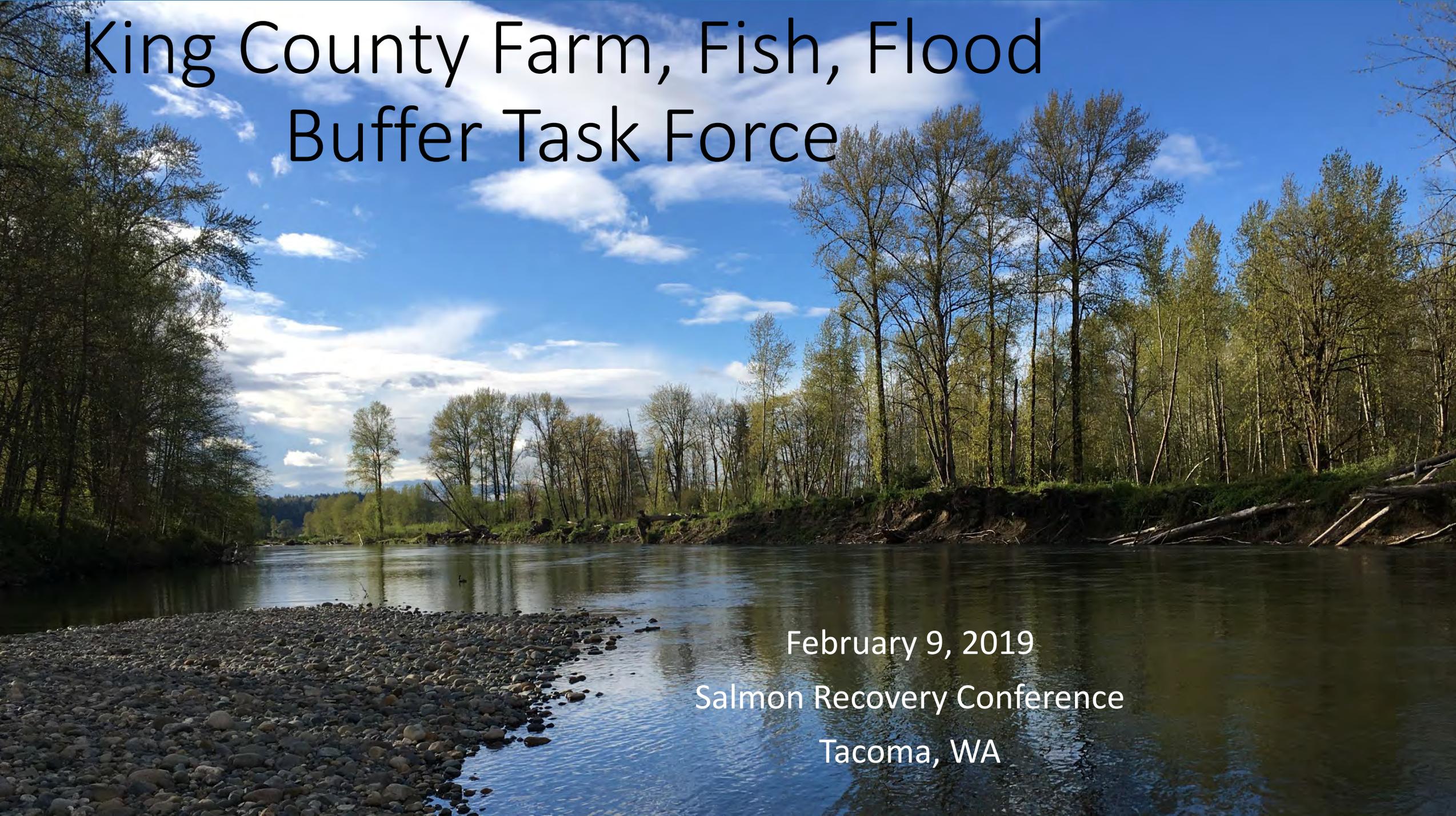


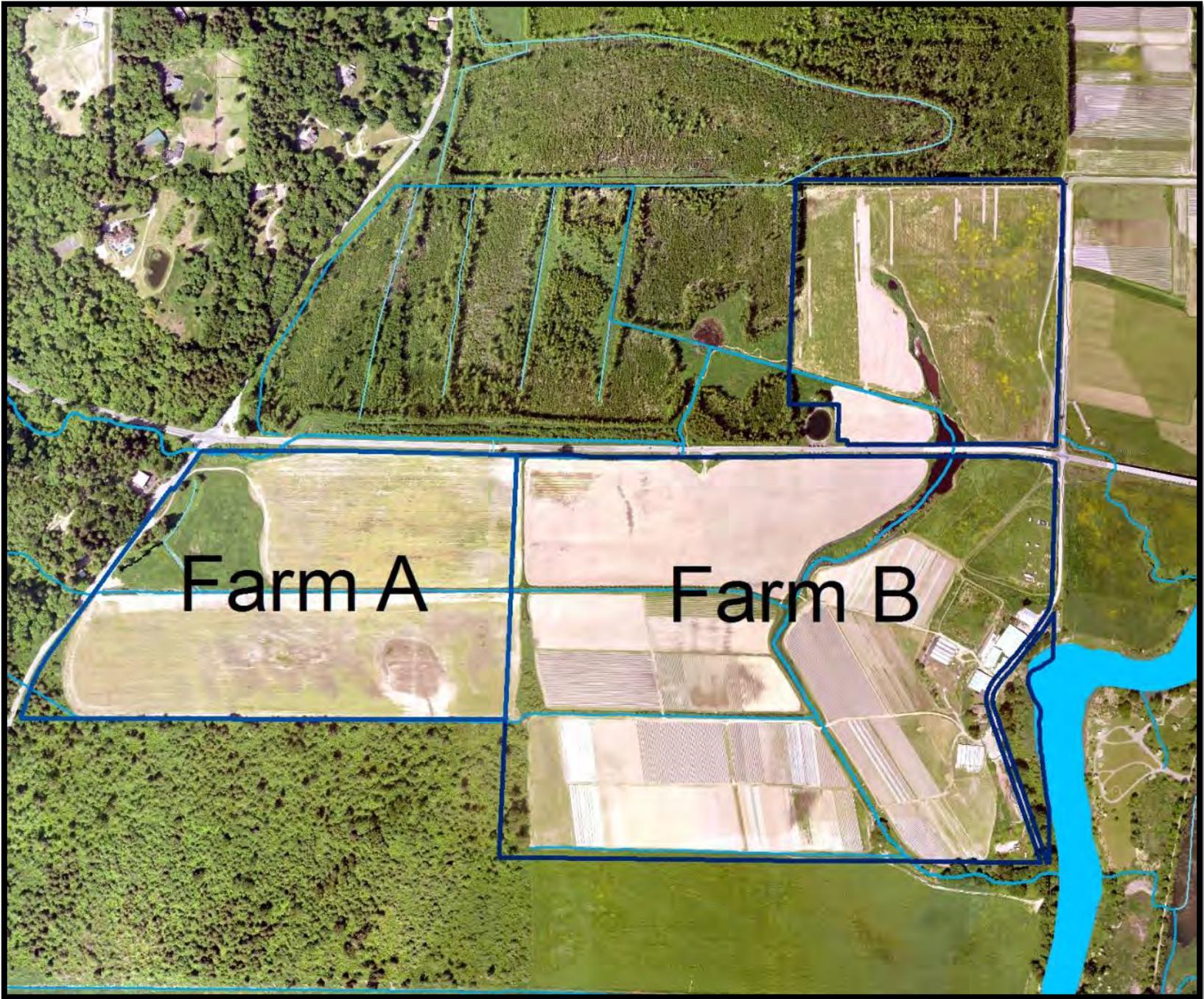
# King County Farm, Fish, Flood Buffer Task Force



February 9, 2019

Salmon Recovery Conference

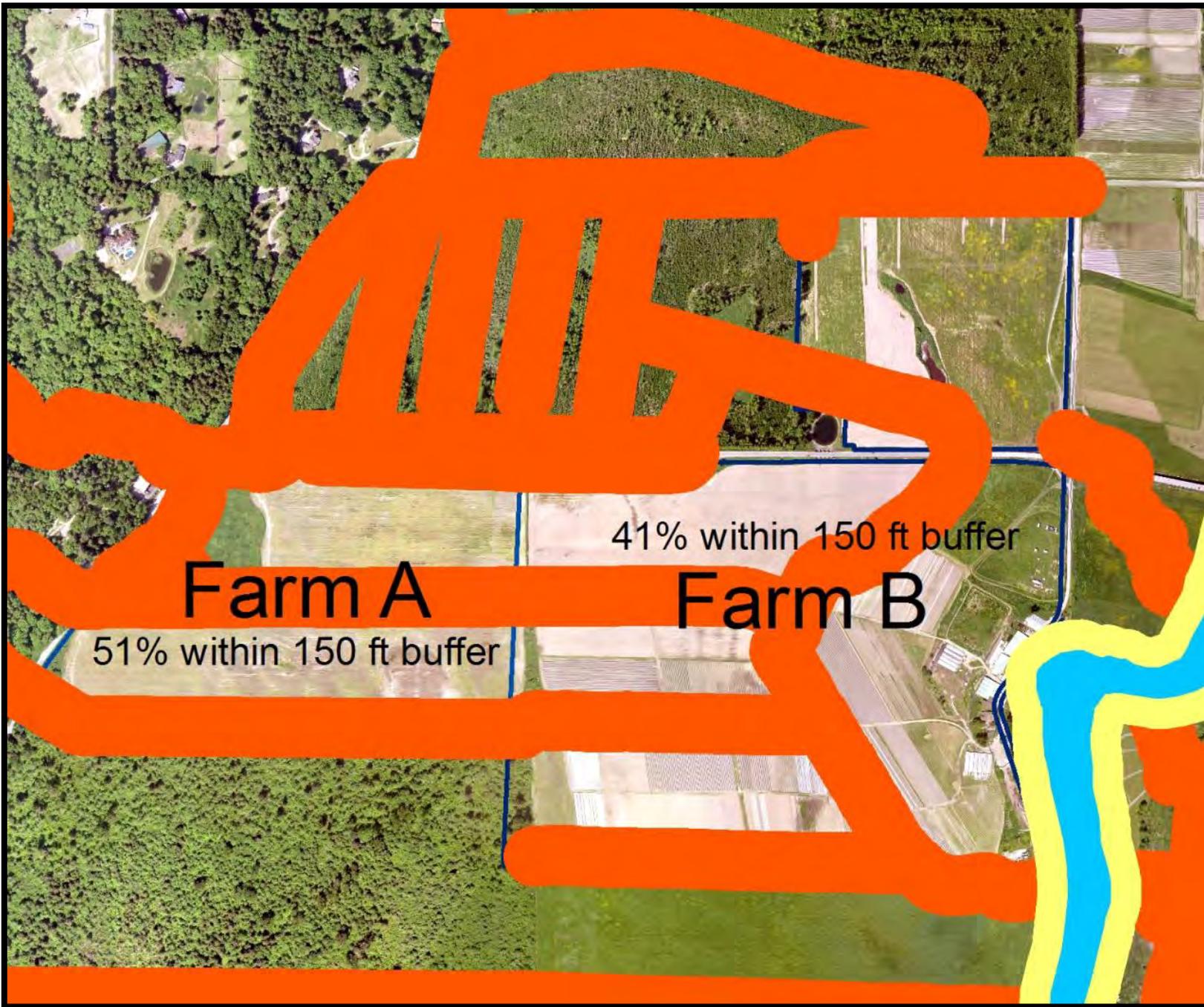
Tacoma, WA



Farm A

Farm B

150 ft. buffer



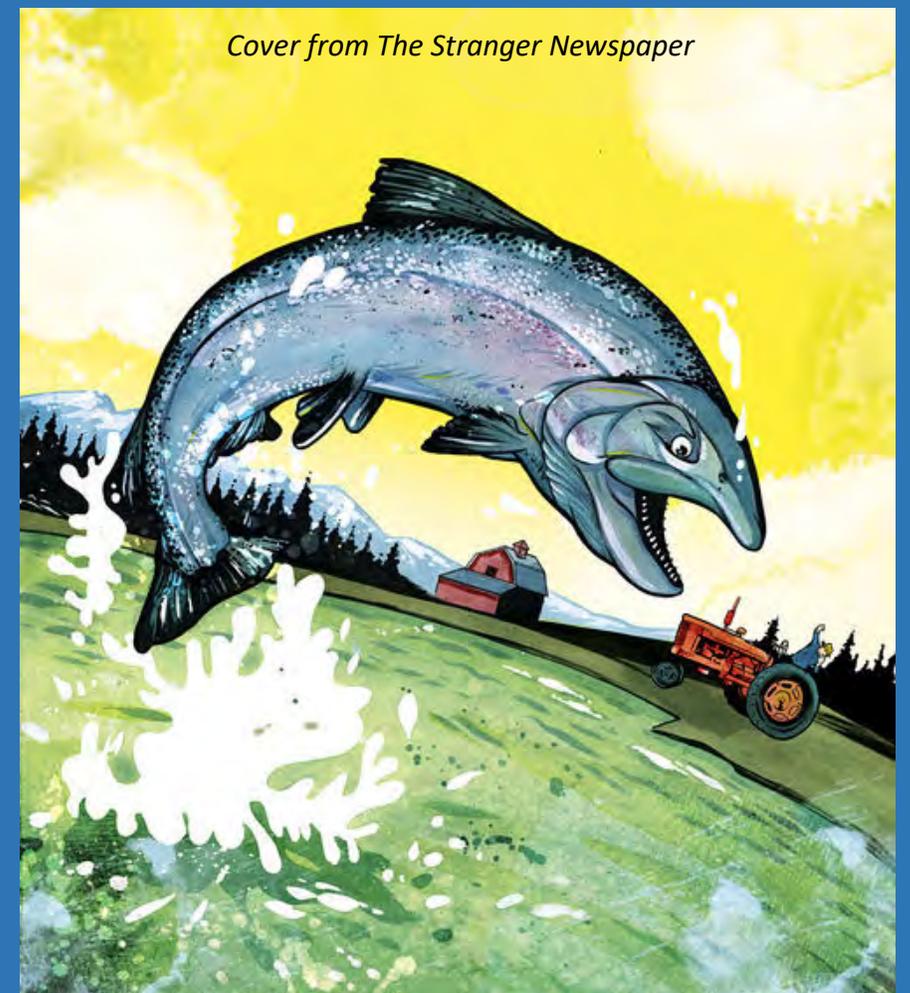
# Why the Buffer Task Force?

Farm, Fish, Flood 1.0: Buffers are a wicked problem

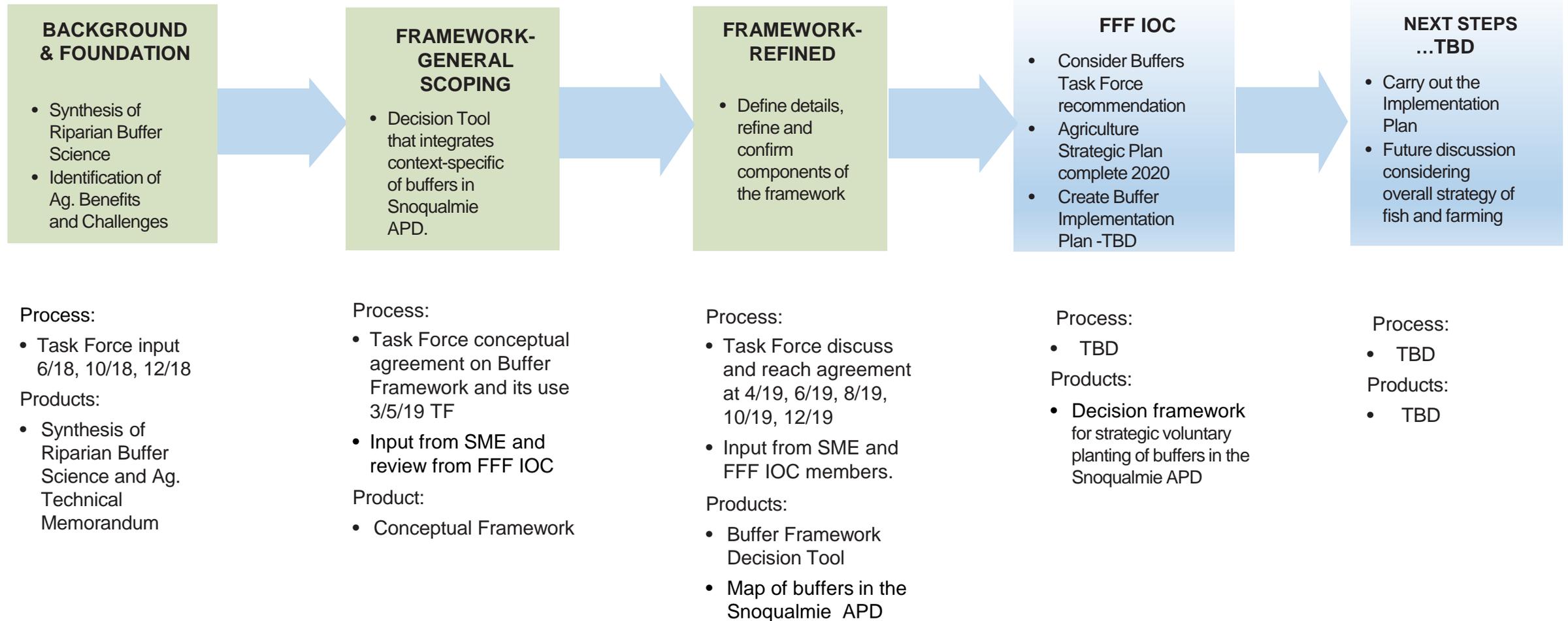
Farmers: How much agricultural land is needed in Snoqualmie Agricultural Production District for salmon recovery?

Salmon Recovery: Is something really better than nothing?

*Goal: Make recommendations on potential size and location of voluntary plantings within the Snoqualmie Valley Agriculture Production District & how to implement plantings in a way that is sensitive to the agricultural context.*



# Roadmap to a Buffer Framework



# Synthesis of Science

# Riparian Buffers in an Agricultural Setting

---

## Synthesis of Riparian Buffer Best Available Science: Informing Variable-Width Buffers in the Lower Snoqualmie Valley

---

Original printing (none)

November 2018



Department of Natural Resources and Parks  
Water and Land Resources Division  
**Rural Regional Services Section**  
King Street Center, KSC-NR-0600  
201 South Jackson Street, Suite 600  
Seattle, WA 98104  
206-477-4800 TTY Relay: 711

---

## Riparian Buffers in an Agricultural Setting

---

Original printing (none)

November 2018



Department of Natural Resources and Parks  
Water and Land Resources Division  
**Rural Regional Services Section**  
King Street Center, KSC-NR-0600  
201 South Jackson Street, Suite 600  
Seattle, WA 98104  
206-477-4800 TTY Relay: 711

Alternate Formats Available

---

# Function: Water Quality - Temperature

- Smaller waterways are more susceptible to temperature fluctuations
- Critical to shade as much of the length of the waterway as possible to decrease the surface area exposed to direct solar radiation
- Smaller watercourses may only need short, dense, and overhanging buffers
- Wider-taller buffer width are needed for shading in smaller north-south oriented watercourses
- Larger waterways require taller trees to shade waterbodies

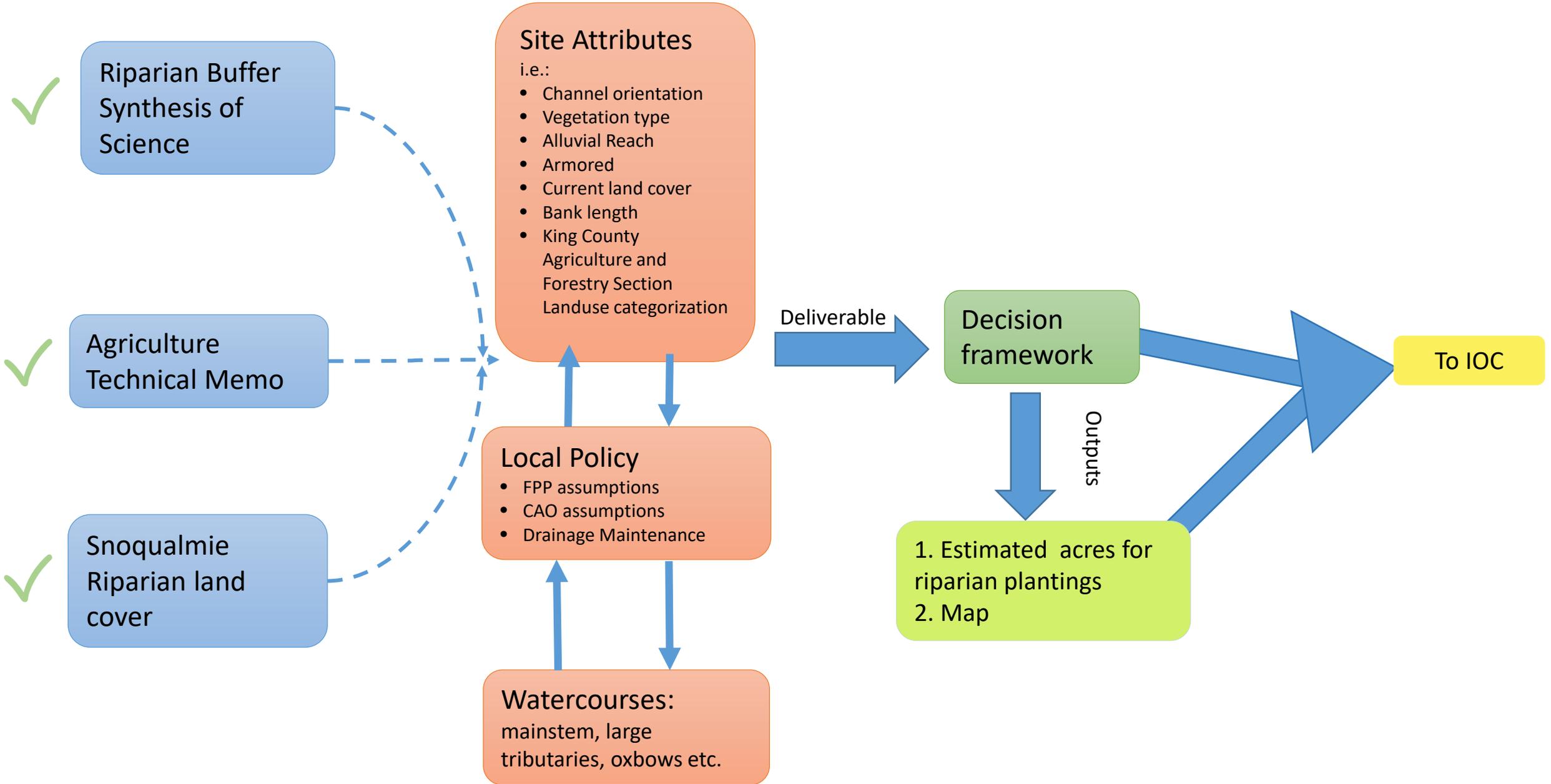


# Function: Large Woody Debris

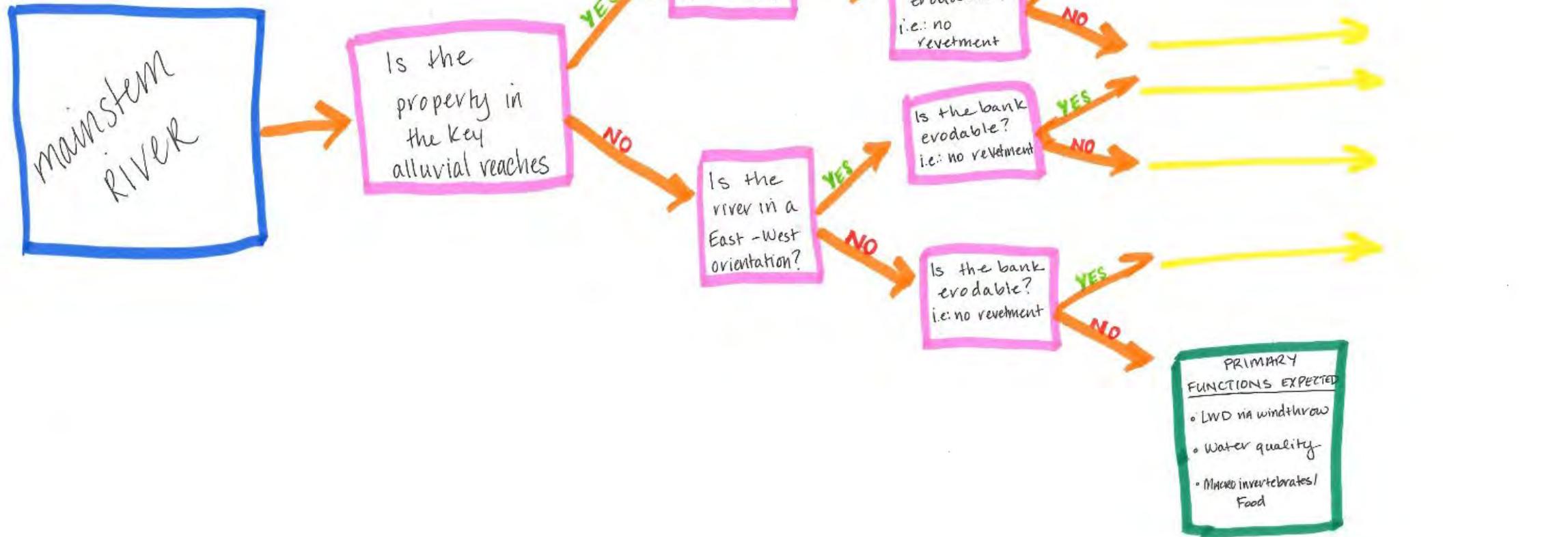
Large watercourses	<ul style="list-style-type: none"><li>• Primary wood input = erosion</li><li>• Areas of channel migration require wide buffers to provide continual wood sources</li><li>• Coniferous trees provide long-term habitat benefits and deciduous provides short-term benefits</li></ul>
Armored watercourses	<ul style="list-style-type: none"><li>• Armoring shifts wood input drivers from erosion to wind throw and mortality</li></ul>
Smaller watercourses	<ul style="list-style-type: none"><li>• Size of habitat-forming wood is smaller in smaller watercourses</li><li>• Smaller channels receive a greater proportion of woody debris inputs from shorter source distances (closer to watercourses)</li></ul>
High-gradient watercourses	<ul style="list-style-type: none"><li>• Primary wood inputs = debris flows, landslides, and wind throw</li><li>• High-gradient tributaries contribute to instream wood which is transported to downstream reaches</li></ul>



# Draft Technical Elements for the Buffer Task Force Decision Tool



# DRAFT FRAMEWORK LOGIC TRAIN



Thank you to:

Snohomish/Stillaguamish LIO

Washington State Department of Fish and Wildlife

Washington State Department Natural Resources

Josh Kubo, Kollin Higgins, Michael Thai

Buffer Task Force Members