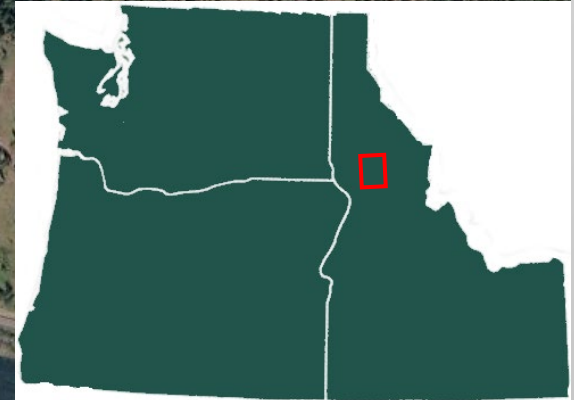
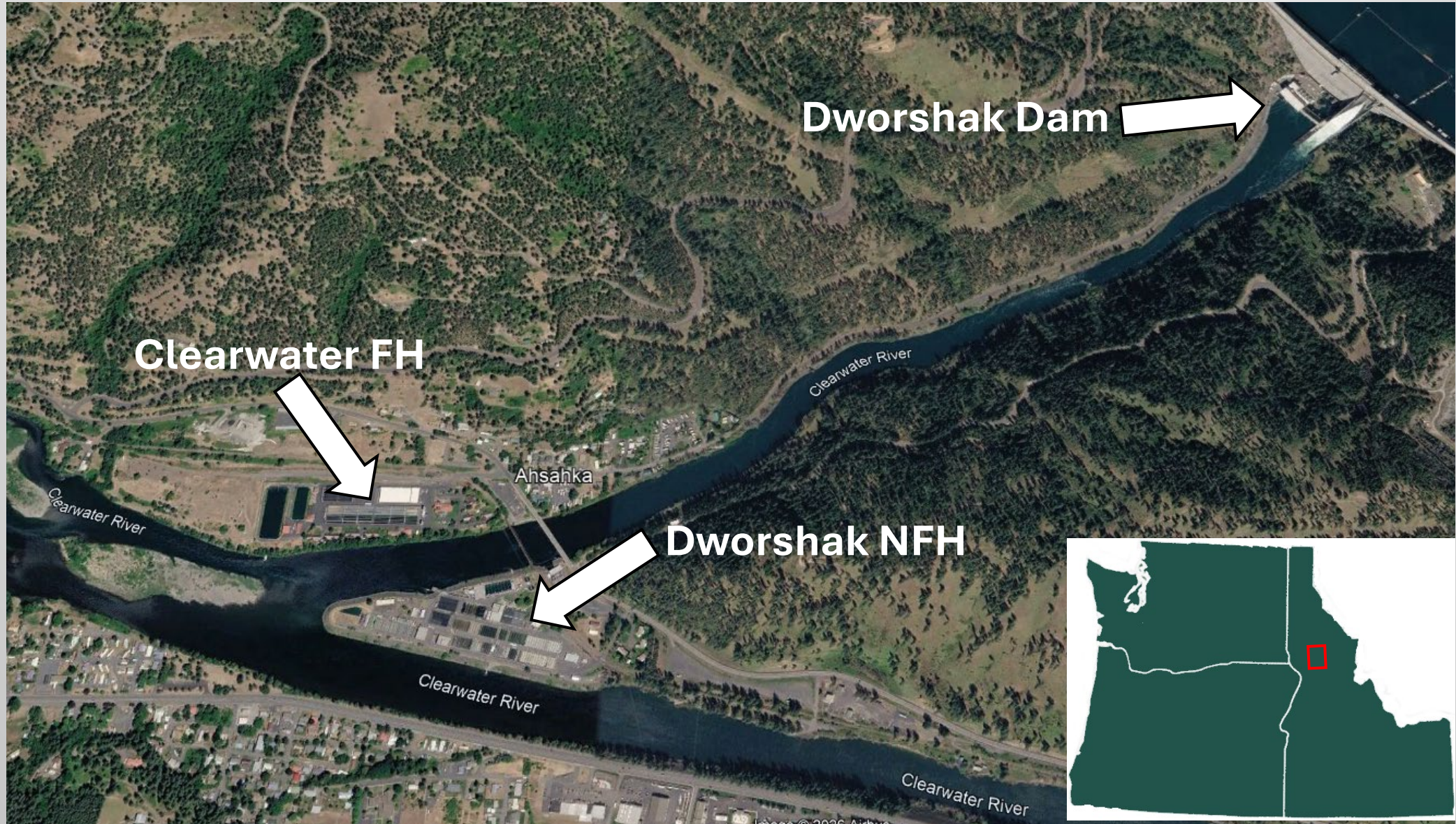


North Fork Clearwater Release Timing Evaluation

LSRCP Annual Meeting
April 22, 2026

JUNCTION OF NORTH FORK WITH CLEARWATER RIVER AT AHSAHKA

North Fork Clearwater River



Release timing evaluation

- Spring Chinook released at Dworshak NFH and Clearwater FH over 5 consecutive broodyears BY2019-2023
- Release dates ~2 weeks apart, late March and mid-April
- Monitored juvenile outmigration (PIT)
 - Survival to Lower Granite Dam
 - Travel times and arrival dates to Lower Granite and Bonneville Dams
- Monitored adult returns (PBT)
 - Smolt-to-adult returns (SAR) from release to Lower Granite Dam

Juvenile releases

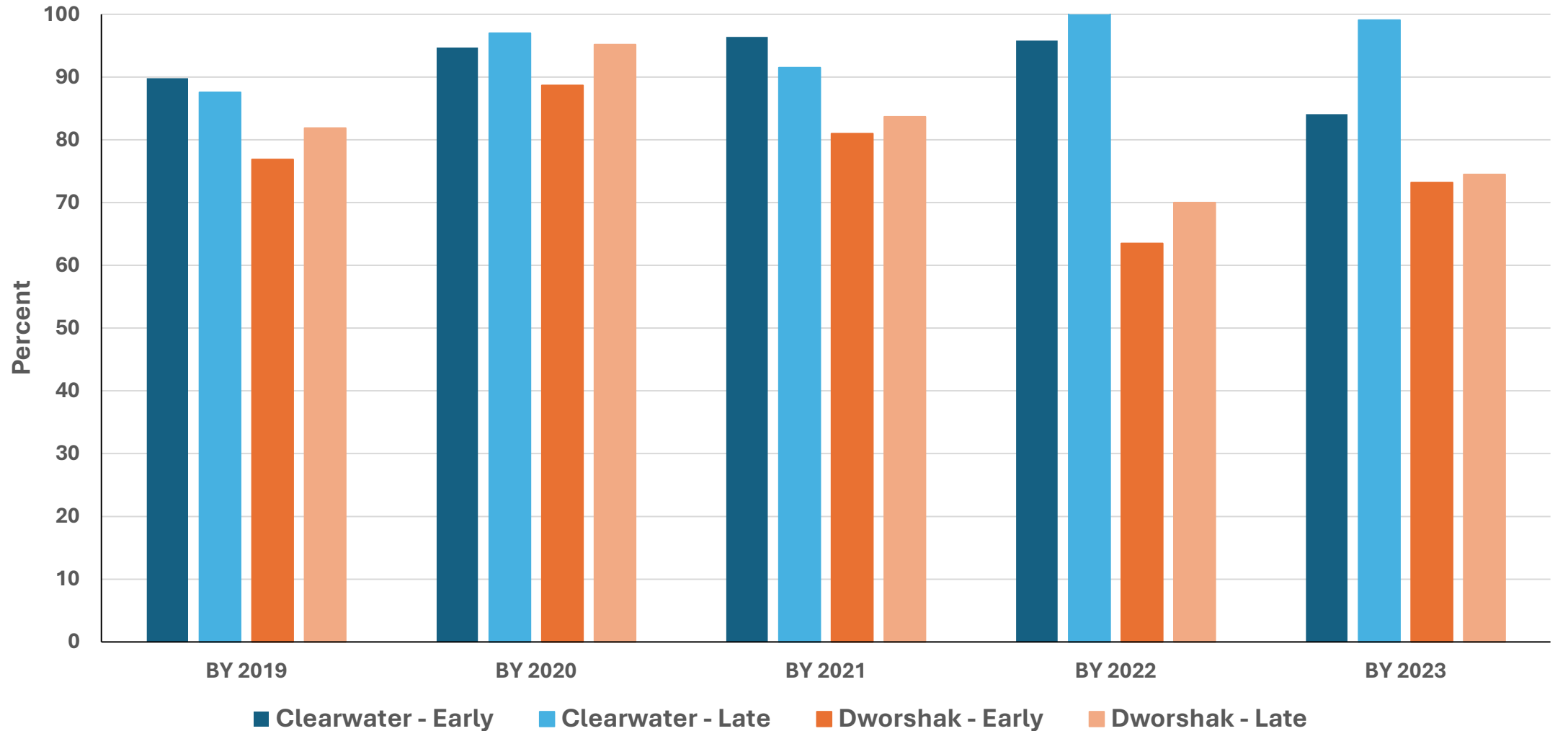
Clearwater Fish Hatchery

	BY2019	BY2020	BY2021	BY2022	BY2023
Early	190,819	265,356	164,154	198,515	363,934
Late	197,556	238,321	170,585	211,290	298,705

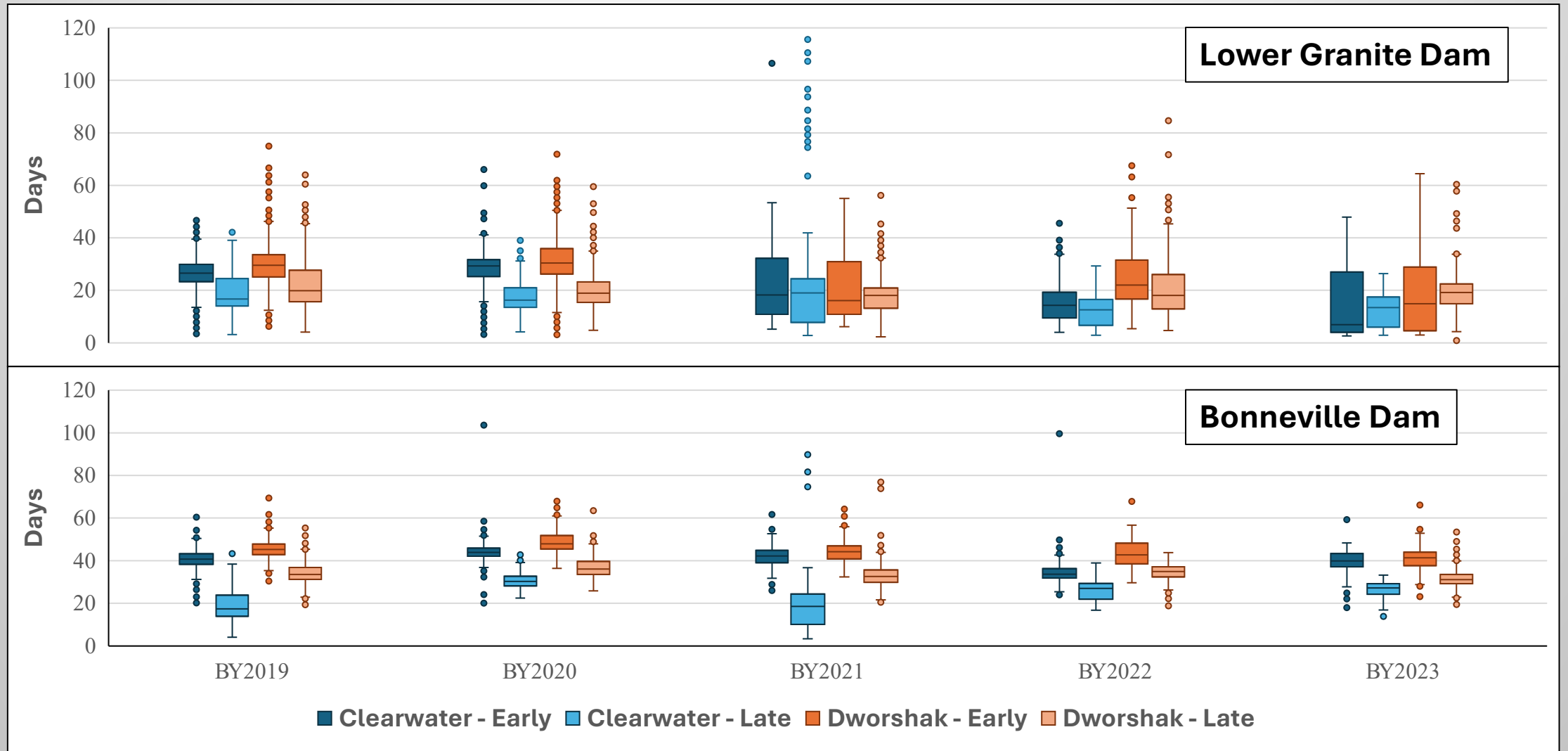
Dworshak Fish Hatchery

	BY2019	BY2020	BY2021	BY2022	BY2023
Early	997,228	788,922	811,494	836,851	719,866
Late	677,455	895,789	867,732	932,986	942,183

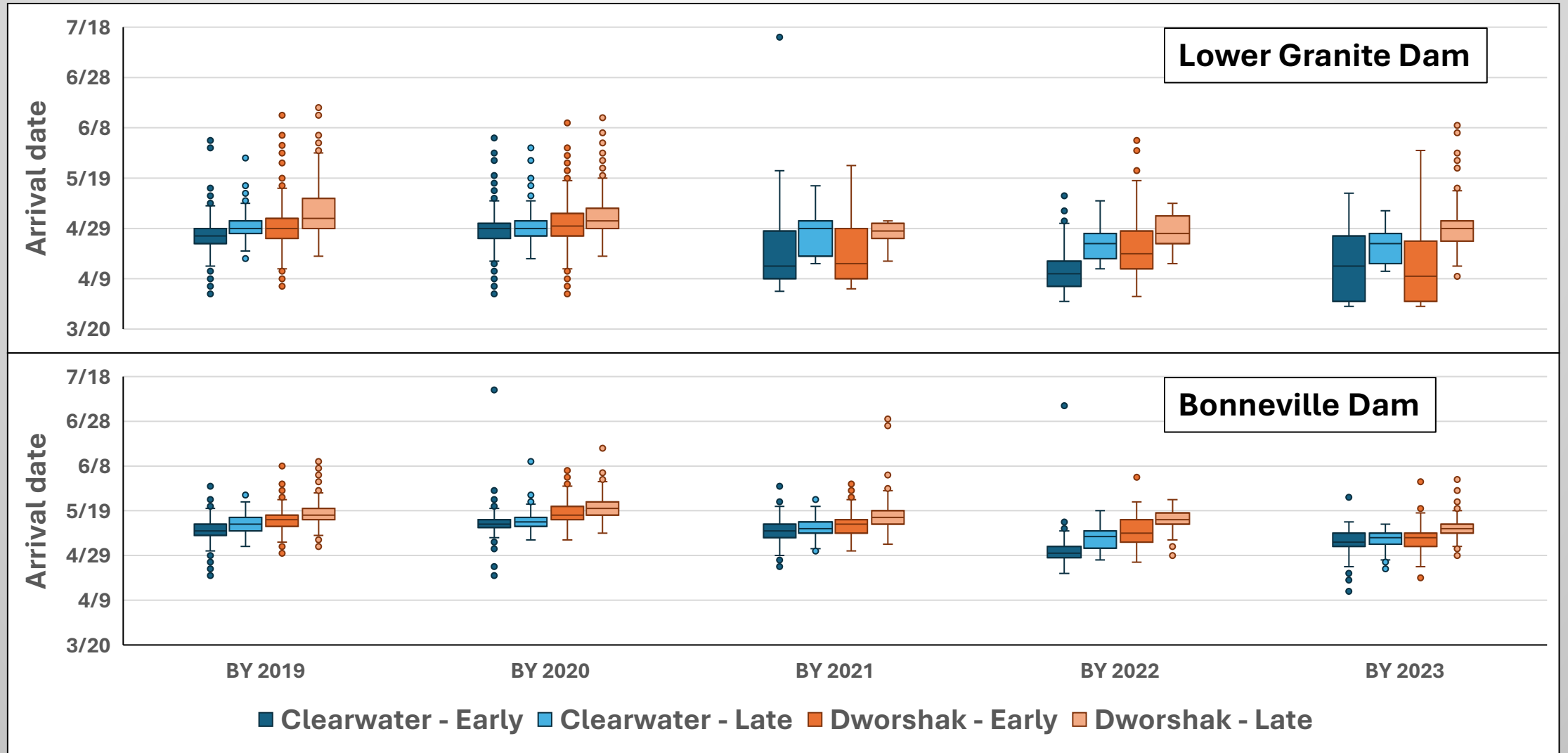
Juvenile survival to Lower Granite



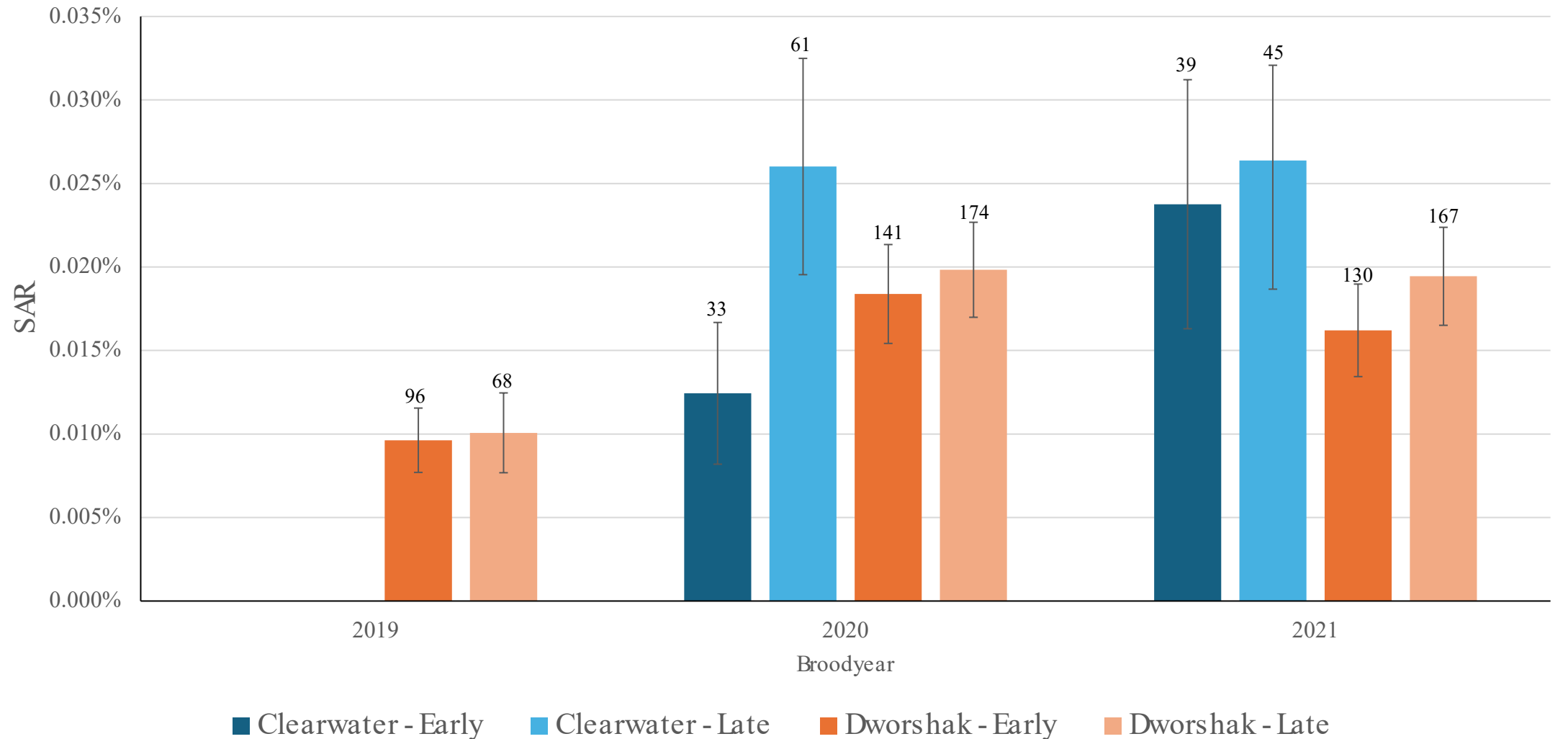
Juvenile travel times



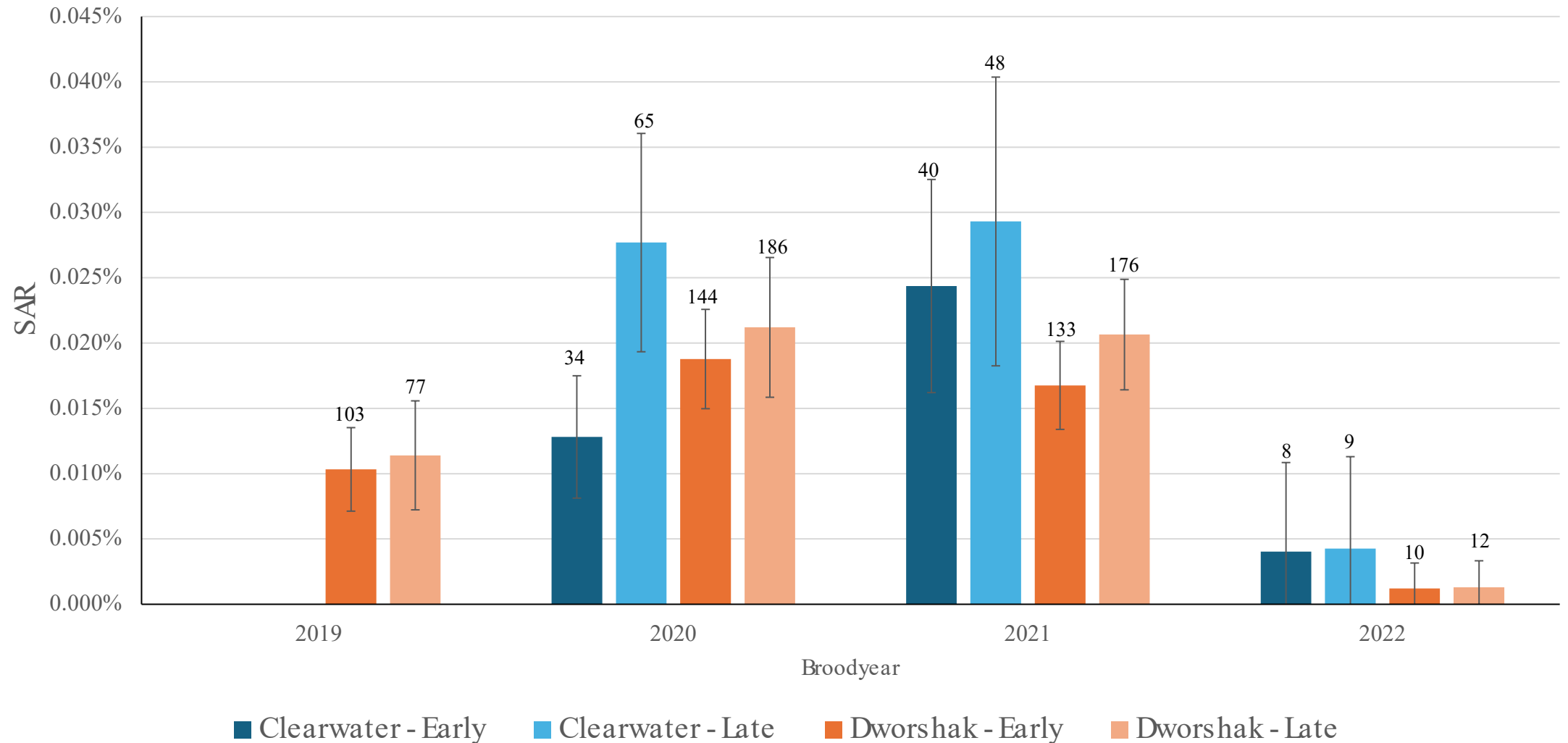
Juvenile arrival dates



SAR to Lower Granite 2- and 3-ocean only



SAR to Lower Granite including jacks



What does it all mean?

Broodyear	Late SAR/early SAR	
	Clearwater	Dworshak
2019	--	1.05
2020	2.09	1.08
2021	1.11	1.20
2022	TBD	TBD
2023	TBD	TBD
Mean	1.60	1.11

Example of production projections at Dworshak NFH			
SAR	0.003		
Targeted Smolts	1,650,000		
Adults from Early	4,950		
		Adults Produced from Late Release	Difference
	Late/Early Ratio		
Min	1.05	5,178	228
Mean	1.11	5,485	535
Max	1.20	5,940	990

What does it all mean?

Hatchery	Release site	Smolt target	SAR of early release	Difference in adult returns		
				Min	Average	Max
Dworshak	NF Clearwater	1,650,000	0.10%	76	178	330
			0.25%	190	446	825
			0.40%	304	713	1,320
			0.60%	455	1,069	1,980
Hatchery	Release site	Smolt target	SAR of early release	Min	Average	Max
Clearwater	NF Clearwater	709,000	0.10%	78	425	773
			0.25%	195	1,064	1,932
			0.40%	312	1,702	3,091
			0.60%	468	2,552	4,637

Questions?

