

A couple of things to note:

Mostly low numbers, but drainage infrastructure and Colony Creek fairly high. Parsons Creek still low.

There were two ducks noted upstream at Site 36 (which had a count of 300 cfu) and a brand new family of geese upstream of Site 38 (which had a count of 80 cfu). Site 37 (500 cfu) had a very thick mat of dying algae, so the resulting sample had high levels of suspended algal material.

There was a larger-than-normal discrepancy at Samish/Thomas Rd (Site 32) between main sample (17 cfu) and duplicate (130 cfu). To review how we obtain duplicates: 500 ml sample obtained from the river is homogenized (by rapid shaking). First bottle (main sample) is filled half-way. River sample is then re-homogenized and the duplicate bottle filled half-way. Process is repeated except that we fill the second half of the duplicate bottle first. So the main sample bottle gets the first and fourth aliquots from the river sample, and the duplicate bottle gets the second and third aliquots, and the river sample is homogenized between each aliquot.

I'm checking with the lab to make sure there are no quality control issues, but have not heard back from them yet and don't expect to find anything out of order. The two field people responsible for taking the samples (Tracy Alker and yours truly) have reviewed our actions without discovering anything unusual.

Fecal coliform bacteria are known to adhere to suspended solids. What I suspect happened is that the duplicate sample bottle got a "chunk" of suspended solids- perhaps a bit of leaf or something like that - with lots of bacteria attached. We see fairly high variability in this method wherever it is used, but this was particularly striking. As to the "actual count" for the Samish on Wednesday, probably the truth lies somewhere in between.

With that, the data:

5/12/2010

| Location | Site Number | Result | Duplicate |
|----------------------------------|-------------|--------|-----------|
| River Sites | | | |
| Samish River at Hwy 9 | 11 | 4 | |
| Samish River above Parsons Creek | SAM PAR | 30 | |
| Samish River at Double Creek Ln | SAMDCL | 23 | |
| Samish River at Grip Road | SAM GRIP | 13 | |
| Samish River at Thomas Rd | 32 | 17 | 130 |
| Drainage Sites | | | |
| Alice Bay Pump Station | 33 | 22 | |
| Edison Slough at School | 36 | 300 | |
| Edison Pump Station | 37 | 500 | |
| North Edison Pump Station | 38 | 80 | |
| Tributaries | | | |
| Colony Creek at Colony Rd | 39 | 300 | |
| Thomas Creek at Hwy 99 | 3 | 17 | |
| Thomas Creek at F&S Grade Road | 4 | 110 | |
| Friday Creek at Prairie Rd | 6 | 30 | 50 |
| Swede Creek at Grip Rd | 8 | 50 | |
| Parsons Creek at mouth | PAR | 13 | |