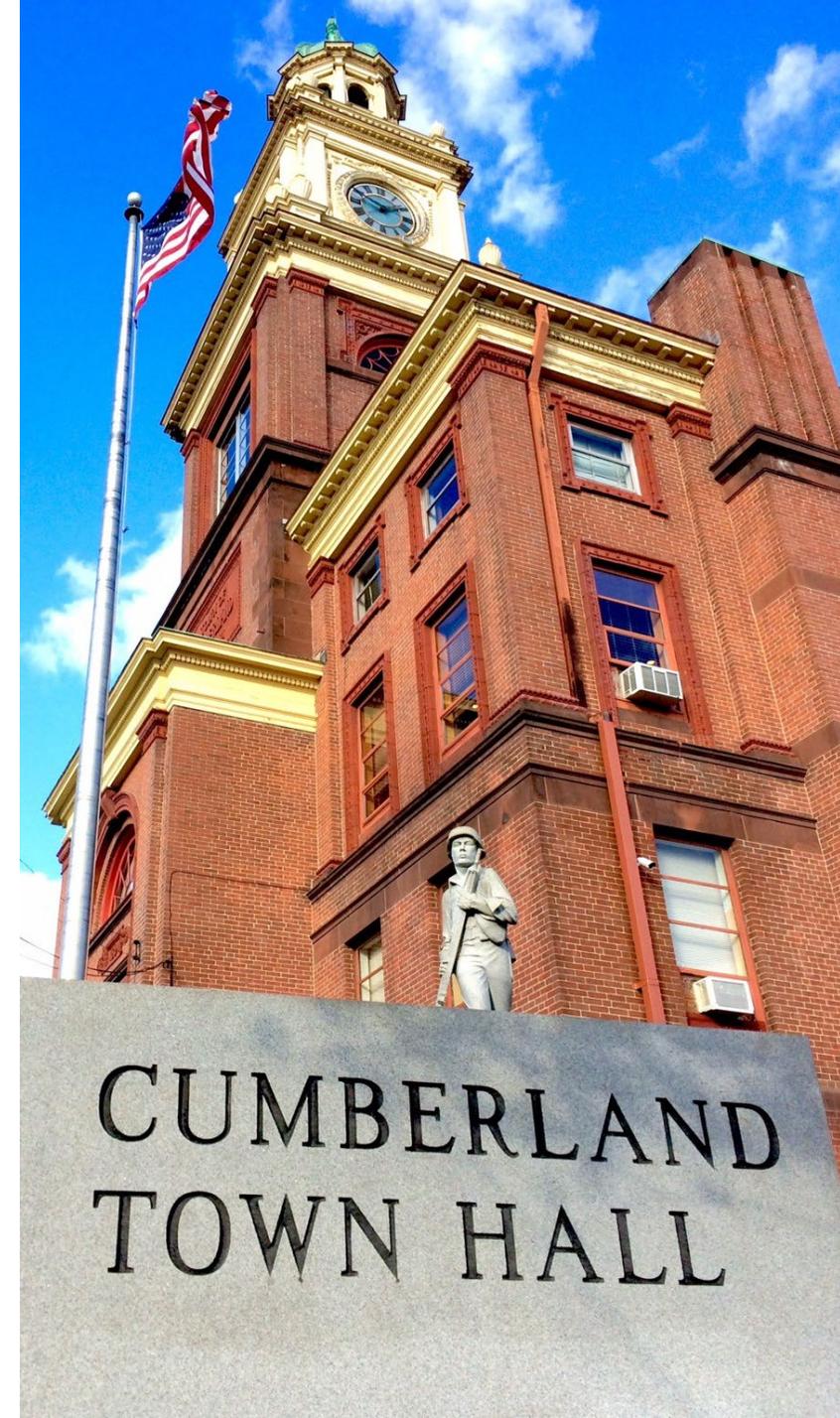


# Cumberland Climate Resilience Regulatory Reform

EC4

March 20, 2026



# PROJECT TEAM + PARTNERS

## CUMBERLAND CLIMATE RESILIENCE REGULATORY REFORM



### PROJECT MANAGEMENT TEAM

#### TOWN OF CUMBERLAND

Glenn Modica, AICP

Romeo Mendes



### CONSULTANT TEAM

#### HORSLEY WITTEN GROUP

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RIEC<sup>4</sup>



RHODE ISLAND  
INFRASTRUCTURE BANK

*Cumberland's  
experience  
with climate  
change*



Westwood Road overtopping and collapse.



Rawson Pond Dam breach, collapse and emptying.

*Cumberland's  
experience  
with climate  
change*



Old culverts undersized and collapsing.

# *Project Partners*

## **Core**

- Planning & Community Development
- RI Division of Statewide Planning
- Horsley Witten Group

## **Practicing**

- Planning Board
- Zoning Board
- Building & Zoning
- Public Works
- Parks & Recreation
- Conservation Commission
- Blackstone River Watershed Association

## **Advisory**

- Town Council/ Ordinance Subcommittee
- RIDEM
- RIDOT (stormwater)
- RIEMA

# *Process Summary*

## Identify Focus Areas

- Staff Interviews, Initial Audit, Public Meeting

## First Drafts

- Staff review (iterative)
- Planning Board Meeting

## Finalize Drafts

- Housekeeping, definitions, checklists
- Adoption Proceedings

# *Basic Issues of Resilience*

- **Heat**
  - Landscaping
  - Impervious Cover
- **Flooding**
  - Landscaping
  - Stormwater Runoff
  - Flood Zones
  - Impervious Cover
  - Erosion and Sediment Control

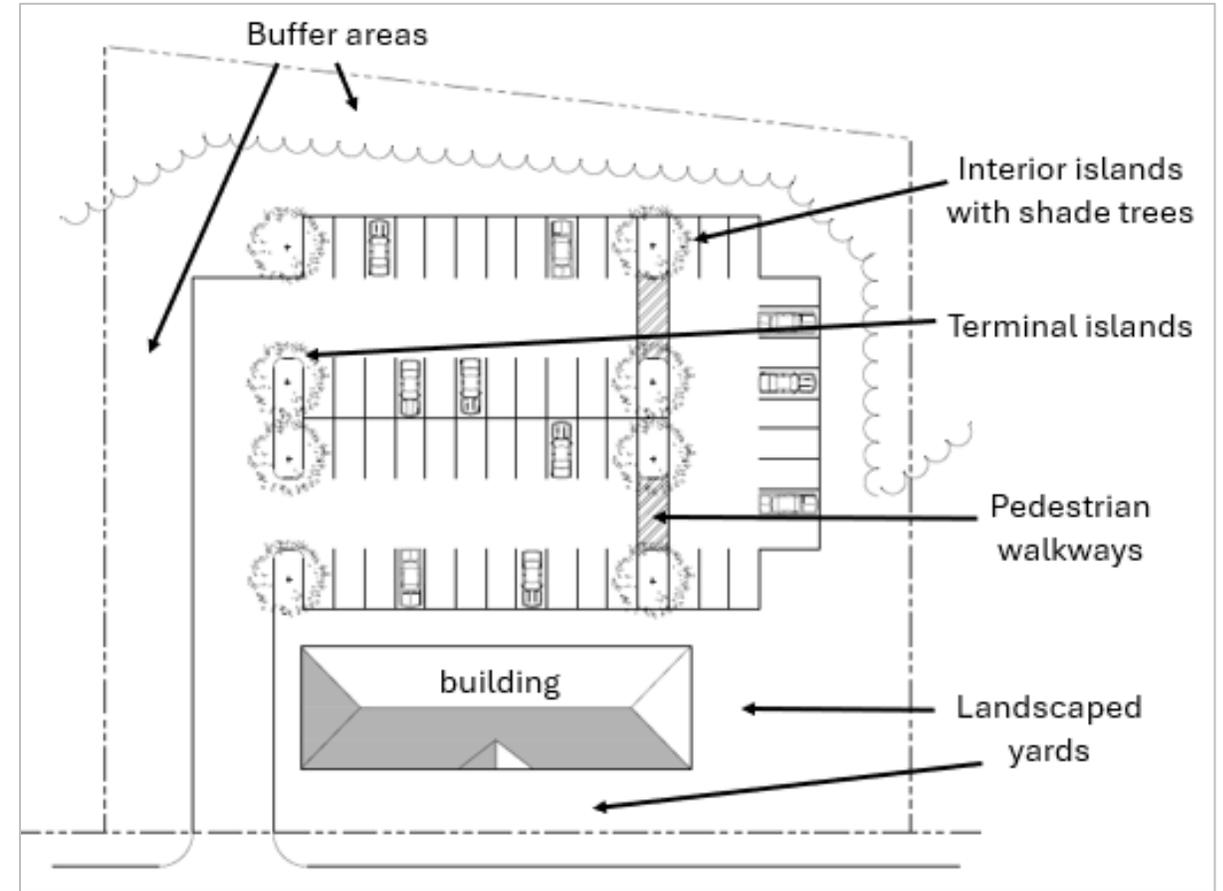
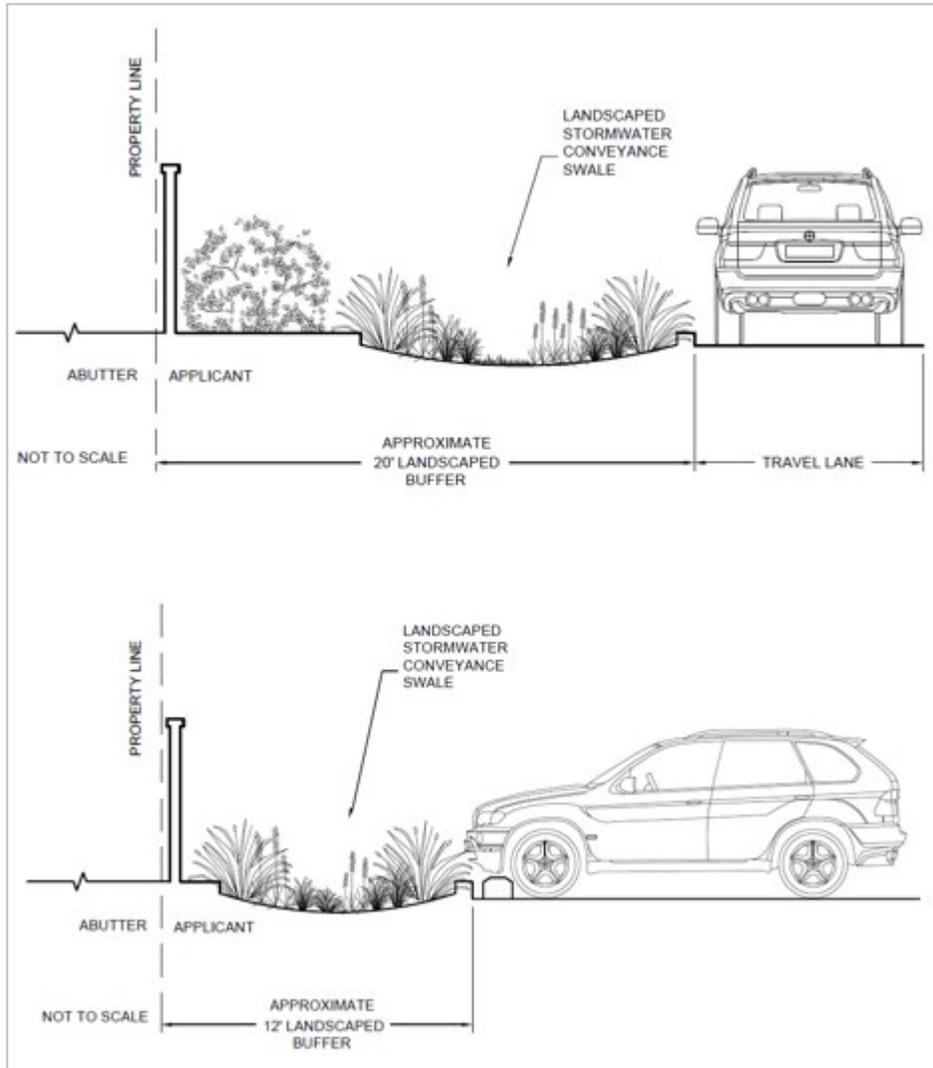
# Audit Progress Report (excerpt)

Topic	Zoning Ordinance	Land Development/ Subdivision	General Ordinance
<b>Mitigation</b>			
<b>Stormwater</b>	<ul style="list-style-type: none"> <li>• Definition of Drainage System</li> <li>• Section 6-12. Stormwater Basins</li> </ul>	<ul style="list-style-type: none"> <li>• Drainage Systems covered primarily in Section 7-E.</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 14, Article V – Stormwater. This is more about MS4 compliance and municipal responsibilities, not focused on design. (minimal applicability)</li> </ul>
<b>Landscaping</b>	<ul style="list-style-type: none"> <li>• Refers to LD Regulations for specifics on design, plant selection, etc.</li> <li>• Section 6-9. Buffer requirements when C or I Zones about A or R Zones.</li> <li>• Various requirements with landscaping requirements for individual uses. (minimal applicability)</li> </ul>	<ul style="list-style-type: none"> <li>• Street trees covered in 7-A.(m) but may be partially duplicative of Section 8-B.</li> <li>• Section 7-D most directly covers landscaping.</li> <li>• Section 8-A(c)(1) addresses interior parking landscaping.</li> <li>• Section 8-B is the largest section on landscaping.</li> </ul>	NA
<b>Flooding</b>	<ul style="list-style-type: none"> <li>• 100-year floodplain Included in Land Unsuitable for Development</li> <li>• Small discussion in determination of modification (Sec. 18-4.b)</li> </ul>	<ul style="list-style-type: none"> <li>• Project Impact Statement (Section 5-L) calls for information regarding past and future expected flooding.</li> <li>• 100-year floodplain Included in Land Unsuitable for Development</li> <li>• Various design standards in Section 6-C. Flood Hazard Areas, applies to Zone A.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Primary mechanism.</b> Chapter 17 – Special Flood Hazard Areas and Flood Fringe Areas (very specific design standards)</li> </ul>
<b>Erosion and Sediment Control</b>	<ul style="list-style-type: none"> <li>• Minimal provisions</li> </ul>	<ul style="list-style-type: none"> <li>• General design guidance in Section 6-D.</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 20, Article III – Soil Erosion and Sedimentation Control</li> <li>• Chapter 24-84. Erosion and Sediment Control for Street work (brief)</li> </ul>

# *Reform Highlights*

- Adding the 500-year flood plain to local review
- Tightening standards for activities and analyses in the flood zone.
- Changing design storm requirements for stormwater management.
- Removing some parking and loading requirements (impervious cover reduction).
- Making landscaping part of the solution.

# Example Landscaping Diagrams



# *Lessons and Takeaways*

## EXPANDING THE AREA FOR FLOOD REVIEW

- State-level modeling in the Blackstone? (not ready)
- Repetitive loss properties? (not viable)

## COORDINATING WITH THE STATE

- This requires a very detailed approach.
  - RIDEM Stormwater Management
  - RIDEM Erosion Control

# *List of Deliverables*

## GENERAL ORDINANCE

- Flood Ordinance
- Illicit Discharge
- Soil Erosion and Sediment Control
- Sewer/Water

## ZONING

- Parking (amount)
- Stormwater Basin Requirements
- Third Party Review

## LAND DEVELOPMENT

- Parking (design)
- Drainage
- Right of Way

## CHECKLISTS

- Revisions to all applicable checklists

# DISCUSSION

# *Proposed Parking Reforms*

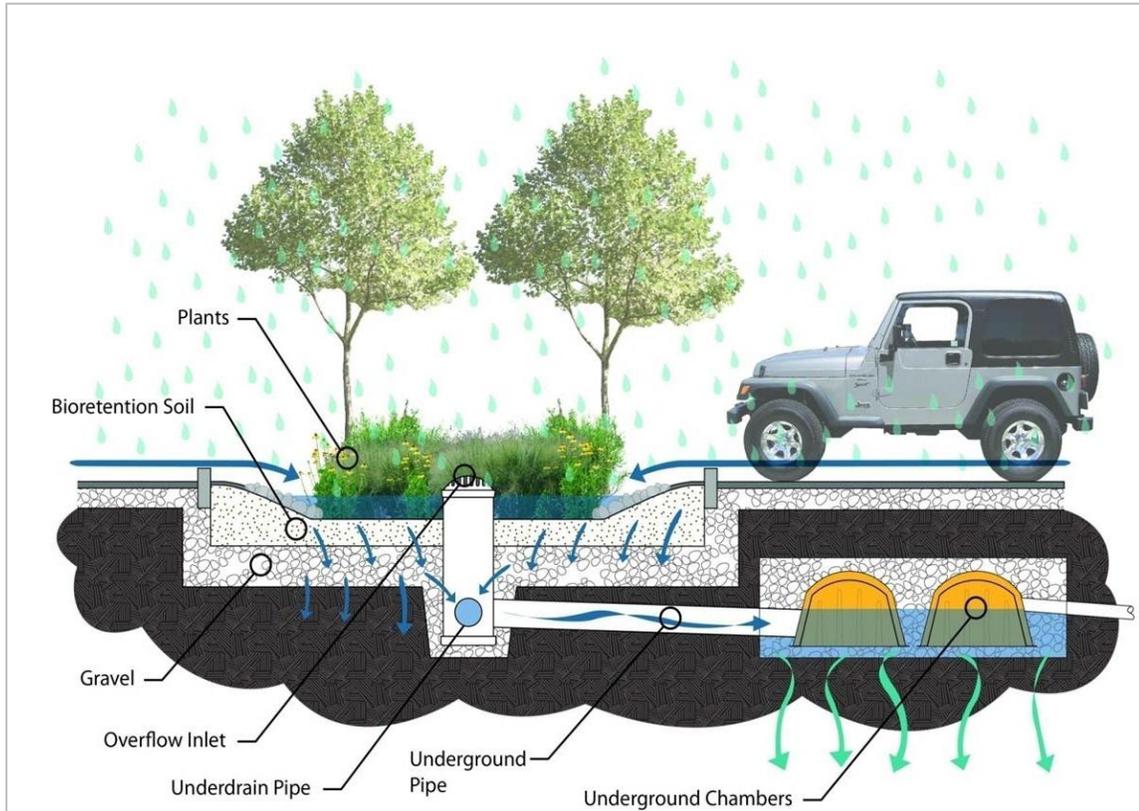
## **Minimum Requirements**

- Selected uses have a lower minimum requirement
- Minimum loading requirements are relaxed

## **Design**

- Refers directly to Land Development for most standards
- Requires greater conformity when non-conforming lots are expanded or altered

# Drainage



# *Proposed Drainage Reforms*

## **General Approach**

- Much of what Cumberland has today was retained, but re-organized.
- Direct incorporation of RI Stormwater Manual with modest “tweaks.”

## **Notable Changes**

- New approach to water quality standards (pre-treatment)
- New approach to “infill and redevelopment.”
- Revised rainfall data.

# Landscaping



# *Proposed Landscaping Reforms*

## **General Approach**

- Much of what Cumberland has today was retained, but (lots of) re-organized.
- Many existing requirements were clarified or strengthened.
- Some technical issues were updated to “best practices.”
- Many diagrams added, existing diagrams reformatted.

# *Proposed Landscaping Reforms*

## **Notable Changes**

- Individual standards changed: climate zone, tree caliper, parking islands, etc.
- Plant selection standards updated.
- Stronger connection to the RI Stormwater Manual
- Planting and cultivation – new section

# *Proposed Landscaping Reforms*

## **Notable Changes** (continued)

- Snow management – new section
- Site Protection strengthened and clarified
- Maintenance strengthened and clarified
- Landscape Plans become more detailed

Old slides follow...

# Flooding



# *Special Flood Hazard Areas*

- Local Ordinance relies on FEMA floodplain and FEMA model ordinance language.
- FEMA's minimum requirements for flood hazard areas may not provide adequate flood protection benefits in Cumberland's local context.

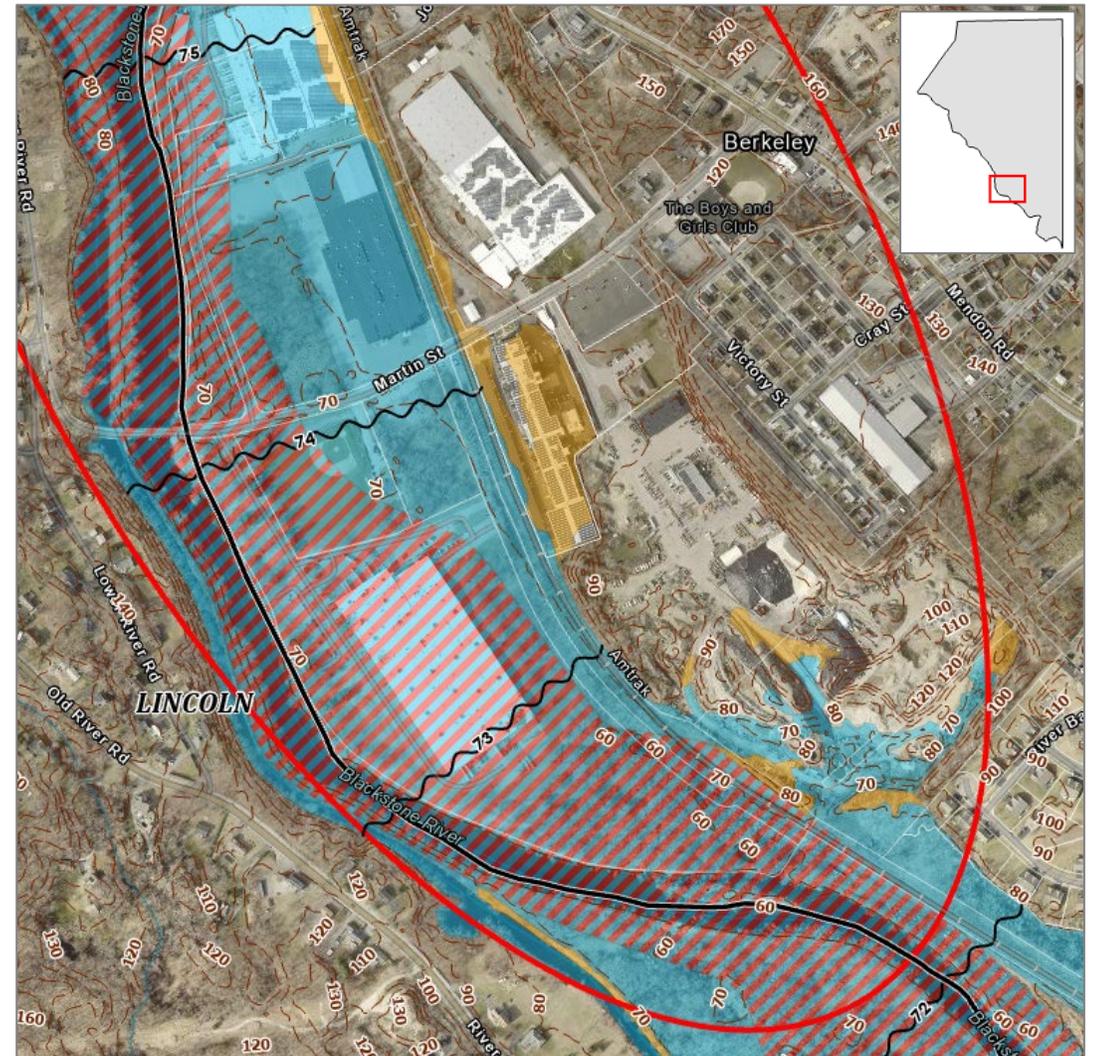
# *Areas of Observed Frequent Flooding*

- Nuisance flooding locations are not limited to those areas captured in the FEMA Special Flood Hazard Area. Officially documenting flooding “hot spots” could assist with regulation.

## **RI Stormwater Manual**

For redevelopment sites with 40% or more existing impervious surface coverage, only Standards 2, 3, and 7-11 must be addressed. However, the permitting agency may require peak flow control on a case-by-case basis within a watershed with a history of flooding problems.

# Areas of Observed Frequent Flooding



# *Next Steps*

- Proceed with draft revisions to landscaping requirements (e.g., site protection, plant selection, design guidance for specific situations, best practices, checklist for landscape plans). Confirm consistency with Special Use Permit criteria and Zoning Ordinance.

# *Erosion and Sediment Control*



# *Soil Erosion & Sediment Control*

- The Town's regulation does not reflect the most recent model ordinance language as found in the *RI Soil Erosion and Sediment Control Handbook*. The model ordinance language is intended to ensure compliance with the RIPDES MS4 General Permit requirements.

# *Next Steps*

- Proceed with draft revisions based on the updated model ordinance language in *RI Soil Erosion and Sediment Control Handbook*.