



# WHITE RIVER

## *King County Flood Hazard Management Plan Update*

*White River Estates in Pacific, Jan. 2009*

### *King County's river and floodplain management vision and strategy:*

- Reduce flood risks by improving the river channel's capacity to accommodate flood flows, storage and sediment loads.
- Remove artificial fill.
- Build setback levees and improve revetments.
- Better identify flood hazards.
- Reduce residential flood risks by acquiring homes at risk from flooding or erosion.
- Work with other agencies and cities to address flood risks to important roads and bridges.
- Accommodate and support natural river processes to moderate flooding in the lower reaches and restore habitat throughout the river.

### *Existing conditions of the White River basin:*

#### **For the lower river segment from 8th Street to River Mile 10:**

- The channel has been changed and constricted from its natural configuration.
- Lots of sediment is carried by the river and deposited in the lower river channel.
- Areas along the river are densely developed through the cities of Sumner, Pacific and Auburn.
- Some homes and businesses are at risk from bank overtopping and channel movement as seen in the January 2009 flood.
- River action undermines the aging revetment in some spots.
- The 8th Street Bridge constricts the river channel, magnifying flood risks in the area.

#### **In other river segments:**

- Upriver, the floodplain is mostly undeveloped, and the unconstrained river is dynamic and actively migrating.
- The potential for rapid channel changes threatens homes near Red Creek, at White River River Mile 45 and at the mouth of the Greenwater River.
- Parts of State Route 410 are at risk from flooding and erosion.

## King County Flood Plan accomplishments 2006-2012:

- Repaired the Stuck River Drive revetment in 2008.
- Installed a temporary flood barrier in 2009 in partnership with the City of Pacific and the U.S. Army Corps of Engineers.
- Acquired 13 flood-prone homes and additional open space from willing sellers from 2009-2012.
- Completed technical studies to support developing large capital projects, including a feasibility study of the TransCanada levee setback.
- Acquired property and began preliminary design on the Right Bank and Countyline levee setback projects.
- Installed U.S. Geological Survey (USGS) radar gages for more accurate monitoring.
- Communicated with upriver landowners about flood and channel migration hazards and risks to their property.
- Performed flood studies in 2009 of two river segments, which were reviewed and adopted by Federal Emergency Management Agency.



*Above: A temporary barrier improves flood protection in Pacific until the future project is constructed.*

*Below: Five homes were relocated to make room for a future flood risk reduction project.*



## Proposed river and floodplain management actions for 2013-2018:

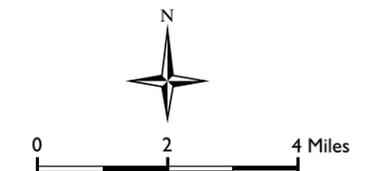
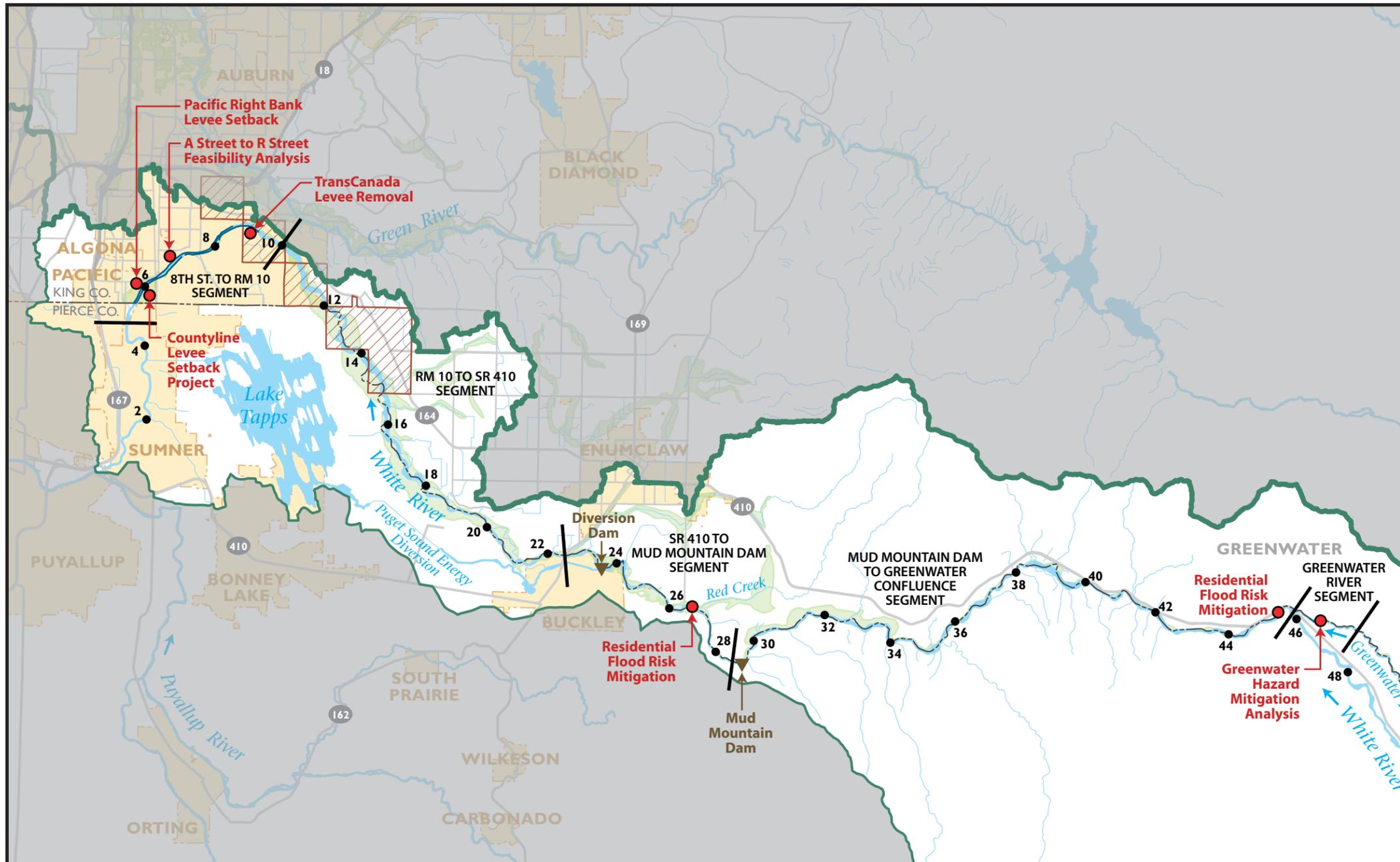
- Continue to acquire property for the Countyline and Pacific Right Bank Levee setback projects.
- Identify possible flood hazards and evaluate projects to reduce flood risks between the A and R Street bridges.
- Determine the extent and timing of recreational use of the lowest river segment under current conditions to inform design and implementation of flood projects.
- Design, permit and implement levee setback and levee removal projects in the 8th Street to River Mile 10 segment.
- Map flood hazard areas where channel movement is likely by preparing Channel Migration Zone studies of all planning segments of the White and Greenwater Rivers.
- Prepare up-to-date flood hazard studies and mapping in coordination with Muckleshoot Indian Tribe, Pierce County and others.
- Continue to address risks to homes upriver, including buying flood-prone homes through voluntary action.

Questions? Please call 206-296-8001  
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Call 206-296-6519 or TTY:711

# WHITE RIVER KING COUNTY FLOOD HAZARD MANAGEMENT PLAN

- Proposed Project Sites, as described in Chapter 5 (Project locations are approximate)
- /NAME** River Segment Boundary and Segment Name
-  Rivers and Streams with FEMA Mapped 100-Year Regulatory Floodplains
-  Rivers and Streams with Unmapped Regulatory Floodplains
-  Flood Protection Infrastructure (Levees & Revetments)
- 2 River Miles (Approximate)
-  Watershed/Basin Boundary
-  Road
-  Incorporated Area
-  County Boundary
-  Muckleshoot Indian Tribe Reservation
-  Dam



## ACTION PLAN BY SEGMENT

8TH ST. TO RM10	RM10 TO SR 410	SR 410 TO MUD MOUNTAIN DAM	MUD MOUNTAIN DAM TO GREENWATER CONFLUENCE	GREENWATER RIVER
<ul style="list-style-type: none"> <li>· Feasibility studies</li> <li>· Recreational study</li> <li>· Channel migration study</li> <li>· Capital projects</li> <li>· Support partnerships to address 8th St. Bridge flood risk</li> </ul>	<ul style="list-style-type: none"> <li>· Flood study</li> <li>· Channel migration study</li> </ul>	<ul style="list-style-type: none"> <li>· Channel migration study</li> <li>· Residential flood risk mitigation</li> </ul>	<ul style="list-style-type: none"> <li>· Flood study</li> <li>· Channel migration study</li> <li>· Support partnerships to address SR 410 flood risk</li> <li>· Residential flood risk mitigation</li> </ul>	<ul style="list-style-type: none"> <li>· Flood study</li> <li>· Channel migration study</li> <li>· Flood hazard mitigation study</li> </ul>

  
**King County**  
 Department of  
 Natural Resources and Parks  
**Water and Land Resources Division**

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