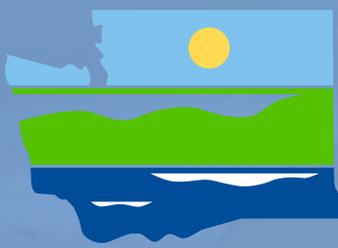


Presentation Overview

Introduction	10:00 AM
Volume I	10:15 AM
Lunch	11:45 AM
Volume II	
Volume III	1:30 PM
Break	2:10 PM
Volume IV	2:25 PM
Volume V	2:45 PM
Adjourn	3:15 PM

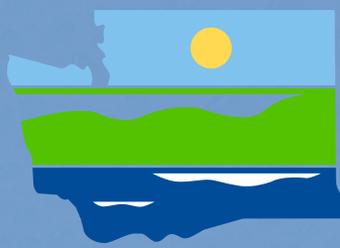




Volume II



- Managing stormwater impacts associated with **construction** activities
- Discusses best management practices (**BMPs**)
- Applies to **all construction** activities



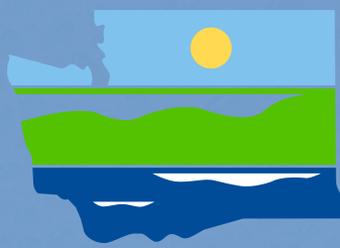
Construction
Stormwater
General
Permit
(CSWGP)

Volume
II

Municipal
Stormwater
Permits

Municipal Permit also refers to the
BMPs & **Element #13** in Volume II





What's new?...

Changes to
CSWGP



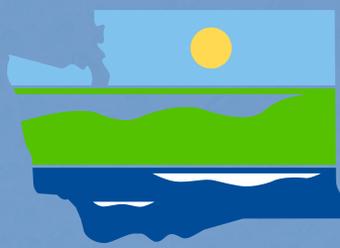
2010 Reissuance
of CSWGP



Coordinated language

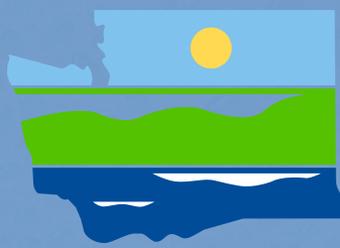
Changes to
Volume II





- **Chapter 1** – Importance of construction stormwater management
- **Chapter 2** – Regulations
- **Chapter 3** – The SWPPP
- **Chapter 4** – BMPs

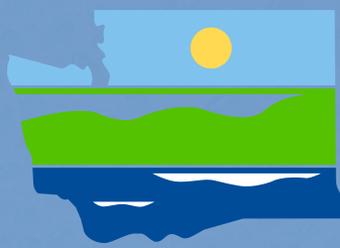




Chapter 1

**Highlights
importance of
construction
stormwater
management in
preventing
pollution of waters
of the state**



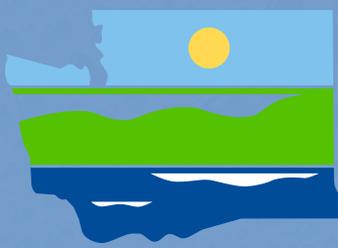


Chapter 1 (cont'd)

Lists the 12 elements used in the
Construction Stormwater General Permit

Introduces **Element #13**

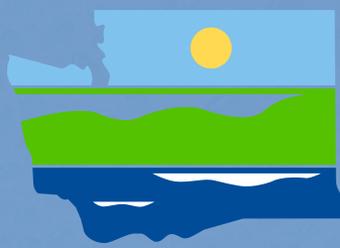
- Specific to Low-Impact Development (LID)
- Required by the Municipal Permit



Chapter 2 (cont'd)

- Regulatory background
- Triggers in the National Pollutant Discharge Elimination System (NPDES) program



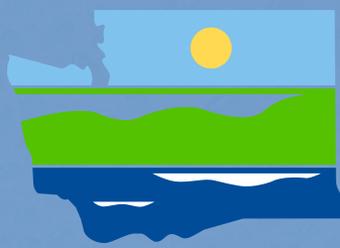


Chapter 2 (cont'd)

Overviews sites that require permit coverage under the CSWGP.

Discusses water quality standards.

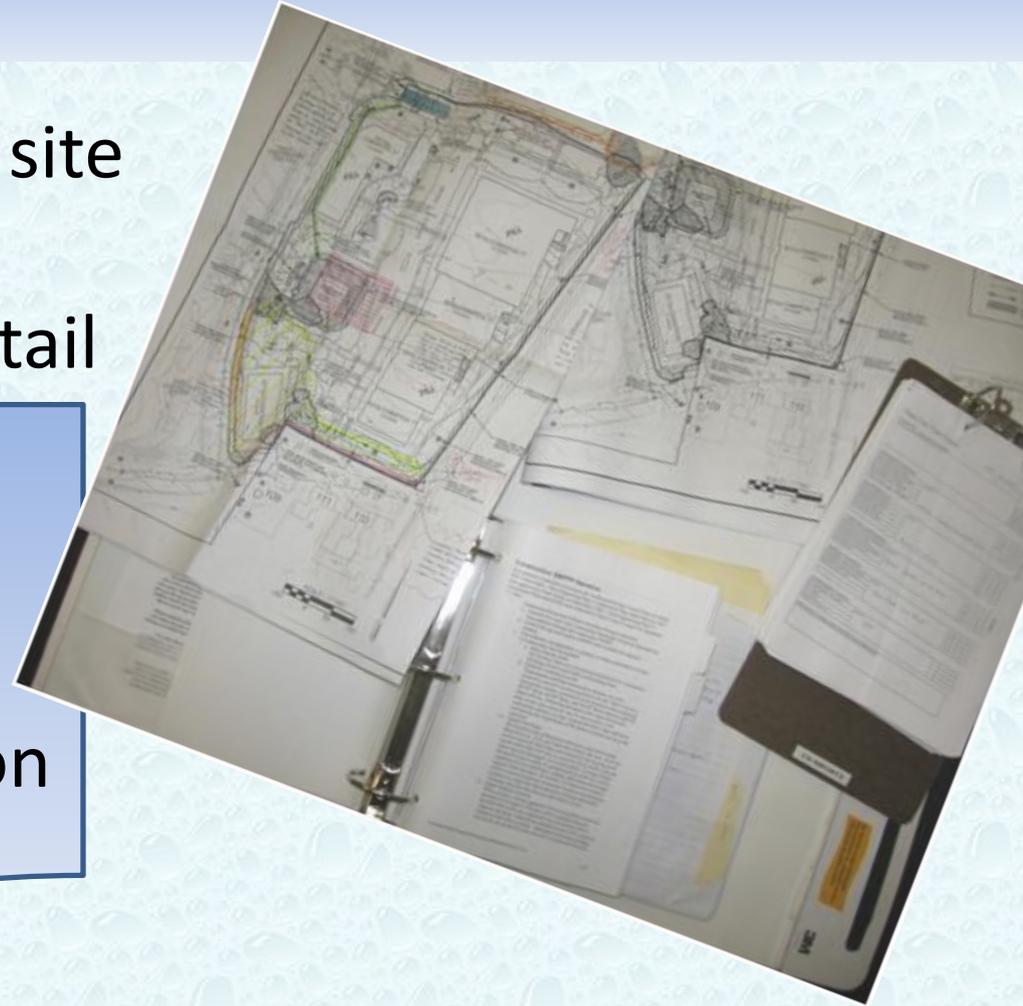
Looks at the construction site's possible relationship to the Endangered Species Act.

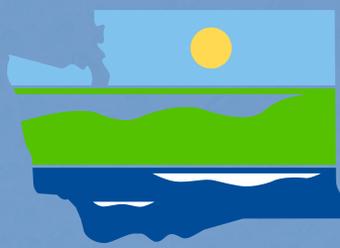


Chapter 3

- Guide for construction site planning
- Discusses SWPPP in detail

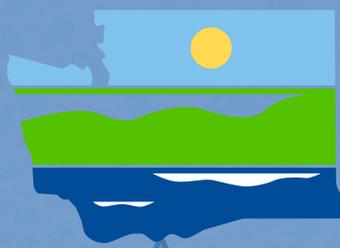
- ✓ Narrative
- ✓ Drawings
- ✓ Data
- ✓ Pollution prevention plan checklist





Chapter 3 (cont'd)

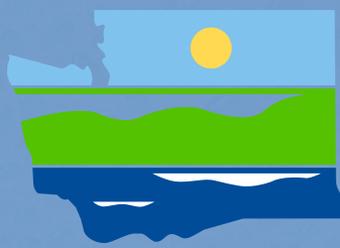
- Expands on the 12 elements
- Introduces **Element #13** – Protect Low-Impact Development (LID) BMPs (sometimes required as part of the Municipal Permits)



Chapter 4

- Chapter 4 is your “go to” place for source control BMPs
- Offers 145 pages of BMP details

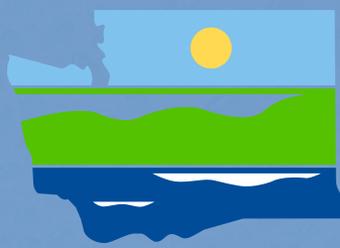




What's new?

- Refer to your handout “Proposed Changes to the SWMMWW”
- Revised to simplify/clarify language
- The **13** elements



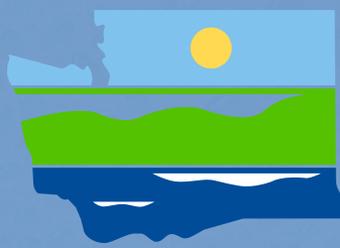


What's new?...

Element #13

- Protect bioretention, rain garden, and permeable pavement BMPs
- Install/maintain erosion & sediment control BMPs on part of site draining to bioretention, rain garden, or permeable pavement BMPs



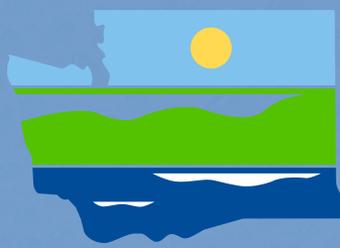


What's new?...

Element #13 (cont'd)

- Fully restore BMPs if they accumulate sediment during construction
- Keep construction equipment and foot traffic off bioretention, rain garden, & permeable pavement BMPs



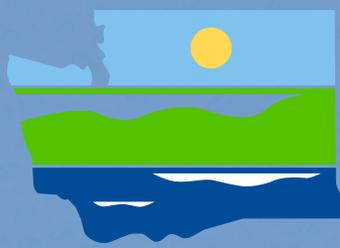


What's new?...

Element #13 (cont'd)

- Keep muddy equipment **off** pavement or base material
- Keep runoff **off** permeable pavements
- Keep heavy equipment **off** final grades (don't compact it)





Element
#13

What's new?

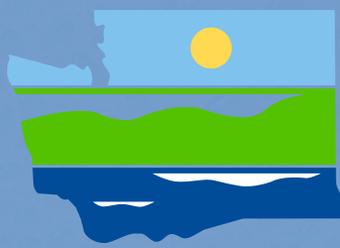
Suggested
BMPs

BMP C102:
Buffer Zones

BMP C103:
High
Visibility
Plastic or
Metal Fence

BMP C200:
Interceptor
Dike and
Swale

BMP C201:
Grass-Lined
Channels



Element #13 (Cont.)

What's new?

Suggested BMPs

BMP
C207:
Check
Dams

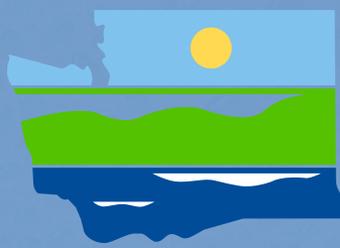
BMP C208:
Triangular
Silt Dike

BMP C231:
Brush
Barrier

BMP C233:
Silt Fence

BMP C234:
Vegetated
Strip

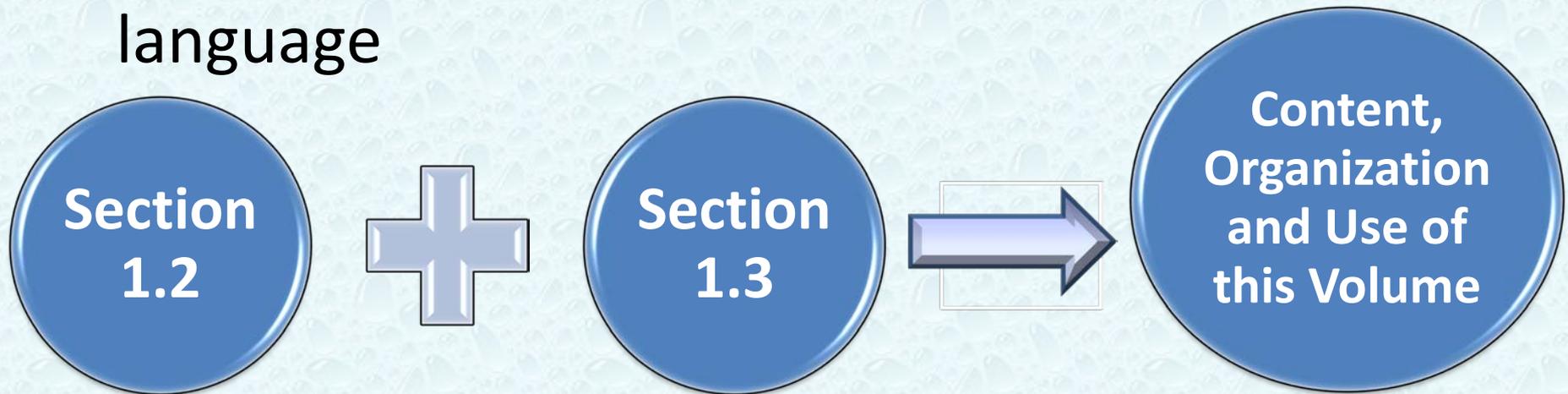
Geotextile-Encased
Check Dam



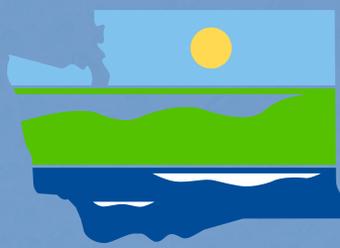
What's new? ...

Chapter 1

- Chapter 1 was updated with simpler and clearer language



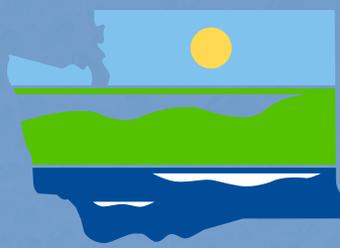
- We added Element #13 – Protect Low Impact Development BMPs



What's new? ...

Chapter 2

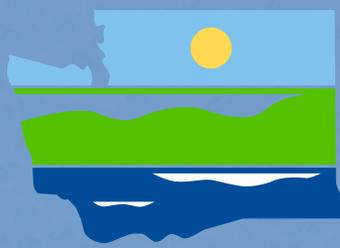
- Clearer text
- Coordinated with the new CSWGP
- New 2.1 and 2.2 discuss the CSWGP and the SWPPP



What's new? ...

Chapter 3

- Revised SWPPP elements to coordinate with the new construction stormwater general permit (**December 2010**)
- Most updates to the construction SWPPP requirements and elements: see Chapter 3, Sections 3.2 and 3.3

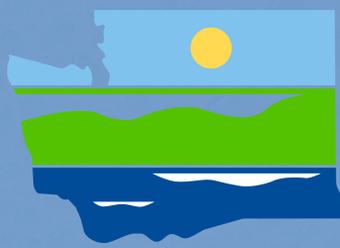


What's new? ...

Chapter 4

Added
approved
equivalent BMP
sections

Renumbered
tables



What's new? ...

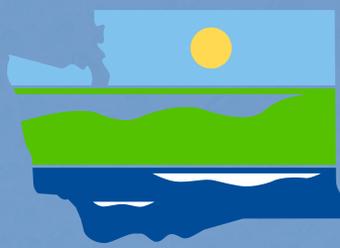
Chapter 4

Table 4.1.1 – “Source Control BMPs”

- This table gives you the connection between the BMPs and the SWPPP elements – very helpful!

Table 4.1.1 Source Control BMPs by SWPPP Element

BMP or Element Name	Element #1 Preserve Vegetation/Mark Clearing Limits	Element #2 Establish Construction Access	Element #5 Stabilize Soils	Element #6 Protect Slopes	Element #9 Control Pollutants	Element #11 Maintain BMPs	Element #12 Manage the Project	Element #13 Protect Low Impact Development
BMP C101: Preserving Natural Vegetation	✓							
BMP C102: Buffer Zones	✓							✓
BMP C103: High Visibility Plastic or Metal Fence	✓							✓
BMP C105: Stabilized Construction Entrance / Exit		✓						
BMP C106: Wheel Wash		✓						
BMP C107: Construction Road/Parking Area Stabilization		✓						
BMP C120: Temporary and Permanent Seeding			✓	✓				
BMP C121: Mulching			✓					
BMP C122: Nets and Blankets			✓					
BMP C123: Plastic Covering			✓					
BMP C124: Sodding			✓					
BMP C125: Topsoiling / Composting			✓					

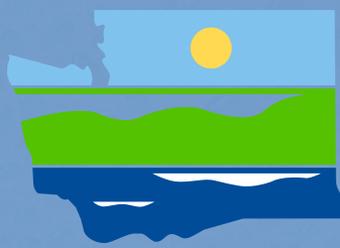


What's new? ...

Chapter 4

- Section 4.1 Manual now matches CSWGP
- “Additional Guidance” under each element – think of them as helpful hints!

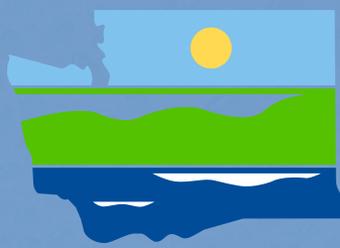




What's new? ...

Chapter 4

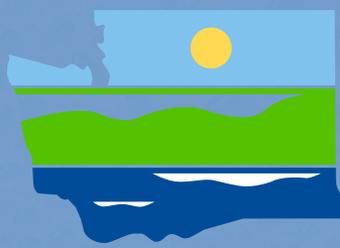
- Several BMPs: more guidance, more detail, or updates
- BMP C103 added high-visibility **silt** fence
- BMP C104 for stake-and-wire fence was removed



What's new? ...

Chapter 4

- BMP C120 and C121 –
 - New language re: mulching thickness
 - Shift in language between the two BMPs
- BMP C123 – Consider BMPs other than plastic sheeting for longer-term erosion control



What's new? ... Chapter 4

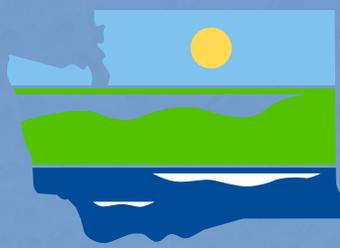
BMP C151 Concrete Handling

BMP C152 Sawcutting and
Surfacing Pollution Prevention

BMP C154 Concrete Washout
Area



More in keeping with new CSWGP language in response
to field observation



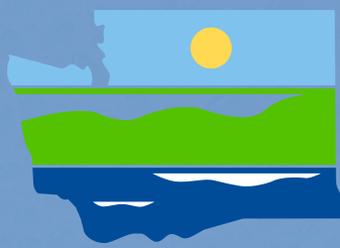
What's new? ...Chapter 4

BMP C160 – CESCL
clarified

BMP C180 – Removed

- 1-acre designation no longer applies



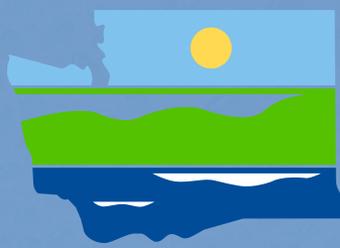


What's new? ...

Chapter 4

Table 4.2.1 – “Runoff Conveyance and Treatment BMPs

- Like Table 4.1.1
- Correlates the BMPS to these Elements (3, 4, 6, 7, 8, 9, 10, 13)

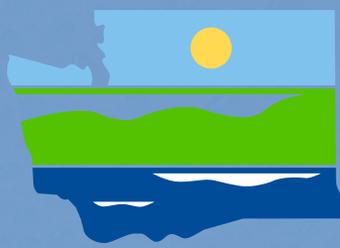


What's new?...

Chapter 4

- BMP C230 – **No more straw bales!**



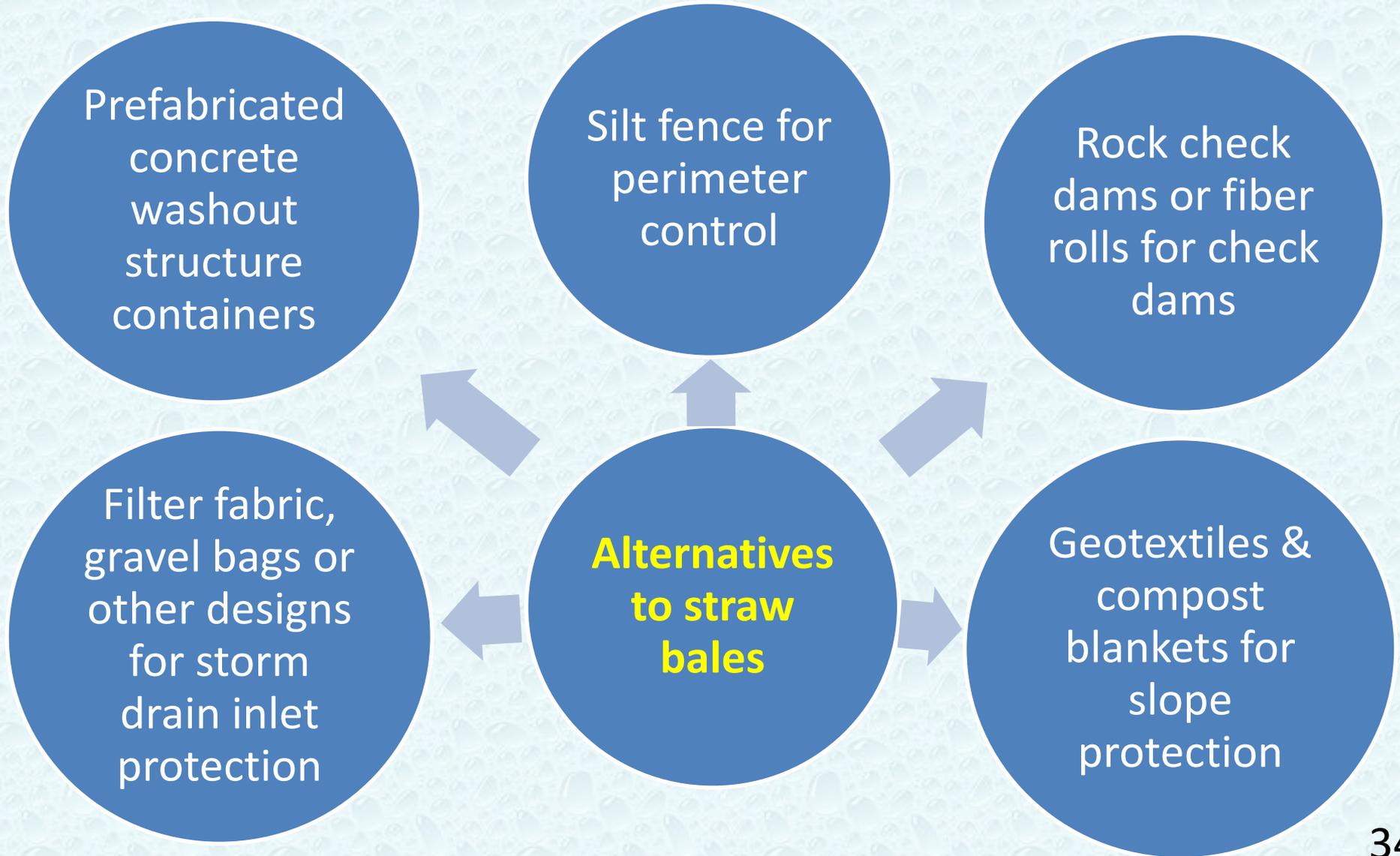
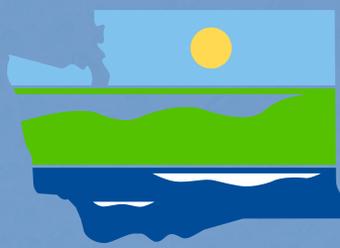


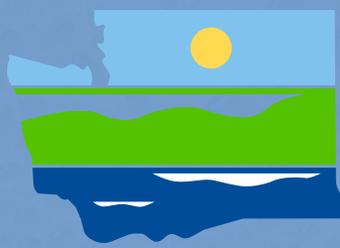
What's new? ...

Chapter 4

- **Alternatives** to straw bales must be used





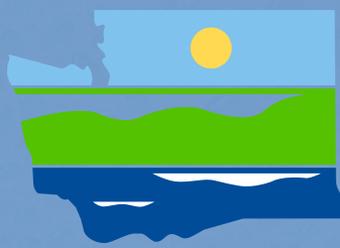


What's new? ...

Chapter 4

- BMP C236 Vegetated Spray Fields
- This BMP provides guidance on how best to use **spray fields** for turbid stormwater or dewatering water





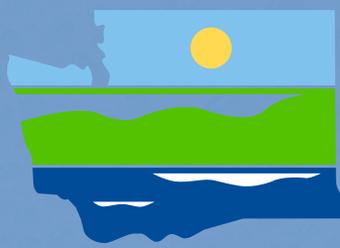
What's new? ...

Chapter 4

BMP C250 Construction Stormwater Chemical Treatment –

- Revised since 2005 permit
- Previously online

New language coordinates BMP C250
with the **CTAPE** program

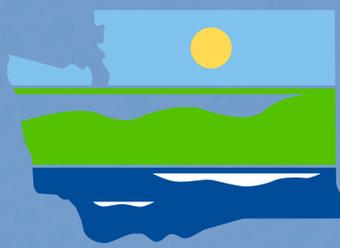


What's new? ...

Chapter 4

BMP C251 –
Construction
Stormwater Filtration

New language adds
sizing criteria

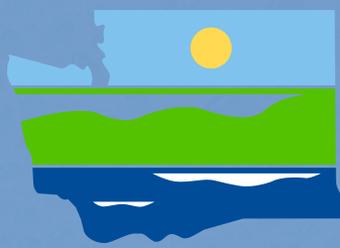


What's new? ...

Chapter 4

- BMP C252 High pH Neutralization Using CO₂
– *Previously online*

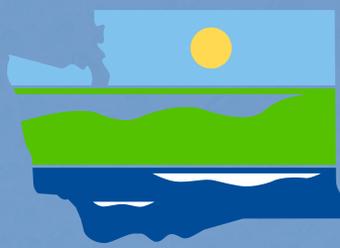




What's new? ...

Chapter 4

- BMP C252 discusses the causes of high pH
- Discusses advantages of CO₂ sparging
- Discusses the treatment process in great detail

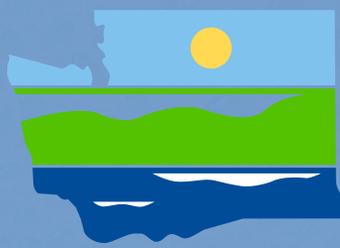


What's new?

Chapter 4

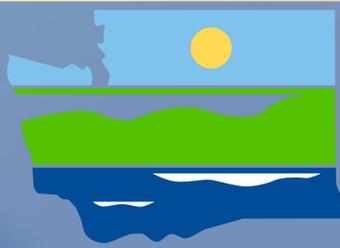
- BMP C253 – pH Control for High-pH Water – **New**
- Like C252, **BMP C253** discusses neutralizing pH in stormwater
- Disposal methods: infiltrate, disperse, or send to sanitary sewer or concrete batch plant





What's new? ...

- Appendix II-B – Background information on **Chemical Treatment**
- The language in Appendix II-B also updated to accommodate the practical application of BMPs 252/253



DEPARTMENT OF
ECOLOGY
State of Washington

Questions?

