

**King County
Flood Control Zone
District
Advisory Committee**

Operating Work Program

May 8th, 2008

Presentation Overview

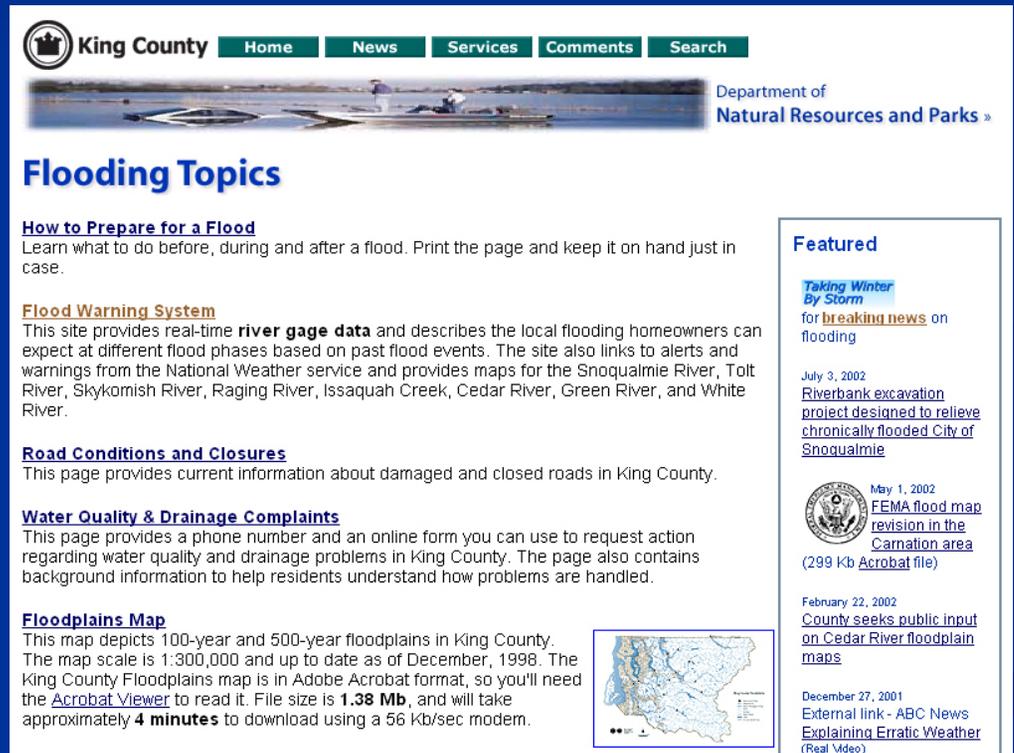
- Flood Preparedness, Regional Flood Warning Center, and Post Flood Recovery
- Flood Hazard Assessments, Mapping, and Technical Studies
- Planning, Grants, Mitigation, and Public Outreach
- Resource Management, Annual Maintenance, and Facility Monitoring

Flood Preparedness, Regional Flood Warning Center and Post Flood Recovery Program

- Annual Flood Awareness Campaign
- Early Warning System
- Flood Warning Center, Flood Patrol, and Emergency Response
- Post-Flood Assessment and Repair

Annual Flood Awareness Campaign

- Flood Preparedness Brochures
- Direct Mailings to Repetitive Loss Properties
- Media campaign
- Interagency Coordination Exercises for First Responders
- Project Impact videos
- Take Winter By Storm



The screenshot shows the King County website's 'Flooding Topics' page. At the top, there is a navigation bar with links for Home, News, Services, Comments, and Search. Below the navigation is a banner image of a river with a person in a boat. The page title is 'Flooding Topics' and it is part of the 'Department of Natural Resources and Parks'. The main content area lists several topics with brief descriptions: 'How to Prepare for a Flood', 'Flood Warning System', 'Road Conditions and Closures', 'Water Quality & Drainage Complaints', and 'Floodplains Map'. A 'Featured' sidebar on the right highlights recent news items, including 'Taking Winter By Storm', 'Riverbank excavation project', and 'FEMA flood map revision'. A small map of King County is visible at the bottom right of the main content area.

King County Home News Services Comments Search

Department of Natural Resources and Parks »

Flooding Topics

How to Prepare for a Flood
Learn what to do before, during and after a flood. Print the page and keep it on hand just in case.

Flood Warning System
This site provides real-time **river gage data** and describes the local flooding homeowners can expect at different flood phases based on past flood events. The site also links to alerts and warnings from the National Weather service and provides maps for the Snoqualmie River, Tolt River, Skykomish River, Raging River, Issaquah Creek, Cedar River, Green River, and White River.

Road Conditions and Closures
This page provides current information about damaged and closed roads in King County.

Water Quality & Drainage Complaints
This page provides a phone number and an online form you can use to request action regarding water quality and drainage problems in King County. The page also contains background information to help residents understand how problems are handled.

Floodplains Map
This map depicts 100-year and 500-year floodplains in King County. The map scale is 1:300,000 and up to date as of December, 1998. The King County Floodplains map is in Adobe Acrobat format, so you'll need the [Acrobat Viewer](#) to read it. File size is **1.38 Mb**, and will take approximately **4 minutes** to download using a 56 Kb/sec modem.

Featured

Taking Winter By Storm
for [breaking news](#) on flooding

July 3, 2002
[Riverbank excavation project designed to relieve chronically flooded City of Snoqualmie](#)

May 1, 2002
[FEMA flood map revision in the Carnation area](#)
(299 Kb [Acrobat file](#))

February 22, 2002
[County seeks public input on Cedar River floodplain maps](#)

December 27, 2001
[External link - ABC News Explaining Erratic Weather \(Real Video\)](#)

Early Warning System



- ◆ Telemetered gauges transmit river flow data to staffed offices
- ◆ Triggers internal alert, followed by call-outs and public warning

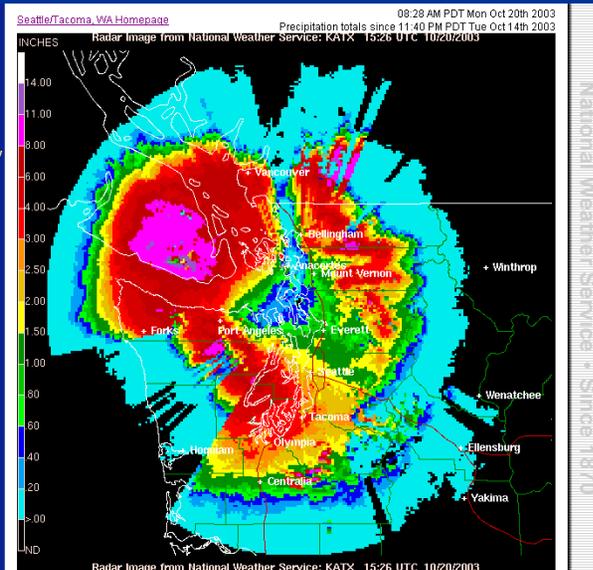
Flood Warning Center, Flood Patrol and Emergency Response

- ◆ Flood Warning Center is staffed during flood events to serve as a clearinghouse for information to first responders, the media, and the public
- ◆ Patrols inspect flood protection facilities and respond to calls on potential problems
- ◆ Emergency response is coordinated with first responders through King County Emergency Coordination Center

Interlocal Coordination



Dam operations with the **City of Seattle** and the **Army Corps of Engineers**.



Weather forecasting with the **National Weather Service** and river gauging with the **U.S. Geological Survey**



Post Flood Assessment and Repair

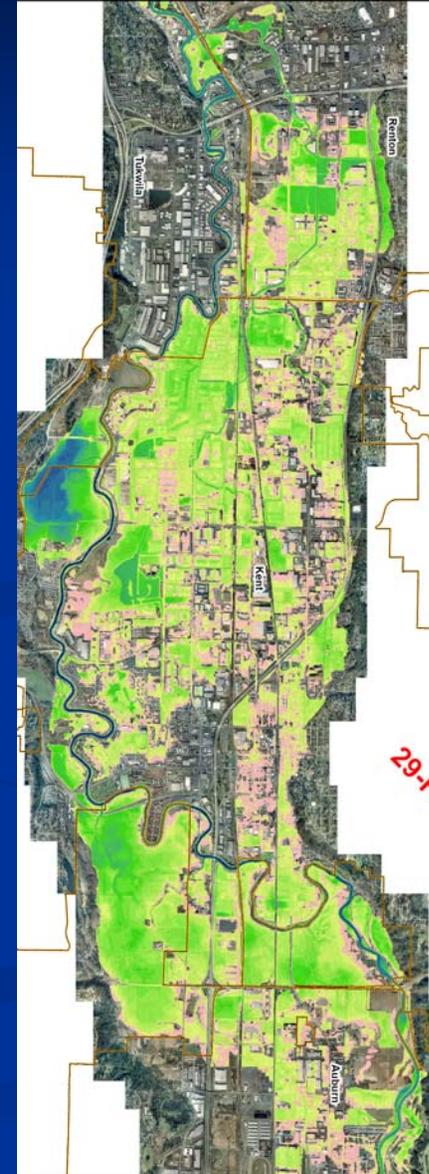


Floodplain and Channel Migration Hazard Zone Mapping and Regulation

- Floodplain Studies
- Channel Migration Hazard Zone Mapping
- Land Use Regulations and Development Standards
- Public Information and Assistance

Floodplain Studies

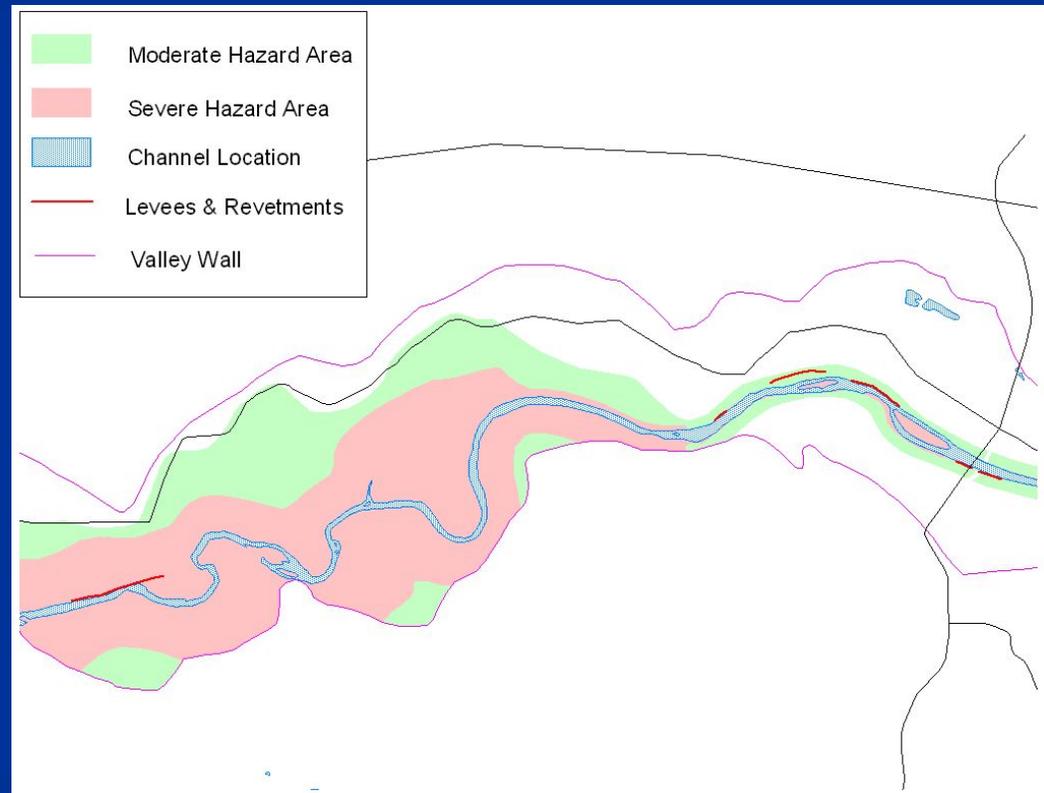
- Topographic Mapping
- Hydrologic Modeling
Approach and Results
- Hydraulic Models



Channel Migration Zone Mapping

- Maps areas within the lateral extent of likely stream channel movement
- Identifies moderate channel migration hazard areas and severe channel migration hazard areas

Map of Middle Green River
Channel Migration Hazard Zones



Development Standards

- ◆ **Construction Standards**

Consistent with NFIP, including elevation of first floor, flood-proofing of utilities, post and piling construction techniques, openings in foundation to allow flood flow-through, and materials and methods that are resistant to flood damage.

- ◆ **Zero-rise Floodway**

New development may not cause an appreciable rise in 100-year flood level (e.g., less than 0.01 foot rise).

- ◆ **Compensatory Storage Requirements**

New development must not push water onto other neighboring properties and must replace lost flood storage.

Flood Hazard Planning and Grants, Repetitive Loss Mitigation, and Community Rating System

- Flood Hazard Planning
- Federal and State Grant Programs
- King County Grants
- Repetitive Loss Mitigation Activities
- Community Rating System

Flood Hazard Planning

- Countywide Planning Policies
- King County Comprehensive Plan
- King County Regional Hazard Mitigation Plan
- King County Flood Hazard Management Plan

2006 KING COUNTY FLOOD HAZARD MANAGEMENT PLAN

King County River and Floodplain Management Program

EXECUTIVE PROPOSED PLAN
May 2006



 King County
Department of Natural Resources and Parks
Water and Land Resources Division

Federal, State and Local Mitigation Grant Programs

Federal Programs

- Flood Mitigation Assistance – focuses on structures insured under National Flood Insurance Program
- Pre-Disaster Mitigation – implements mitigation measures prior to a disaster event
- Hazard Mitigation Grant Program – implements mitigation measures during disaster recovery

State Programs

- Flood Control Assistance Account Program
- ICA Salmon Recovery

King County Programs

- Conservation Futures Tax
- Real Estate Excise Tax

King County Grants

Snoqualmie River Basin

- FMA - \$500,250 to elevate homes and one historic barn
- HMGP - \$1,000,000 (pending) to elevate homes in North Bend
- HMGP - \$1,000,000 (pending) to purchase homes on Raging River
- CFT - \$400,000 to purchase property on Raging River

Green River Basin

- FCAAP - \$268,000 for new Flood Insurance study

White River Basin

- RCO - \$1,200,000 to purchase property

King County Grants

Cedar River Basin

- PDM - \$1,948,800 (pending) purchase homes near Elliott Bridge
- FMA - \$189,900 purchase repetitive loss property near Elliott Bridge
- CFT - \$324,500 (pending) purchase repetitive loss property near Elliott Bridge
- PDM - \$1,212,100 purchase repetitive loss property at Rainbow Bend
- RCO - \$900,600 to purchase repetitive loss at Rainbow Bend
- CFT - \$180,000 to purchase repetitive loss properties at Rainbow Bend
- Real Estate Excise Tax - \$400,000 to purchase property at Rainbow Bend
- RCO - \$1,132,900 floodplain restoration at Cedar Rapids

Repetitive Loss Property Mitigation

- Annual letter to repetitive loss property owners with information on mitigation opportunities
- Outreach to repetitive loss property owners during grant opportunities
- Establishing a repetitive loss data base to track repetitive loss area mitigation projects

Community Rating System

- A voluntary incentive program to reward communities for exceeding minimum National Flood Insurance Program standards
- Participating communities are rewarded with reduced flood insurance premium rates ranging from 5% to 45%
- Over 1,000 communities nation-wide participate in CRS, including seven in King County

King County CRS Program

- Participation in CRS since 1990
- Receives CRS credit in 17 of 18 activities
- Class 2 community - 40% discount on flood insurance premiums for properties located in special flood hazard areas
- Cities can receive CRS credit for the 2006 King County Flood Hazard Management Plan
- Cities may receive credit for other King County CRS county-wide activities

Facility Maintenance and Operations

- Invasive vegetation removal
- Vegetation Planting
- Debris Removal
- Signage Maintenance
- Facility Inspections
- Pump Plant Facilities

Invasive Vegetation Removal



Native Vegetation Planting



River Safety



Signage Maintenance



Facility Inspections

