

South Fork Snoqualmie River Corridor Plan

Frequently Asked Questions

General

Q. What is the South Fork Snoqualmie Corridor Plan?

A. In 2007, the King County Flood Control District was established to provide a proactive, regional approach to address flood risks and improve King County's aging and inadequate flood protection facilities. Flooding and channel migration hazards expose the community to a high risk and cost resulting from damages to infrastructure and property. Additionally, flooding and channel migration hazards threaten public safety, cause costly damages, and in severe cases impact our regional transportation and economy. This corridor plan is needed to develop a prioritized set of capital projects to address risks along the corridor.

The South Fork Snoqualmie River Corridor Plan is a comprehensive planning effort funded by the King County Flood Control District that will identify and recommend a set of sequenced flood risk reduction projects along the lower six miles of the South Fork Snoqualmie River. The South Fork Snoqualmie River Corridor Plan will propose projects to be implemented to reduce flood risks.

Q. What is the I-90 Flood Risk Reduction Project?

A. The I-90 Flood Risk Reduction Project is a project to address flooding risk to Interstate-90 during floods larger than a 50-year recurrence interval. Due to impacts to people, homes, and the local and regional economy and transportation network that would result from closure of Interstate-90, the King County Flood Control District initiated a capital project to reduce this risk.

Q. What is the relationship between the South Fork Snoqualmie Corridor Plan and the I-90 Flood Risk Reduction Project?

A. The risk of Interstate-90 flooding was identified during the analysis for the South Fork Snoqualmie Corridor Plan. In response a new project, the I-90 Flood Risk Reduction Project was created by the King County Flood Control District in 2014. The I-90 Flood Risk Reduction Project is a stand-alone project that will move forward concurrently with the South Fork Snoqualmie River Corridor Plan. The corridor plan and the I-90 project will be complementary to each other.

Q. What is the timeline for the South Fork Snoqualmie River Corridor Plan?

A. The current timeline for the South Fork Snoqualmie River Corridor Plan can be found online at the project website. As of September 2015, the South Fork Snoqualmie River Corridor Plan timeline is as follows:

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|--------------------------------|---------------------------------|
| • Community Outreach | Summer 2015 through Winter 2016 |
| • Draft Corridor Plan Proposal | Winter 2016 |
| • Plan Approval and Adoption | Spring 2016 |
| • Plan Implementation | Beginning summer 2017 |

Community Outreach

Q. What steps are being taken to involve the community?

A. The input and concerns voiced during five neighborhood and community meetings in 2014 and 2015 are being incorporated into the decision process. The corridor planning time line is being expanded to ensure greater involvement from the community.

Communication and public outreach is being expanded to ensure greater involvement and input from the community and stakeholders for this project. Please expect:

- more frequent updates to project web pages
- project updates and meeting announcements via email
- increased use of social media for project information
- expanding our email lists
- updating our communications tools to reach a broader section of the community.

Notices for additional community meetings will be posted to the project webpages, sent out via the email list, and mailed using post-cards. Additional means of communication including Facebook, neighborhood message boards, and Twitter will be used to send out information.

Q. How can I receive information about the South Fork Snoqualmie Corridor Plan?

A. The website for the South Fork Snoqualmie River Corridor Plan is the clearinghouse for information about the project. The website has links for ways the community can stay involved, dates of scheduled community meetings, documents, frequently asked questions, and project timelines. To receive new communications regarding the project please subscribe with your email address on the website.

Project Website:

<http://www.kingcounty.gov/depts/dnrp/wlr/sections-programs/river-floodplain-section/capital-projects/south-fork-snoqualmie-corridor-plan.aspx>

Q. Where should I send questions, concerns, and feedback?

A. Please send questions, concerns, feedback and suggestions on the project to:

Clint Loper, Snoqualmie River Basin Supervisor
River and Floodplain Management Section
King County Department of Natural Resources and Parks
201 S Jackson St, Ste 600
Seattle, WA 98104
clint.loper@kingcounty.gov
206-477-4757

Project Status

Q. Has King County already made a decision on the specific Corridor Plan alternatives?

A. No final decisions have been made for the South Fork Snoqualmie River Corridor Plan alignments or actions and the corridor planning schedule is being expanded to allow for additional community input. Additional corridor information being developed will be brought to the King County Flood Control District and the community during the winter of 2016. After incorporating community input a draft South Fork Snoqualmie River Corridor Plan will be transmitted to the King County Flood Control District for approval.

Q. When current and future conditions were analyzed, how were risks determined and projects prioritized?

A. Studies used to determine risk included field surveys, subsurface data collection in the levees, computer models of river flooding, and review of historic flooding records, damages, and repairs. These findings were supplemented with discussions with landowners along the corridor. Prioritization of projects will be based on frequency and severity of identified risk. Comprehensive reporting of these analyses can be found in the following documents:

- South Fork Snoqualmie River Levee Characterization Report (2014)
- South Fork Snoqualmie River Gravel Removal Study (2011)
- Geomorphic Hazards and Risks Assessment and Alternatives Analysis – South Fork Snoqualmie River Circle River Ranch Neighborhood (2012)

Current and Future Risks

Q. What is at risk from a 100-year and a 500-year flood?

A. 100-year flood event: Approximately \$54 million in assessed property value would be inundated, including over 140 structures and eight miles of public roadways including I-90. Damage to structures and roadways are estimated at \$20 million from a single flood.

500-year flood event: Approximately \$148 million in assessed property value would be inundated, including over 550 structures and fifteen miles of public roadways including I-90. Damage to structures and roadways are estimated at \$50 million from a single flood.

Q. What is the channel migration hazard zone and what is at risk associated with it?

A. A channel migration hazard zone is the area along the river channel where the river is likely to move to and erode land, possibly damaging homes and infrastructure. There are twelve structures located in the river's severe and twelve structures in the moderate channel migration hazard zone downstream of the levees (River Miles 0-2.0). Some of these structures are at risk over a 5- to 10-year time frame.

Q. What are the ecological conditions in the corridor?

A. An analysis of the existing ecological conditions in the corridor found them to be significantly degraded; the river channel lacks complex habitat and the river is disconnected from its floodplain and riparian areas. Temperatures are dangerously high for healthy fish.

Tools and Approaches

Q. How does the County maintain and inspect the levees, culverts and other drainage structures along the South Fork Snoqualmie River?

A. Regular maintenance inspections and post flood inspections identify problems with the levees and culverts along the South Fork Snoqualmie River. Additionally, routine mowing of invasive vegetation is performed on the levees. Response to drainage problems outside the levee footprint is coordinated with other agencies including the King County stormwater program, the City of North Bend and private landowners. In addition to routine inspections and maintenance, repairs are completed when damage is identified. Repairs to damages along the South Fork Snoqualmie River levees have been completed at 15 locations since 1991.

Q. What property buyouts are proposed?

A. At this time, no further buyouts are proposed. Initial findings from flooding studies indicated that solutions to the Interstate-90 flooding problem would likely include setting back some portion of the Si View Levee, downstream of Interstate-90. Based on that information, one property was purchased from a willing seller. Several additional property owners in the vicinity of the Si View levee were approached about the potential of selling their property. Based on community feedback, all acquisitions are on hold for both the South Fork Snoqualmie River Corridor Plan and the I-90 Flood Risk Reduction Project. Once King County Flood Control District selects a preferred alternative, the project needs may or may not require further acquisition of property.

Q. Why is engineered placement of wood in rivers frequently used instead of placing rock along river banks or levees?

A. Engineered solutions of the past have had detrimental impacts to fish within the river. Using engineered log jams and other wood structures provide equal or greater flood protection with less impact to fish. Additionally, the Department of Fish and Wildlife requires projects to be constructed in accordance with the Integrated Stream Bank Protection Guidelines (ISPG) which promotes bioengineering techniques to stabilize riverbanks, such as engineered logjams and revetments incorporating vegetation. The ISPG discourage new placement of rock as a primary means of river bank stabilization, though they allow rock to be incorporated as a project element when needed.

Q. Has the Corridor Plan considered removing gravel from Riverbend Lake (Basin Lake) in the Riverbend neighborhood to reduce flood risks?

A. Gravel removal from Riverbend Lake has not been formally evaluated; however preliminary information suggests that the Riverbend neighborhood is too far upstream to have an impact on gravel accumulating in the Corridor Plan project reach. In addition, Basin Lake is disconnected from the main river channel and does not appear to have potential to store river gravels and protect downstream areas. King County records do not indicate the lake was designed for that function or for storage of floodwaters, and the volume of sediment accumulation in the Riverbend Lake is likely small relative to volumes depositing in the lower reaches of the South Fork Snoqualmie River.

Circle River Ranch Specific Questions

Q. Will King County consider installing rock along the river in the Circle River Ranch neighborhood?

A. Rock installation is being considered along with several other bank stabilization materials and technologies as part of an alternatives evaluation being conducted to address the Circle River Ranch erosion and channel migration problem. Any bank stabilization project must be consistent with the ISPG in order to acquire necessary Washington State Department of Fish and Wildlife permits (see above). A comprehensive risk reduction approach should address the cause of risk.

Q. Would gravel removal reduce flood risks to the Circle River Ranch neighborhood?

A. Gravel removal has the potential to increase the hydraulic capacity of the main channel of the South Fork Snoqualmie River, potentially reducing the flow entering the rapidly eroding and migrating side channel adjacent to the neighborhood. However, due to sedimentation rates in this area, ongoing gravel removal would be required to maintain any risk reduction benefit. Gravel removal as a possible solution to the channel migration risks at Circle River Ranch continues to be evaluated.

Q. If gravel was removed near the Circle River Ranch neighborhood, how frequently would it need to be repeated?

A. If gravel removal was demonstrated to effectively reduce risk; the frequency of removal would depend on the volume of gravel removal required. Factors considered to determine the volume include the gravel removal location, rates of sedimentation in the project area, permit conditions and other project components.

Q. Can newly preserved land at Tollgate Farm be considered for mitigation?

A. Some corridor scale flood management approaches consider using undeveloped areas (including Tollgate Farm) as potential areas to provide floodwater storage. This type of decision would require consultation with the cities of North Bend and Snoqualmie.

Q. Did lowering the weir at Snoqualmie Falls reduce river flooding in North Bend?

A. The lower water level resulting from the widening and lowering of the weir at Snoqualmie Falls does not extend upstream to the Circle River Ranch neighborhood, or to the leveed reaches of the South Fork Snoqualmie River. A new hydraulic study of the effects up- and downstream of Snoqualmie Falls is underway and the County will share that information when the study is complete in early 2016.

Fiscal Concerns

Q. Where does revenue for these projects come from and what is the budget for these projects?

A. The King County Flood Control District, an independent special purpose government, funds these projects through a countywide property tax levy. That levy is 13.86 cents per \$1,000 of assessed property value. The Flood Control District has allocated \$2.4 million for the Corridor Plan as a part of its 6-year Capital Improvement Program. Additional funds will need to be budgeted by the King County Flood Control District to implement projects identified in the Corridor Plan.

Q. Does acquisition of privately owned property by King County increase the tax burden on the rest of us?

A. Yes, but minimally. Increased countywide assessed value because of development and re-development more than offsets the tax loss by property purchases made for flood risk reduction.

While this small increment of additional cost is borne by the remainder of King County residents, acquisition of at-risk structures or property permanently eliminates the flooding risk to that property. It also provides long-term cost savings by reducing flood insurance claims, eliminating the need for flood protection facilities, and reducing public expenditures for flood warning and emergency response.

Project Website:

<http://www.kingcounty.gov/depts/dnrp/wlr/sections-programs/river-floodplain-section/capital-projects/south-fork-snoqualmie-corridor-plan.aspx>