

Innovative Methods to Improve Instream Flows

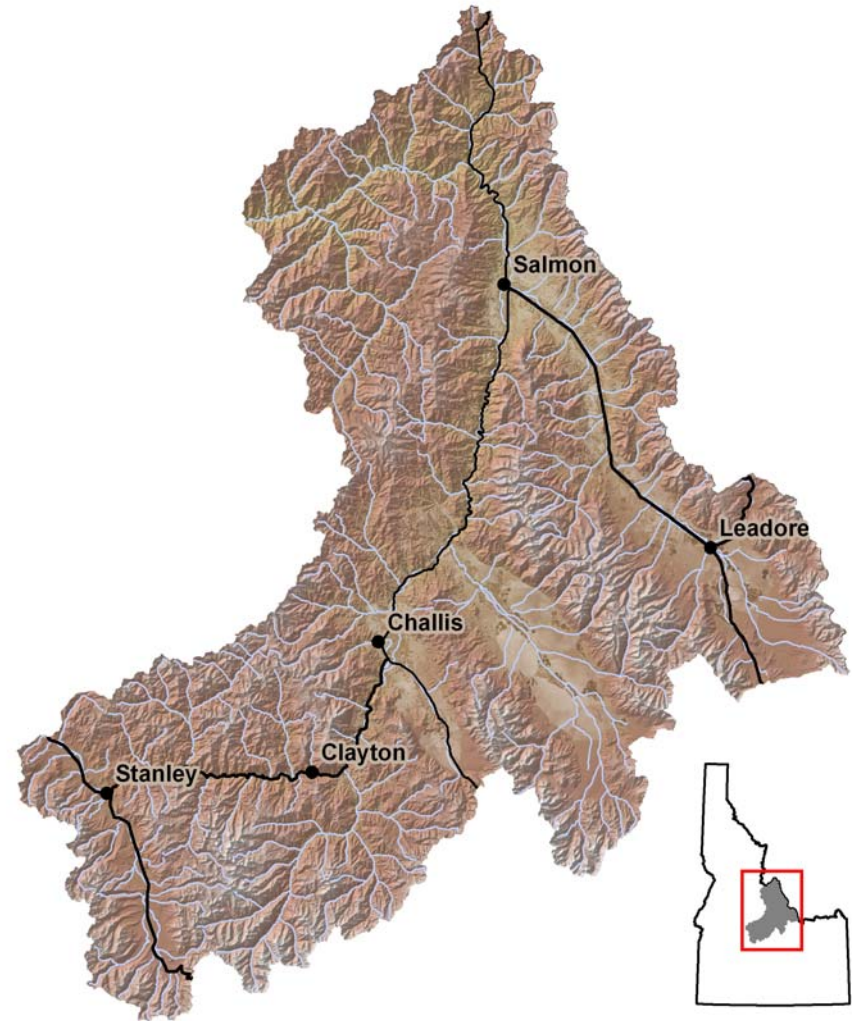
Morgan Case
Presentation for ESPA Demand
Reduction Group
September 29, 2009



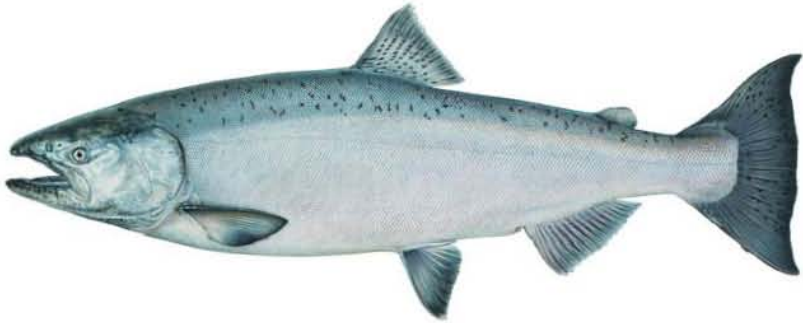
Upper Salmon Basin

Issue: Local economies depend on the diversion of tributary water, but diversions can dewater streams and lead to migration barriers and habitat degradation for Endangered Species Act listed fish.

Solution: Implement a voluntary program that compensates water right owners for changes in irrigation practices that protect the local economy while providing the flows required for recovery of ESA-listed species.



ESA – Listed Species



Chinook Salmon



Steelhead



Sockeye Salmon



Bull Trout

Columbia Basin Water Transaction Program

- Bonneville Power Administration and Northwest Power and Conservation Council Funded
- Established in 2002 to support efforts to improve instream flows in the Columbia Basin
- IDWR/IWRB became a Qualified Local Entity in 2003

Funding

- Bonneville Power Administration
 - CBWTP
 - Idaho Fish Accord
- NOAA-NMFS Pacific Coast Salmon Recovery Fund
- SRBA Habitat Fund
- USFWS – Aquatic Species Conservation Fund

Benefits for State of Idaho

- Maintain local economies
- Protect individuals from third party ESA “takings” lawsuits
- Recovery of ESA-listed species
- Improved recreation opportunities
- Improved natural resources for the State
- Warm fuzzies/cold slimies



Methods

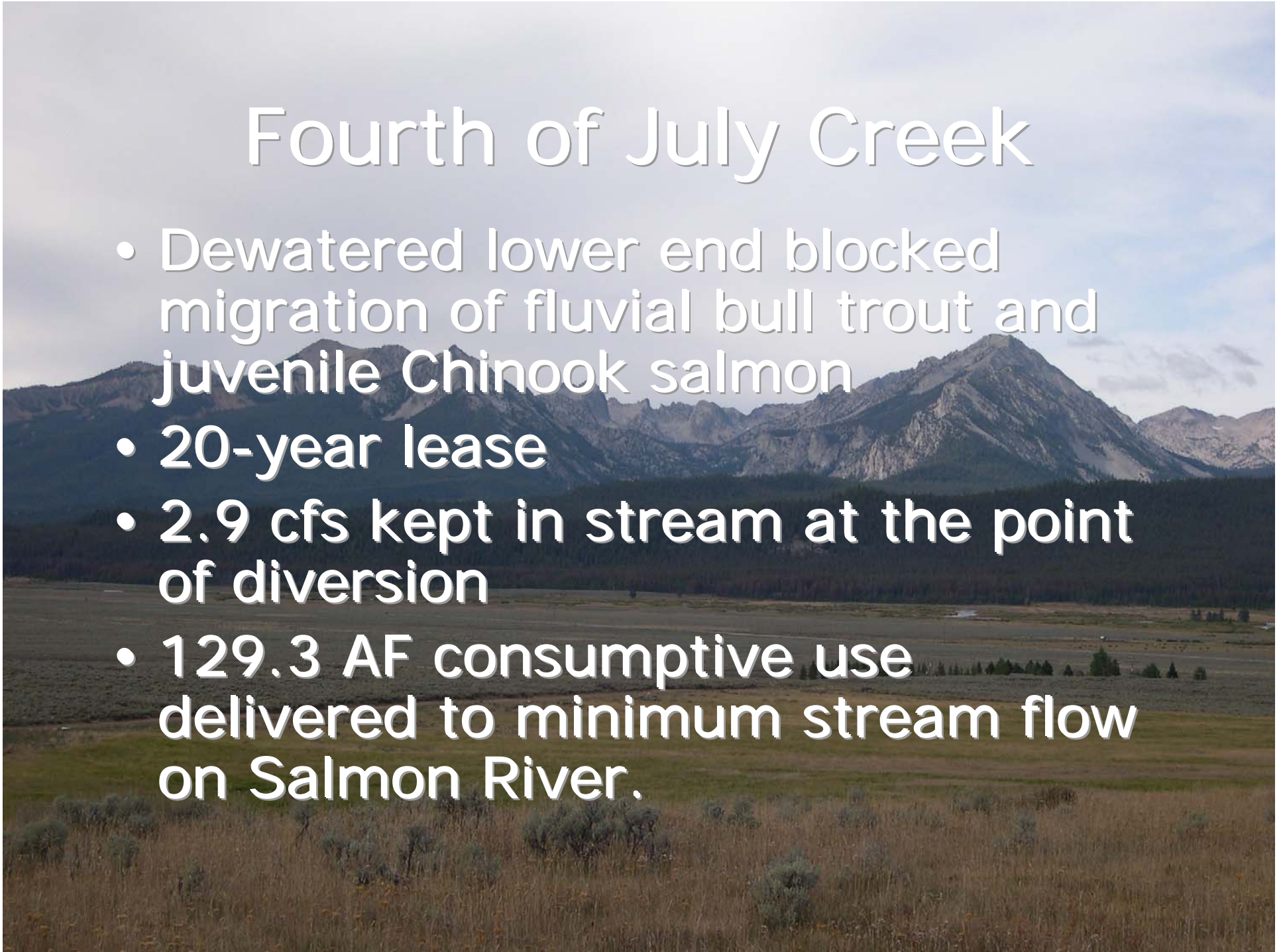
- Leases
 - Annual
 - Partial Season
- Agreements not to Divert
 - Changes in Point of Diversion
 - Exercised only when flow is needed

Leases

- Must dry up land
- Water leased into the Idaho Water Supply Bank
- Water rented out of Bank by IWRB for delivery to a Minimum Stream Flow Water Right
- Only consumptive use portion of water right can be delivered.
- Water delivered according to priority date of leased water
- Cannot injure junior users (carriage)
- Can be for portion of irrigation season

Fourth of July Creek

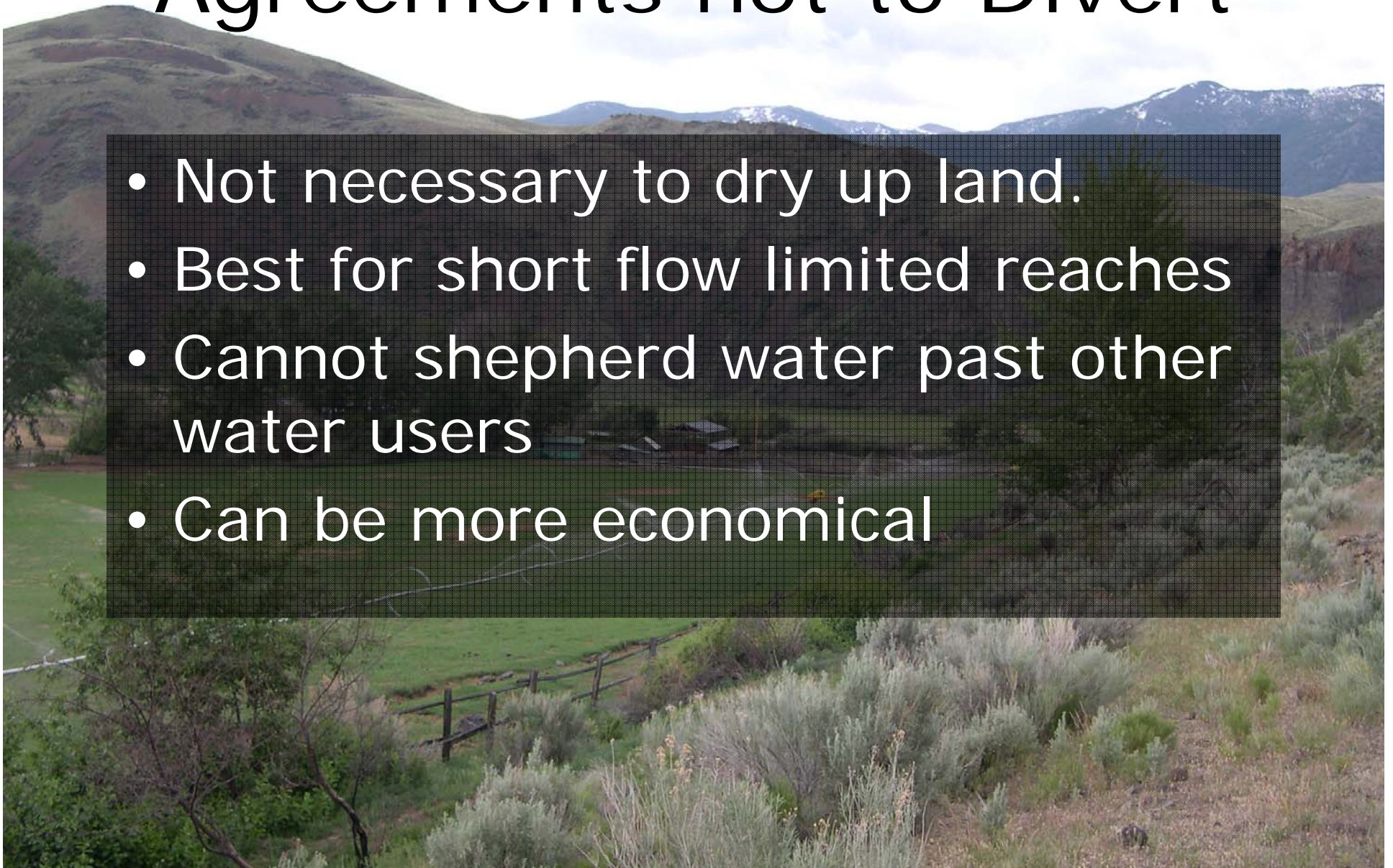
- Dewatered lower end blocked migration of fluvial bull trout and juvenile Chinook salmon
- 20-year lease
- 2.9 cfs kept in stream at the point of diversion
- 129.3 AF consumptive use delivered to minimum stream flow on Salmon River.





Agreements not to Divert

- Not necessary to dry up land.
- Best for short flow limited reaches
- Cannot shepherd water past other water users
- Can be more economical





Iron Creek

- One irrigator diverted all or almost all of the flow from the lower end of Iron Creek.
- Chinook salmon could not access the high quality spawning and rearing habitat.
- 20-year agreement not to divert 7.1 cfs from Iron Creek
- Point of diversion added to Salmon River
- WTP covers increased diversion costs



2004



Photo by Wendy Koons

4/9/2004 07:12



Lemhi River at L-6

- Large irrigation withdrawals at L-6 have led to passage barriers for Chinook salmon.
- Instream flow targets of 35 cfs (early season) and 25 cfs (late season) have been established.
- The Board holds permanent and annual agreements not to divert to maintain the flow targets throughout the irrigation season.



An aerial map of a region, likely in the western United States, showing a network of rivers and roads. The map is overlaid with a semi-transparent grid. Red lines and areas are scattered across the map, particularly along the river networks and in some urban areas. Blue lines and areas are also visible, primarily following the river courses. The background is a grayscale aerial photograph.

Implications for ESPA

- Agreements not to divert from tributaries cannot be delivered past any unfilled rights
- Lease/Rentals appear to be only option for moving rights long distances
- Cannot deliver any rented water past senior unfilled water rights
- Hard to administer small amounts of water when added to large volume systems
- May result in increased storage carryover

