

## Sport Fish Enhancement Program

**Chuck Pratt** 

**Alaska Department of Fish and Game** 

**Alaska Board of Fisheries** 

Hatchery Committee Meeting

October 14th, 2023

#### **SF Enhancement in Alaska**



 Sport fish (SF) enhancement in Alaska began in the 1950's with the stocking of rainbow trout

Create and diversify
 SF opportunities for anglers

 Protect and improve the State's sport fishery resources





#### Hatchery Locations

 The Division operates 2 hatcheries, William Jack Hernandez and Ruth Burnett Sport Fish Hatcheries

 ADF&G funds through cooperative agreements the operation of Crystal Lake (SSRAA) Pillar Creek (KRAA)



## Production

- Annually releasing 7.2 million fish (2.3 million PNP)
- SF stocking program consists of smolt stocking (king and coho) and lake stocking
- Species reared: rainbow trout, Arctic char, Arctic grayling, lake trout, king and coho salmon
- •Age at release: fingerling, smolt, subcatchable, catchable and brood



## **Production**

- Maximum capacity for most species and life stages
- Stocking plan changes require reallocation of fish
- Lake trout were added in 2020
- Increase of catchable king in 2025

### **Regulatory Framework**



## **Statewide Stocking Plan**

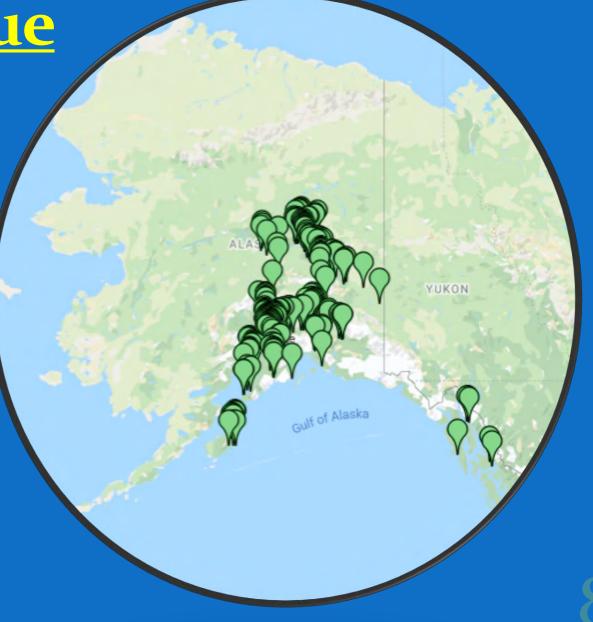
- Outlines Division of Sport Fish Stocking plans for the next 5 years
- •Updated and published annually
- •Available for public review and comment each year
- Contains the Lake Stocking Policy

Sport Fish	Commercial	CONTRACTOR OF								
		Sport SL	bsistence	Personal	Use )	Aquate Famile	ng Hatcherie	s <u>Research</u>		
Sport Fish Home	ing	ADEAG Home	Exiting > 5	aort > hintch	eneo ára	1.Stocking			Sign in	myADE&G
		Hatcher			king	2				
wefishak		Statewide	Stocki	ng Plan						
Fishing Informatio		See what fis	the depa	artment pla	ans to s	stock over the	e next 5 years	8.		
Alaska Lake Database Information By Area		Statewid	Stock	ing Pla						
Fish Counts		The "Statew.	de Stock	ng Plan fo	sport				well as the number	
Boating & Angler Access									ximately 7 million fit t fish angling opport	
Programs Hatchenes & Stoc	-	been conside	erable put	dic input in	the de	evelopment of	of the long-ten	m stocking plan.	In addition, this pro Restoration (Dinge	gram is primarily
- Hatcheries	king	Johnson/Wa	lop-Breau	ix) program	n This	document is	s available for	public review an	id comment through	January 30,
- Fish Stocking							ed in this plan eral stocking i		ed in the media for a	at least 10 days
Statemde Stoc	king Plain								s the overall directio	n of the program.
Lake Stocking	Policy	Sections RI,	RII, and F	RIII, outline	progra	am objective	s for each of t		of Sport Fish mana	
Lake Fishing Info								any at the Depa	a shared a	
Proxy Fishing		andrew.gam					No Astraich G	any at the Depa		
		Andrew				-				
		941 N. F		andez Sp	ad E					
		Anchora								
		Introd     Regio						Fish and C	Game	
		<ul> <li>Regio</li> </ul>	1			Denartin	ent of F	Ish ana		
		- Regio	1	Ala	ska 1	Depuis				
										re
	_						ASA			
						6	1			
						F	-F			
						8	M.	E .		
							-	<b>S</b>		
							DAT OF FISH A			
						TATEWIN	FETOCET	NG PLAN		
					3	1.41 L # 1D	FOR	NOT LAD		
						CI	ORT FISH	,		
						Sr				
							2018			
						Ja	nuary 2018			
							ary 2018			
			1.1							

### What Makes SF Unique

#### Statewide

- Diversity of accessible fishing opportunities for sport anglers
- Cooperative agreements with PNPs and SF hatchery production



## **PNP Supported Stocking**

- Cooperative agreements with local PNP hatchery programs
- King, coho and rainbow trout
- PNP hatcheries also support sport fisheries through stocking projects not associated with the SF enhancement program

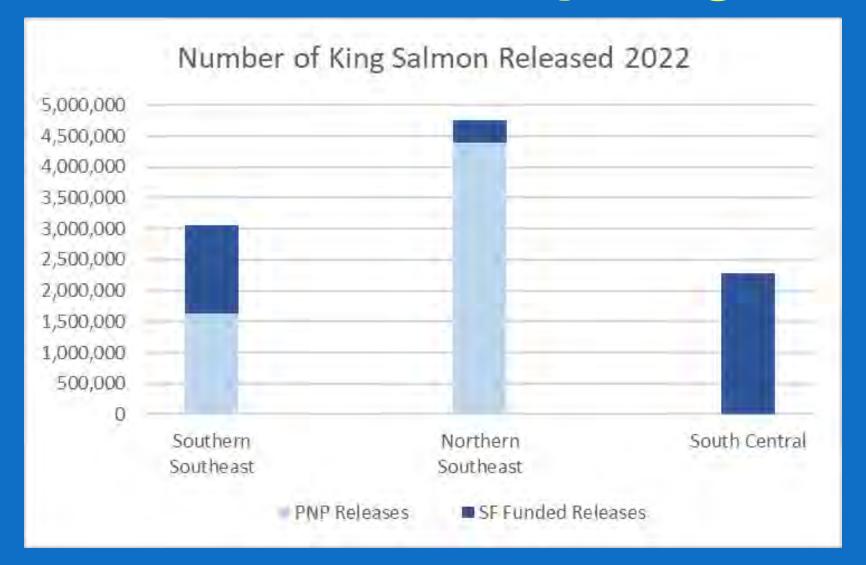
#### <u>PNP Co-op Stocking:</u> Pillar Creek - KRAA Macaulay - DIPAC Crystal Lake - SSRAA Deer Mountain - SSRAA Whitman Lake - SSRAA





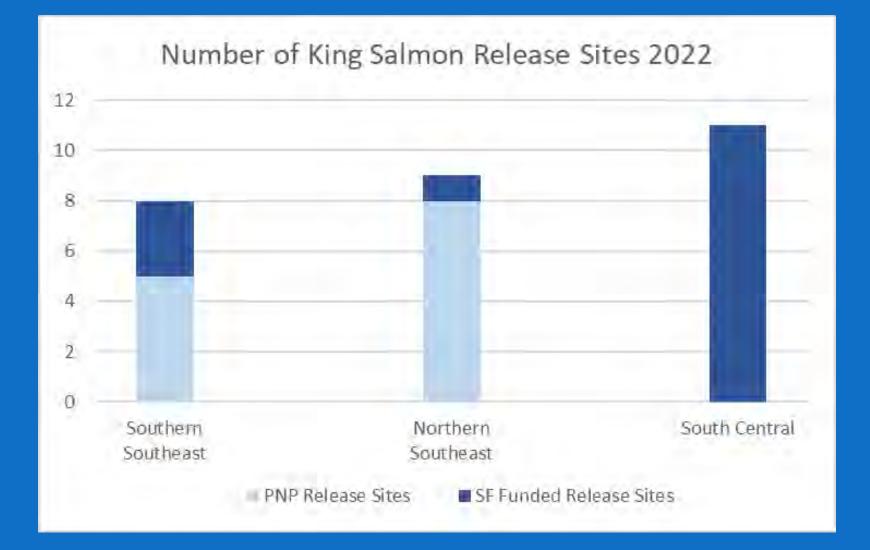


### **Total Statewide Hatchery King Releases**



10

### **Statewide Hatchery King Release Sites**



11





### **King and Coho SF Funded Release Sites**

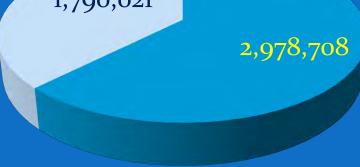


#### Smolt Production

- WJHSH only smolt SF hatchery
- ~3.0 million king and coho smolt are stocked at 11 sites in Southcentral

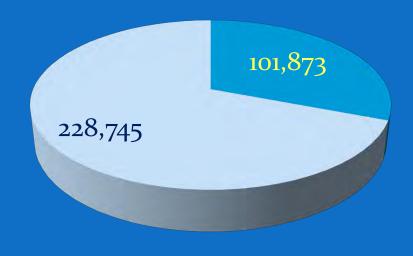
### Fish vs Biomass Produced at SF Hatcheries

### Total Number of Fish 1,790,021



Anadromous Lakes

#### Total Biomass of Fish (lbs)



#### Anadromous 🛛 Lakes

### Lake Stocking - Freshwater

~1.8 million fish are released into more than
240 freshwater locations

 Viable (diploid) fish can only be stocked into landlocked locations

 Sterile (triploid) fish may be stocked into open or semi open systems. Most SF production is sterile, regardless of release location



### **Evaluation**

 King and coho smolt production is otolith marked

 King smolt released at Crooked Creek and Ninilchik River are adipose fin clipped

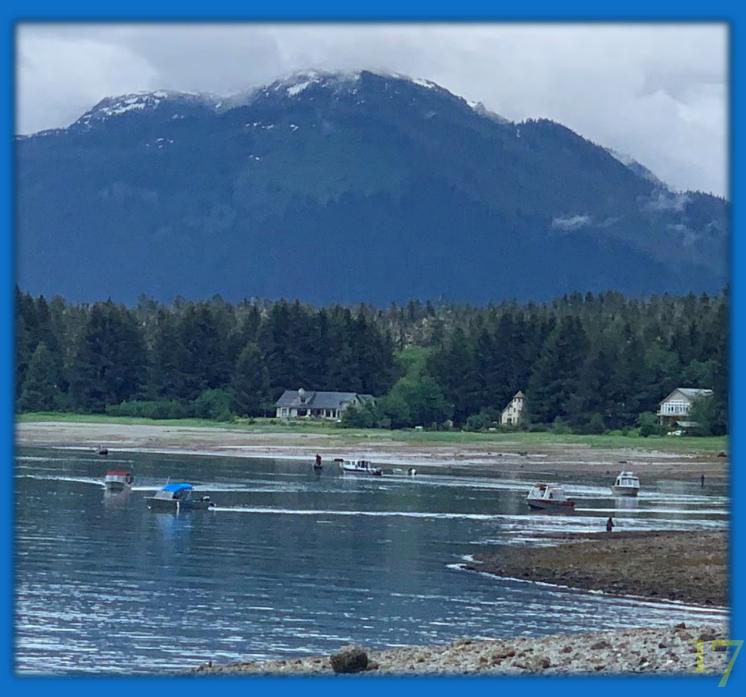
 All adult fish spawned for future production are tissue sampled

 Size at release evaluation of Ship Creek king smolt



## <u>Management</u>

 Provide harvest opportunity while limiting impact on wild stocks



### Management

 Integrated enhancement project using adipose fin clips to target hatchery fish (*Mark-select fisheries*)



### Management

 Allows fishing opportunities during closures on wild stock locations



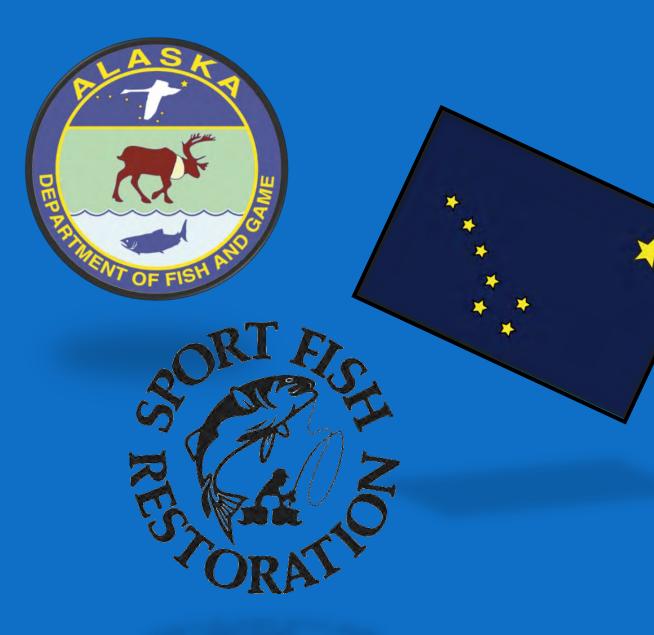


### Management

Stocking lakes with sterile fish

 Projects are evaluated for benefit





Funding and Impact

- Funding for operation
   General Fund, Federal Aid, License sales
- Annual Program Cost \$7.2 million
- Average annual Economic Benefit, \$34 million (2004)
   \$55 Million (2023 inflation adjusted)

# Review

- Creates and diversifies sport fishing opportunities in Alaska
- Provides economic, recreational, and consumptive benefit

