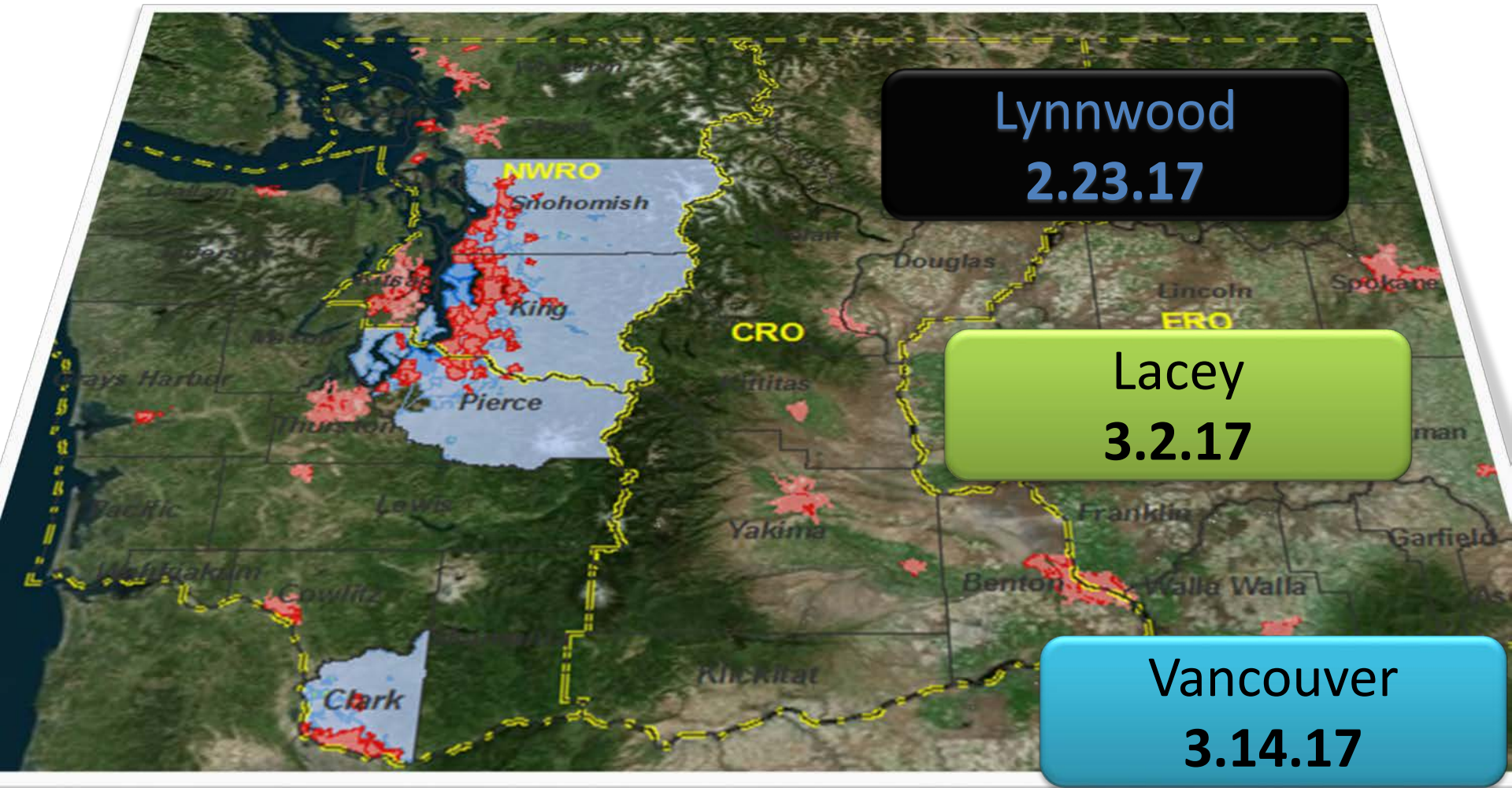
Reissuance of Phase I & Western Washington Phase II Municipal Stormwater Permits



Welcome to Municipal Stormwater Permits' Focused Reissuance Discussions

- Please sign in
- Handouts on tables
- Select a seat
  - We will have small group discussions at your tables.
  - Please try to mix up table groups so that there is a range of representation at each table.

Agenda

Ground Rules

- Phones on silent; take calls out of the room.
- Wait to be called on before speaking.
- Minimize side conversations.
- Be respectful.
- Avoid describing site-specific or permittee-specific issues.

To-do

- Quick permit overview
- Launch into permit reissuance
  - Early input
  - Early thinking
- Talk shop

Permit Overview

Municipal Stormwater Permits implement federal and state rules

- *Clean Water Act*
- *State Water Pollution Control Act*

Municipal Stormwater Permits

Phase I (Issued 1995, reissued 2007, 2012)	King, Snohomish, Pierce & Clark counties; Seattle & Tacoma
Western WA Phase II (Issued 2007, reissued 2012)	80 cities and parts of 5 counties
Eastern WA Phase II (Issued 2007, reissued 2012)	18 cities and parts of 6 counties
All three permits include Secondary Permittees	46 Secondaries – Ports, Schools, Irrigation Districts, etc.

Permit Sections

The permit regulates discharges from large and medium publicly owned municipal separate storm sewer systems (MS4s).

- S1. Permit Coverage & Permittees
- S2. Authorized Discharges
- S3. Responsibilities of Permittees
- S4. Compliance With Standards
- S5. Stormwater Management Program
- S6. Secondary Permittee Requirements
- S7. Compliance With TMDLs
- S8. Monitoring
- S9. Reporting Requirements

Reissuance Process

Prelim. Draft for comment (?)

Early Input → Public meetings → Draft permit → Comment period → Final permit

Early Input

- Definitions
- Mapping
- Public ed & outreach
- Low Impact Development
- Watershed Planning
- Illicit Discharge Detection & Elimination
- Business inspection Source Control
- Structural Stormwater Controls
- Operation and Maintenance
  - standards
  - inspections
  - activities
- Monitoring
- Annual report questions
- Appendix 6 – Construction site sediment

Thank You!!

Ecology's Early Thinking

- Improve existing permit framework by:
  - Maintaining requirements that were new in the 2013 permit to allow for proper establishment and implementation on the local level.
  - Refining permit language so that the requirements are easier to follow to ensure compliance (requirements less likely to be missed or misunderstood).
  - Enhancing requirements with smart and effective advancements that prevent pollution and will improve water quality.

What we won't cover today

- Structural Stormwater Controls (PH I)
- *IDDE*
- Mapping
  - guidance coming soon!
- Public E&O
- Monitoring…

S8. Monitoring and Assessment

- Continuing to implement a regional stormwater monitoring program per recommendations of the SWG stakeholder group
  - Same population-based allocation of costs
  - Projects identified and prioritized outside the permit
  - Undetermined opt-out alternative for S8.B status and trends
  - Same opt-out alternatives for S8.C effectiveness
  - Reduced scope for S8.D source identification

Questions?

Watershed-Scale Stormwater Planning

DEPARTMENT OF
ECOLOGY
State of Washington

Why Watershed Planning?

- PCHB rulings
- Address cumulative impacts of stormwater
- Planning tool to support:
  - Protection of water quality and beneficial uses
  - Prevention of further degradation
  - Restoration through retrofits and enhanced operation and maintenance

Current watershed-scale stormwater planning

- Pilot program – subset of permittees
- Model a specific watershed
  - Based on local data/conditions
  - Develop strategies to meet WQ standards

Desired Outcome

- Set of recommended stormwater management actions, including:
  - adjustments to designated or allowed land uses,
  - building code requirements, and
  - locations and types of capital projects.

Early Recommendations

- Planning tool to prioritize or target:
  - capital SW retrofits projects
  - Enhanced O&M
  - Ed & outreach target audiences or specific BMPs
  - Business inspections
- Less focus on modeling – but still data driven
- Watershed scale is flexible
- Include adaptive mgt.

Existing Guidance

- Building cities in the rain
- Stormwater Control Transfer Guidance
- US EPA long term SW planning

Considerations

- Phase I Opportunities
  - follow through:
    - Implement watershed-scale stormwater plans (developed in 2013-2018 permit).
- Phase I/Phase II Opportunities
  - Cities/Counties:
    - Develop priority watershed plan to determine where stormwater controls or enhanced/targeted stormwater actions will be most beneficial.


Questions

Discussion time

- Do you see value in developing a watershed-scale stormwater plan to inform your SW Program?
- What are different ways that Permittees could potentially use prioritized watersheds/drainage basins to help inform SWMP implementation? [capital, ed&o, source control, etc.]
- What are some potential data gaps to developing this plan?
- Any guidance/resource needs?

Business Inspection Source Control Program – Considerations for Permit Reissuance

Background

Early input & benefits

- Recommended
- Proactive method-
  - don't need to wait for a complaint or illicit discharge

Source Control Key Elements

- Authority to require operational and structural BMPs at existing businesses
- Inspection program
  - Education/technical assistance
- Enforcement authority
- Training

Source Control in the W. WA Phase II Permit Considerations

- Identical to Phase I Permit
- Phased in requirements
- Retain flexible performance measures
- Efficiency –
  - Field screening combo


Questions

Discussion time

- Do you see value in adding a business inspection source control program to your SW Program?
- What, if any, code must Phase II permittees update to implement a business inspection source control program? How much time would that take?
- Ideas around developing an inventory of commercial and industrial businesses?
- Any guidance/resource needs?

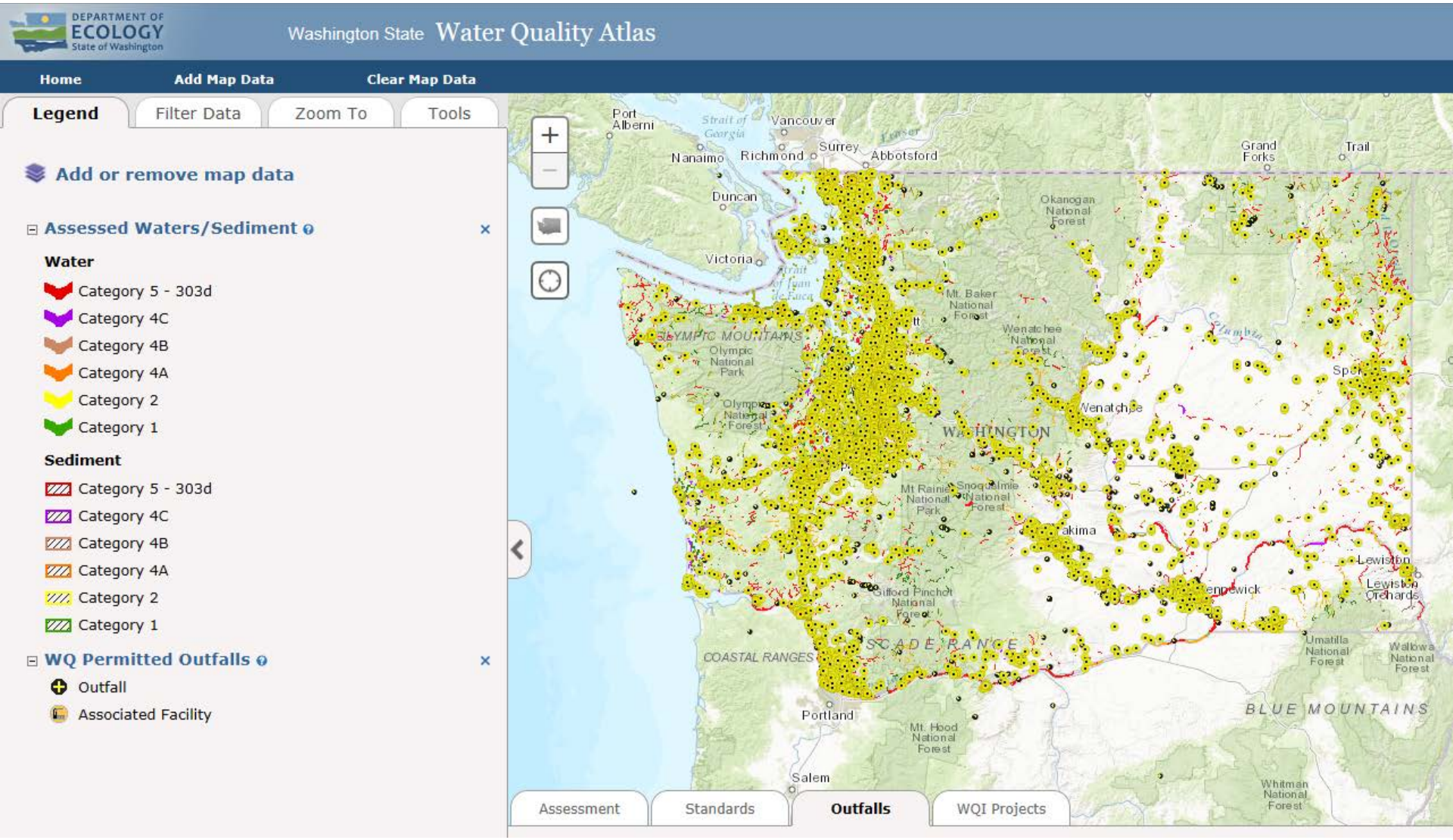
MS4 Outfall Reporting Standard

Carrie Schulte
Municipal SW Planner, Water Quality Program

Why Require MS4 Outfall Reporting?

SW Outfalls to Surface Water

Water Quality Atlas



Standardization Principles

- Receive outfall data we can use,
- Request attributes that are simple and straight forward, and
- Allow for outfall data submittal in tabular form.

Proposed Attributes

Attribute		Description
ID	Required	A unique ID assigned by the Muni
Permittee		Permittee Name
Permit No.		Permit Number
LatitideDD		Decimal degrees coordinate value
LongitudeDD		Decimal degrees coordinate value
LocationalCollectionMethod		Indicates how the feature was collected
GCSDatum	Optional	The Geographical Coordinate System the tabular data are provided.
NHDReachCode		14 character text field
NHDMeasure		Decimal value along the reach code
Receiving Waterbody Name		Water body receiving the discharge
Pipe or Ditch Size		Internal pipe diameter , etc.
Pipe Material		Material pipe is made of

A Reporting Standard…

Will make it easier to share outfall data with each other and with Ecology.

Questions and Discussion

Operation & Maintenance Standards

Dan Gariépy, P.E.
Water Quality Program

DEPARTMENT OF ECOLOGY
State of Washington

Background: Operation & Maintenance in the Permit and SWMMWW

Permits

- Stormwater Management Program
  - Phase I: S5C9
  - Phase II: S5C5ai
- Require O&M to maintain function
- Refer to the SWMMWW

SWMMWW

- Currently in Section V-4.6
- Maintenance Tables for BMPs

Early Input From External Stakeholders

Feedback/Concerns

- Large Facilities are challenging to meet prescribed schedule
- 100% compliance is challenging
- Do tables focus on functional elements
- Sweeping and Line Cleaning can make a significant impact in removing contaminants

Stakeholders' Proposed Changes

- Adjustment in Large Facilities' annual inspection
  - e.g. full inspection every other year
- Make target 95% compliance
- Clarify tables with Functional elements marked

Ecology Responses/Considerations

Permit has provisions for Scheduling Challenges, including large facilities

Ecology will review tables and welcomes specific input and rationale for changes

Annual sweeping in industrial & commercial areas is being considered

O&M Questions and Discussion

- Clarifying language to the Permit's Inspection language and adaptive schedules
- Are there elements or categories of elements in the Ecology tables that should be labeled "non-functional"?
- Does downgrading "non-functional" items inspection elements them from functional provide a benefit?
- Thoughts on including street sweeping as maintenance that provides significant pollutant removal.

Questions?

Thank you!

You can also e-mail additional questions to Dan Gariépy at: daga461@ecy.wa.gov

http://www.ecy.wa.gov/programs/wq/stormwater/municipal/2018Reissuance.html

How Ecology Will Enhance the Usability of the SWMMWW

Amanda S. Heye, P.E.
Stormwater Engineer, Water Quality Program

Why Make a Change?

Why Make a Change?

Known Usability Obstacles

Known Usability Obstacles

- Endless Scrolling

Known Usability Obstacles

- Endless Scrolling
- Scattered Information

Known Usability Obstacles

- Endless Scrolling
- Scattered Information
- Unclear Headings

Known Usability Obstacles

- Endless Scrolling
- Scattered Information
- Unclear Headings
- Interrupted Flow of Concepts

Known Usability Obstacles

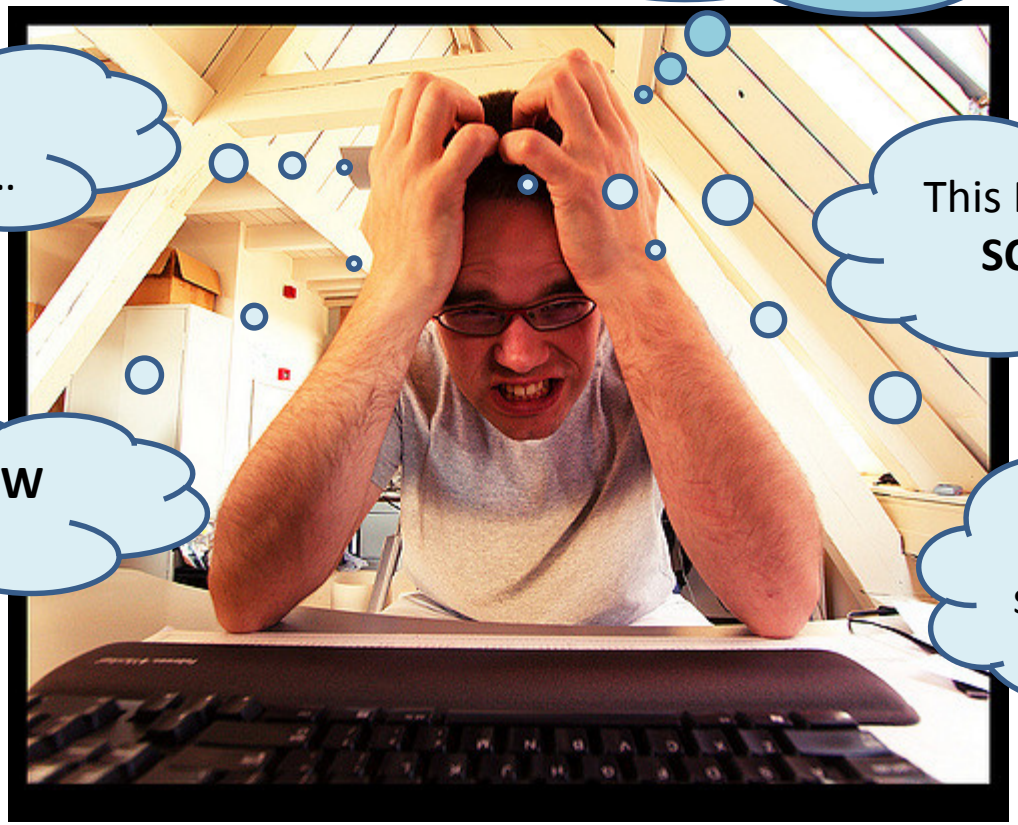
This shouldn't be so HARD!!!

These headings are so **UNCLEAR**…

This PDF just keeps **SCROLLING**…

Where is the **FLOW of CONCEPTS**?

Why is the info so **SCATTERED**?



Themes to Enhance the Usability

Themes to Enhance the Usability

- Fully Embrace the Online User

Themes to Enhance the Usability

- Fully Embrace the Online User
- Consolidate Information

Themes to Enhance the Usability

- Fully Embrace the Online User
- Consolidate Information
- Revise Section Headings for Clarity

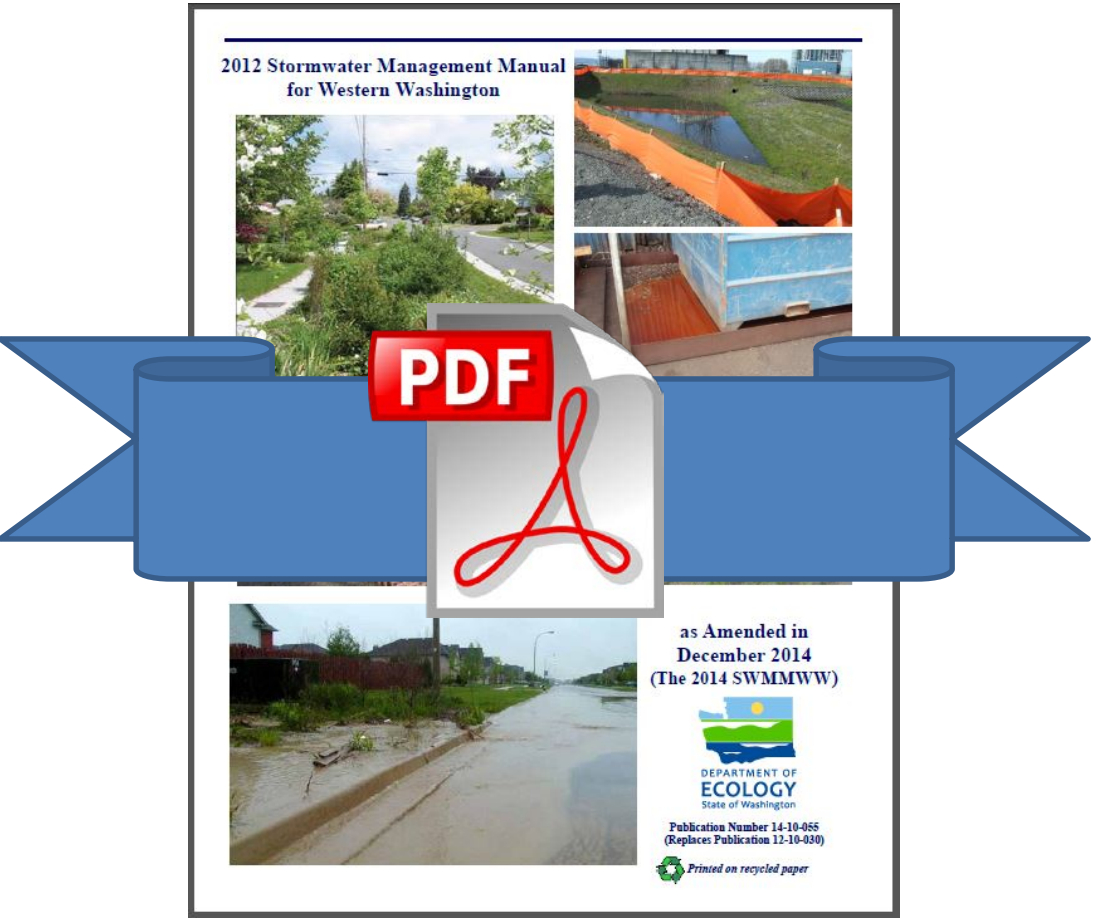
Themes to Enhance the Usability

- Fully Embrace the Online User
- Consolidate Information
- Revise Section Headings for Clarity
- Reorder Sections to Provide a Better Flow of Concepts

Details on the Themes

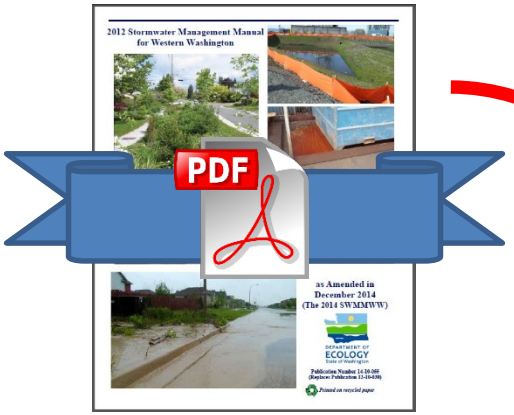
Fully Embracing the Online User

Fully Embracing the Online User

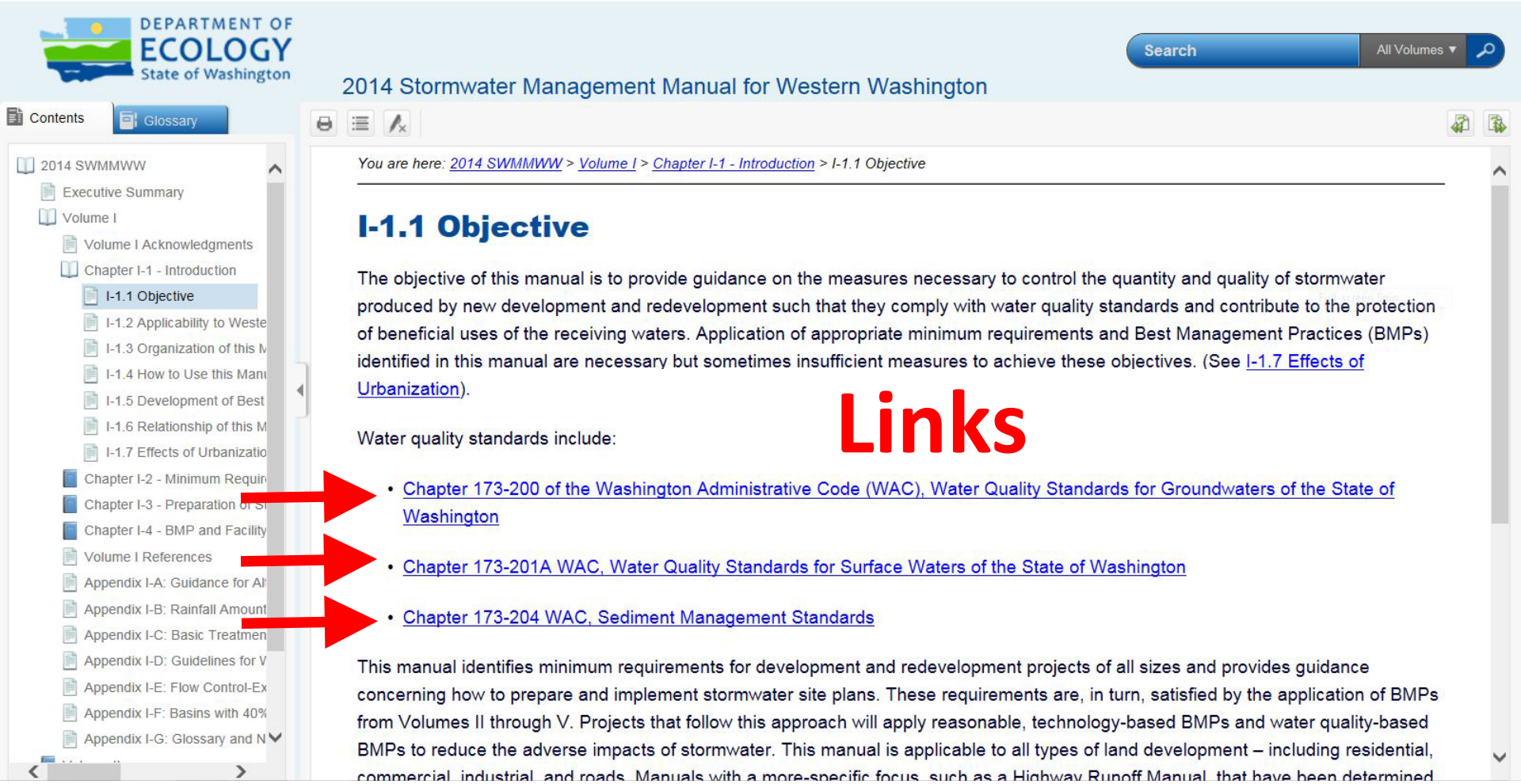


"Ecology will *ALWAYS* provide a printable PDF."

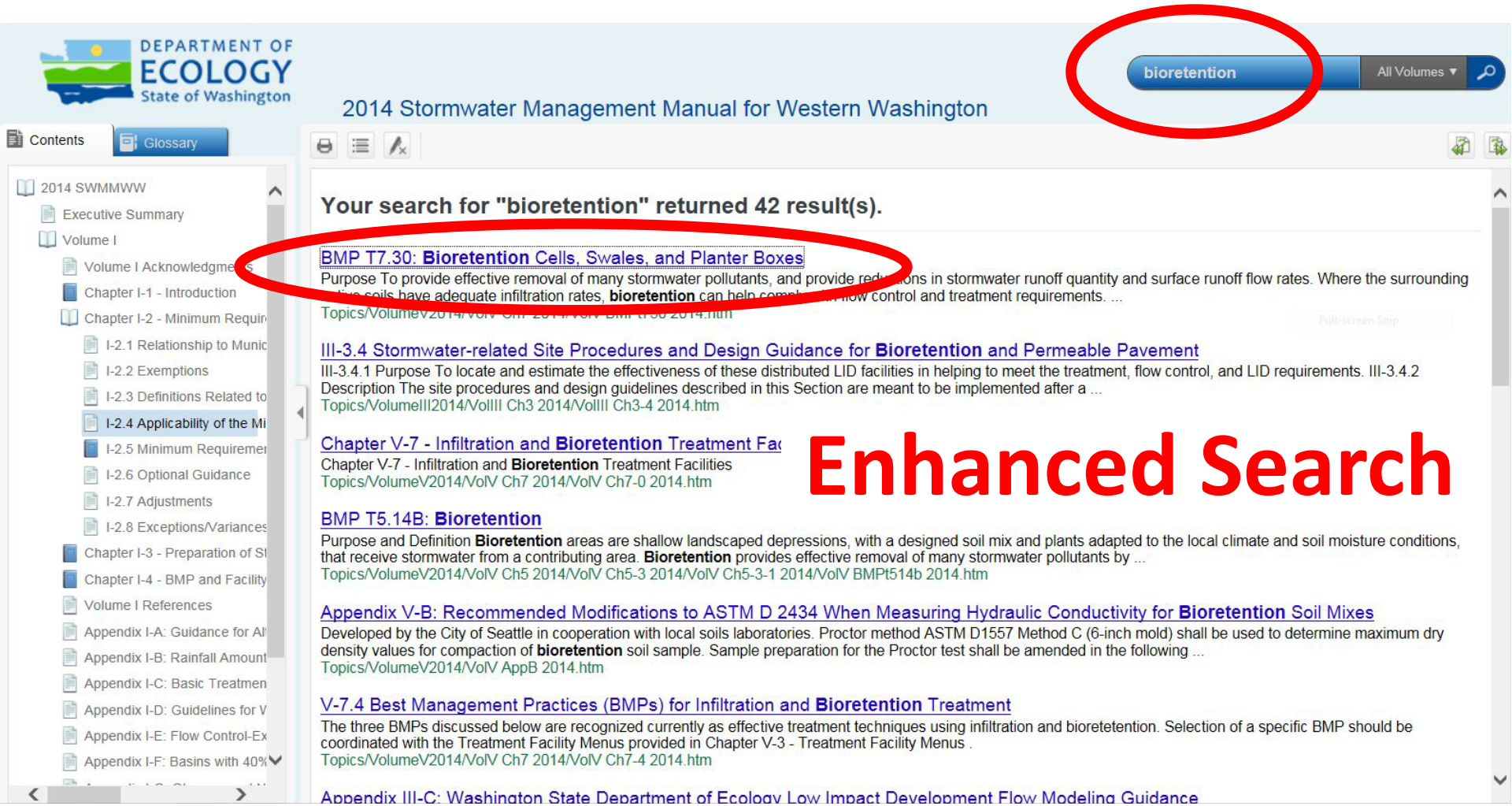
Fully Embracing the Online User



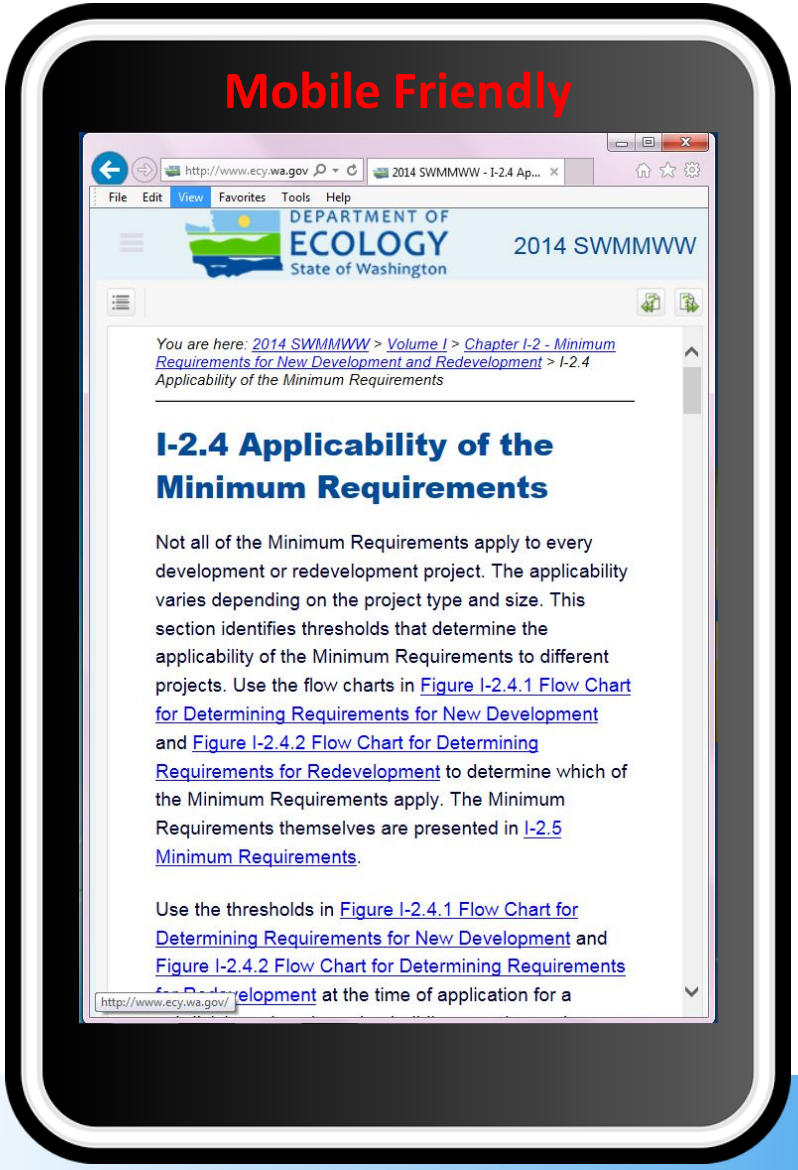
Fully Embracing the Online User



Fully Embracing the Online User



Fully Embracing the Online User



Fully Embracing the Online User

"…love it! ***Huge step forward.*** Makes the gigantic document much less imposing."

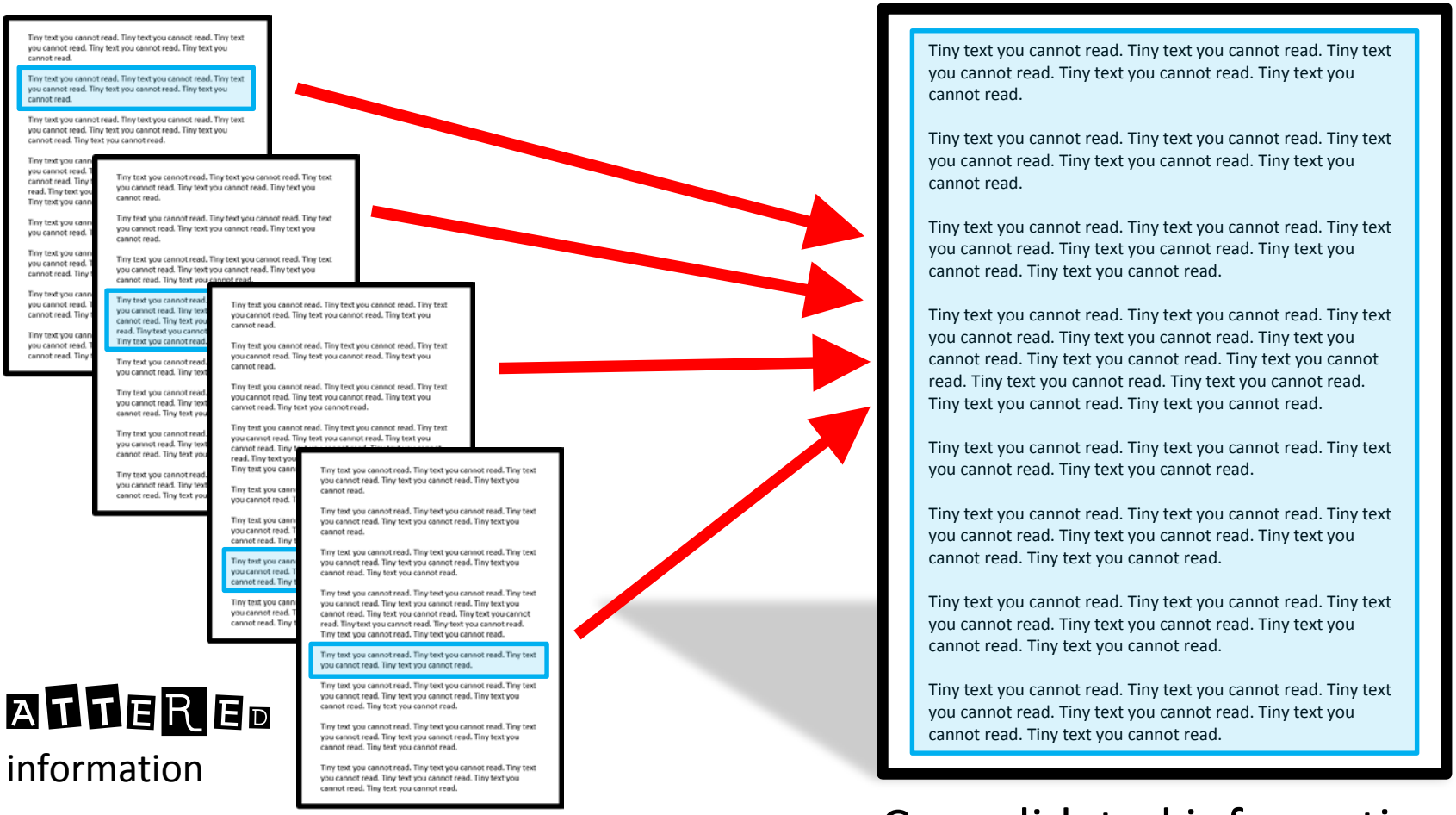
"Right off the bat, ***I love how quickly you can navigate the different sections***."

"I like that the Contents and Glossary are available to the left of the main subject text screen. ***Having a Glossary right there will be very helpful***."

"Thumbs up on the revised format. ***I especially like the new flow charts (no more line crossing) and clean figures***."

"Ecology's new online version of the SWMMWW is a ***fantastic user-friendly product!*** You've transformed a large, cumbersome PDF into an easily navigable and searchable tool for users … ***Thank you for sharing this modern, interactive method for sharing technical guidance!***"

Consolidating Information



SCATTERED information

Consolidated information

Consolidating Information

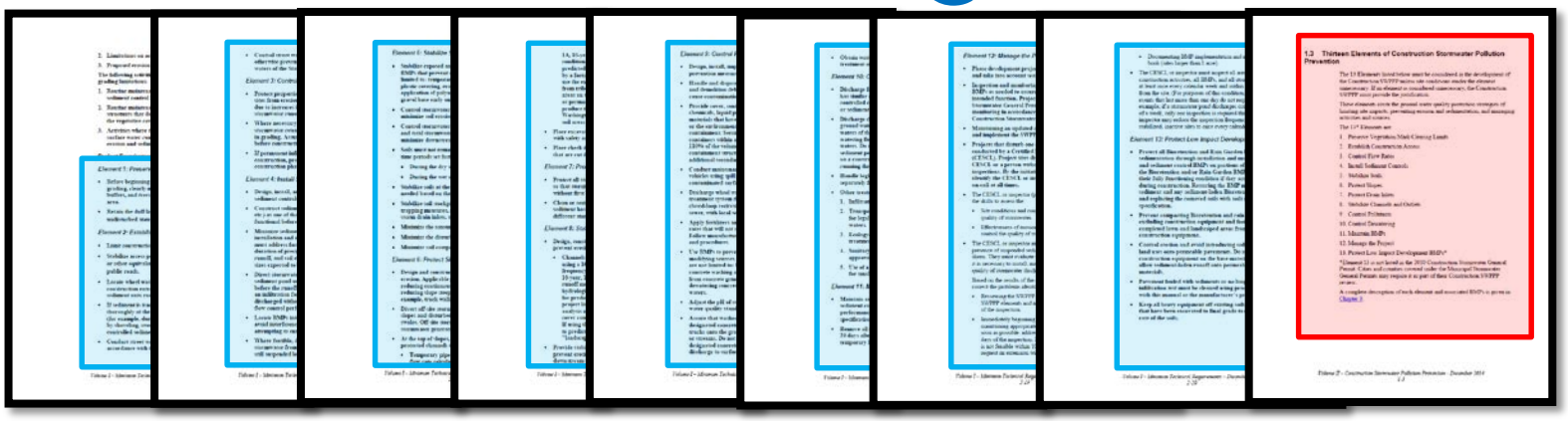
EXAMPLE: Information on the 13 Elements of a Construction SWPPP

Consolidating Information

Section
I-2.5.2

EXAMPLE: Information on the 13 Elements of a Construction SWPPP

Consolidating Information

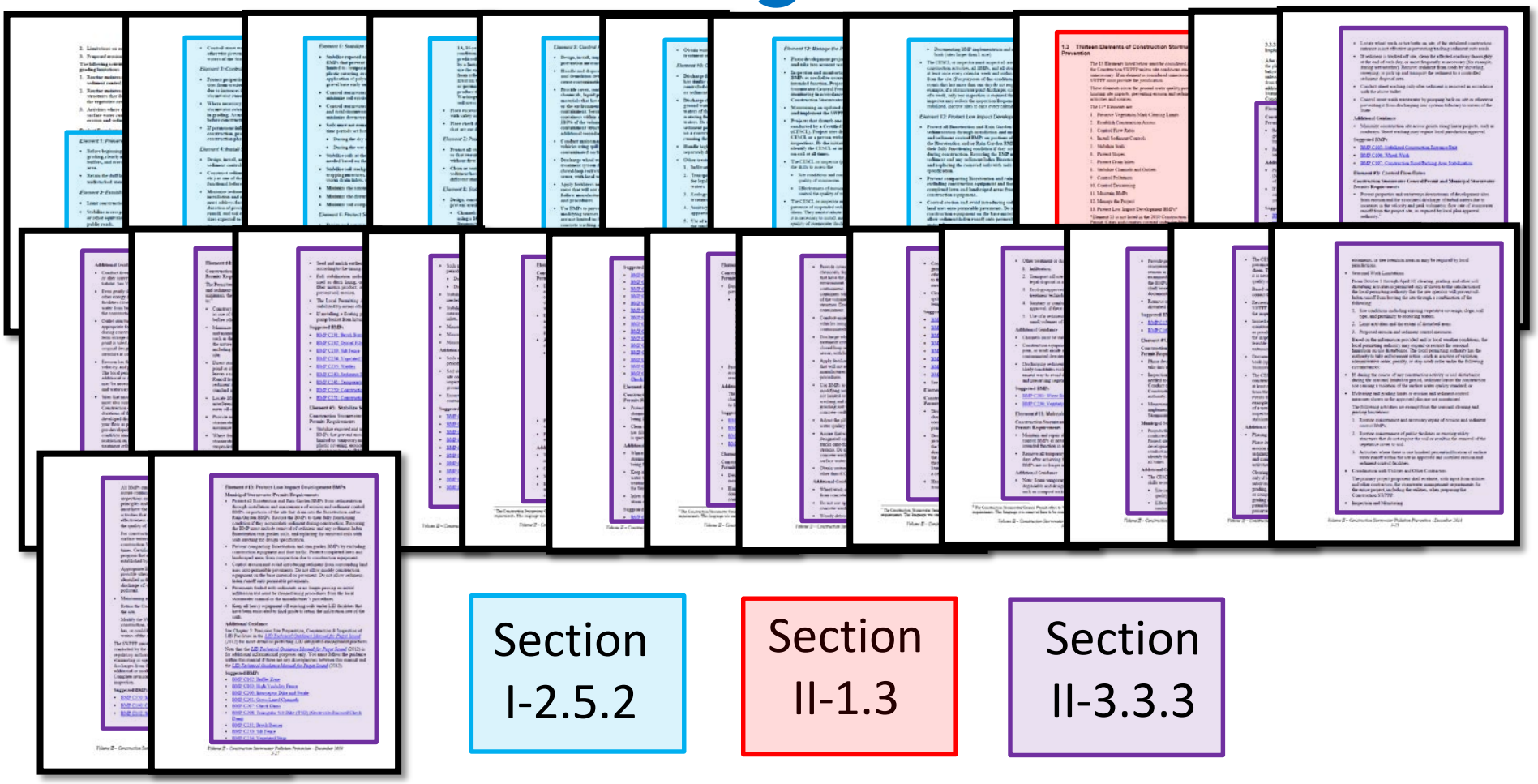


Section I-2.5.2

Section II-1.3

EXAMPLE: Information on the 13 Elements of a Construction SWPPP

Consolidating Information



Section I-2.5.2

Section II-1.3

Section II-3.3.3

EXAMPLE: Information on the 13 Elements of a Construction SWPPP

Consolidating Information

EXAMPLE: Basic Treatment Receiving Waters table

Consolidating Information

Appendix I-C Basic Treatment Receiving Waters

1. All Salt Waterbodies
2. Rivers — Basic Treatment Applies Below This Location

Baker	Anderson Creek
Bogachiel	Bear Creek
Cascade	Marblemount
Chehalis	Bunker Creek
Clearwater	Town of Clearwater
Columbia	Canadian Border
Cowlitz	Skate Creek
Elwha	Lake Mills
Green	Howard Hanson Dam
Hoh	South Fork Hoh River
Humptulips	West and East Fork Confluence
Kalama	Italian Creek
Lewis	Swift Reservoir
Muddy	Clear Creek
Nisqually	Alder Lake
Nooksack	Glacier Creek
South Fork Nooksack	Hutchinson Creek
North River	Raymond
Puyallup	Carbon River
Queets	Clearwater River
Quillayute	Bogachiel River
Quinault	Lake Quinault
Sauk	Clear Creek
Satsop	Middle and East Fork Confluence
Skagit	Cascade River
Skokomish	Vance Creek
Skykomish	Beckler River
Snohomish	Snoqualmie River
Snoqualmie	Middle and North Fork Confluence
Sol Duc	Beaver Creek
Stillaguamish	North and South Fork Confluence
North Fork Stillaguamish	Boulder River
South Fork Stillaguamish	Canyon Creek
Suiattle	Darrington
Tilton	Bear Canyon Creek
Toutle	North and South Fork Confluence
North Fork Toutle	Green River
Washougal	Washougal
White	Greenwater River
Wind	Carson
Wynoochee	Wishkah River Road Bridge

Appendix V-A Basic Treatment Receiving Waters

1. All salt waterbodies
2. Rivers — Upstream Point for Exemption

Baker	Anderson Creek
Bogachiel	Bear Creek
Cascade	Marblemount
Chehalis	Bunker Creek
Clearwater	Town of Clearwater
Columbia	Canadian Border
Cowlitz	Skate Creek
Elwha	Lake Mills
Green	Howard Hanson Dam
Hoh	South Fork Hoh River
Humptulips	West and East Fork Confluence
Kalama	Italian Creek
Lewis	Swift Reservoir
Muddy	Clear Creek
Nisqually	Alder Lake
Nooksack	Glacier Creek
South Fork Nooksack	Hutchinson Creek
North River	Raymond
Puyallup	Carbon River
Queets	Clearwater River
Quillayute	Bogachiel River
Quinault	Lake Quinault
Sauk	Clear Creek
Satsop	Middle and East Fork Confluence
Skagit	Cascade River
Skokomish	Vance Creek
Skykomish	Beckler River
Snohomish	Snoqualmie River
Snoqualmie	Middle and North Fork Confluence
Sol Duc	Beaver Creek
Stillaguamish	North and South Fork Confluence
North Fork Stillaguamish	Boulder River
South Fork Stillaguamish	Canyon Creek
Suiattle	Darrington
Tilton	Bear Canyon Creek
Toutle	North and South Fork Confluence
North Fork Toutle	Green River
Washougal	Washougal
White	Geenwater River
Wind	Carson
Wynoochee	Wishkah River Road Bridge

EXAMPLE: Basic Treatment Receiving Waters table

Consolidating Information

"Ecology will only delete text if the content is clearly covered elsewhere in the manual."

Consolidating Information

2.3 Definitions Related to the Minimum Requirements

Terms that Ecology presented in this section of previous versions of the manual have been moved to the glossary. Refer to the Glossary in Appendix G of this volume for definitions of terms used throughout this manual.

EXAMPLE: Definitions Related to the Minimum Requirements

Consolidating Information

2.3 Definitions Related to the Minimum Requirements

Terms that Ecology presented in this section of previous versions of the manual have been moved to the glossary. Refer to the Glossary in Appendix G of this volume for definitions of terms used throughout this manual.

JUST KIDDING!
(Go to the Glossary)

EXAMPLE: Definitions Related to the Minimum Requirements

Revising Section Headings for Clarity

– Breaking News –

STOLEN PAINTING FOUND BY TREE!

RED TAPE HOLDS UP NEW BRIDGE!

SQUAD HELPS DOG BITE VICTIM!

Revising Section Headings for Clarity

II-3: Planning

??? What *kind* of planning???

EXAMPLE: Volume II Chapter 3 - Planning

Revising Section Headings for Clarity

~~II-3: Planning~~

II-3: Construction SWPPPs

EXAMPLE: Volume II Chapter 3 - Planning

Moving Sections to Accommodate a Better Flow of Concepts

Step 1: Wake up

Step 2: Drive to work

Step 3: Get dressed ← ?!?!

Step 4: Work

Step 5: Drive home

Moving Sections to Accommodate a Better Flow of Concepts

EXAMPLE: BMP T5.10A Downspout Full Infiltration

Moving Sections to Accommodate a Better Flow of Concepts

Excerpt from Volume V TOC:

V-5.3.1 On-Site Stormwater Management BMPs

BMP T5.10A: Downspout Full Infiltration
BMP T5.10B: Downspout Dispersion Systems
BMP T5.10C: Perforated Stub-Out Connections
BMP T5.11: Concentrated Flow Dispersion
BMP T5.12: Sheet Flow Dispersion
….(etc)

EXAMPLE: BMP T5.10A Downspout Full Infiltration

Moving Sections to Accommodate a Better Flow of Concepts

<u>Within Volume V:</u>

BMP T5.10A: Downspout Full Infiltration

Please refer to III-3.1.1 Downspout Full Infiltration Systems (BMP T5.10A).

EXAMPLE: BMP T5.10A Downspout Full Infiltration

Moving Sections to Accommodate a Better Flow of Concepts

EXAMPLE: BMP T5.10A Downspout Full Infiltration

Moving Sections to Accommodate a Better Flow of Concepts

- Regrouping BMPs within Volume V

Moving Sections to Accommodate a Better Flow of Concepts

- Regrouping BMPs within Volume V
- Moving appendices where appropriate

Moving Sections to Accommodate a Better Flow of Concepts

- Regrouping BMPs within Volume V
- Moving appendices where appropriate
- Moving content about regulatory requirements to its own chapter

Moving Sections to Accommodate a Better Flow of Concepts

- Regrouping BMPs within Volume V
- Moving appendices where appropriate
- Moving content about regulatory requirements to its own chapter
- Moving detention BMP design guidance into Volume V

Anticipated Results

Anticipated Results

Usability Obstacle	Enhancement Theme
Endless Scrolling	Fully Embrace the Online User
Scattered Information	Consolidate Information
Unclear Headings	Revise Section Headings for Clarity
Interrupted Flow of Concepts	Moving Sections to Provide a Better Flow of Concepts

From THIS….

To THIS!!!

What About Content?

What About the Content??

Global Updates:

- Plain talk the language
- Ensure coordination with the general permits

What About the Content??

Global Updates:

- Plain talk the language
- Ensure coordination with the general permits

Volume I:

- Incorporate basin-level guidance into an appendix (i.e. regional facilities, stormwater control transfer program)
- Clarify the wetland guidance in Appendix I-D

What About the Content??

Global Updates:

- Plain talk the language
- Ensure coordination with the general permits

Volume I:

- Incorporate basin-level guidance into an appendix (i.e. regional facilities, stormwater control transfer program)
- Clarify the wetland guidance in Appendix I-D

Volume III:

- Replace guidance for WWHM3 with guidance for the current version of WWHM

What About the Content??

Global Updates:

- Plain talk the language
- Ensure coordination with the general permits

Volume I:

- Incorporate basin-level guidance into an appendix (i.e. regional facilities, stormwater control transfer program)
- Clarify the wetland guidance in Appendix I-D

Volume III:

- Replace guidance for WWHM3 with guidance for the current version of WWHM

Volume IV:

- Add Source Control BMPs to support the business inspection requirement from the municipal stormwater permits

Questions and Comments

Response to LID Questions

Dan Gariépy, P.E.
Water Quality Program

DEPARTMENT OF ECOLOGY
State of Washington

Some LID Questions from Early Input and Implementation

LID List Approach

Comments ranged from LID Lists being “too rigid” to “need to be more stringent”

- Implementation has just begun for most communities
- The List was added to provide flexibility from the LID Performance Standard
- An extensive public process was conducted to determine this starting point

Allow the development of new LID BMPs

- Ecology is comfortable with the suite available arrived at through input during last cycle
- Permit allows some flexibility, responsibility on permittee
- A TAPE process was proposed but TAPE is not designed for hydraulic performance

5+ Acre Lots out of UGA

5 acre lots outside the UGA are too difficult to develop with the Performance Standard as the only option.

- Performance Standard can be met through Full Dispersion
- Full Dispersion only needs to address the portion of the site that is developed (i.e. the Project).
- There may be cases where it limits the amount of development.
- We have not yet heard a Permittee present a situation where a lot became undevelopable.

Concerns over exports from Bioretention Soil Media

- Check out the latest FAQ
- Ecology continues to support the current mix.
- Ecology is looking at other mixes, work is ongoing.

Permeable Pavement Maintenance is an “unknown”

- There are viable ways to maintain permeable pavement.
- An LID O&M document was developed
- PCHB ruled that permeable pavement was a feasible option

LID in Flow Control Exempt Areas

Lack of LID requirements in Flow Control Exempt areas that could help pollutant removal

- BMP T5.13 Soil Quality and Depth is still required
- Runoff Treatment is still required
- LID is still an option, but not required

Site Characterization Required

Provide clarity that site by site level analysis is required to demonstrate LID infeasibility

- Ecology agrees with this statement throughout the SWMMWW
- A regional study can help set regional priorities, but must provide the equivalent level of detail as a site by site
- Some acknowledged criteria where municipality-wide data can demonstrate infeasibility criteria:
  - Rich high groundwater data
  - Steep slopes

LID Standard in Heavily urbanized Areas

LID Performance standard should be adjusted for areas where the predeveloped condition is the existing condition

- Ecology acknowledged this concern with the approval of the Seattle Manual.
- This challenge only applies to a handful of municipalities

Questions?

You can also e-mail additional questions to Dan Gariépy at: daga461@ecy.wa.gov

Thank you!

http://www.ecy.wa.gov/programs/wq/stormwater/municipal/2018Reissuance.html

Next Steps

- Review and assess
  - Your comments
  - Annual Reports
  - Effectiveness Monitoring Studies
- Future Communication
  - SW listserv – sign up
  - Email comments
  - Ecology's Permit manager