

Clean Samish Initiative

Overview for Skagit County Commissioners

November 24, 2009



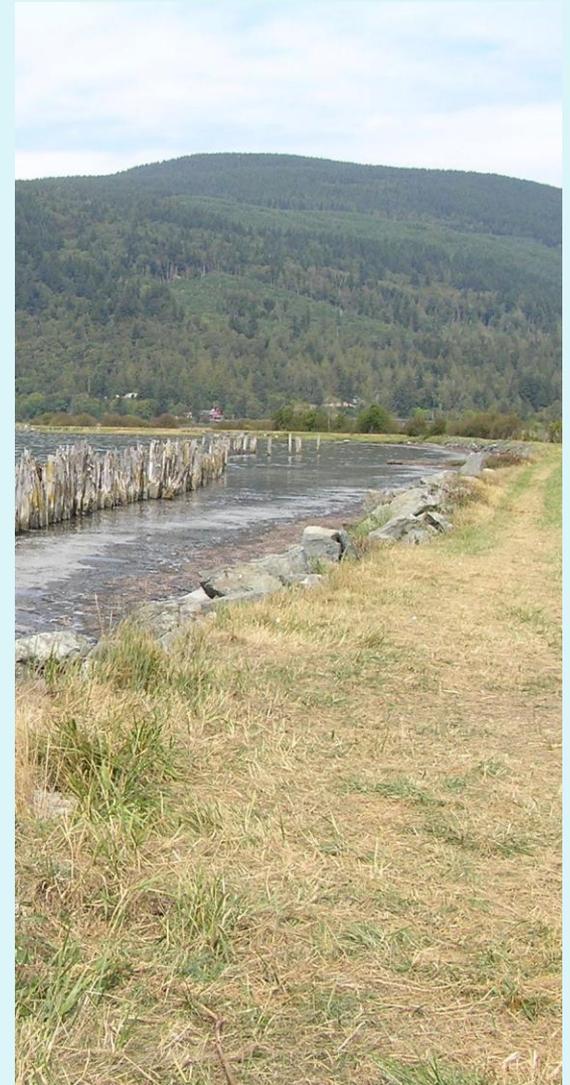
Jeannie Summerhays
NW Regional Office Director
Washington Department of Ecology



DEPARTMENT OF
ECOLOGY
State of Washington

Overview

- Samish water quality problems
- Solution – Clean Samish Initiative
 - Workplan for agencies, Tribes, organizations
 - Continued monitoring, INCREASED education and outreach
 - Funding
- Progress on the ground ...
- December 3rd public meeting and next steps



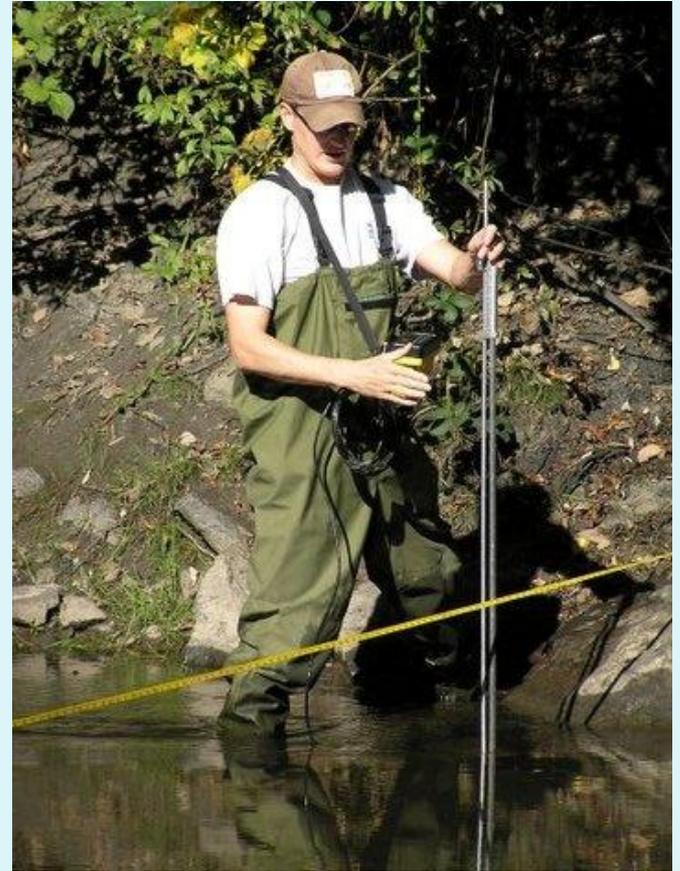
Benefits of excellent water quality

- Protect health of our kids & our animals
- Fishing, shellfishing and hunting
- Walking, birding, tourism
- Swimming and boating
- Local economy – jobs in shellfish industry and Ag



Studies of Samish Water Quality

- Samish Tribe monitoring 1998-1999
- Skagit County Samish monitoring 2000 – 2003
- Ecology TMDL monitoring 2006-2007
- Ongoing – Skagit County & Stream Team



What are fecal coliform bacteria?

Type of bacteria present in the gut or feces of warm-blooded animals

“Indicators” –
pathogens may
be present

Sources

Humans

Livestock

Pets

Wildlife



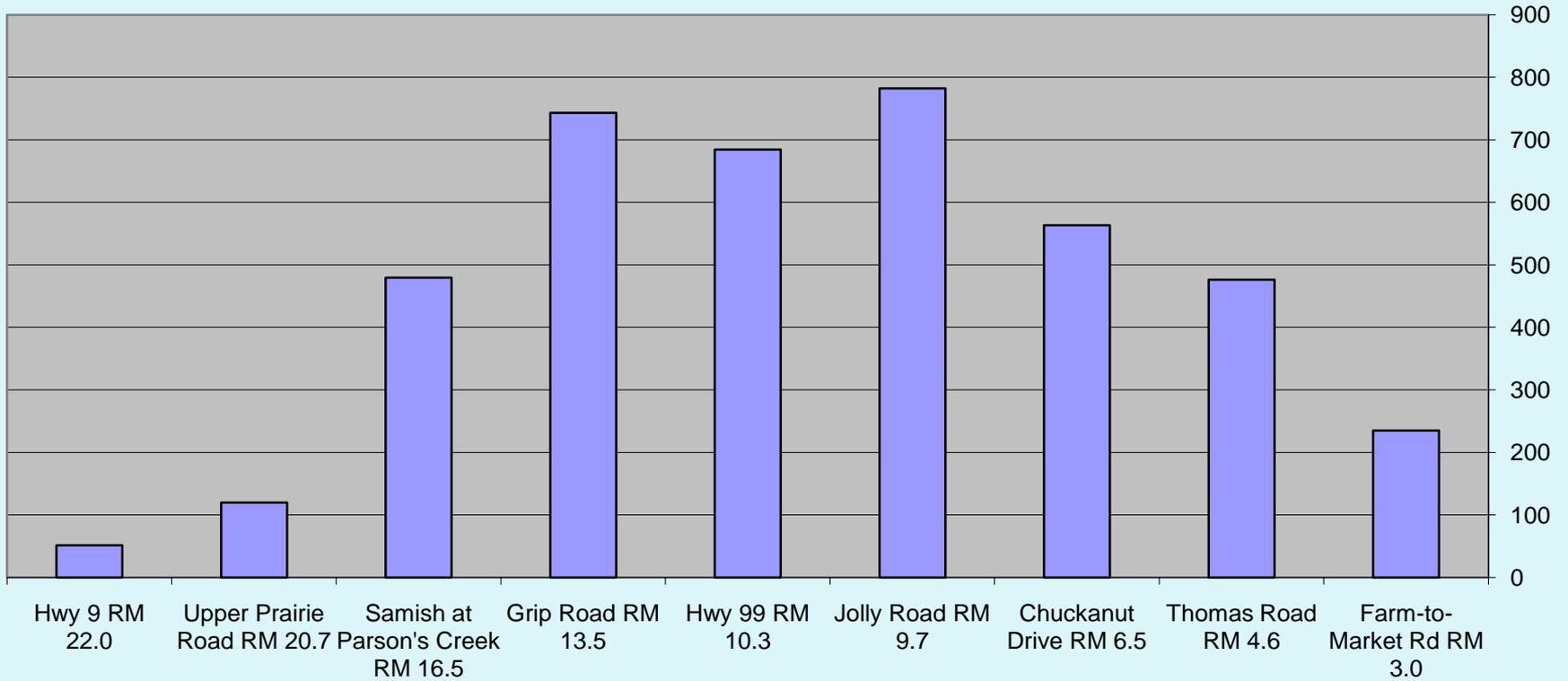
Extremely High Levels

- **State Water Quality Standard is 100 cfu/100 ml**
- **Finding frequent, very high exceedances, especially after rain events.**



Storm Team Data

Geomeans based on complete data sets
N = 6

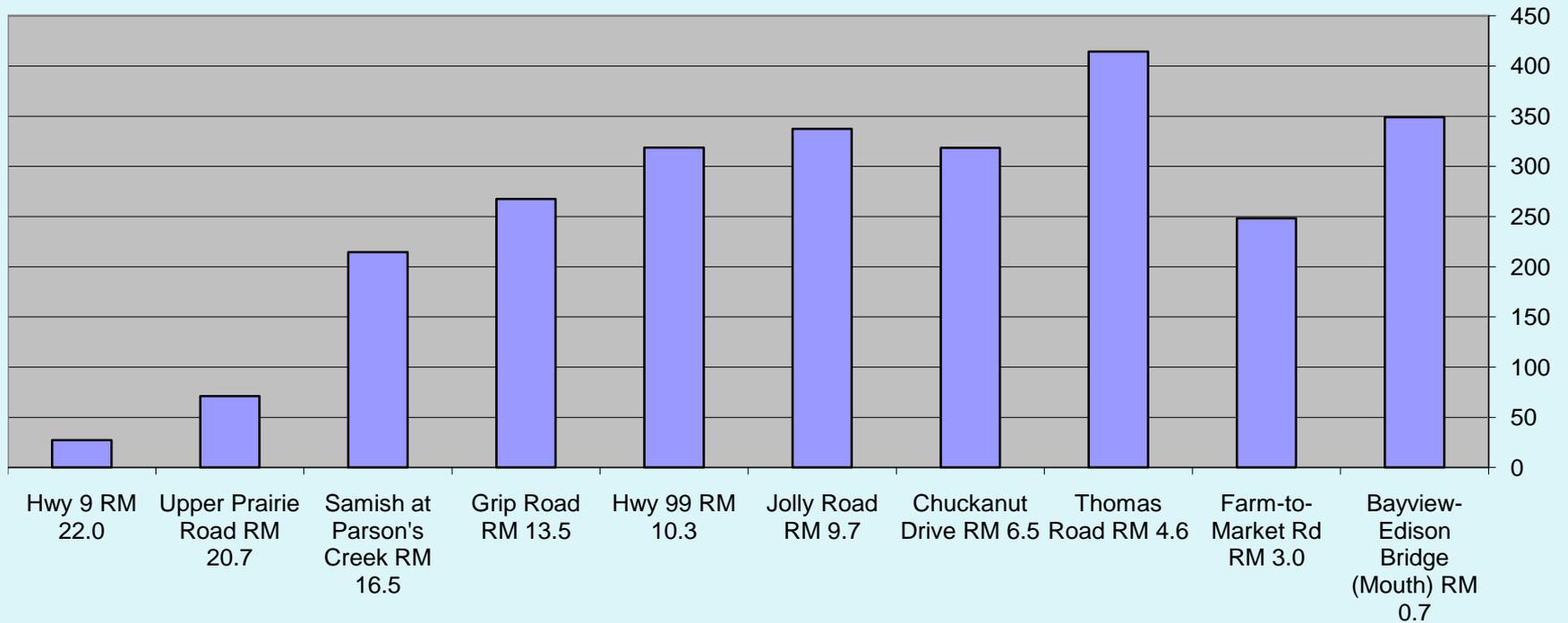


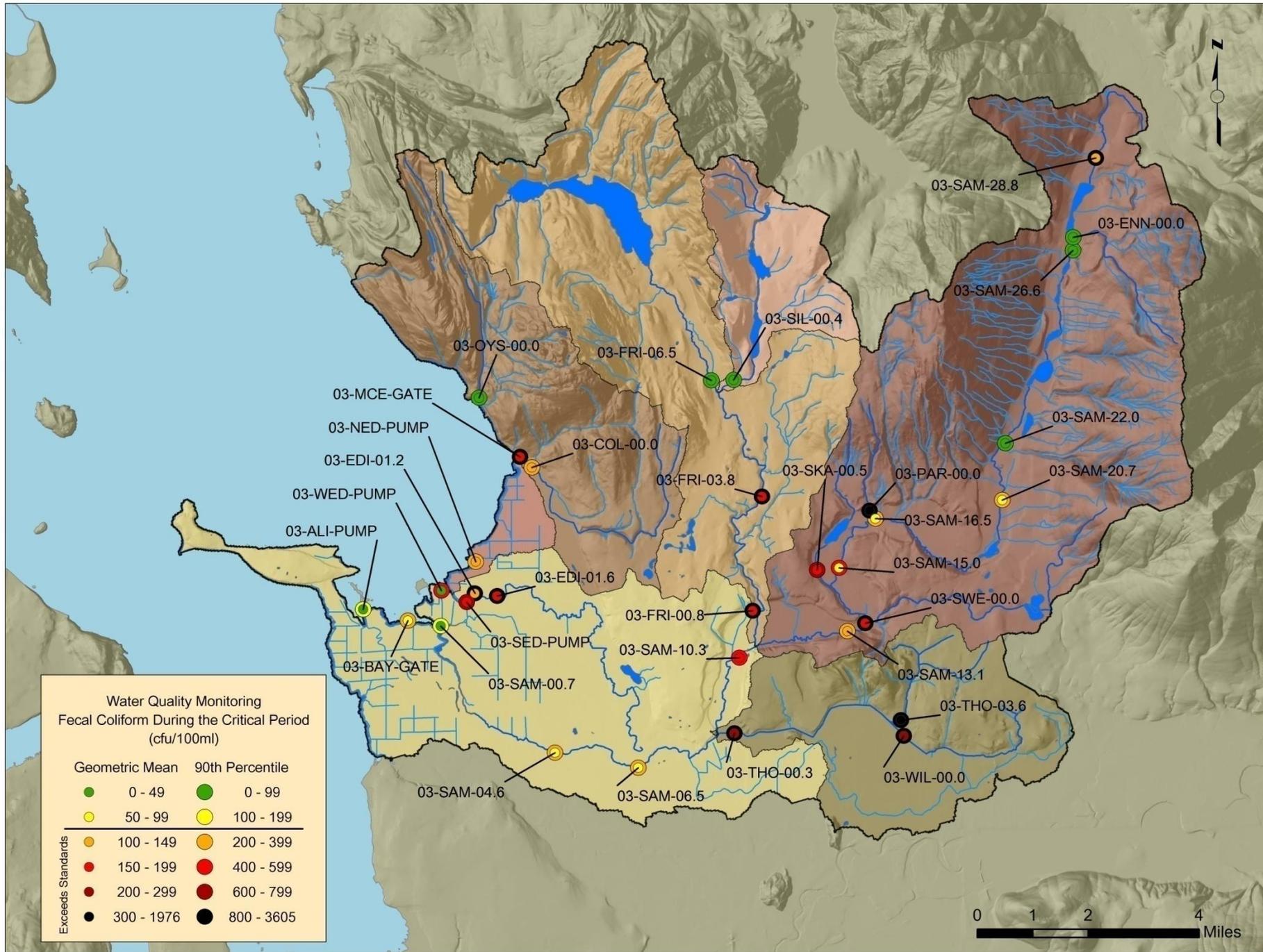
Storm Team Data

(Not same number of samples at each station)

Samish River Fecal Coliform

N = 18





**Water Quality Monitoring
Fecal Coliform During the Critical Period
(cfu/100ml)**

Geometric Mean		90th Percentile	
● (Green)	0 - 49	● (Green)	0 - 99
● (Yellow)	50 - 99	● (Yellow)	100 - 199
● (Orange)	100 - 149	● (Orange)	200 - 399
● (Red)	150 - 199	● (Red)	400 - 599
● (Dark Red)	200 - 299	● (Dark Red)	600 - 799
● (Black)	300 - 1976	● (Black)	800 - 3605

Exceeds Standards

- 03-OYS-00.0
- 03-FRI-06.5
- 03-SIL-00.4
- 03-MCE-GATE
- 03-NED-PUMP
- 03-EDI-01.2
- 03-WED-PUMP
- 03-ALI-PUMP
- 03-BAY-GATE
- 03-SAM-00.7
- 03-SAM-04.6
- 03-SAM-06.5
- 03-FRI-03.8
- 03-SKA-00.5
- 03-FRI-00.8
- 03-SAM-10.3
- 03-THO-00.3
- 03-COL-00.0
- 03-SAM-16.5
- 03-SAM-15.0
- 03-SAM-13.1
- 03-SAM-28.8
- 03-ENN-00.0
- 03-SAM-26.6
- 03-SAM-22.0
- 03-SAM-20.7
- 03-PAR-00.0
- 03-SWE-00.0
- 03-THO-03.6
- 03-WIL-00.0



FC Target Reductions

- █ No reduction required
- █ 1% to 29%
- █ 30% to 59%
- █ 60% to 99%

! TMDL sampling sites

0 1 2 3 Miles

WA State Dept. of Ecology, 2008

Chuckanut Bay

Larrabee State Park

Samish Bay

Samish Island

Padilla Bay

Samish Lake

Reed Lake
Cain Lake

Lake Whatcom

Doran

Wickersham

Alger

Blanchard

Thornwood

Bow

Edison

Allen

Sedro Woolley

Samish River

Oyster Ck

Friday Ck

Silver Ck

Butler Ck

Skarrup Ck

Parson Ck

Dry Ck

Swede Ck

Thunder Ck

Ennis Ck

Thomas Ck

Willard Ck

Watershed Boundary

Whatcom County
Skagit County

Bow Hill Rd

Hatchery

Sunset Rd

Thomas Rd

Erising Rd

Allen-Allyn Rd

Farm to Market Rd

Bayview Edison Rd

Alice Bay

11

33

28

27

23

26

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12

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20

Consequences of Poor Water Quality

Health & the Economy

- levels high enough for human and animal health concerns
- Two events of illness from Samish Bay oysters harvested commercially – 1994 and 2003
- If others adopt protective practices:
 - Protects water quality and animal health
 - Saves \$\$ and jobs
 - Avoids need for “Combined Animal Feeding Operations” (CAFO) permit coverage

Sources of Fecal Coliform Bacteria in the Samish

- Onsite sewage systems
- Small and commercial farms with livestock
- Manure spreading operations
- Human recreational activities
- Marina liveaboards
- Waterfowl attracted to grain fields

When managed properly, **none** of these uses represents a threat to water quality

First.....Thank You!!

- On behalf of all members of the Clean Samish Initiative:

for reauthorizing the Clean Water Program and for asking that agencies use this money to “make a difference” in the Samish.

Samish Successful Local Initiatives

- In 2000, local initiative led to Edison community treatment system (replacing failing individual systems)
- In Blanchard, failing systems replaced & upgraded
- Bay water quality at mouth of Edison Slough measurably improved!

Successful Local Initiatives

- 2006- 2009 Hundreds of onsite systems inspected, repaired under County Health program
- Many farmers, landowners working with Skagit CD to adopt protective practices

Clean Samish Initiative – why needed?

- Spring 2009 – TMDL Implementation Plan
- May 2009 - Samish Bay shellfish closures due to high bacteria during rain events
- Despite excellent local efforts, more work & funds are needed
- August 2009 - Ecology brought together larger group of organizations -- *to speed up TMDL implementation actions =*

Clean Samish Initiative

Clean Samish Initiative

What is it?

20. state, federal and local organizations and Tribes working together for a common goal:

“Collective, integrated work resulting in maximum fecal reductions in the shortest time possible, as smartly as possible, and informing the community.”

Unprecedented Effort

Clean Samish Initiative

Who are We?

- Skagit County Planning and Development Services
- Skagit County Public Works
- Skagit County Public Health
- Skagit Conservation District
- WSU Skagit County Extension
- Department of Ecology
- Washington Department of Agriculture
- Washington Department of Health
- Puget Sound Partnership
- Washington Department of Natural Resources
- Washington State Conservation Commission
- Governor's Office of Regulatory Assistance
- Environmental Protection Agency
- Upper Skagit Tribe
- Samish Indian Nation
- Taylor Shellfish Farms
- Western Washington Agricultural Association
- Washington State Dairy Federation
- Washington Cattlemen's Association
- Skagit Conservation Education Alliance
- Washington Sea Grant / UW
- RE Sources for Sustainable Communities – North Sound Baykeeper
- Skagit Fisheries Enhancement Group

Agency Roles in Protecting Water Quality

- Department of Health Shellfish Program monitors marine water quality
- Clean Water Act – Ecology protects, restores Waters of the State

Not polluting state water is the law

- Other Agency Partners
 - Skagit Conservation District
 - Skagit County Health Dept; other Skagit County agencies
 - Skagit Conservation Education Alliance
 - Washington Dept of Agriculture
 - Washington Dept of Health

Clean Samish Framework

- Workplan
- Important Work by Focused Committees:
 - Monitoring: Data is the Foundation
 - Outreach/Education/Media
 - Compliance/Enforcement
 - Funding: Must have it for Future



Water Quality Sampling & Monitoring

- Data is the foundation
- County, CD Stream Team, and SCEA , Samish Tribe working together
- Sharing all water quality data
- Making data available “hot off the press”
- Will get data on Website



Funding



- Funding Essential for the Future
- Up to \$800,000/grant in EPA Funding can be applied for Samish Watershed work – due Jan.
- Skagit County is working to put together a team of local partners.
- We must demonstrate to EPA that this is a partnership effort that can work together

Compliance/Enforcement

- We know there needs to be a presence in the field
- Agencies with compliance responsibilities are on the committee
- Ecology already out and with Skagit Health
- Starting with site visits & clear information
- Working with CD as well

Outreach/Education

- Essential element for success
- Good cross-section of government, ag, and non-profit entities
- Deciding what works best
- Media already contacted
- Workshops done and coming

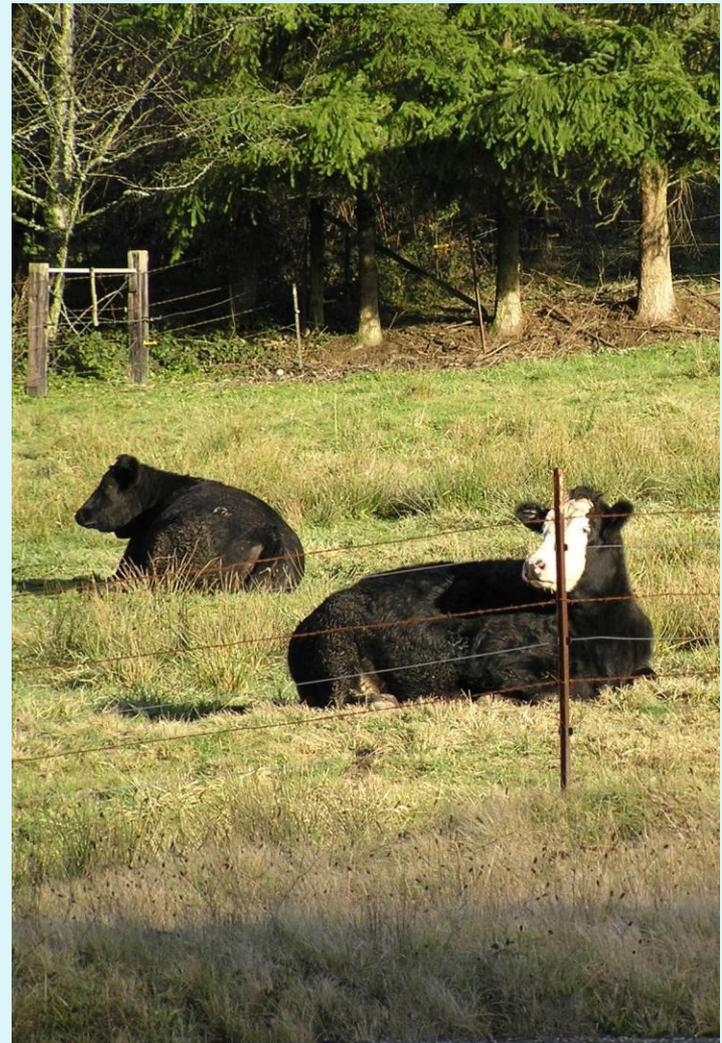


What Some Key Players are Doing:

- Skagit Health requires inspections of all onsite sewage systems in the Samish
- Skagit Conservation District farm planning and public outreach & education
- Skagit Conservation Education Alliance
 - Public education and outreach
 - Sani-cans in fishing, hunting areas

What Some Key Players are Doing:

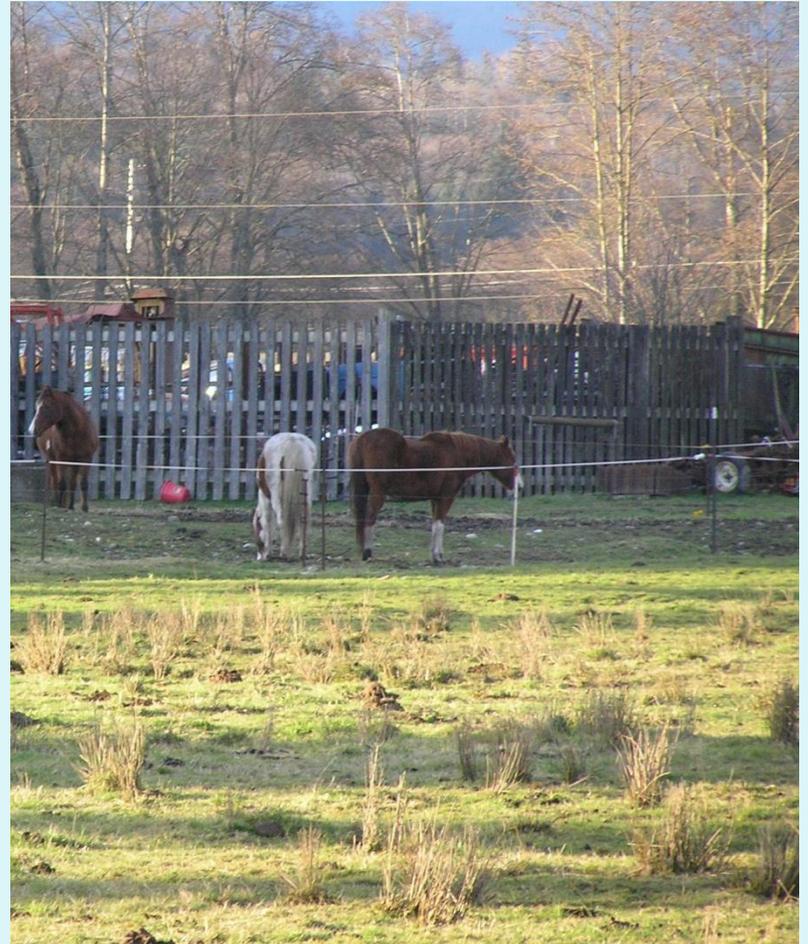
- Samish Tribe restoration project & outreach to Thomas Creek landowners
- Skagit County leading local groups in grant proposal for EPA funds



Clean Samish Initiative

Fall 2009 Accomplishments – Slide #1

- Ecology nonpoint inspections – joint with Skagit Health septic inspector
 - Visited 11 farms
 - All 11 voluntarily adopting protective practices for livestock and/or onsite systems



Clean Samish Initiative

Fall 2009 Accomplishments – Slide #2

- Skagit Health Dept onsite program –
 - Number of unknown/unpermitted systems reduced from 457 to 343 (20%)
 - 8 systems needed correction
 - 3 failed systems will be replaced



Clean Samish Initiative

Fall 2009 Accomplishments – slide #3

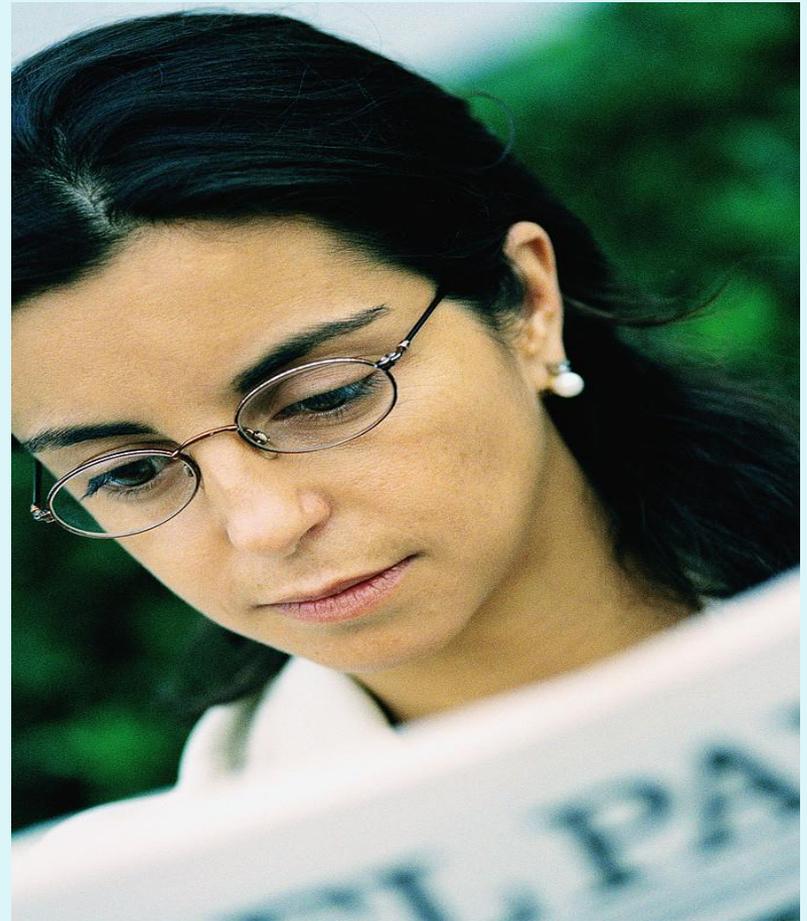
- Skagit Conservation District
 - Ongoing farm planning and education on best practices
 - 3 workshops for noncommercial (small farm) owners



Clean Samish Initiative

Fall 2009 Accomplishments – slide #4

- Contingent of Clean Samish Participants met with the Skagit Valley Herald to inform the of the problem, what is being done about it, we're all part of the solution, and what we hope they can do to **educate the public.**



Clean Samish Initiative

Next Steps – slide #1

- Coordinate public outreach, water quality monitoring, data sharing & nonpoint inspections (ongoing)
- Clean Samish Open House & presentation of incentives and requirements
 - December 3rd, 2009 at Allen Elementary School
 - Multi-agency education & outreach
 - Encourage “kitchen conversations”

Clean Samish Initiative

Next Steps – slide #2

- Proposed late January 2010 Clean Samish meeting – summary of activities & accomplishments
- March 2010 TMDL progress report



Broader Interest in This....

- Puget Sound Partnership Action Agenda
- “5248” CAO/Agriculture Process
- Each Agency
- Agriculture Community
- Shellfish Industry
- Others
- We all succeed or fail together



For/From You – Support the Clean Samish Initiative:

- Use your influence and support for:
 - Skagit Departments Work: the ongoing & new efforts of your agency staff – thank you!
 - Agriculture Community: encourage them to do what they can to reduce fecal coliform levels while remaining economically sound
 - Citizenry: educate citizens through your avenues & encourage them to do what they can
 - Others: Tell them what the effort is here.

Questions??

- Any thoughts for me? 425-649-7010
- Any Clean Samish Initiative Member will welcome calls, input, questions, recommendations.