

Baker Lake Sockeye

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Presentation Outline

- Baker Sockeye Management Background
- Summary of 2019 Season
- Addressing Harvest Equity
 - Meetings with key stakeholders
 - Analyses – preseason forecasts
- Hatchery Production
- Future Plans



Fishing Locations – Skagit R.



In-Season Management

Baker Trap Counts

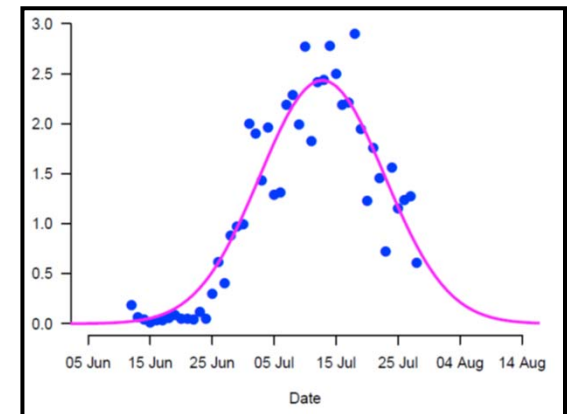
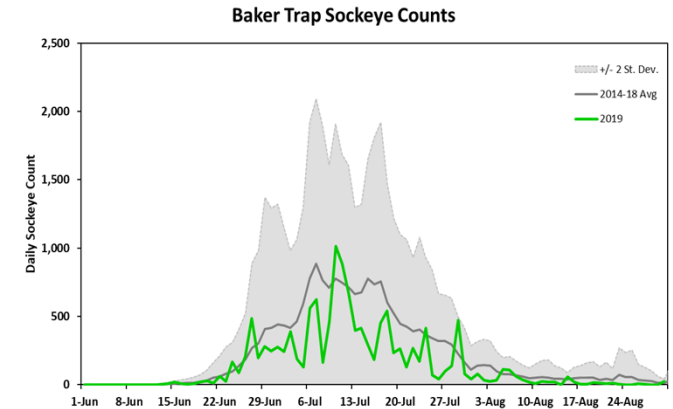
- Flow Dependent
- ~10 day migration to Baker Trap

Treaty Test Fisheries

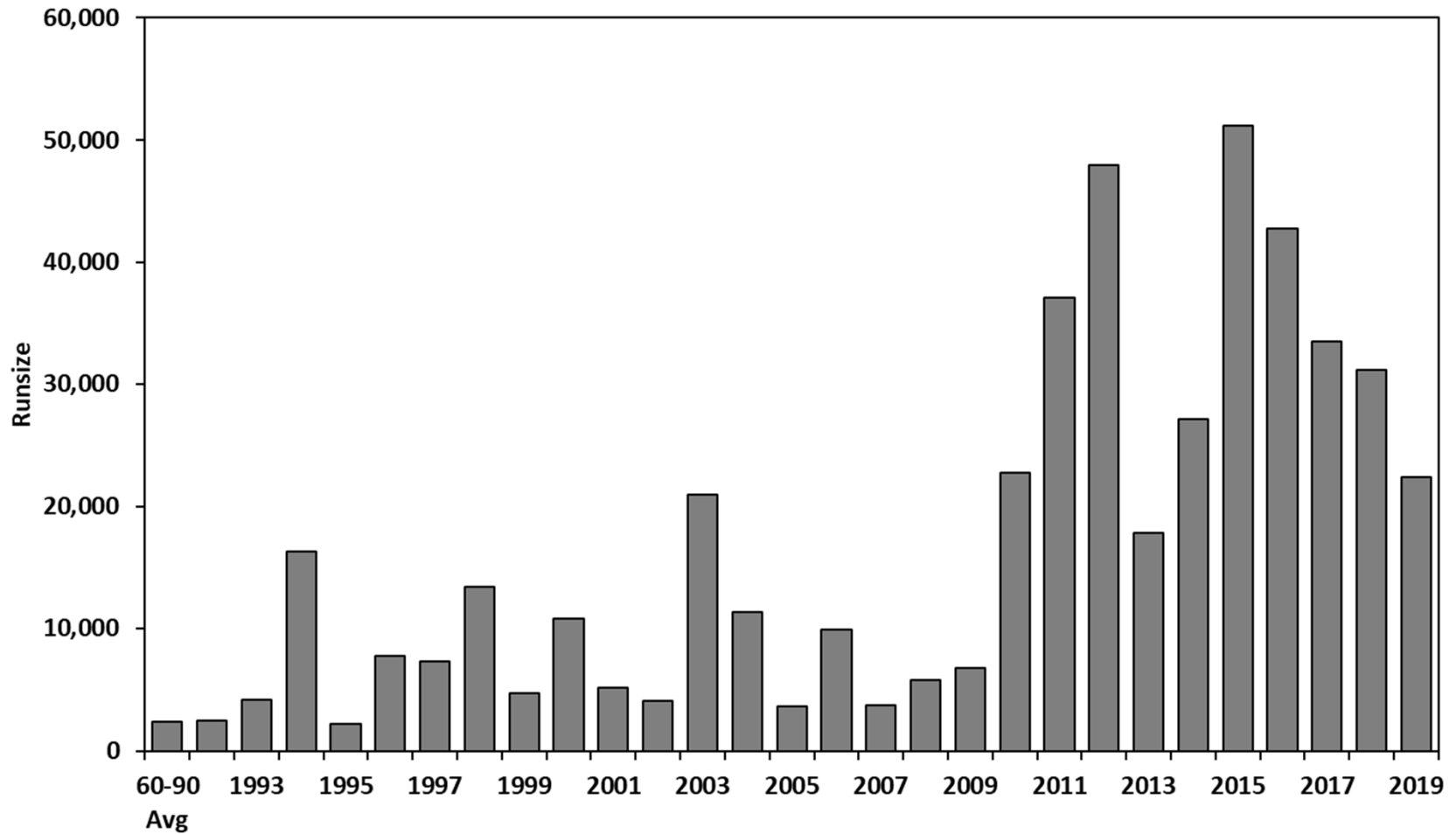
- Started in 2012 – no timeline if/when test fisheries will be useful for in-season management

In-Season Update (ISU) Models–

- Use trap counts to predict total runsize
- Reliability of model prediction increases after 50% migration (avg timing 7/15)
- Migration time limits effectiveness of in-season actions



Baker Sockeye Runsize



2019 Season Recap

- Preseason Forecast (PSF): 33,700

2019 Baker Sockeye Summary	
Test Fisheries	161
Treaty Harvest	8,682
Recreational In-River*	582
Into Lake*	4,341
Broodstock	8,674
Total Runsize	22,440

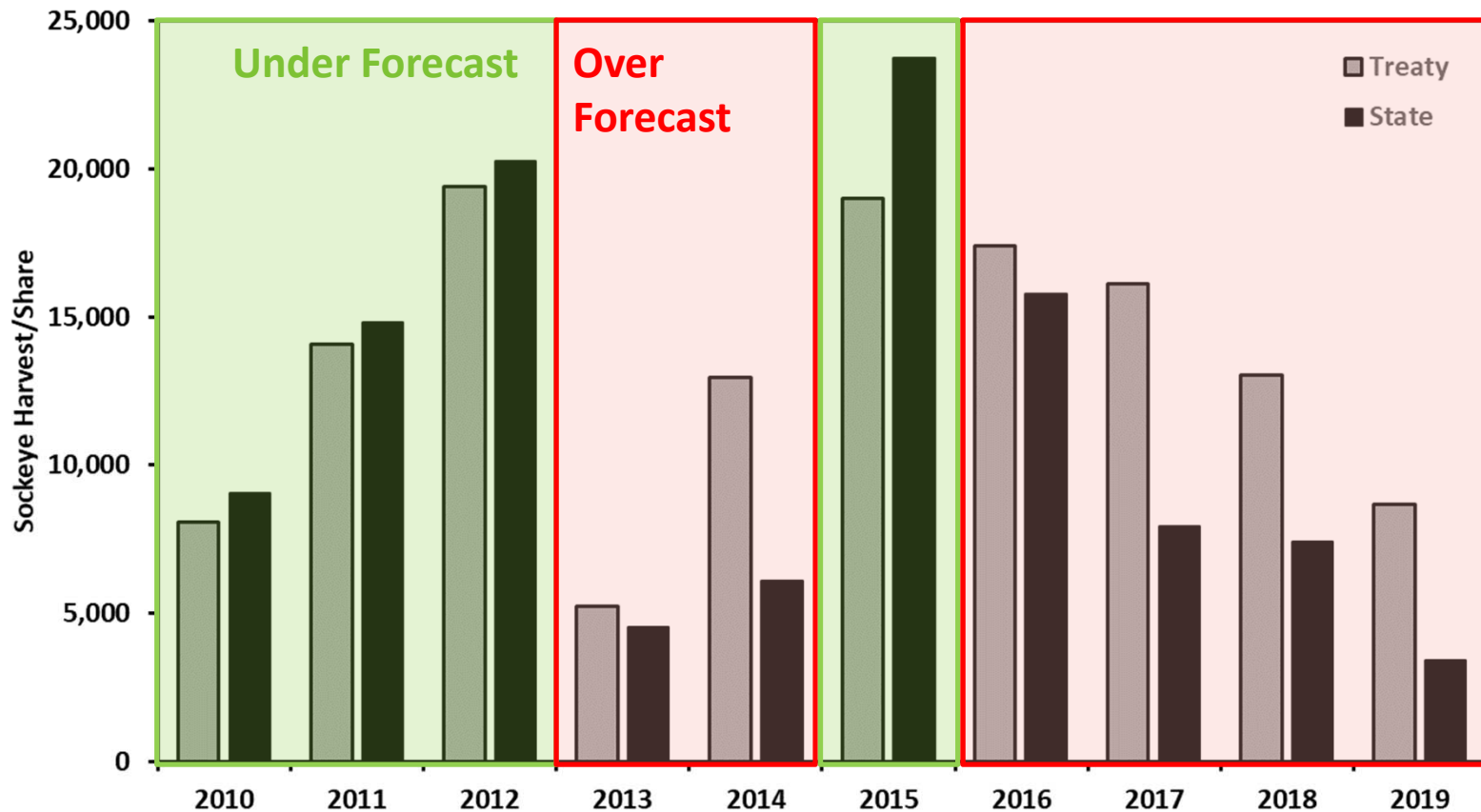
- *Rec share = river harvest + (fish into lake - 1,500 natural escapement goal) – 3,423
- 2019 Return ~33% below PSF
- Other PNW sockeye returns also poor – Fraser R., Columbia R.



Updated Harvest Sharing

Forecast performance greatest contributor to state/treaty harvest sharing

Baker Sockeye Harvest



Harvest Sharing Cont.

Recent 10 yr (2010-19) Harvest/Share Equity

	Treaty Harvest	State Share
Avg Annual Harvest	13,404	11,307
Total Harvest	134,035	113,074

Recent 3 yr (2017-19) Harvest/Share Equity

	Treaty Harvest	State Share
Avg Annual Harvest	12,621	6,261
Total Harvest	37,864	18,782

Long-term sharing is relatively well balanced; however we believe more equitable harvest can be attained over a shorter time period



Fall 2018 Workshop & Commission Presentation

Identified potential ways to address harvest equity concerns:

- Technical fixes
- Buffer harvest shares
- Conservative Preseason planning
- Expanded river fishery
- Payback



Addressing harvest equity concerns post-2019 NOF season setting

Prior to season

- New earlier-timed ISU model agreed-to

Post-Season

- Meetings with key stakeholders on Baker sockeye harvest equity and proposed solutions
- PSF analyses – marine indicators
- Technical staff meeting held in early-November
 - Agreed-to harvest sharing dataset
 - Steps to improve in-season communication



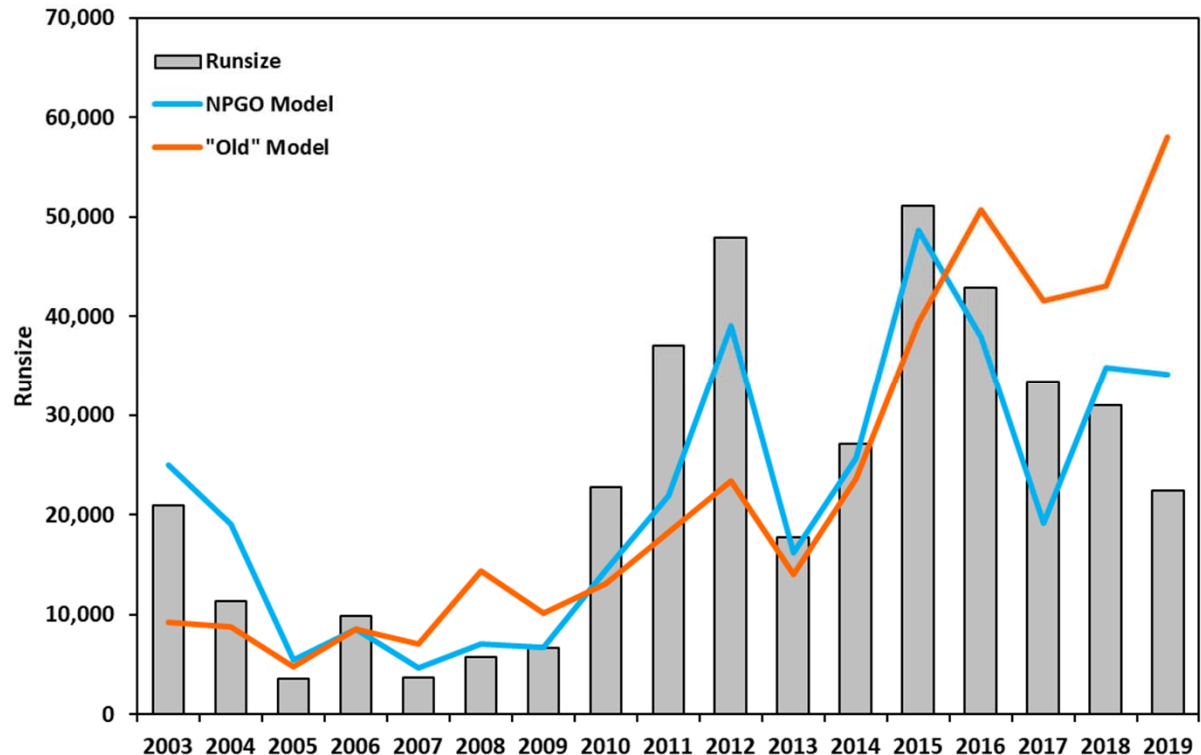
Pre-season Forecast/Survival

- Forecast model used in 2018 and 2019 incorporates NPGO
- Additional analyses confirms NPGO best predictor of marine survival

NPGO Forecast Performance

2018 – ↓ 11%

2019 – ↓ 34%

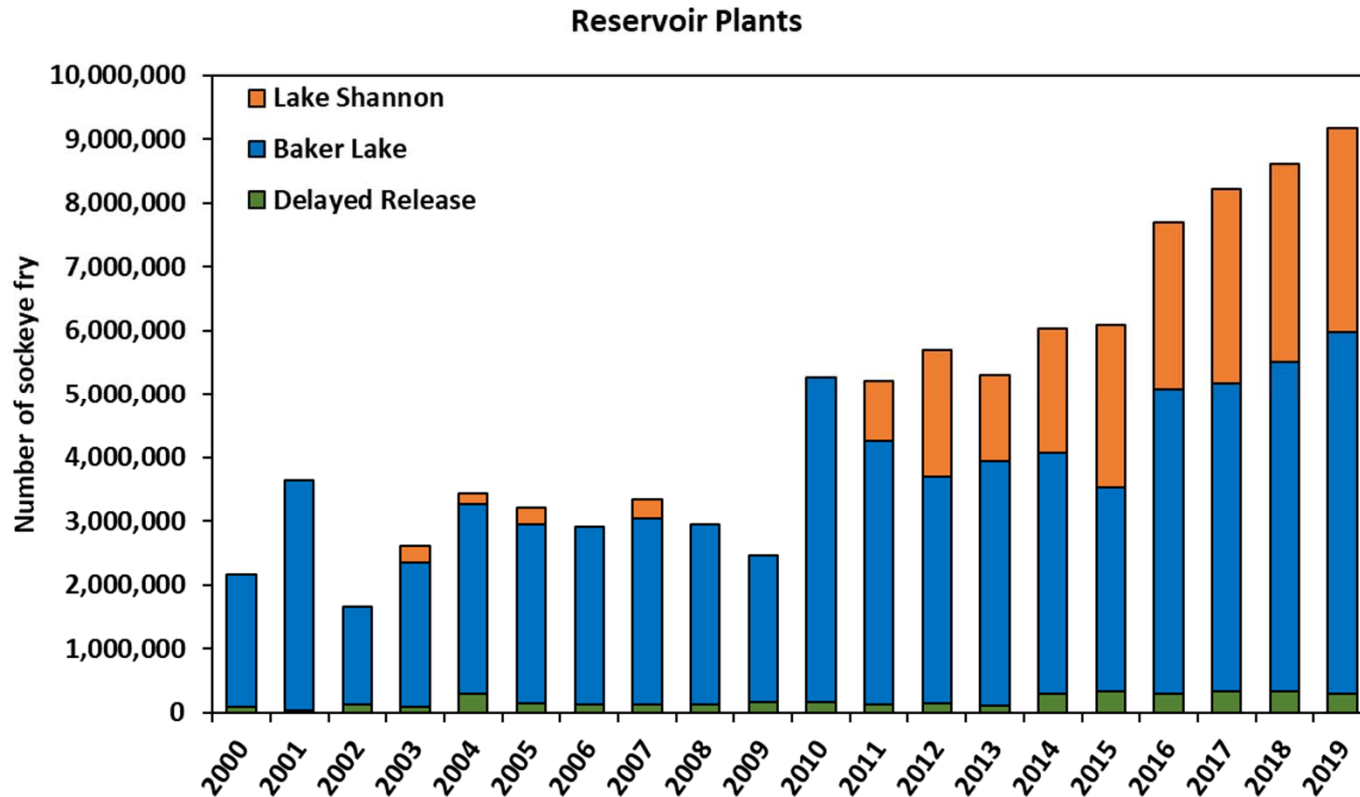


The Future of Baker Sockeye

- Phase 2 of hatchery expansion
- Lake carrying capacity, enhancements, and ultimate potential



Baker Sockeye Hatchery Releases



Slowly increasing number of fry released – no evidence carrying capacity reached



Future Plans

- Prioritize Baker sockeye harvest equity in 2020 NOF season-setting process
- Continue to work with angler groups to improve opportunity
- Annually update/evaluate technical tools used to manage fishery
- Hatchery improvement leading to more production



Questions?

