Snoqualmie Basin
2020 Work Program

King County Flood Control District
Advisory Committee

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

Service provider to the King County Flood Control District
Snoqualmie Basin 2020 Work Program

- 2019-2020 Flood Season
- Middle Fork Capital Investment Strategy
- Shake Mill Left/Right Bank Revetment Repairs
- Circle River Ranch Flood Risk Reduction
- South Fork and Middle Fork PL 84-99
- Reinig Road Revetment Repair
- Record Office Revetment Repair
- Tolt Levees Level of Service Feasibility Study
- Tolt Sediment Management Feasibility Study
- Tolt River Rd NE Elevation

Snoqualmie Falls, February 2020
2019-2020 Flood Season

Snoqualmie River – Looking south toward NE 124th St., February 2020
2019-2020 Flood Season

Landslide on the Raging River, February 2020
Middle Fork Snoqualmie River Capital Investment Strategy

MIDDLE FORK SNOQUALMIE RIVER
CAPITAL INVESTMENT STRATEGY

December 24, 2019 DRAFT

The Middle Fork Snoqualmie River basin drains 271 square miles beginning in the Cascade Mountains. The river flows through the upper Snoqualmie Valley at the base of Mount Si near the City of North Bend and ranges with the North and South Forks of the Snoqualmie River near the City of Snoqualmie. The 12 discontinuous flood protection facilities on the Middle Fork Snoqualmie River do not contain floodwalls. Fully implementing the strategy will reduce risks in flooding and erosion.

Purpose: The corridor planning process will support decision-makers in setting flood risk reduction priorities by:

- Defining flood and erosion hazards in the corridor planning area;
- Assessing critical ‘next best’ public safety role in the corridor, and;
- Proposing a conceptual six-year Capital Investment Strategy consistent with budget parameters.

Summary of Risk: Under existing conditions, the following risks are present:

- For a 500-year flood:
  - 390 homes at risk
  - 7 miles of public roads at risk
  - Approximately 700 acres lost by flooded roads

- Channel Migration:
  - 330 homes at risk
  - 2 miles of public roads at risk

Proposed Risk Reduction Projects: Below is a sequenced action plan for implementing risk reduction efforts in the Middle Fork Snoqualmie River Corridor. The project sequence reflects current information on urgency, severity, consequence, responsibility or authority, and funding or partnership opportunities.

The current adopted 2020-2025 King County Flood Control District (FCD) Capital Improvement Program (CIP) includes:
- $3.1M for Upper Snoqualmie Valley Reservoir Mitigation (a portion of which is actually programmed to place levees at elevations along the Middle Fork.
- $3.1M for acquisition of homes at risk from surface floodplain migration.
- $290k to inspect and identify dwellings that need to be addressed to make facilities available in the US Army Corps of Engineers Public Law (PL) 84-99 program eligible for assistance;
- $3.1M dedicated to the Middle Fork Snoqualmie River near-term actions within the next six years, funded by projects TBD.

PROJECT
A. U.S. Army Corps of Engineers Public Law (PL) 84-99
B. Channel Monitoring and Sediment Management Program
C. Property Acquisition

PROBLEM
Approximately 13 homes outside of planned mitigation zoned area at risk below the reservoir at Middle Fork
Located sediment accumulation in various floodplain areas, homes, and infrastructure within the floodplain
Eighteen homes at risk from channel migration located in the seven channel migration zone areas
Two homes are enrolled but not eligible for participation in the U.S. Army Corps of Engineers levee program. The two houses do not meet PL 84-99 standards.

APPROACHED
Propose maintaining the levee over the next six years, anticipate additional funding in out years
Conduct channel monitoring of the Middle Fork Snoqualmie River channel as part of the King County's sediment management program
Conduct sediment management actions as part of risk reduction projects involving these modifications

COST ESTIMATES
Total $3.7M FCD O&M $1.4M
Total $240k FDO O&M Request $240k
Total $9.4M FDO O&M Request $9.4M

1. Cost estimates include best available projections regarding right-of-way acquisition, design, construction, 25-year site establishment, 50-year effectiveness monitoring. Cost estimates do not include maintenance and monitoring beyond 25 years.
2. Currently funded Flood Control District projects.
3. Cost attributed to operating budget. FDO included in the six-year Capital Improvement Program project cost.

Middle Fork Community Meeting
February 2020
Shake Mill Right & Left Bank Revetment Repair Projects
Shake Mill Left
Bank Revetment
Reconstruction

- Construction was completed in early October 2019, two weeks prior to the October 22nd flood.

- Approximately 300 feet of the new buried setback revetment is visible following bank erosion during 2019 - 2020 flood events.

Setback Revetment on the North Fork Snoqualmie River, February 2020
Circle River Ranch
Flood Risk Reduction

Project Vicinity Map
South Fork and Middle Fork Snoqualmie River
US Army Corps of Engineers PL 84-99
Reinig Road Revetment Repair
Record Office Revetment Repair

Project Location

Aerial Photo of the Revetment
Tolt River Road NE Road Elevation

Tolt RiverFlooding, January 2009

Former San Souci Neighborhood

Tolt River Road NE Elevation Location
Questions?

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