

# ***Lake Sammamish Kokanee: Bringing Them Back from the Brink***



*A Presentation for the Rotary Club of Issaquah*

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# ***Topics***

- *Kokanee Work Group background*
- *Conservation goal*
- *Kokanee biology*
- *Kokanee population conditions*
- *Priorities*
- *Actions underway*

## ***Lake Sammamish Kokanee Work Group***

- *Local collaboration formed in 2007 to focus on kokanee conservation*
- *Includes each local government, state and federal agencies, non-governmental conservation groups, and citizens*
- *King County has chaired since its formation*



## ***Kokanee Conservation Goal***

*“Prevent the extinction and improve the health of the native kokanee population such that it is viable and self-sustaining, and then supports fishery opportunities”*



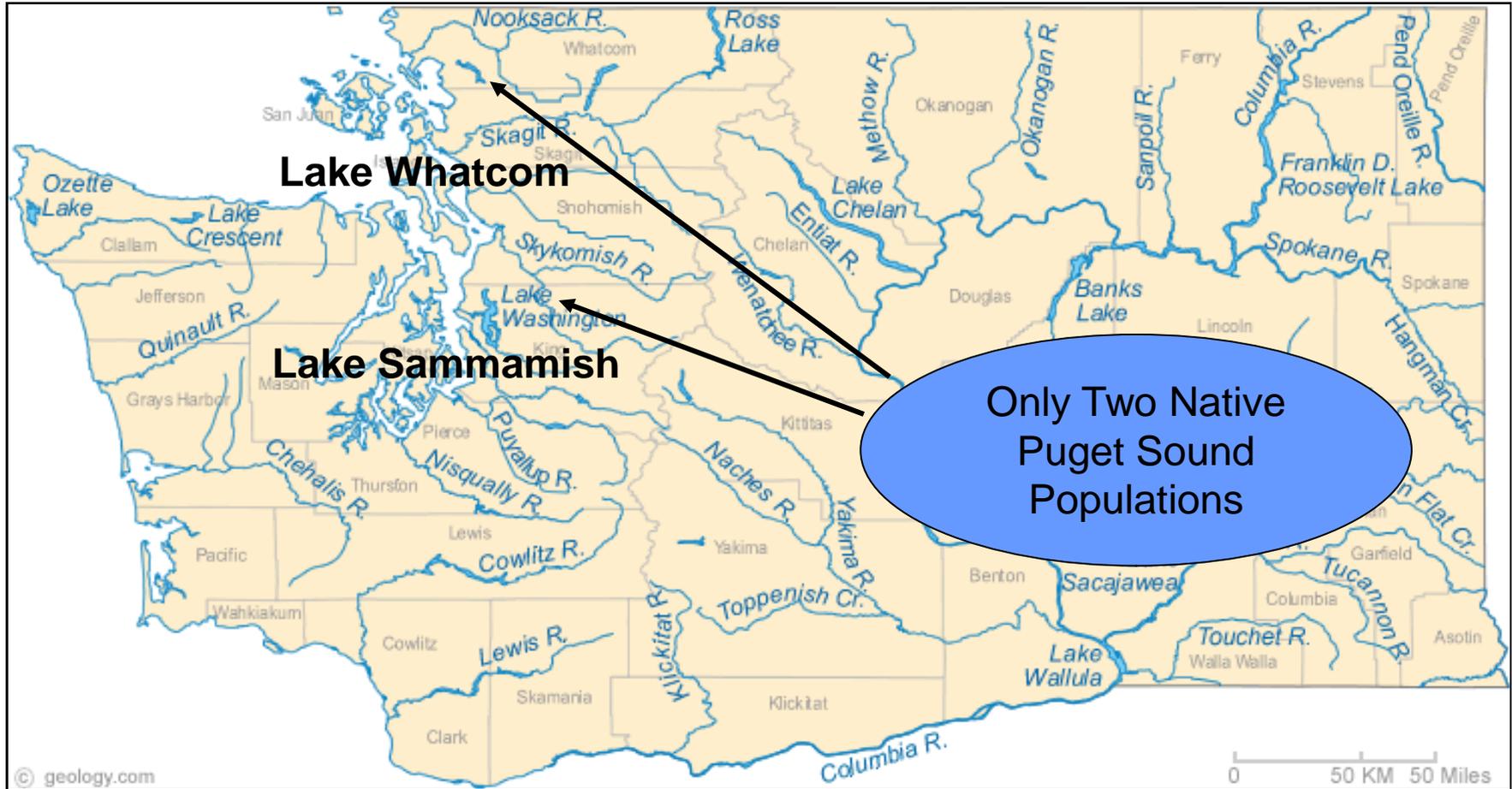
*Photo by Tim Rains, US Forest Service*

## ***Kokanee Biology***

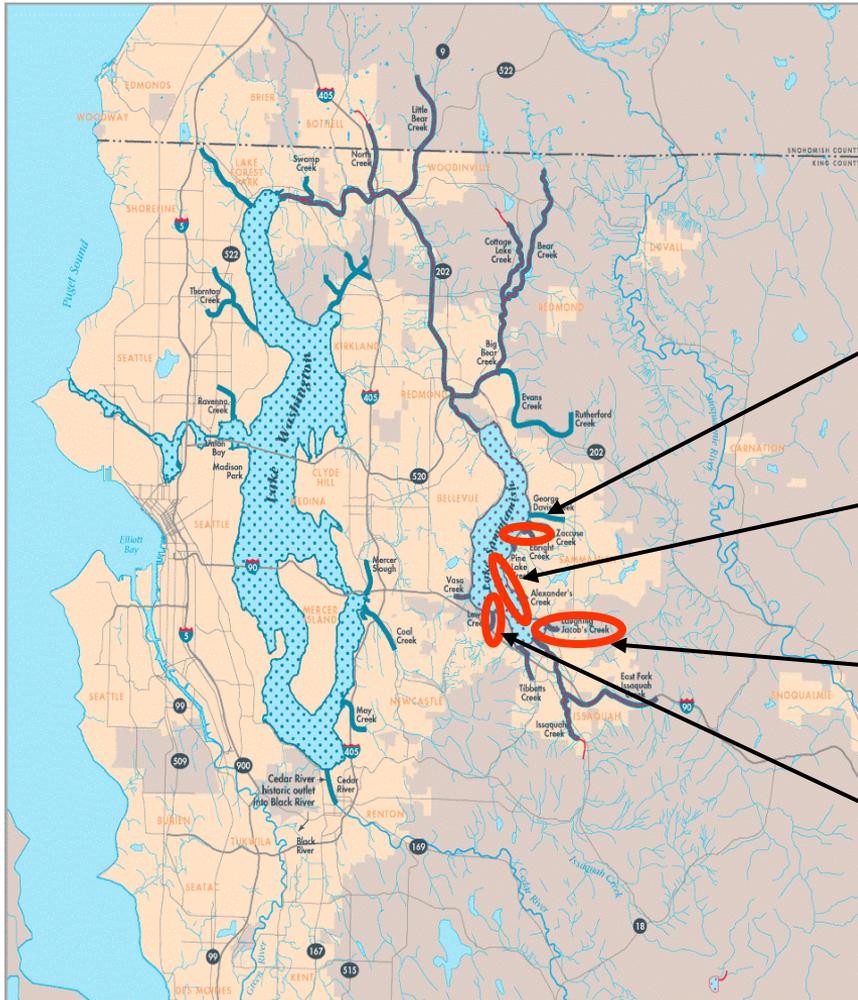
- *the landlocked, smaller form of sockeye salmon*
- *predominantly a four year life cycle*
- *lives in natal streams for only a few months after hatching*
- *rears entirely within Lake Sammamish before spawning migration back to natal streams*



# Current Regional Distribution



# Historic and Current Local Distribution



Main current\* areas of use:

● Ebright Creek

● Lake & shoreline

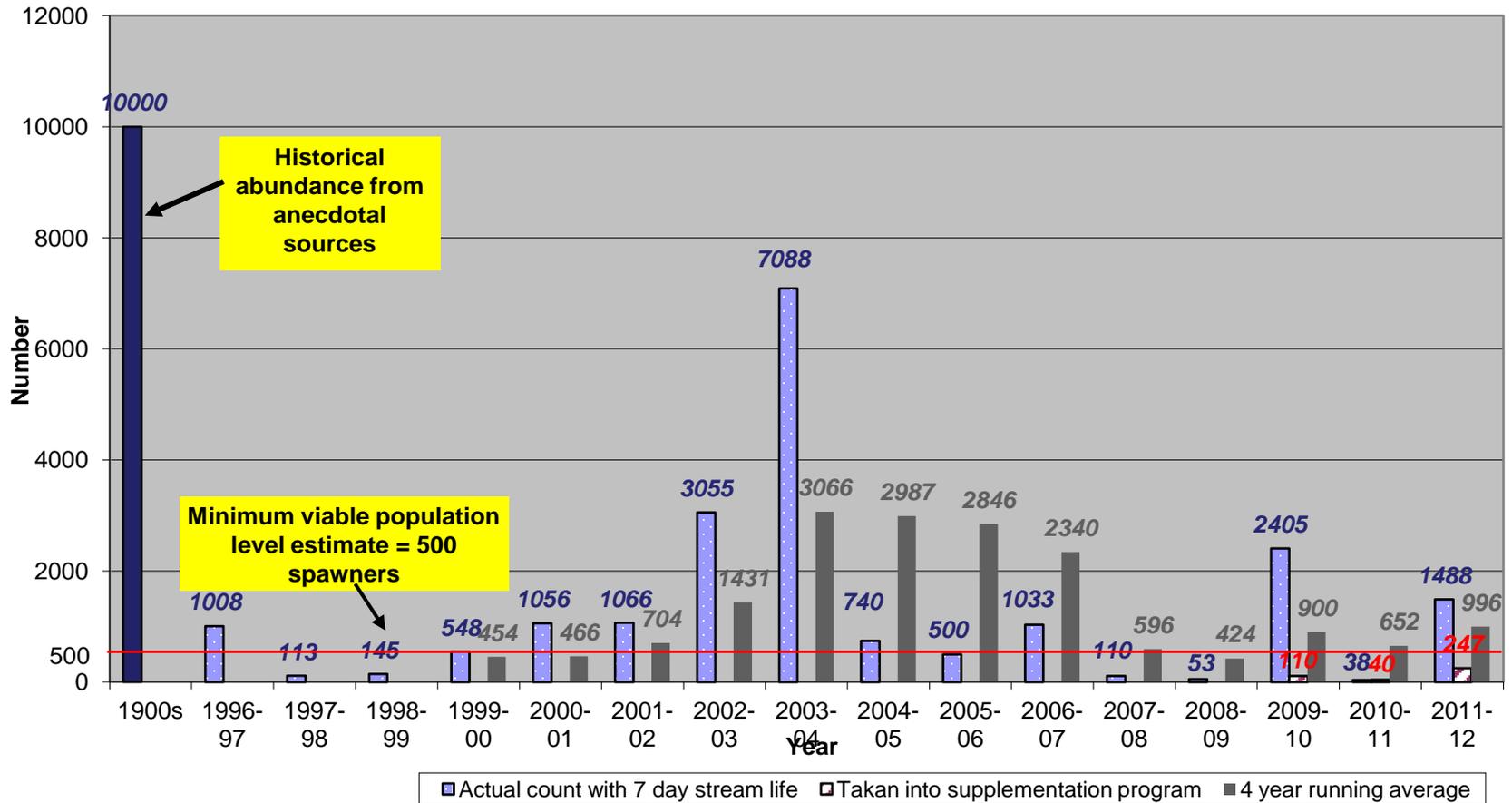
● Laughing Jacobs Creek

● Lewis Creek

\* Current quantity and quality of habitat may not be enough to sustain the population

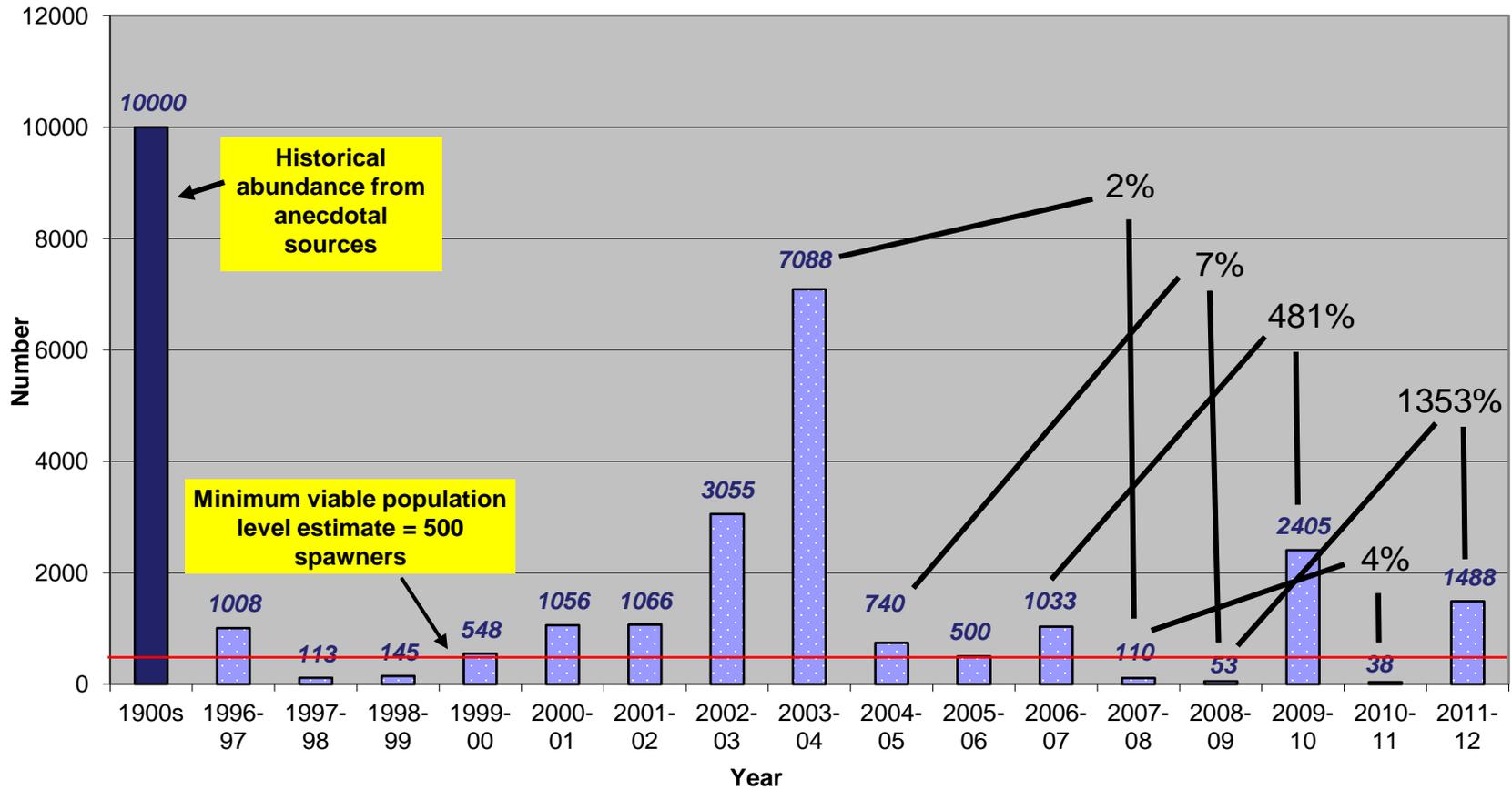
# Current Kokanee Abundance Trend

**Kokanee Spawner Counts: 1996/97 - 2011/12**  
 (numbers reflect assumed 7-day stream life for



# Current Kokanee Abundance Trend

**Recent Kokanee Return Percentages**  
(numbers reflect assumed 7-day stream life for spawners)



## ***Population Run Timing***

- *Early Run – August to October run timing; Issaquah Creek focused* **EXTIRPATED**
- *Middle Run – September to November run timing; Lake Washington and Sammamish River runs* **LIKELY EXTIRPATED**
- *Late Run – November to January run timing; Lake Sammamish runs except Issaquah (?)* **58 SPAWNERS IN 2010-2011**
- *Shoreline spawners* **UNKNOWN**

## ***2008 Kokanee Limiting Factors Study Findings***

- *Supplementation is needed immediately*
- *Preliminary signals of hydrologic impacts*
- *Potential for problems from predation*
- *Climate change could compound problems*
- *Must improve our data for effective management*
- *Lack of data necessitates a precautionary approach*

# ***Kokanee Conservation Priorities***

## *Tier 1:*

- *Implement aggressive artificial propagation program*
- *Correct habitat conditions causing mortality or limiting habitat access*
- *Protect existing intact habitat areas at near term risk of damage or conversion*

## *Tier 2:*

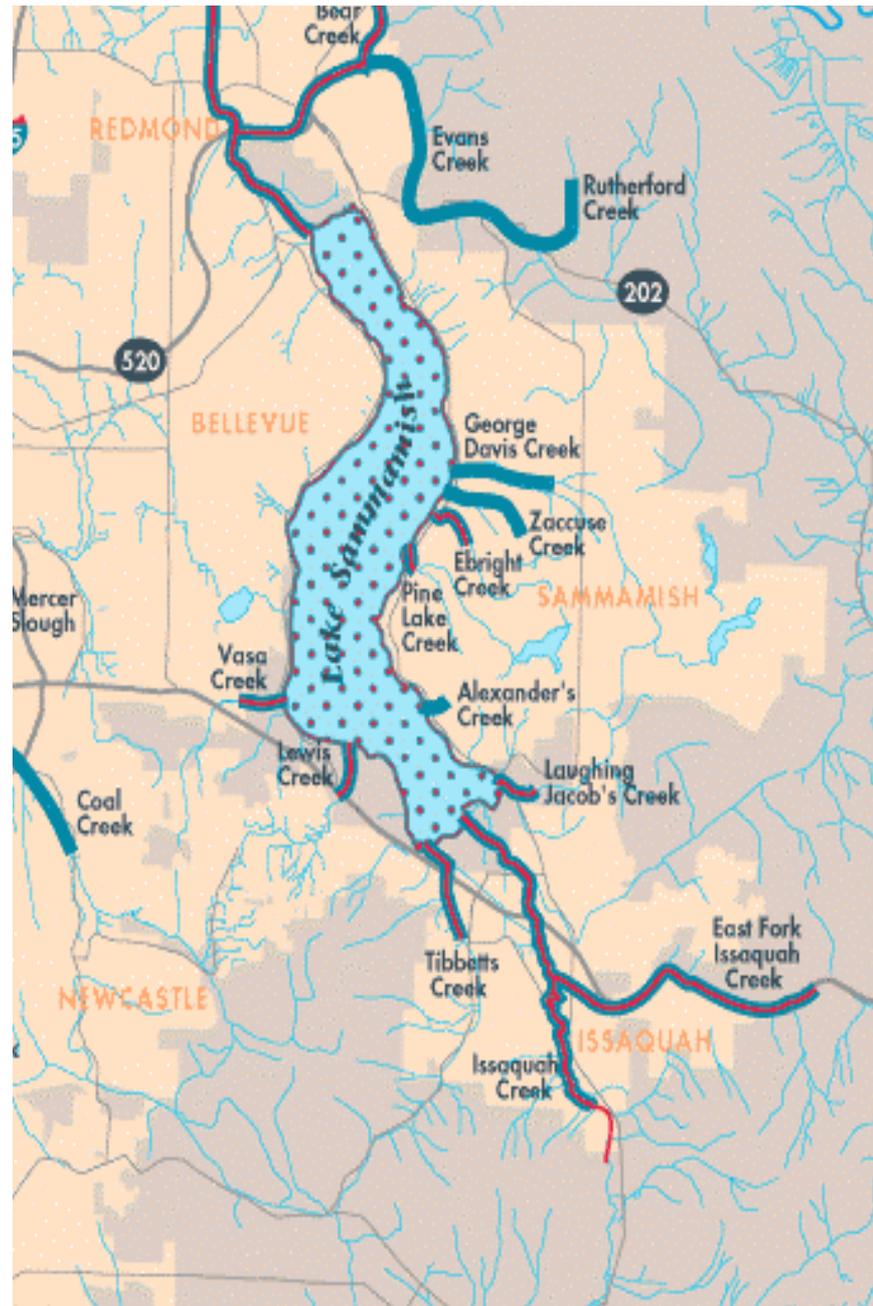
- *Do the science to improve certainty of actions*
- *Protect, improve or restore habitat*
- *Build and maintain public awareness and support*

# ***Supplementation Program***

- *Underway with third successful year!*
- *Funding from USFWS, WDFW, King County, Sammamish, Issaquah, and Redmond*
- *2010: @25,000 marked fry*
- *2011: @14,500 marked fry*
- *2012: @64,000 marked fry*
- *Program based at Issaquah Creek hatchery*
- *Employing unique rearing techniques to help imprinting*
- *First returns could be seen this coming fall!*



***Protect,  
Reconnect,  
Restore  
Habitat!***



## ***Protect, Reconnect, Restore Habitat!***

- *11 priority near term projects*
- *First project completed will be the Ebright culvert (summer 2012), ¼ mile of great spawning habitat, major private funding*
- *Making progress on Zaccuse Creek culverts and restoration*
- *Grant proposals for Lewis Creek projects*
- *Working with the Watershed Council to get funding*
- *Long term: major project to fix the I-90 culvert blocking access to upper Lewis Creek*

## ***Successful Fundraiser***

- *First ever fundraiser held on March 23, 2012*
- *Sponsored by the Coho Café in Issaquah*
- *Organized by Heather VanDorn from Coho Café*
- *Raised almost \$10K, including \$5K from the Snoqualmie Tribe*
- *Funds will go toward high priority conservation actions*

A large group of kokanee fish swimming in a stream. The fish are silvery with a pinkish-red stripe along their sides. They are swimming in a shallow, clear stream with a sandy and rocky bottom. The water is clear, and the fish are densely packed in some areas.

## ***Looking Ahead...***

- ***Build and maintain community support!***
- ***Implement our priority supplementation and habitat projects***
- ***Find new ways to fund our work***
- ***Reintroduce kokanee to reconnected and restored streams***

*Questions?*