

King County Flood Hazard Management Plan Update

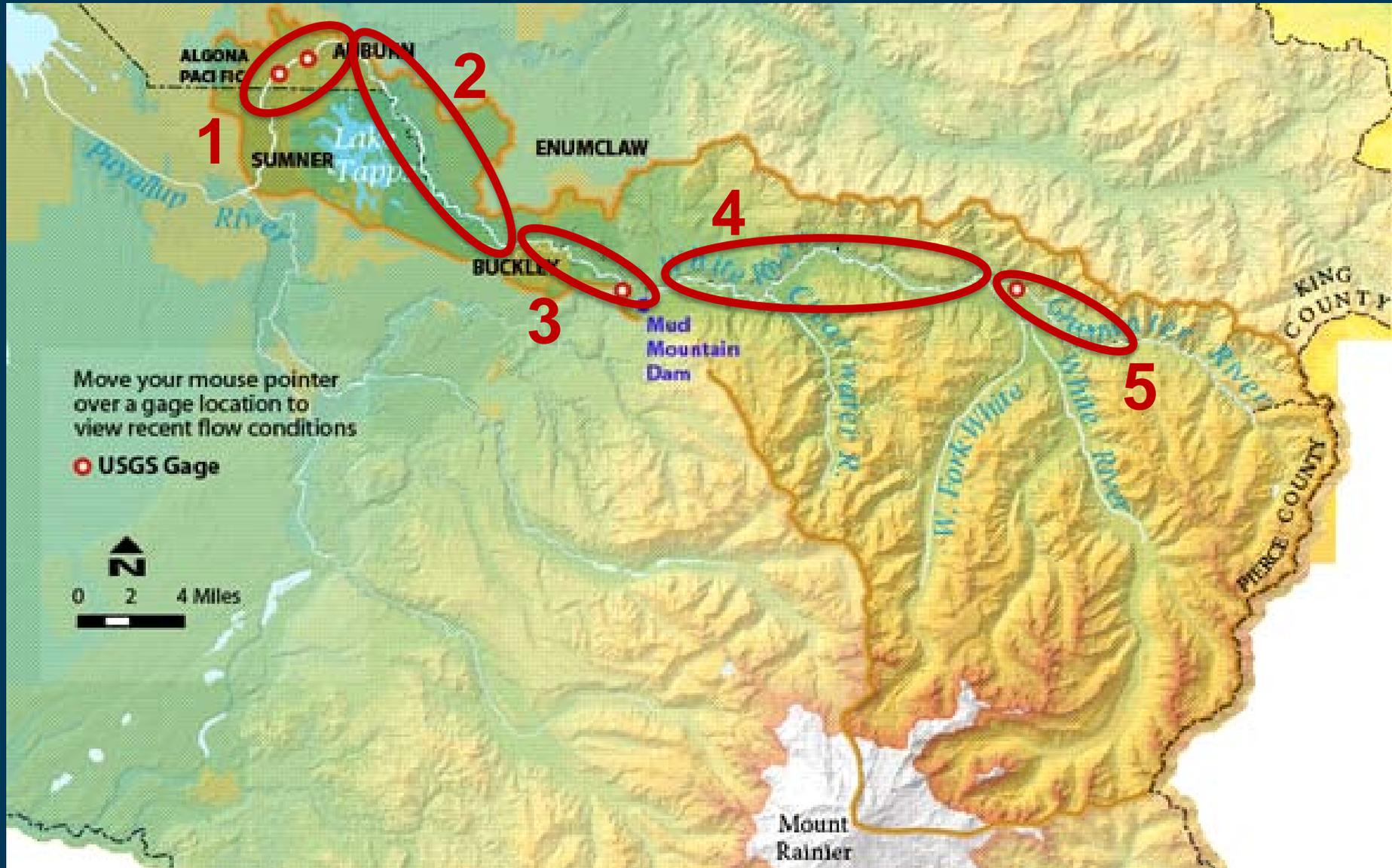
White River Basin Overview

Citizen's Committee Meeting
July 10, 2012

White River Basin Overview

- Conditions and Risks
- Strategy to reduce risks
- Accomplishments
- Action Plan

White River - 5 Segments



Lower White River 2009 Flooding

- Depositional reach in sediment-rich basin
- January 2009 flooding
 - Right (east) bank areas in City of Pacific
 - Left (west) bank into City of Sumner
- Flooding was exacerbated by sedimentation



Strategy to reduce flood risk

Segment 1: 8th Street – RM 10

- Improve flow conveyance
- Remove artificial fill
- Build setback levees
- Continue to monitor channel conditions

Accomplishments Overview

Segment 1: 8th Street - RM 10

1. Technical studies (2006 – present)
2. Stuck River Drive revetment repair (2008)
3. Temporary flood HESCO flood barrier (2009)
4. TransCanada Levee Setback Feasibility Study
5. Right Bank levee setback progress
6. Countyline levee setback progress
7. Installation of USGS Radar gages

Accomplishments

Segment 1: 8th Street - RM 10

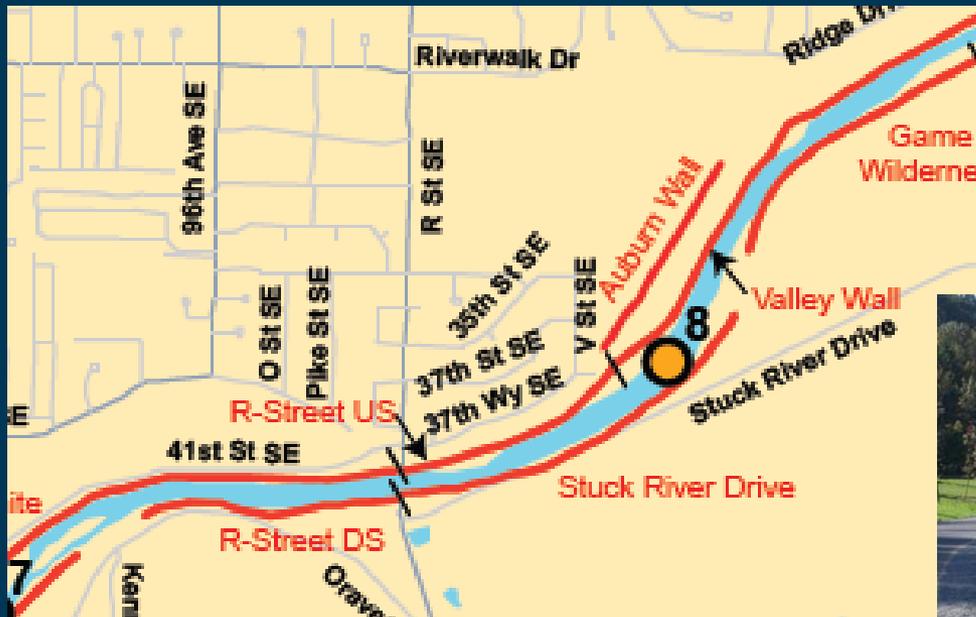
1. Technical studies (2006 – present)

- a. Flood hazard study and mapping
- b. Sediment trends
- c. USGS Partnerships
- d. Data sharing (USACE Puyallup-White General Investigation Feasibility Study; Lower White Channel Capacity Study)

Accomplishments

Segment 1: 8th Street - RM 10

2. Stuck River Drive revetment repair (2008)



Accomplishments

Segment 1: 8th Street - RM 10

3. Temporary flood HESCO flood barrier (2009)



Accomplishments

Segment 1: 8th Street - RM 10

4. TransCanada Levee Setback Feasibility Study



Figure 2-1
Project
Alternative 2
TransCanada
Levee Setback
Feasibility Study



Accomplishments

Segment 1: 8th Street - RM 10

5. Right Bank levee setback progress

- 7 acre agricultural property
- 1 vacant lot 3rd Place SE
- 5 relocations White River Estates
- 6 demolitions White River Estates
- 2 pending acquisitions (one on 3rd Place SE and one in WR Estates)

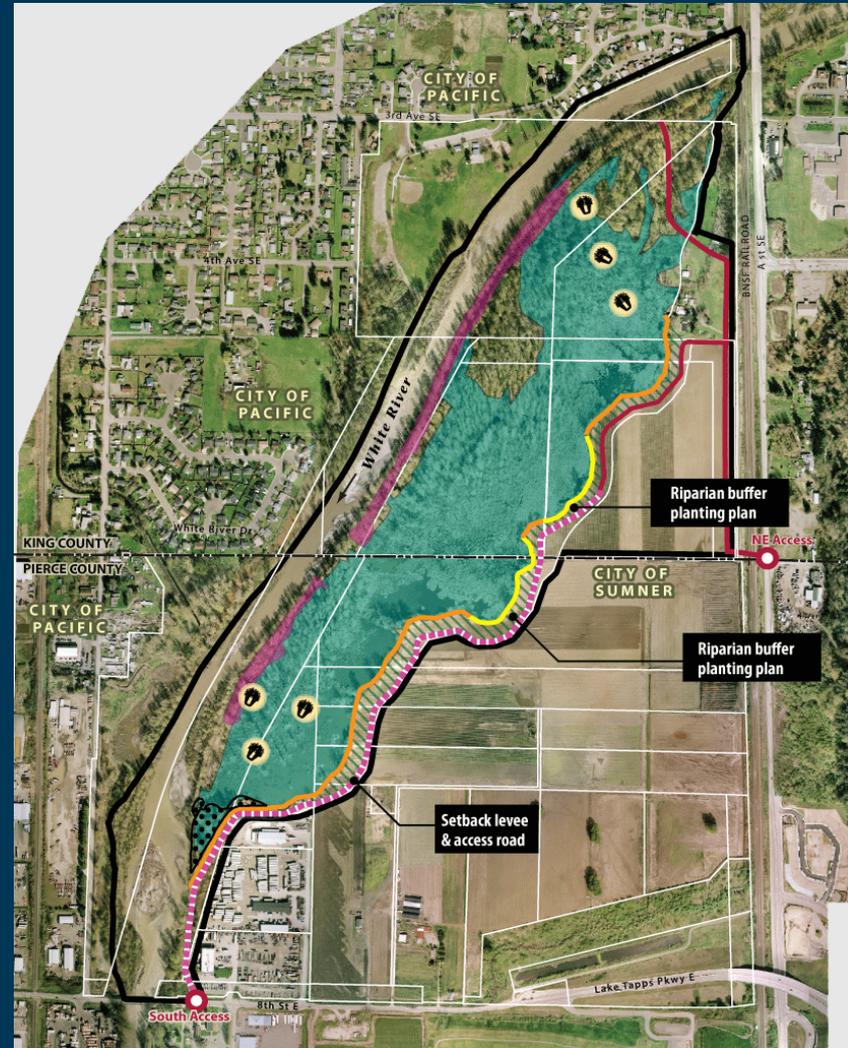


Accomplishments

Segment 1: 8th Street - RM 10

6. Countyline levee setback

- Acquisition
- Preliminary design
- Supporting technical analyses
- Pre - project monitoring



Accomplishments

Segment 1: 8th Street - RM 10

7. Installation of USGS Radar gages



Action Plan

Segment 1: 8th Street – RM 10



Conditions and Risks

Segment 2: RM 10 – SR 410

- Natural system
- Actively migrating
- Undeveloped character
- Minimal existing risks



Strategy to reduce flood risk

Segment 2: RM 10 – SR 410

- Continue to support naturally functioning river and floodplain system

Accomplishments

Segment 2: RM 10 – SR 410

- No project actions or studies

Action Plan

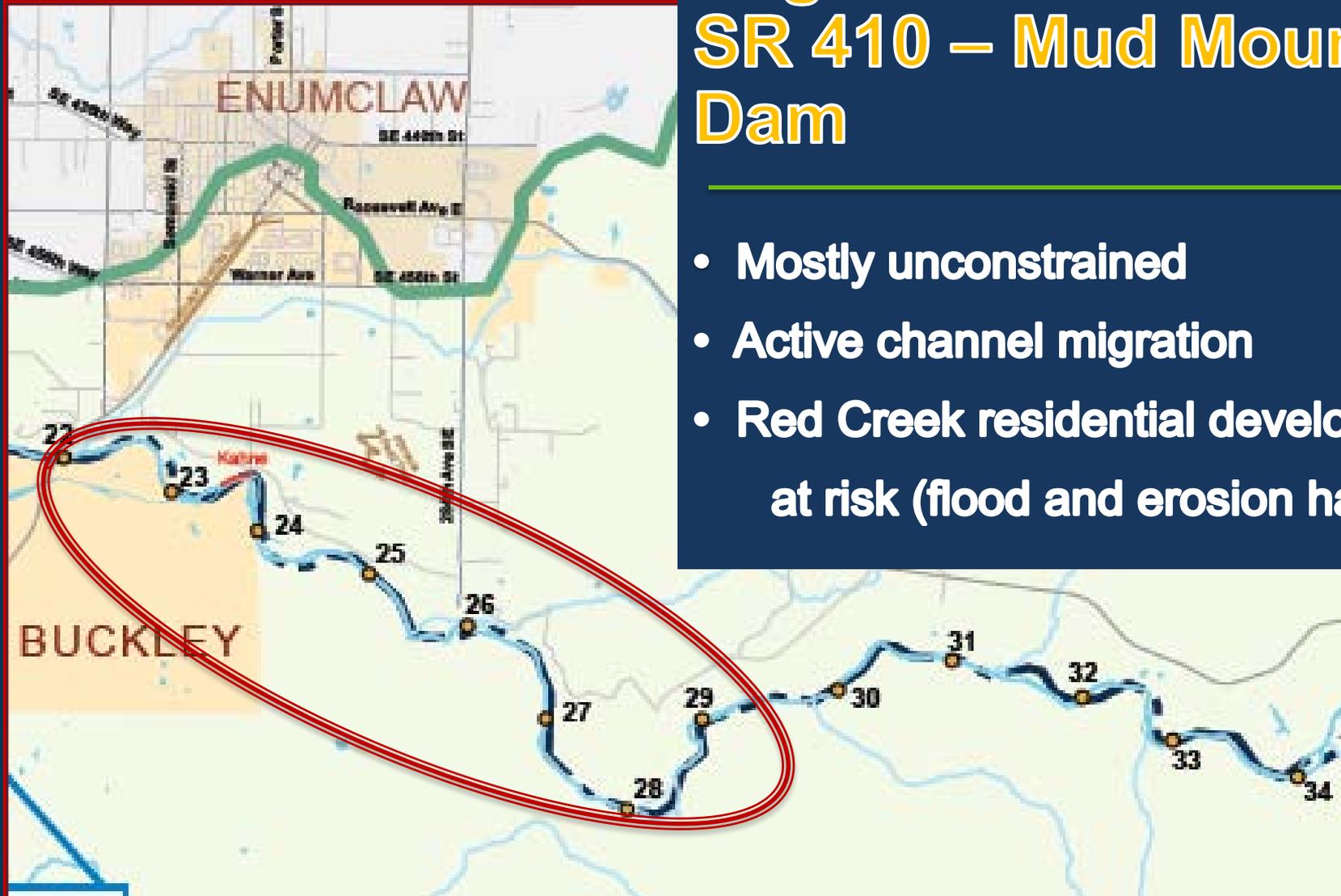
Segment 2: RM 10 – SR 410

- Flood hazard study and mapping
- Channel migration hazard study and mapping

Conditions and Risks

Segment 3: SR 410 – Mud Mountain Dam

- Mostly unconstrained
- Active channel migration
- Red Creek residential development at risk (flood and erosion hazards)



Strategy to reduce flood risk

Segment 3: SR 410 – Mud Mountain Dam

- Identify hazard areas
- Mitigate residential flood risks through acquisition

Accomplishments

Segment 3: SR 410 – Mud Mtn Dam

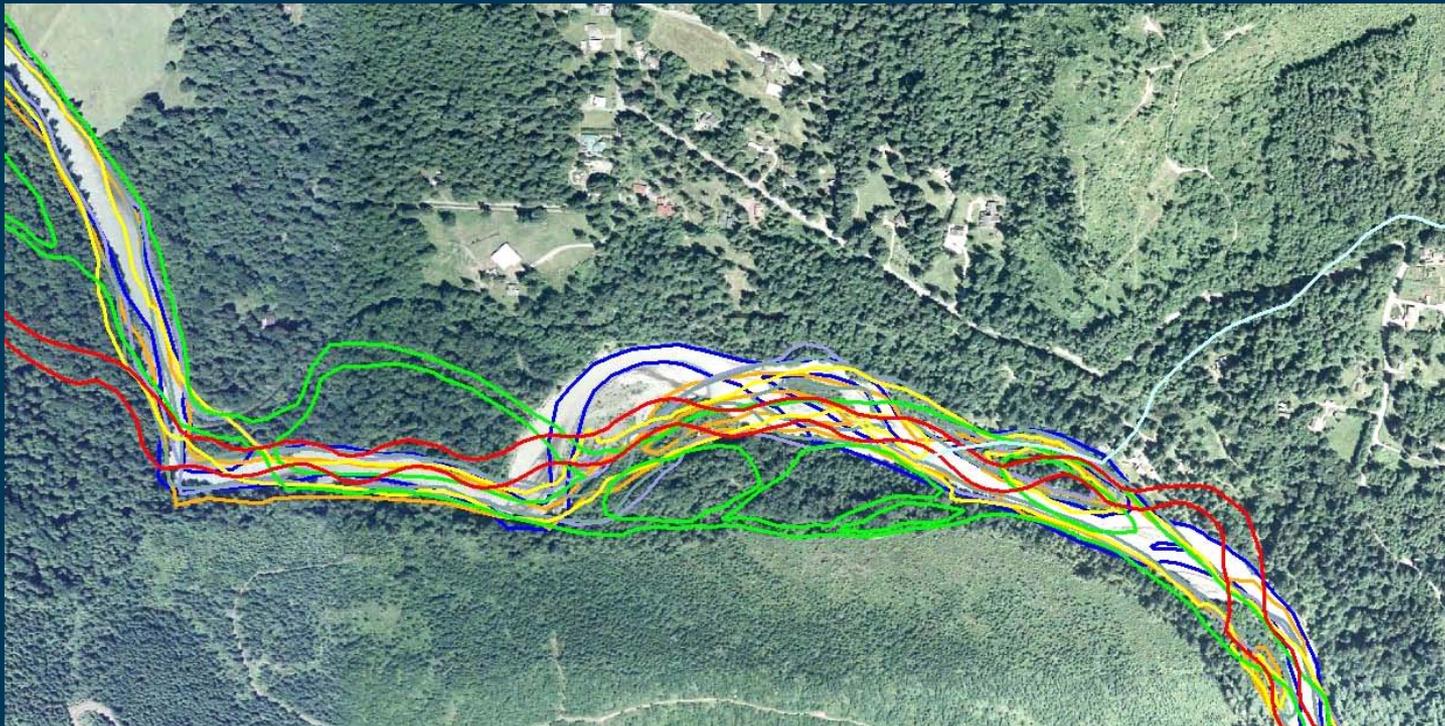
1. Flood hazard study and mapping 2009
2. Residential flood buyout 2004
(Lower Boise Creek Restoration completed 2011)



Action Plan

Segment 3: SR 410 – Mud Mtn Dam

- Continue residential risk mitigation efforts
- Channel migration hazard mapping

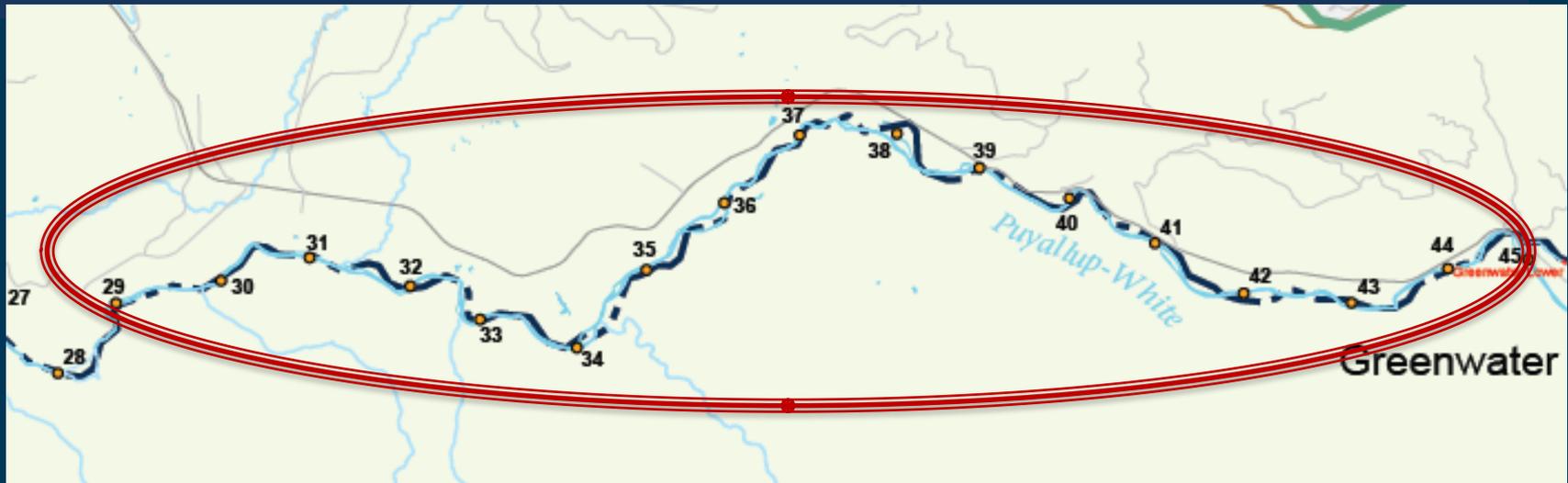


Conditions and Risks

Segment 4:

Mud Mountain Dam – Greenwater

- Mostly undeveloped
- Active channel migration hazards
- Small residential community at RM 44.2
- Risks to State Route 410



Strategy to reduce flood risk

Segment 4:

Mud Mountain Dam – Greenwater

- More clearly identify hazard areas
- Mitigate residential flood risks through acquisition
- Partner to mitigate flood risk to infrastructure

Accomplishments

Segment 4:

Mud Mountain Dam – Greenwater

- Engaged landowners regarding flood and erosion hazards and related risks

Action Plan

Segment 4:

Mud Mountain Dam – Greenwater

- Channel migration hazard study & mapping
- Flood hazard study & mapping
- Mitigate residential flood risk

Conditions and Risks

Segment 5: Greenwater River

- Recovering forested watershed
- Altered hydrology
- Somewhat constrained lower reach
- Mostly undeveloped
- Small residential communities



Strategy to reduce flood risk

Segment 5: Greenwater River

- More clearly identify hazard areas
- Mitigate residential flood risks

Accomplishments

Segment 5: Greenwater River

- Engaged landowners regarding flood and erosion hazards and related risks

Action Plan

Segment 5: Greenwater River

- Channel migration hazard study & mapping
- Flood hazard study & mapping
- Mitigate residential flood risk

Summary of Action Plan – White River

- Feasibility Studies and Capital Projects in Segment 1
- Recreation Study in Segment 1
- Channel Migration Studies in all Segments
- Flood Studies in Segments 2,4 and possibly 5
- Flood Hazard Mitigation Study in Segment 5
- Support partnerships to address 8th St Bridge & SR 410

