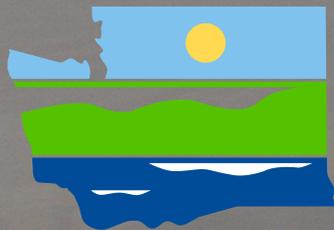


Liberty Bay Watershed Fecal Coliform Bacteria TMDL

**Public Meeting – March 21, 2013
at Poulsbo Fire Dept.**



DEPARTMENT OF
ECOLOGY
State of Washington









12-24

LIFE RING

992 LI

SEEWOLF

Esako

Water quality standards protect beneficial uses

Freshwater standards –
bacteria not to exceed
“50/100”

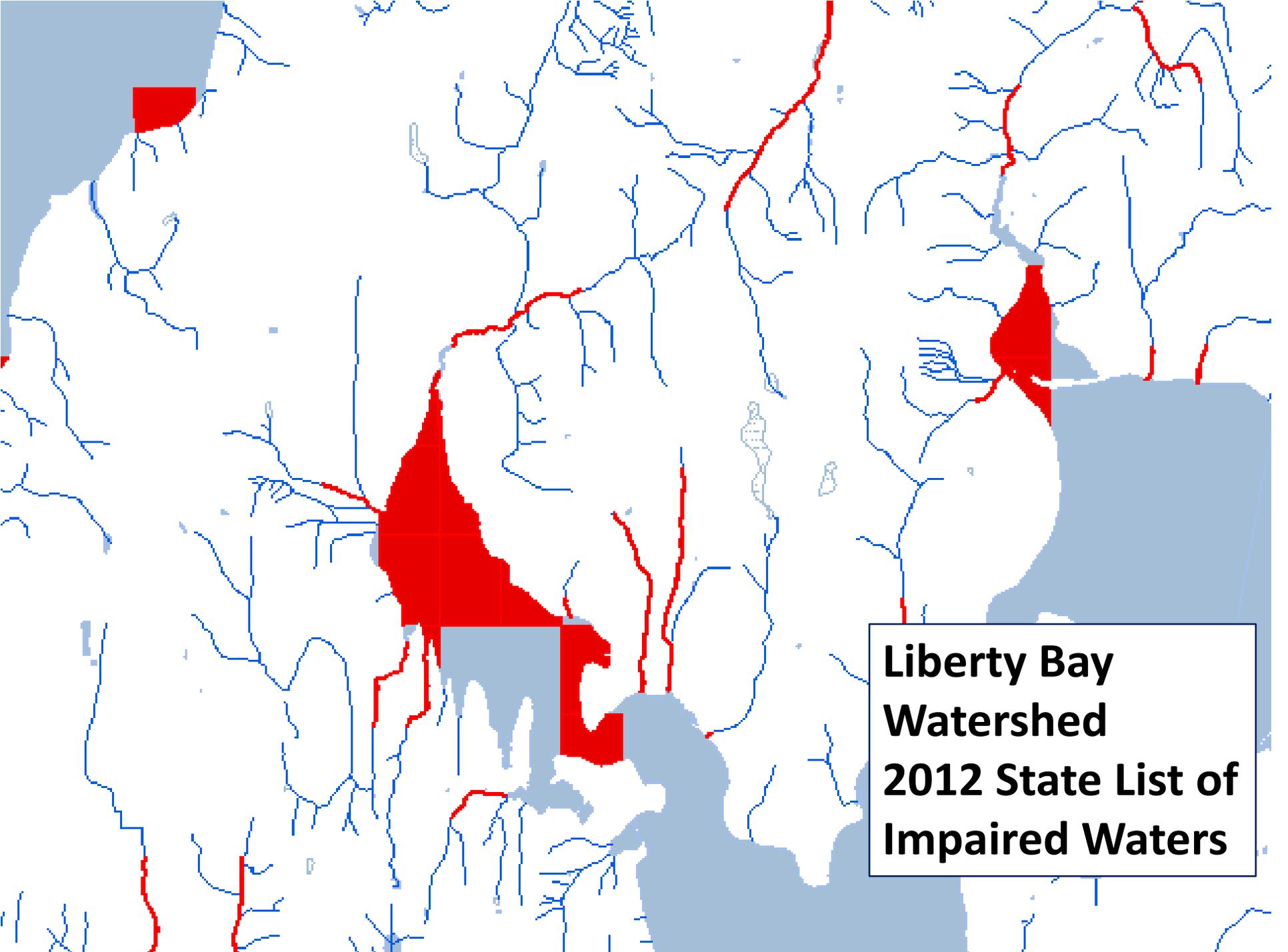
- 50 – geometric mean for bacteria counts in a set of 100 mL samples
- 100 – 90th percentile value for bacteria counts in a set of 100 mL samples

Marine standards – bacteria
not to exceed “14/43”



Ecology's authority

- Make a list of polluted waters across the state
- Develop plans (TMDLs) to clean up waters & meet standards
- Manage NPDES permits & state discharge permits
- Enforcement under RCW 90.48.080



**Liberty Bay
Watershed
2012 State List of
Impaired Waters**

TMDLs defined

Total Maximum Daily Load = the maximum input of a pollutant that still allows water body to meet standards

TMDL = Waste load allocations + Load allocations + Safety Factor

The two TMDL tasks

Quantify -- **How much** bacteria can these streams accept?

Implement – **What strategies** will reduce bacteria?

...and **delegate to local authorities**

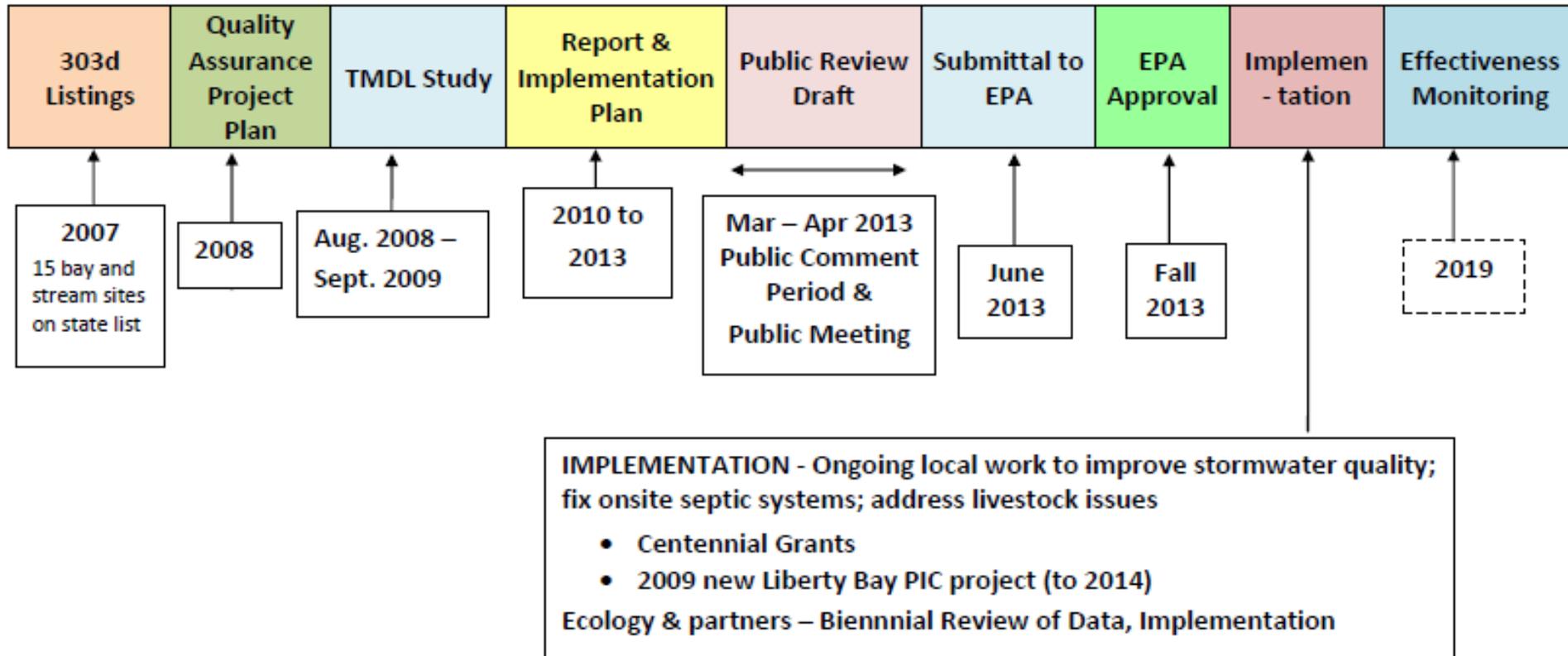
TMDLs in Washington state

1-year study of timing, location and amounts of pollutant discharges

Implementation plan:

- Different sources
 - Local, state, tribal, federal stakeholders
 - Assign responsibility
 - Tasks & schedule to meet WQ standards

Liberty Bay TMDL Timeline



TMDL Study

Pollution Identification and Correction Program

TMDL implementation and next steps



Implementation Plan – assigns responsibility to nonpoint programs and point sources





Non-point
sources –
animal waste



Leaky septic
systems on
shore
of bay or creek

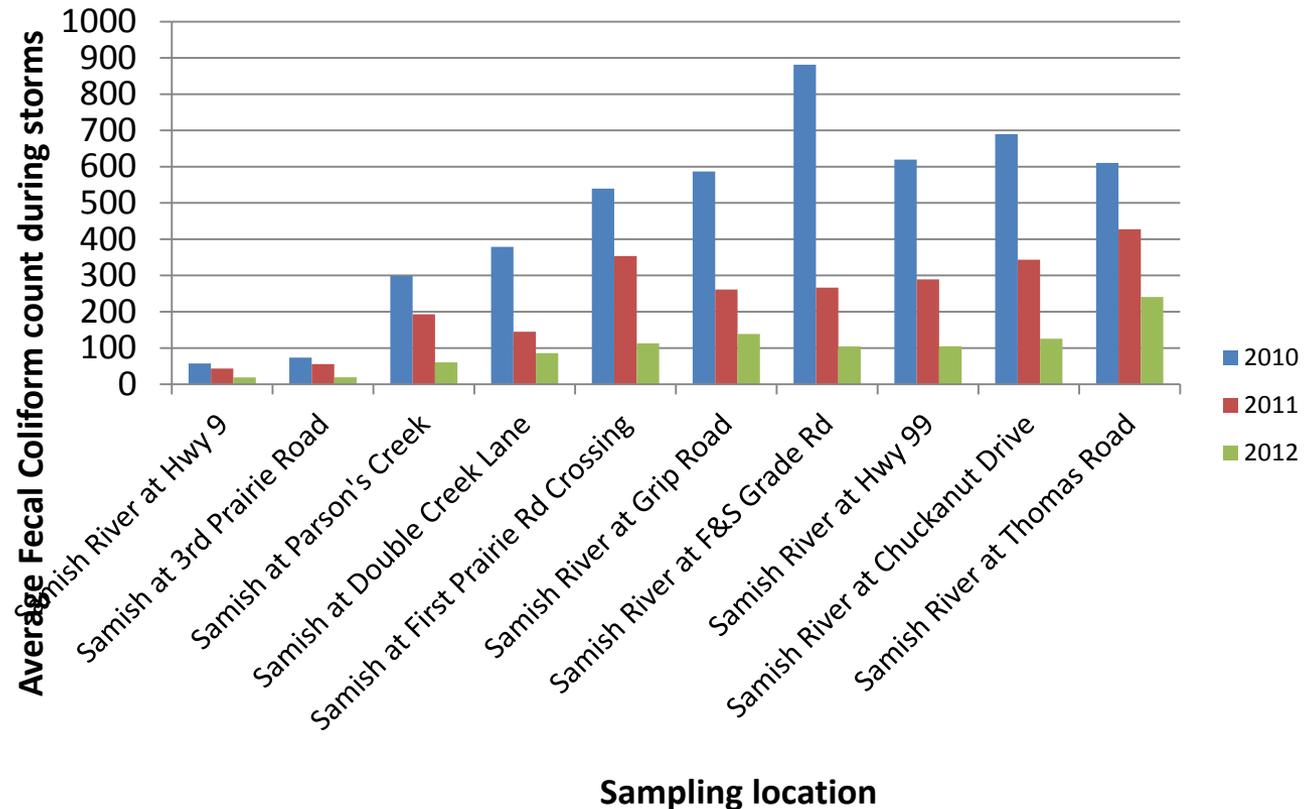


Other TMDLs – the Samish Bay watershed



**Samish River Fecal Coliform
Storm Event Averages from Upstream to
Downstream
2010-2012**

Updated
through
Sep 2012

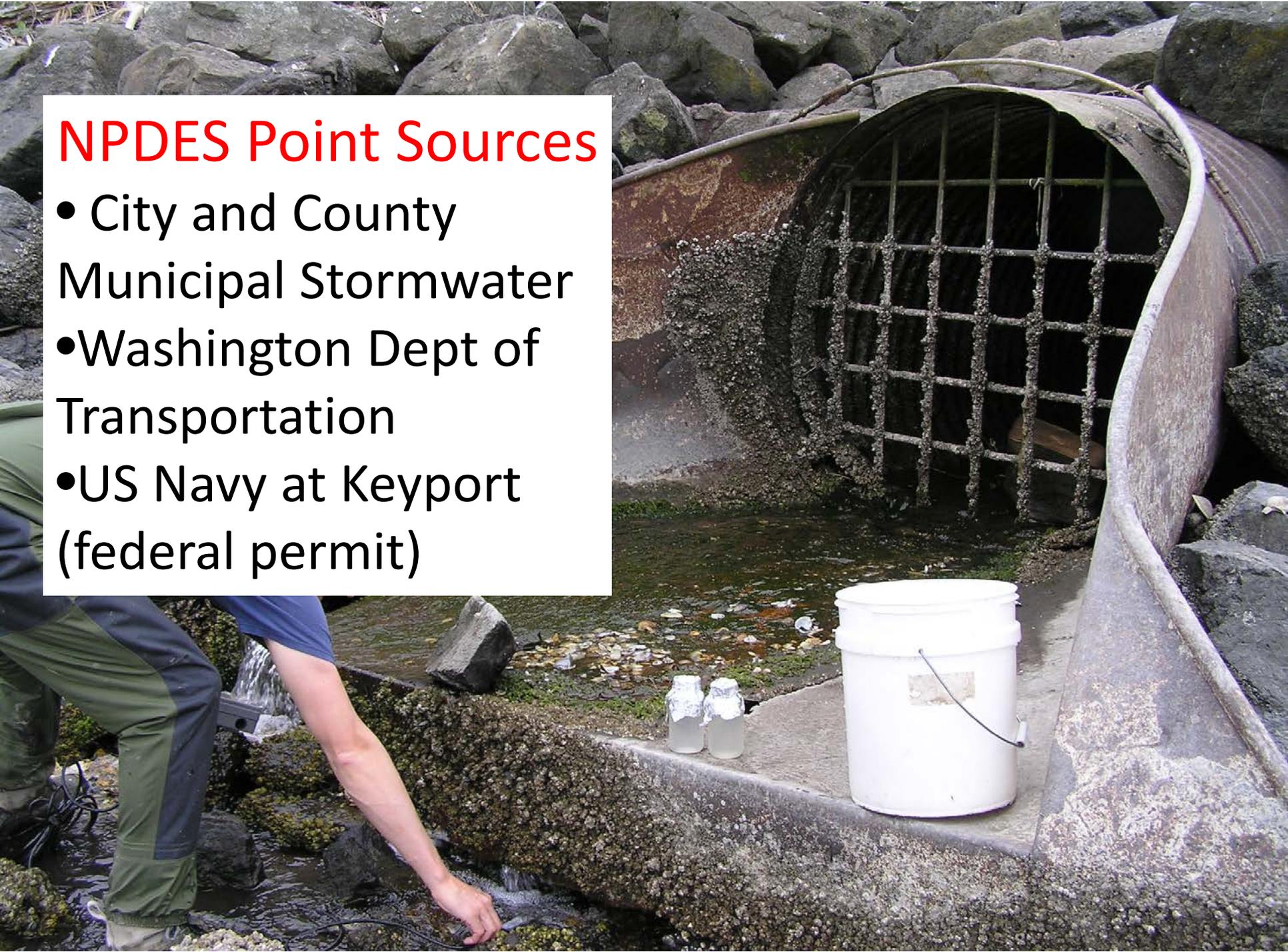


Other nonpoint sources

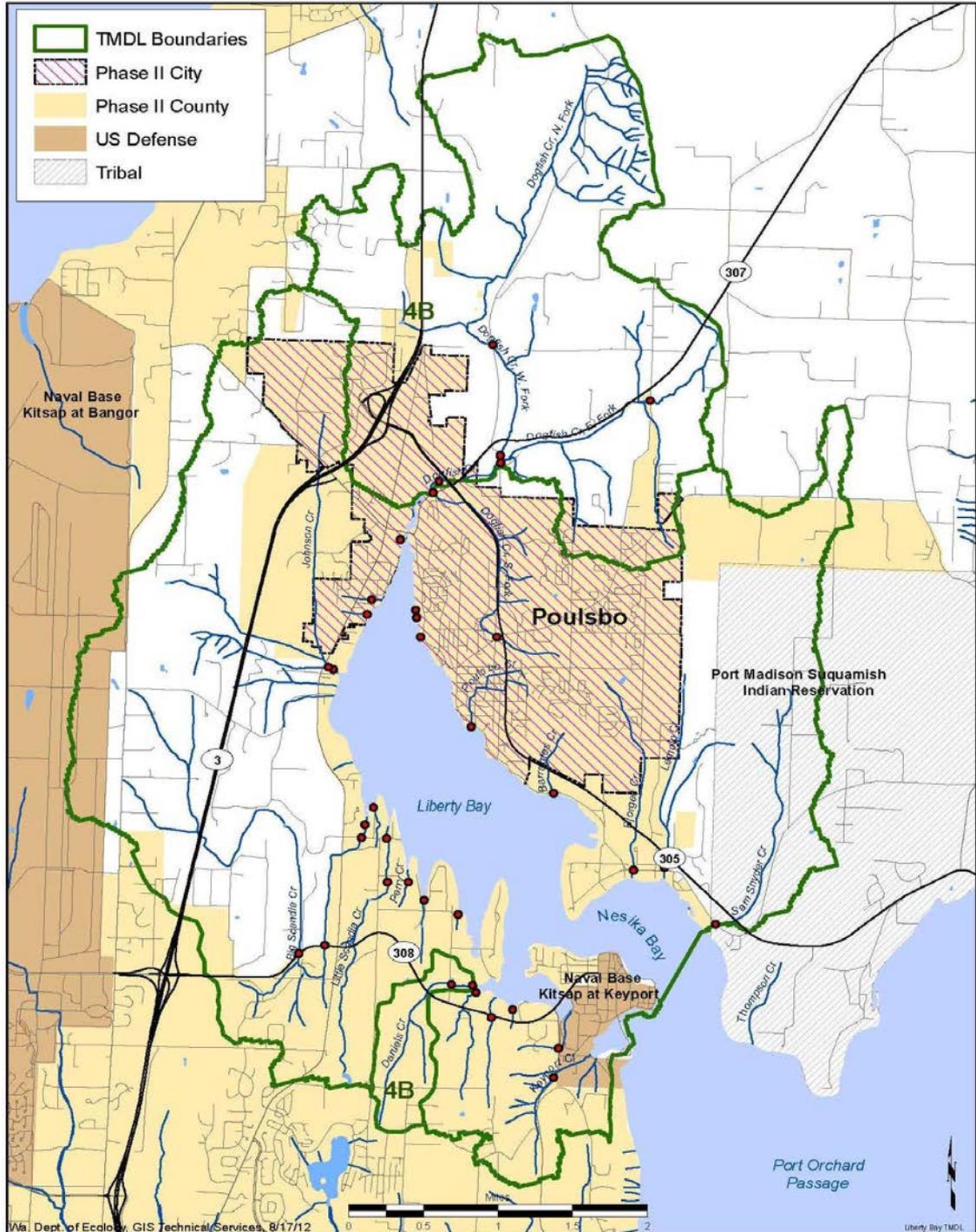


NPDES Point Sources

- City and County Municipal Stormwater
- Washington Dept of Transportation
- US Navy at Keyport (federal permit)



-  TMDL Boundaries
-  Phase II City
-  Phase II County
-  US Defense
-  Tribal



Local stormwater permittees – Kitsap County and City of Poulsbo

Focus programs on locations with Wasteload Allocations:

- **Look for illicit discharges (IDDE)**
- **Optimize O & M**
- **Education & outreach**

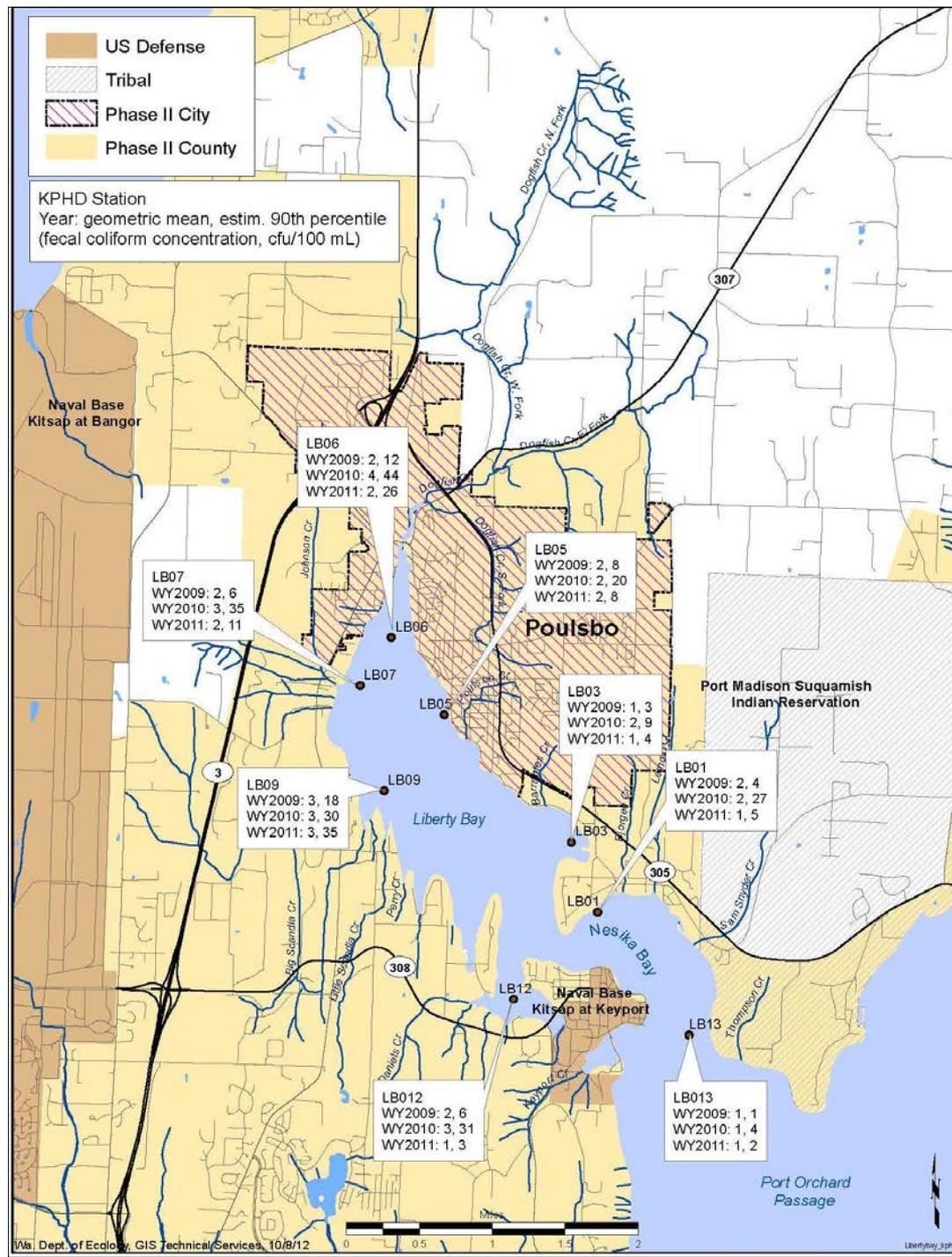
Wash. Dept of Transportation

- **Use notification provision of NPDES statewide stormwater permit**
- **Implement permit in TMDL watershed**

Navy – Keyport WLAs

- **Annual dry weather outfall screening**
- **Monitor 2 streams – Coordinate sampling with Kitsap County**

p. 70 --
Liberty
Bay met
standards
last 3
years



Current water quality & WLAs

Streams - higher priority

- South Fork Dogfish
- Poulsbo Creek
- Big Scandia & Little Scandia
- Bjorgen
- Lemolo
- Stream at Assist Living facility
- Stream E of Big Scandia

Streams – lower priority

- Barrantes
- Perry
- Stream E of Perry
- Keyport creeks 1 & 2
- Outfall below Nelson Park
- 2 unnamed streams
- Stream btw Bovela & Bay Sts
- Stream off Va. Loop Rd
- Sam Snyder Creek

Liberty Bay

Marine standards met at Kitsap Health stations

New DOH monitoring for possible larger shellfish harvest area

Liberty Bay and population growth

Low Impact Development (LID) is preferred:

- Kitsap County
- City of Poulsbo

Phase 2 stormwater permit requires LID where feasible (2016)

Recommendations for Planning Depts

- Incentives for small parcels to keep stormwater on site
- Identify, avoid developing high risk areas



**Water quality
improvement
through LID
retrofit grant
projects –
Appendix I**

**All of us can
improve water
quality**

- ✓ Check your septic system
- ✓ Bag pet waste & dispose in garbage
- ✓ Natural vegetation along streams
- ✓ Manage waste properly while boating
- ✓ Manage livestock
- ✓ Wash cars at carwash
- ✓ Keep street drain clear
- ✓ Call Kitsap One for spills
- ✓ Add a rain garden



Key parts to review

p xi	Executive Summary
Table 26	Wasteload Allocations
p 89	Tasks for Naval Base Kitsap at Keyport
p 90	Tasks for City of Poulsbo
p 92	Tasks for Kitsap County
p 93	Tasks for WSDOT
p 94	Implementation Summary
p 107	Conclusions
p 109	Recommendations
App K	Schedule

Summary

- Liberty Bay values & the Clean Water Act
- TMDL study findings
- Accomplishments – PIC program
- Implementation Plan & next steps
- What you can do to protect Liberty Bay

**Comments on draft TMDL & Plan to Ecology
(Dave Garland) by Monday April 15th**

dgar461@ecy.wa.gov

425-649-7031

