Middle Fork Snoqualmie River Corridor Planning Process

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Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section

King County

King County Flood Control District
Agenda

• Corridor Planning Process Overview and Status
• Project Goals
• Existing Conditions
• Potential Tools
• Next Steps
Middle Fork Snoqualmie River Corridor Planning Process

- Existing conditions: Complete
- Goals and objectives: Complete
- Public input on existing conditions: Here now!
- Public input on potential solutions: Spring 2019
Middle Fork Snoqualmie River Corridor Plan

Goals

• Goal 1: Reduce risks from flood and channel migration hazards

• Goal 2: Reduce long-term repetitive costs of flood hazard management

• Goal 3: Integrate sound and sustainable flood hazard management projects/practices that benefit the natural environment to the degree practicable

• Goal 4: Incorporate stakeholder and community input into the Corridor Planning process in an equitably and socially just manner

(Approved by King County Flood Control District Motion No. FCDECM2018-03.1)
Existing Conditions: Flood Protection Facilities

Mason Thorson Ells, January 1990

Mason Thorson Extension, January 2015
Existing Conditions: Multiple Types of Hazards

- Flooding
- Deep and/or fast flowing flood waters
- Channel migration and erosion

*Middle Fork Snoqualmie River downstream of the Mount Si Bridge, 1959*
Flooding from the Middle Fork Snoqualmie River impacts areas in both the City of North Bend and unincorporated King County

Areas of flooding from the Middle Fork and South Fork Snoqualmie Rivers are largely distinct
Flooded areas with greater than 3 feet of flooding and/or

Flows faster than 3 feet per second

Mainstem Snoqualmie River near Fall City, January 2009
Infrastructure at Risk Due to Flood Hazards

- Flooded neighborhoods and homes
- Flooded roadways
River channels can move, or migrate, across their floodplains. This can occur:

- gradually
- as an abrupt shift
- over many years or during a single flood event
Infrastructure at Risk Due to Channel Migration Hazards

Downstream of Mason Thorson Ells Levee, January 2009
Existing Conditions Feedback

How well do our findings match your observations and experiences?
Next Steps

- Prioritize problem areas
- Evaluate applicability of risk reduction tools
How well does a tool or suite of tools address Corridor Plan Goals?

- How well does it reduce flood risks?
- Is it cost effective?
- How well does it improve ecological conditions?
- Is it consistent with what the community and other stakeholders want?
Risk Reduction Tools

- **RAISE LEVEES IN PLACE**
  - Rebuild or add height to an existing levee.

- **NEW IN STREAM STRUCTURES**
  - Strategically place wood in the river to protect a bank or divert flows away from an area.

- **BRIDGE, ROAD AND CULVERT MODIFICATIONS**
  - Rebuild or replace a bridge or culvert to increase flows under or through.

- **STRUCTURE ELEVATION**
  - Lift a structure so the first floor is above flood waters.
Risk Reduction Tools

Monitor levees and revetments and repair damages to maintain current levels of protection.

Remove gravel from the river channel to increase flow conveyance in the channel.

Construct a new levee set farther away from the river and remove the existing levee.

Remove an existing levee to restore floodplain processes.
Preliminary Timeline

Outreach to residents and other stakeholders  
Fall 2018

Draft Middle Fork Capital Investment Strategy (CIS)  
Winter 2018 - 2019

Gather feedback on the draft CIS  
Spring 2019

Update the CIS based on feedback  
Early Summer 2019
Questions?

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