

# City of Snoqualmie

## **Flood Hazard Regulations (SMC 15.12) and Critical Areas Code (SMC 19.12) 2024-2025 Updates**

*November 3, 2025*



# Best Available Science Review and City Code Updates:

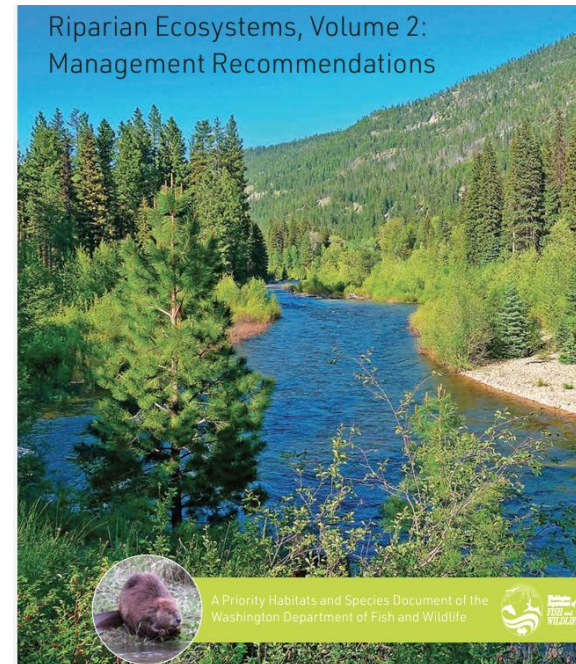
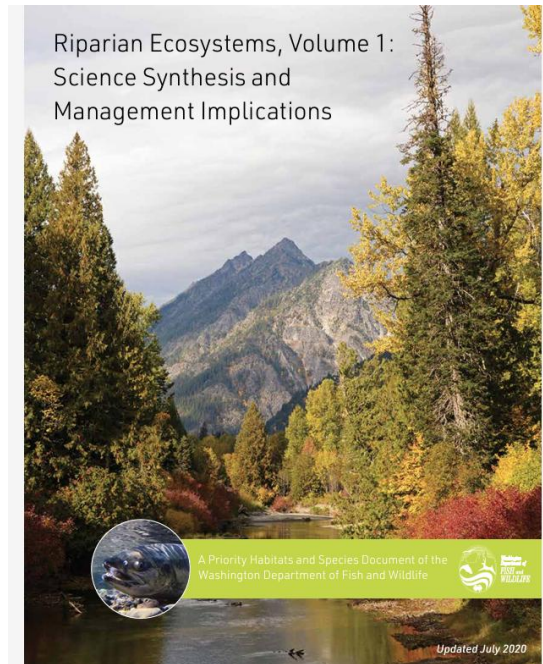
- **SMC 15.12 (Flood Hazard Regulations)**
- **19.12 (Critical Areas)**

- Best Available Science (BAS) Review Highlights
- City Code Updates and Crosswalk
- Potential Impacts to Upcoming Projects

# BAS Review: Riparian Management Zones

Volume 1: Science Synthesis and Management Implications (Quinn et al. 2020)

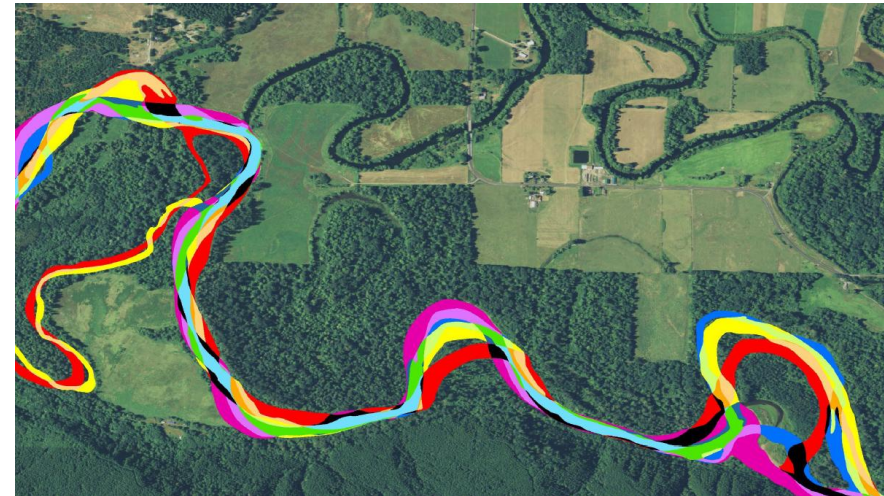
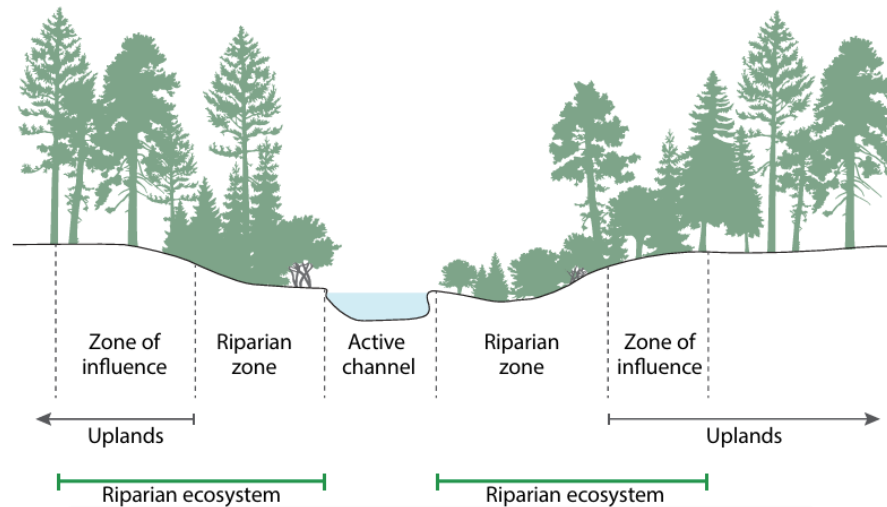
Volume 2: Management Recommendations (Rentz et al. 2020)



# BAS Review: Riparian Management Zones

Riparian ecosystem functions and elements:

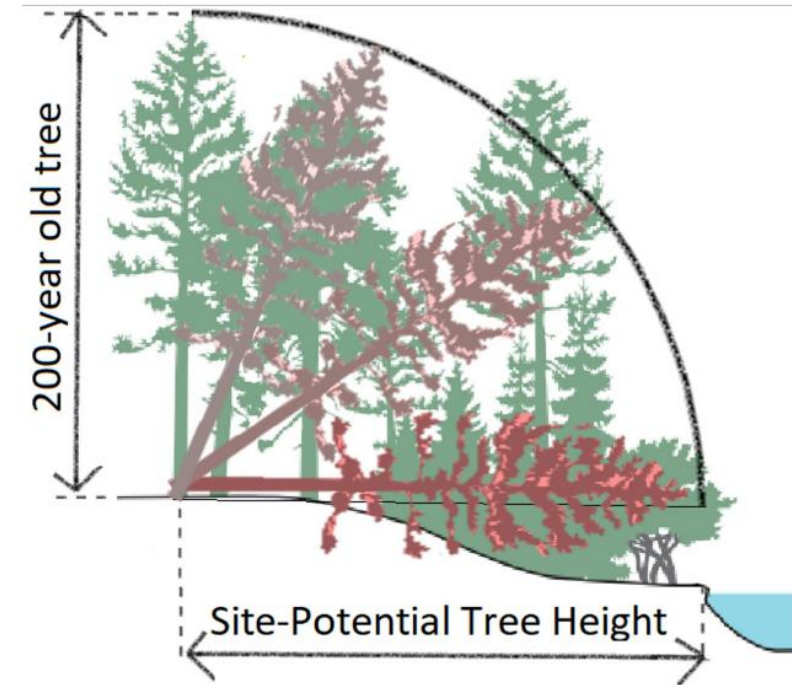
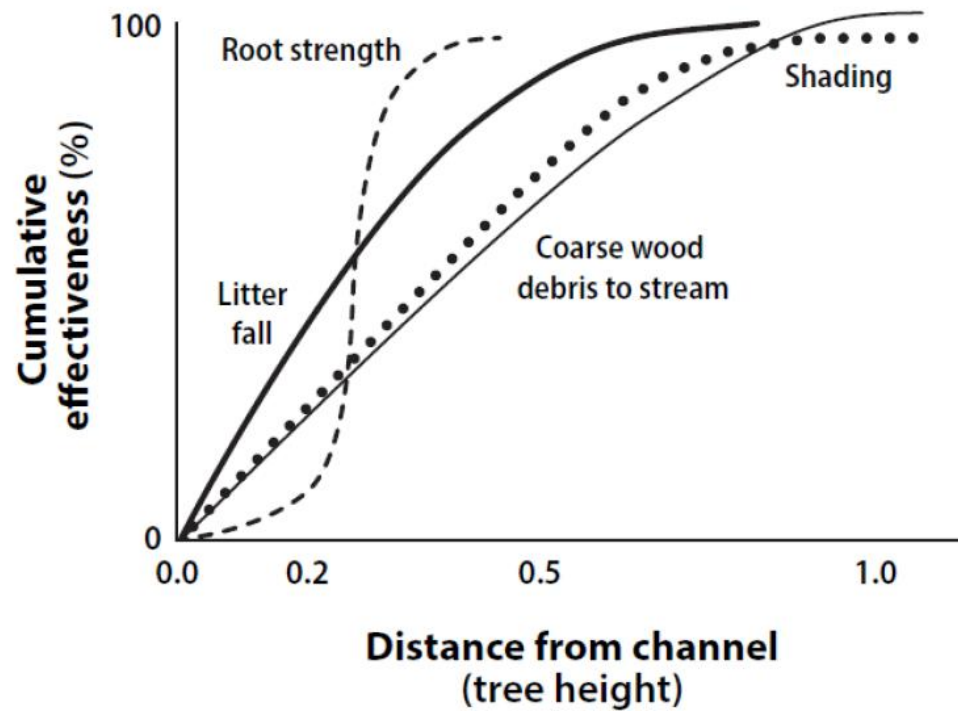
Stream morphology  
Wood  
Stream temperature  
Pollutant removal  
Nutrient dynamics





# BAS Review: Riparian Management Zones

FEMAT Curves: Relationship between riparian ecosystem functions and processes and the distance from a stream channel.



Full riparian function occurs at one Site Potential Tree Height (at age 200) from the stream channel. Minimum 100' for water quality.

# Implementing BAS into Critical Areas Code Updates

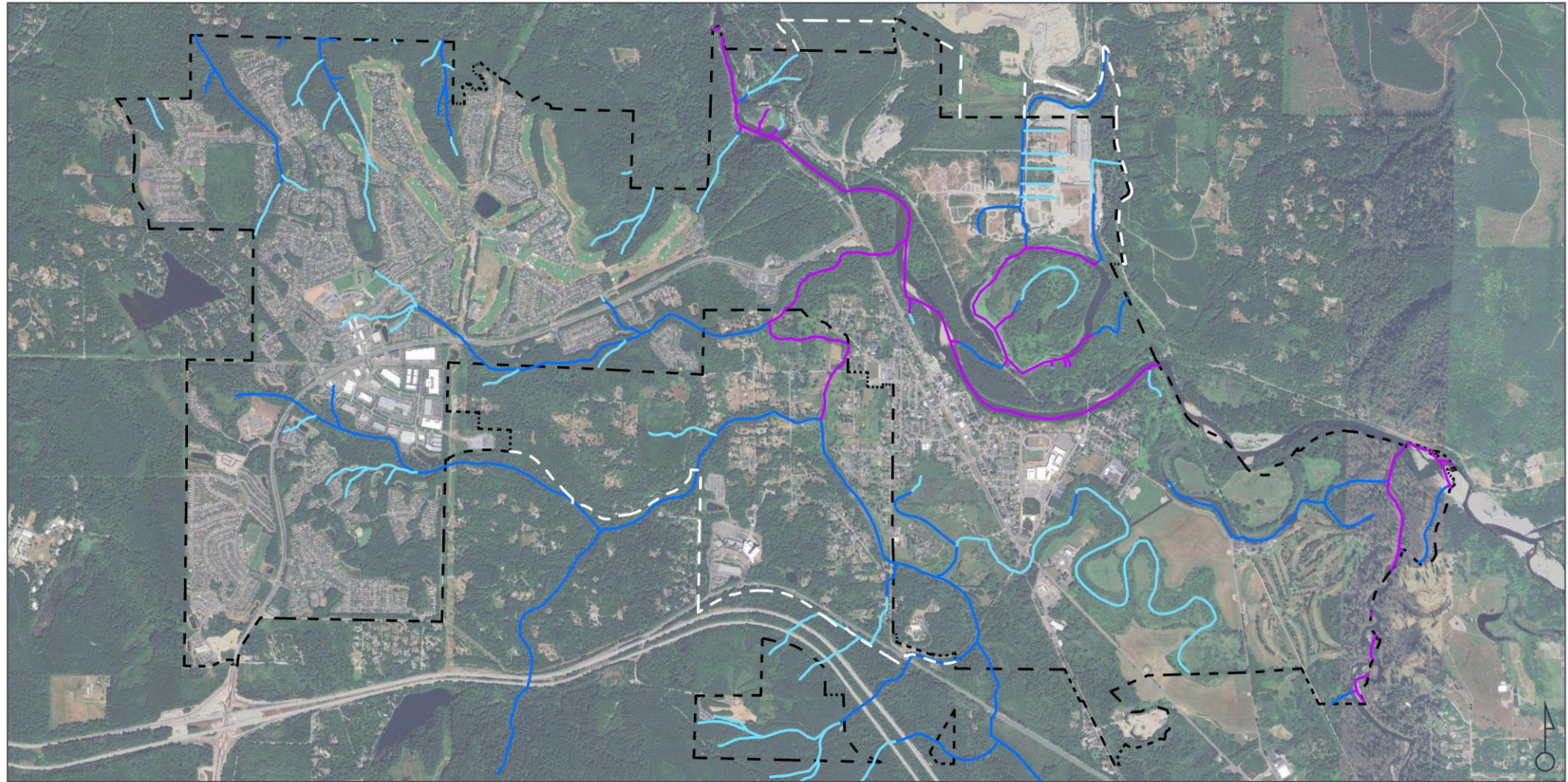
## Identified RMZs as a regulated critical area (type of FWHCA)

- “Riparian management zone” means an area that has the potential to provide full riparian functions, synonymous with stream buffer. Primary functions of riparian management zones include shading, bank stability, nutrient input, wood recruitment, and pollution control.
- Stream buffers increased from:
  - Class 1: Type S (shoreline) streams: **No changes**, defers to SMP
  - Class 2: Type F (Fish Habitat) streams: **75’ -> 200’**
  - Class 3 & 4: Type N (Non-fish habitat) streams: **25’/50’ -> 100’**
- Added provision to not regulate ***“functionally isolated”*** RMZs (e.g., intervening road)
- Added RMZ provision: ***“Single family residences part of a previously approved development are allowed improvements with a maximum footprint of 250 square feet, such as decks, patios, and appurtenances.”***

# Streams Buffer (RMZ) Widths

Current Code (19.12.160-1)		Proposed Code Amendment (19.12.160-1)	
Stream Classification	Buffer Width	Stream Classification	RMZ Width
Class 1 streams and Class 2 streams with anadromous salmonids	<b>100 feet</b>	Class 1 (Type S)	<b>100 feet. See Shoreline Regulations (SMC 19.08)</b>
Class 2	<b>75 feet</b>	Class 2 (Type F)	<b>200 feet</b>
Class 3	<b>50 feet</b>	Class 3 (Type Np)	<b>100 feet</b>
Class 4	<b>25 feet</b>	Class 4 (Type Ns)	<b>100 feet</b>
Snoqualmie River SF and RB within Natural Shoreline Env.	<b>200 feet</b>	Snoqualmie River SF and RB within Natural Shoreline Env.	<b>200 feet</b>
Snoqualmie River within Urban Riverfront Env. (SE Fir St to Meadowbrook Way)	<b>25 feet</b>	Snoqualmie River within Urban Riverfront Env. (SE Fir St to Meadowbrook Way)	<b>25 feet</b>





**CITY OF SNOQUALMIE**  
**STREAM BUFFER UPDATE AREAS**  
**CRITICAL AREAS CODE UPDATES | 32703**  
 CITY OF SNOQUALMIE, WASHINGTON

**LEGEND**

Streams    Snoqualmie City Limits

— Type F    UGA Boundary

— Type N

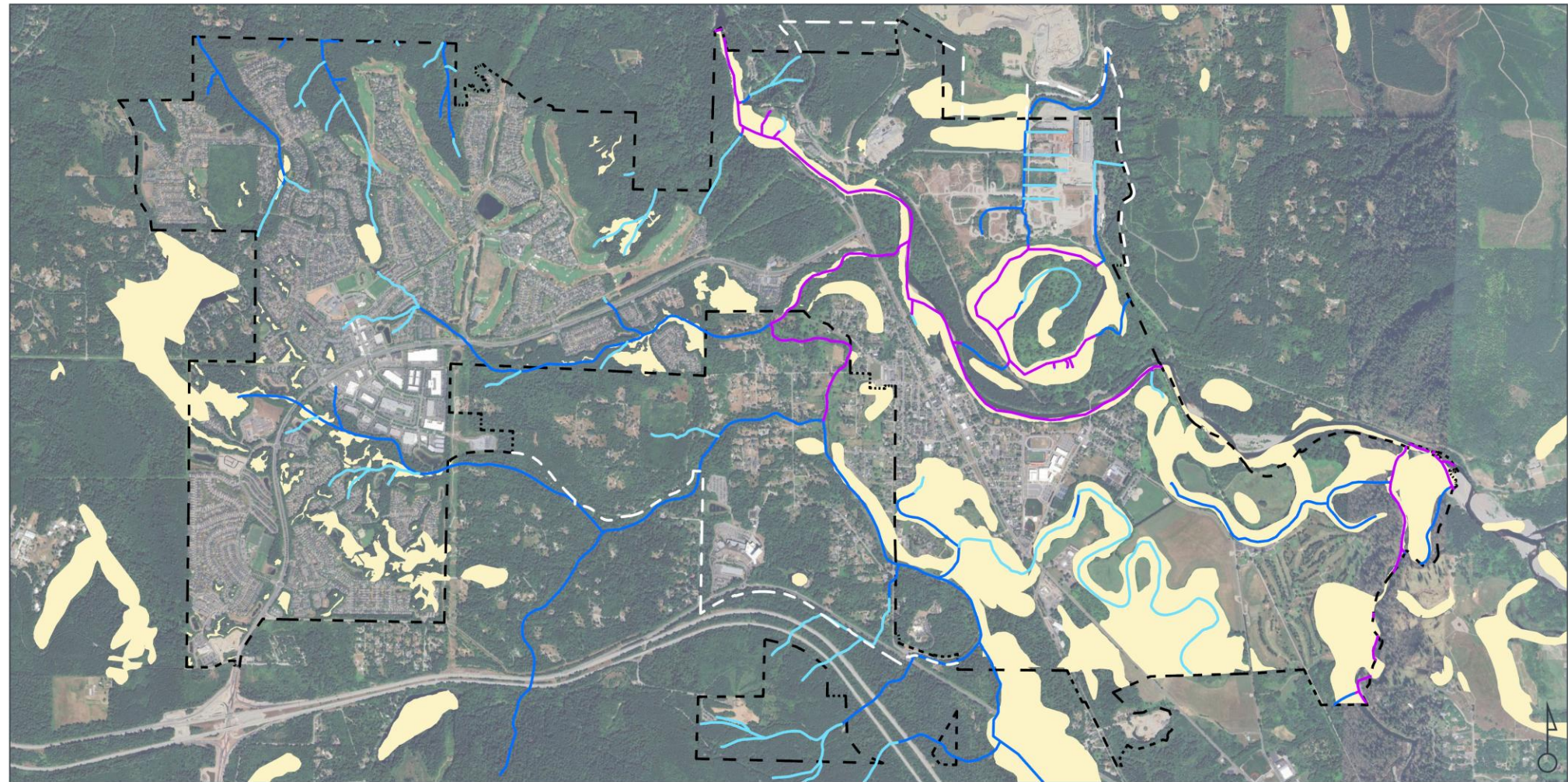
— Type S

0      2,000      4,000 ft

Data Sources:  
 Date: 10/24/2025  
 Disclaimer: This data is not to survey accuracy and is meant for planning purposes only.  
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Data Sources:  
 -Streams and Typing: WDNR Hydrography  
 -Snoqualmie City Limits and Urban Growth Area: Ecology





**CITY OF SNOQUALMIE**  
**STREAM BUFFER UPDATE AREAS**  
**CRITICAL AREAS CODE UPDATES | 32703**  
 CITY OF SNOQUALMIE, WASHINGTON

**LEGEND**

Streams	Snoqualmie City Limits
Type F	UGA Boundary
Type N	Wetlands
Type S	

0 2,000 4,000 ft

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 -Streams and Typing: WDNR Hydrography  
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 -Wetland Areas: King County





**CITY OF SNOQUALMIE**  
**STREAM BUFFER UPDATE AREAS**  
**CRITICAL AREAS CODE UPDATES | 32703**  
 CITY OF SNOQUALMIE, WASHINGTON

LEGEND	
Streams	Snoqualmie City Limits
— Type F	UGA Boundary
— Type N	Wetlands
— Type S	100 Year Floodplain

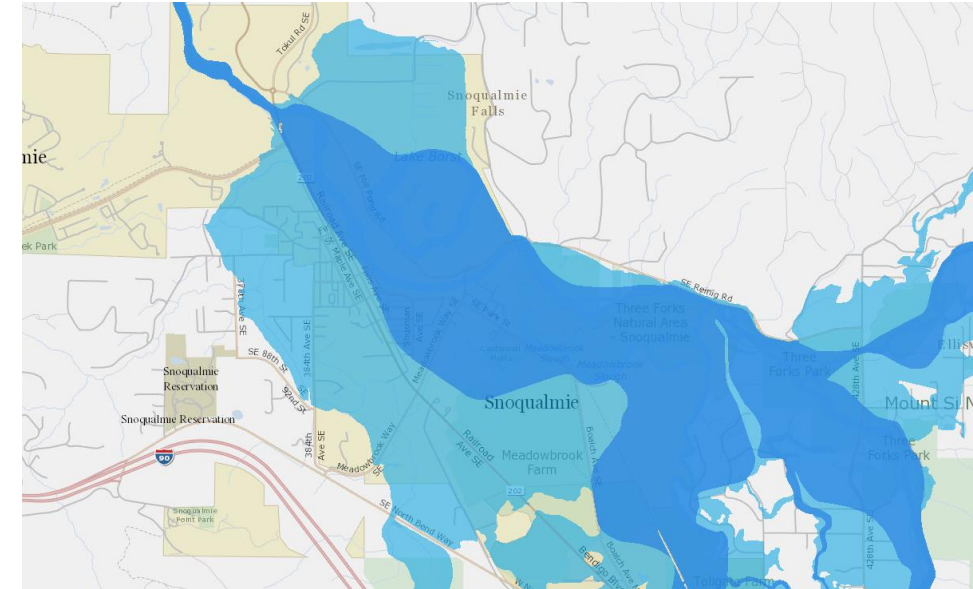
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# BAS Review: Floodplains and Flood Hazard Regulations (SMC 15.12)

- WDOE encouraging local governments to go beyond FEMA minimum requirements of regulating mapped 100-year floodplain
- 40% of NFIP claims from 2017-19 for properties outside of FEMA mapped flood zones
- Increased protections encouraged because FEMA maps are increasingly unreliable in a changing climate

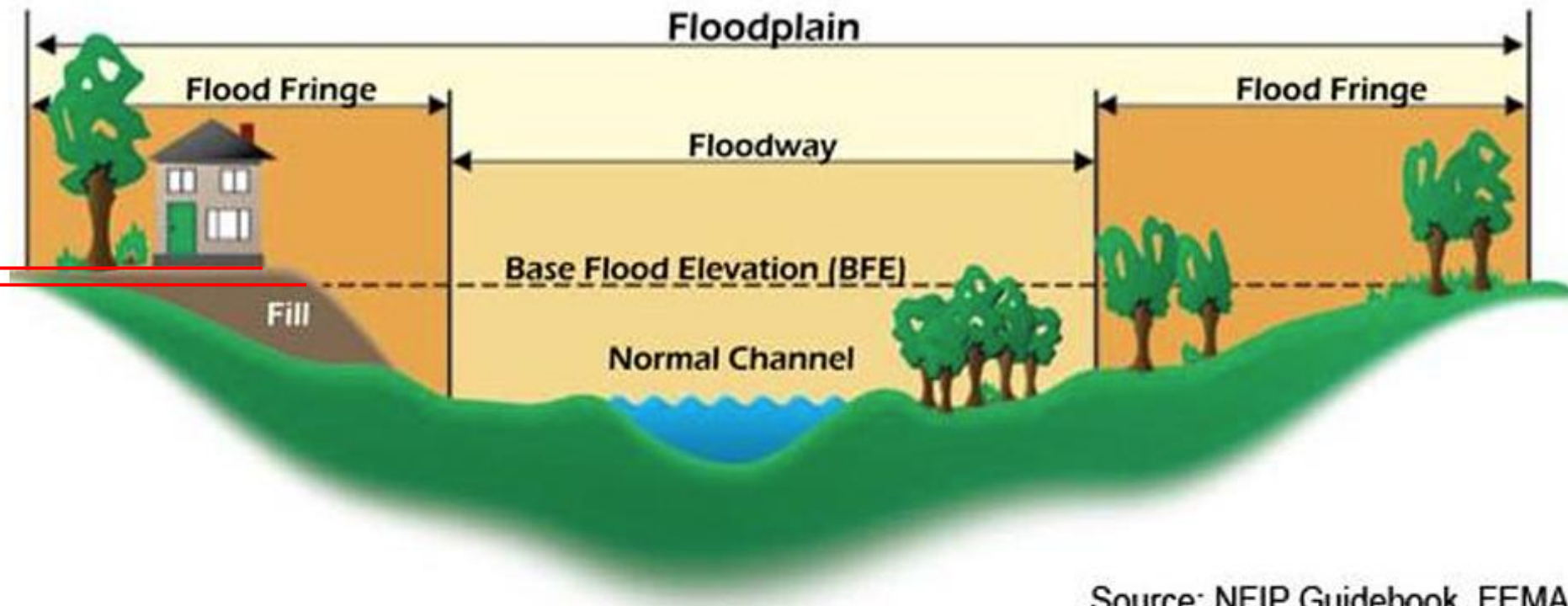




# BAS Review: Floodplains

Freeboard Value Approach (FVA) to managing increased risk over time:  
 +2' for non-critical facilities  
 +3' for critical facilities (police, fire, hospitals)

## Characteristics of a Floodplain

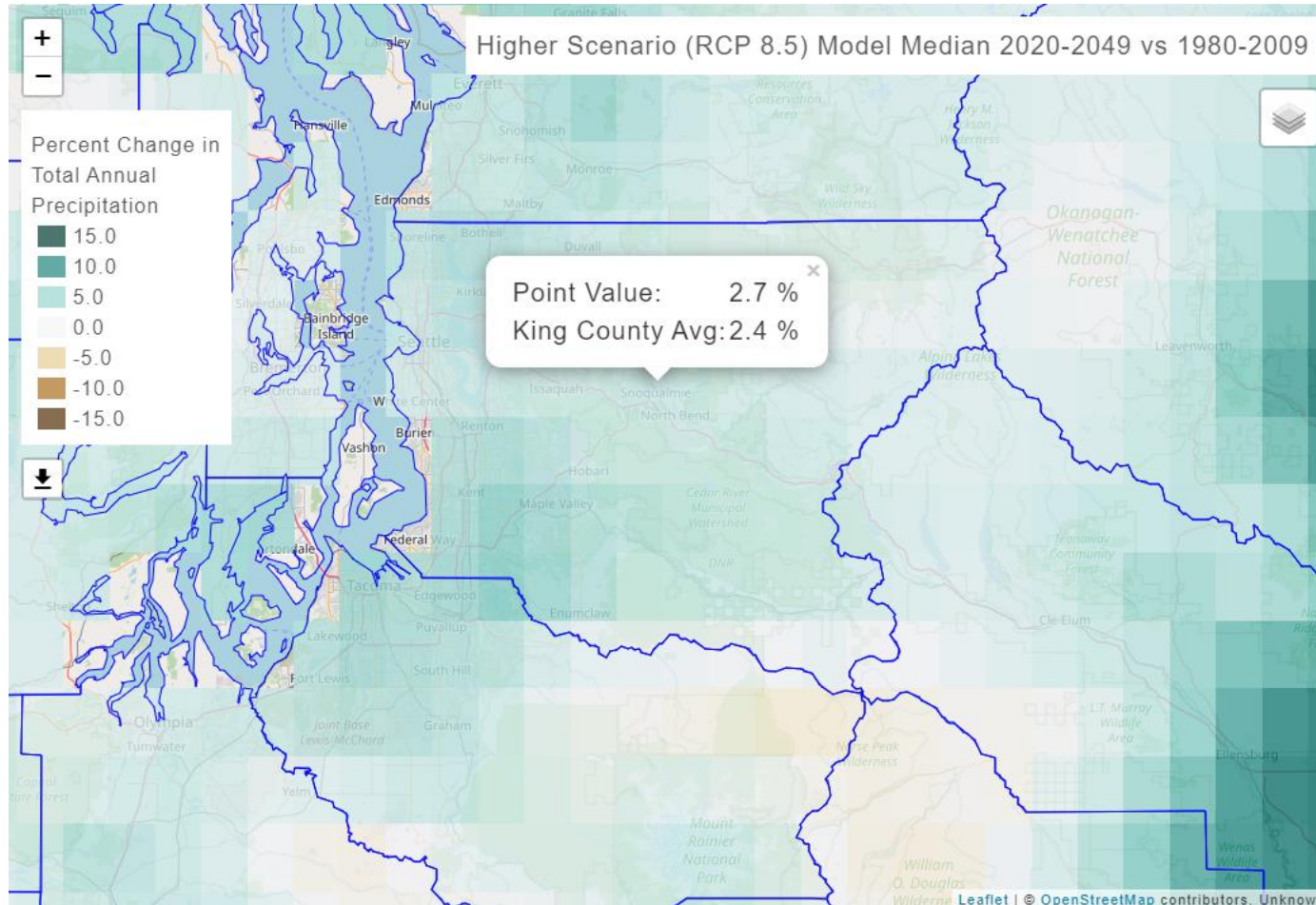


**Freeboard** =  
 extra  
 elevation  
 between BFE  
 and top of  
 lowest floor

Source: NFIP Guidebook, FEMA

# BAS Review: Floodplains

## -Precipitation (projected)

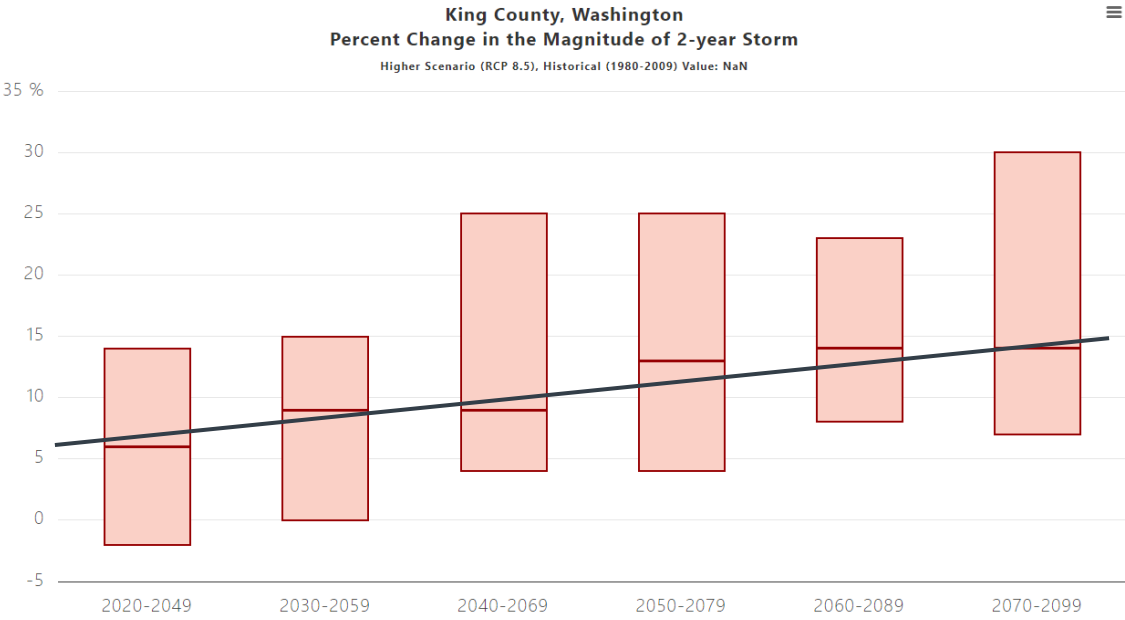
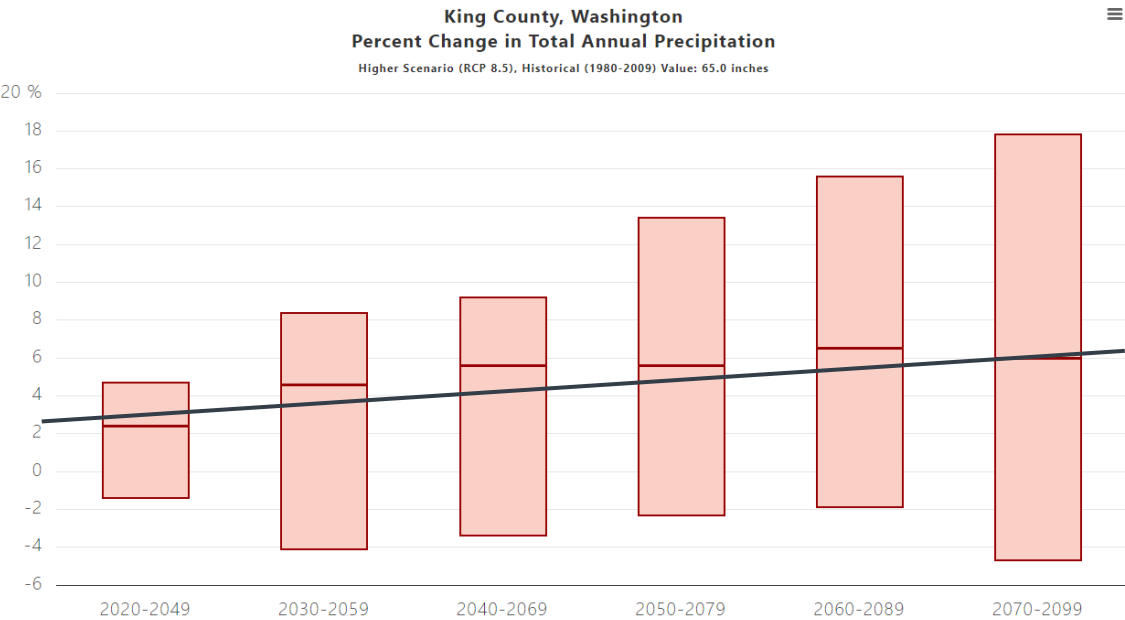


Source: UW's Climate Mapping for a Resilient Washington webtool

Purpose: Provide state and local governments with data on expected changes to inform planning for climate resilience

# BAS Review: Floodplains

## -Precipitation and storm magnitude (projected)



Source: UW’s Climate Mapping for a Resilient Washington webtool



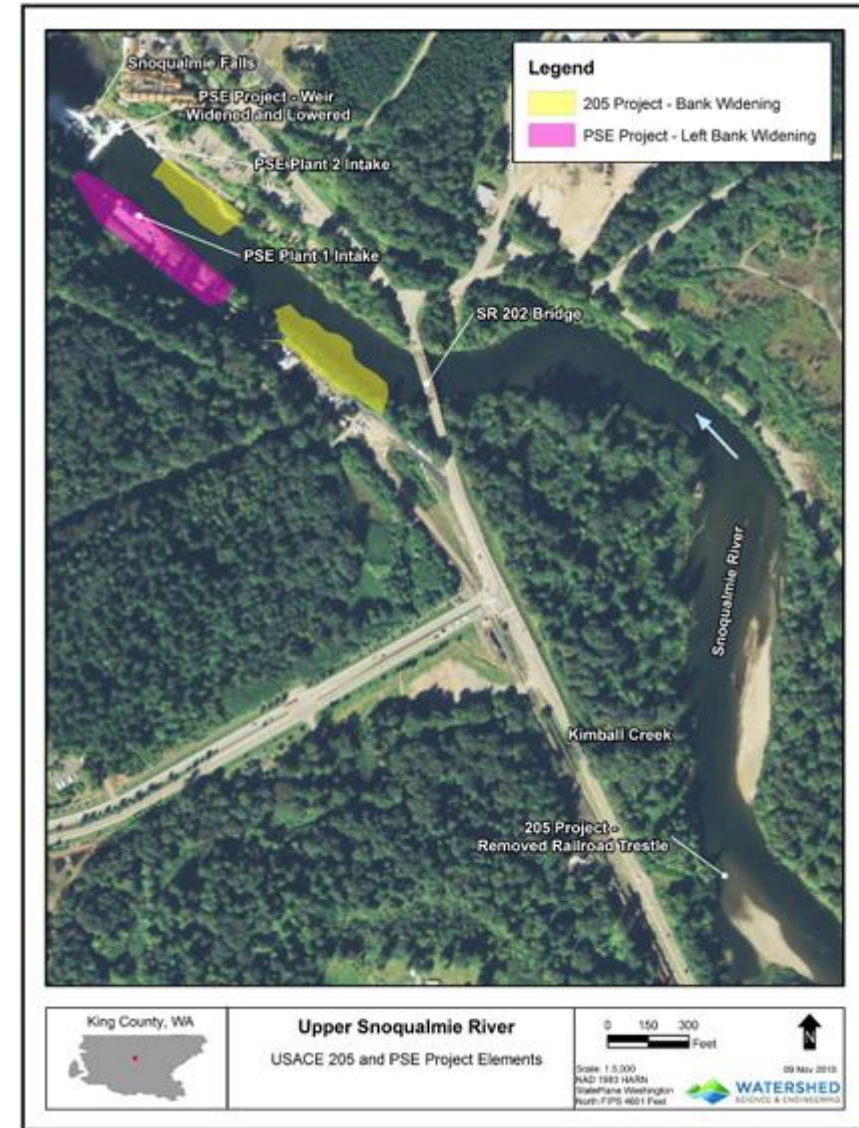
# BAS Review: Floodplains

## -Snoqualmie River Studies

Snoqualmie River Hydraulic Study –  
Evaluation of Effects of Snoqualmie  
Falls Projects on Downstream  
Flooding (King County 2015)

### Findings:

- USACE 205 Project (widened)
- PSE Project (lower weir crest)
- Results: modeled 1.4' reduction in 100-year base flood elevation in city



# BAS Review: Floodplains

## -Snoqualmie River Studies

Snoqualmie River Hydrologic Study –  
Evaluation of Flooding Trends and Current  
Conditions (King County 2018)

### Findings

- 1) Increased storm frequency, potentially increased magnitude
- 2) Climate change projections: seasonal flows will shift, higher flows during annual peak floods (winter), higher flows in spring and fall, lower in summer.....consistent with observed trends in Snoqualmie basin but not yet statistically significant

### SNOQUALMIE RIVER HYDROLOGIC STUDY

#### EVALUATION OF FLOODING TRENDS AND CURRENT CONDITIONS



**King County**

Department of Natural Resources and Parks  
Water and Land Resources Division

# City Code Updates: Flood hazard regulations

- Code updates paused until King County completes updated model, applies for a Letter of Map Revision (LOMR), and FEMA approves it (estimated 2026-2027 timeframe)
- Re-visit flood hazard regulations after 1.4' reduction in the BFE is confirmed and 100-year FEMA flood maps are officially approved
- Proposing no changes to current 1-foot freeboard due to existing safety factor (1.4')



# City Code Updates- Crosswalk Available with Packet

Item	SMC	Existing Code	New Regulation/Code	Completed
			port-district-or-an-irrigation-district-or-company.	
3	19.12.020	No definition of "sensitive species" in current code. Added as 19.12.020.EE	19.12.020.EE: "Sensitive species" means any wildlife species native to the state of Washington that is vulnerable or declining and is likely to become endangered or threatened in a significant portion of its range within the state without cooperative management or removal of threats, as currently listed by the Washington Department of Fish and Wildlife.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	19.12.020.T	SMC 19.12.020.T: "Listed species" means those wildlife species that have been listed as endangered, threatened or critical by the U.S. Fish and Wildlife Service, NOAA National Marine Fisheries Service, or Washington Department of Wildlife pursuant to RCW 77.12.020 and Chapter 232-12 WAC as may be amended.	19.12.030.U: "Listed species" means those wildlife species that have been listed as endangered, threatened or sensitive by the U.S. Fish and Wildlife Service, NOAA National Marine Fisheries Service, or Washington Department of Wildlife, as may be amended.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	19.12.190.A	19.12.190.A: Designation. All wetlands and streams and their buffers, together with all publicly owned open spaces of greater than 10 acres, not including land use perimeter buffers, are hereby designated as fish and wildlife habitat conservation areas, including Meadowbrook Farm, the Two Sisters Return Open Space, Snoqualmie Point, Three Forks Natural Area, the Snoqualmie River Open Space and the Kimball Creek Open Space. Other areas shall be designated as fish and wildlife habitat conservation areas based upon a habitat study conducted pursuant to this section.	19.12.190.A: Designation. All waters of the state, including wetlands, and streams, and their buffers, together with all publicly owned open spaces of greater than 10 acres, not including land use perimeter buffers, are hereby designated as fish and wildlife habitat conservation areas, including Meadowbrook Farm, the Two Sisters Return Open Space, Snoqualmie Point, Three Forks Natural Area, the Snoqualmie River Open Space and the Kimball Creek Open Space. Other areas, such as those of primary association for state and federal listed wildlife species, state sensitive species, and Priority Habitat Species as designated by the Washington Department of	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

# How do code updates impact upcoming city projects?

- No impacts to:
  - Downtown (within SMP jurisdiction)
  - Snoqualmie Valley Hospital (buffer widths vested)
  - Snoqualmie Dog Park (already encumbered)
  - Model Train Museum (within SMP jurisdiction)
  - Gateway Lot - 7001 Railroad Ave SE (within SMP jurisdiction)
  - Mill Site (Phase 1)
- Minor impacts to:
  - Mill Site (Phase 2 and 3)

# Questions and Comments?

**Thank you!**

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