

# WHITE RIVER

## Flooding and Erosion Conditions

- For segment 1 (8th St – RM10):
  - Highly modified and constricted channel; high sediment loads deposit in the lower river channel.
  - Densely developed through Sumner, Pacific and Auburn; some residences and businesses at risk from bank overtopping and channel migration as seen in January 2009 flood.
  - Local scour undermines part of the aging revetment.
- Upstream segments:
  - Mostly undeveloped, unconstrained, dynamic, actively migrating.
  - Potential for rapid channel changes puts residences at risk near Red Creek, at White River RM 45, and at Greenwater River.
  - Risks to SR 410.



## Vision & Strategy

Reduce flood risks by improving flow conveyance to accommodate flood flows, storage and sediment loads:

- Remove artificial fill
- Build setback levees and retrofit revetments
- More clearly identify flood hazards along the river segments
- Mitigate residential flood risks through voluntary acquisition of homes subject to flooding and erosion hazards
- Partner with other agencies and jurisdictions to address risks to critical roads and bridges
- Accommodate and support natural riverine processes to achieve multiple benefits including flood attenuation in lower reaches and aquatic and riparian habitat restoration in all river segments



## Proposed Actions

- Continue with property acquisitions to make Countyline and Pacific Right Bank levee setback projects possible; design, permit, implement levee setback projects
- Assess feasibility of improvements to river corridor between A St. and R St. bridges; evaluate possible CIPs to address hazards and mitigate risks to homes, schools and Roegner Park
- Prepare CMZ study and mapping from 8<sup>th</sup> St. Bridge upriver to Mud Mt. Dam and above the dam to and including Greenwater River to identify channel migration hazards and support flood hazard management
- Assess extent and timing of recreational river use in segment 1 to inform flood project implementation as channel and floodplain conditions will change
- Design and implement TransCanada CIP to address erosion hazards
- Partner/coordinate with other agencies and jurisdictions on 8<sup>th</sup> Street Bridge replacement
- Prepare up-to-date flood hazard studies and mapping in coordination with relevant partners, e.g., Muckleshoot Indian Tribe and Pierce County
- Continue to mitigate residential risks upriver, including voluntary acquisitions of flood-prone homes

## Accomplishments 2006 through 2012

- Stuck River Drive revetment repair 2008
- Installation of temporary flood barrier in 2009 in partnership with USACE, City of Pacific
- Acquisition of flood-prone homes and land, including 13 homes and over 7 acres of land acquired from willing sellers 2009/2011
- Technical analyses completed to support the development of large scale CIP's including TransCanada levee setback feasibility study
- Progress on Right Bank and Countyline levee setback projects: acquisitions and preliminary design
- Installation of USGS radar gages
- Communication with upriver landowners about flood and channel migration hazards and related risks
- 2009 flood studies of segments 1 and 3 (Reviewed and accepted by FEMA)

