

Sultan River Salmon and Steelhead

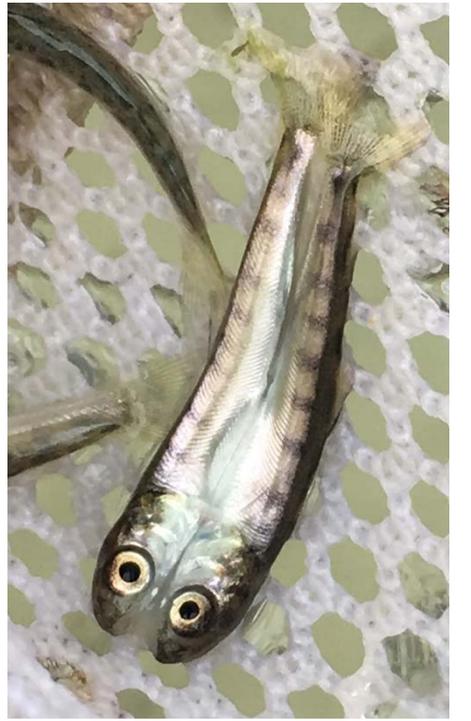
Andrew McDonnell

Snohomish County PUD

5/2/2019

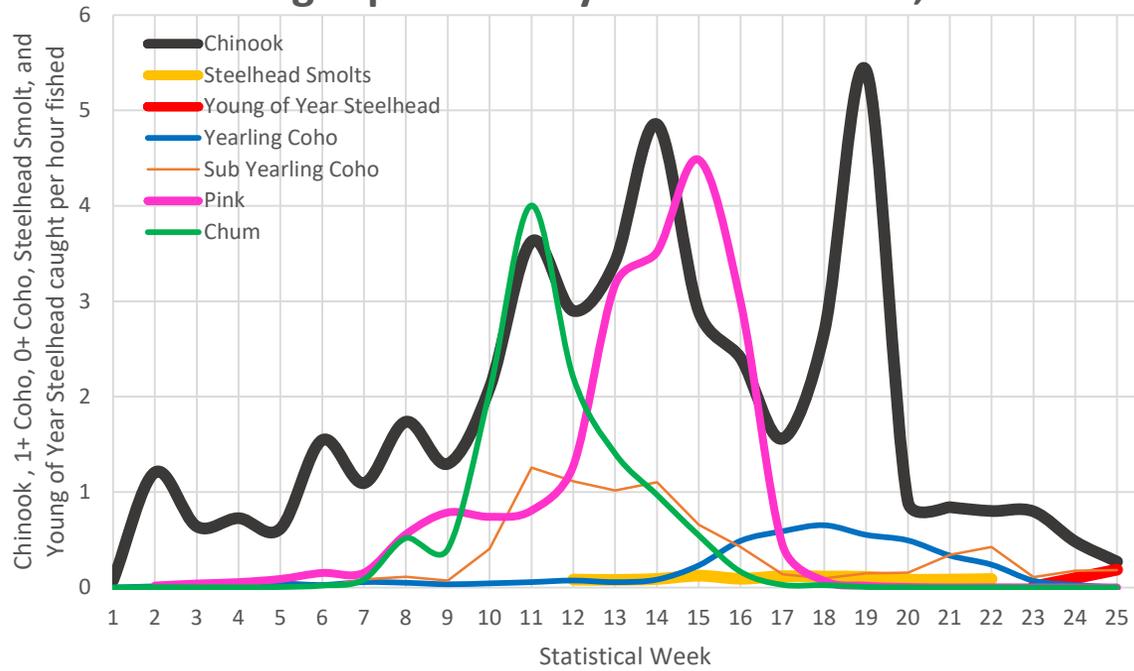
Snohomish Forum





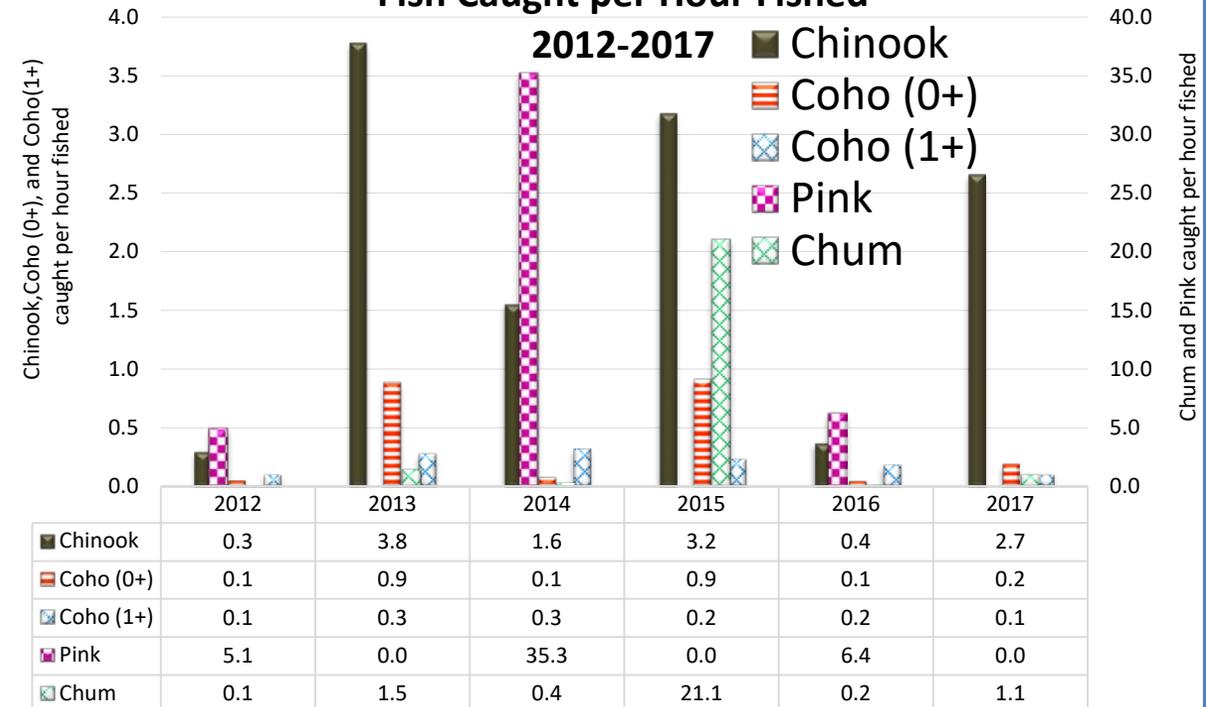
Outmigration Timing and Catch Per Hour

Fish caught per hour by statistical week, 2012-17



Jan Feb Mar Apr May Jun

Fish Caught per Hour Fished



Trap Efficiency and Production Estimates

Table 3. Summary of mark-recapture tests of capture efficiency for wild Chinook, wild pink, wild chum, and hatchery Chinook, Sultan River Smolt Trap, 2012-2017.

| Species | Number Released | Number Recaptured | Percent Trap Efficiency |
|------------------|-----------------|-------------------|-------------------------|
| Wild Chinook | 3,367 | 114 | 3.39% |
| Wild Pink | 12,815 | 277 | 2.16% |
| Wild Chum | 13,937 | 391 | 2.81% |
| Hatchery Chinook | 11,250 | 518 | 4.60% |

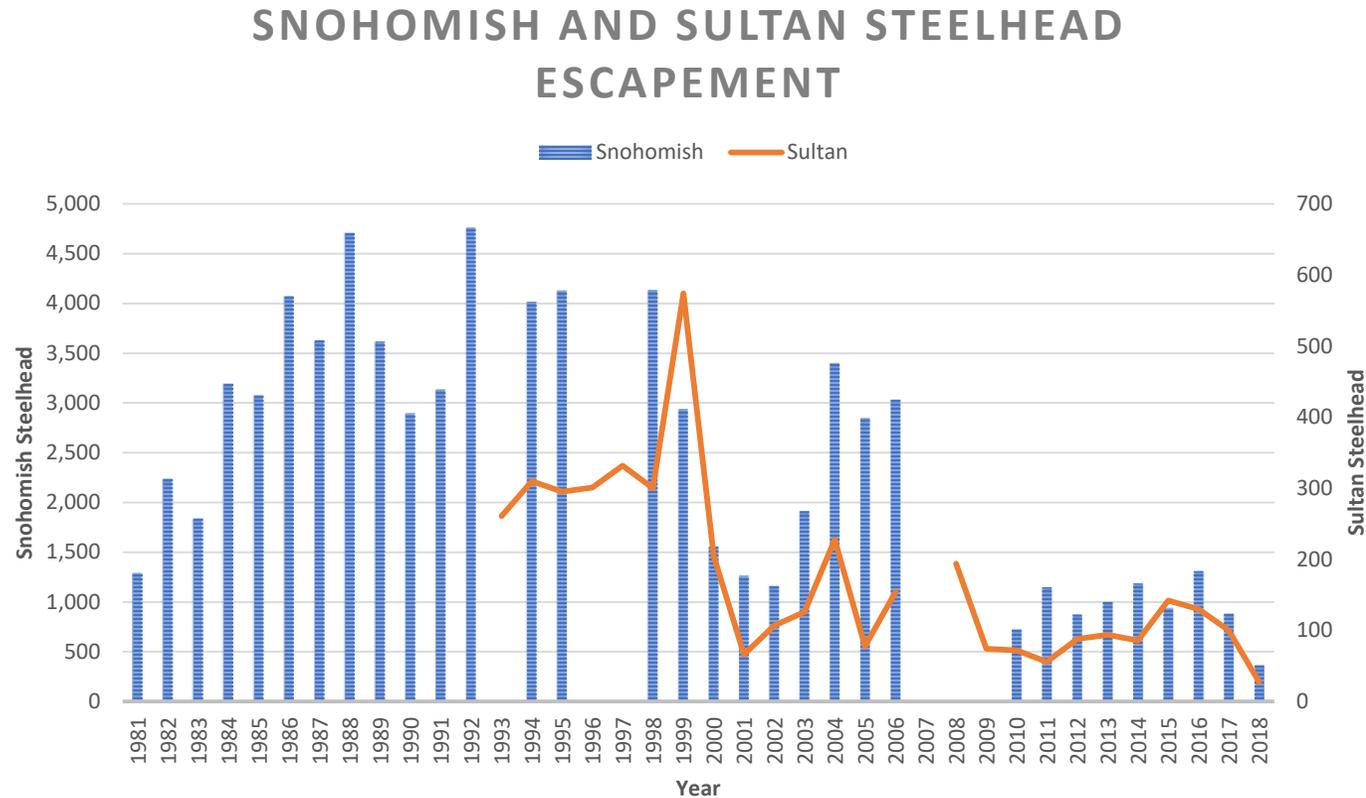
| Chum 2019 | | | | Chinook 2019 | | |
|--------------|--------------|-------------|--|--------------|--------------|-------------|
| Efficiency | Total Marked | Total Recap | | Efficiency | Total Marked | Total Recap |
| 4.50% | 1111 | 50 | | 4.00% | 125 | 5 |
| 3.94% | 1498 | 59 | | 3.07% | 358 | 11 |
| 3.45% | 2605 | 90 | | 3.38% | 266 | 9 |
| 2.87% | 7291 | 209 | | 3.22% | 621 | 20 |
| 2.63% | 3083 | 81 | | 5.20% | 173 | 9 |
| 4.08% | 3092 | 126 | | 3.07% | 261 | 8 |
| 3.29% | 18680 | 615 | | 3.44% | 1804 | 62 |

Table 4. Chinook, pink, chum, and yearling coho salmon migration estimate, Sultan River Smolt Trap, 2012-2017.

| Species | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------------|---------|---------|-----------|-----------|-----------|---------|
| Chinook | 49,257 | 443,789 | 124,770 | 231,397 | 52,294 | 424,858 |
| Pink | 415,150 | | 5,661,706 | | 1,872,164 | |
| Chum | 11,107 | 194,099 | 51,909 | 3,130,515 | 71,508 | 148,626 |
| Yearling Coho | 21,196 | 35,187 | 23,498 | 26,912 | 24,294 | 14,651 |



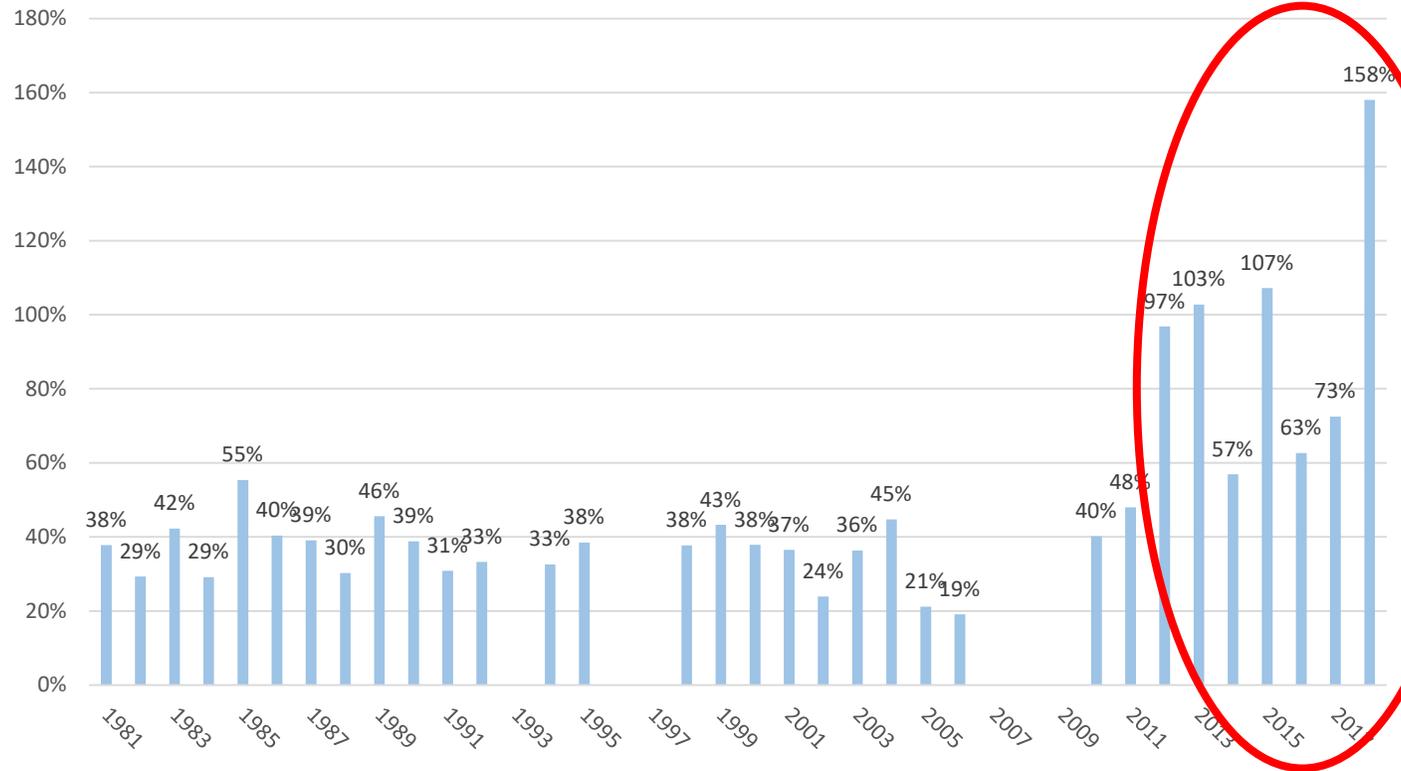
Snohomish Wild Winter Steelhead Trends



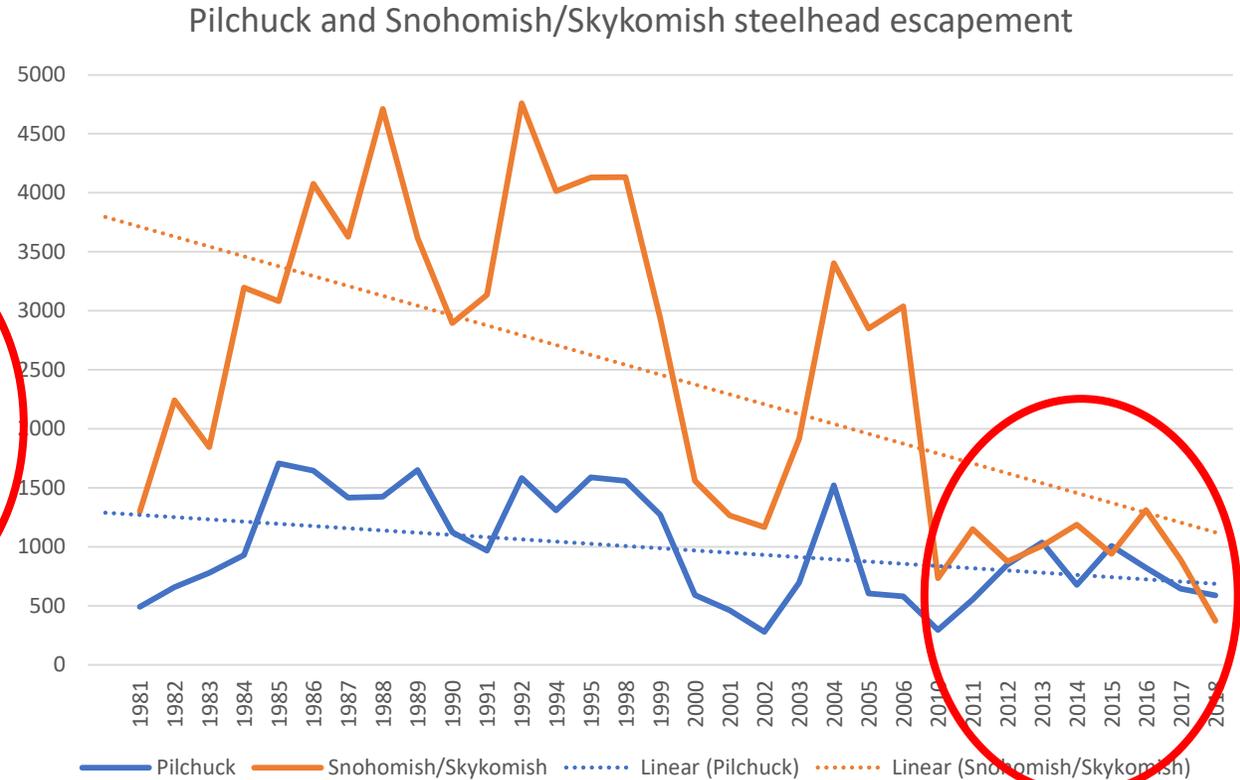
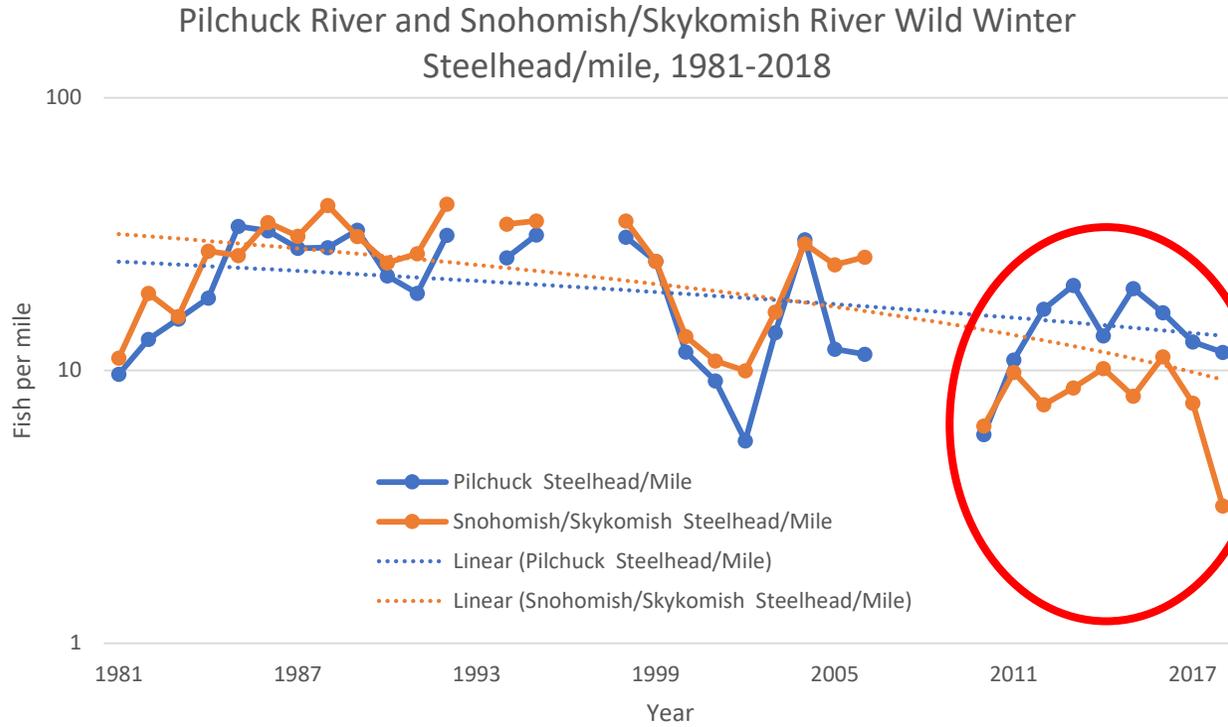
Escapement Goal for Snohomish: 6,500

Snohomish Wild Winter Steelhead Trends

Percent Pilchuck Steelhead compared with Snohomish River Steelhead



Snohomish Wild Winter Steelhead Trends



What is causing this shift???

- The Skykomish River near Sultan is a mixed-stock fishery during summer fishing season
 - Hatchery summer run steelhead
 - Hatchery summer run Chinook
 - Wild winter steelhead
- Incredibly high fishing pressure during hatchery fisheries (typically June 1)
- Incredibly high smolt mortality all summer
- Bait is allowed during these fisheries

How is this fishery affecting Wild Sultan River Steelhead???

| Year | Total Redds | # Redds before May 25 | # Redds after May 25 | % Redds after May 25 |
|--------------|-------------|-----------------------|----------------------|----------------------|
| 2012 | 35 | 21 | 14 | 40% |
| 2013 | 42 | 34 | 8 | 19% |
| 2014 | 31 | 23 | 8 | 26% |
| 2015 | 74 | 65 | 9 | 12% |
| 2016 | 44 | 34 | 10 | 23% |
| 2017 | 23 | 13 | 10 | 43% |
| 2018 | 11 | 8 | 3 | 27% |
| TOTAL | 260 | 198 | 62 | 24% |

- This fishery is depressing wild steelhead escapement to the Sultan and Skykomish River near Sultan
- 2018: 28 steelhead in Sultan
- 2018: 372 steelhead in Skykomish
- The Pilchuck River is largely un-affected by this fishery and in recent years has more wild steelhead than the Skykomish
- 2018: 588 steelhead in Pilchuck



February 12, 2003

Skykomish River closes to fishing

Actions: The Skykomish River will close to all fishing March 1, 2003. The closure includes the spring (March and April) catch and release season.

Effective date: March 1 through May 31, 2003

Species affected: Steelhead and all other game fish.

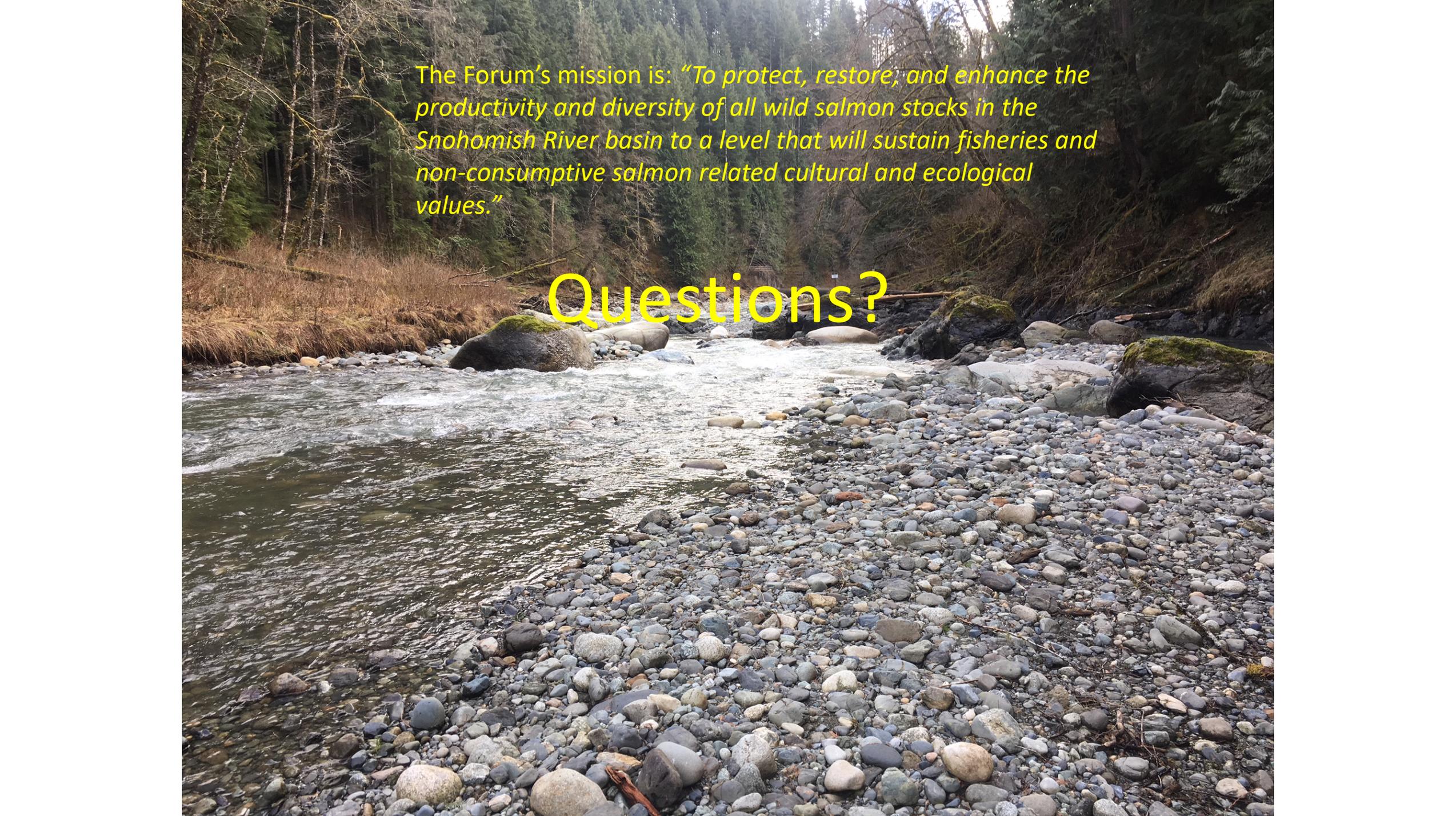
Location: Skykomish River from its mouth to the mouth of the Wallace River.

Reason for action: The forecast for Snohomish River system wild winter steelhead returning this winter (2002/2003) is 2,500; less than 40 percent of the basin's winter steelhead spawning escapement goal of 6,500. Due to the low run size forecast this year every effort is being taken to minimize impacts on the wild run of steelhead. This closure includes catch-and-release fishing because of concerns over potential incidental hooking mortality and disturbance of spawning wild fish.

Information contact: Curt Kraemer, District Fish Biologist, (425) 775-1311 ext. 101

Fishers must have a current Washington fishing license, appropriate to the fishery. Check the [WDFW "Fishing in Washington" rules pamphlet](#) for details on fishing seasons and regulations. Fishing rules are subject to change. Check the WDFW Fishing hotline for the latest rule information at (360) 902-2500, press 2 for recreational rules. For the Shellfish Rule Change hotline call (360)796-3215 or toll free 1-866-880-5431.

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A photograph of a river flowing through a forested area. The foreground is dominated by a wide, rocky bank covered in numerous smooth, grey and brown stones of various sizes. The river flows from the left towards the center, with white water rapids visible. The background is a dense forest of tall, thin trees, some with bare branches and others with green foliage. The overall scene is natural and serene.

The Forum's mission is: *"To protect, restore, and enhance the productivity and diversity of all wild salmon stocks in the Snohomish River basin to a level that will sustain fisheries and non-consumptive salmon related cultural and ecological values."*

Questions?