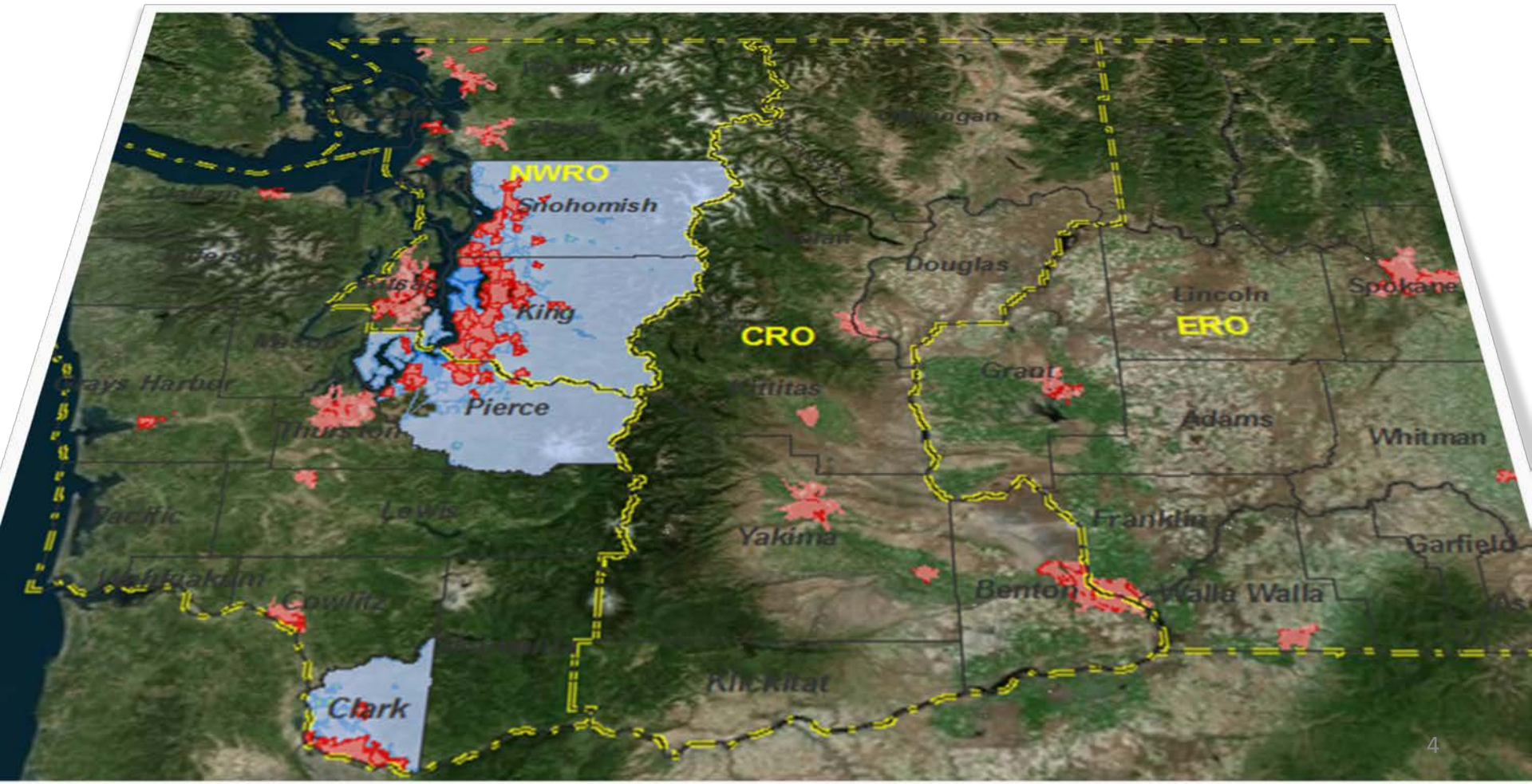
Reissuance of Phase I & Western Washington Phase II Municipal Stormwater Permits



To-do

- Review agenda
- Quick permit overview
- Permit reissuance process
- Introduce preliminary drafts

Agenda

1:30 Welcome and Overview

1:45 Education and Outreach

2:05 IDDE and Mapping

2:20 Source Control for Phase II

2:40 **BREAK**

2:50 Structural Stormwater Controls for Phase I

3:15 Monitoring and Assessment

3:30 SWMMWW (& manual adoption)

3:55 Wrap-up

4:00 Adjourn

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 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 and Assessment
- S9. Reporting Requirements

Reissuance Process

Early Input
Fall 2016

Public meetings
Spring 2017

Preliminary Draft permit
Fall 2017

Informal Comment period
Oct-Jan

Formal Draft Permits
Summer 2018

Formal Comment period
Summer/Fall 2018

Final permits!
July 2019

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.

Follow-up

Early Input – Fall 2016	Listening sessions - Spring 2017	Today – Fall 2017
• Watershed-scale stormwater planning • Public Ed & outreach	Watershed-scale stormwater planning	Public Ed & Outreach

Follow-up

Early Input – Fall 2016	Listening sessions - Spring 2017	Today – Fall 2017
• Watershed-scale stormwater planning • Public Ed & outreach • Mapping • Illicit Discharge Detection & Elimination (IDDE)	Watershed-scale stormwater planning	Public Ed & Outreach
	Outfall reporting	IDDE & Mapping

Follow-up

Early Input – Fall 2016	Listening sessions - Spring 2017	Today – Fall 2017
• Watershed-scale stormwater planning • Public Ed & outreach • Mapping • Illicit Discharge Detection & Elimination (IDDE) • Source Control • Structural Stormwater Controls (SSC)	Watershed-scale stormwater planning	Public Ed & Outreach
	Outfall reporting	IDDE & Mapping
	Source control	Source Control
		SSC for PH I

Follow-up

Early Input – Fall 2016	Listening sessions - Spring 2017	Today – Fall 2017
• Watershed-scale stormwater planning • Public Ed & outreach • Mapping • Illicit Discharge Detection & Elimination (IDDE) • Source Control • Structural Stormwater Controls (SSC) • Operation and Maintenance standards • Monitoring • Low Impact Development (LID)	Watershed-scale stormwater planning	Public Ed & Outreach
	Outfall reporting	IDDE & Mapping
	Source control	Source Control
		SSC for PH I
	O&M standards	Monitoring & Assessment
	SWMMWW • LID	SWMMWW • Manual adoption • O&M update

Follow-up

Early Input – Fall 2016	Listening sessions - Spring 2017	Today – Fall 2017
• Watershed-scale stormwater planning • Public Ed & outreach • Mapping • Illicit Discharge Detection & Elimination (IDDE) • Source Control • Structural Stormwater Controls (SSC) • Operation and Maintenance standards • Monitoring • Low Impact Development (LID) • Annual report questions • Definitions • Appendix 6 – Construction site sediment	Watershed-scale stormwater planning	Public Ed & Outreach
	Outfall reporting	IDDE & Mapping
	Source control	Source Control
		SSC for PH I
	O&M standards	Monitoring & Assessment
	SWMMWW • LID	SWMMWW • Manual adoption • O&M update

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

Grants and Loans
Public Outreach
Publications

Preliminary drafts available for comment

We have developed preliminary draft permit sections for the Phase I and Western Washington Phase II Municipal Stormwater Permits. Preliminary draft sections of the Stormwater Management Manual for Western WA (SWMMWW) are also available.

Preliminary draft sections available for comment include:

Municipal Stormwater Permits	SWMMWW (in web format)
Phase I • S5.C.6 Structural Stormwater Control **Phase I & Phase II** • S5.C.10 / S5.C.1 Education and Outreach • S5.C.8/S5.C.3 IDDE tracking and reporting • S5.C.2/S5.C.3 Mapping • S5.C.4/S5.C.5 Controlling Runoff – site and subdivision scale • S8. Monitoring **Phase II** • S5.C.X Source Control	**Preliminary draft package of the 2019 SWMMWW** • Full table of contents • All of Volume II • Select source control BMPs from Volume IV

Comment period

We are accepting comments on these preliminary draft sections until 11:59 p.m. January 19, 2018.

This is an informal comment period; Ecology will not respond to the comments received, but will take them into consideration in developing the formal drafts of the Permits. The formal drafts are anticipated to be available for comment in summer of 2018.

Send comments to: http://ws.ecology.commentinput.com/?id=tkx29

Or mail hard copies to:

Municipal Stormwater Comments
WA Department of Ecology
Water Quality Program
PO Box 47696
Olympia, WA 98504-7696

Public meeting on preliminary drafts

We will hold and informational meeting (with webinar option) on:

October 12, 2017 at 1:00pm
Dept. of Ecology
300 Desmond Drive, Lacey WA

Questions?

Education & Outreach

Overview of proposed changes

- Focused on:
  - Maintaining and refining requirements
    - General awareness
    - Behavior change
    - Stewardship opportunities
- Based on addressing local WQ issue

General awareness

- Clarifications
  - Target audiences and Subject areas approach

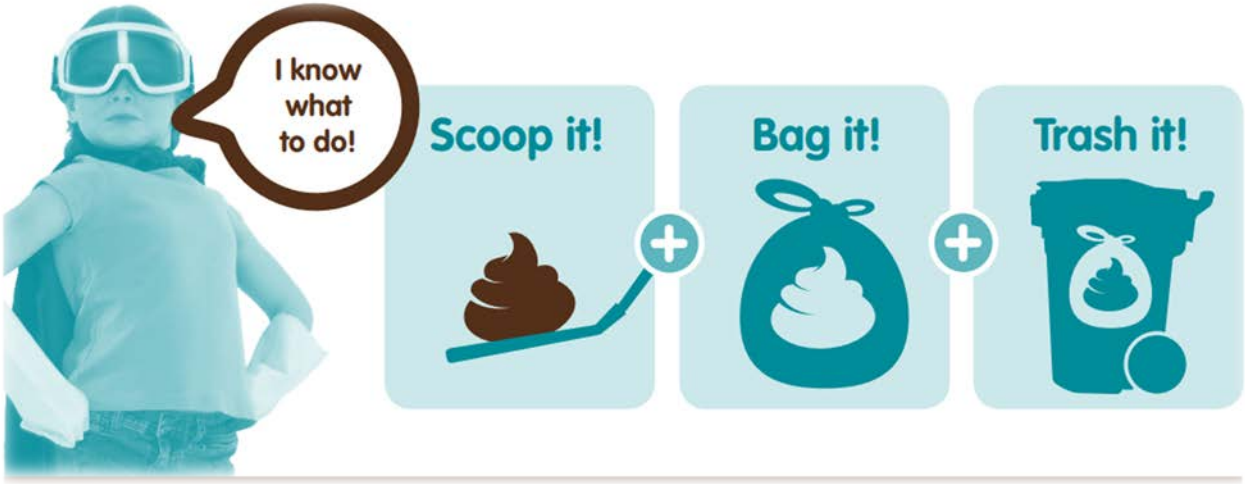
http://www.refbc.com/news/building-knowledge-and-capacity-bc-water-movement#.Wd1NxltSx9M

Behavior change

- Clarifies *specific* target audiences,
- Outlines program evaluation, and
- Process to take to encourage behavior change

Behavior change

- Evaluate existing program
  - Identify lessons learned
  - Recommendations for next steps
    - Using Community-based social marketing methods (or equivalent)



Community-based social marketing?

- Best practice for encouraging change in behavior
- Helps you understand what action you may want focus on
- Works to understand your target audience
  - Identify barriers and motivators
- Implement and Evaluate

Behavior change options

- Develop strategy for existing program
- Expand existing program
- Select new/different audience and BMP

Stewardship opportunities

- Maintained with clarifications
  - Leverage partnerships with non-permittees
  - Includes events planned and organized in the community

Questions?

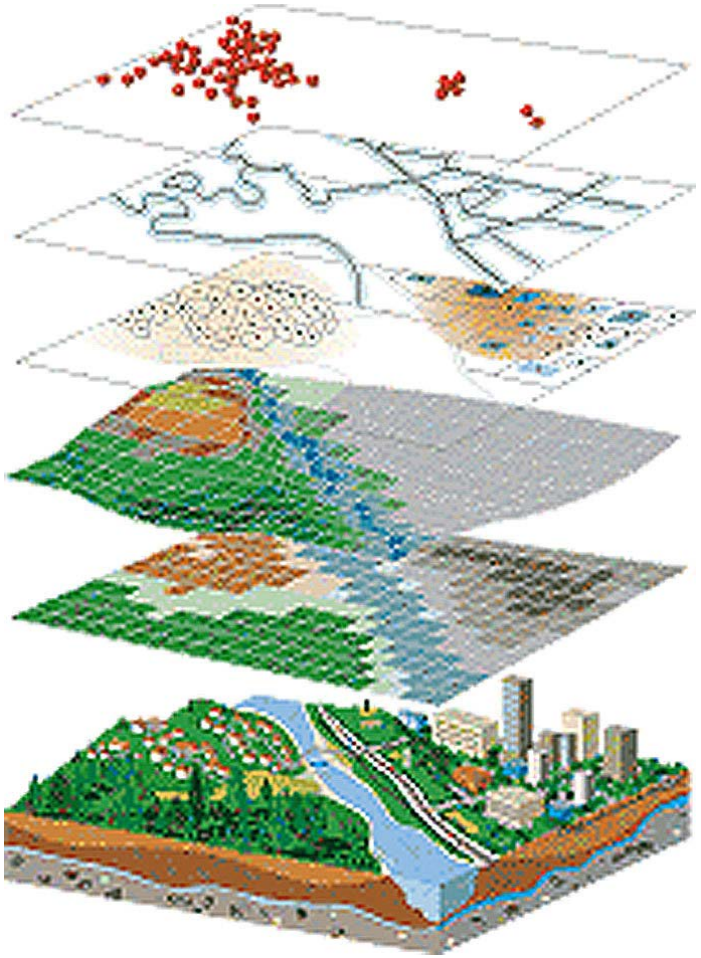
IDDE & Mapping

IDDE – tracking and reporting

- Prescribed format and reporting method for IDDE activities
  - Upload IDDE data; schema described
  - Provides consistent dataset for analysis

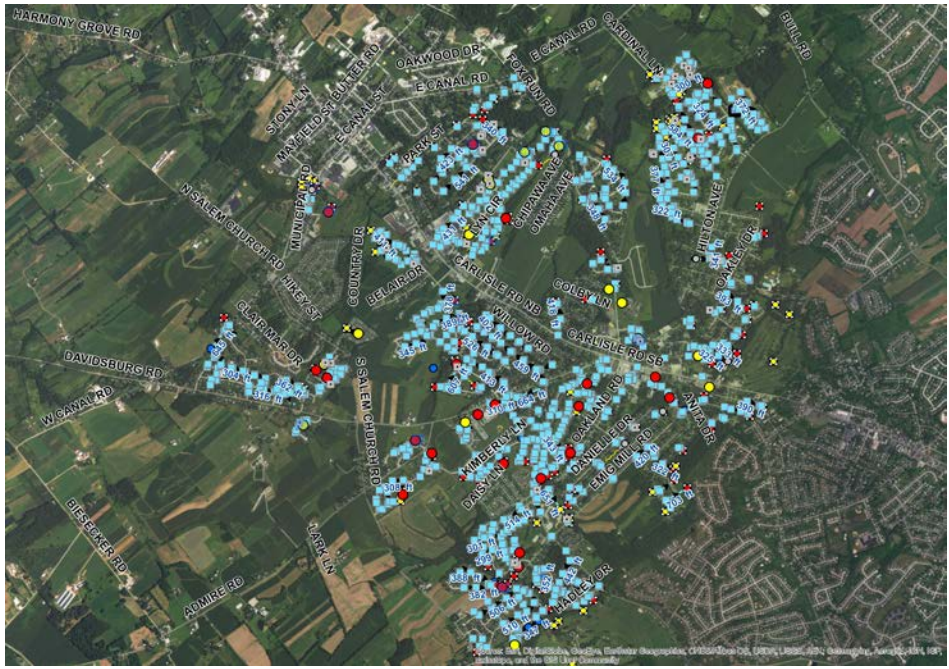
IDDE – Phase II mapping reorganization

- Mapping requirements move to its own section in S5.
  - Follows permit structure of Phase I
- Distinguish between "ongoing" and "new" mapping requirements



New Mapping Requirements

- MS4 Outfalls:
  - Include size and material, where known
- Phase I counties:
  - Map tributary conveyances to 24” or larger outfalls in all rural sub-basins
- Electronic format required



Outfall Mapping Overview

- **Continues to require mapping of ALL KNOWN outfalls**
- **New: when known, include outfall size and materials**

Mapping Stormwater Facilities History

- 2007 Permits required mapping:
  - Structural stormwater BMPs owned, operated, or maintained by the Permittee
- 2013 Permits introduced new term:
  - Stormwater treatment and flow control BMPs/facilities
- The new term was inadvertently used in the mapping section of the Permits…

Mapping Stormwater Facilities Correction

- New term proposed: *permanent stormwater facilities*
  - Intent that all MS4 (publicly owned or operated) structural controls be mapped.
  - Not limited to structural controls that are installed under MR6 and MR7.

Permanent Stormwater Facilities

Structures or devices designed or used to control stormwater flows, or remove pollutants from stormwater, or both.

Draft Mapping Guidance

- Responds to questions about mapping requirements and related definitions
- Provides example scenarios with labels
  - outfall, discharge point, connection, etc.
- Consistent with Permit language (including proposed)
- Please review and comment!
  - Additional scenarios welcome (please provide figures where possible)

Questions?

Source Control for Phase II

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
- Progressive compliance strategy
  - Education/technical assistance
  - Formal enforcement
- Training

Considerations for W.WA Phase II Source Control Requirements

- Similar to Phase I Permit
- Phased-in requirements
- Retain flexible performance measures

Questions?

http://www.freepik.com/free-photo/rain-glass-nature-wet-window-flower_668079.htm

BREAK TIME!

We will begin again at 2:50p.m.

Phase I Permit: Structural Stormwater Controls

Structural Stormwater Control Program

INTRODUCING A PROPOSED DEFINED LEVEL OF EFFORT

What is the Structural Stormwater Control (SSC) Program?

- Applies to Phase I cities & counties
- Purpose is to prevent or reduce negative impacts from MS4 discharges not otherwise adequately controlled
  - Impacts to address are disturbances to watershed hydrology and discharges of pollutants
  - Address areas of existing development, including roadways
  - Address areas of new development to prevent anticipated future impacts

SSC Program History

- 2007 – 2012 Permit
  - Required a project planning process
  - Identified qualifying and non-qualifying project types
  - Required annual reporting of a project list
- 2013 – 2018 Permit
  - Added Appendix 11 reporting format
  - Introduced 3 potential metrics to be calculated and reported:
    - Hydrologic benefit
    - Water quality benefit (i.e., treatment)
    - Retrofit incentive point
  - Adjusted qualifying and non-qualifying project types

Preliminary Draft SSC Proposal

- Informed by 3 years of project reporting per Appendix 11
- Introduces a proposed defined level of effort
  - based on “retrofit incentive points”
- Includes detailed guidance to be referenced by the permit
- Adjusts qualifying and non-qualifying project types

What is in the Preliminary Draft SSC Packet?

1. Draft Guidance Document
   - Includes notes to reviewers to highlight aspects or ask key questions
2. Proposed Phase I permit redlines for Special Condition S5C6
3. Draft revised Appendix 11
4. Attachment A, Summary of what we learned from the Appendix 11 submittals (cy 2014, 2015, 2016)

Project Types

Qualifying

1. New flow control facility
2. New runoff treatment facility (or treatment and flow control facility)
3. New LID BMPs
4. Retrofit of existing treatment and/or flow control facility
5. Property acquisition
6. Maintenance with capital construction costs ≥ $25,000
7. Restoration of riparian buffer
8. Restoration of forest cover
9. Floodplain reconnection projects
10. Other actions to address stormwater runoff into or from the MS4 not otherwise required in S5.C

Non-qualifying

- In-channel habitat and stream restoration.
- Fish barrier removal.
- Stabilization of down cutting.
- In-stream culvert replacement.
- Mitigation projects otherwise required.

Proposed Retrofit Incentive Point Structure

- Allows for comparisons of
  - A variety of project types
  - Differing project benefits
- Standardizes quantification of qualifying projects
- Emphasizes
  - Reducing negative impacts from existing MS4 discharges
  - Project effectiveness as compared to minimum technical requirements
  - Addressing water quality impairments
  - Preventing future negative impacts from future MS4s
  - Implementing basin or watershed plans

Retrofit Incentive Factors

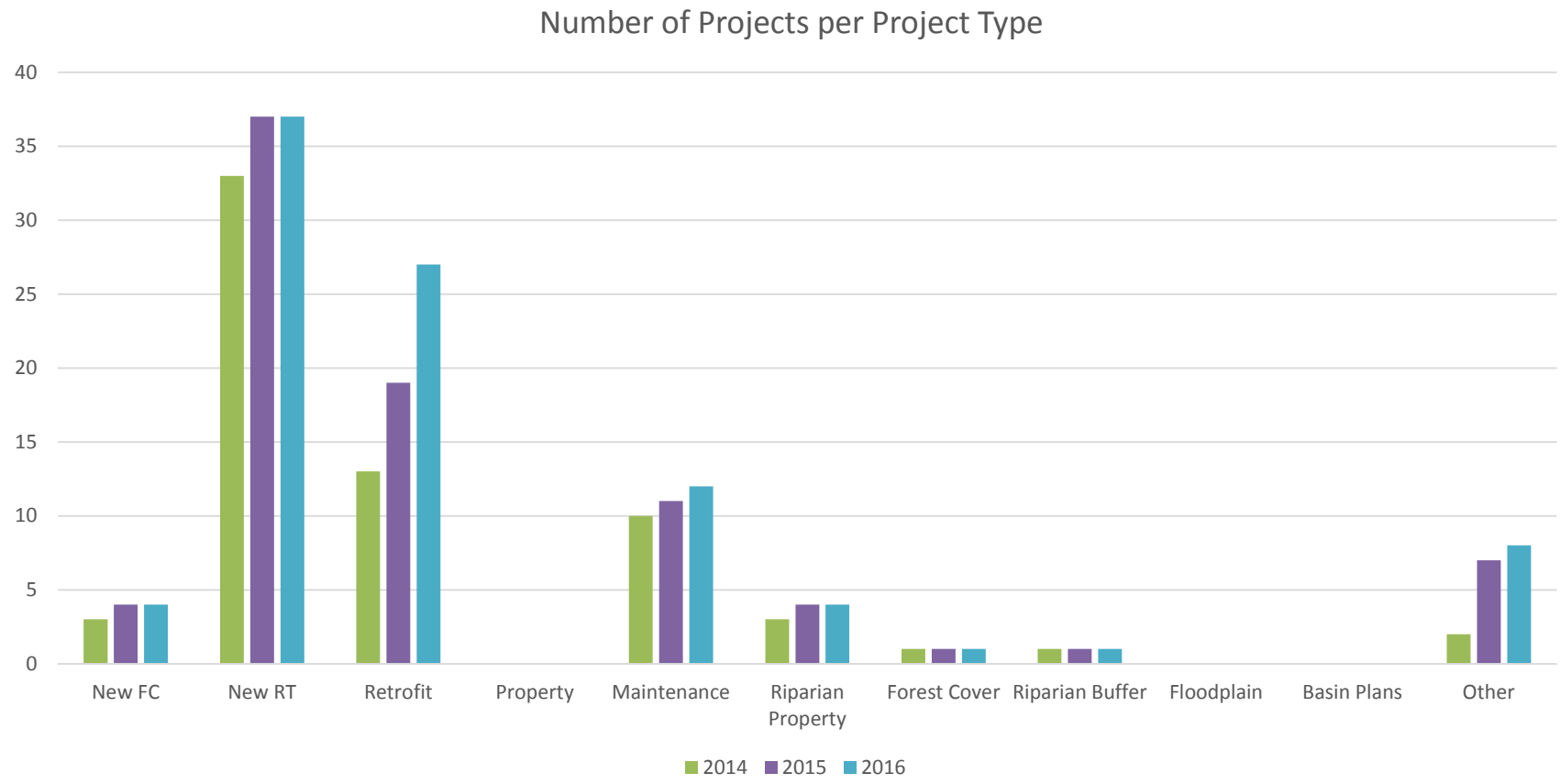
Relevant Project Type #s	Project Achievement Description	Incentive Factors & Retrofit Incentive Points[b]
#1 & #4	Flow Control Benefit ratio less than 0.5	1.0 times Equivalent New/Redevelopment area
#1 & #4	Flow Control Benefit ratio less than 0.80 and greater than 0.5	1.25 times Equivalent New/Redevelopment area
#1 & #4	Flow Control Benefit ratio greater than 0.8	1.5 times Equivalent New/Redevelopment area
#1 & #4	Flow Control Benefit ratio less than 0.80 and greater than 0.5 in a known flow control problem area.	1.5 times Equivalent New/Redevelopment area
#2 & #4	Runoff Treatment Benefit ratio less than 0.75	1.0 times Equivalent New/Redevelopment area
#2 & #4	Runoff Treatment Benefit ratio less than 0.75 in a known water quality problem area	1.5 times Equivalent New/Redevelopment area
#2 & #4	Achieves Basic Treatment with Runoff Treatment Benefit ratio greater than 0.75	1.5 times Equivalent New/Redevelopment area
#2 & #4	Achieves Enhanced or Phosphorus Treatment with Runoff Treatment Benefit ratio greater than 0.75	1.75 times Equivalent New/Redevelopment area
#2 & #4	Meets WQ standards for target pollutant with Runoff Treatment Benefit ratio equal to 1.0	2.0 times Equivalent New/Redevelopment area
#3	Meets LID Performance Standard	2.0 times Equivalent New/Redevelopment area

Retrofit Incentive Factors

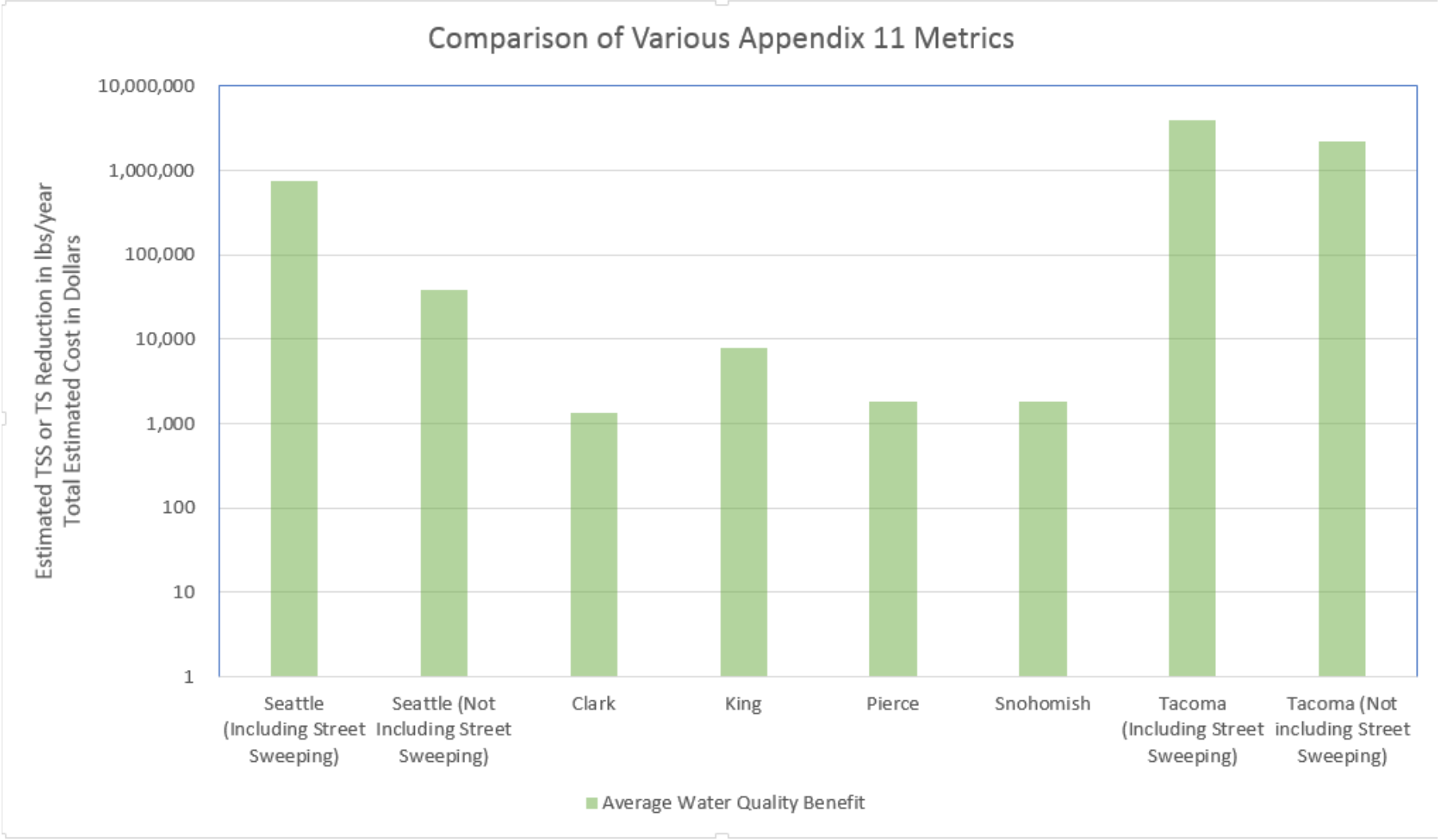
Relevant Project Type #s	Project Achievement Description	Incentive Factors & Retrofit Incentive Points
#5	Property Acquisition	0.50 times acres acquired
#6 & #10	Maintenance with capital construction costs ≥ $25,000 or other maintenance actions per S5.C.6.a.ii.(5).	0.25 times the area served by the maintenance activity, or 0.25 times (curb miles swept x # events/year), or 0.25 times the linear feet lines cleaned.
#7	Restoration of Riparian Buffer	0.35 times acres restored
#8	Restoration of Forest Cover	0.25 times acres restored
#9	Floodplain Reconnection	0.10 times acres reconnected, with a maximum of 200 points[c]

Add 0.10 to the applicable multiplier for capital projects related to the MS4 which implement an Ecology-approved basin plan (refer to Permit Appendix 1, Section 7) or watershed-scale stormwater plan from the 2013-2018 Permit's Special Condition S5.C.5.c, or a TMDL (refer to Appendix 2) or an Ecology-approved adaptive management plan (refer to Permit's Special Condition S4F and Appendix 13).

What We Learned from 2014-2016: Project Types



What We Learned: 2016 Roll up



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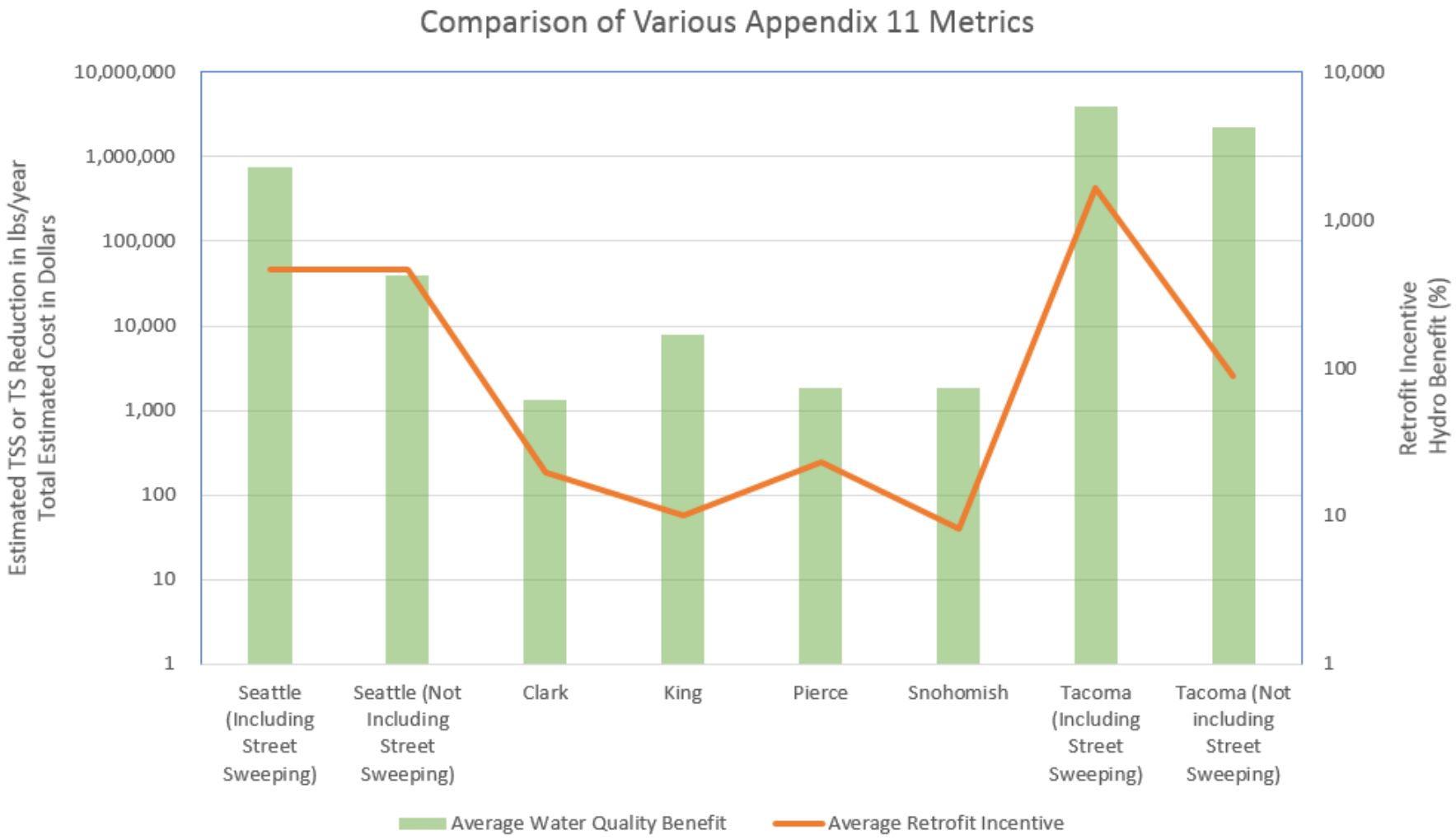

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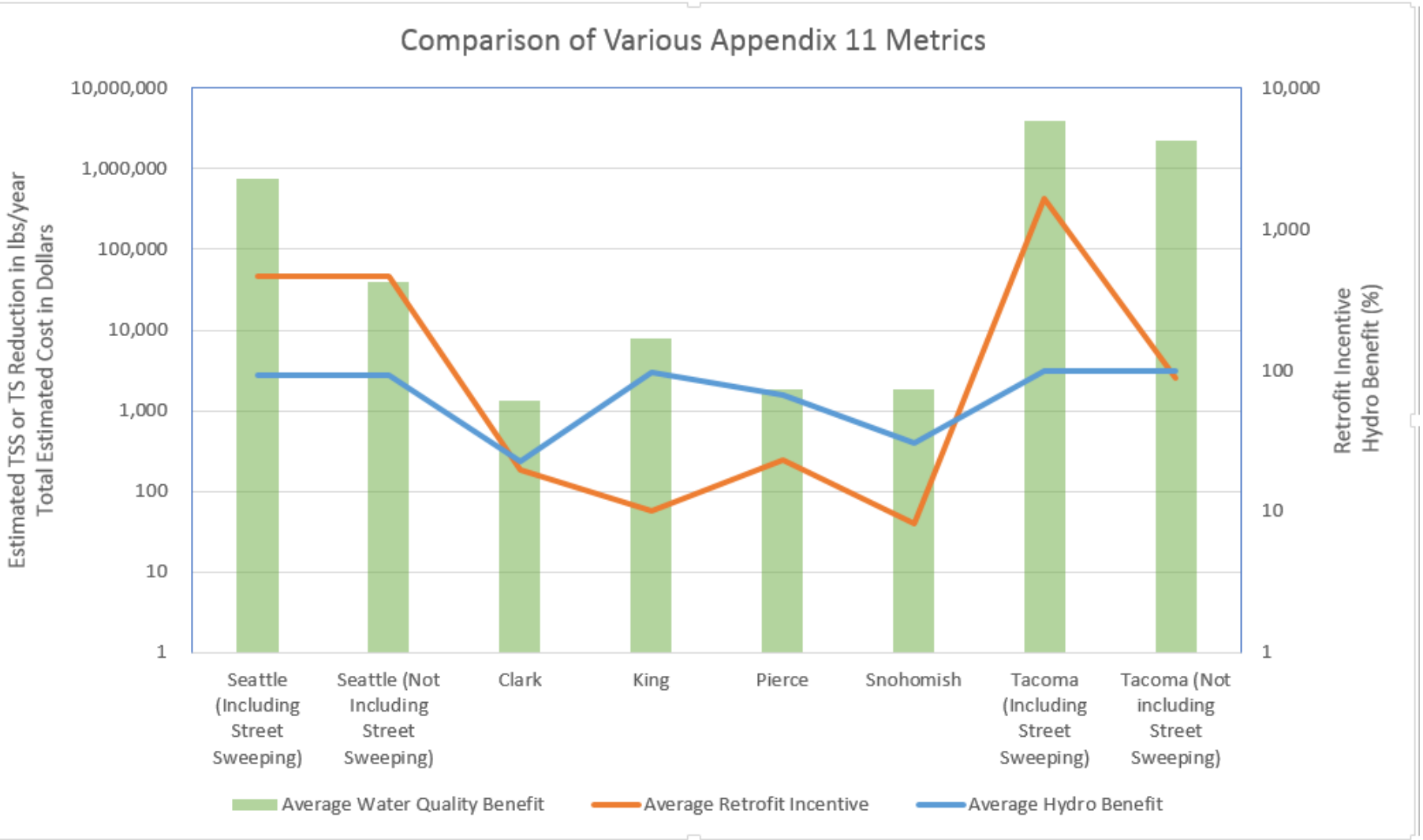

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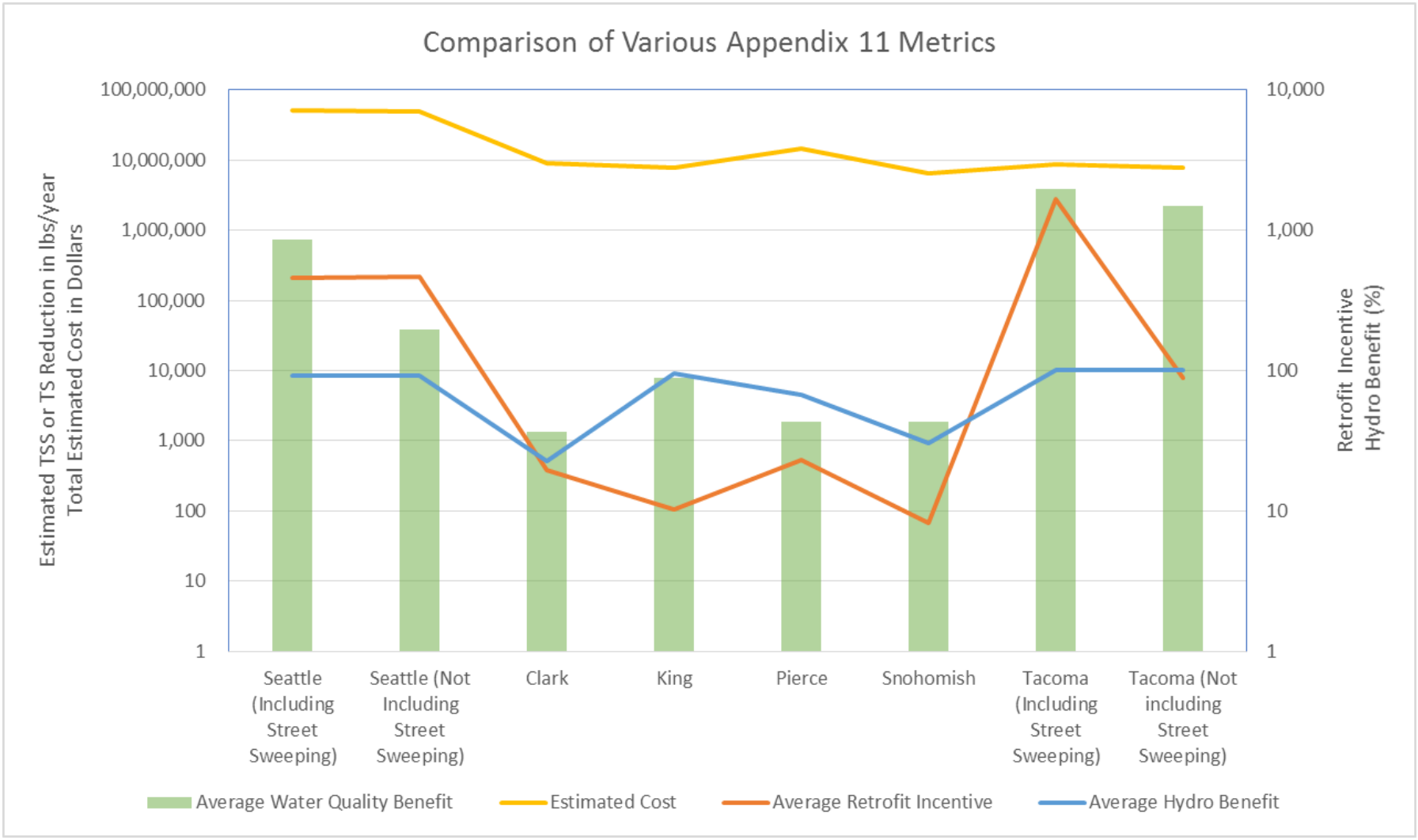

How we Calculated the Proposed Defined Level of Effort

- Used reported project types except for “other” (#10)
- Randomly assigned basin areas and levels of treatment or flow control effectiveness
  - Average basin area and equivalent areas based on stormwater facility grants
- 50 simulations
- Retrofit incentive points averaged 1,214 per jurisdiction (311 to 2,409 points)
- Ecology is proposing a level of effort equal to 1,300 retrofit incentive points

Proposed S5C6 Changes

- Minor changes to Project Types
- Appendix 11 reporting changes
  - "Equivalent Area" for comparability
- Cited connection to Guidance document
- Level of effort for each Permittee is 1,300 retrofit incentive points by 12/31/22
  - 60% design stage allowed

We look forward to your comments on the SSC proposal!

1. Draft Guidance Document
2. Proposed Phase I permit redlines for Special Condition S5C6
3. Draft revised Appendix 11
4. Attachment A, What we learned


Questions

Monitoring and Assessment

S8 Monitoring & Assessment

Proposed changes for 2019-2024 MS4 permits

Karen Dinicola
WA Dept. of Ecology, Water Quality Program
October 12, 2017

Overview of proposed changes

- Phase I and W WA Phase II
  - S8.A annual reporting
  - S8.B status and trends
  - S8.C effectiveness studies
  - S8.D source identification
- No proposal for E WA at this time
  - Except: same changes to S8.A

S8.A annual reporting

- Focus these reports on monitoring that is not otherwise required by the permits
  - Ecology wants permittees to report what they have learned about stormwater impacts or management approaches from other programs and sources

S8.B Regional status and trends monitoring

- Puget Sound receiving waters
  - Annual per capita cost allocation amounts is reduced from $0.2442 to $0.1954
    - Five annual payments anticipated in the 2019-2024 permit cycle
    - First annual payment date moved from August to December

S8.B Regional status and trends monitoring

- Lower Columbia urban streams
  - Clark County will conduct this monitoring per Phase I permit
  - Per capita contribution amount for Phase II permittees is $0.2442
    - Four annual payments anticipated in the 2019-2024 permit cycle
    - Begins in second year of the permit

New appendix

- List of annual payment amounts for S8 B and C for all Phase I and W WA Phase II MS4 permittees
  - The amounts shared in the informal draft package are based on 2016 population data and will be updated with 2017 data for the formal draft permit

S8.B Regional status and trends monitoring

- Stormwater discharge monitoring is the alternative to contributing to regional monitoring
  - Same as S8 C alternative
  - Appendix 9 updates will be released next spring

S8.C Effectiveness studies and source identification

- New requirement that permittees must provide their data for selected regional monitoring program studies
- No proposed changes to the permit alternatives to contributing to the effectiveness studies fund

S8.C Effectiveness Studies and Source Identification

- Combined annual per capita costs reduced from $0.4445 to $0.3556
  - Five annual payments anticipated in the 2019-2024 permit cycle
  - First annual payment date moved from August to December 2019

S8.D Source identification

- Stand-alone section eliminated
  - Contribution amount rolled into S8.C
  - Stakeholder process will continue to identify and select projects for both effectiveness studies and source ID projects

Questions?

DEPARTMENT OF ECOLOGY
State of Washington

Stormwater Management Manual for Western Washington

Next Steps

- Stay tuned on watershed planning
- Provide comments by Jan 19, 2018
  - Review & consider your comments
- Future Communication
  - Stormwater listserv – sign up
  - Email comments
  - Ecology's Permit managers
- Formal Draft coming summer 2018