KING COUNTY FLOOD CONTROL DISTRICT

King County

Levee Breach Mapping and Risk Assessment

2025 FACTSHEET

Assessing levee breach risks in King County

Project overview

The King County Flood Control District together with King County, as a service provider, assessed five levee systems on the Raging, Tolt, South Fork Snoqualmie, South Fork Skykomish, and Cedar rivers. Project goals were to learn if there are weak areas in the existing levee system, what would happen if a levee breached, and identify next steps.

Why are we studying levees?

Most King County levees were built in the 1960s or earlier. Little information is available about when and how they were built. Although King County has repaired some levees, most were not built according to current design standards. A levee breach can surprise a community with unexpected flooding. If a breach were to occur, it could damage homes, businesses, transportation infrastructure, and impact health and safety. Large floods caused levee breaches in 2009 on the Tolt River and in 2020 on the Cedar River.

What is a levee breach?

Levees are built along rivers to contain floodwater and reduce the frequency of flooding in nearby communities. Sometimes a levee can breach, or fail, if floodwater gets too high or part of the levee breaks. A levee breach is rare but can be dangerous and very damaging.

Tolt River levee breach, January 2009

What research was done?

The risk assessment reviewed available information and collected additional data on:

- Levee failure scenarios.
- Risk of levee breaches at different flood levels.
- Climate change projections.
- Economic and community impacts of a levee breach. This also considered that people with low incomes may have more difficulty recovering financially.

What will King County do with the results?

Each river assessment will identify next steps to improve public safety. They could include potential repairs to the levee system, areas for further evaluation, updated plans for monitoring or maintenance, or emergency preparedness or education programs. King County will share results when available with local groups, agencies, and residents.

For more information, contact the Project Manager:
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Levee Breach - Raging River Results

2025 FACTSHEET

What to know about levee breach risks on the lower Raging River

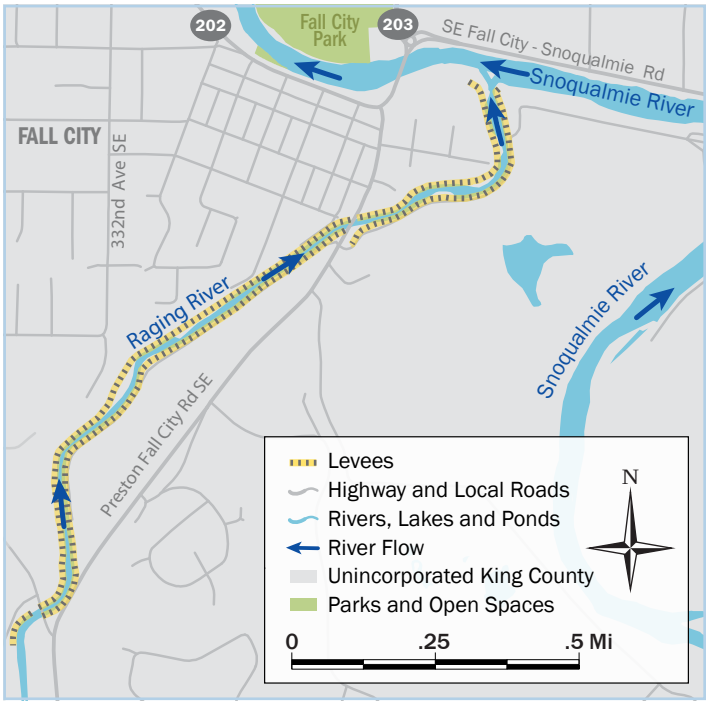
Location

The Raging River project area includes Fall City neighborhoods on both sides of the river, downstream of 328th Way SE. This area is the lower 1.5 miles of the Raging River to the confluence with the Snoqualmie River.

Low risk of levee breach on the Raging River

The likelihood of a levee breach on the lower Raging River is very low. The project had several key findings:

- The levees are tall, wide, and built on solid ground. The levee slopes are stable.
- Some risk remains:
  - Floodwaters can overtop the levees on both sides of the lower Raging River when flows are high on the Raging and Snoqualmie rivers.
  - Climate change is expected to make very large floods more frequent, which would increase levee breach risk.
  - The chance of a levee breach is higher during a big earthquake.
- Ongoing levee inspection, maintenance, and education are important to keep levees in good condition. This will help reduce the risk of a levee breach in the future.



Lower Raging River Levee Breach Study Area

Levee inspection in progress

Help your neighborhood stay safe

1. *Please don't plant, cut, or remove vegetation on levees.*
2. *Do not place anything on levees such as structures, fences, steps, or debris.*
3. *Contact County staff if maintenance is needed or if you have questions.*
4. *Make sure County staff can freely access levees for regular maintenance and inspection.*

Next steps

To ensure public safety, King County will take the following next steps:

- Coordinate with public safety agencies.
- Provide people living near levees with information on best practices for safety.
- Continue regular inspection and maintenance of Raging River levees.
- Consider re-enrolling the system in the U.S. Army Corps of Engineers levee maintenance program.
- Incorporate results in planning future projects and programs to increase flood resilience in the Fall City area.