

Conservation of Lake Sammamish Kokanee

A Briefing for the City of Bellevue Planning Commission

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Topics Addressed

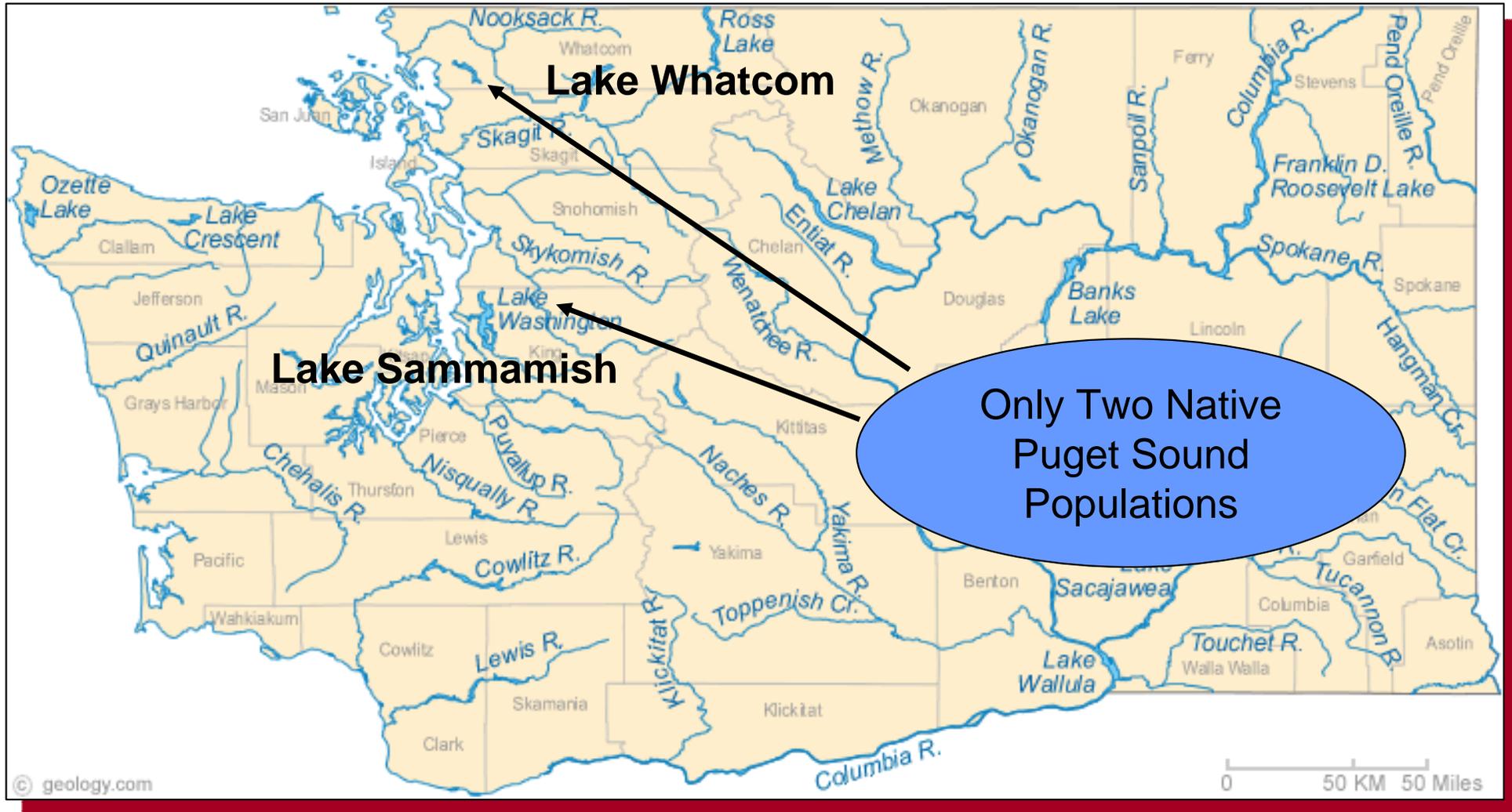
- *Biological and Jurisdictional Context*
- *Historic and Current Status of Native Kokanee*
- *Local Collaboration*
- *Goals and Priorities for Conservation*
- *Current Actions*

Lake Sammamish Kokanee

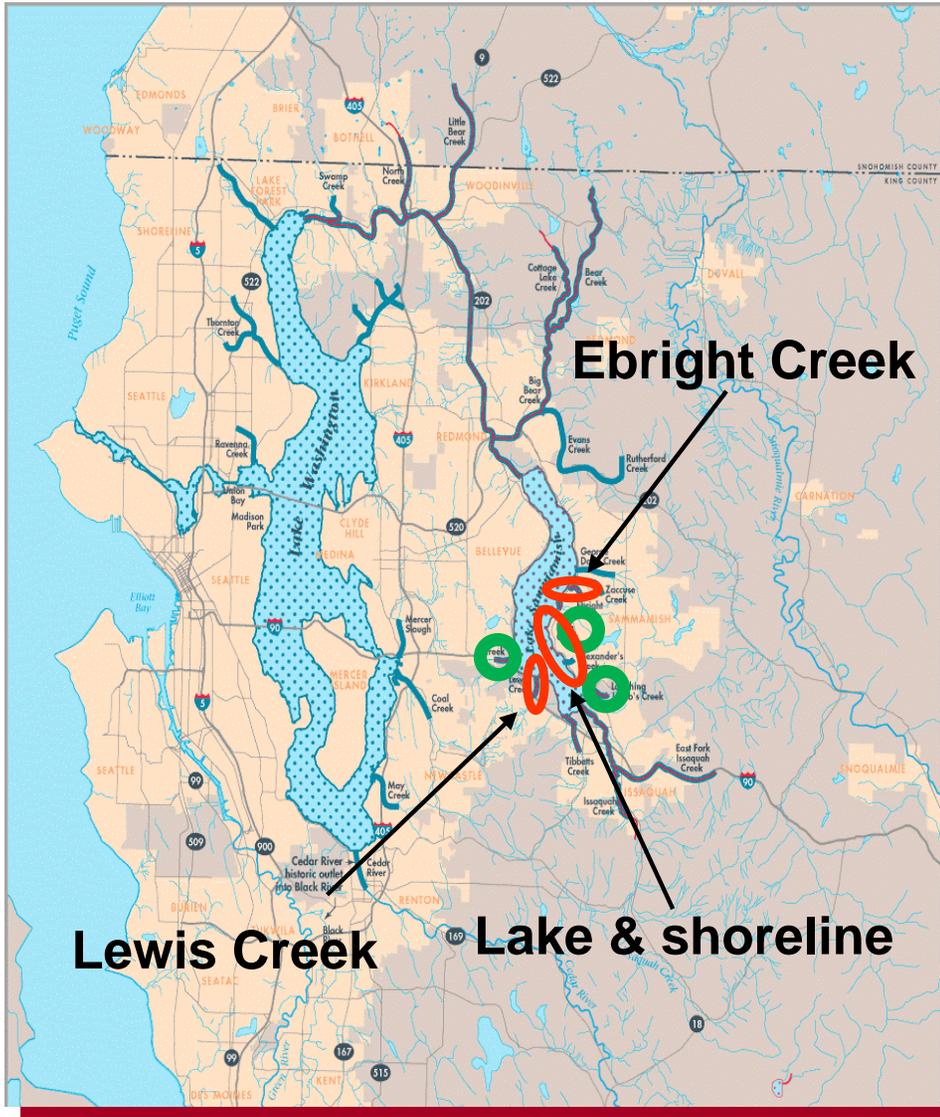
- *the landlocked, smaller form of sockeye salmon*
- *predominantly a four year life cycle*
- *lives in natal streams for only a few months after hatching*
- *rears entirely within Lake Sammamish before spawning migration back to natal streams*



Current Regional Distribution

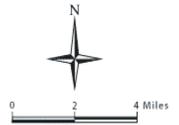


Historic and Current Local Distribution



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



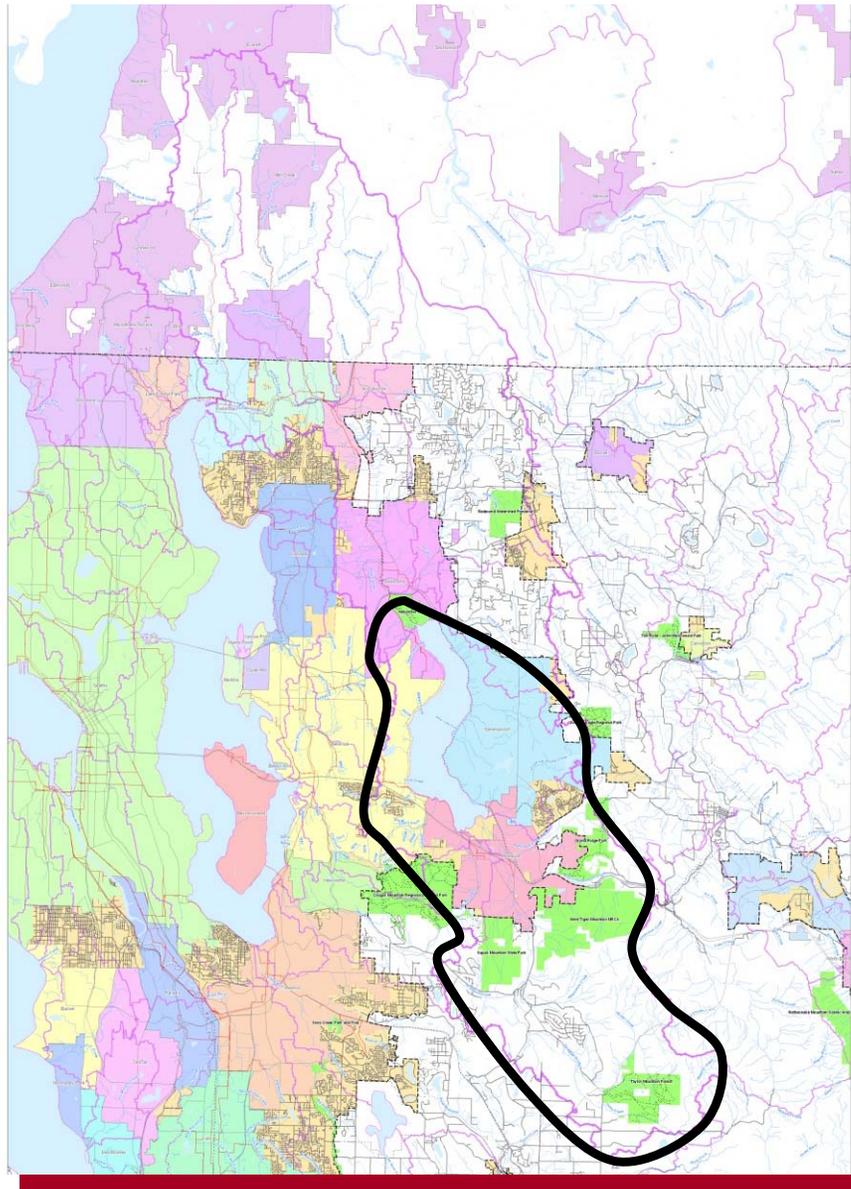
April 2002
Produced by:
GIS & Visual Communications Unit, WLR
File Name: 0204kokHISTandEXIST.ai WGC



Sources: King County WR1A 8 Kokanee Distribution Map, May 2001; Historic and Current Status of Kokanee in the Lake Washington Basin, March 2000.

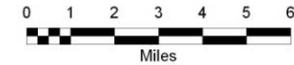
**Periodic usage:
Vasa Creek,
Laughing Jacobs
Creek, and
Pine Lake Creek**

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, 2006
Potential Annexation Areas information from September 9, 2006



Sammamish Watershed Local Jurisdictions

Jurisdiction	Acres	%age of w'shed	Main 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	2 (E**, 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

** - East Lake Sammamish Trail crossing

How Things Have Changed



Historic population:

- *numbered in the (tens of) thousands*
- *supported Snoqualmie Tribe subsistence fishery*
- *supported recreational fishery*

Current population:

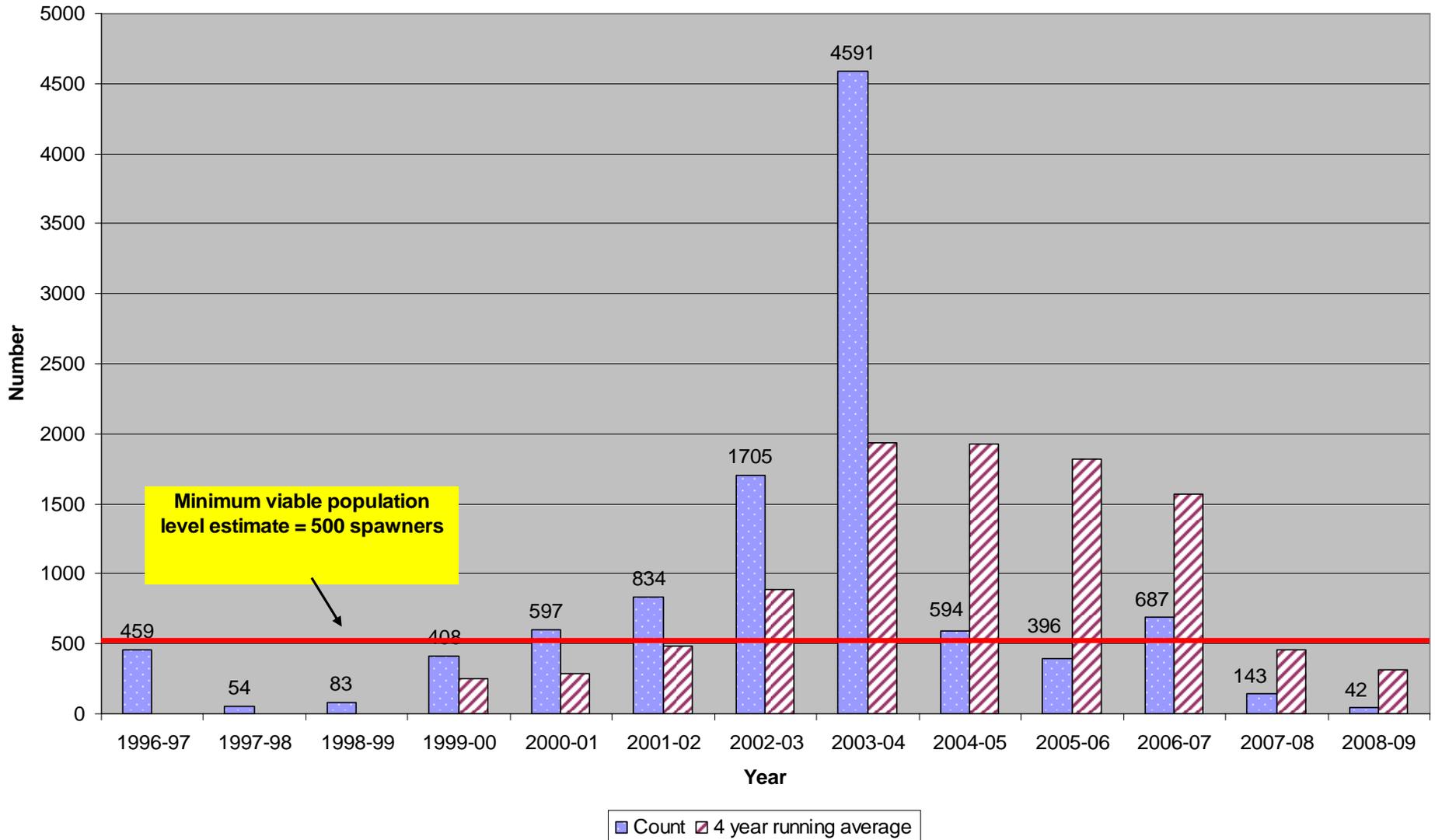
- *last run was 42 fish*
- *catching kokanee is prohibited*

How Things Have Changed

- *Early Run – August to September run 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 (?)* **42 SPAWNERS IN 2008**
- *Shoreline spawners* **UNKNOWN**

Current Kokanee Abundance Trend

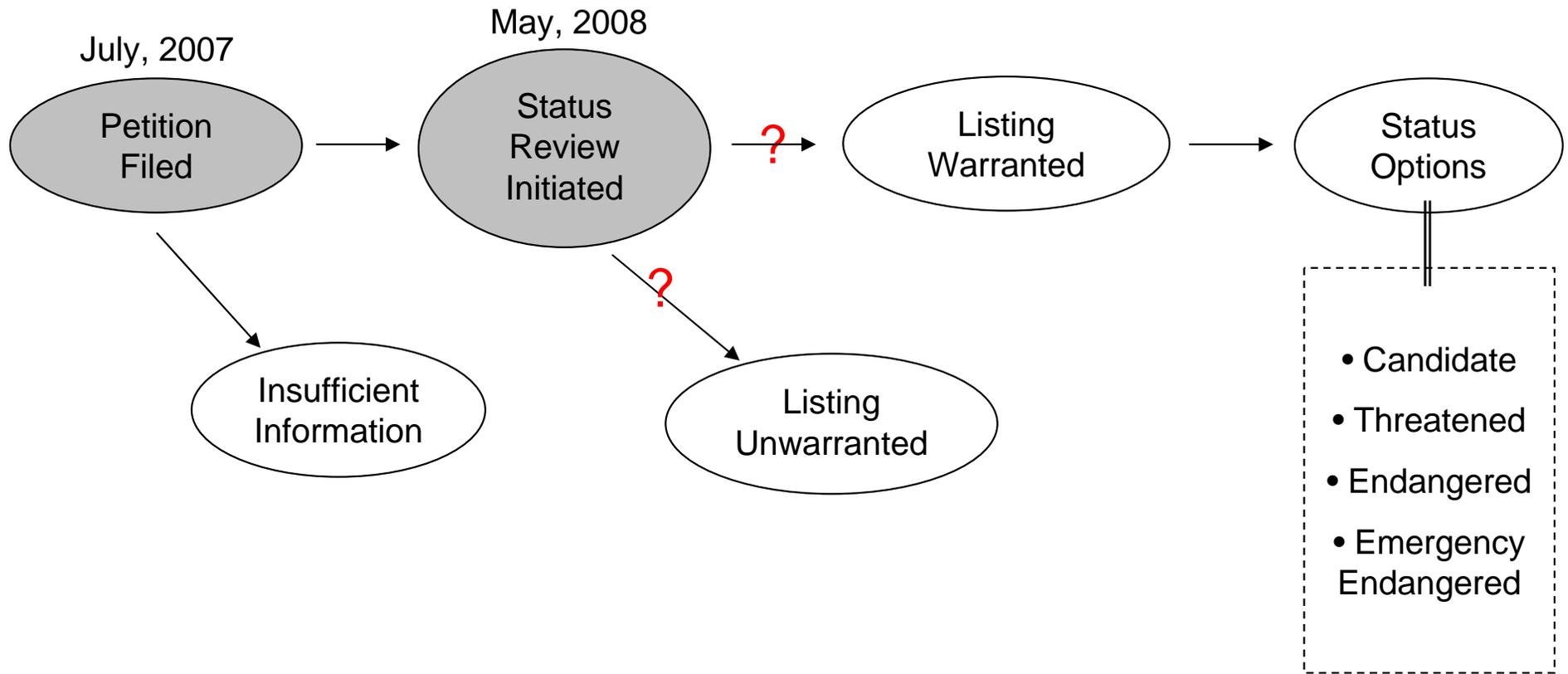
Kokanee Spanwer Counts



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

Lake Sammamish Kokanee Work Group, 2009

“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*

Implications for Habitat Work

- *Set habitat priorities based on current fish use and what a healthy kokanee population will need*
- *Fix passage barriers*
- *Work with individual landowners to improve habitat conditions*
- *Use the right “tool” for the job – restoration projects, incentives, regulations, outreach and education*
- *Employ Low Impact Development techniques in (re)development projects*

Immediate Conservation Focus

- *Implement 2009 supplementation program*
- *Implement restoration habitat project feasibility assessment (KCD grant)*
- *Provide input to Shoreline Master Program updates*
- *Distribute new educational brochure*
- *Continue tagging study on Lake Sammamish*
- *Complete long term conservation strategy*
- *Increase access to funding*

Funding Kokanee Conservation

- *No dedicated source of project funding*
- *KWG time is in-kind from staff and citizen volunteers*
- *USFWS, WDFW and jurisdictions funding \$100K supplementation program*
- *\$45K from KCD for project feasibility assessment*
- *\$50K from USFWS for tagging study*
- *ESA listing could increase the availability of federal and state funding*

Presentation Summary

- *Lake Sammamish kokanee are in bad shape*
- *Local collaboration for conservation is happening*
- *Need to protect and restore healthy stream, shoreline and lake habitat*
- *Need a long term strategy and funding for recovery based in science*

