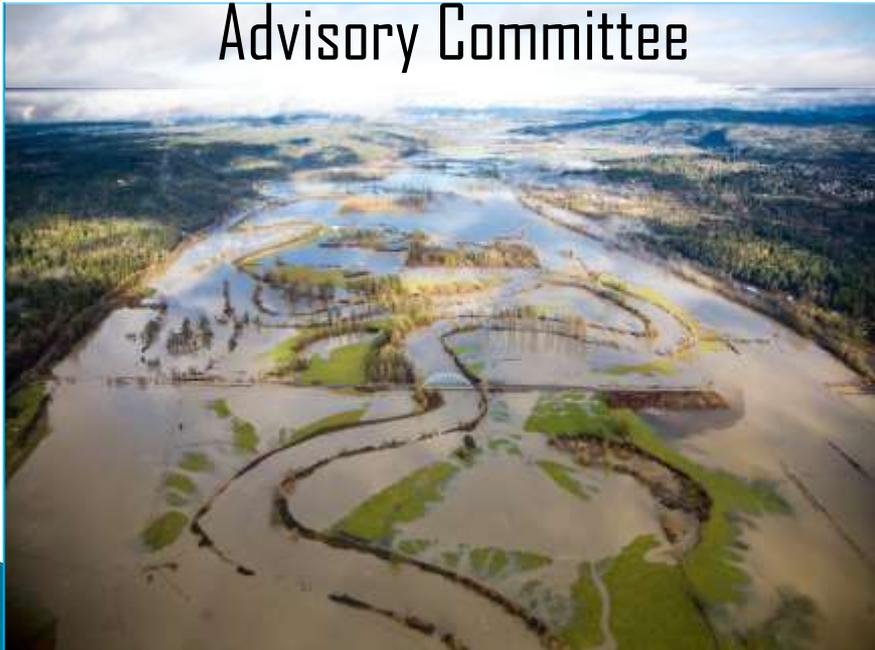




2013

## Snoqualmie Fish, Farm, Flood Advisory Committee



# Snoqualmie Fish, Farm Flood

Public Meeting  
Preston Community Center

April 3, 2014

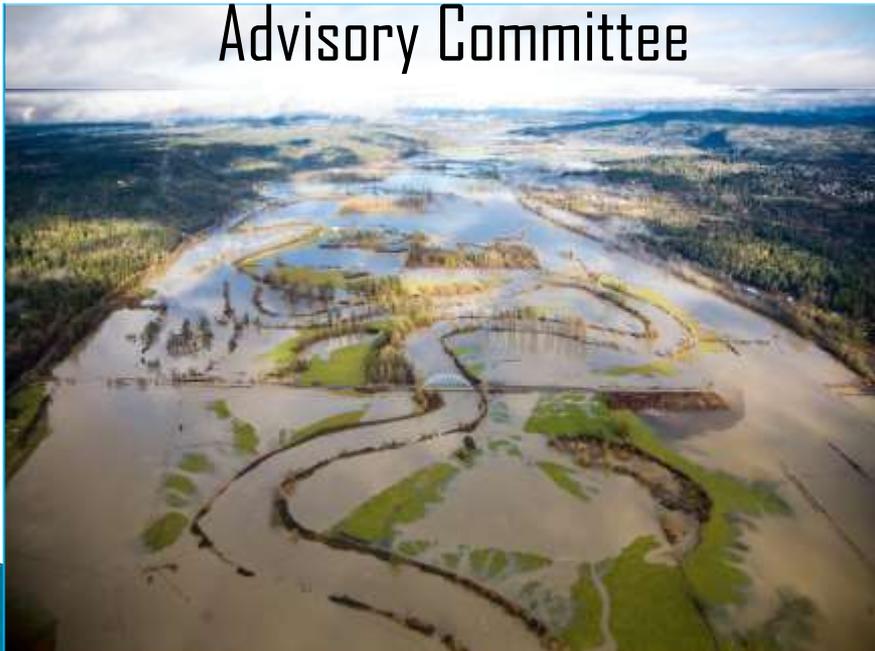
 King County

- ▶ **The Challenge:** King County has responsibilities for implementation of salmon recovery, reduction of flood risks and maintaining the viability of farming. Some of the actions that are needed to meet these diverse objectives overlap on the ground. So, at the scale of individual farms or parcels and valley-wide, it is often challenging to find the right balance when undertaking actions to support any one of these priorities.
  - ▶ **Advisory Committee Purpose:** The Snoqualmie Fish, Farm, & Flood Advisory Committee is responsible for advising King County on what is most important for each of these sectors to thrive and how balance might be attained among these interests, as well as which short and long term recommendations could collectively improve conditions for fish, farm and flood risk reduction objectives.
- 



2013

## Snoqualmie Fish, Farm, Flood Advisory Committee



# Snoqualmie Fish, Farm Flood

**PART I:**  
Goals, Challenges and Timeline

Public Meeting  
Preston Community Center  
April 3, 2014

 **King County**

# Wouldn't it be great if...?



# Wouldn't it be great if...?



*Long Beach, Nguyen*

Snoqualmie Farms Best In  
Northwest For Third Year!

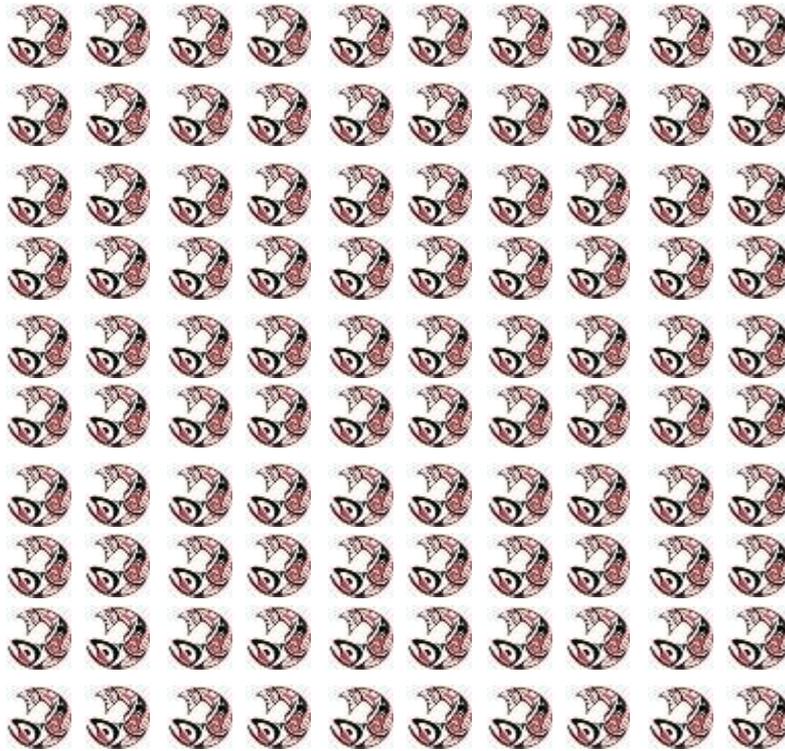
# Wouldn't it be great if...?



No damage reported from recent flood!

# Current Reality

Historical Chinook Salmon Abundance



Today



# Current Reality



Farms challenged by poor drainage, floods, regulations, and economics.

# Current Reality



Floods damage homes, farms, roads and other infrastructure

# How do we get from current reality to desired future?

- ▶ What do farms need to be able to thrive?
  - ▶ What do salmon need for recovery?
  - ▶ How can flood risks be reduced?
  - ▶ What do we do when these needs collide?
- 

# Needs Sometimes Collide



# Needs Sometimes Collide

An aerial photograph showing a river bend. A large, dense island of green trees is situated in the middle of the river. To the left of the island is a plowed, light-brown field. To the right is a green field with a white tractor. The river is a murky green color. A scale bar at the bottom indicates distances in feet: 0, 55, 110, 220, 330, 440. A north arrow is in the bottom left corner.

0 55 110 220 330 440 Feet

# Needs Sometimes Collide



# Needs Sometimes Collide



Lots of salmon and trout are found even in reed canary grass choked channels



Fish data for 2000ft of  
“Middle ditch” near Tuck

Species	Total
cutthroat trout	56
coho salmon	1925
steelhead trout	13
unidentified salmonid	9
three spine stickleback	617
river lamprey	1240
unidentified sculpin	48
pumpkinseed	1
NW salamander	5
giant salamander	7
red legged frog	19
bullfrog	2
crayfish	15
Total	3957

# Comp. Plan Policy R-650 (2012)

## ► Drivers

- Salmon recovery significantly behind pace
- Agriculture squeezed by competing land uses, regulations, flood impacts and other challenges
- Evolving floodplain management approach
- In the Snoqualmie, the most important restoration locations occur in important farming areas, where floodplain management challenges are also prevalent.

# KC Comp. Plan Policy R-650

Policy calls for:

“...a collaborative watershed planning process with the goal of maintaining and improving agricultural viability, improving ecological function and habitat quality, and restoring floodplains through integrated, watershed-wide strategies.”

# Timeline

- |  |                          |
|--|--------------------------|
| ▶ Watershed planning process<br>with <i>R-650 Advisory Committee</i><br>Early actions & Preliminary<br>Recommendations | November 2013 – May 2014 |
| ▶ Landowner & General Public<br>workshops  | June – September 2014    |
| ▶ Refine recommendations   |                          |
| ▶ Reconvene committee to finalize<br>work  | Oct – Nov 2014           |
| ▶ King County to develop<br>implementation plan  | Dec 2014 – mid 2015      |

# Committee Members

- ▶ Bobbi Lindemulder, farmer
- ▶ Jarvis Keller, farmer
- ▶ Siri Erickson–Brown, farmer & Ag Commissioner
- ▶ Lawrence Carlson, farmer and Snoq. Valley Preservation Alliance
- ▶ Micah Wait, Wild Fish Conservancy
- ▶ Josh Monaghan, King Conservation District
- ▶ Bryan Holloway, Snoqualmie Forum & City of Snoqualmie
- ▶ Daryl Williams, Tulalip Tribes
- ▶ Cindy Spiry, Snoqualmie Tribe
- ▶ Scott Powell, Seattle City Light and Snohomish Forum
- ▶ David Radabaugh, Dept. of Ecology, Floodplain management
- ▶ Heather Trim, Futurewise
- ▶ Lara Thomas, City of Duvall
- ▶ Rick Bautista, Interim Director, King Co. Flood Control District



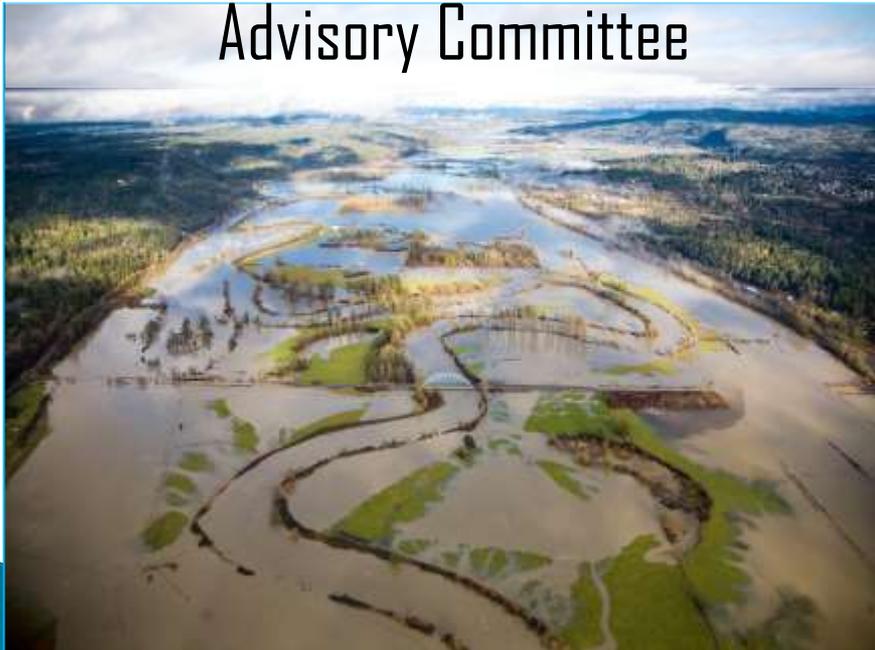
# Advisory Committee reflections / Q&A





2013

## Snoqualmie Fish, Farm, Flood Advisory Committee



# Snoqualmie Fish, Farm Flood

**PART 2:**  
Opportunities and Solutions

Public Meeting  
Preston Community Center  
April 3, 2014

 **King County**

# Top Issues

1. Riparian buffers
  2. Drainage for farms
  3. Large habitat and flood capital projects
  4. Large flood impacts & floodplain regulations
- ▶ Other issues include: water quality, wetland regulations, beavers, competing water uses, small flood impacts, farmland preservation, levee & revetment maintenance, etc.

# Riparian Buffer Issues

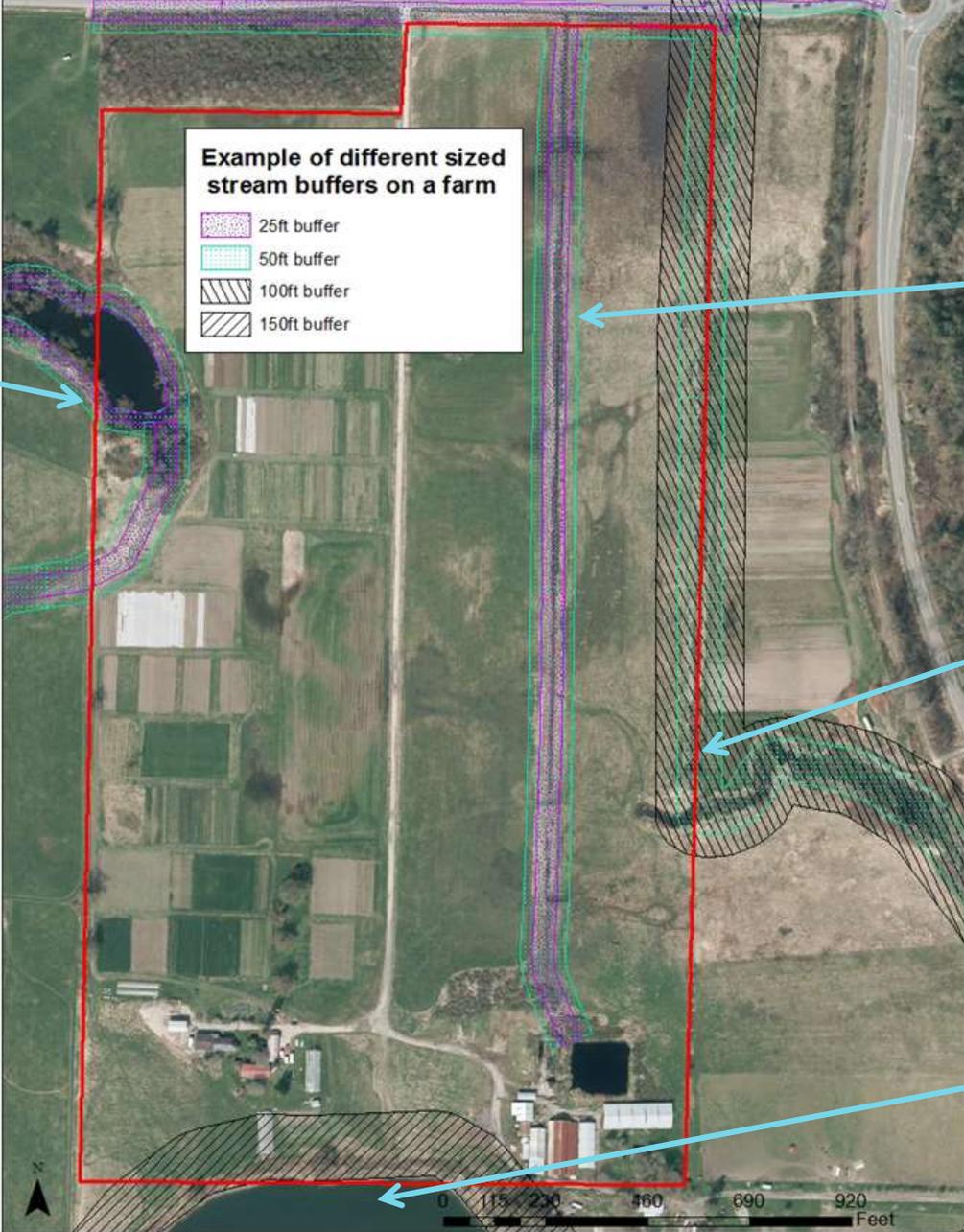
- ▶ Lower Snoqualmie historically a forested wetland valley – cleared for agriculture
  - ▶ Over 160 miles of waterways!
  - ▶ Restoration of riparian areas needed for fish & wildlife habitat and water quality benefits
  - ▶ Vast majority of plantings voluntary, many on farms
- ▶ **KEY ISSUE:** Planting buffer areas reduces acreage available for farming

Oxbow

Ditch

Salmon stream

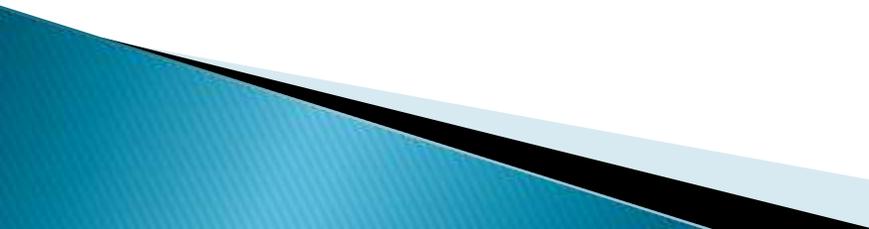
Mainstem River



# Riparian Buffer Solution Ideas

- ▶ Harvestable buffers
  - ▶ Compensation for buffer plantings
  - ▶ Combine multiple drainage channels into meandered channels
  - ▶ Smaller buffers on smaller streams
  - ▶ Geographic prioritization of plantings
  - ▶ Focus on function rather than width
- 

# Drainage Issues

- ▶ Lack of drainage significantly reduces productivity – shorter farming season
  - ▶ Fish found in most every waterway
  - ▶ Maintenance regulated, cumbersome, expensive, requires mitigation planting
  - ▶ Multiple-landowner projects complicated
  - ▶ Current assistance program primarily addresses limited suite of drainage problems
- 



# Drainage Solution Ideas

- ▶ Form drainage district(s)
- ▶ Increase county funding for drainage maintenance
- ▶ Pilot projects for tiles and floodgate issues
- ▶ Address sediment sources that clog waterways
- ▶ Identify early-action drainage projects

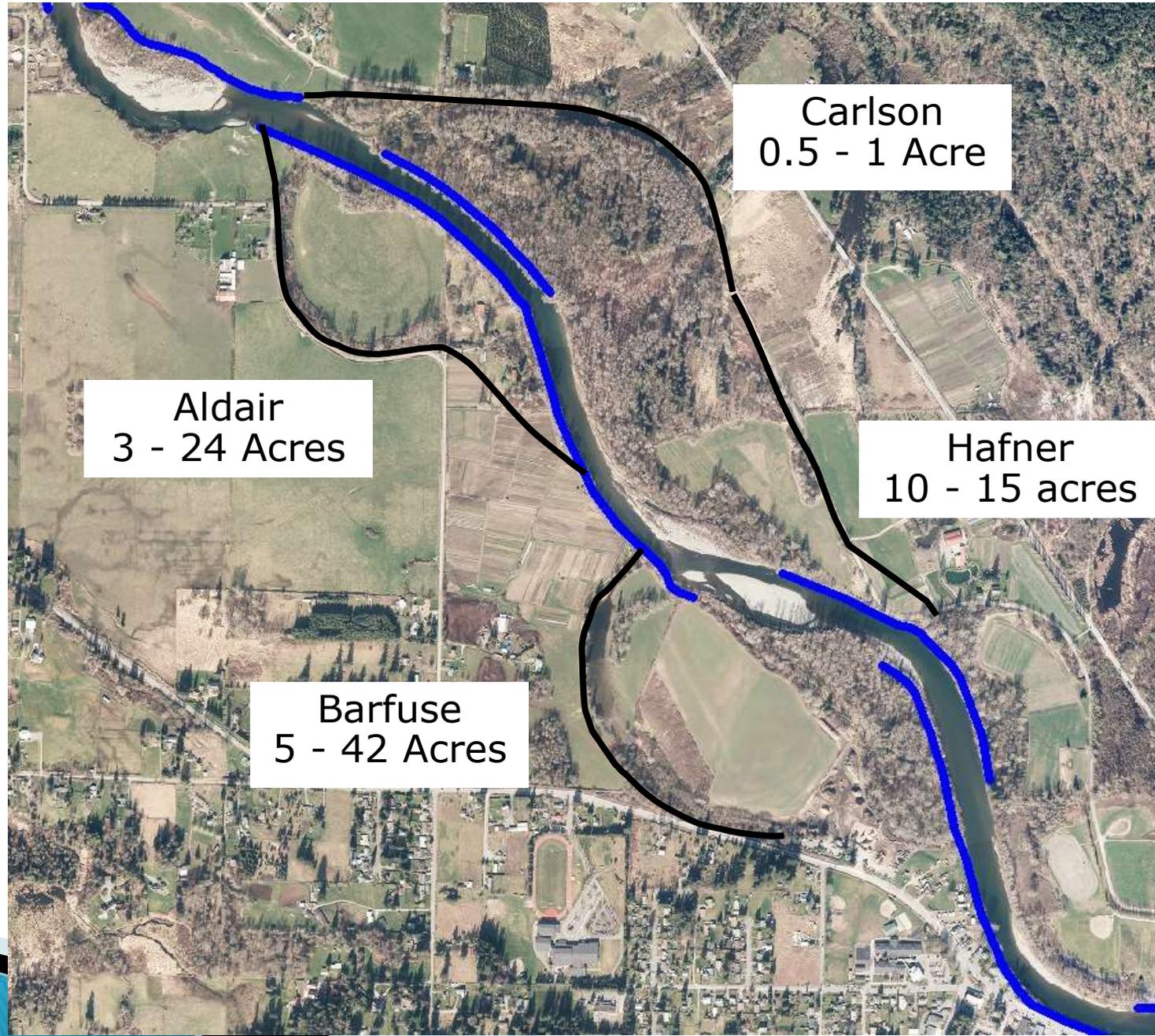
# Large Habitat & Flood Projects

- ▶ Over 40% of mainstem has levees or revetments
  - ▶ Highest priority habitat actions involve giving river more room to move
  - ▶ Some flood risk reduction actions also include setting back levees or revetments
  - ▶ Proposed projects will remove Ag land from production, while providing some flood risk reduction benefits
- ▶ **KEY ISSUE:** Loss of agricultural soil and acreage

# Snoqualmie at Fall City Potential Projects

## Ag Impact Areas

Total  
19 - 82 Acres



Carlson  
0.5 - 1 Acre

Aldair  
3 - 24 Acres

Hafner  
10 - 15 acres

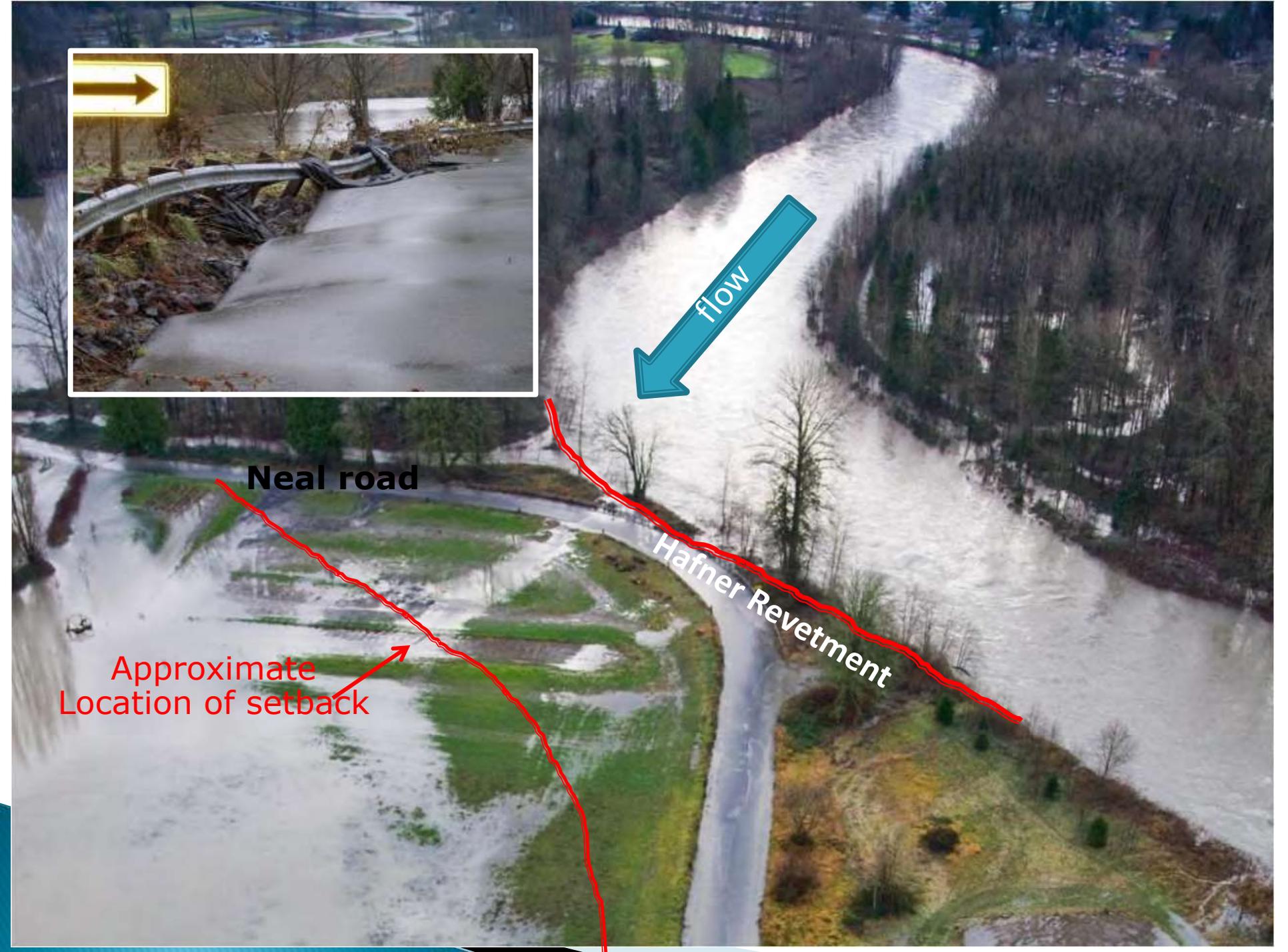
Barfuse  
5 - 42 Acres



**Neal road**

**Hafner Revetment**

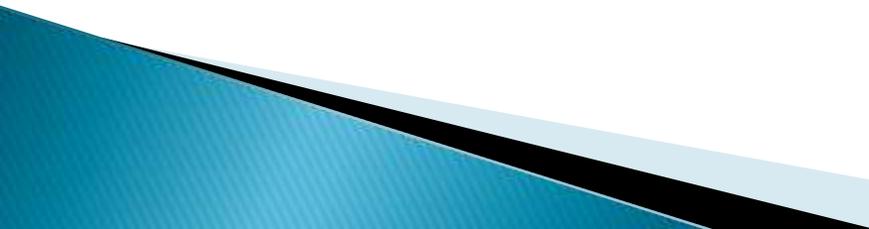
**Approximate  
Location of setback**



# Large Project Solution Ideas

- ▶ Enhance viability of existing farms
  - E.g., drainage, home & barn elevation
- ▶ Expand the Agricultural Production District boundary
- ▶ Increase long-term protection of existing farm land
  - E.g., Farmland Preservation Program easements

# Flood Impacts & Regulations

- ▶ Almost entire APD in floodplain
  - ▶ Some houses and barns get flooded
  - ▶ Roadways/access significantly affected
  - ▶ State law prohibits new houses in floodway
  - ▶ Limits on fill due to floodplain capacity
  - ▶ Protecting private farm land currently not a high priority for repairs to revetments/levees
- 



Elevated platforms,  
home elevations, barn  
elevations



# Other Flood Impact Solution Ideas

- ▶ Elevate many homes and barns
    - Needs assessment under way
  - ▶ Explore options for regulatory flexibility
  - ▶ Disposal facilities for flood debris
  - ▶ Collaborate with valley cities for affordable farmworker housing outside floodplain
- 



# Advisory Committee reflections / Q&A



# Timeline

- |  |                       |
|--|-----------------------|
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