

# Snake River Sockeye Salmon Update

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# Presentation outline

1. Not the usual historical review today
2. Review I DFG sockeye recovery strategy
3. Review completed & planned infrastructure improvements needed to implement strategy
4. Review smolt production (current and proposed)
5. Review adult return success (current and expected)



# IDFG sockeye recovery strategy

1. IDFG working collaboratively with NOAA to develop recovery plan language for S.R. sockeye salmon
  
2. IDFG strategy recommends a phased approach that includes:
  - a. Increased smolt production
  - b. Increased use of  $F_1$  anadromous adults (hatchery and natural spawning)
  - c. Development of an integrated program that balances the use of "wild" and  $F_1$  anadromous adults in the hatchery and in the habitat

# Implementing the strategy

1. Support for program expansion is firmly in place in:
  - a. The 2008 FCRPS BiOp (RPA Action 42)
  - b. The Idaho Fish Accord
  - c. And supported through the recently released AMIP –

“This species...is effectively managed under ongoing contingency actions....(that) include continuation of the safety-net hatchery program (and) further expansion of the sockeye program (up to 1 million fish released as smolts).....”



# Implementing the strategy

1. Additional hatchery infrastructure is needed to:
  - a. Produce the additional broodstock adults needed to meet increased smolt production expectations (e.g., more spawners)
  - b. To rear up to 1 million full-term smolts

# Increased broodstock capability (I DFG Eagle Hatchery)





Increased broodstock capability (I DFG Eagle Hatchery)



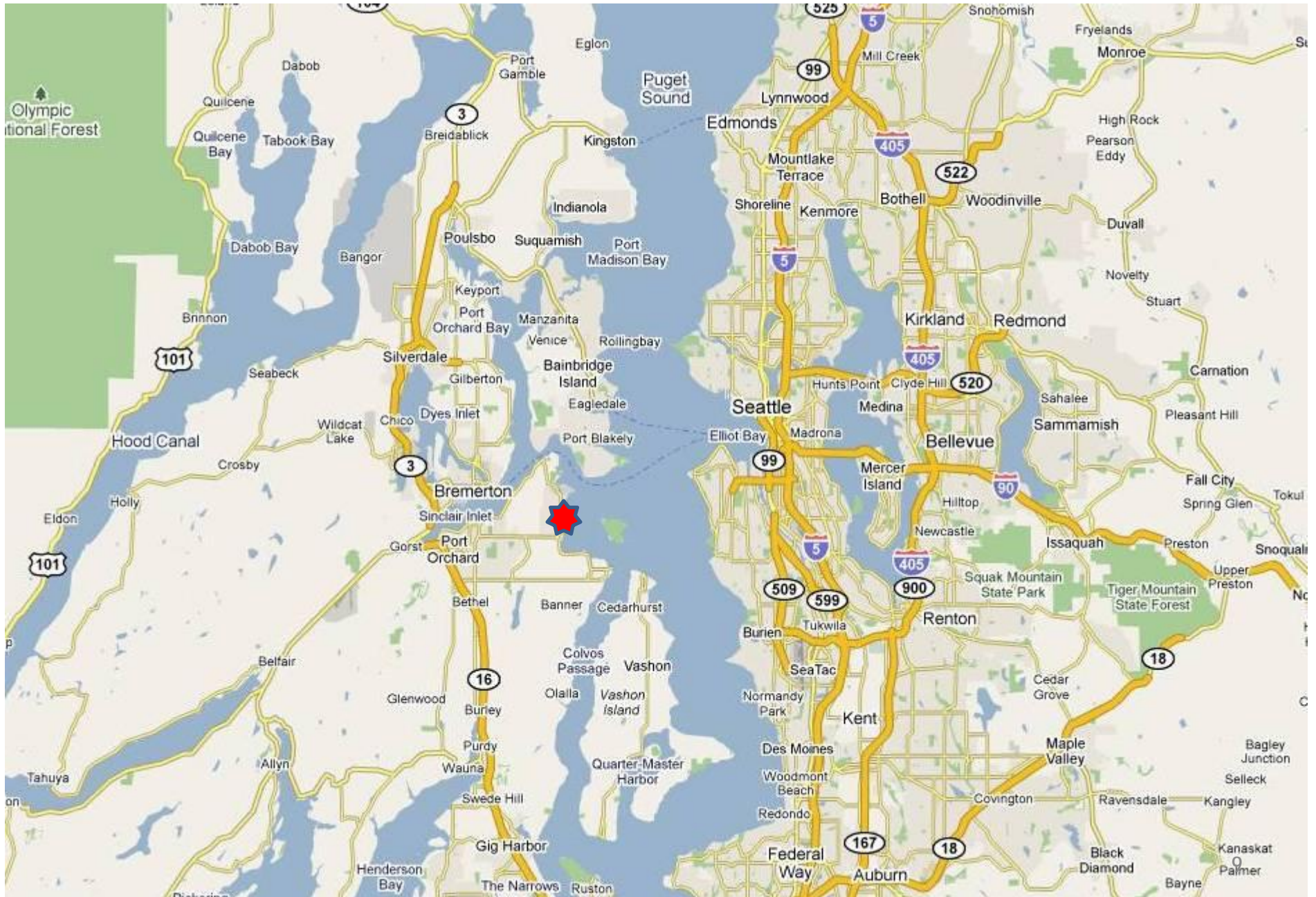


# Increased broodstock capability (I DFG Eagle Hatchery)



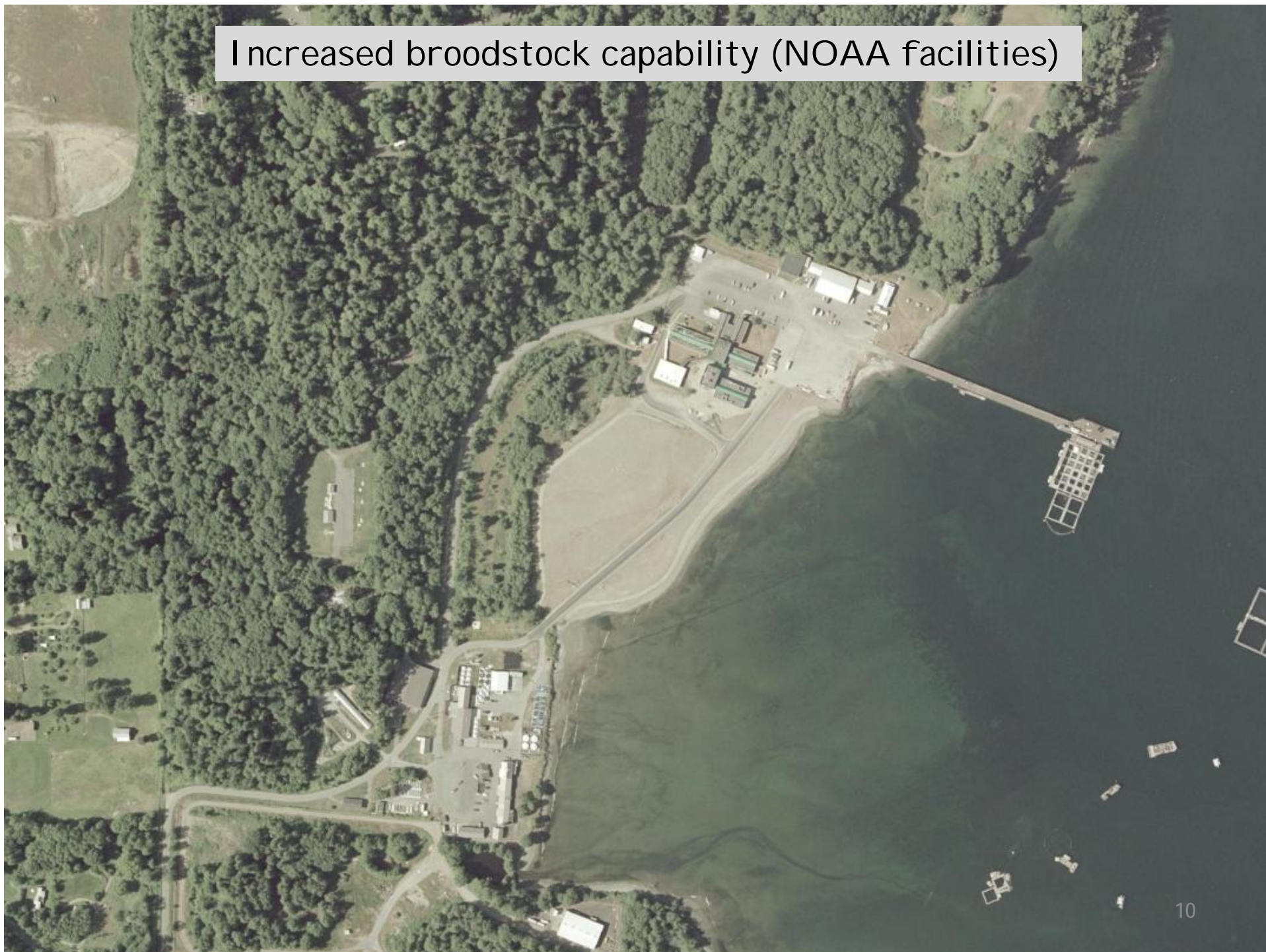


# Increased broodstock capability (NOAA facilities)





Increased broodstock capability (NOAA facilities)





## Increased broodstock capability (NOAA facilities)



NOAA Manchester Marine Lab  
Seawater Rearing



## Increased broodstock capability (NOAA facilities)



NOAA Burley Creek Hatchery  
Freshwater Rearing





# Implementing the strategy

1. Additional hatchery infrastructure is needed to:
  - a. Produce the additional broodstock adults needed to meet increased smolt production expectations (e.g., more spawners)
  - b. To rear up to 1 million full-term smolts

# Increased smolt production capability (Springfield Hatchery)

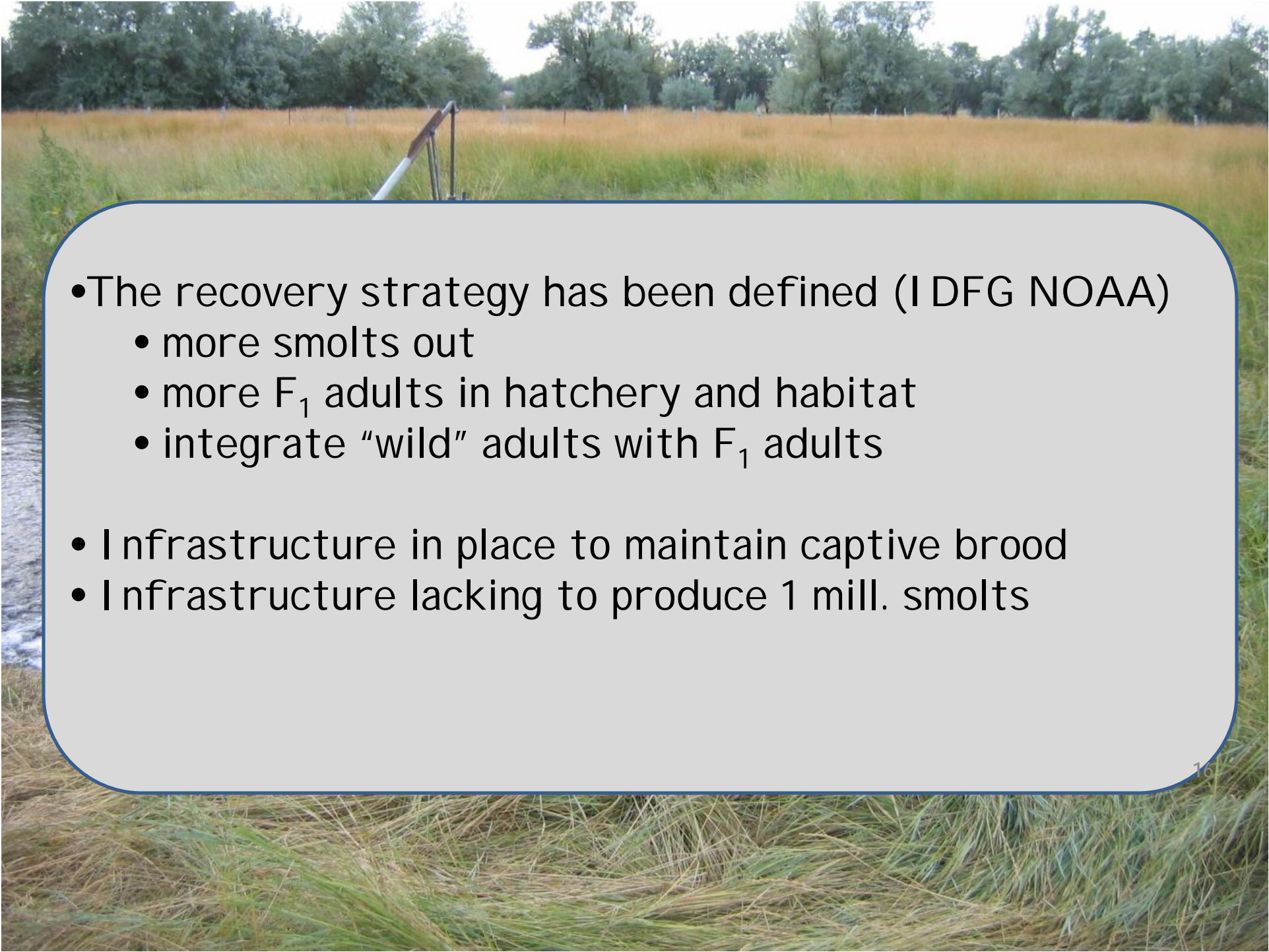




## Increased smolt production capability (Springfield Hatchery)

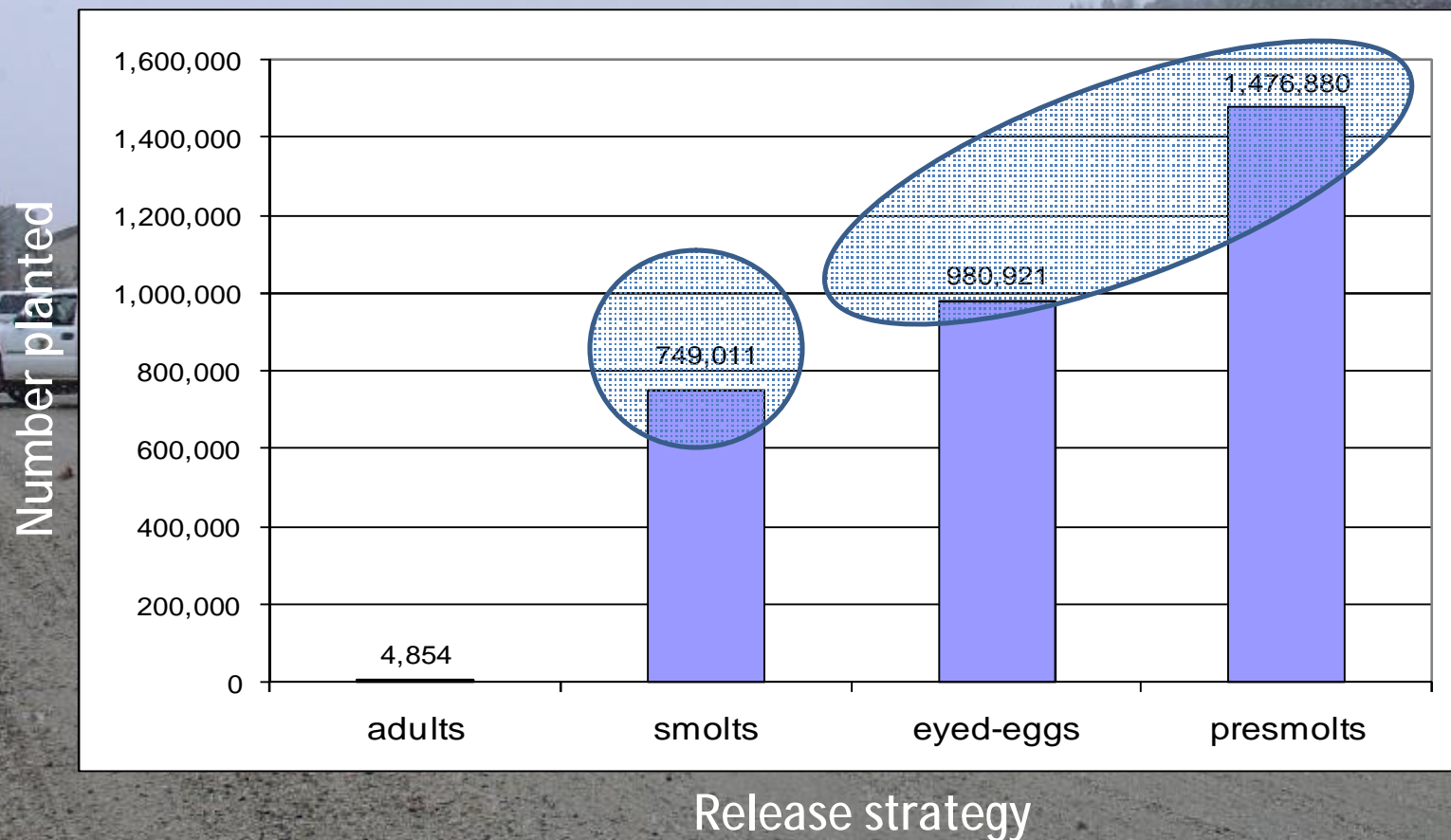
- Currently leased by I DFG but negotiating to purchase
- Specific pathogen free spring water (~ 50 cfs)
- Desirable water temperature profile
- Will require demolition, new planning and design and reconstruction
- Idaho Accord funds earmarked for project



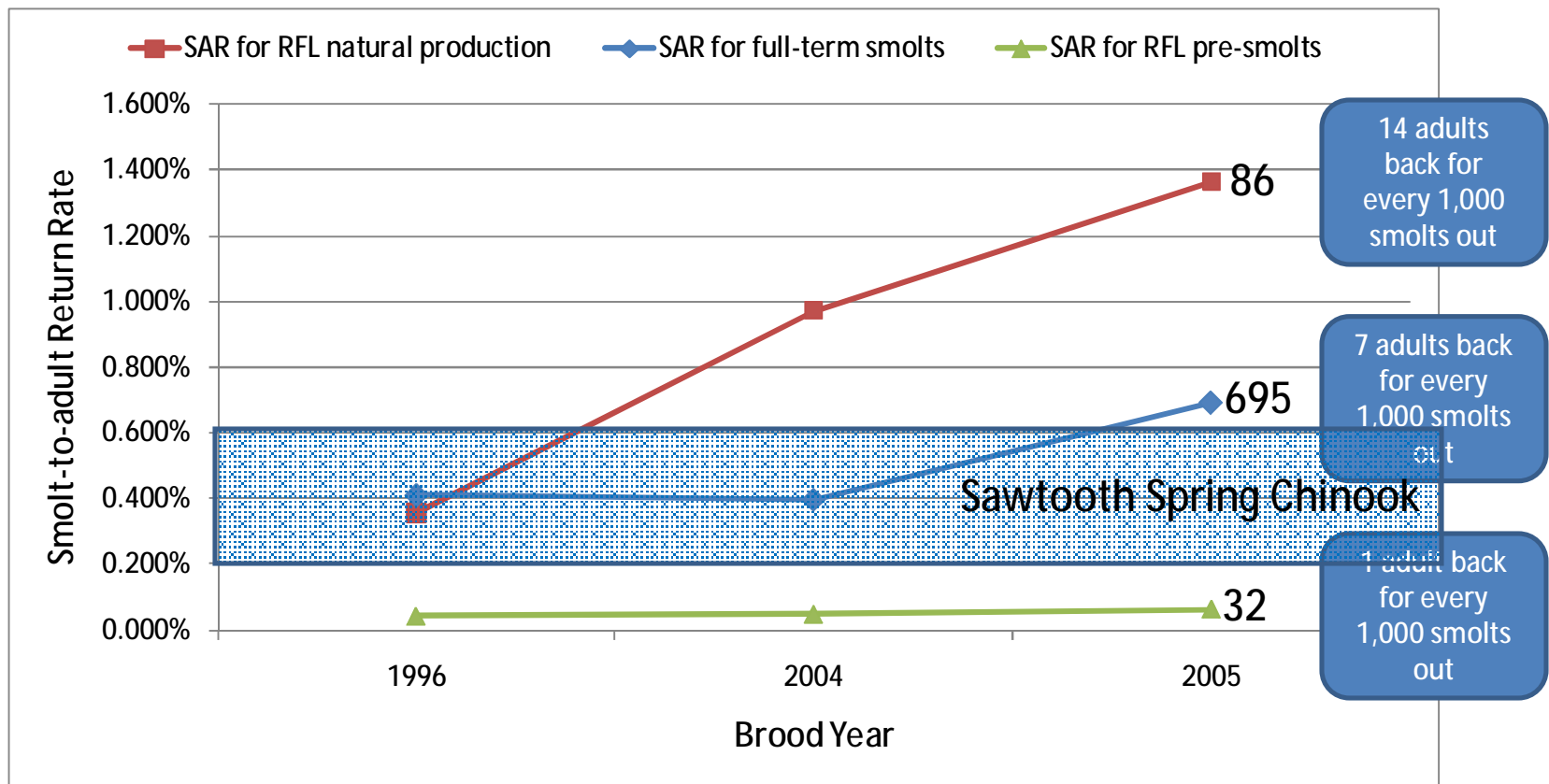
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- The recovery strategy has been defined (I DFG NOAA)
    - more smolts out
    - more  $F_1$  adults in hatchery and habitat
    - integrate “wild” adults with  $F_1$  adults
  - Infrastructure in place to maintain captive brood
  - Infrastructure lacking to produce 1 mill. smolts



# Current and projected levels of juvenile sockeye salmon production

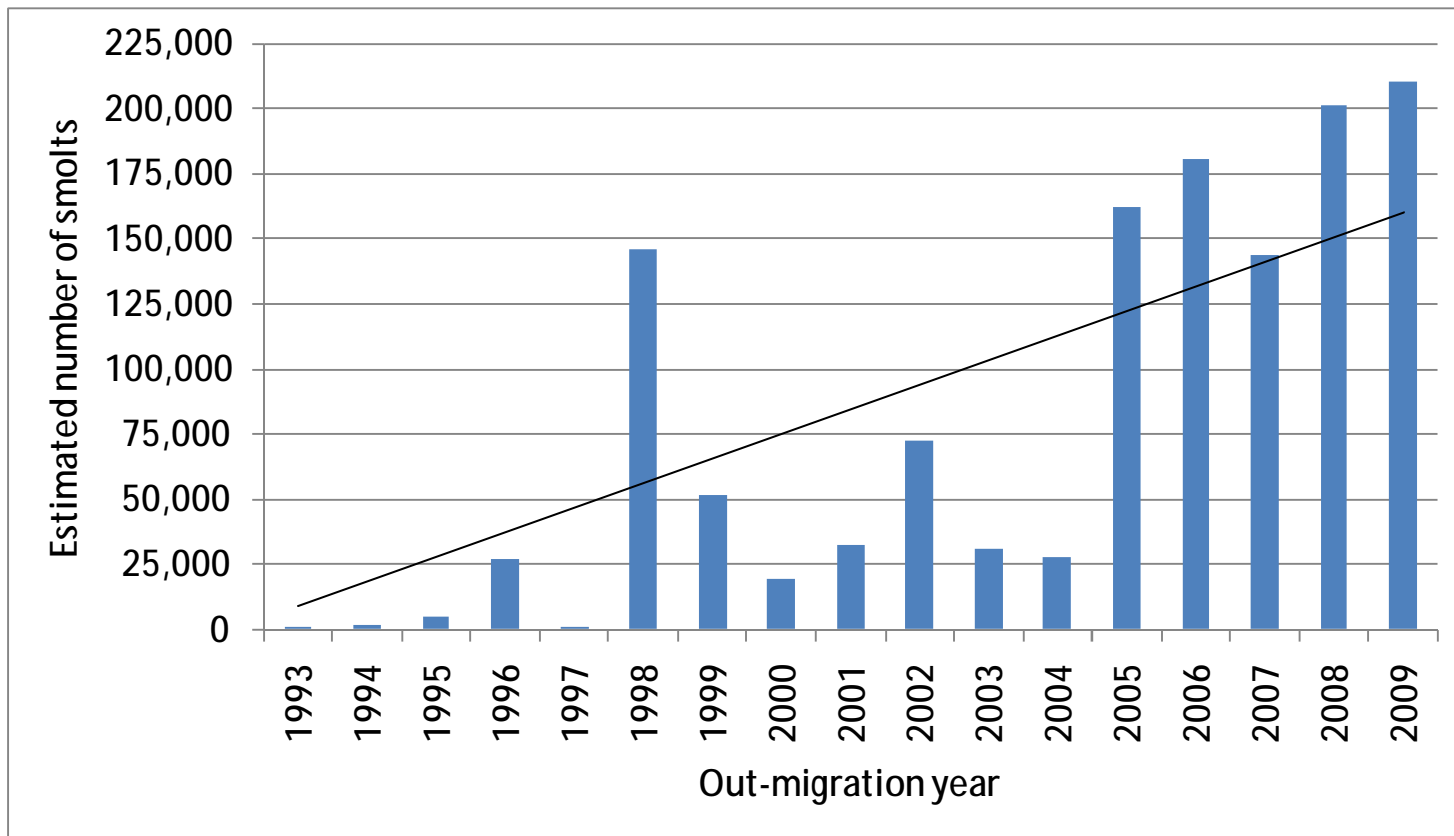


# Smolt-to adult returns by strategy

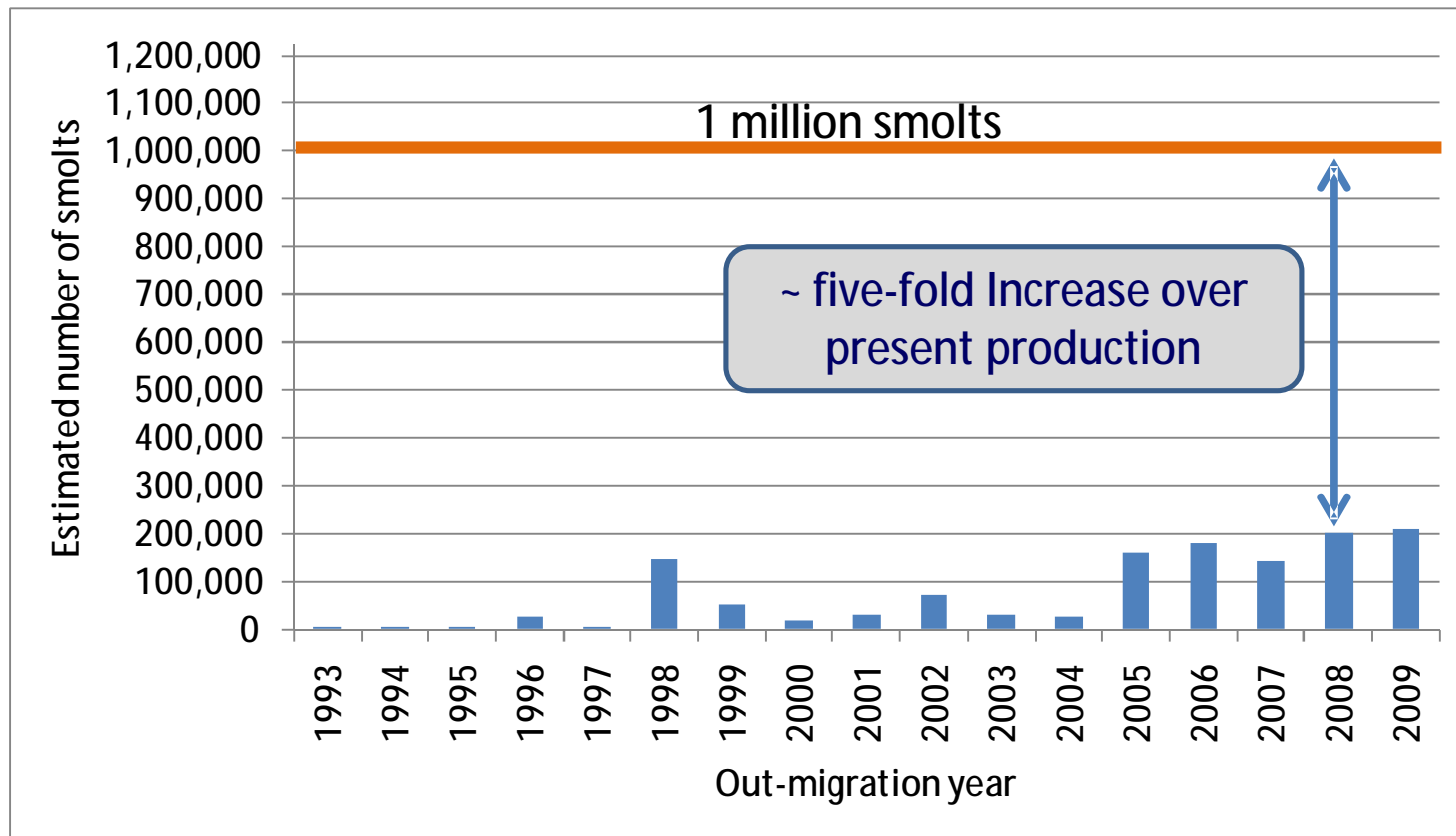




# Smolt production



# Smolt production

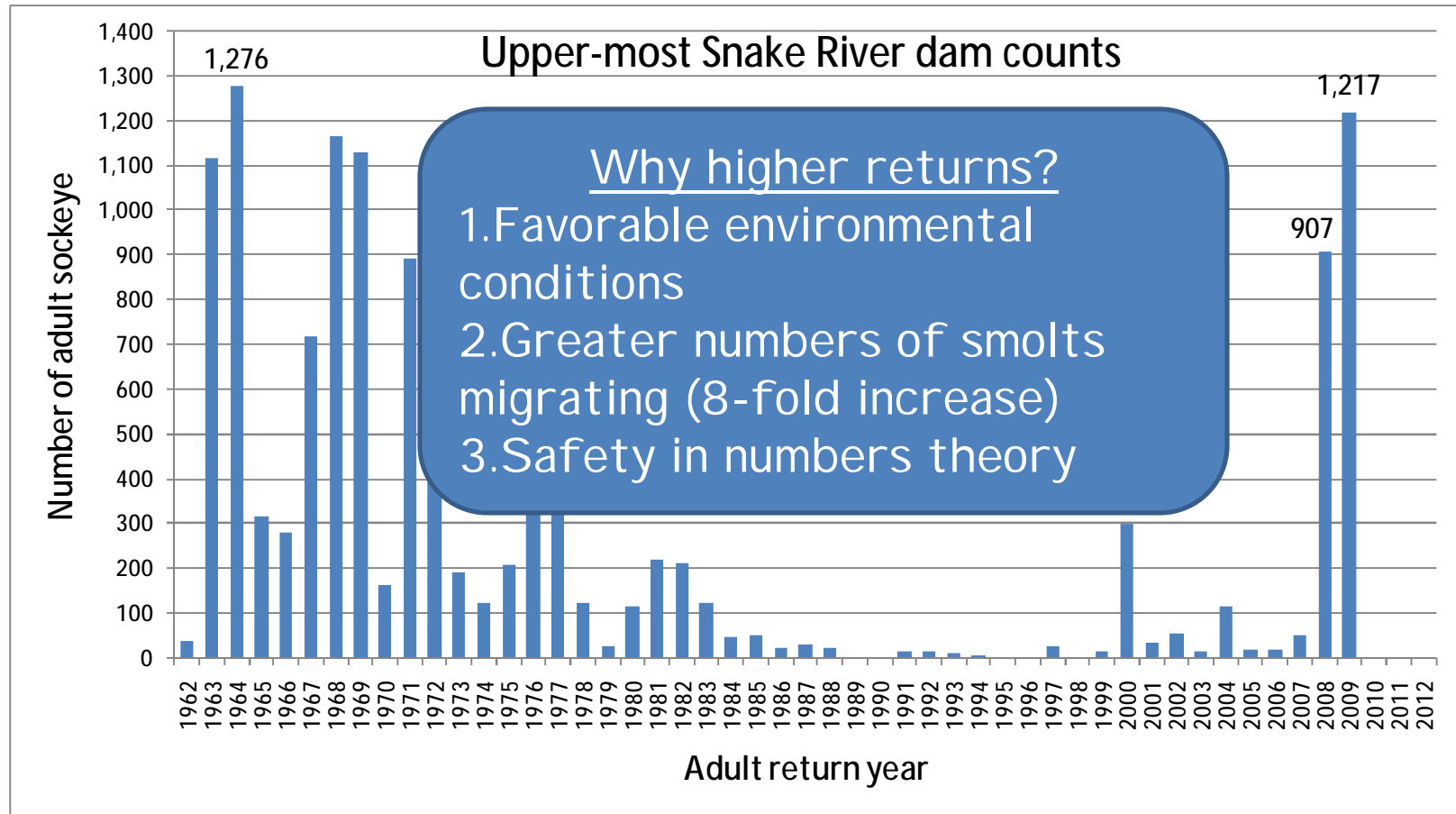




# Current and projected returns of anadromous sockeye salmon adults

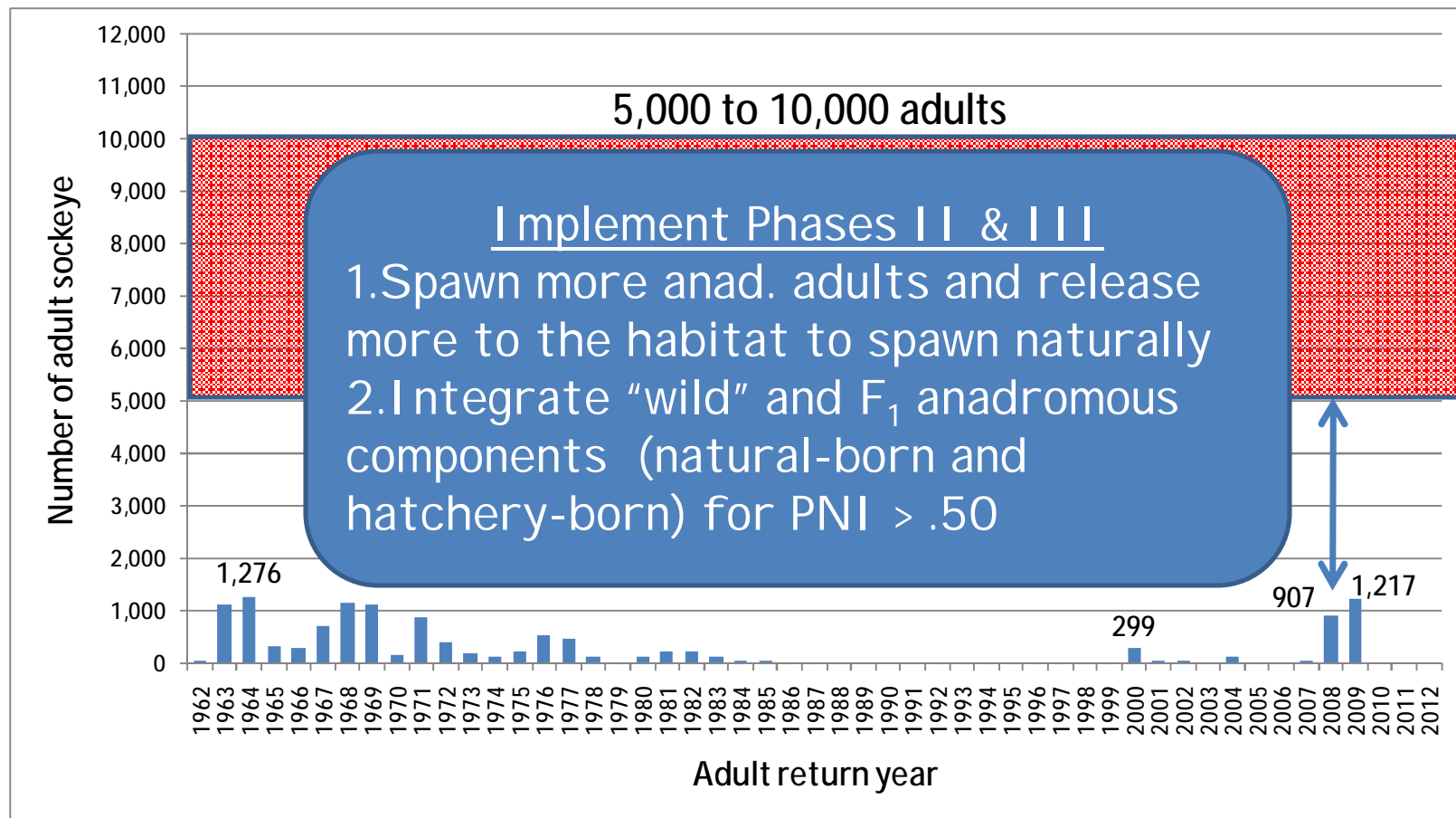


# Anadromous adult returns





# Anadromous adult returns




ISRP 2006-4B, June 2006

Since there has been no response by the populations to recovery efforts in the Basin, it is clear that conditions outside the Basin determine the fate of these fish....

Not only are these limiting conditions not likely to change, the fish themselves are likely to be changing as a result of present intensive propagation and rearing procedures so that their viability even under restored conditions is increasingly in doubt. Recovery of endangered species is important, but evidence presented here does not demonstrate that recovery is occurring.

The view of the ISRP is that there is no scientific basis for continuing this program.





Governor Jim Risch  
NPCC meeting June 2006 in Boise

...it is not a policy of the state to abandon efforts to recovery sockeye...

...we need a better propagation effort requiring more resources



Captive broodstock sockeye salmon at Eagle Hatchery





## Redfish Lake





## Alturas Lake





## Pettit Lake





Redfish Lake sockeye salmon





Redfish Lake sockeye salmon





# Sockeye salmon redds in Redfish Lake





Redfish Lake sockeye salmon trapping facility





Redfish Lake sockeye salmon trapping facility





	FY10												FY11												FY12												FY13												FY14														
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S			
Acquire Hatchery	█	█	█																																																												
Complete Step Review				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█																																							
Planning and Design					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█																																							
Remodel Hatchery																									█	█	█	█	█	█	█	█	█	█	█	█																											
Receive eggs																																																															
Plant smolts																																																															