

Hi everybody – Big rainstorm in most of Western Washington brought the Samish River from 300 cfs Monday night to 4700 cfs Wednesday morning. Samples were taken Tuesday during the rapidly rising leg of the hydrograph and Wednesday morning near the peak flow and shortly thereafter.

We generally consider 3000 cfs to be flood stage (there's no official USGS flood stage for the Samish). By Wednesday morning there was plenty of water outside of the river channel from Old Highway 99 downstream.

Here are our sampling results:

County 2/21/12

Rainfall 1.46" at WSU Mt Vernon by 1400 2/21

| Location (time sampled)          | Site Number | Fecal Coliform, cfu/100 mL | Duplicate |
|----------------------------------|-------------|----------------------------|-----------|
| Samish River at Hwy 9 (1040)     | 11          | 11                         |           |
| Samish River at upper Prairie Rd | SAM3PR      | 49                         |           |
| Parsons Creek at mouth           | PAR         | 920                        |           |
| Samish River above Parsons Creek | SAMPAR      | 49                         |           |
| Samish River at Double Creek Ln  | SAMDCL      | 23                         |           |
| Skarrup Creek at Double Creek Ln | SKAR        | 130                        |           |
| Samish River at 1st Prairie Rd   | SAM1PR      | 49                         |           |
| Samish River at Grip Road        | SAMGRIP     | 130                        |           |
| Swede Creek at Grip Rd           | 8           | 240                        |           |
| Samish River at F&S Grade Rd     | SAMFS       | 94                         |           |
| Weir Creek Prairie Rd            | WCPR        | 920                        |           |
| Friday Creek at Prairie Rd       | 6           | 220                        |           |
| Samish River at Hwy 99           | SAMH99      | 220                        |           |
| Thomas Creek at F&S Grade Rd     | 4           | Not Sampled                |           |
| Thomas Creek at Hwy 99           | 3           | 350                        |           |
| Samish River at Chuckanut Drive  | SAMCD       | 220                        |           |
| Samish River at Thomas Rd (1240) | 32          | 79                         | 130       |
| Samish River at Thomas Rd (1330) | 32          | 350                        | 170       |
| Samish River at Thomas Rd (1400) | 32          | 350                        | 170       |

|                             |    |             |  |
|-----------------------------|----|-------------|--|
| Alice Bay Pump Station      | 33 | Not Sampled |  |
| Edison Slough at School     | 36 | 49          |  |
| Edison Pump Station         | 37 | 240         |  |
| North Edison Pump Station   | 38 | 1600        |  |
| Colony Creek at Colony Road | 39 | 46          |  |

Storm Team 2/21/12

|                                  |    |     |      |
|----------------------------------|----|-----|------|
| Samish River at Thomas Rd (1000) | 32 | 180 | 150  |
| Samish River at Thomas Rd (1200) | 32 | 220 | 180  |
| Samish River at Thomas Rd (1400) | 32 | 300 | 640* |
| Samish River at Thomas Rd (1600) | 32 | 240 | 260  |

\*Difficulty reading plate due to clumping

Rainfall 2.16" at WSU Mt Vernon by 0840 (storm total)

County 2/22/12

|                                    |    |     |     |
|------------------------------------|----|-----|-----|
| Samish River at Thomas Road (0840) | 32 | 540 | 540 |
| Samish River at Thomas Road (1020) | 32 | 140 | 140 |

The bay was closed due to river rise exceeding (by a comfortable margin) the 300 cfs increase criteria. Subsequent sampling indicated the loading limit was also exceeded – at 4700 cfs the fecal coliform count would need to be about 40 cfu to be under the loading limit. According the DOH, this is currently a flood closure as the river has left its banks and flowed into areas not generally in contact with the main flow.

While 540 cfu at peak flow is not a good number, recall that a couple of years ago an event like this would likely have generated fecal coliform counts in the 1000s or higher.