Fish IN
Fish OUT

Snoqualmie Watershed Forum
November 17th, 2021

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Tulalip Tribes Natural Resources
Why FIFO?

- Inform managers about population status and trends
- Track recovery metrics, priorities, and effectiveness
- Establish fisheries harvest allocations
- Identify shortfalls
Snohomish Chinook Escapement

- **Skykomish GeoMean**
- **Snohomish**
- **Snoqualmie GeoMean**

- **Snohomish Chinook Escapement**

- **Actual escapement estimate for Snohomish**
- **Helpful 3-year moving average for Snohomish**

- **3 Lowest escapements on record**

- **Skykomish moving average**

- **Snoqualmie moving average**

- **6,104**
Snohomish Coho Escapement

Coho Natural Escapement (1000s)

- Normal management status
- Critical management status
- Geo Mean

- Overfished
- Rebuilding
- 2 Lowest escapements on record

41,599
Coho 2021 run size looking better!

Coho Natural Escapement (1000s)

Snohomish Escapement

Normal management status

critical management status

Geo Mean

75,000
Big high flow event in 2006

- even-goal (28000)
- odd-goal (10200)
- 3yr GeoMean
WDFW Chum broodstocking program
Snohomish Pink escapements

Escapement

- 800k +/-
Snohomish Winter Steelhead Escapement

GeoMean

Goal 6500

Co-managers’ target

2 Lowest escapements on record

1,454
Fish Out: Key Takeaways

- Last 5 years have seen lowest escapements on record for:
  - Coho, Chinook, Chum, Steelhead

- Coho still in “rebuilding” period, but showing signs of resiliency

- Chum numbers remain depressed; hope for broodstock program?

- Pink numbers have recovered quite dramatically
Smolt trap Chinook catches

Highest catches on record

Year

Number of Fish Snoqualmie River

Number of Fish Skykomish River

Skykomish

Snoqualmie

Highest catches on record


0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 1000 1500 2000 2500 3000 3500 4000 4500 5000 10000 15000 20000 25000 30000 35000 40000 45000 50000

Skykomish Snoqualmie
Smolt trap Coho catches

Skykomish trap moved above Woods Creek

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Why the low numbers?

- Ocean conditions
  - Sea surface temp, foodweb, ocean acidification
- Predation
  - Marine mammals, birds, humans, other
- Harvest
  - Northern intercepts, tribal, non-tribal commercial and recreational
- Habitat
  - Fish passage barriers, degraded habitat quality, available habitat quantity
Where does this put us in terms of our Salmon Plan recovery goals?
Chinook numbers far below goals

High productivity target (14,000)

Productivity targets for Chinook

ESCAPEMENT NUMBERS
The bottom line

- We are still way below recovery targets for Chinook
- Data is variable, no clear or consistent linear trends
- Coho are doing better! But still have a ways to go.
- Northern intercepts in Canada and Alaska continue to wreak havoc on Puget Sound bound fish.
- Low escapements probably tied to climate and marine survival.
Questions?

Please contact me directly for specific questions regarding the data, or for a more in depth explanation of data not presented here.

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