Snake River Sockeye Salmon Update

Paul Kline
Idaho Department of Fish and Game
Northwest Power and Conservation Council
October 8, 2009 – Ketchum, ID

Presentation outline

1. Not the usual historical review today
2. Review IDFG 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

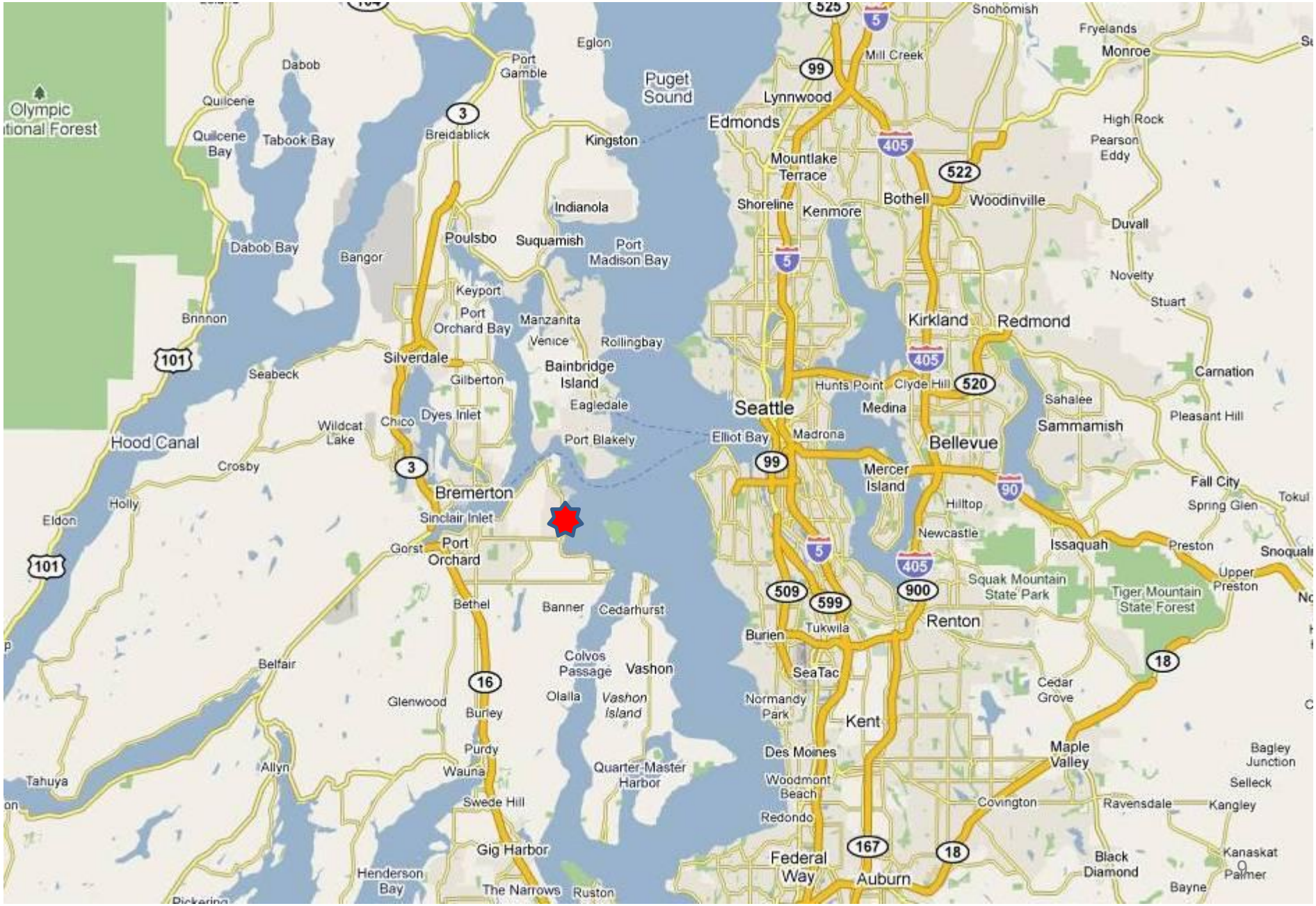
1. Additional hatchery infrastructure is needed to:

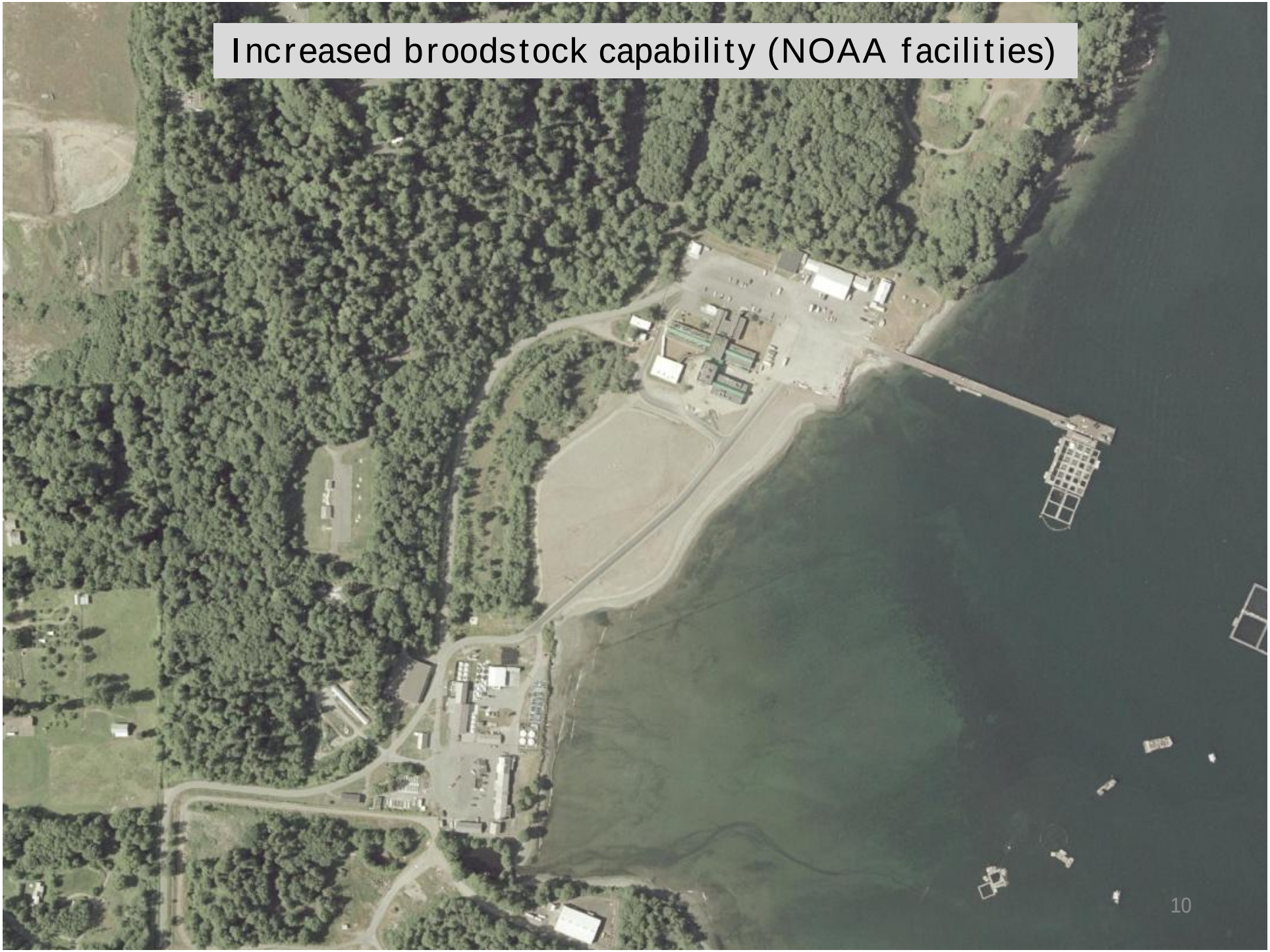
    a. Produce the additional broodstock adults needed to meet increased smolt production expectations (e.g., more spawners)

    b. To rear up to 1 million full-term smolts

Increased broodstock capability (IDFG Eagle Hatchery)

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

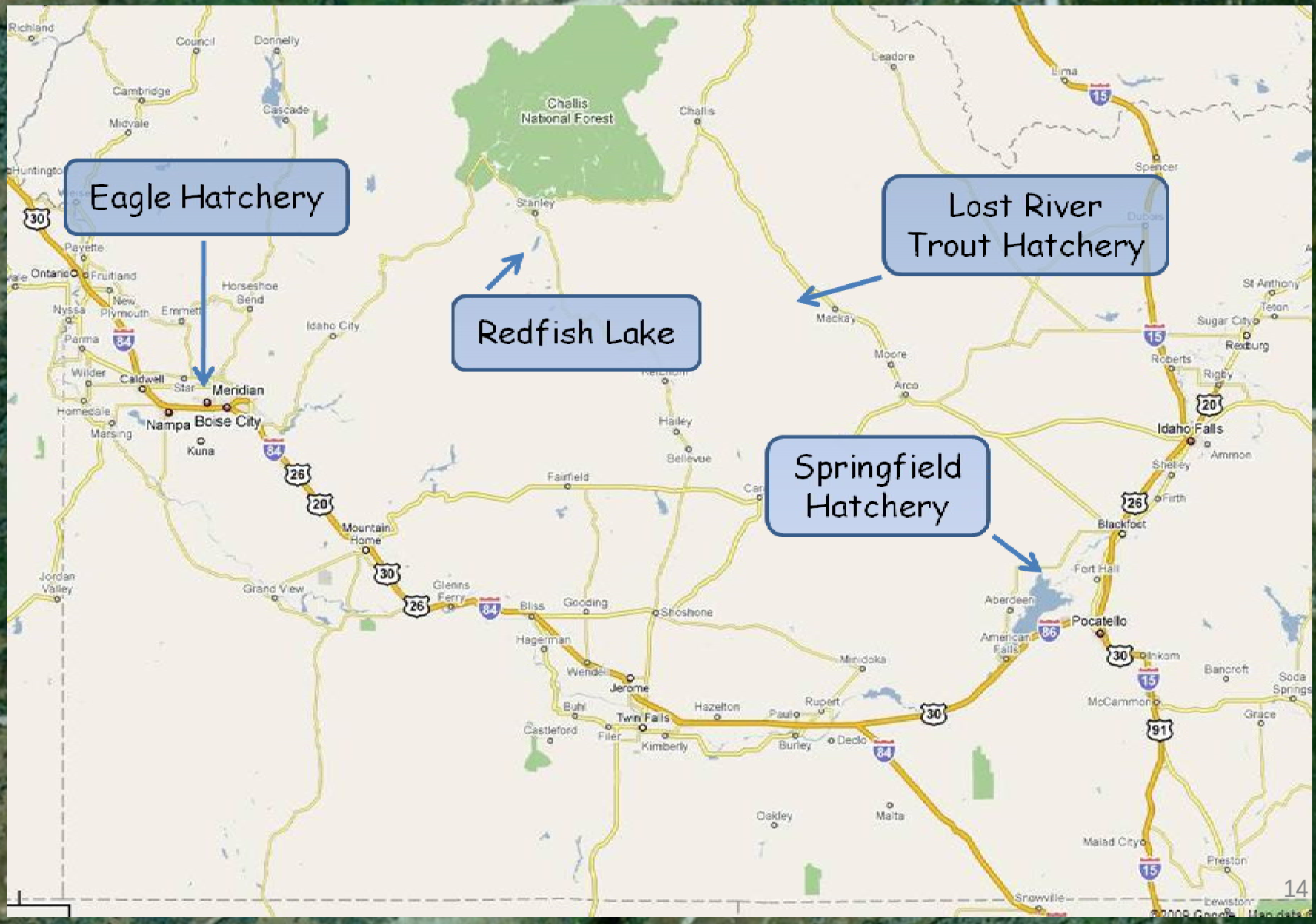
Implementing the strategy

1. Additional hatchery infrastructure is needed to:

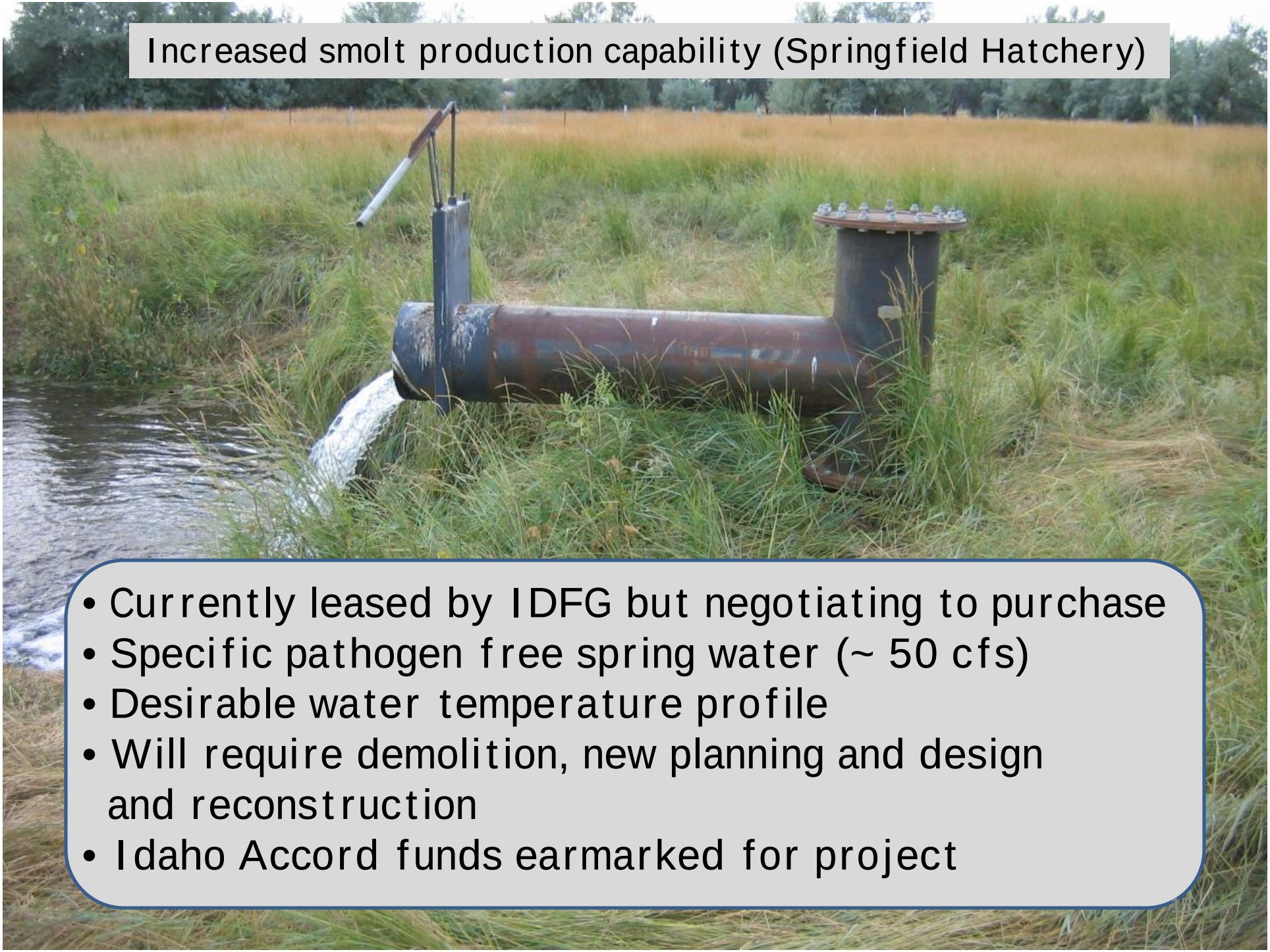
    a. Produce the additional broodstock adults needed to meet increased smolt production expectations (e.g., more spawners)

    b. To rear up to 1 million full-term smolts

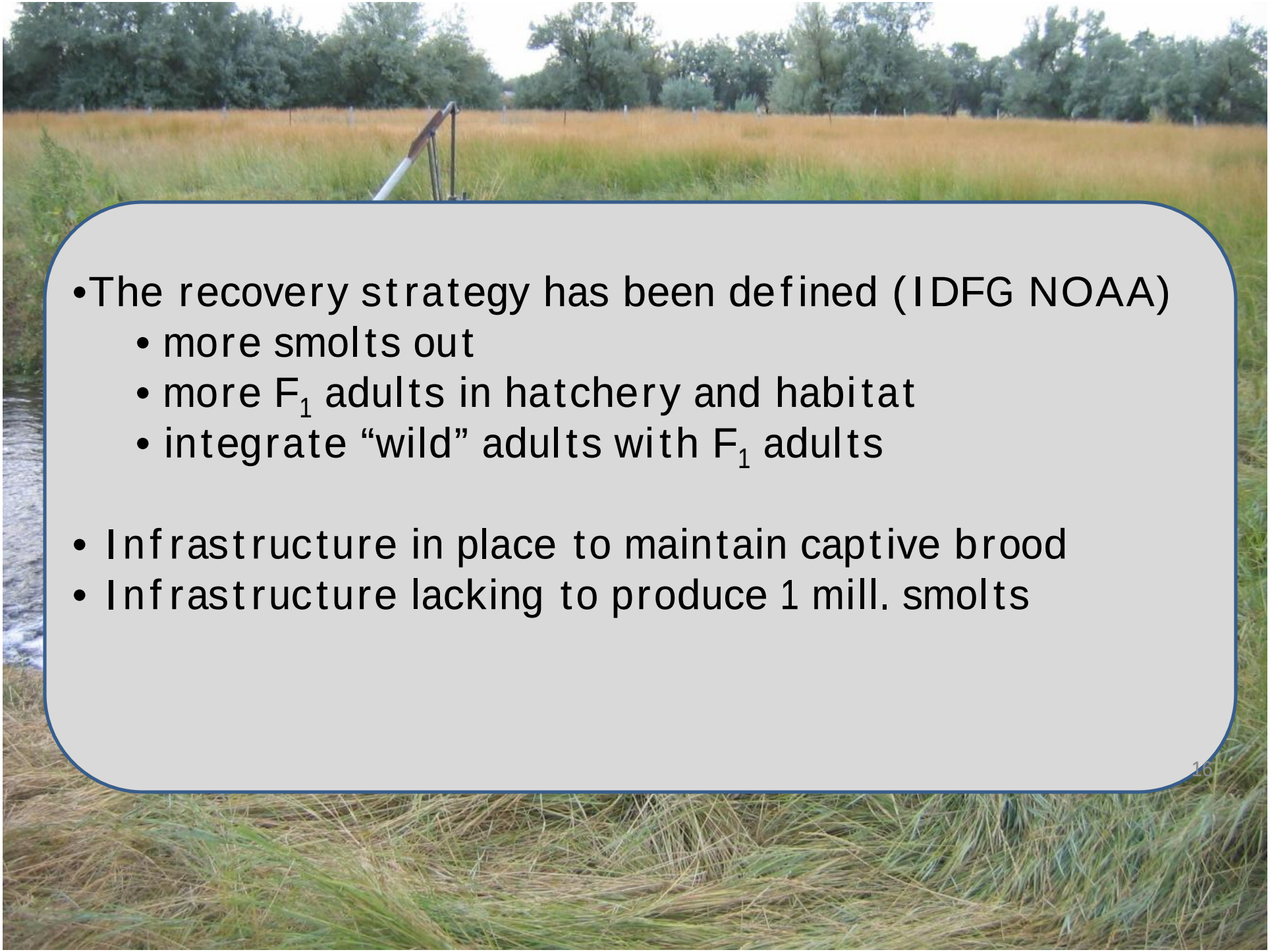
Increased smolt production capability (Springfield Hatchery)



Increased smolt production capability (Springfield Hatchery)

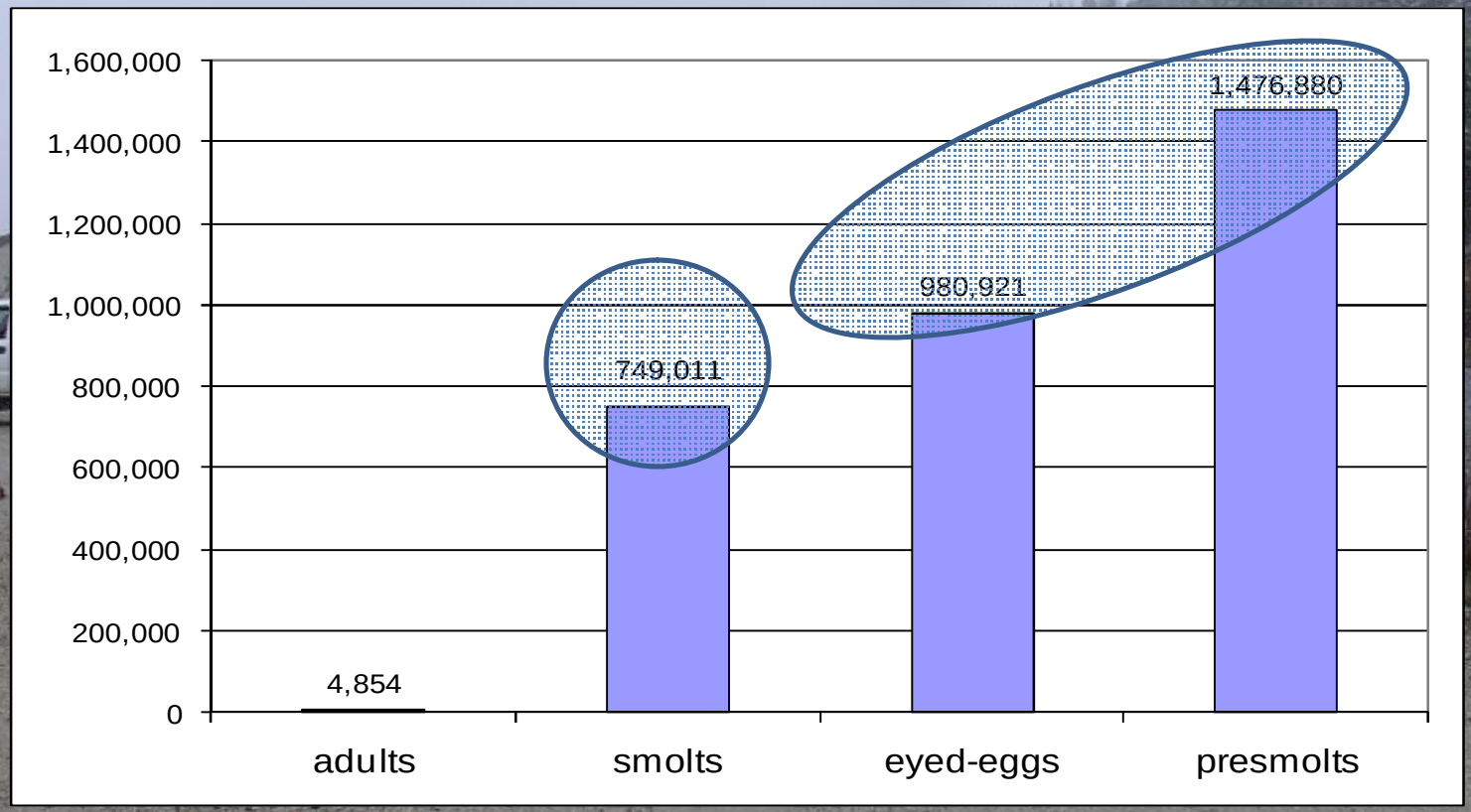


- Currently leased by IDFG but negotiating to purchase
- Specific pathogen free spring water (~ 50 cfs)
- Desirable water temperature profile
- Will require demolition, new planning and design and reconstruction
- Idaho Accord funds earmarked for project

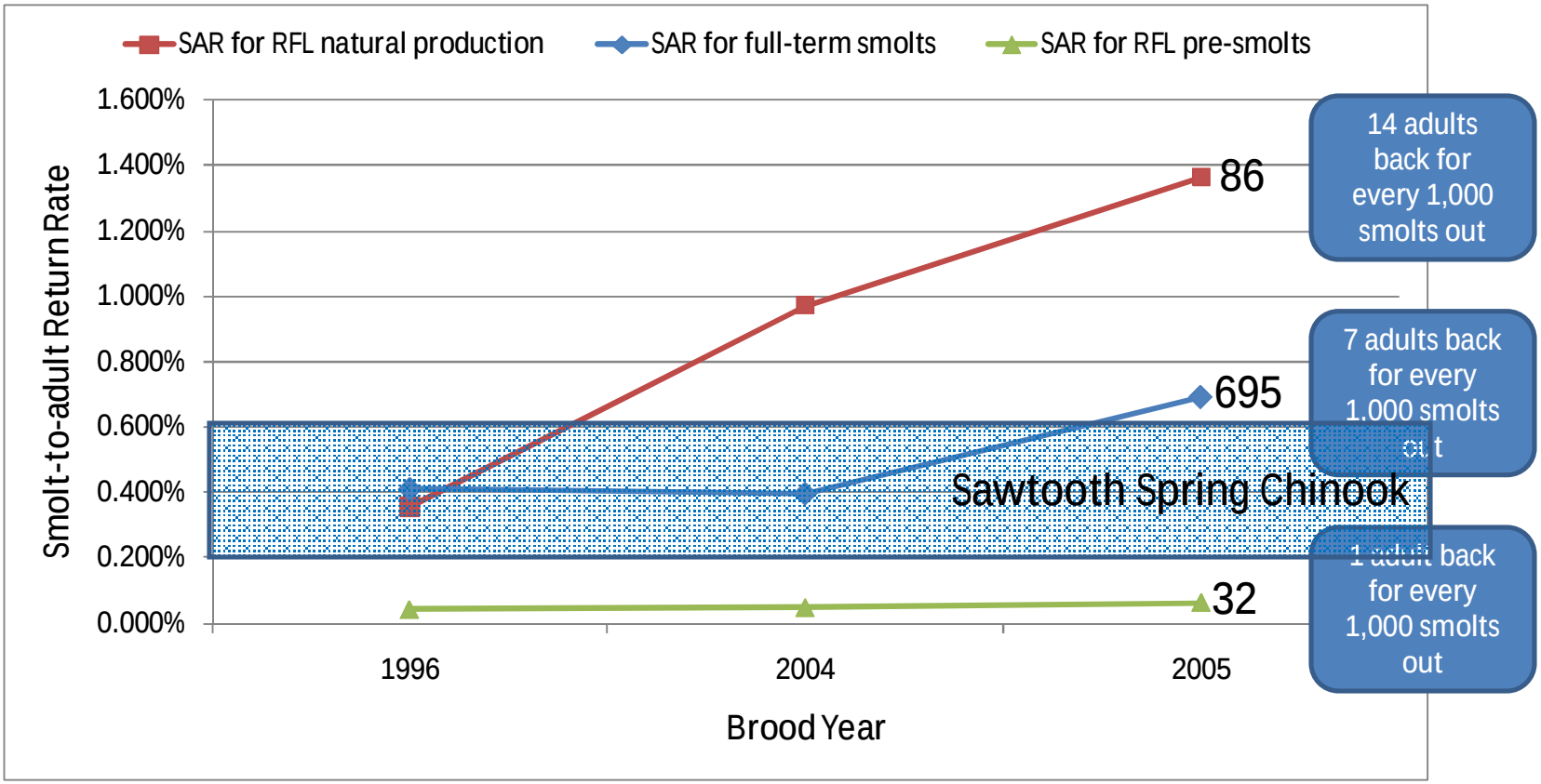


- The recovery strategy has been defined (IDFG NOAA)
  - more smolts out
  - more F_1 adults in hatchery and habitat
  - integrate “wild” adults with F_1 adults
- Infrastructure in place to maintain captive brood
- Infrastructure lacking to produce 1 mill. smolts

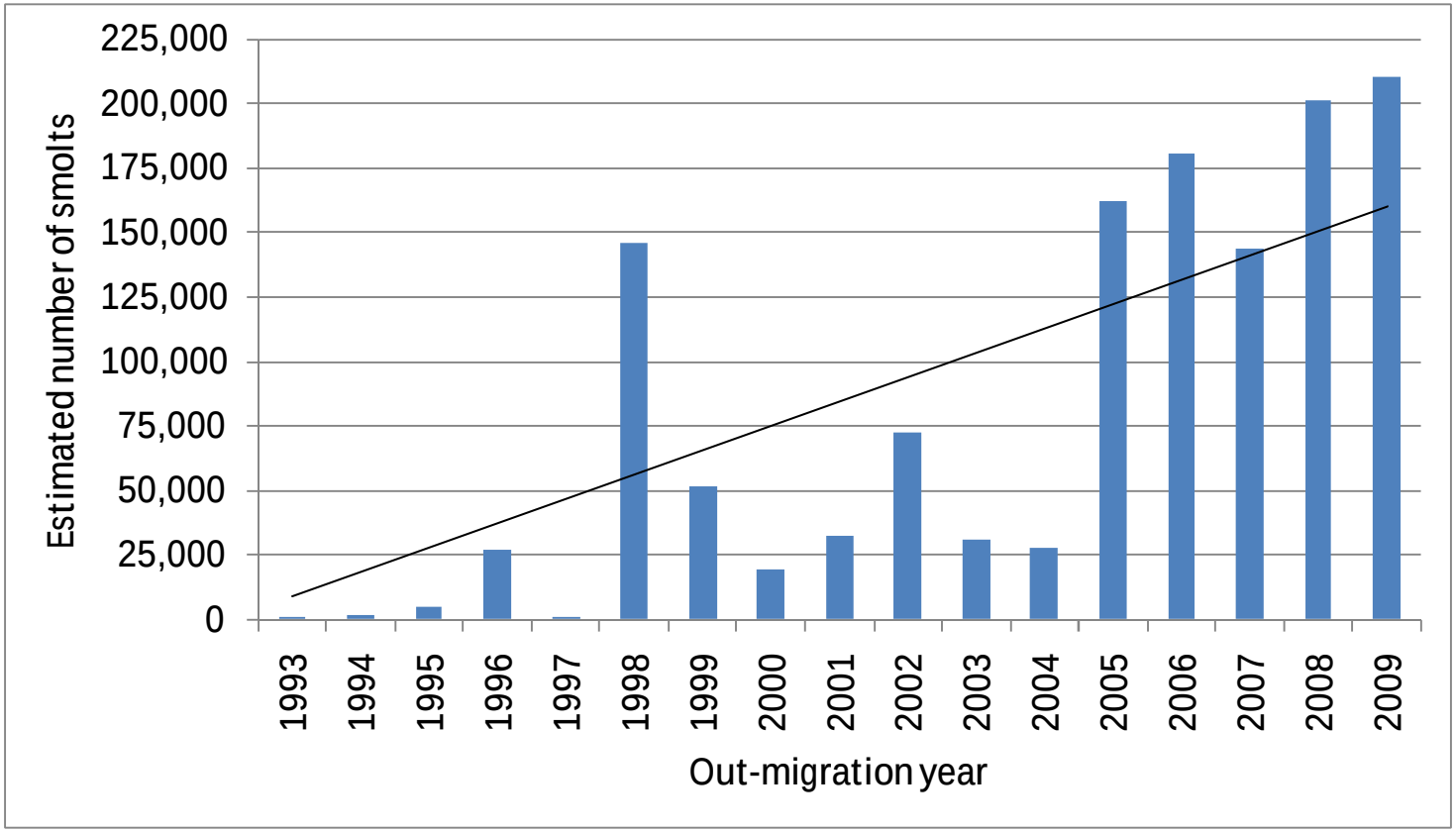
Current and projected levels of juvenile sockeye salmon production



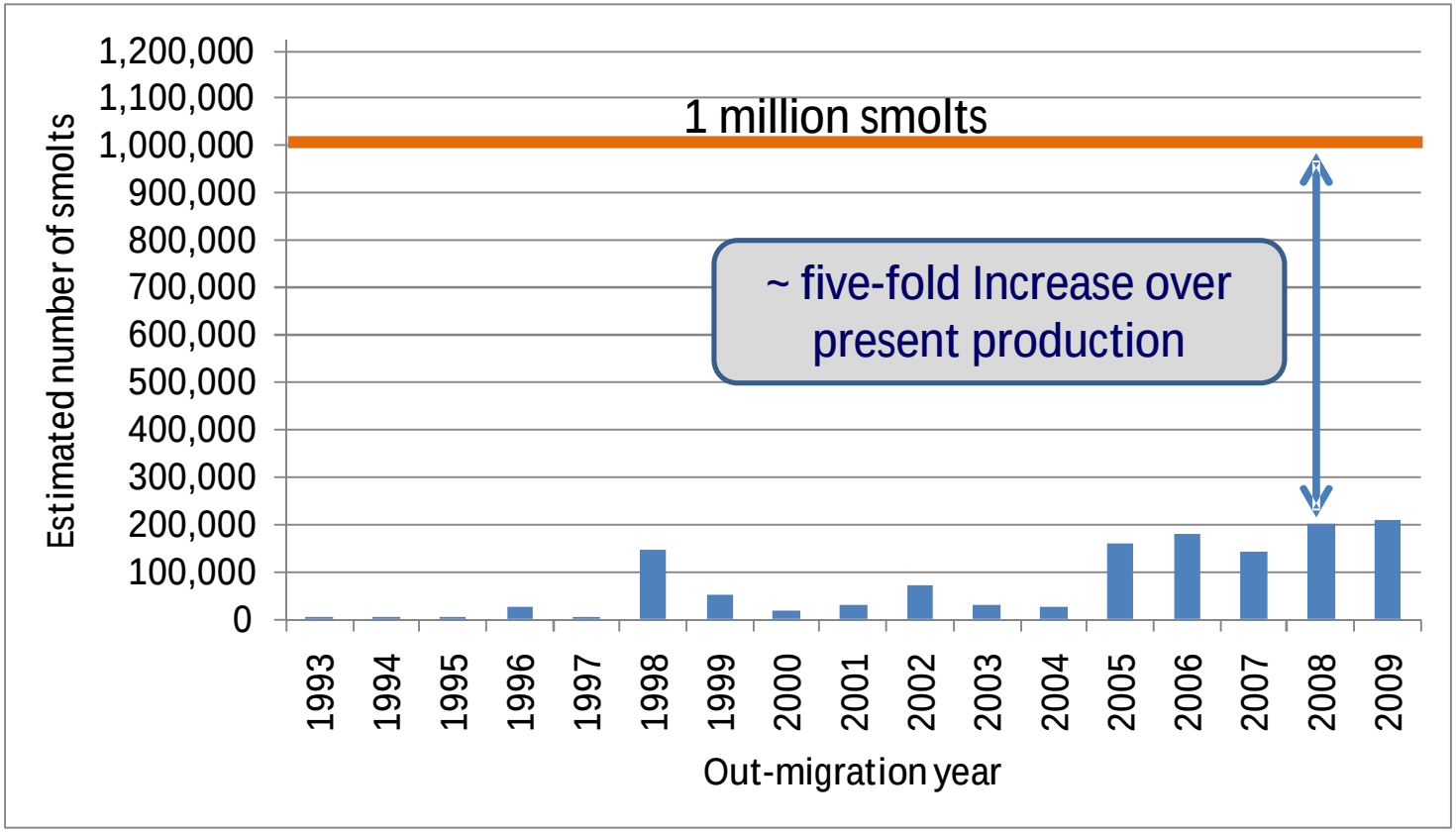
Smolt-to adult returns by strategy



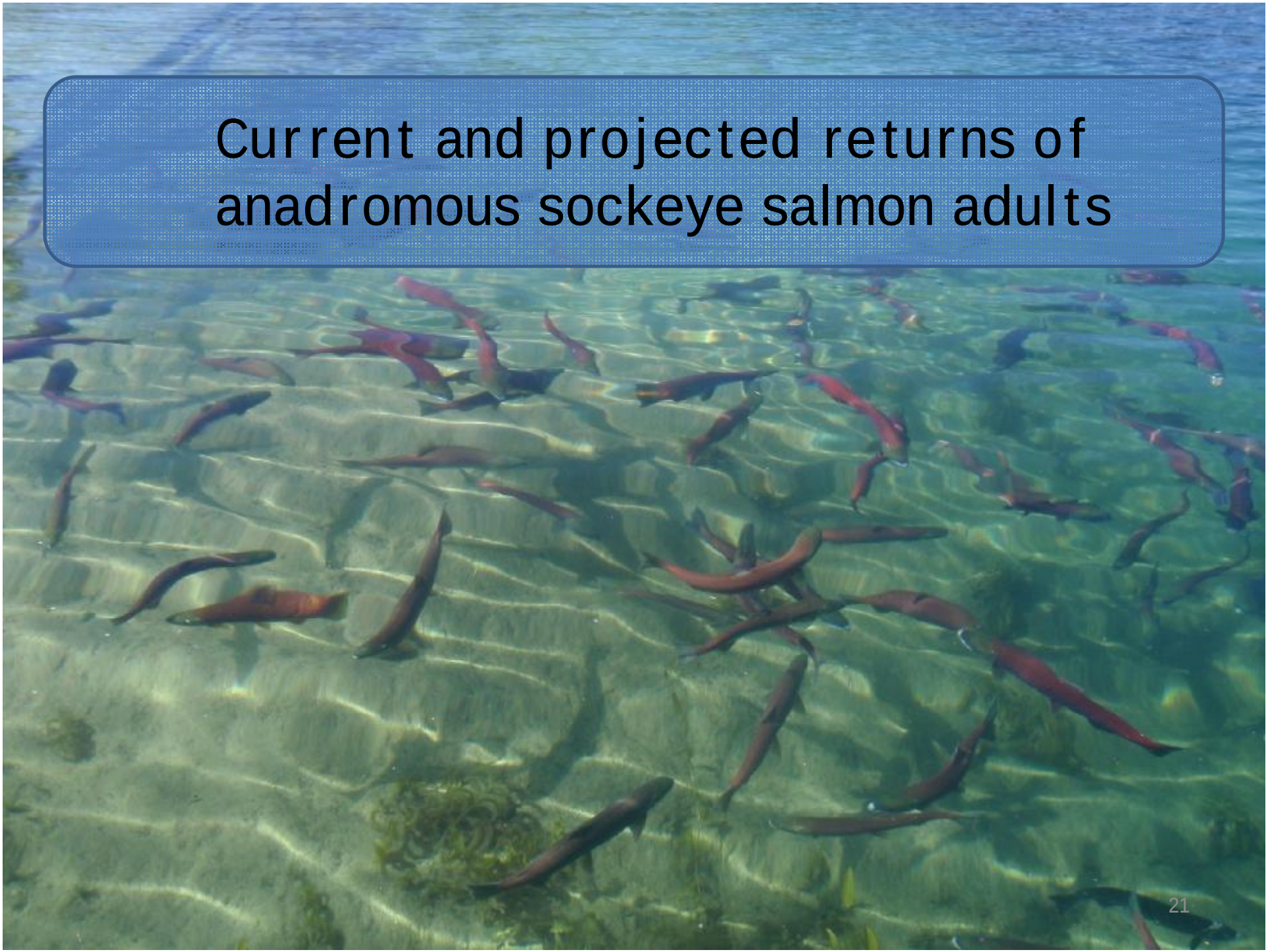
Smolt production



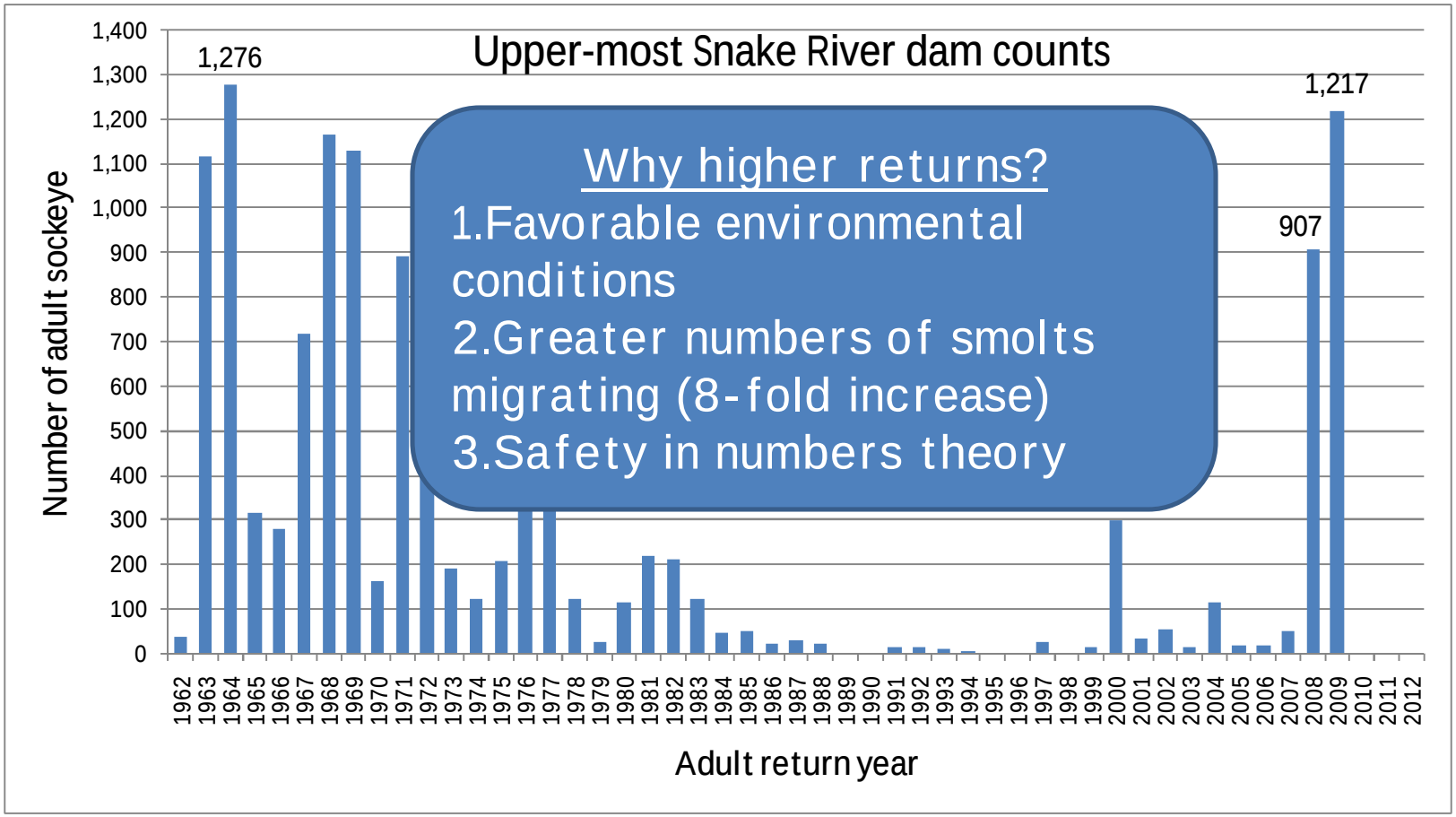
Smolt production



Current and projected returns of anadromous sockeye salmon adults



Anadromous adult returns



Anadromous adult returns