

# Flooding and Climate Change: Linking Projections to Impacts



Guillaume Mauger

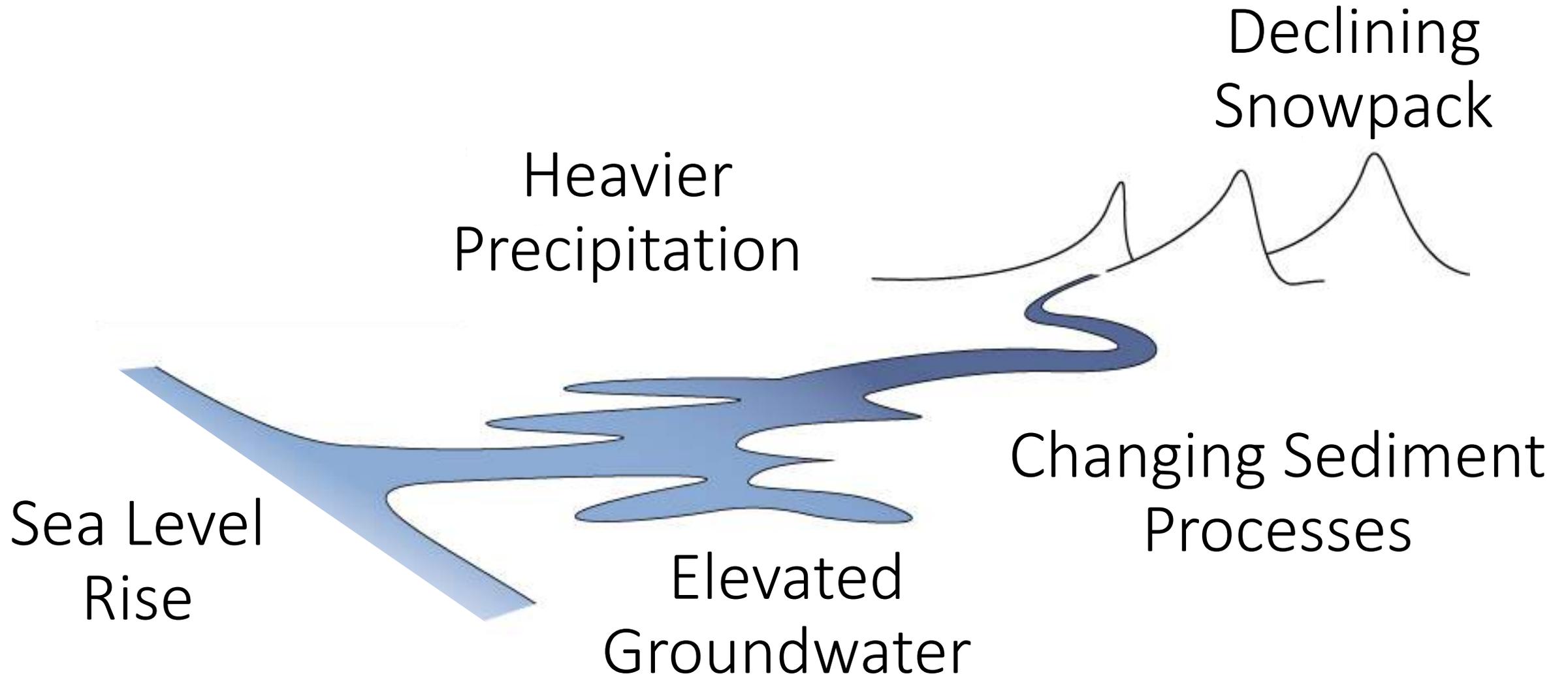
CDPW

October 2020

<https://www.heraldnet.com/news/looking-back-floodwaters-spill-into-the-snohomish-river-valley/>

# Climate Change Impacts on Flooding

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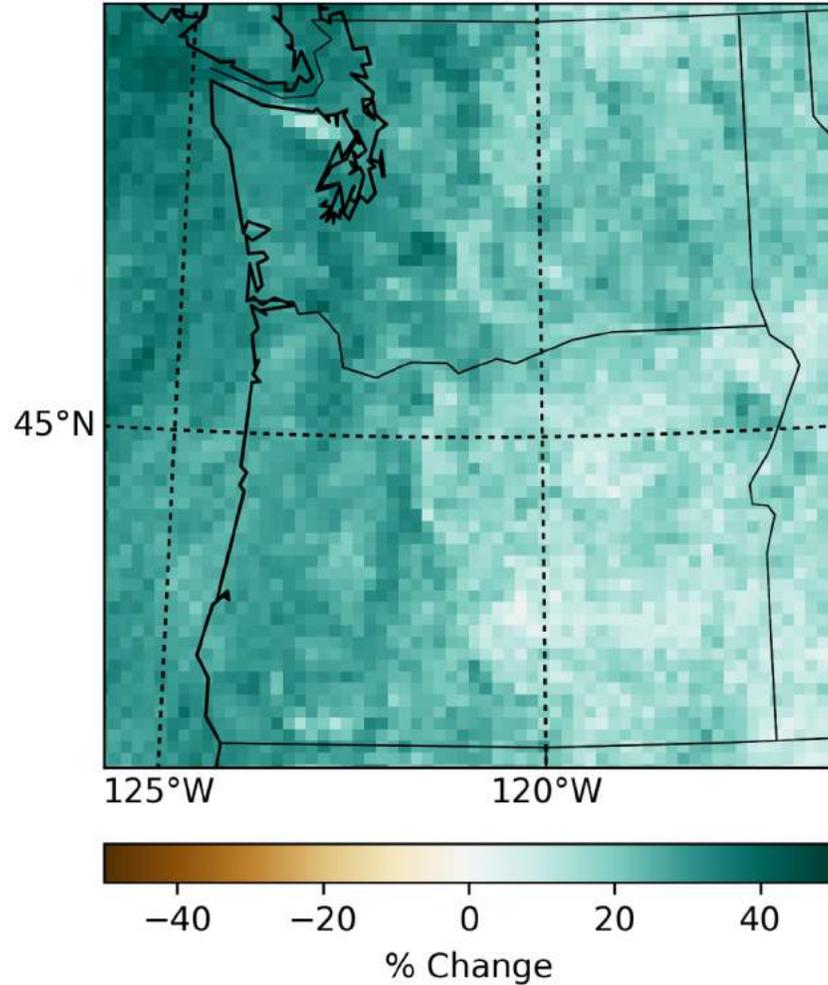
# More Intense Heavy Rains

Heaviest rain events (top 1% daily) are projected to become **+22% more intense** (*range: +5 to +34%*) by the 2080s.

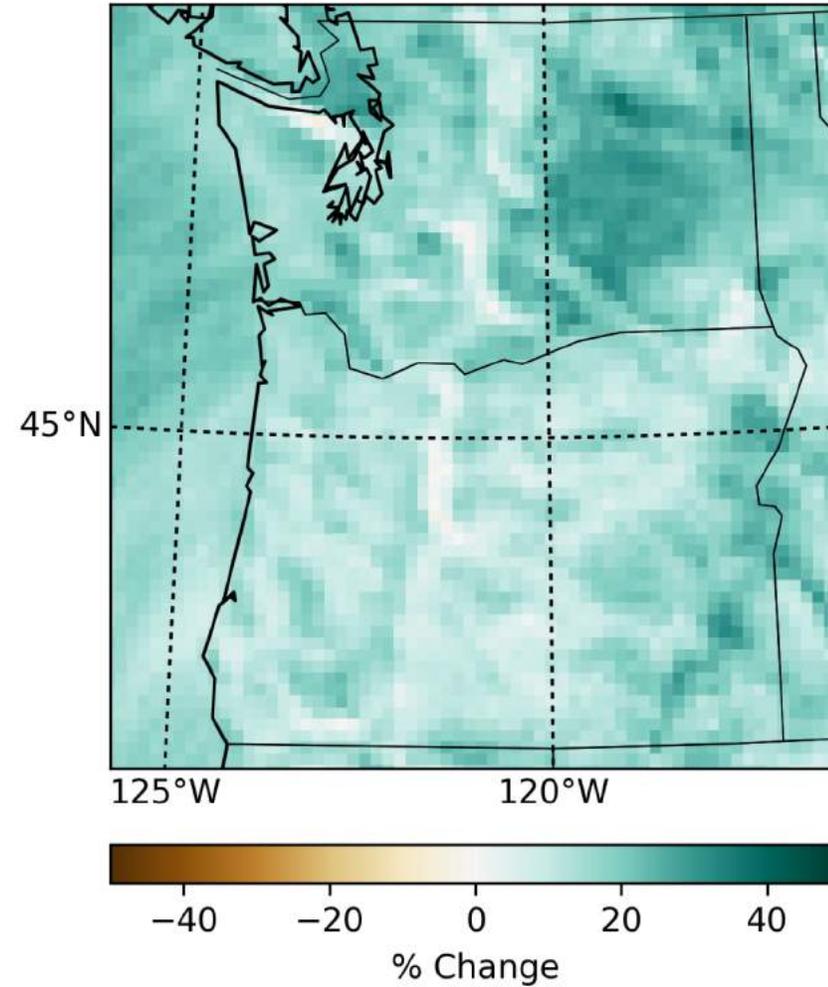


# Change in the 2-yr storm: **2080s**

1-hour

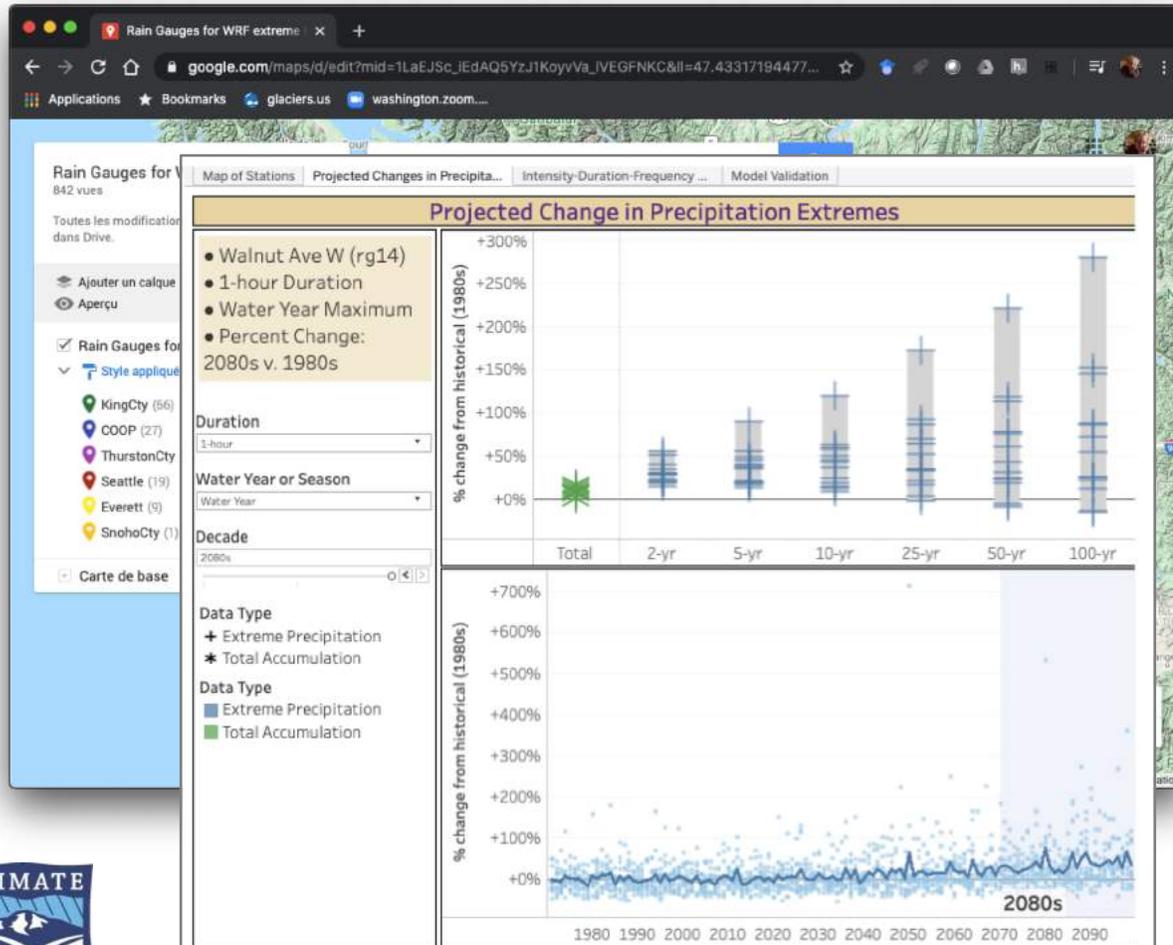


24-hour



# Impact on Stormwater Design

## Evaluation of Potential Climate Change Impacts on Stormwater Facility Size and Cost



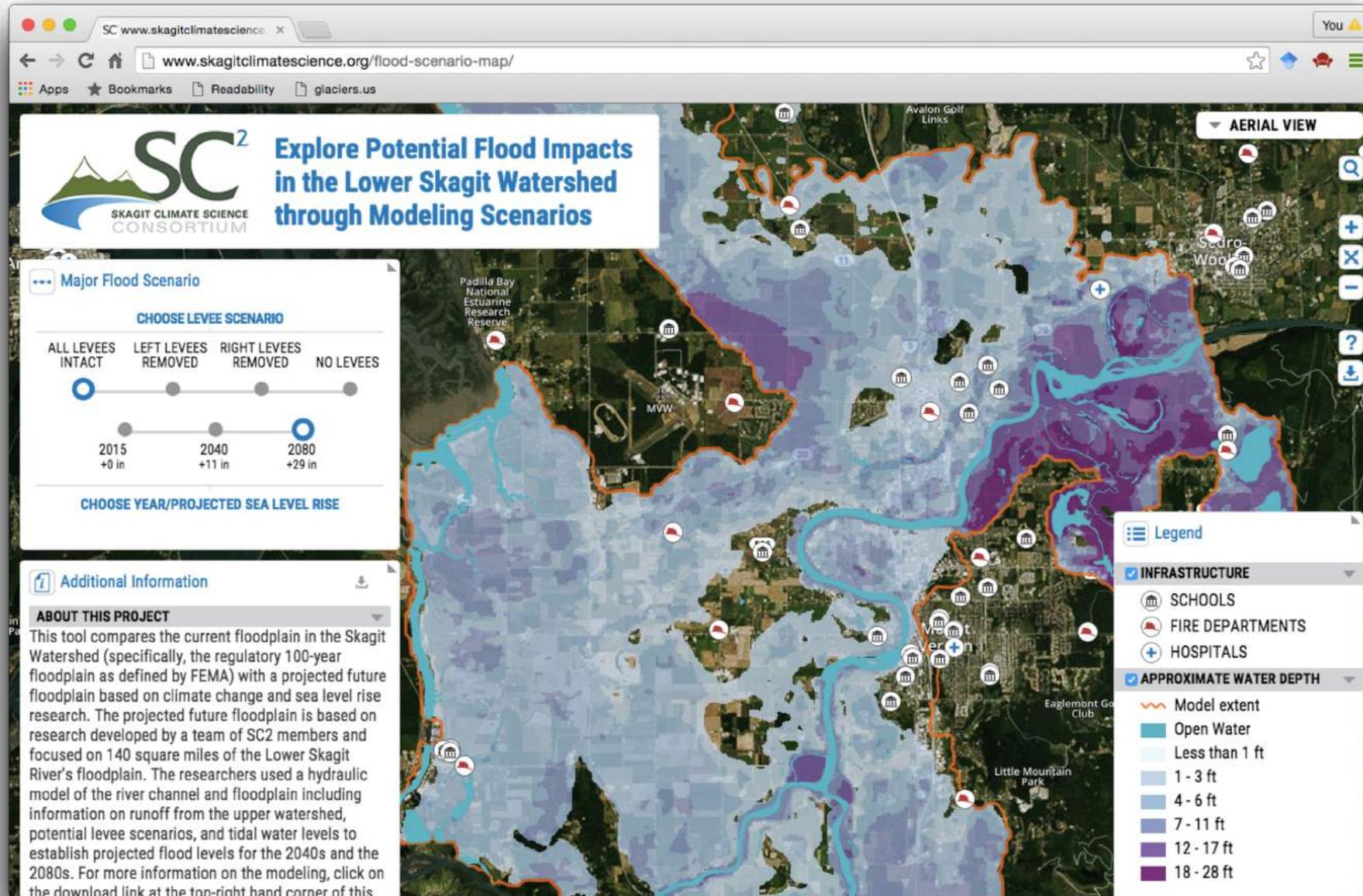
November 2019



<https://cig.uw.edu/our-work/applied-research/heavy-precip-and-stormwater/>

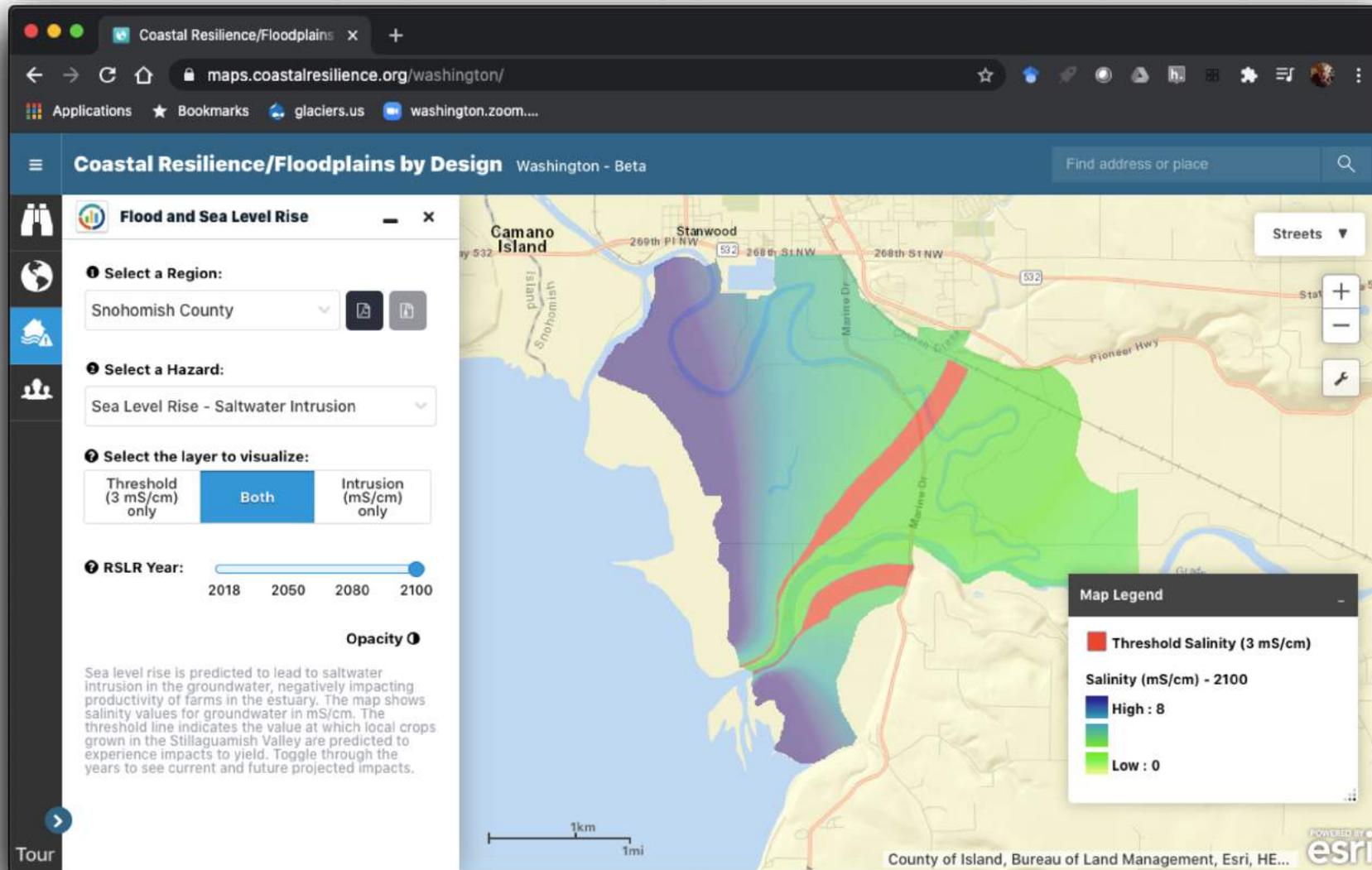


# Current v Future Flooding in the Skagit Valley



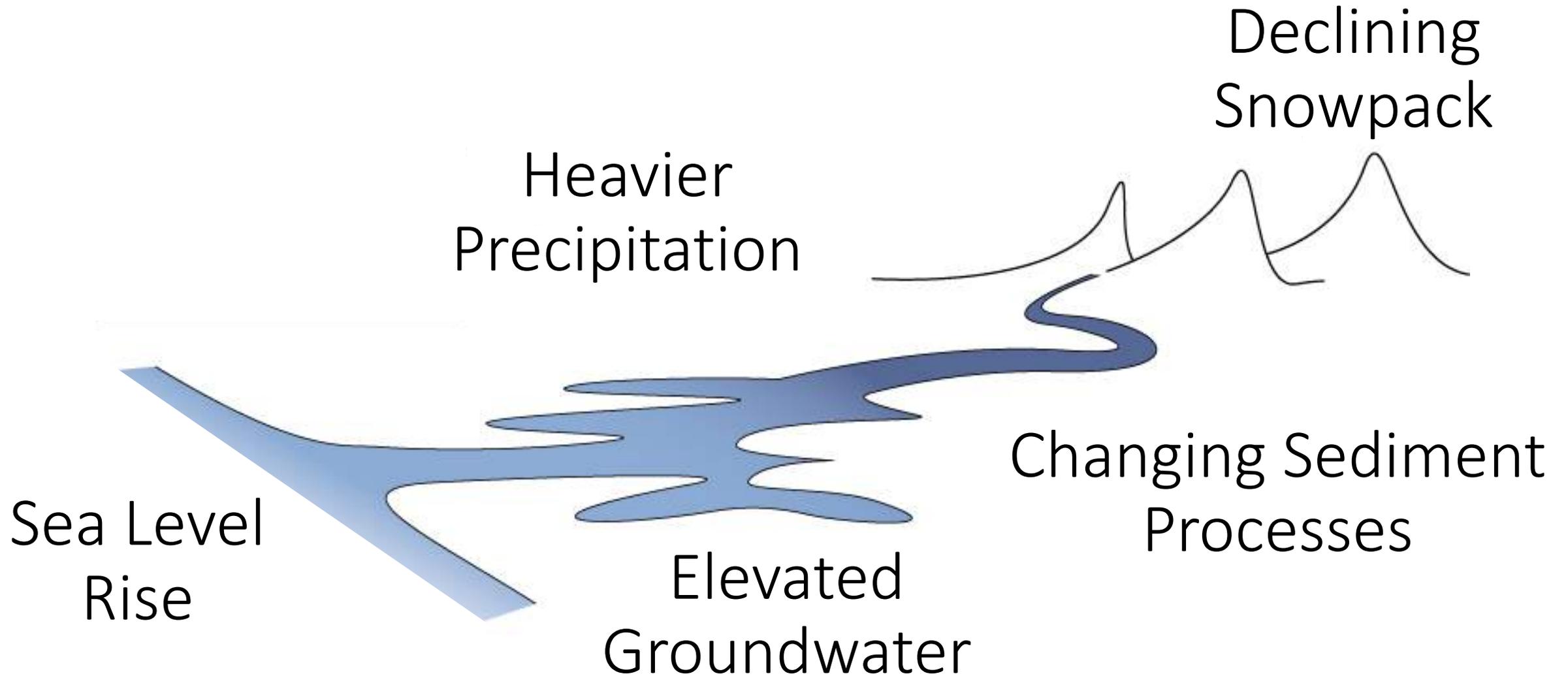
# Groundwater: Very Few Climate Studies

2080s

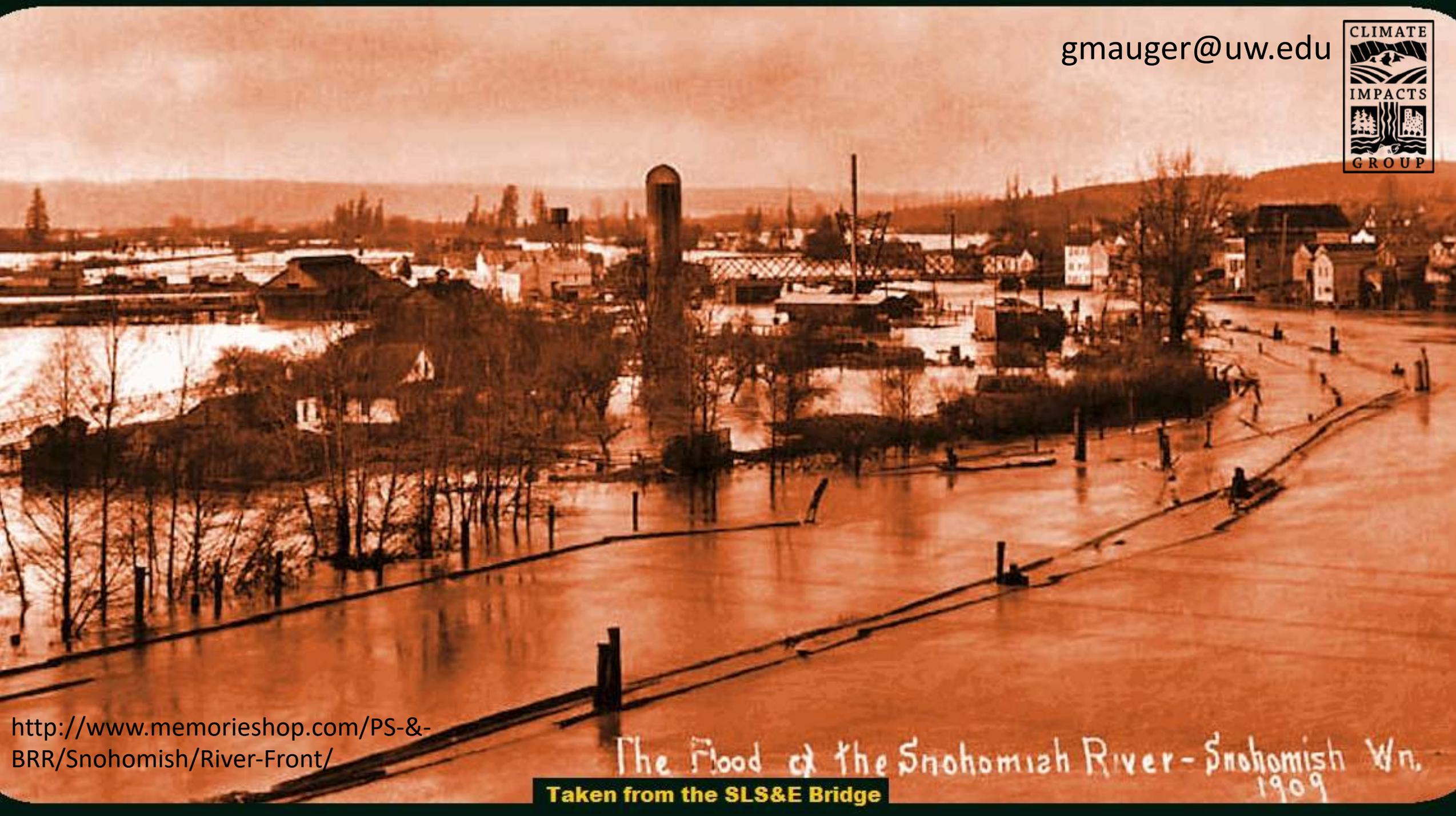


# Climate Change Impacts on Flooding

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<http://www.memorieshop.com/PS-&-BRR/Snohomish/River-Front/>

The Flood of the Snohomish River - Snohomish Wn. 1909

Taken from the SLS&E Bridge