

NATIONAL RESOURCES CONSERVATION SERVICES (NRCS)
UPPER COWLITZ RIVER FLOOD HAZARD RISK ASSESMENT
MEETING TO PRESENT SUMMARY FINDINGS – September 3, 2009

Findings presented by:

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Study in response to channel migration which occurred in November 2006. Final report is to be published September 18, 2009; available in digital form. It was sponsored by Lee Grose and Bill Baird.

Study output:

Identify highest risk areas for damage from river
Identify mitigation alternatives and cost
Identify value of mitigation and cost/benefit ratio
Identify potential funding sources including means to establish a Flood Control District

Attendance:

Rod Lakey – Asst County Engineer
Christy Miller – National Forest Area Supervisor
Barbara Kincaid – County Planner
Maree Lerchen – Windermere Real Estate
John Anderson – High Valley 11 Resident
Jim Brazil – Packwood Soils Engineer
Gary McCarty – High Valley CC President
About 10 others

Study Scope – The study covered the upper Cowlitz from the exit of the canyons of the Clear Fork near Jodi’s bridge and the Muddy Fork above the 2006 avulsion down to the Skate Creek bridge.

Summary of Findings:

High Risk

The area near Timberline.

High likelihood is that the Muddy Fork will return to the recent channel pre-2006.

The area where the revetment is gone near Mt. View in HV8.

Moderate Risk

HV8 from avulsion down Cannon Road behind the revetment protecting HV8/11.

Damage to Skate Creek bridge from wood debris.

Summary of Findings (cont.):

The average cost of flood and erosion damage was estimated at \$800,000/yr for a net present value(NPV) of \$10 million. Another cost attributed to Avulsion was \$275,000/yr for an NPV of \$5.3 million.

The costs of mitigation not including design and management were estimated at:

Timberline	\$1,355,000
High Valley 8/11	\$2,051,000
HVCC/Goat Rocks	\$3,196,000
HVCC 6/Bridge	\$2,861,000

The cost estimates for building revetments were based on the design above HV11 at \$700/lineal foot. Key recommendation for protecting HV 8/11 are a set back revetment across Cannon Road in the National Forest area and repair of existing revetments.

The cost benefit ratio ranged from negative for things such as property buyout to about 2-3/one for key protection of High Valley.

The study identified 12+ potential sources of grants.

The information on how to form a flood control district is part of the study but was not presented in the meeting. This is considered key to obtaining funding.

Other interesting information noted:

Woody debris is migrating down the river at about a mile per year which surprised the study group. Mitigation opportunities investigated included: removal, stabilization and debris traps.

Average avulsion rates range from 3-6 ft/yr, however, the study group saw a movement of 400 ft in one event.

Sediment build-up in the river is about 1.2 ft/yr.

Prediction is that land slides and glacial melt will get worse instead of better.