

Conservation of Lake Sammamish Kokanee

*A Briefing for the Physical Environment Committee of the
Metropolitan King County Council*

*David St. John – King County Department of Natural Resources and Parks
david.st.john@kingcounty.gov*

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Topics Addressed

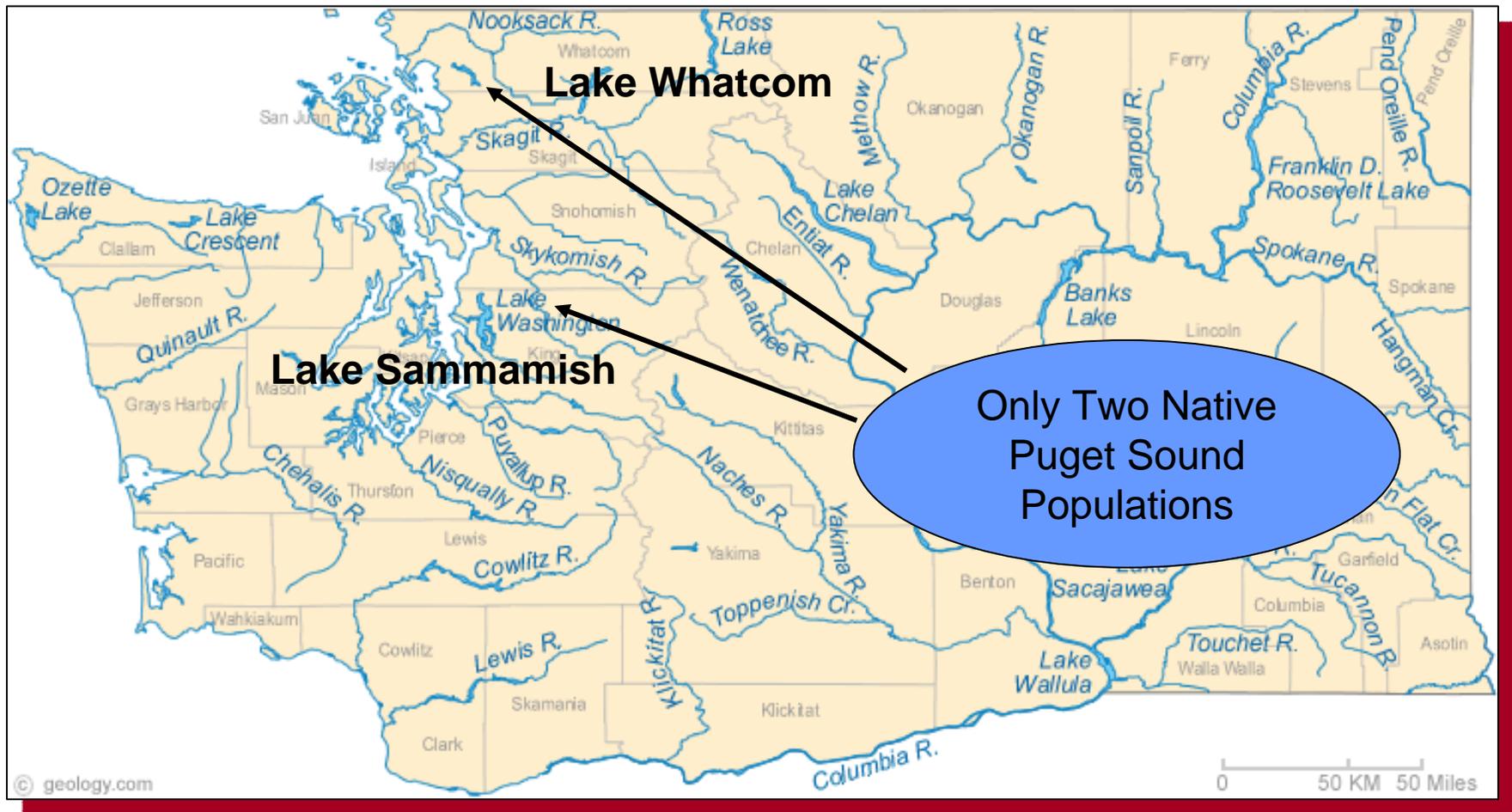
- *Biological and Jurisdictional Context*
- *Historic and Current Status of Native Kokanee*
- *Local Collaboration*
- *Goals and Priorities for Conservation*
- *Current Actions*

Lake Sammamish Kokanee

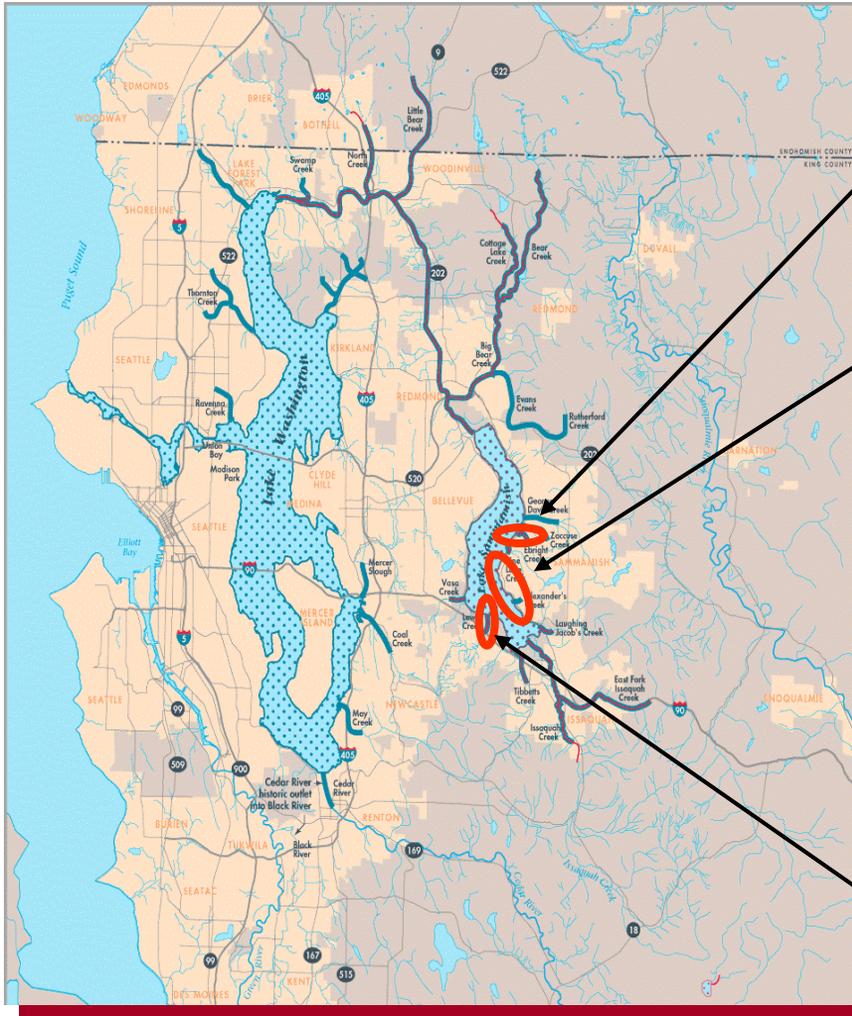
- *the landlocked, smaller form of sockeye salmon*
- *predominantly a four year life cycle*
- *lives in natal streams for only a few months after hatching*
- *rears entirely within Lake Sammamish before spawning migration back to natal streams*



Current Regional Distribution



Historic and Current Local Distribution



Ebright Creek

Lake & shoreline

HISTORIC AND CURRENT KOKANEE DISTRIBUTION in the Lake Washington Basin

- Historic Kokanee Distribution in Stream or River
- Historic Kokanee Distribution in Lake
- Current Kokanee Distribution in Stream or River
- Current Kokanee Distribution in Lake
- Road
- River/Stream
- Lake
- Incorporated Area
- Unincorporated King County



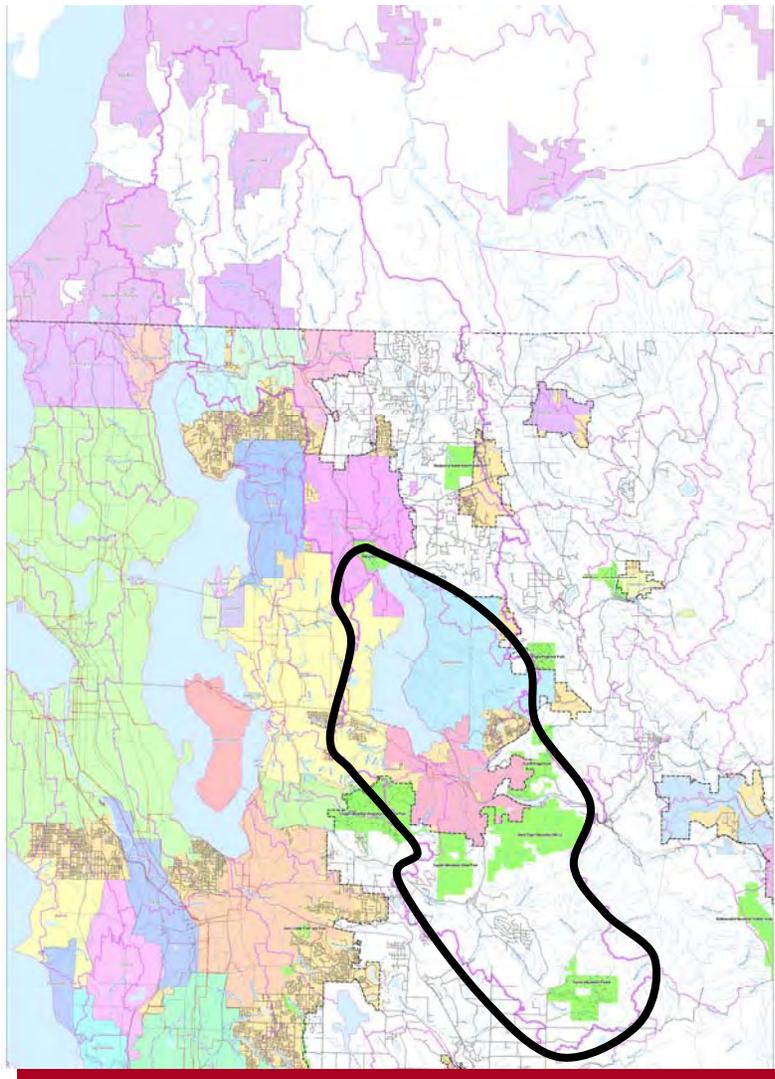
April 2002
Produced by:
GIS & Visual Communications Unit, WLR
File Name: 0204kokHISTandEXIST.ai WGC



Sources: King County WRIA 8 Kokanee Distribution Map, May 2001; Historic and Current Status of Kokanee in the Lake Washington Basin, March 2000.

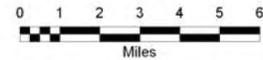
Lewis Creek

Lake Sammamish Watershed Local Jurisdictions



- Potential Annexation Areas
- Basin Boundary
- Lake Samm/Samm River Basin
- Water Body
- Stream
- County Boundary
- Urban Growth Boundary
- Major Sewer Lines
- KC Maintained Roads
- Other Major Roads
- King County Trails

City information from October 4, 2008.
Potential Annexation Areas information from September 6, 2008.



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Sammamish Watershed Local Jurisdictions

Jurisdiction	Acres	%age of w'shed	Spawning Aggregations*
Bellevue (UGA)	4,550.37	7.87	2 (L, LS)
Issaquah (UGA)	7,268.32	12.57	2 (L, LS)
King County	36,278.68	62.75	1 (LS)
Redmond (UGA)	892.96	1.54	1 (LS)
Sammamish (UGA)	8,825.90	15.27	2 (E, LS)

* - E: Ebright Creek L: Lewis Creek LS: lakeshore

How Things Have Changed

Historic population:

- *numbered in the thousands*
- *supported Snoqualmie Tribe subsistence fishery*
- *supported recreational fishery*

Current population:

- *numbers fewer than one hundred*
- *catching kokanee is prohibited*

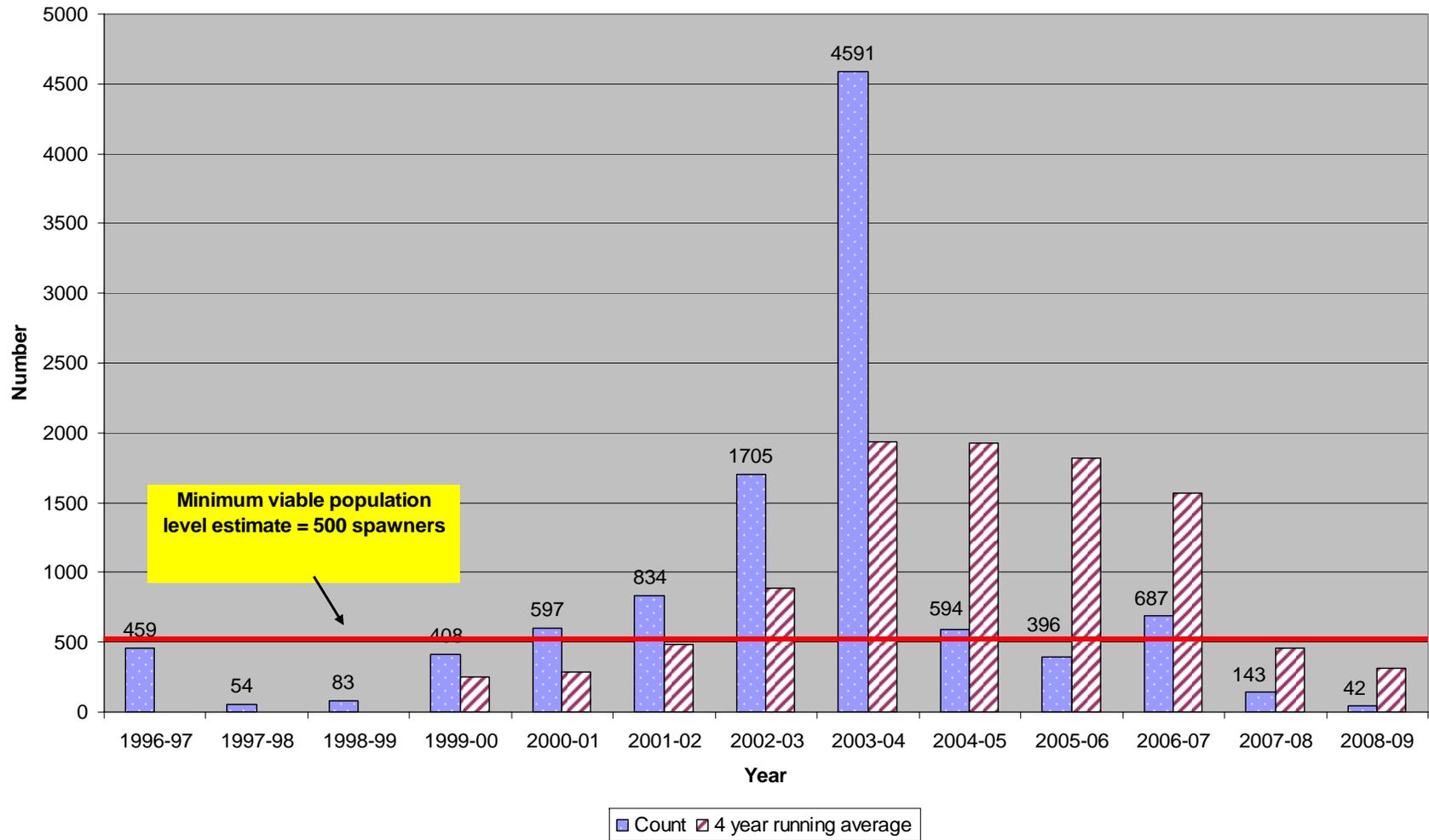


How Things Have Changed

- *Early Run – August timing; Issaquah Creek focused* **EXTIRPATED**
- *Middle Run – September to November run timing; Lake Washington and Sammamish River tribs* **LIKELY EXTIRPATED**
- *Late Run – November to January run timing; Lake Sammamish tribs except Issaquah(?)* **<100 FISH**
- *Shoreline spawners* **UNKNOWN**

Current Kokanee Abundance Trend

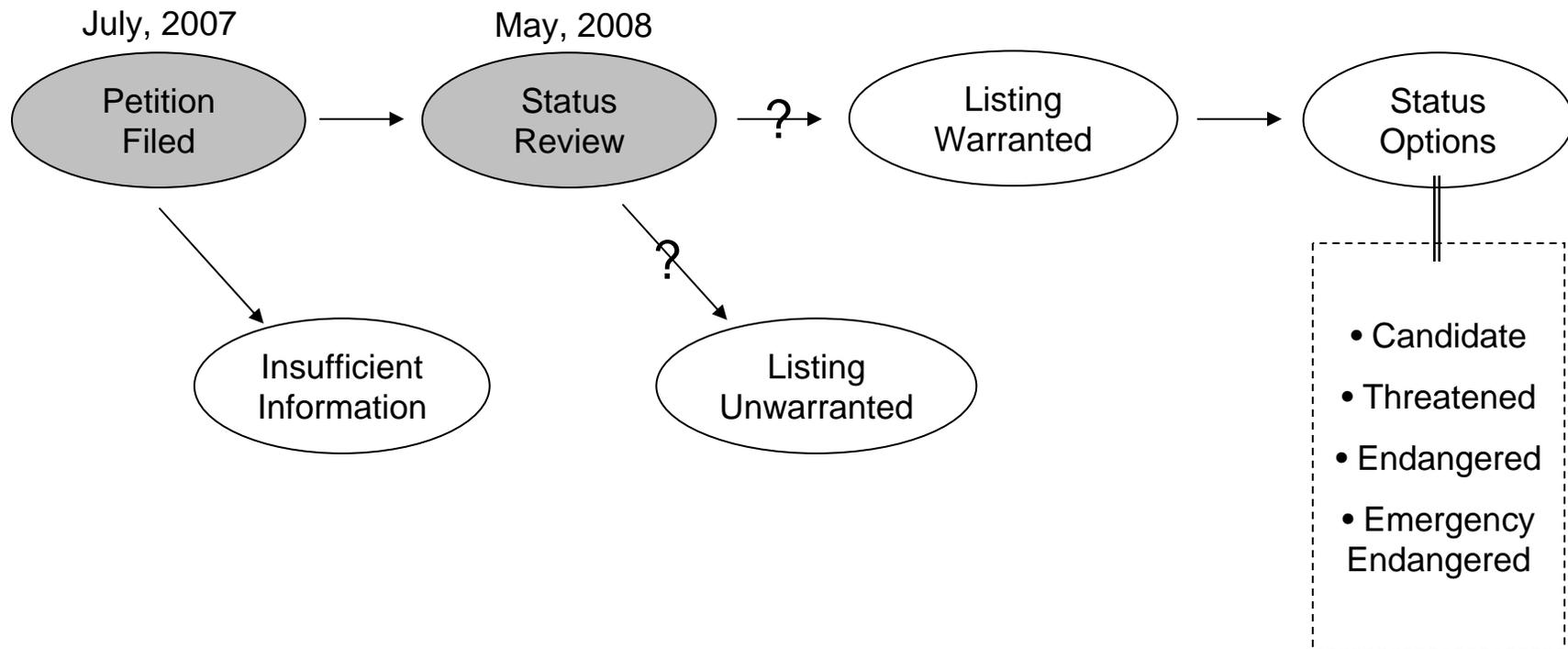
Kokanee Spanwer Counts



Kokanee and the Endangered Species Act

- *listing petition sent to US Fish and Wildlife in July, 2007*
- *submitted by Trout Unlimited, King County Executive Sims, City of Issaquah Mayor Frisinger, Snoqualmie Tribe, People for Puget Sound, Save Lake Sammamish, and Wild Fish Conservancy*
- *focused on all remaining native Lake Sammamish kokanee*
- *abundance, distribution, diversity and productivity reduced*
- *petition led to current formal status review*

Endangered Species Act Listing Process



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*
- *Activities very constrained by funding limitations*



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*

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 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*

Immediate Conservation Focus

- *WDFW developing 2009 supplementation program*
- *KWG submitting project application to KCD for habitat project feasibility analysis*
- *KWG providing input to Shoreline Master Program updates*
- *Volunteer development of educational brochure*
- *Tagging study on Lake Sammamish*
- *Complete long term conservation strategy*
- *Increase access to funding*

Immediate Conservation Actions - Supplementation



Funding Kokanee Conservation

- *No dedicated source of project funding*
- *WDFW is funding supplementation while taking agency-level cuts*
- *KWG time is in-kind from staff and volunteer*
- *\$50K from USFWS for tagging study*
- *ESA listing could change the availability of federal and state funding*

King County's Current Conservation Actions

- *Chairing and supporting the Kokanee Work Group*
- *Stewardship – future habitat improvements as part of the East Lake Sammamish Trail Master Plan*
- *Stewardship - land use and stormwater management in unincorporated areas of the watershed*
- *Implementing current kokanee tagging study*
- *Spawner survey video: go to*
<http://www.kingcounty.gov>
and search for “kokanee video”



Presentation Summary

- *Lake Sammamish Kokanee are in bad shape*
- *Local collaboration for conservation is happening*
- *Need to advance immediate actions*
- *Need a long term strategy and funding for recovery*

