The Future Aint What It Used To Be

*Flood Hazard Management*

*In*

*King County*

**Speaker:**
Dave Clark, King County Flood Program Manager (Ret.)
Flood Hazard Management in King County
River Basins Managed for Flood Hazards
Flood Hazard Management in King County

Major Flood Events

King County flood events typically occur in the late fall and winter - ‘Pineapple Express’ rain on snow events.
Flood Hazard Management in King County
Program Overview – 3 Key Elements

**Policies and Regulations:**
- King County Flood Hazard Management Plan
- King County Critical Areas Ordinance (flood hazard and channel migration)

**Programs and Services:**
- Specific programs and services implementing Plan policies

**Capital Improvement Projects:**
- Structural and non-structural flood protection projects
Flood Hazard Management in King County Programs and Projects

- Comprehensive Planning
- Technical Studies And Mapping
- Major Maintenance And Retrofit Of Existing Facilities
- Capital Improvement Projects: New Levees And Revetments
- Home Buyouts And Elevations
- Flood Warning And Emergency Response
- Interlocal Coordination
- Citizen Awareness, Outreach, And Education
Flood Hazard Management in King County
Technical Studies & Mapping

Map of Channel Migration Hazard Zones

Flood Insurance Rate Maps
Flood Hazard Management in King County
Major Maintenance and Retrofit of Existing Facilities

Meadowbrook Biostabilization Project on the Snoqualmie River

Narita Levee Setback and Biostabilization Project on the Green River
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Elevation and Buyouts

Elevated Home Near the Snoqualmie River

Demolition of Cedar Slide Home Buyout
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Flood Warning & Emergency Response

http://dnr.metrokc.gov/wlr/flood

Erosion Along Left Bank of Cedar River at Riverbend Mobile Home Park

Interactive Flood Warning Web Site
Flood Hazard Management in King County
Interlocal Coordination

Dam Operations with the City of Seattle at the Chester Morse Reservoir and the Army Corps of Engineers at Mud Mountain Dam.

Weather Forecasting with the National Weather Service and River Gauging with the U.S. Geological Survey
Flood Hazard Management in King County
NFIP Community Rating System

- King County Is The Highest Rated County In The Country
- Class 3 Rating, Effective October 1, 2005
- Provides A 35% Discount On Flood Insurance Policies, $340K In Savings To Policy Holders In King County
Flood Hazard Management
Climate Change Considerations

Regulations And Flood Hazard Mapping
– Is the current 100-year regulatory floodplain appropriate for future management of riverine environments?
– Are FEMA mapping standards for mapping regulatory floodways appropriate for identifying ‘No Build/High Risk’ floodplain areas?
– Should floodplain mapping requirements vary according to river and stream size and level of development?
– Future conditions floodplain mapping of smaller watersheds?
Flood Hazard Management
Climate Change Considerations

Flood Protection Facilities:

- **Design Standards.** Is the 100 year flood the appropriate design standard for new flood protection projects in the future considering climate change impacts? Additional factors of safety? Freeboard on levees?

- **Risk Assessment.** What types of climate change information should be considered in evaluating potential risks of damage and/or failure to existing flood protection projects?

- **Increased Maintenance Needs.** Infrastructure maintenance and ecosystem damage will likely increase with increased flood frequency. How should local entities respond to the situation, given that maintenance is typically under-funded? Liabilities?
Flood Hazard Management

Climate Change Considerations

Integrated Planning and Management

- **Information.** Cross programmatic and interagency data management strategies and priorities?
- **Floodplain Management.** Managing for multiple benefits (ecosystems, clean water, recreation, etc)?
- **Flood forecasting.** Future capabilities to improve lead time and public agency response?
- **Emergency Response.** Potential for more frequent flood warnings and emergency response services - emergency repairs, impact on other programs and services?
- **Disaster Response and Recovery.** Improve management and coordination of disaster response and recovery?