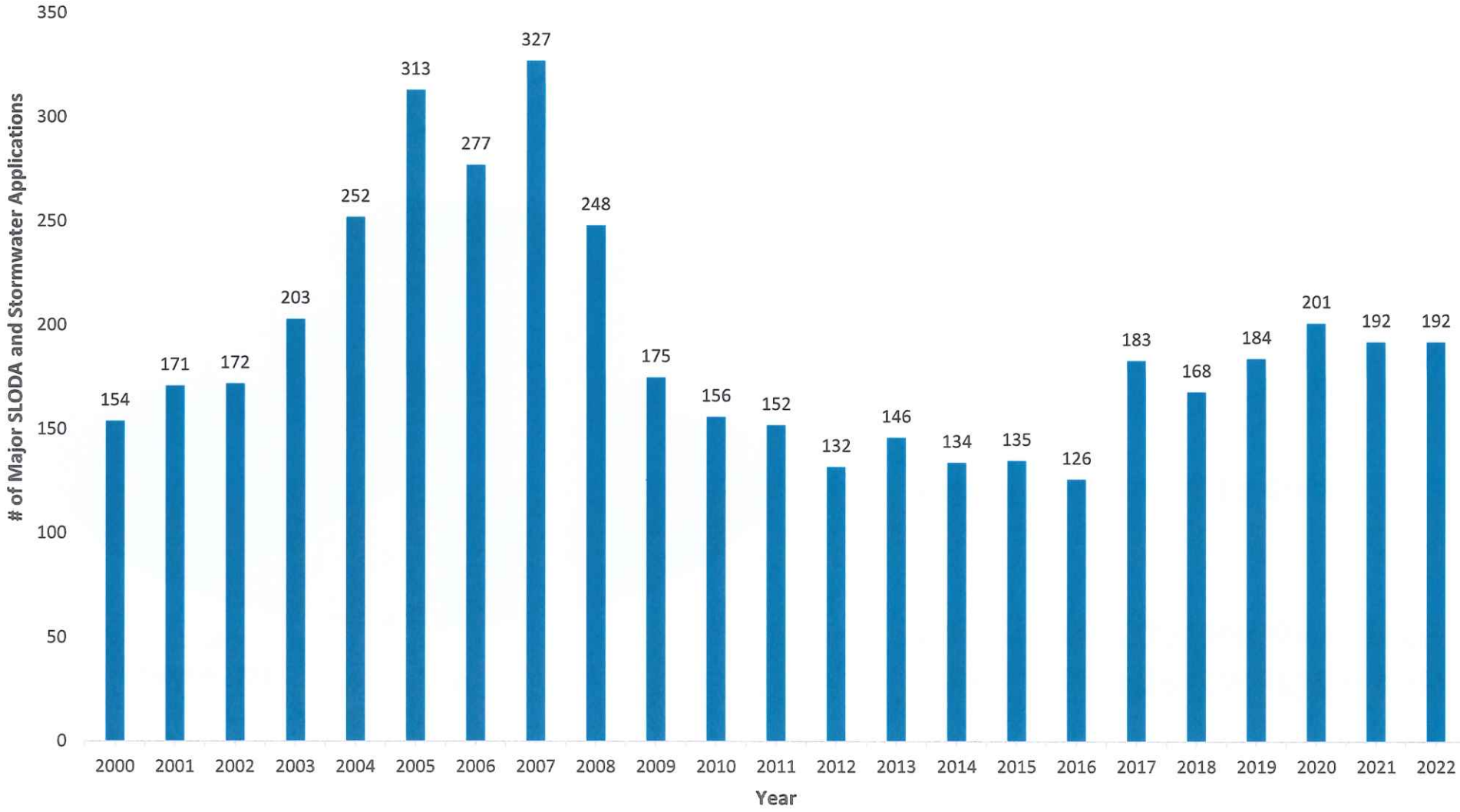
PBR Data (Jan. 2006-Dec. 2022)

(Land Bureau)



- 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**.

Completed Major SML & SLODA Applications



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

EPA delegated to Maine DEP

Maine Construction General Permit (MCGP)

- Authorizes the direct discharge of stormwater associated with construction to waters of the state provided that discharge meets
  - The requirements of MCGP

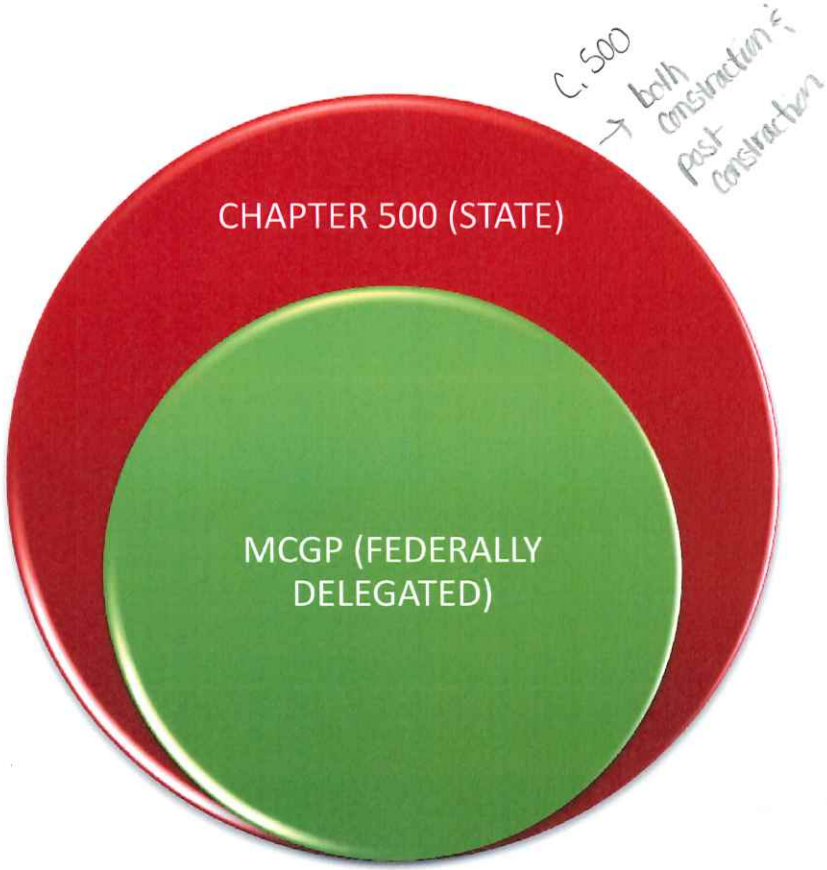
  and
  - Applicable provisions of Maine's waste discharge and water classification statutes and rules

- The applicants submit a
  - "Notice of Intent (NOI)" to be covered under MCGP before construction
  - "Notice of Termination (NOT)" to end their MCGP coverage after construction

MCGP 2025: Major New Provisions

- **New Definitions (Part II):**
  - Operator → day-to-day operational control of the activities
  - Large Construction Activity → ≥ 5 acres of disturbed area
  - Stormwater Pollution Prevention Plan (SWPPP)
  - Resident Inspector → Represents the Operator on the activity site
- **Only "Operators" can seek coverage under MCGP:**
  - In most cases, Operator will be a Contractor
- **Two-step permitting for certain projects:**
  - Full Stormwater or Site Law Permit → MCGP Notice of Intent (NOI)
- **Certification requirements for:**
  - SWPPP preparation (All construction activities)
  - Civil contractor (Large construction activities)
  - Resident inspector (Large construction activities)
- **Large Construction Standards (Appendix D)**

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	• ESC (Appendix A) • Inspection & Maintenance (Appendix B) • Housekeeping (Appendix C)	

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

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)

Post-construction Stormwater BMPs

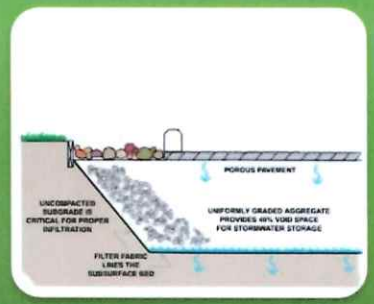
(#) Infrastructure investment

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



Others

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

BLR Stormwater Licensing Workflow

Pre-application

- Meetings
- Communication

Application

- Review
- Approval

Compliance & Enforcement

- Inspection
- Documentation

LICENSERS

STORMWATER ENGINEERING TEAM

GEOLOGISTS

FIELD SERVICES STAFF

Chapter 500 Update

- Stakeholder Engagement Process:
  - Consensus-based Rule Development
  - Stakeholder Meetings (Dec. 2023 – Dec. 2024) (Facilitator: FB Environmental)
  - Stakeholder Engagement Process Report

Main Goals of the Chapter 500 Rulemaking Process:

- Add LID requirements to best protect natural hydrology and encourage sustainable development. (take LID to next level)
- Add elements, as required by state law, to consider climate change adaptation and resilience.
- Improve the day-to-day operation of the State's stormwater program.
- Develop a framework for the rules.

- Ongoing Activities:
  - Stormwater Manual Update (Contractor: CEI)
  - Rule Drafting (Chapter 500, 501, 502) (Underway)