


Zackuse Creek Fish Passage and Stream Restoration Project

PUBLIC OPEN HOUSE

MARCH 29, 2017



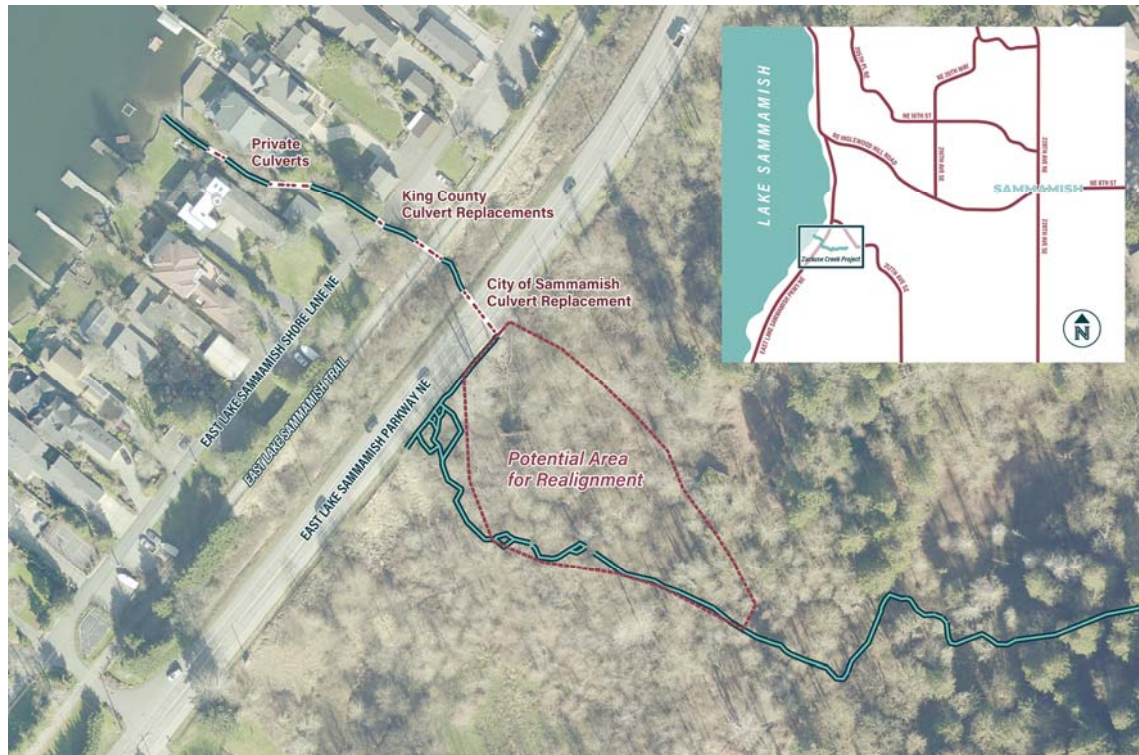
Project Goals

- Improve fishery resources by increasing access to habitat for Lake Sammamish Kokanee and other salmonids
 - Restore cultural resources and tribal connection to local streams and lakes
 - Successfully partner with local residents, governments, and tribes
- 

Project Objectives

- Replace the East Lake Sammamish Parkway (ELSP) culvert with a fish passable culvert
- Realign and regrade Zackuse Creek upstream of ELSP
- Provide outreach opportunities with local community
- Coordinate with King County on the downstream culvert projects

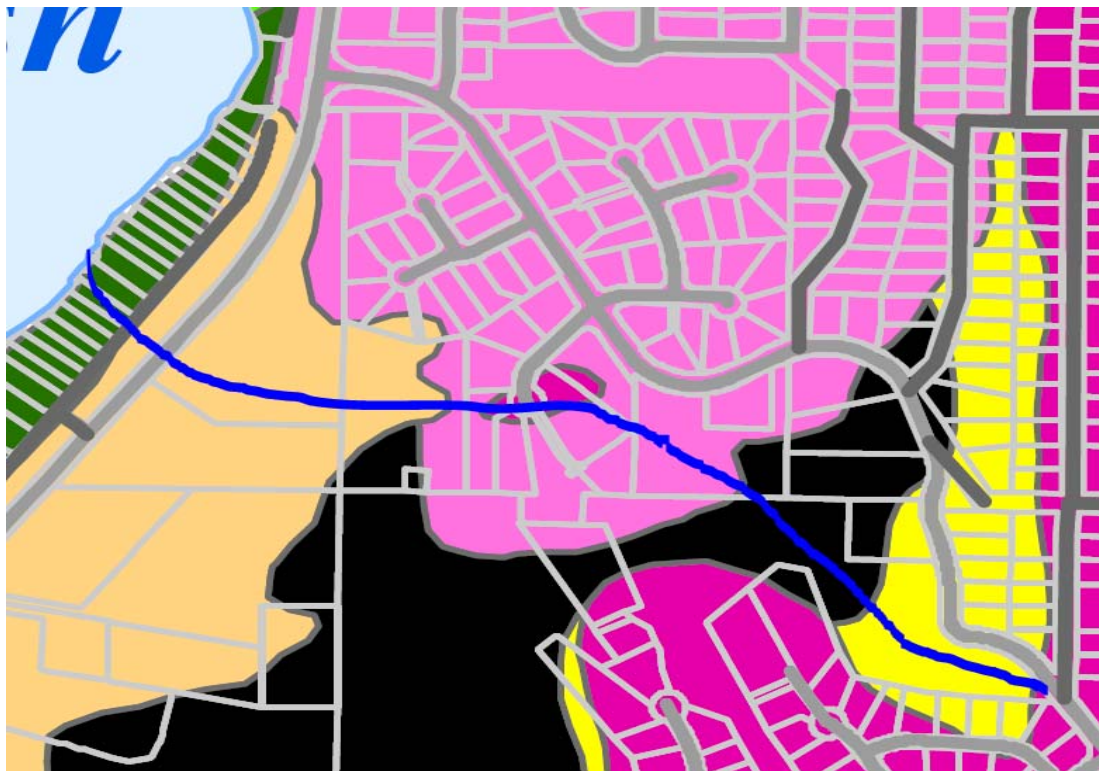
Zackuse Creek – Project Map



Zackuse Creek Characteristics

- Cultural History
- Geology
- Hydrology
- Topography
- Land Use

Zackuse Creek Geology



Geological Map Units
(Scale = 1:24,000)

- Qal - Alluvium
- Qc - Colluvium
- Qf - Fan deposits
- Qls - Landslide Deposits
- Qmw - Deposits of Mass Wasting Processes
- Qal - Older alluvium
- Qp - Peat deposits
- Qpf - Undifferentiated Sedimentary Deposits Pre-Fraser Glaciation
- Qpf(f) - Fine Grained Deposits Pre-Fraser Glaciation (Generally Silt and Clay)
- Qtb - Transitional Beds (Generally Fine Grained Deposits)
- Qva - Advance Outwash Deposits
- Qvi - Ice Contact Deposits
- Qvr - Recessional Outwash Deposits
- Qvt - Till
- Qw - Wetland Deposits
- Qyal - Younger alluvium
- Tb - Blakeley Formation (Sandstone)
- Tsc - Sandstone and Conglomerate

Zackuse Creek Photos

Downstream of East Lake Sammamish Shore Lane



Zackuse Creek Photos

Culvert at East Lake Sammamish Shore Lane



Zackuse Creek Photos

Downstream of East Lake Sammamish Trail Culvert



Zackuse Creek Photos

Downstream of East Lake Sammamish Parkway



Zackuse Creek Photos

Upstream of Culvert at East Lake Sammamish Parkway



Zackuse Creek Photos

Upstream of East Lake Sammamish Parkway (Ditch)



Zackuse Creek Photos

Upstream of ditch (Pereyra property)



Zackuse Creek Photos

400-ft upstream of ELSP culvert (Pereyra property)



Zackuse Creek Photos

600-ft upstream of ELSP culvert (Pereyra property)



Zackuse Creek Photos

800-ft upstream of ELSP culvert (Headcut)



Zackuse Creek Photos

800-ft upstream of ELSP culvert



Zackuse Creek Photos

Outlet of culvert at 206th Ave NE and upstream culvert



Zackuse Creek Photos

200-ft upstream of 206th Ave NE (north embankment slide 3/25/17)



Zackuse Creek Photos

Upstream 206th Ave NE



Zackuse Creek Photos

Channel at Louis Thompson Hill Road and 210th PI NE (retaining wall slide)



11/15/15



12/14/16

Zackuse Creek Photos

Zackuse Creek Outfalls



Zackuse Creek Photos

Zackuse Creek Outfalls



Zackuse Creek Photos

Zackuse Creek Outfalls



Fish Passage Culvert Design


- Conducted field study and measurements of existing system
- Reviewed previous work and recommendations for culvert replacement size
- Hosted field meeting with WDFW and Snoqualmie and Muckleshoot tribes
- Agencies and tribes agreed on culvert design methodology discussed in field
- A culvert width of 12 feet proposed
- Next step – culvert construction methods

Stream Restoration Design

- Design a stable channel to retain spawning size gravel at design flows
- Introduce roughness to reduce velocity, direct flows, and provide habitat
- Review channel bed form options to reduce gradient (ie, chute/pool/run type sequence)
- Evaluate optimal tie in points for stream re-alignment to allow maximum habitat restoration
- Next step – stream restoration layout and design details

Project Schedule

February/Ongoing	Coordinate with Stakeholders and Partners
March 29, 2017	Public Open House 1
April 2017	Preliminary design completed and submit for permits
May 1, 2017	Update to Sammamish City Council
November 2017	Public Open House 2
February 2018	Final Design and Permitting Completed
March 2018	Construction Advertisement and Bid Award
July – October 2018	Construction
November 2018	Project Completed



Project Partners

- City of Sammamish
- King County
- Kokanee Work Group
- Snoqualmie Tribe
- Trout Unlimited
- Private Property Owners



Questions
