

DEPARTMENT OF  
**ECOLOGY**  
State of Washington

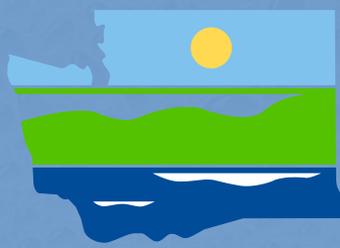
# Draft Phase I & Phase II Municipal Stormwater Permits

Washington State  
Department of Ecology

Public Workshop

January 9, 2012

Lacey, WA



## Presentation Outline

Intro to Permits & Reissuance Process

2012-2013 Draft Permits

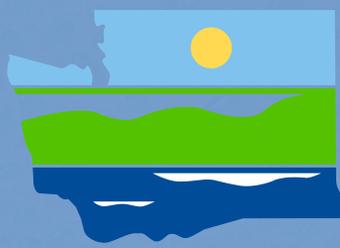
2013-2018 Draft Permits

New Permittees

Proposed Permit Revisions

Low Impact Development (LID)

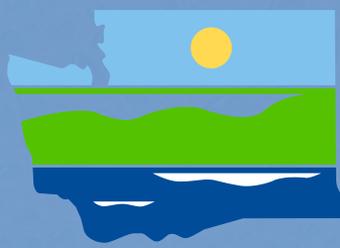
Monitoring



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**The Municipal Stormwater Permits regulate discharges from municipal separate storm sewer systems (MS4).**

**A Regulated MS4 is...**



**In urban areas w/population  
> 1,000; or brought in by  
Ecology review.**

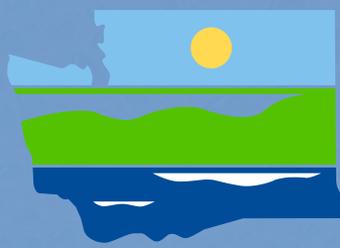
**Publicly owned (city, county,  
special purpose district).**

**Used for collecting or conveying  
stormwater**

**Conveyance structure w/drainage**

**Not part of a Publicly  
Owned Treatment Works**

**Not a combined  
sewer system**

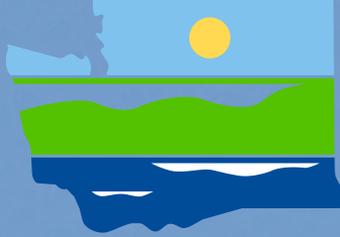


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An aerial photograph of a city street grid, showing a dense network of roads and buildings. The image is slightly blurred and has a white border, giving it the appearance of a photograph being placed on a surface.

# **Municipal Stormwater Permits Implement Clean Water Act NPDES Program and EPA Stormwater Rules**

**Washington's  
NPDES program  
began...**



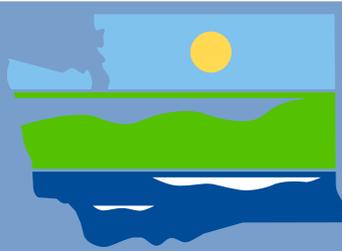
Phase I:  
In effect 1990

WA permits  
issued 1995 &  
2007

Phase II:  
Added to federal rule  
in 1999

Eastern &  
Western WA  
permits issued  
2007

WSDOT permit issued 2009



## Permit Reissuance Public Involvement

Puget Sound Stormwater Monitoring Workgroup  
2008 – 2011

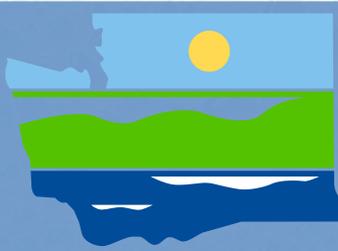
LID Advisory Process for Western WA  
2009 - 2010

Listening Sessions  
August - September 2010

Preliminary Draft LID & Monitoring Comment Period  
May - June 2011

**Formal Public Comment Period**  
**Oct 19, 2011 - February 3, 2012**

Final Permits and Response to Comments  
June 2012



## How to submit comments

Testify at Public  
Hearing

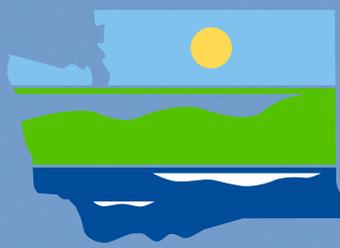
OR

E-mail  
comments to:  
[SWPermitComments@ecy.wa.gov](mailto:SWPermitComments@ecy.wa.gov)

OR

By mail to:

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



Submit by  
5pm on  
February  
3, 2012.



Specify  
which  
permit.



Specify which  
permit  
requirement  
you are  
referencing.

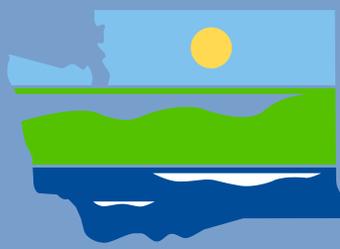


Statement  
of concern,  
rationale,  
basis for  
comment.



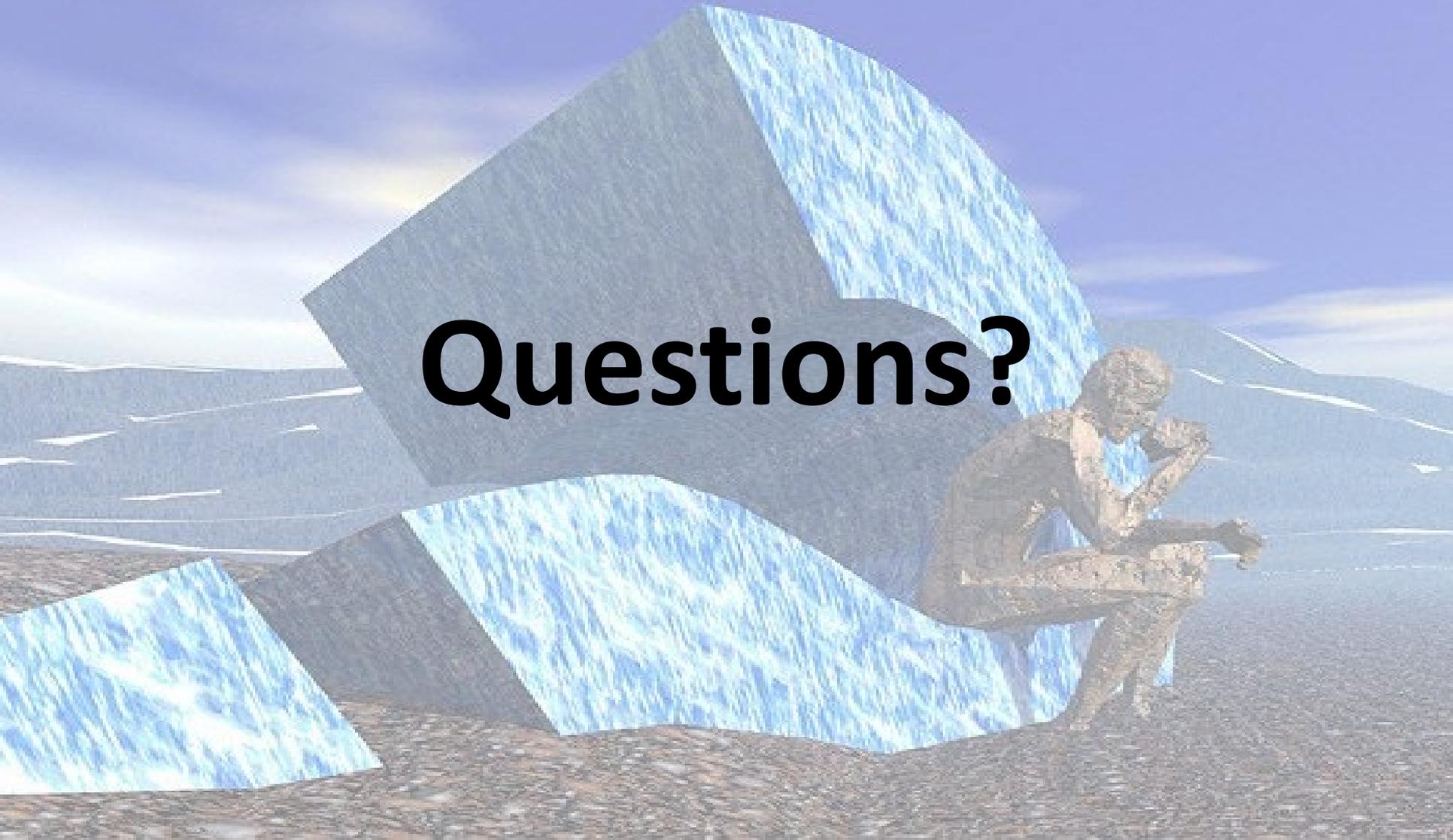
Suggested  
permit  
language or  
alternative  
approach.

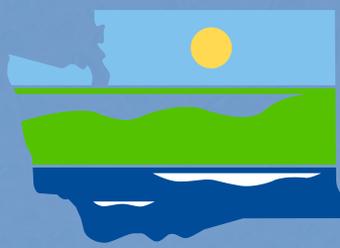
**Be sure to do the following when commenting on the permits!**



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**Questions?**





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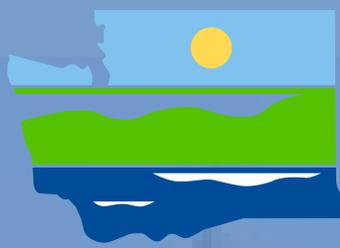
2013-2018 Draft Permits

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Low Impact Development (LID)

Monitoring



## Permit Timelines



2011  
Legislation  
for RCW  
90.48.260

- **Reissue current Phase II permits. (2007)**

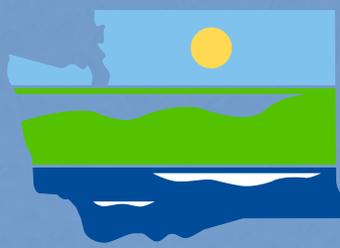
Effective:

August 1, 2012 –  
July 31, 2013

- **Reissue Phase II permits. (Updated)**

Effective:

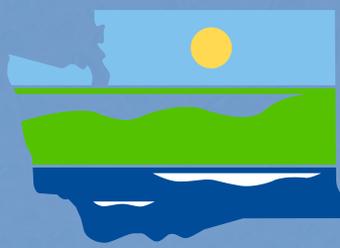
August 1, 2013 –  
July 31, 2018



## 2012-2013 Permits

Legislative  
intent not to  
reduce  
requirements  
but to retain at  
current levels

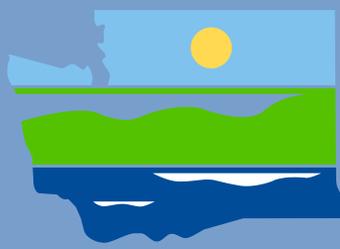
- No new requirements
- Level of effort commensurate with 5<sup>th</sup> year of 2007 permits.
- Ecology will issue guidance
- Similar approach for Phase I permits



## Phase I Permit 2012-2013

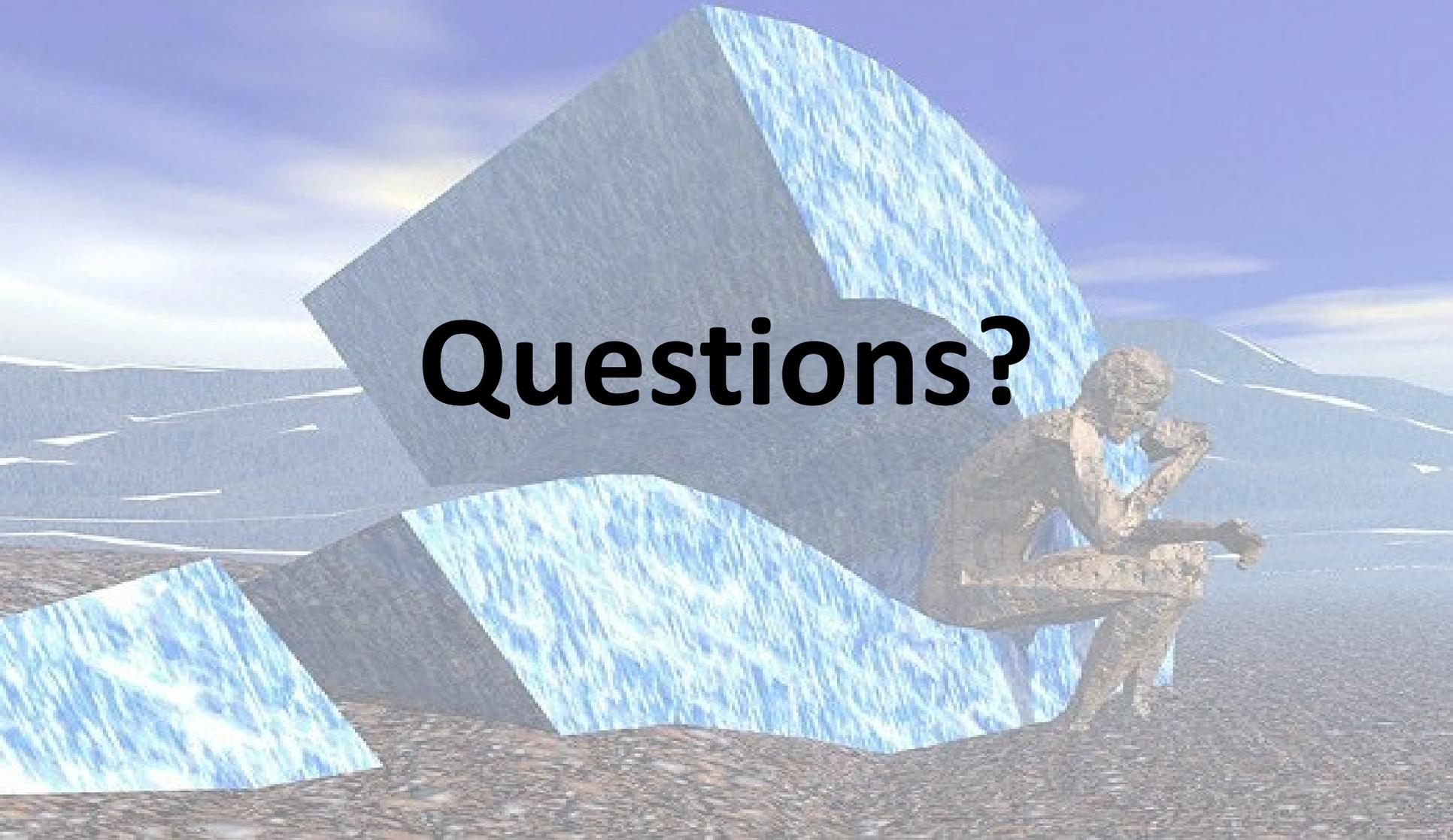
### **S8.B** **Monitoring:** Complete monitoring programs begun under the 2007 permit

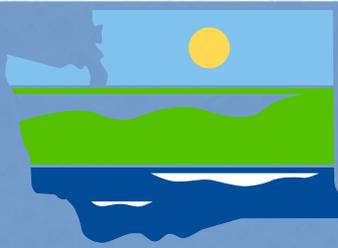
- Three complete water years of discharge monitoring data and enter into Ecology's EIM database
- Meet QAPP objectives for program effectiveness studies
- Meet QAPP objectives and/or statistical goals for BMP evaluation studies and enter into International Stormwater BMP Database



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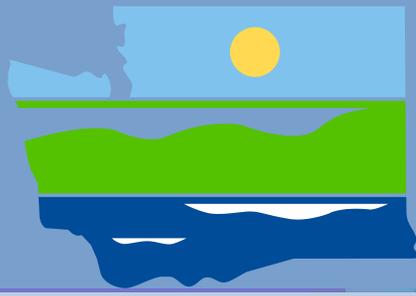
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## Areas under Evaluation for Permit Coverage

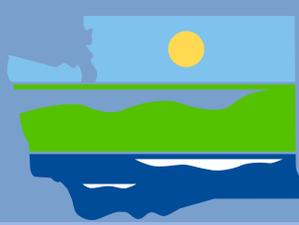
### Cities:

- Grandview
- Snoqualmie
- Lynden

### County UGAs:

- Clallam County - Port Angeles UGA
- Island County – Oak Harbor UGA
- Lewis County – Centralia UGA
- Kittitas County – Ellensburg UGA

**Only if they meet criteria  
will they be listed as  
permittees in final permit.**

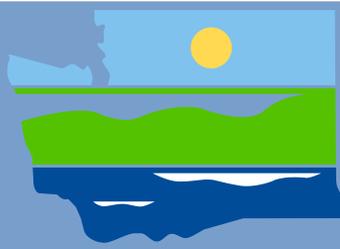


# New Permittee Requirements

New Permittees follow requirements as modified by footnotes



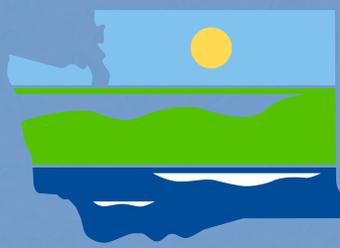
Implementation phased in over 5 years



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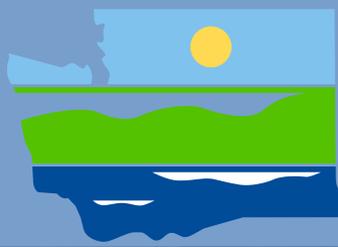
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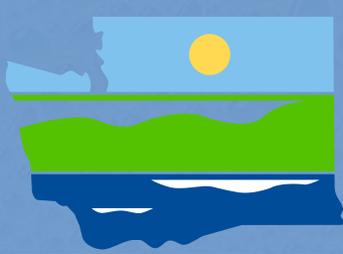
Monitoring



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A photograph of a group of people waiting at a bus stop in the rain. The people are holding umbrellas and looking towards the bus stop. A sign on the wall reads "BUS STOP". The scene is set against a brick wall and a window.

# **Phase I & Phase II Proposed Changes**



## Phase I & Phase II Proposed Changes

Ongoing SWMP implementation

SWMP Report looks forward

Coordination

- Requires internal coordination
- Organizational Chart

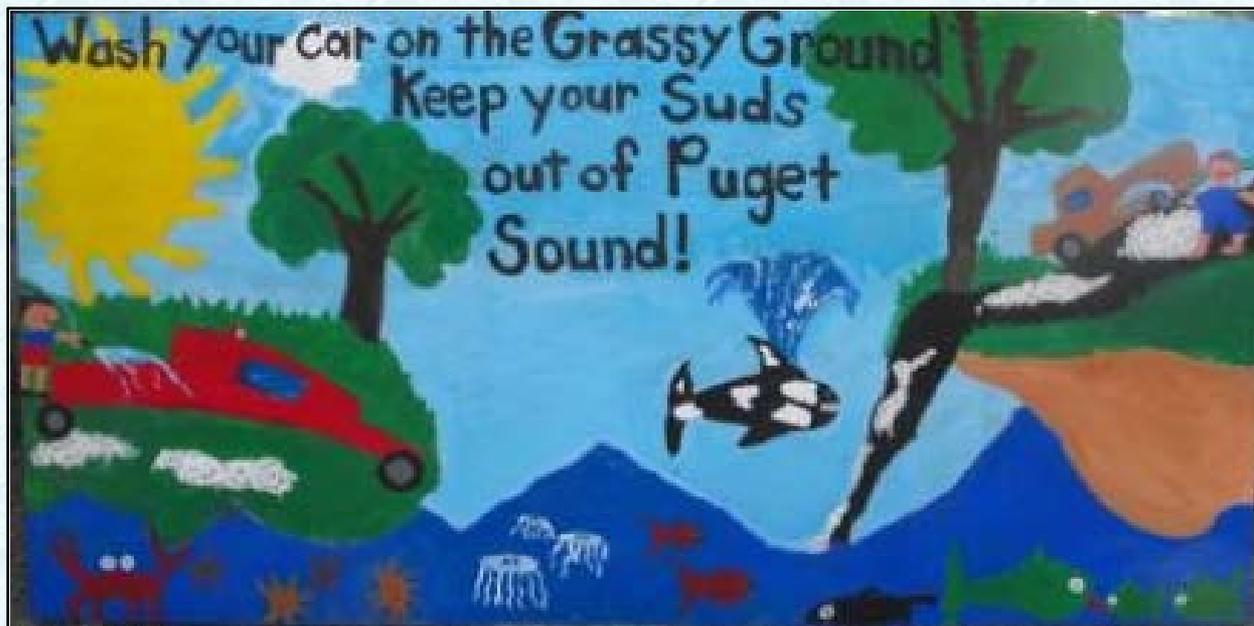
Online annual reporting

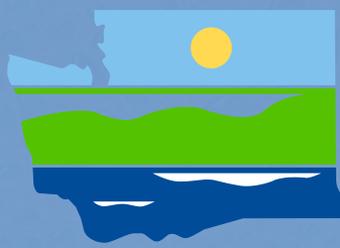


## Phase I & Phase II Proposed Changes

### Public Education

- Measure new audience and new topic area
- Ok to meet requirements in regional group





## Illicit Discharge Detection and Elimination

Phase I & II sections re-organized

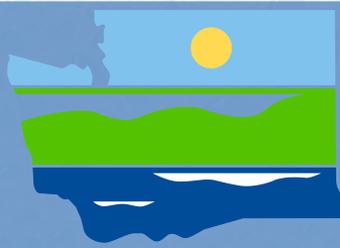
Phase II Mapping – maintain maps

Phase II Compliance strategy

- **Adds education and technical assistance**
- **Should include source control BMPs and private maintenance**

Phase II – Review & update ordinance as needed by Feb 2018





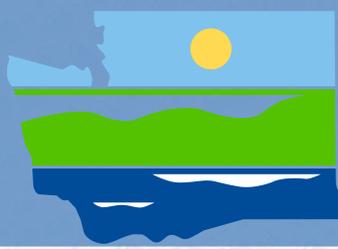
## Phase I & Phase II - IDDE: Field Screening

### **Field Screening allows more flexibility**

Document alternate method in annual report

Emphasis on moving up into system from outfalls

Report on % of system screened instead of outfalls



## Runoff Controls for New & Redevelopment

Removes Phase II 1-acre threshold

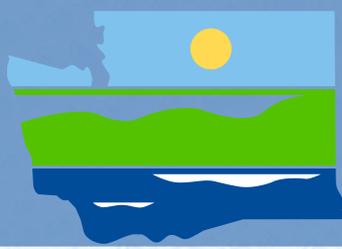
Specifies effective dates of codes for projects

- **New codes apply to previously approved projects when construction has not started within 5 years of the code effective date.**

Inspect some private facilities annually

Inspect residential developments every 6 months until 90% of lots constructed





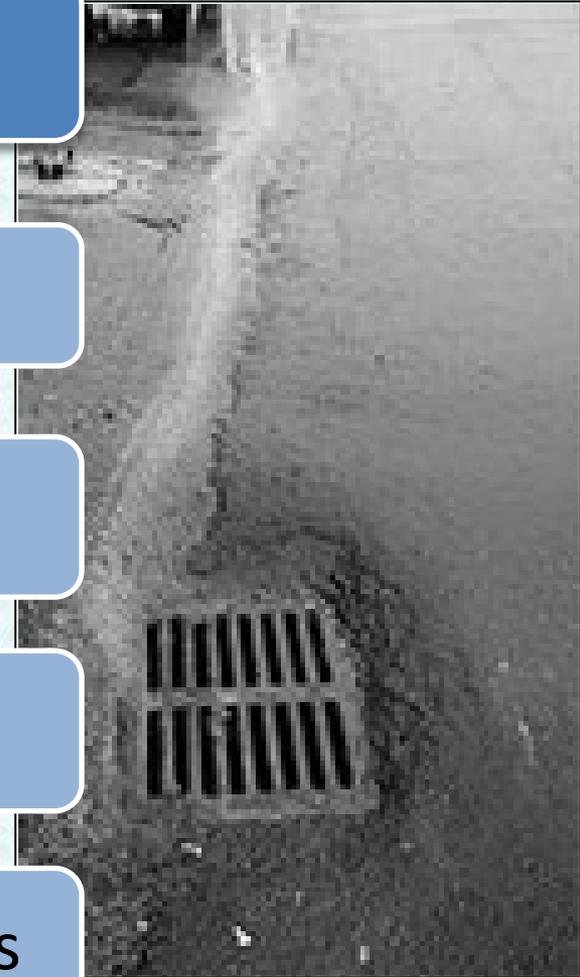
## Phase I and Phase II O&M

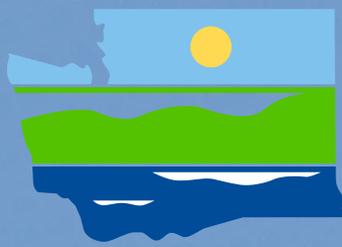
Update maintenance standards

Catch basin inspection flexibility

Clarifies inspections of public LID BMPs

Phase I annual private system inspections

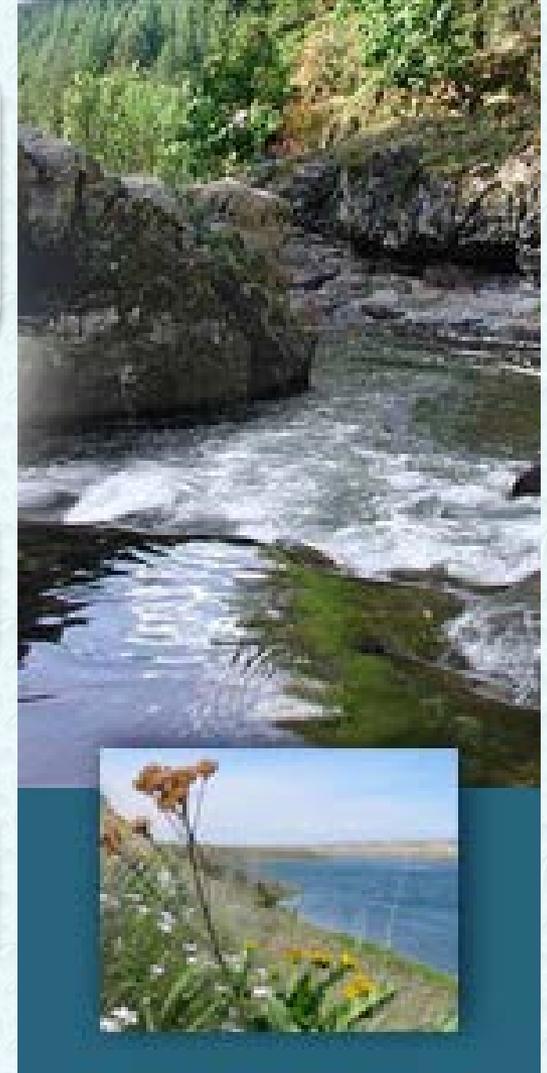


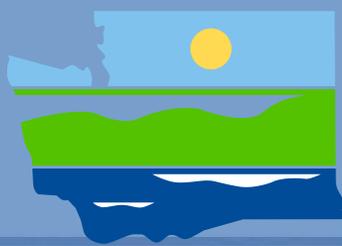


## TMDLs: Water Clean Up Plans S7 and Appendix 2

Appendix 2 includes MS4 actions from TMDLs  
approved since 2007

Previous (2007) TMDLs have updated actions





## Secondary Permittees

### New Secondary Permittees

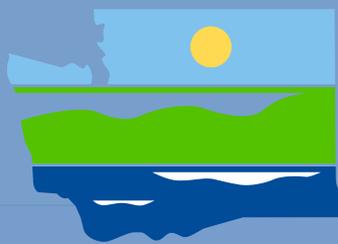
### Clarifies requirements for leased lands

- Obligations for property under functional control of Secondary Permittee

### Ports of Seattle and Tacoma

- Mapping down to 12" outfalls & 8" connections
- Annual field screening at 20% of system



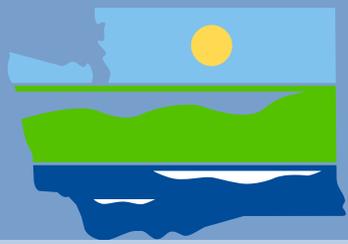


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# Proposed Permit Revisions Phase I Only

2013-2018 Permit Cycle





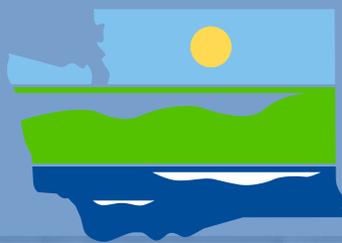
## Phase I Mapping

### Ongoing mapping from 2007 permit

- Complete map updates of new features within 6 months

### New mapping within 4 years

- Counties finish over 8" connections
- Cities & counties map 8" connections
- Map connections to/from stormwater treatment and flow control BMPs/facilities

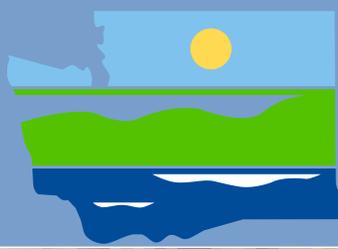


## Phase I Source Control

Flexibility in  
generating  
list of sites  
(instead of  
businesses)

Caps  
follow-up  
compliance  
inspections  
at 2 per site

Annual staff  
training



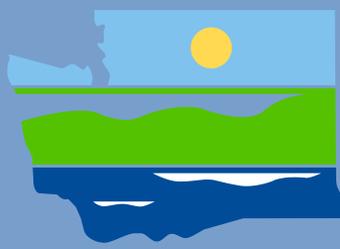
## Phase I Structural Controls

Improves reporting & calculating project benefits

- Water Quality Benefit
- Hydro Benefit
- Retrofit Incentive

Retains project types and adds

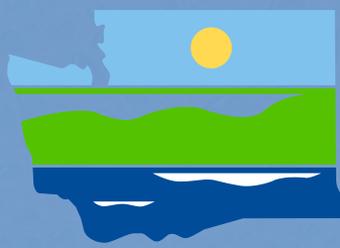
- Maintenance projects with capital construction costs  $\geq$  \$25,000
- Projects not otherwise covered by the Permit



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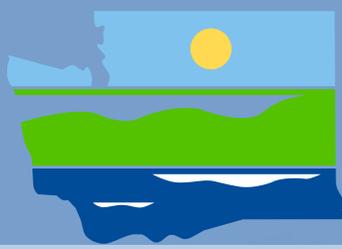
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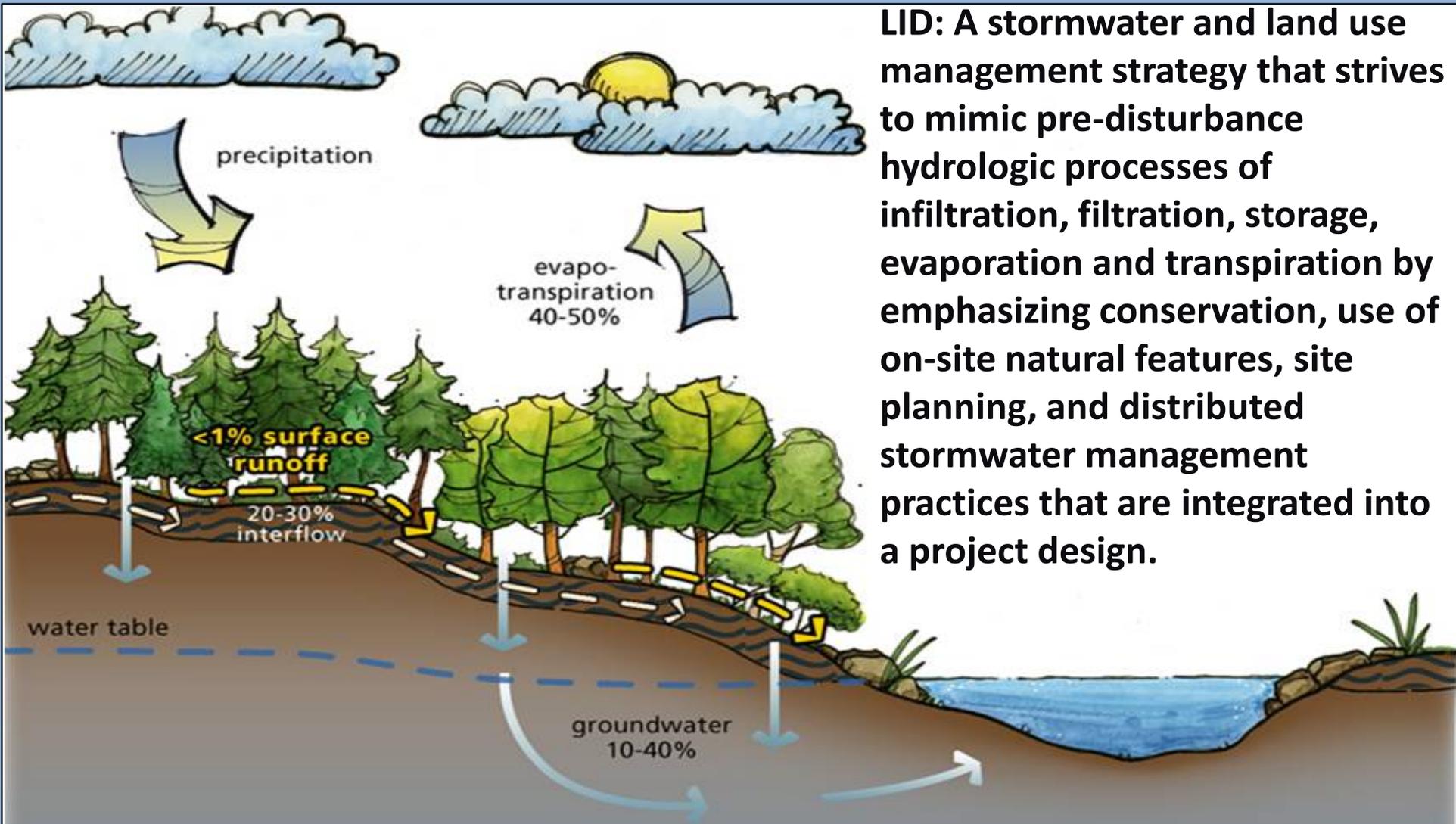
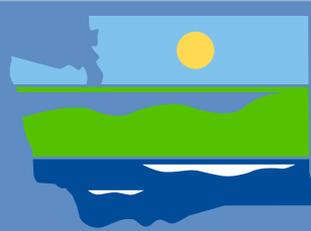
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# Low Impact Development

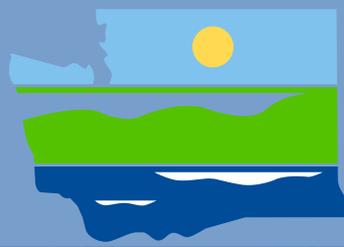


PCHB  
rulings

- Phase I: 2008
- Western WA  
Phase II: 2009

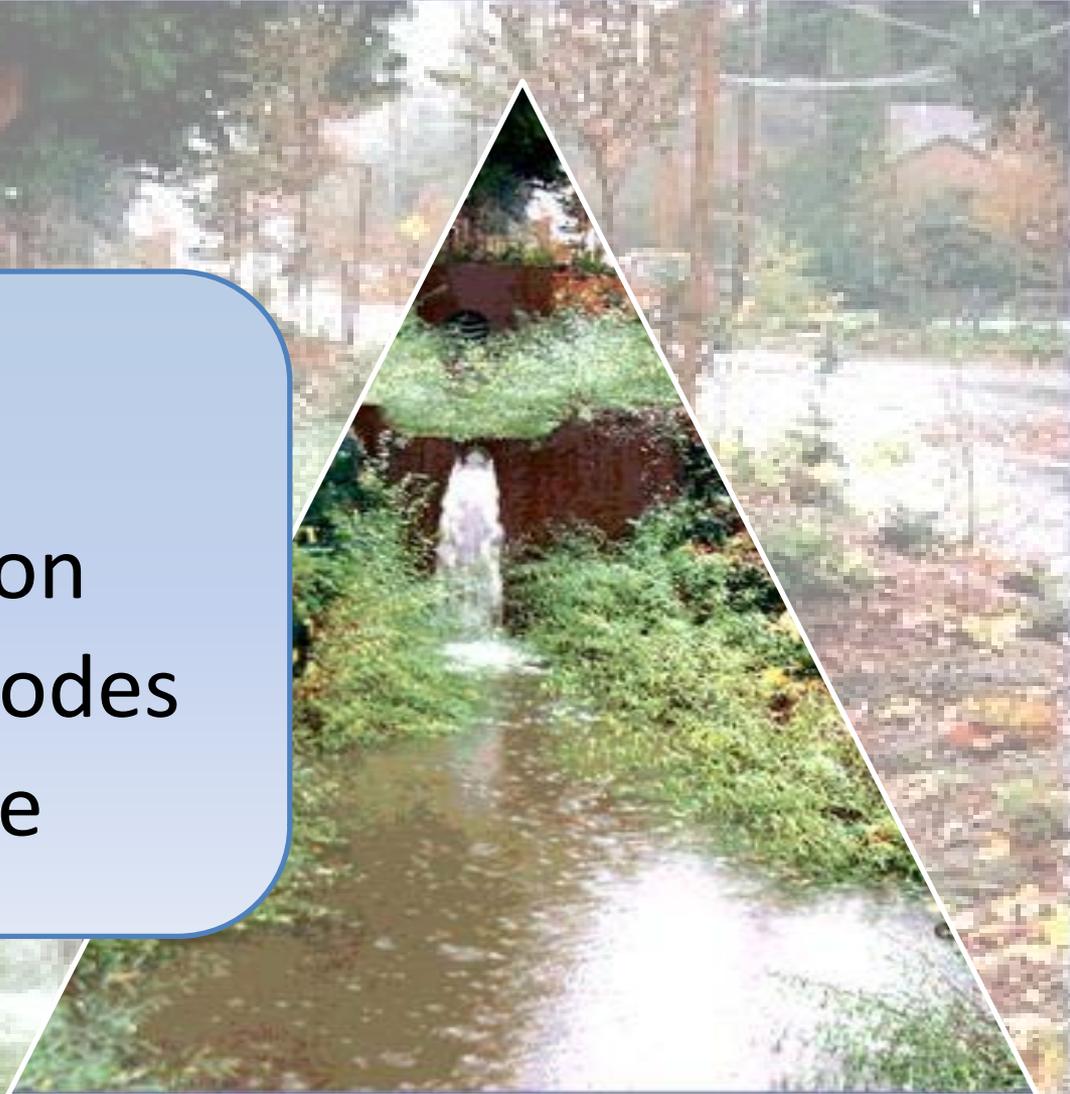


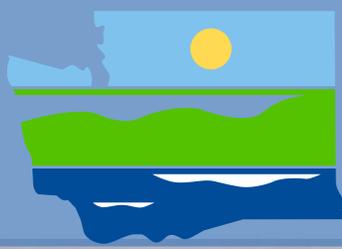
**LID: A stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.**



## 3 levels

- Site & subdivision
- Development Codes
- Watershed Scale





## Site & Subdivision: Appendix 1

Revised definitions

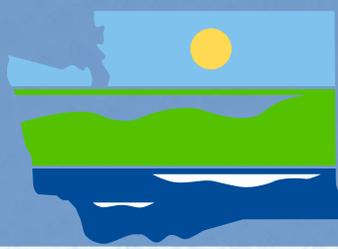
Phase II – Removed the erosivity waiver

MR#2 Additional Element - Protect LID BMPs

Revisions to wetland guidance

Revises MR #5 for LID

- LID Performance Standard
- Mandatory List
- Feasibility Criteria



## Projects subject only to MR #1 - #5

2,000 sq ft  $\geq$  hard surfaces < 5,000 sq ft

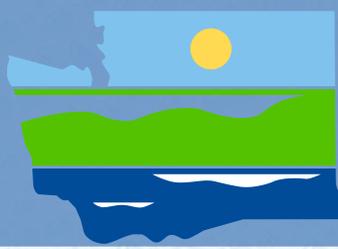
➤ **Use Mandatory List #1**

**Or**

➤ **Meet LID Performance Standard**

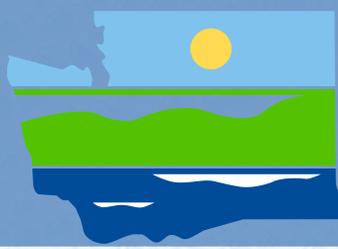
- **Cannot use Rain Gardens;  
can use Bioretention**
- **Demonstrate compliance  
w/approved models and  
methods**





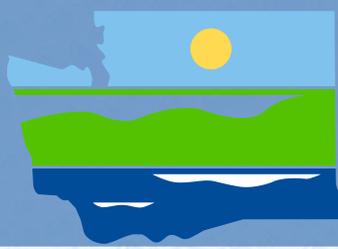
## Mandatory List #1

- **Lawn and landscaped areas:**
  - **BMP T5.13**
  
- **Roofs: Consider in order listed; use first feasible**
  - **Full Dispersion per BMP T5.30**
  - **Downspout Infiltration Systems per Volume III**
  - **Rain Gardens per WSU Handbook**
  - **Downspout Dispersion Systems per BMP T5.10**



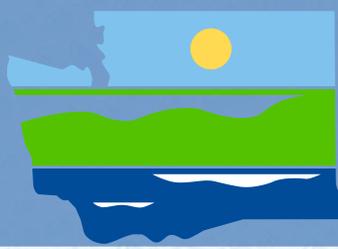
## **Mandatory List #1 (continued)**

- **Other Hard Surfaces (driveways, patios, walks, parking lot)  
consider in order listed; use first feasible**
  - **Full Dispersion per BMP T5.30**
  - **Permeable pavement per Appendix III-C**
  - **Rain Gardens per WSU Handbook**
  - **Sheet Flow Dispersion per BMP T5.12, or  
Concentrated Flow Dispersion per BMP T5.11**



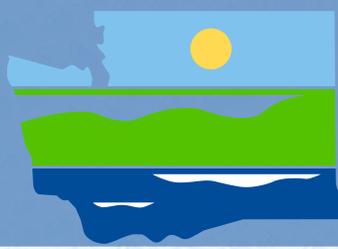
## Projects Triggering MR #1 - #9

Project Type & Location	Requirement
Development (new or redevelopment) on any parcel inside the UGA, or development outside the UGA on a parcel less than 5 acres	LID Performance Standard and BMP T5.13  OR  Mandatory List #2  (applicant option)
Development (new or redevelopment) outside the UGA on a parcel of 5 acres or larger	LID Performance Standard and BMP T5.13



## Mandatory List #2

- **Same as List #1 with two changes:**
  - **Bioretention replaces Rain Gardens**
    - **Must be at least 5% of its drainage area**
  - **For Commercial Buildings, last roof option:**
    - **Vegetated roof, or impervious roof draining to permeable pavement. If neither option used, submit cost analysis for vegetated roof**



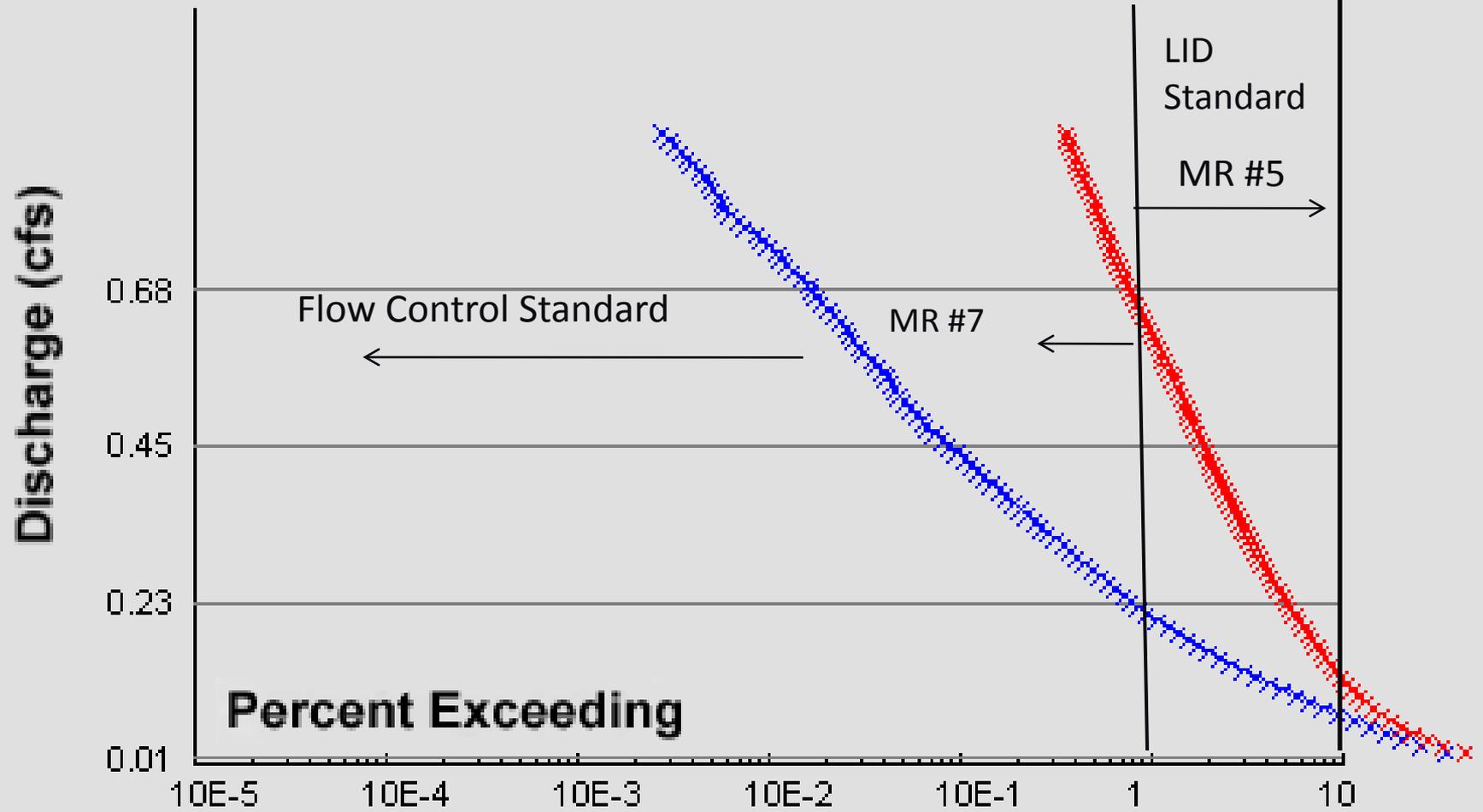
## **LID Performance Standard**

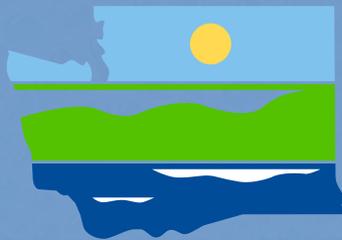
**Match post-development discharge durations to pre-developed (pre-European settlement) durations from 8% of the 2-year flow to 50% of the 2-year flow**

LID Std: Control durations from  
8% of 2-yr through 50-year

x Predeveloped

x Developed

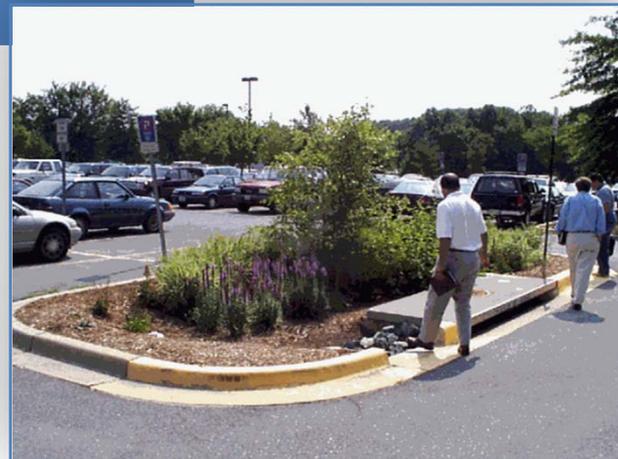




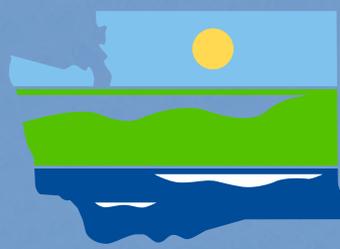
## Stormwater Management Manual for Western Washington

### Edits focus on:

- LID
- Revised guidance for designing infiltration facilities
- New & revised source control, construction & treatment BMPs
- WWHM update and modeling guidance

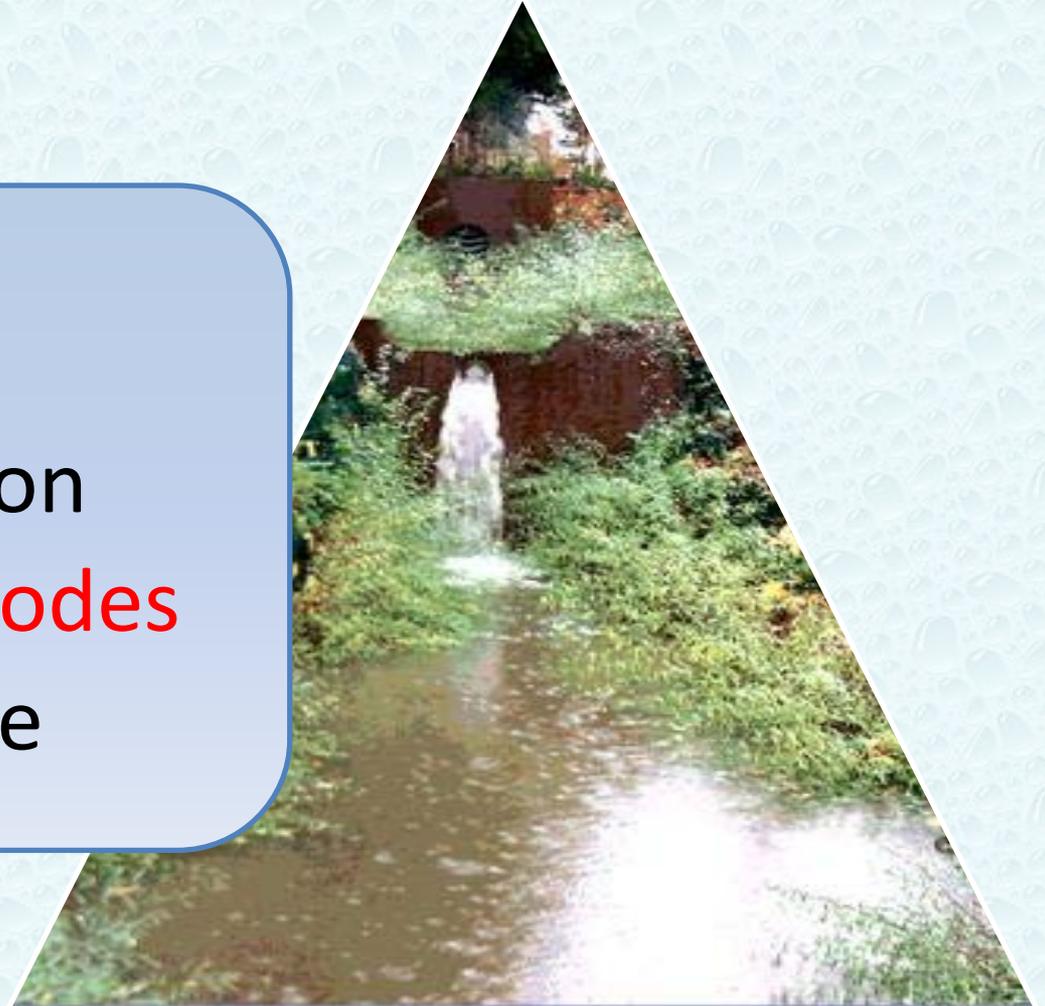


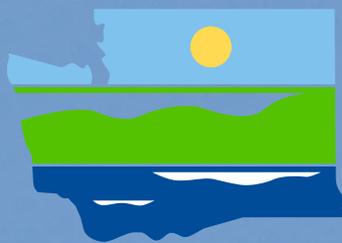
**Related LID Technical Guidance Manual  
update available Jan 2012 for review**



## 3 levels

- Site & subdivision
- **Development Codes**
- Watershed Scale



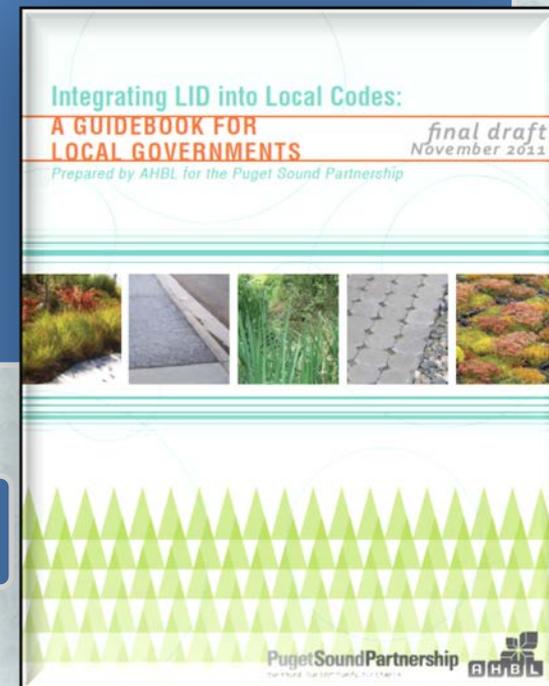


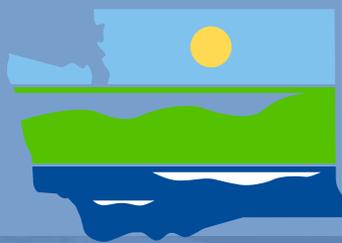
## LID – Local Development Codes

Make LID the preferred and commonly used approach for site development

- Minimize impervious surface
- Minimize native vegetation loss

*PSP Integrating LID into Local Codes Guidebook*





## LID- Timelines

Adopt new site  
& subdivision  
stormwater  
codes

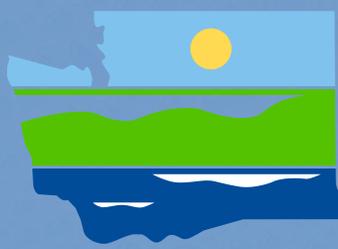
Phase I:  
December  
31, 2014

Phase II:  
December  
31, 2015

Revise  
development-  
related codes,  
rules & standards

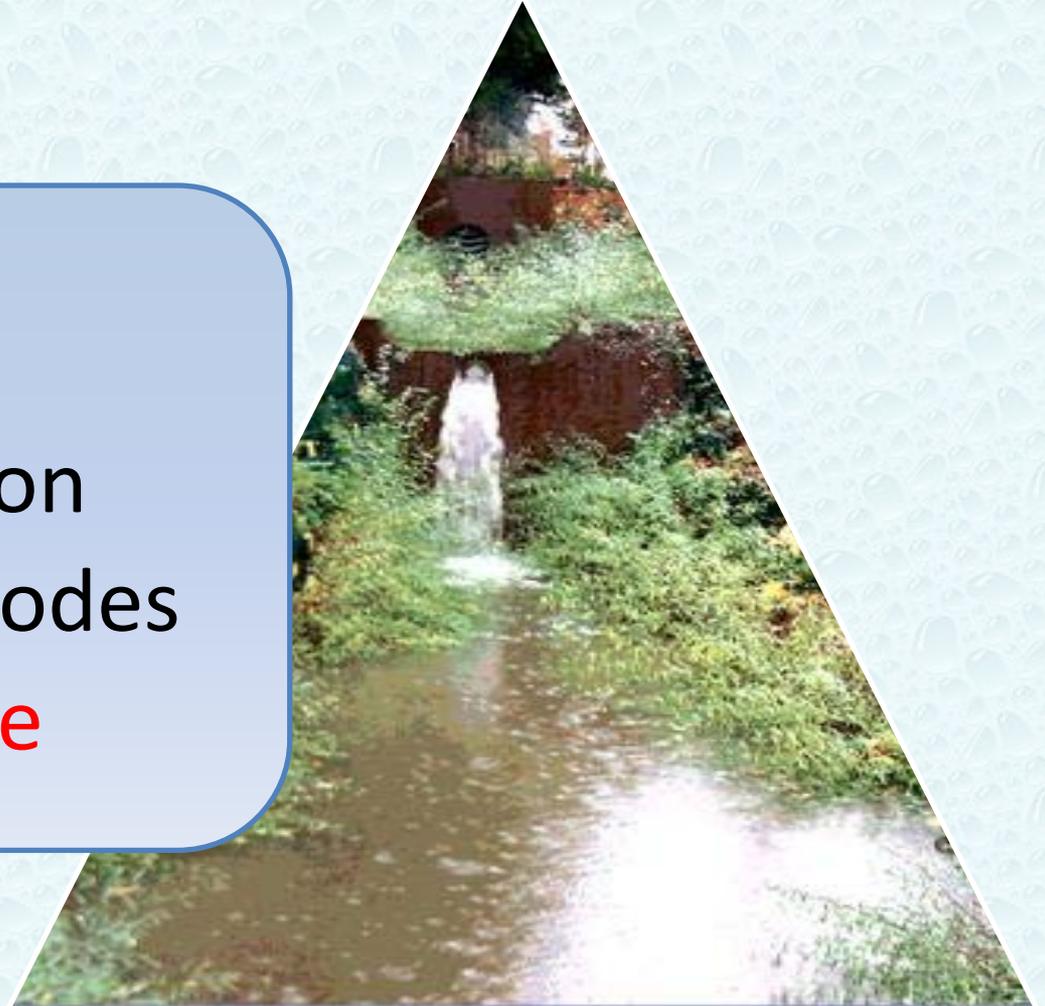
Phase I:  
December  
31, 2014

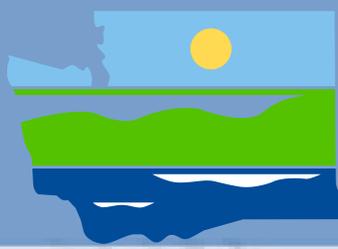
Phase II:  
December  
31, 2016



## 3 levels

- Site & subdivision
- Development Codes
- **Watershed Scale**





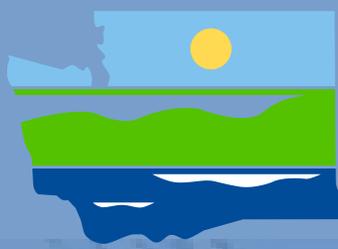
## LID – Watershed Scale Planning

Phase I County selects a watershed and leads a planning process

- Select watershed by Dec. 31, 2013
- Begin process by Feb 2, 2014
- Submit final plan by Aug. 1, 2016

### Phase II:

Participate in watershed-scale planning led by a Phase I County

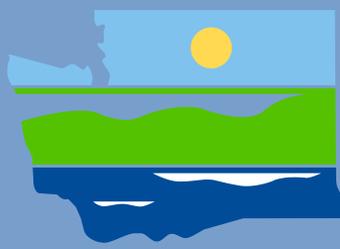


## Proposed watersheds

- Streams impacted by development & retain anadromous fish
- Targeted to accept significant growth
- Basins proposed in Phase I permit

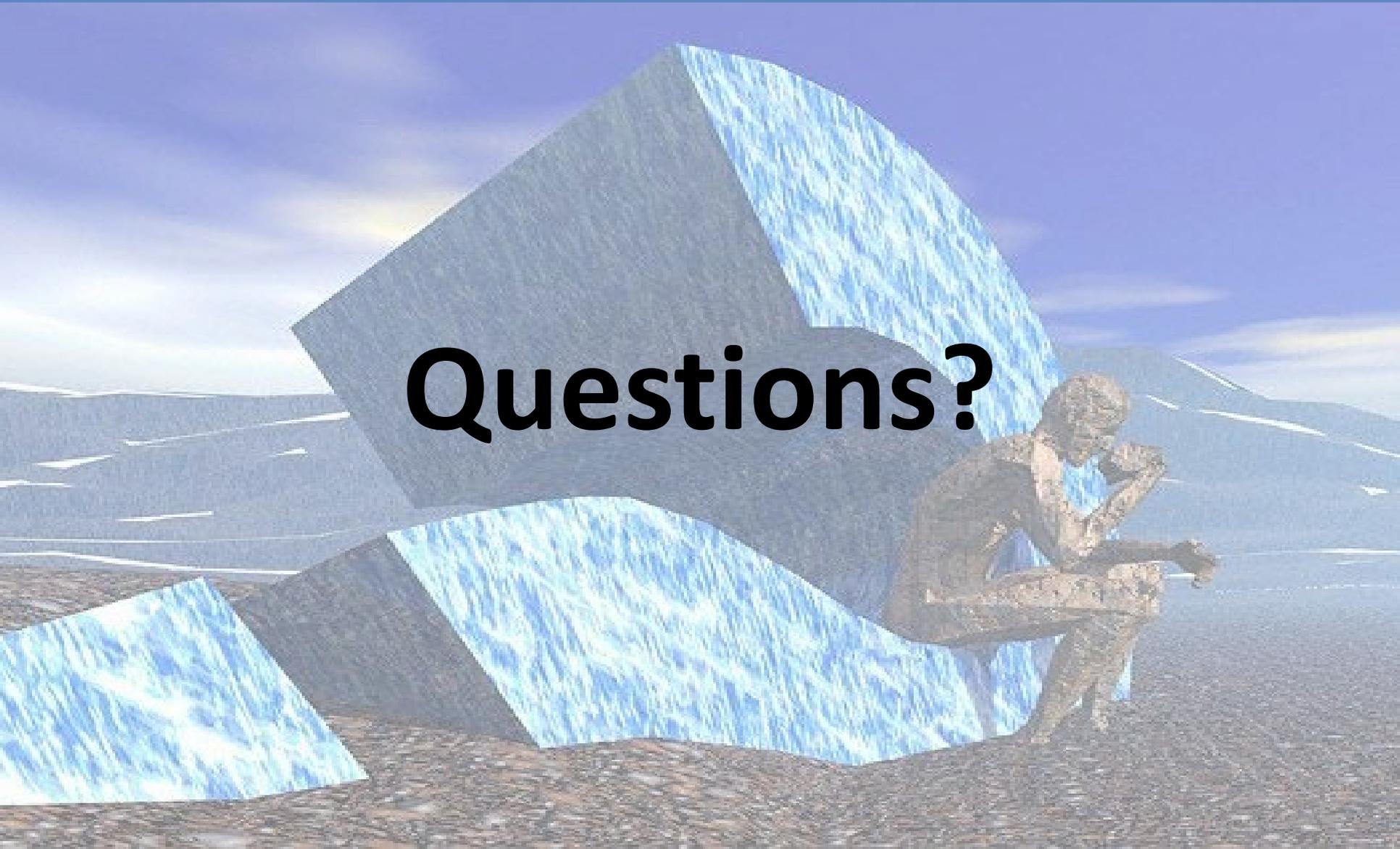
## Planning Process

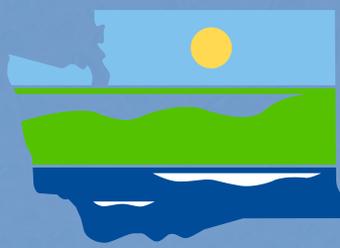
- Baseline assessment
- Modeling & best available science
- Beneficial use impact identification
- Plan to address impacts



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**Questions?**





## Presentation Outline

Intro to Permits & Reissuance Process

2012-2013 Draft Permits

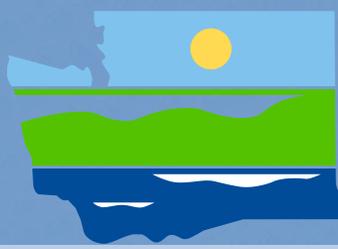
**2013-2018 Draft Permits**

New Permittees

Proposed Permit Revisions

Low Impact Development (LID)

**Monitoring**

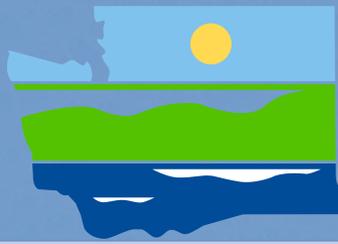


## S8 Monitoring



PCHB  
rulings

- Puget Sound Monitoring Consortium
- Stormwater Work Group



## Formal Stakeholder Process

Caucus reps:  
federal, tribe, state,  
local, business,  
environmental,  
agriculture

88  
recommendations  
for overall strategy  
and permit  
requirements

Paradigm  
shift



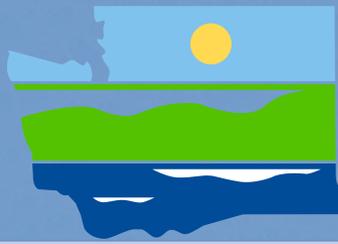
## Recommendations in 2010

### Establish a new, collaborative Regional Stormwater Monitoring Program (RSMP)

- Status and trends in receiving waters
- Effectiveness studies
- Source identification information repository

Require all permittees  
to pay in to the RSMP

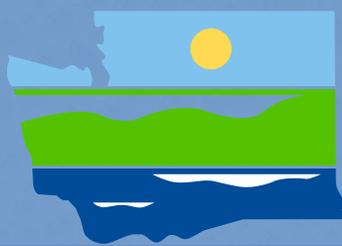
Ecology should  
administer the RSMP  
for this permit cycle



## Participation in the RSMP

Permit  
establishes  
cost share  
amounts  
for each  
RSMP  
component

- Costs allocated by population
- Same amount for each of years 2-5 of the permit
- Boilerplate cost sharing agreement



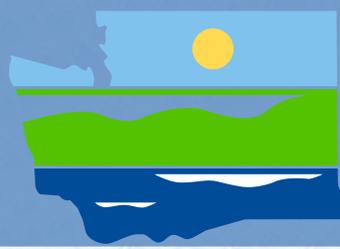
## Southwest Washington

### Participate in RSMP for:

- Regional effectiveness studies
- Source ID information repository

No receiving water  
monitoring

Clark County continues  
stormwater discharge  
monitoring

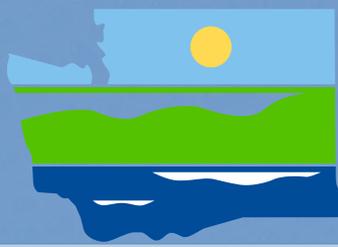


## Opting out of the RSMP

Individual monitoring requirements for permittees who choose to “opt out” of any RSMP component

- All permittees notify Ecology which options they choose
- “Opt-out” requirements contribute meaningful information to the RSMP

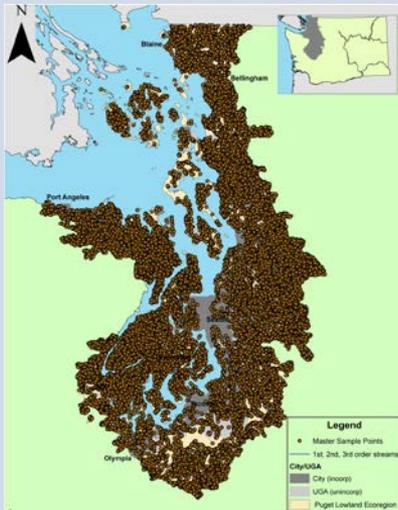




## Individual Monitoring

### Puget Sound status and trends opt-out:

- Monitor RSMP sites in the jurisdiction



### Effectiveness studies opt-out:

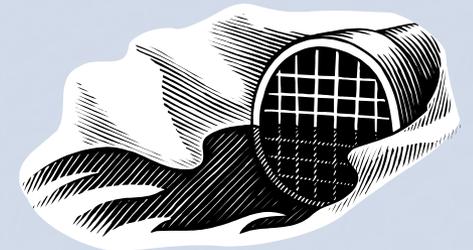
- Stormwater discharge monitoring

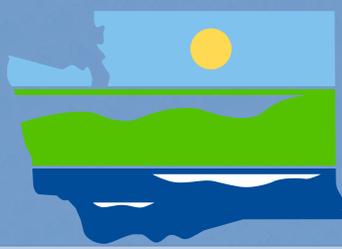


- Phase I only: pay ½ RSMP cost share and conduct study

### Source ID info repository opt-out:

- Detailed quarterly reports on IDDE activities



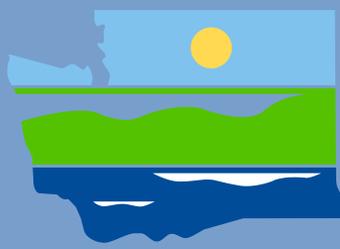


## Other Monitoring

Permittees are still required to sample as necessary to:

- Identify illicit discharges
- Comply with applicable TMDLs

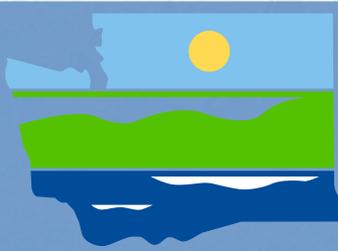




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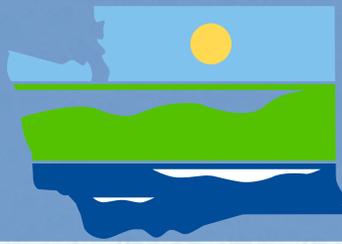
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Submit comments

E-mail comments to:  
[SWPermitComments@  
ecy.wa.gov](mailto:SWPermitComments@ecy.wa.gov)

OR

**By mail to:**  
Municipal Stormwater  
Permit Comments  
Water Quality Program  
WA Dept of Ecology  
PO Box 47600  
Olympia, WA 98504-7600



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**Thank you!**