

WRIA 8

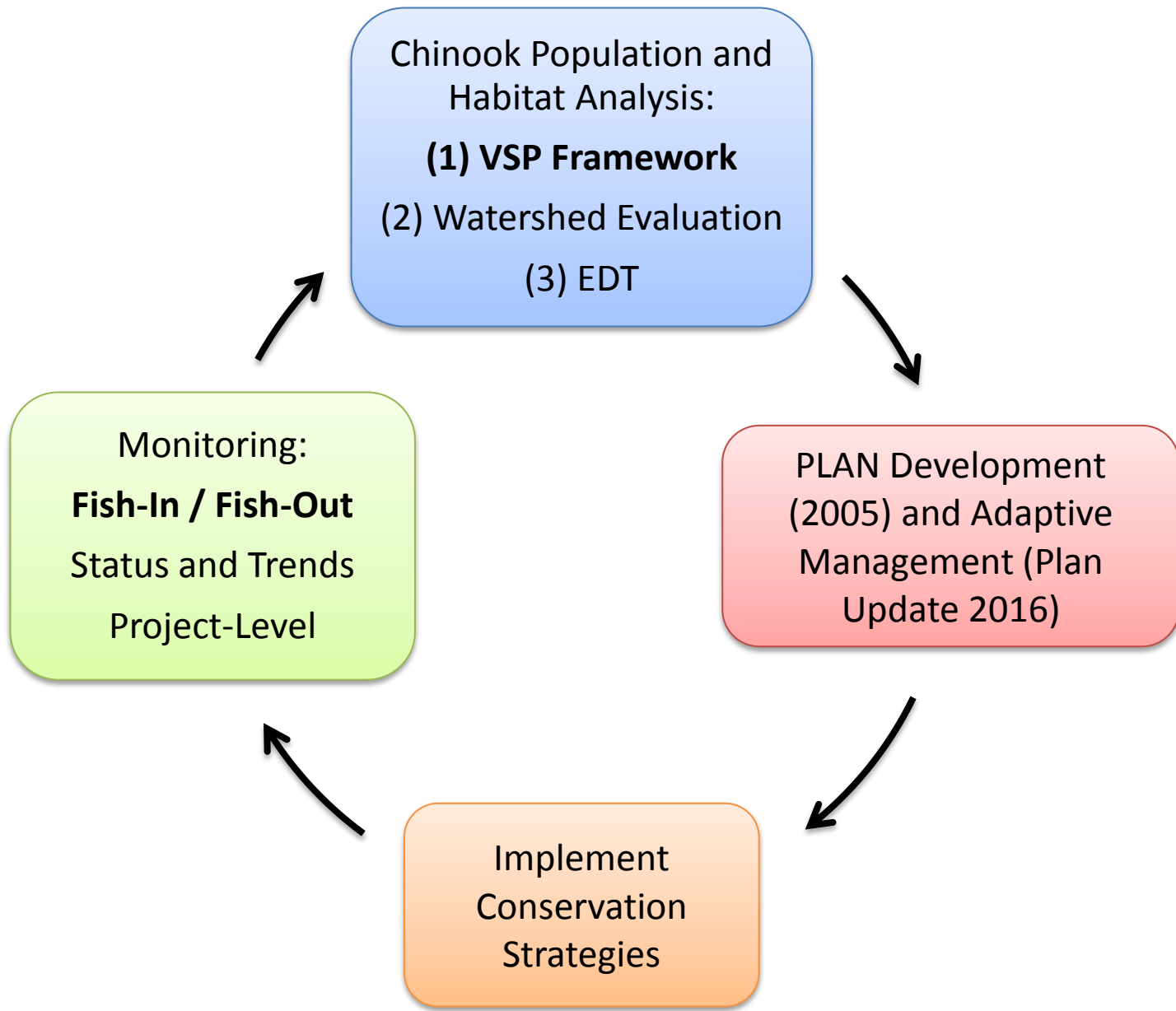
Fish-In / Fish-Out

Monitoring Summary



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Viable Salmonid Population (VSP) defined as:

*“an independent population of any Pacific salmonid (genus *Oncorhynchus*) that has a negligible risk of extinction due to threats from demographic variation, local environmental variation, and genetic changes over a 100-year time frame.” (McElhany et al. 2000)*

VSP

Parameters

ABUNDANCE – population size

PRODUCTIVITY – growth rates

DIVERSITY – life history and genetics

SPATIAL DISTRIBUTION – habitat use



Fish-In Monitoring:

- Redd Counts
- Live Spawner Counts
- Biosampling (size, fecundity, otoliths, scales, genetics)
- Tag recovery

Directly supports VSP Parameters:

- Abundance (spawner)
- Productivity (spawner recruitment / juvenile migrant-to-adult survival)
- Diversity (age class, natural vs hatchery)
- Spatial Distribution



Fish-Out Monitoring:

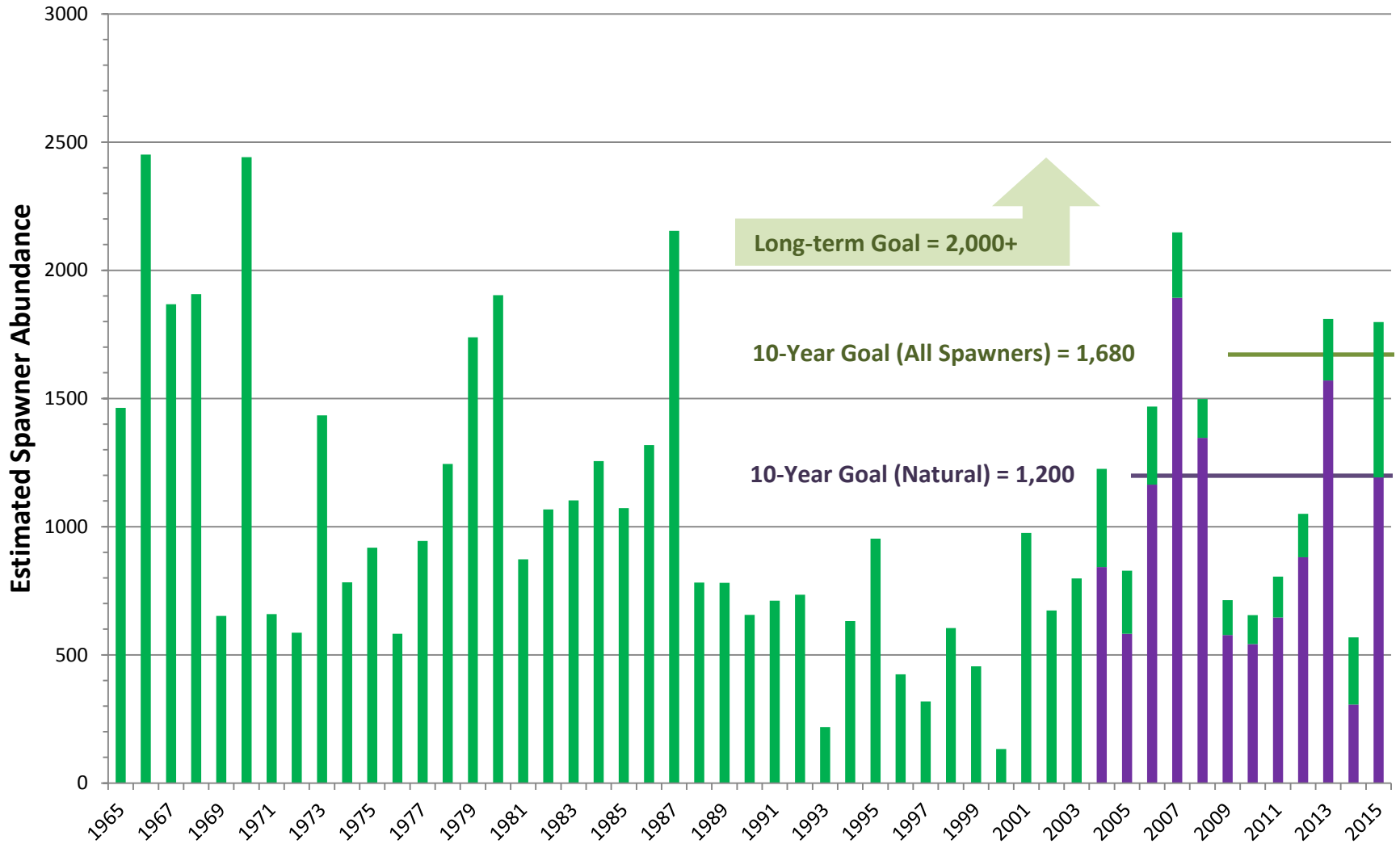
- Fry-trapping
- Biosampling (size)
- PIT tag deployment

Directly supports VSP Parameters:

- Abundance (juvenile)
- Productivity (egg-to-juvenile migrant survival)
- Diversity (fry vs parr)

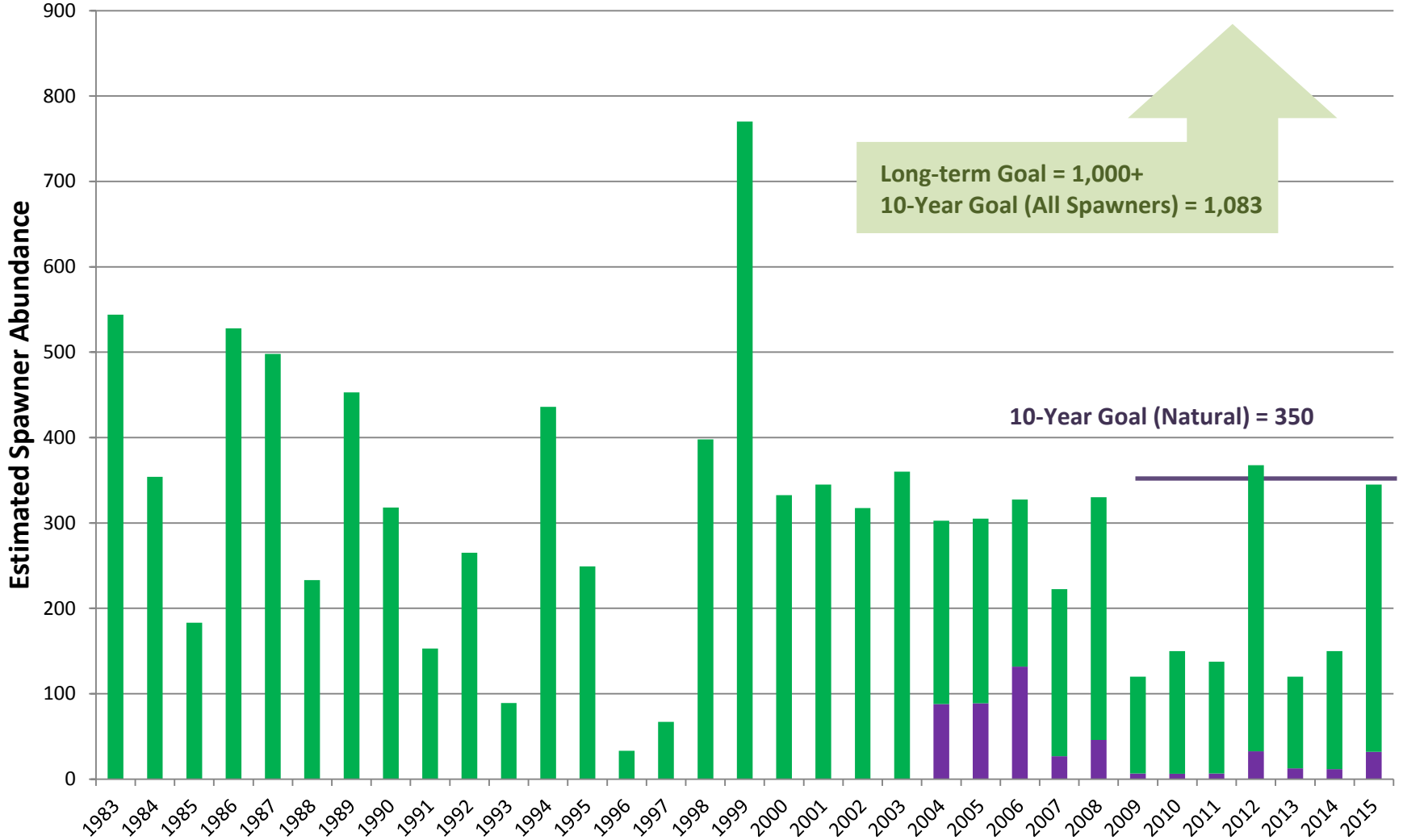


Cedar River - Estimated Chinook Spawner Abundance



Source: WDFW, W8TC

Sammamish River - Estimated Chinook Spawner Abundance



Source: WDFW, W8TC

2015 PRODUCTIVITY (2014 BROODSTOCK) (*Egg-to-Migrant Survival Only*)

- **CEDAR RIVER**

- Juvenile Abundance \approx 347,663
- 95% Confidence Interval = 257,440 - 437,886

- Juvenile Survival (**Productivity**) \approx **33%**
- 17-Year (1998-2014) Average Productivity = 19%

- 10-Year Productivity Goal: 1.5x average rate
- Long-Term Productivity Goal: 12% - 20%

2015 PRODUCTIVITY (2014 BROODSTOCK) (*Egg-to-Migrant Survival Only*)

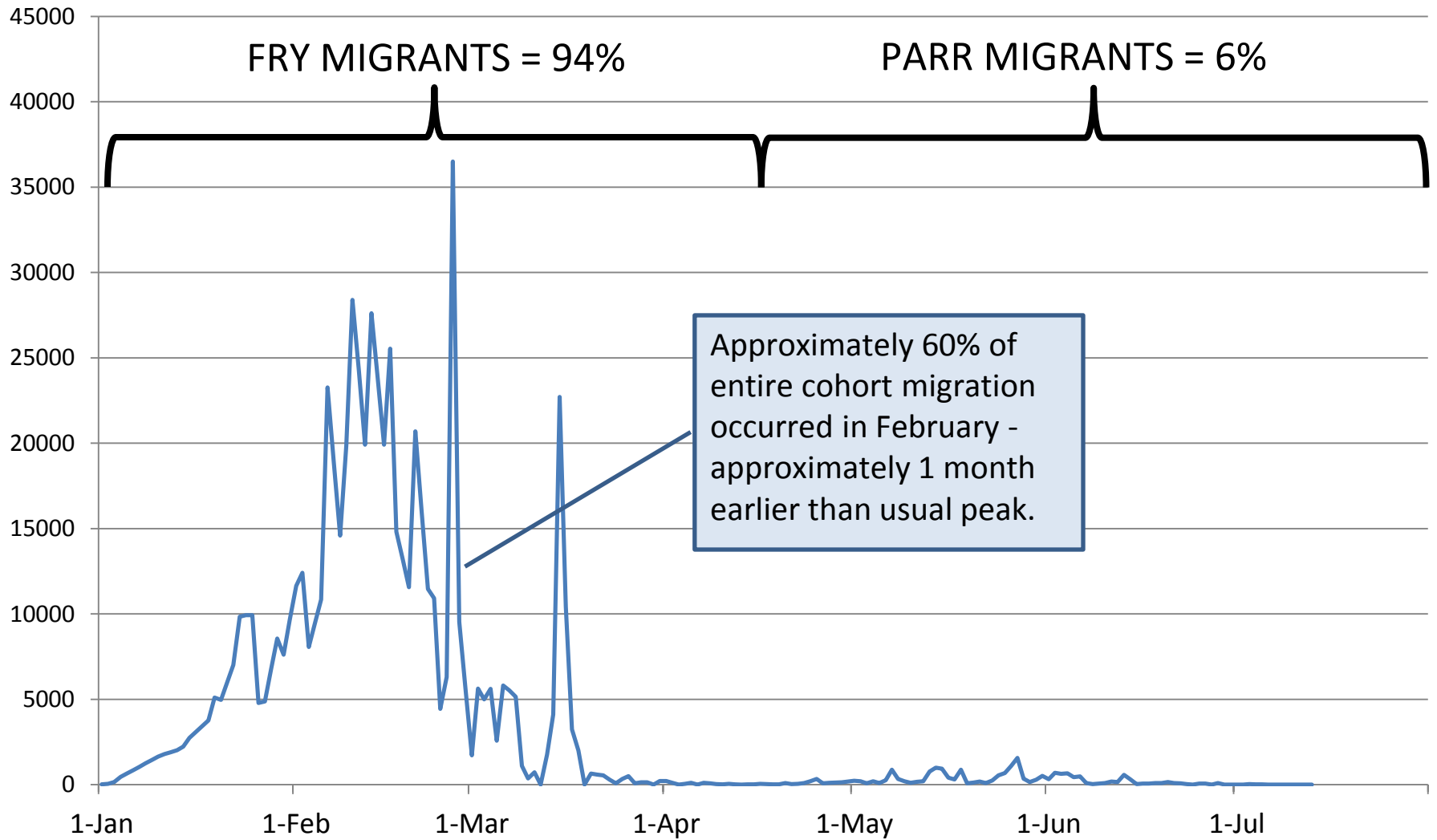
- **BEAR CREEK**

- Juvenile Abundance \approx 33,759
- 95% Confidence Interval = 20,472 - 47,046

- Juvenile Survival (**Productivity**) \approx **12%**
- 15-Year (2000-2014) Average Productivity = 7%

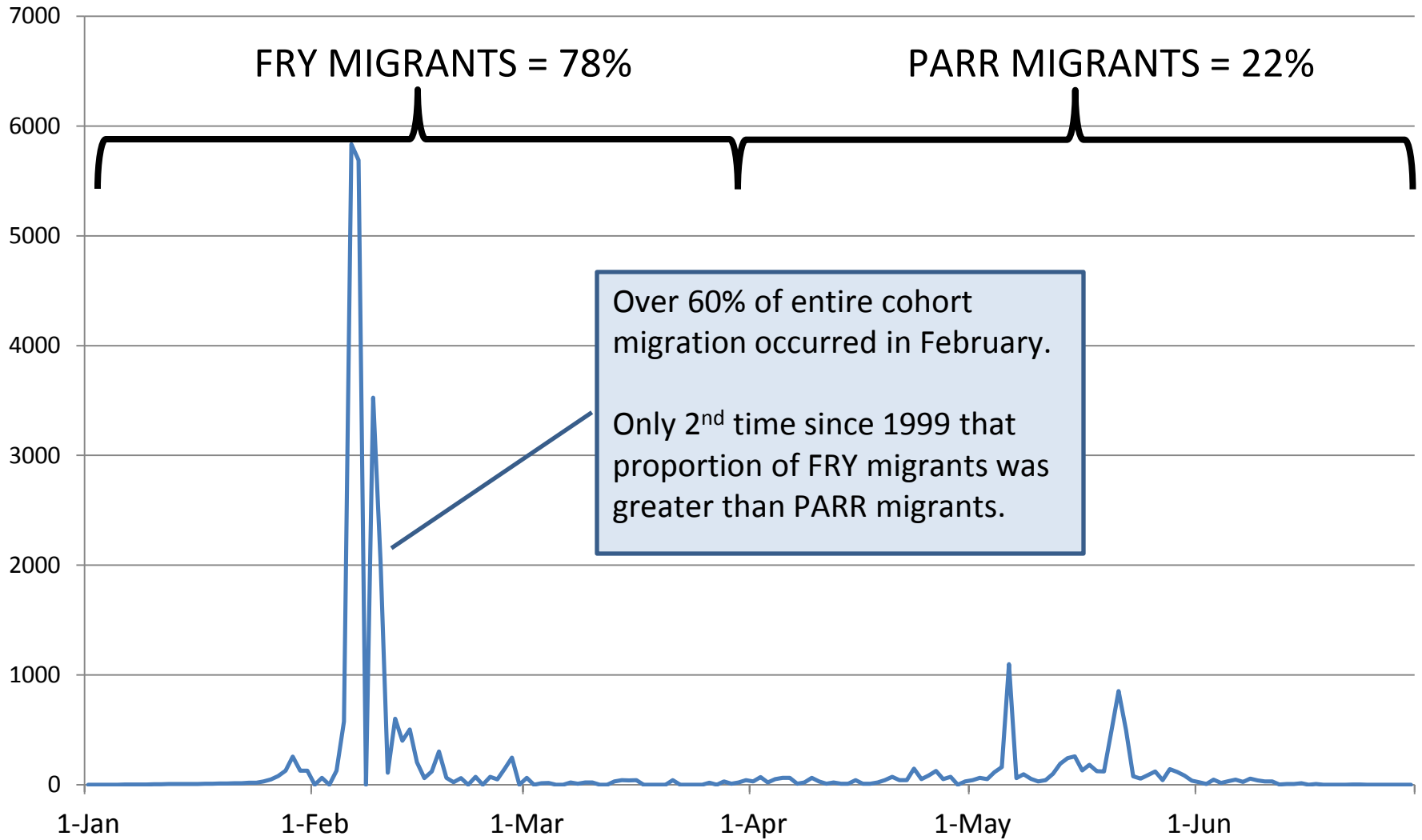
- 10-Year Productivity Goal: 1.5x average rate
- Long-Term Productivity Goal: 10%+

Cedar River - 2015 Juvenile Chinook Emigration (2014 Brood Year)



Source: WDFW, W8TC

Bear Creek - 2015 Juvenile Chinook Emigration (2014 Brood Year)

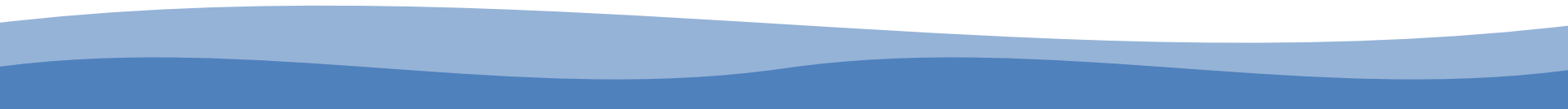


Source: WDFW, W8TC

Acknowledgements

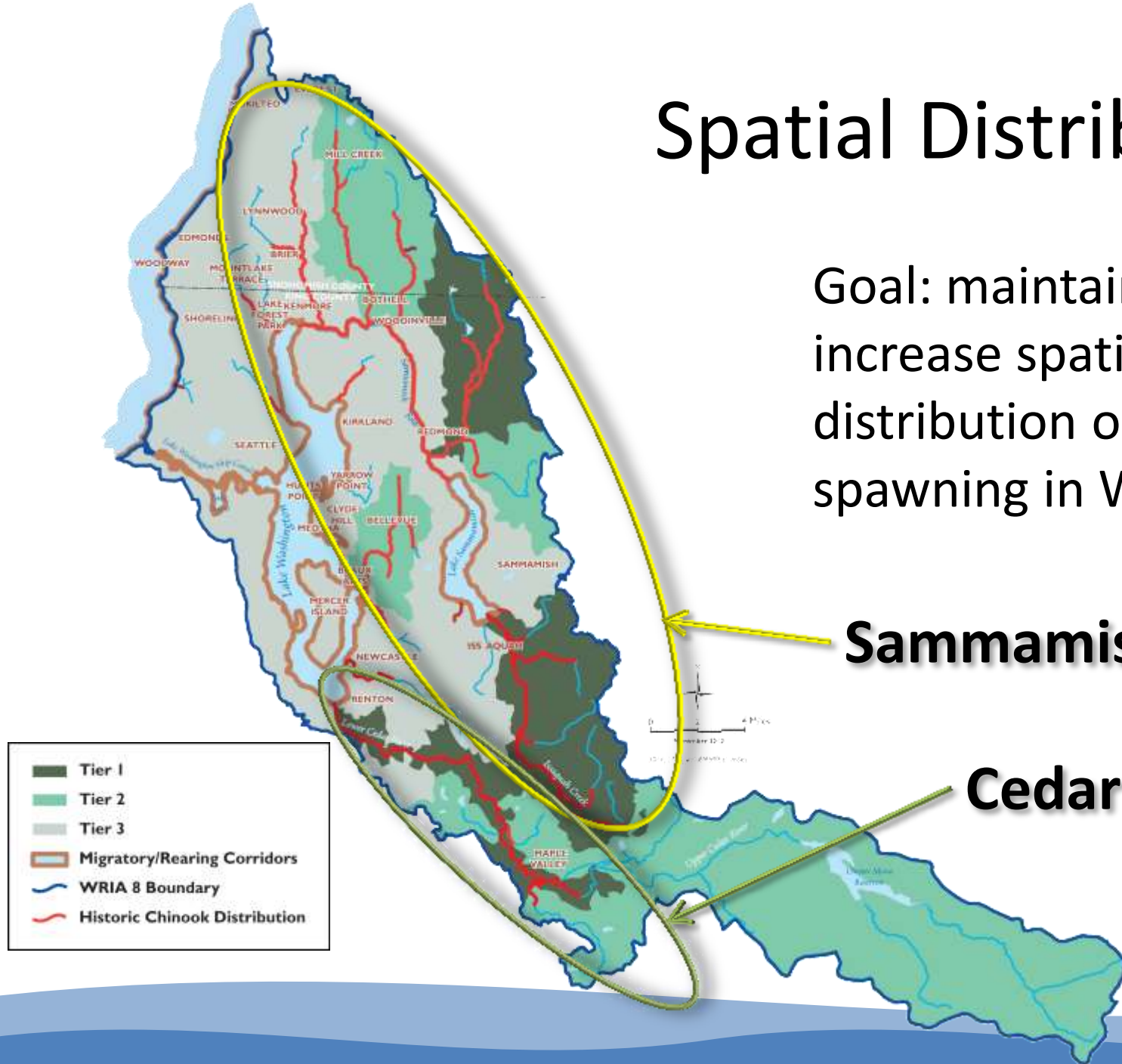
Washington Department of Fish and Wildlife
King County Department of Natural Resources and Parks
Seattle Public Utilities
Muckleshoot Indian Tribe
WRIA 8 Salmon Recovery Council
King Conservation District
King County Flood Control District





Spatial Distribution

Goal: maintain or increase spatial distribution of Chinook spawning in WRIA 8.



Sammamish

Cedar

