



# MS4 Construction Site Inspection Program Webinar

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May 2021

EPA Region 1



## Webinar Logistics

Dial in by phone OR use computer audio, 1-646-828-7666

Please stay muted throughout the broadcast

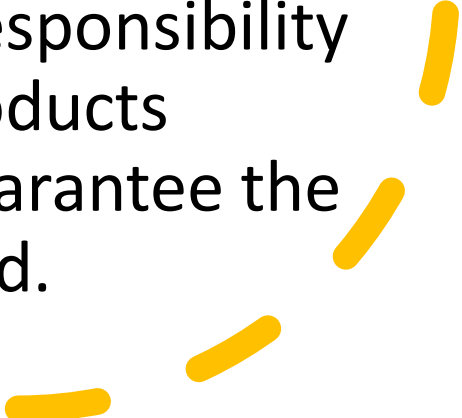
Depending on your internet provider, there might be a slight delay in advancing slides

Slides will be sent out via email after the event

Type questions in the “Chat” box at any point during this webinar

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Attendee Poll





# Introduction

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## Overview

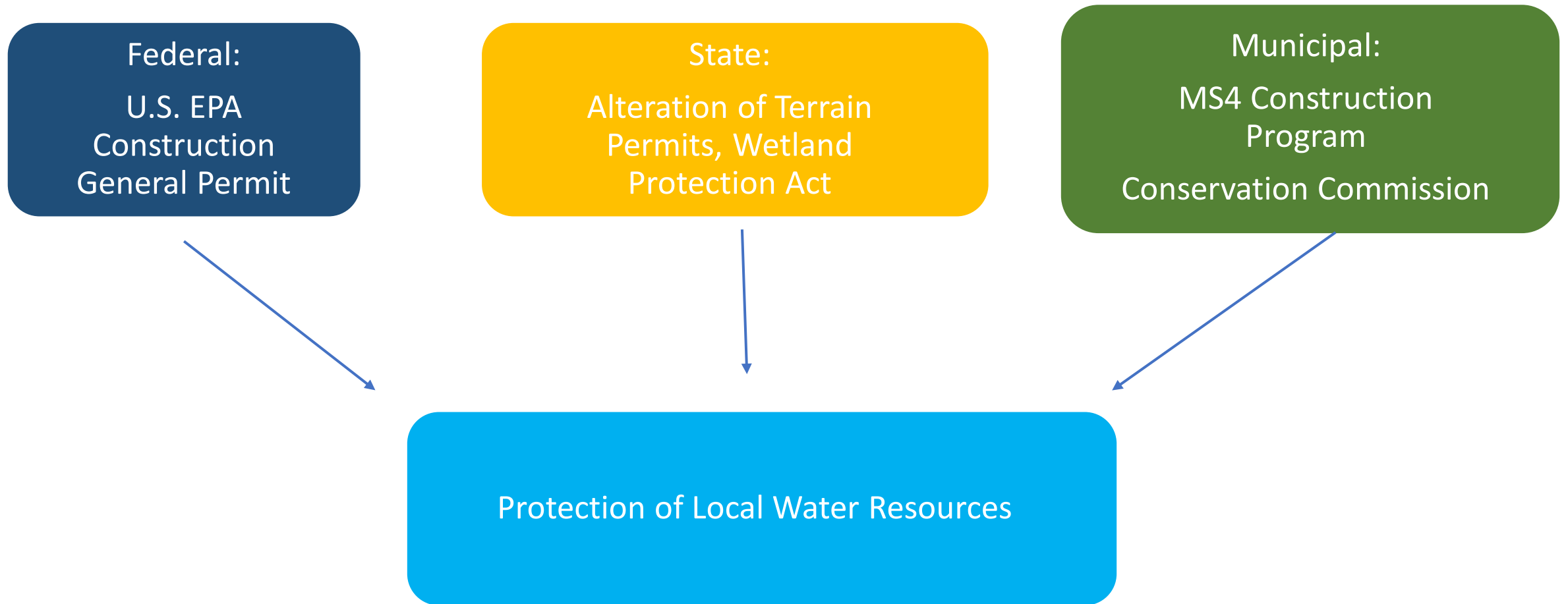
### **Construction Stormwater Program Management**

- Why do MS4s regulate construction stormwater and what is at stake?
- How to structure a good MS4 construction program.
- Document, document, document.
- Best practices for compliance.
- Site plan review and approval.

### **Conducting a Construction Stormwater Inspection**

- Keys to conducting a good inspection.
- Planning an inspection.
- Document review.
- Most common BMPs and what to look for.
- Post-inspection actions.

# Levels of Construction Stormwater Oversight

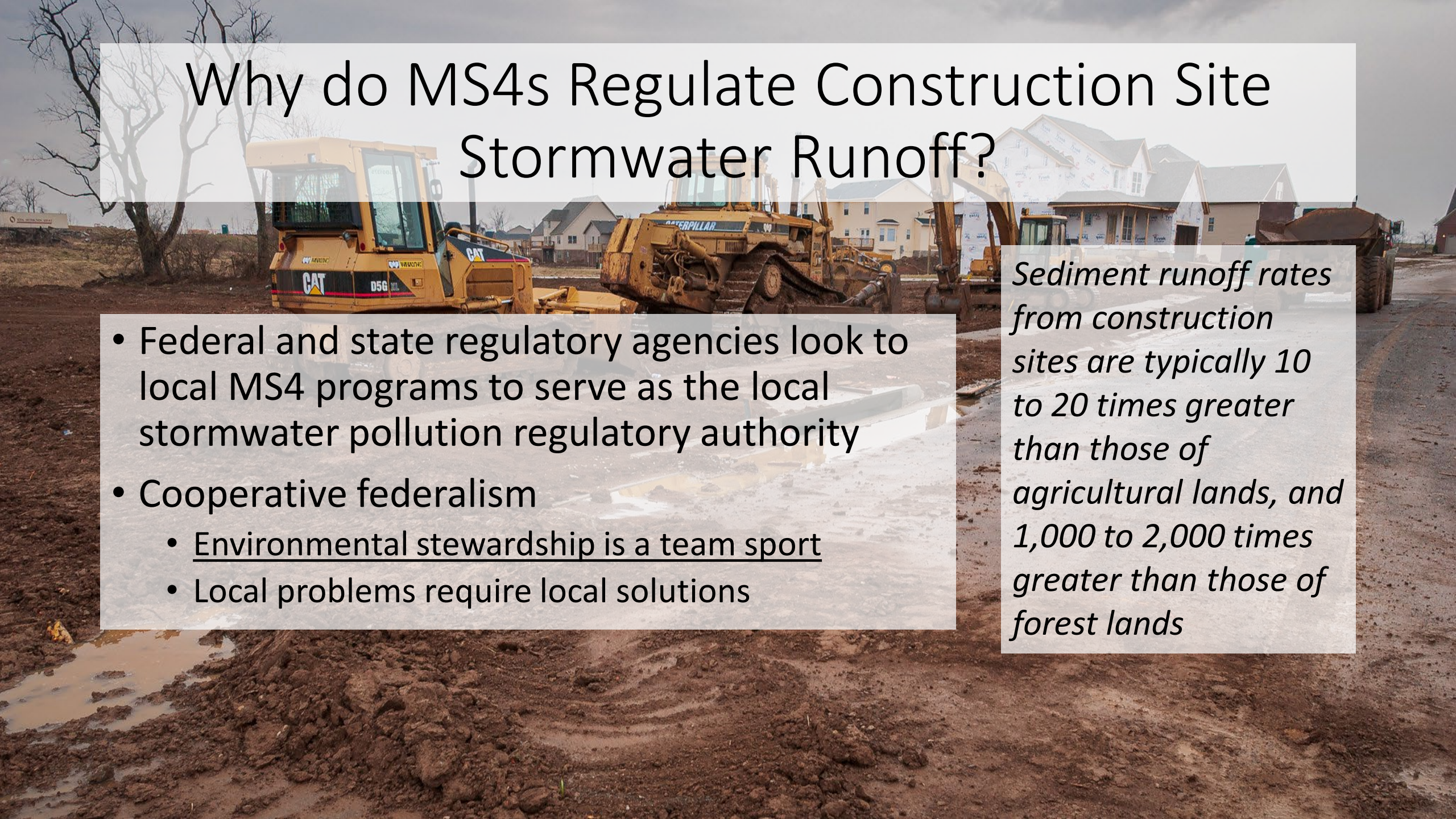




# Why do MS4s Regulate Construction Site Stormwater Runoff?

- Federal and state regulatory agencies look to local MS4 programs to serve as the local stormwater pollution regulatory authority
- Cooperative federalism
  - Environmental stewardship is a team sport
  - Local problems require local solutions

*Sediment runoff rates from construction sites are typically 10 to 20 times greater than those of agricultural lands, and 1,000 to 2,000 times greater than those of forest lands*





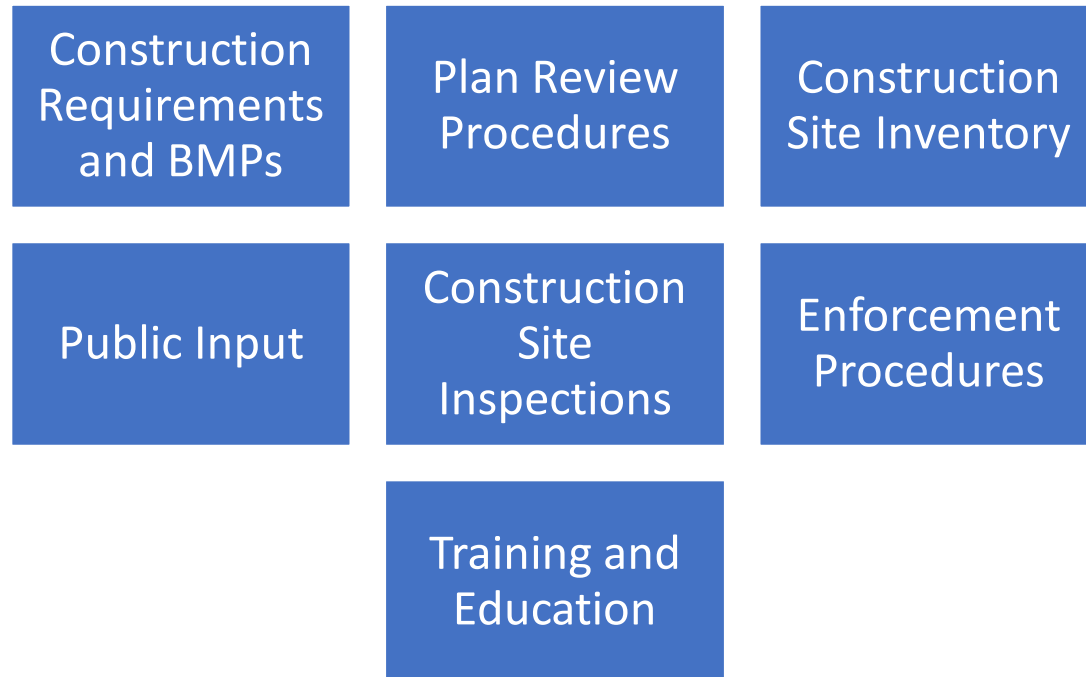
# What's at Stake for an MS4?

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- Increased maintenance
- Reduced storm sewer capacity
- Noncompliance with MS4 permit
- Increased pollutant loading in local waterways



# General Structure of a MS4 Construction Program



You don't need to start from scratch...

- Town Conservation agent or Conservation Commission
- Regional Stormwater Coalitions
- State and EPA guidance



# What Makes a Good MS4 Construction Program?

Centralized program with vertical AND horizontal support

- Dedicated staff resources
- Clear organizational structure that reflects departments involved and program responsibilities
- Established line of vertical and horizontal communication
- Efforts to articulate requirements and risk of non-compliance at all levels
- Defined program “touchstone” other than *duty to comply*
- Recognized as a legitimate and valued municipal service/utility
- **Strive to reach beyond MS4 permit requirements**

**One size does not fit all**



# Leverage Existing Resources

- Horizontal support

- Building inspectors
- Conservation agents
- Engineering staff
- Code Enforcement

- Vertical Support

- Management
- Elected officials
- Municipal councils and boards

**Bridge These Connections...**



# Document, Document, Document

## Written procedures



Complete written procedures for site review, **site inspections**, and enforcement of sediment and erosion control measures by the permittee.



If you do not document it, it did not happen.

## Annual reporting

- Track and report the number of site reviews, inspections, and enforcement actions in each Annual Report.
- Completion of written procedures
- Take credit where credit is due

### MCM4: Construction Site Stormwater Runoff Control

*Below, report on the construction site plan reviews, inspections, and enforcement actions completed during this reporting period.*

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

*Optional:* Enter any additional information relevant to construction site plan reviews, inspections, and enforcement actions:



# Best Practices for Compliance

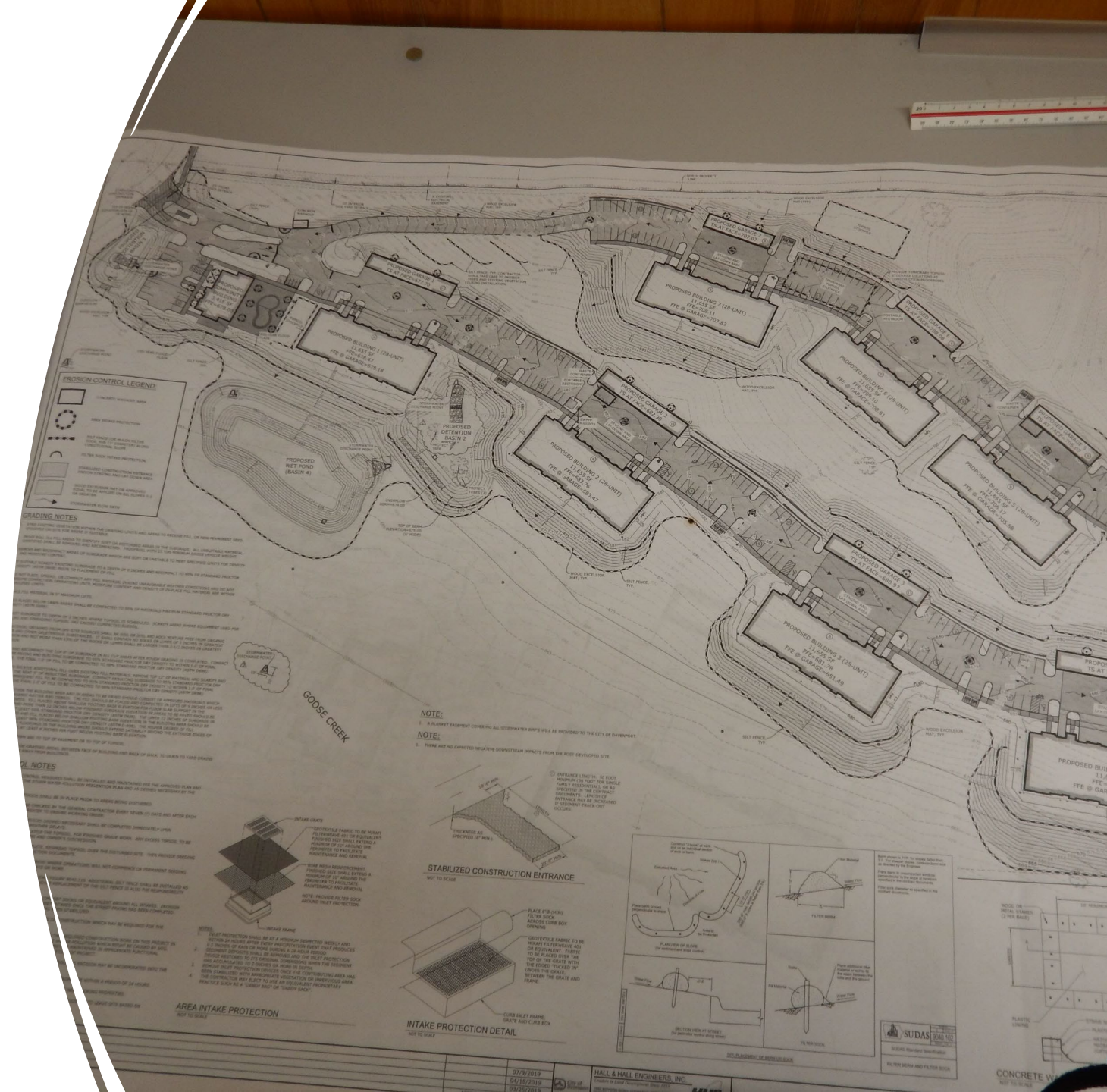
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- Ordinances cannot be effective without a policy and procedure to implement them
- Successful enforcement hinges on having multiple enforcement tools available to field staff
  - “If you’re a hammer, everything looks like a nail”
- Enforcement Response Plan
  - Includes all MCMs/program elements
  - Provides a roadmap for implementing enforcement measures. Enforcement is not subjective and should be consistent.
  - Eliminates (or greatly reduces) the level of discretion needed.
  - Clearly articulated enforcement options and the various escalation steps
  - Clear linkage between ERP language and legal mechanism language
  - Work with your regulator but avoid over reliance



# Site Plan Review and Approval

- Document, document, document
- Use a checklist or other written correspondence to ensure plans are appropriately reviewed
- Good documentation helps build a strong program





# Conducting a Construction Stormwater Inspection

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# Keys to Conducting a Good Inspection



Be prepared



Be organized



Be flexible in  
implementing  
your inspection  
plan



Be respectful of  
the site reps'  
time



Don't settle for  
the site's guided  
tour



Be vigilant and  
trust your  
instincts

**Bottom Line:** *Without vigilance,  
we are a lot less likely to uncover  
issues*



# Prior to the Inspection

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- Plan the inspection
- Contact the site representative
  - If possible, meet and walk site with site rep
- Review any recent compliance issues or complaints
- Review applicable documentation





# Inspection Photography

Try to take the following photos to document an observation:

1. Establishing shot
2. Subject shot
3. Detail shot

**Remember:** The photographs are there to help future inspectors and to support a potential enforcement action.



Establishing  
Shot




Subject Shot



Detail Shot







# Common Construction Stormwater Controls

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## Perimeter Controls

- Are perimeter controls adequate, properly installed, and properly maintained?
- For each structural BMP, check structural integrity to determine if any portion of the BMP needs to be replaced or requires maintenance.





## Site Entrances and Exits

- Are entrances installed and maintained?
- Is track-out present?
- Does it match the site plan and design standards?





## Inlet and Outlet Structures

- Are all inlet structures appropriately protected?
- Where do inlets discharge?





## Discharge Points and Receiving Waters

- Walk down the street and/or in other directions off-site to determine if erosion and sedimentation control measures are effective in preventing off-site impacts





Good Housekeeping





## Storage and Staging Areas

- Inspect material storage/staging areas to ensure that materials are properly maintained and that pollutant sources are not exposed to rainfall or runoff.
- Inspect vehicle/equipment fueling and maintenance areas for the presence of spill control measures and for evidence of leaks or spills.



## Stockpiles

- Locate the piles outside of any natural buffers
- Install a sediment barrier along all downgradient perimeter areas
- Stockpiles that will be unused for 14 or more days must be covered or provided temporary stabilization.
- Accumulated sediment on impervious surfaces may not be washed in stormwater conveyances or waterways







## Waste Management

- Construction debris should be in a waste container (e.g., dumpster, trash receptacle) and covered
- Hazardous or toxic construction waste should be stored separately in a sealed container





Concrete Washout





# Post-Inspection

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- Clearly communicate deficiencies and a timeline for correction with contractor
- Document, document, document
  - Provide a copy of inspection report to contractor
- Schedule a time to follow up on required actions



# Inspection Summary

## What you should see

- Designated, qualified site representative
- Storage and staging areas well maintained
- Erosion controls are well-maintained and still working
- Nothing leaking or spilled
- Sediment is not leaving the site

## What you shouldn't see

- Muddy water flowing away from the site
- Not maintained or improperly installed BMPs
- Unaddressed deficiencies
- Site representatives not conducting or documenting inspections



## Additional Resources

- [Construction Site Inspection SOP & report template by CMRSWC](#)
- [Construction Site Runoff Control Factsheet \(2018\) from EPA Office of Water](#)
- [NH MS4 Blog Resources – see MCM#4 for SOP & inspection form](#)
- [EPA's Stormwater Tools in New England](#)
- [Stormwater Phase II: Stormwater Management For Construction Sites](#)
- [Massachusetts Statewide Stormwater Coalition](#)





Post-  
Webinar Poll  
Question

# Q&A Session

- Steven Chase – PG Environmental
- Massachusetts DEP
  - Tom Gruzzkos
- New Hampshire DES
  - Deborah Loiselle
  - Ridgely Mauck
- US EPA Region 1
  - Todd Borci
  - David Gray
  - Beth Kudarauskas
  - Andrew Spejewski
  - Newt Tedder
  - Martine Wong







# Thank you!

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