

# Clean Samish Initiative

## Quarterly Progress Report

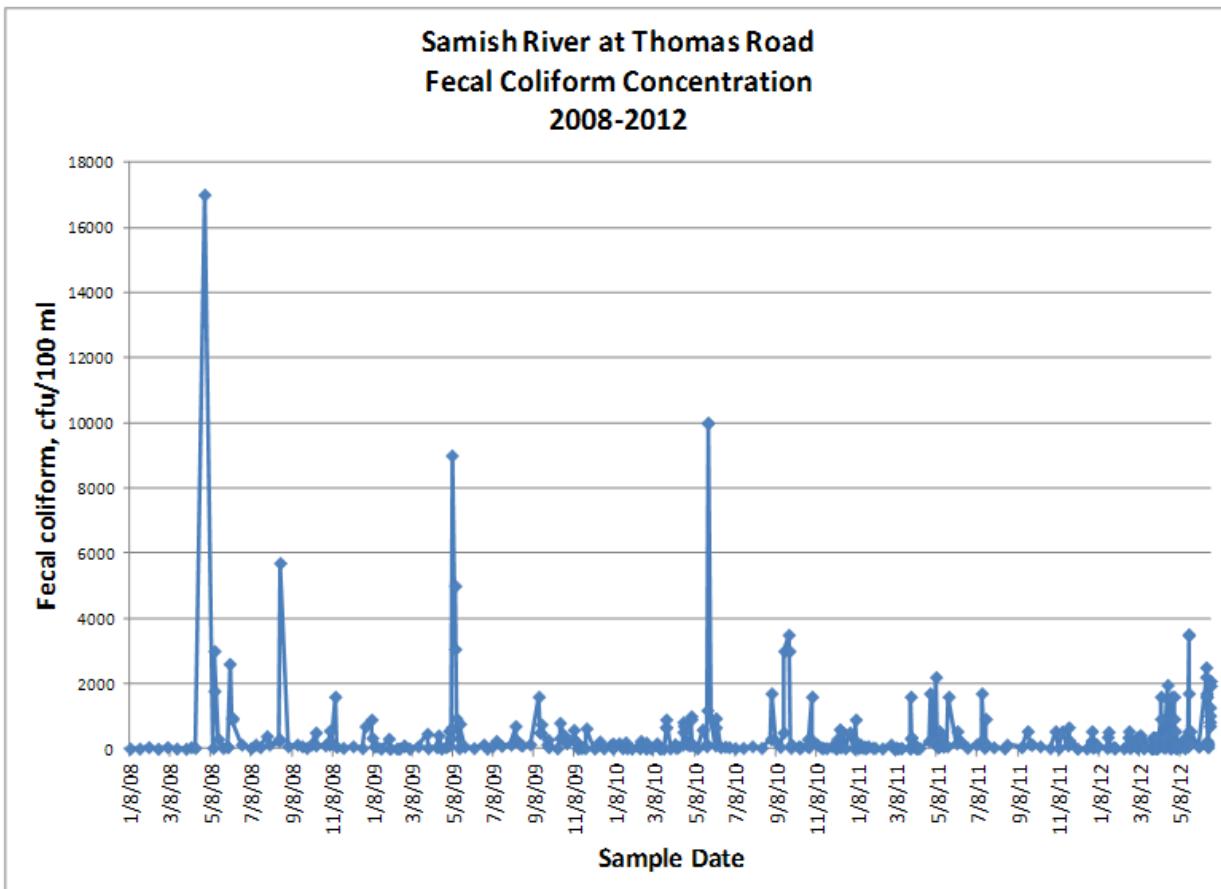
### April - June 2012

## 1. WATER QUALITY MONITORING UPDATE

Skagit County continued its normal ambient sampling during the second quarter and conducted an additional 17 days of storm monitoring in the watershed from April-June. Additionally, Storm Team volunteers assisted in sampling during storm events that occurred outside of normal office hours for County personnel. The County also sampled some additional upstream locations along Swede Ck and Bob Smith tributaries during the second quarter in response to high fecal counts found at the usual downstream sample sites. Water Quality monitoring also was conducted for drain tiles located both upstream and downstream of the Samish River sample site at Thomas Rd. Included in this report are updated versions of the graphs presented last quarter that represent several ways of looking at the fecal coliform data and tracking progress.

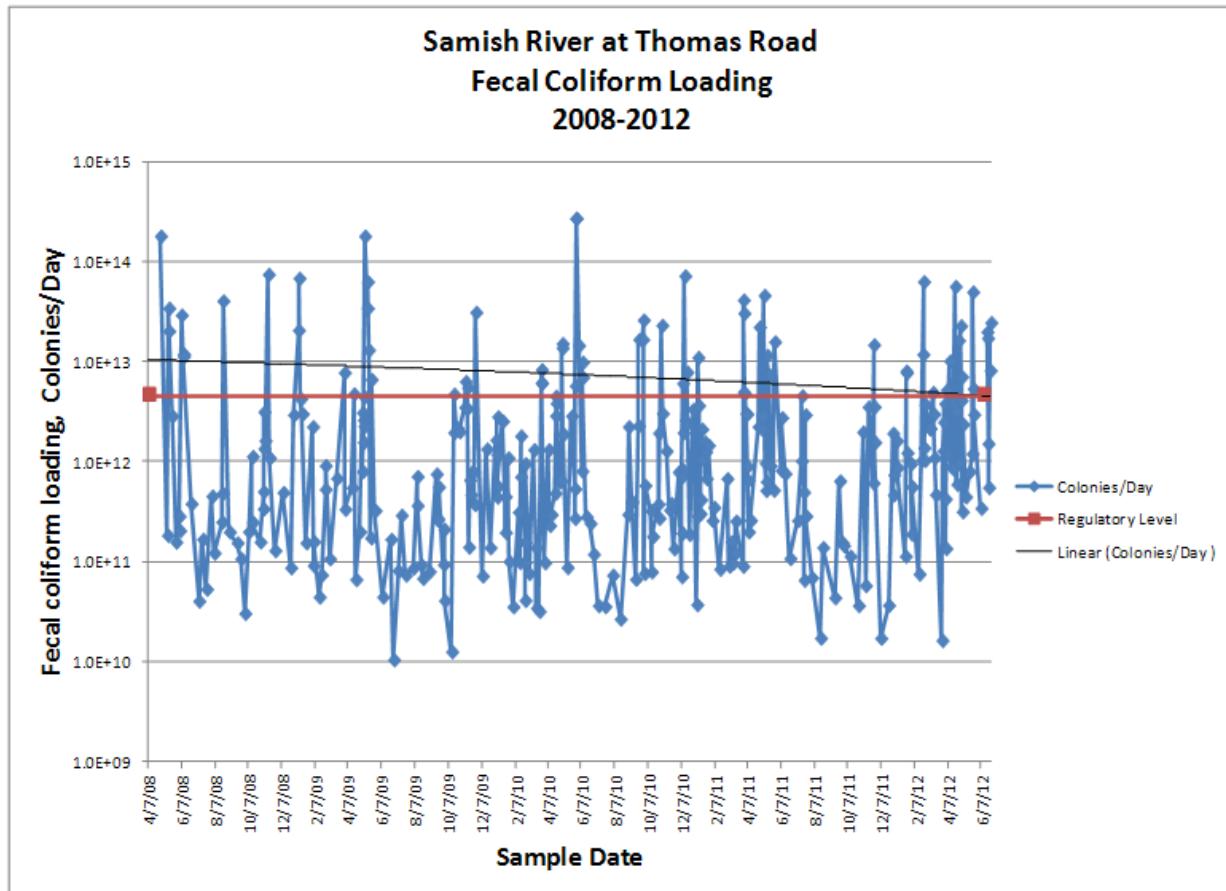
### 1.1 Fecal Coliform Concentration

Figure 1 shows fecal coliform concentrations for Samish River samples taken at Thomas Road from January 2008 through June 2012. Overall, fecal coliform concentrations for this quarter have increased compared to the previous one with more frequent spikes in concentrations observed this quarter. However, the trend of decreasing concentration still holds as no extremely high samples have been measured for more than a year. Approximately one quarter of all of the samples collected at the Samish River bellwether site at Thomas Rd during the second quarter met the state water quality standard of 100 colony forming units/100ml.



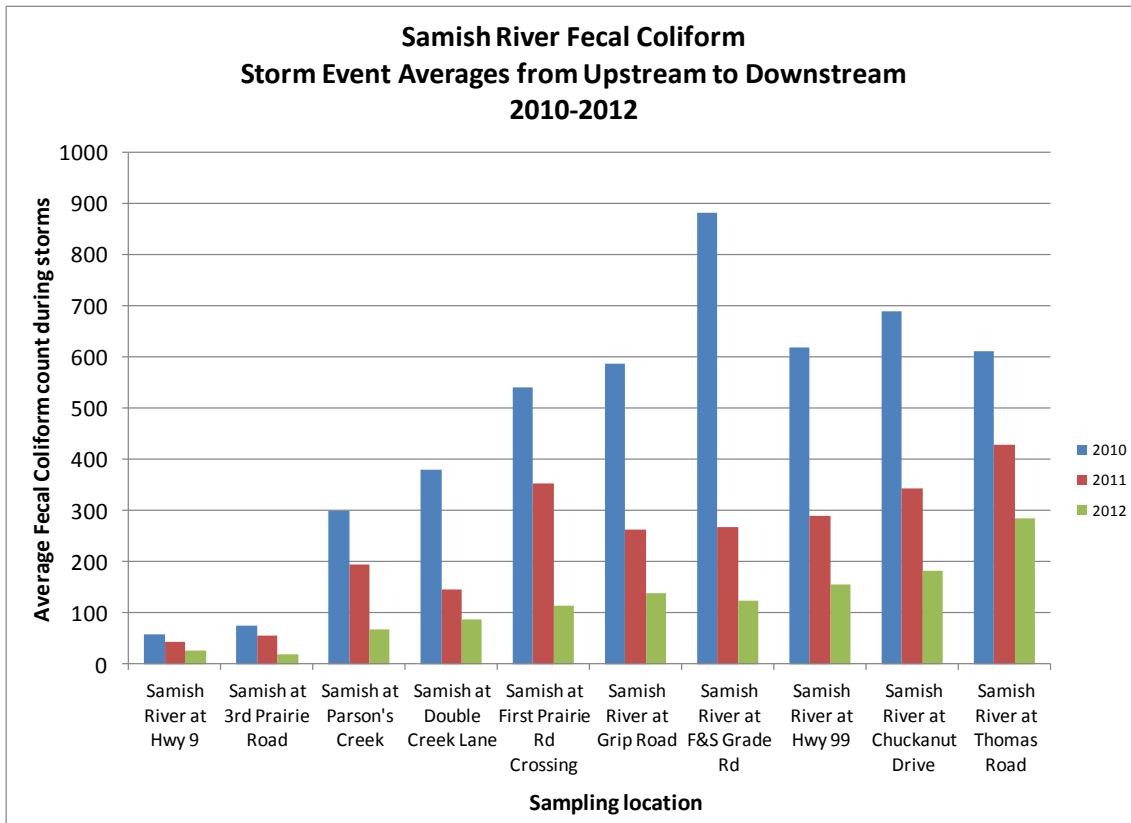
**Figure 1. Fecal coliform counts from the Samish River at Thomas Road, 2008-2012****1.2 Fecal Coliform Loading**

Figure 2 shows the loading of fecal coliform colonies from the Samish River into Samish Bay. Fecal coliform loadings were also higher for this quarter than for the previous one and resulted in 25 pollution closure days in Samish Bay. A slow downward trend in loading continues; estimated loadings are down from the 2008, 2009, and 2010 water year levels, but increased from 2011.

**Figure 2. Fecal coliform loading (trillions of colonies per day) for the Samish River**

### Fecal coliform storm event averages at Samish River monitoring stations

Figure 3 shows the geometric mean of storm event fecal coliform samples at the mainstem Samish River monitoring locations for 2010, 2011, and 2012. While fecal coliform counts continue to decrease every year, downstream counts remain higher than upstream samples.



**Figure 3. Geometric mean (“average”) fecal coliform counts at Samish River stations from upstream to downstream, 2010-2012**

### 1.3 Samish Bay Growing Area Regulatory Regime

Early into the second quarter on April 4, 2012, after a series of rain events and repeated river rises, Samish Bay had the second confirmed closure during the March-June examination period, eliminating the possibility of an upgrade at the end of June.

Less than one week later, ambient sampling after several days of dry weather yielded the highest ever Thomas Rd. fecal coliform levels seen during non-storm event sampling. Two samples, one at 920 and one at 1600, exceeded the loading criteria and caused an emergency bay closure. The following week, another rain event led to alarmingly high fecal coliform counts. The loading into the bay calculated from the Thomas Road sampling site on 4/20/12 was the highest non-flood associated loading since December 2010 and was one of the 10 highest loading events in 4 years at 56 trillion colonies of bacteria per day.

A second emergency closure during this quarter happened on May 3 as a result of samples taken the day before, during a declining hydrograph after a CFS closure on May 1<sup>st</sup>. Another rain event in late May once again led to extraordinarily high pollution loading from the river, exceeding 10 times the permissible limit. This was also a top 10 loading event. The two qualifying river rise closures in June were confirmed by water quality results which exceeded the loading limit.

#### 1.4 Second Quarter 2012

Second Quarter 2012 closures were as follows:

**Flood Closures:** none

**CFS Closures:** 11 Qualifying Events: April 1, 3, 16, 17, 20, 26, 30, May 4, 22 June 17, 23

6 Confirmed Closures: April 3 (4-6), 20 (21-22), 26 (27-28)

May 22 (23-25)

June 17 (18-20), June 23 (24-26)

**Emergency Closures:** 2 (April 10, May 3)

**Total April-June Pollution Closures:** 8

**March 1 to June 30 Pollution Closures:** 9

5 of the 11 cfs closures that occurred in the second quarter of 2012 were cancelled based on subsequent fecal coliform loading levels below the closure threshold.

#### 2012 Samish Bay Growing Area Closures – 2<sup>st</sup> Quarter

April							May							June							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
1	2	3	4	5	6	7			1	2	3	4	5							1	2
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9	
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16	
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23	
29	30						27	28	29	30	31			24	25	26	27	28	29	30	

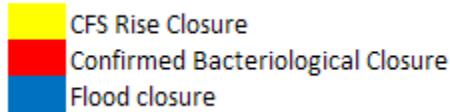


Figure 4. Samish Bay Growing Area Closures for the second quarter of 2012

#### 1.5 Summary of progress

This spring has shown a backsliding in progress seen from fall and winter sampling. The admittedly high bar set for upgrading the bay of no more than one closure from March-June did not come close to being met, with 9 pollution closures during that time period. Much more progress needs to be made before the bay will be considered for an upgrade.

## 2. PROPERTY INSPECTION STATUS

### 2.1 Total Number of Inspections Towards Goal:

While Water Quality monitoring continues to guide areas for inspection, Skagit County has also been tasked with evaluating all parcels in the watershed that may have a fecal coliform source. Areas of focus for the second quarter included the upper Samish River and the Swede, Willard, and Thomas Creek drainages. Skagit County evaluated over 900 new parcels in the second quarter (See Figure 4 below).

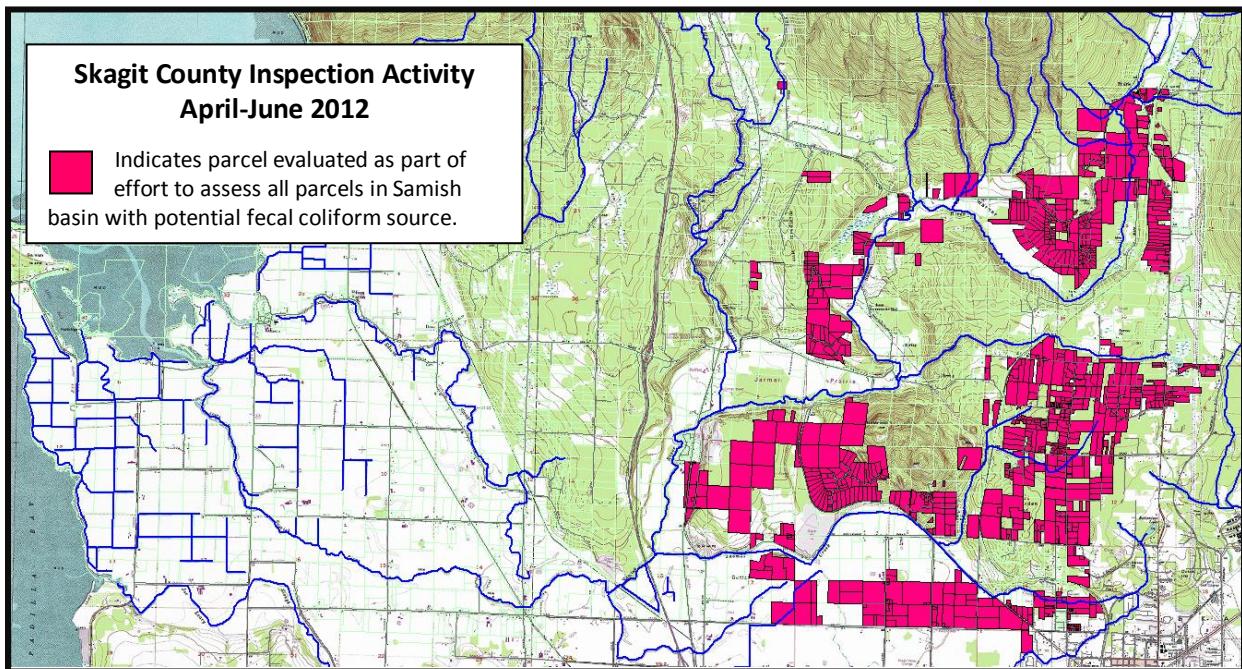


Figure 4. Parcels evaluated by Skagit County from April-June 2012 (N=900). All parcels evaluated initially via drive-by; some parcels also receive a site visit as needed based on initial observations (see 2.2).

### 2.2 Inspections Requiring Follow-up

Of the 900 parcels evaluated via drive-by between April-June, about 25 properties were noted as needing seasonal follow up. Additionally, about 50 owners required a site visit to further assess conditions on the property; all of these properties have been sent at least one letter requesting a site visit and 13 property owners have already received a site visit. Of those properties where a site visit has been conducted, 7 were determined to be in compliance and 6 were referred to the Conservation District. Though the County was on-site at all 6 properties that were referred to the CD, two of these referrals came from Ecology because they were joint site visits. There were 2 additional referrals to the CD this quarter; one from Skagit County as part of a now closed Critical Areas enforcement case, and one from Ecology that the County was not involved in. For the remaining properties that require a site visit, 5 owners already have a visit scheduled, 4 are working with another agency, 5 have exhausted the 30 days after the second site visit request and will be receiving an unannounced visit in the coming weeks, and the remainder we are waiting to hear back from based on our mailing.

### 2.3 High Priority Areas

There are currently 10 properties in the basin that are considered very high priority. Ecology has issued penalties to three of these and all have received warning letters and been referred to the Conservation District.

The one open Critical Areas Enforcement case from last quarter was closed at the beginning of this quarter when the owner voluntarily complied with all County regulations.

## **2.4 Penalties**

After initially reducing a penalty issued to a landowner in December, Ecology decided to reissue the penalty for the full amount in June because of failure to pay the reduced fine.

In late June, Ecology issued the first joint Immediate Action Order/Notice of Penalty, which consisted of an Administrative Order to implement required corrective actions, and a \$1,000 penalty. As of mid June, Ecology had a list of nine other owners who were being considered for similar enforcement action.

## **2.5 Summary of Progress**

The addition of Skagit County's new Water Quality Inspector in April 2012 has greatly increased inspection capacity. For the second quarter, the inspection rate was 300 parcels/month. About 3% of the parcels visited required seasonal follow up and 6% required a site visit for further investigation.

# **3. EDUCATION & OUTREACH REPORT**

Education and outreach activities during the second quarter of 2012 were as follows:

## **3.1 Education and Outreach Committee**

### **Skagit County Public Works:**

- List serve messages and website updating with WQ results and bay closure info
- Press Releases regarding emergency closures
- Re-working plan for placement of A-frame Bay Closure signs

### **SCEA Activities:**

- June 15 Sunset Cruise and Shellfish Soiree (with Taylor Shellfish)
- Watershed letterbox trail launched – 3 boxed in the Samish basin

### **Skagit Conservation District Activities:**

- Native Plant Workshop – April 26<sup>th</sup>
- Arbor Day event
- Quarterly report being drafted

### **Skagit Fisheries Enhancement Group Activities:**

- Junior Stream Stewards at Allen and Edison wrapped up for the summer

### **Samish Nation Activities:**

- Continue to collect water quality samples on Thomas Creek

### **WSU Beach Watchers Activities:**

- April 17 presentation and tour of Samish including Jack and Wendy Sekora's property (with SFEg)
- Mid April – Homeowners workshop

## **3.2 Other Activities**

- Landowner Workshop May 21-22: Riparian Grazing and Water Quality Management Workshop: Sponsored by WSU Extension; John Schuh with SCD assisted.
- Cattleman's meeting June 7: Skagit County and Skagit Conservation District in attendance to discuss poor water quality results during Spring 2012.

## 4. SEPTIC INSPECTION UPDATE

Septic system inspection reporting will be in a different format than in previous reports. Rather than listing only the raw number of inspections completed, we will report on the number of systems with up-to-date inspections. On-site sewage (septic) system inspections are required every three years for conventional gravity systems and annually for all other systems. The percentage rates for failures or corrections needed are reported on these up-to-date inspections. Because septic system inspections are based on a time frequency, the numbers change regularly. This reporting will better reflect the current status of septic system inspections.

There are 2,512 septic systems in the Samish Island, Lower Samish, Colony Creek, Upper Samish and Thomas Creek Marine Recovery Areas (MRAs). Two new MRAs were added on May 29, 2012 by the Skagit County Board of Health (County Commissioners). Upper NE Samish and Willard Creek MRAs encompass the remaining properties likely to have septic systems in the Samish Watershed. Refining the data is in process, and we expect between 900 – 1100 new septic systems to be added. See [Resolution #R20120172](#).

**Failure Rate:** Table represents data from January 1 – June 30, 2012.

MRA	Total Up-to-date	Acceptable	Corrections Needed	Failure
Colony Creek	317	287	25	5
Thomas Creek	217	205	6	6
Samish Island	322	303	16	3
Lower Samish	654	620	22	12
Upper Samish	279	267	7	5
Upper NE Samish	169	159	8	2
Willard Creek	33	28	4	1
<b>Total</b>	<b>1991</b>	<b>1869</b>	<b>88</b>	<b>34</b>

Samish Island, Lower Samish, Colony Creek, Upper Samish and Thomas Creek MRAs – 1,667 septic systems inspections out of 1,789 septic systems = 93% with current inspections (1.7% failures; 4.2% corrections needed).

Newly designated MRAs (Upper NE Samish; Willard Creek) included in total calculation – 1,991 septic system inspections out of approximately 3,500 septic systems = 57% with current inspections (1% failures; 2.5% corrections needed).

**Location of Failures:** A map showing the location of failures is being generated by the Health Department as part of Skagit County Public Health's semi-annual reporting requirement. Look for the link to this map on the Clean Samish Initiative web-site.

**Number of Inspections Toward Goal:** Skagit County Public Health's 2007 On-site Sewage Management Plan established the goal of determining the operational status of all on-site sewage systems in Skagit County by July 2012, *with an emphasis on Marine Recovery Areas once established.* The denominator for this percentage has changed with the addition of the on-site sewage systems in the Upper NE Samish and Willard Creek MRAs.

Until the addition of the new MRAs, we were very close to this goal of 100% in the Samish Watershed MRAs.

**Septic 101 and 201 Report:** The numbers reflect activity between January 1 and June 30, 2012. A Septics 101 on-line class was developed and is starting to be used more frequently. See [Skagit Septics 101 online](#).

**Septics 101** - Nine classes -- 288 people

**Septics 201** - Ten classes – 260 people

**On-line training** – 55 people

## 5. FARM PLAN IMPLEMENTATION: April-June 2012

### **Department of Ecology referrals to SCD**

**April-June 2012:** 3 landowners referred; 3 inspection reports on previous referrals

- 2 owners have not contacted CD
- 3 plans in process
- 1 CAFO plan required

### **Farm plan progress for ECY referrals prior to April 1:**

- 5 plans in process
- 1 plan approved

### **Skagit County referrals to SCD April-June 2012:** 5 landowners

- 3 owners have not contacted CD
- 2 plans in process

### **Voluntary Requests for SCD Assistance:** 6 landowners

- 5 plans in process
- 1 plan approved

### **Dairy Nutrient Management Plan work:**

- 1 DNMP approved
- 1 DNMP in process of being updated

## 6. NATURAL RESOURCE STEWARDSHIP PROGRAM

Skagit County's NRSP was slightly behind schedule due to unseasonably wet conditions, as mentioned in the first quarter's progress report. The numbers below reflect year-to-date totals for the Samish basin, not only those numbers for the second quarter.

This program is currently funded 75% by the Department of Ecology and 25% by the County's Clean Water Program and is a County-wide program that provides grant funding to landowners to enhance their property with a benefit to water quality. This program has become a useful tool to get on-the-ground projects completed within the Samish basin, while not a formal component in the CSI effort. The County has recently received some additional grant funding to supplement NRSP activities in the Samish Basin and is working out the details on how these will be spent. It is expected that projects will continue to increase in this basin.

The new property enrolled is along Butler Creek, a tributary to the Samish and will consist of over 800 plantings and 1400 linear feet of stream upon completion. No work has begun on this property at this time.

**Number of Properties Enrolled:** 1

**Linear feet of Streamside Restoration:** 10,606 ft.

**Plantings:** 4,319 plants

**Acres:** 17.05 acres

**Feet of Fence:** 2,250 ft

## 7. GOALS FOR UPCOMING QUARTER

1. Resolve Enforcement cases
2. Maintain inspection rate (~300/month)
3. Continue seasonal re-visits to sites with livestock
4. Increase Septic Education and continue advertising for Septic 101 online
5. Ensure timely implementation of Immediate Action Plans
6. Prepare sanican facilities for fishing season and summer recreation