



2020 Flood Event

Rivers, Parks, Roads & Emergency Management

KING COUNTY COUNCIL, LOCAL SERVICES COMMITTEE

MARCH 2, 2020



ROAD SERVICES

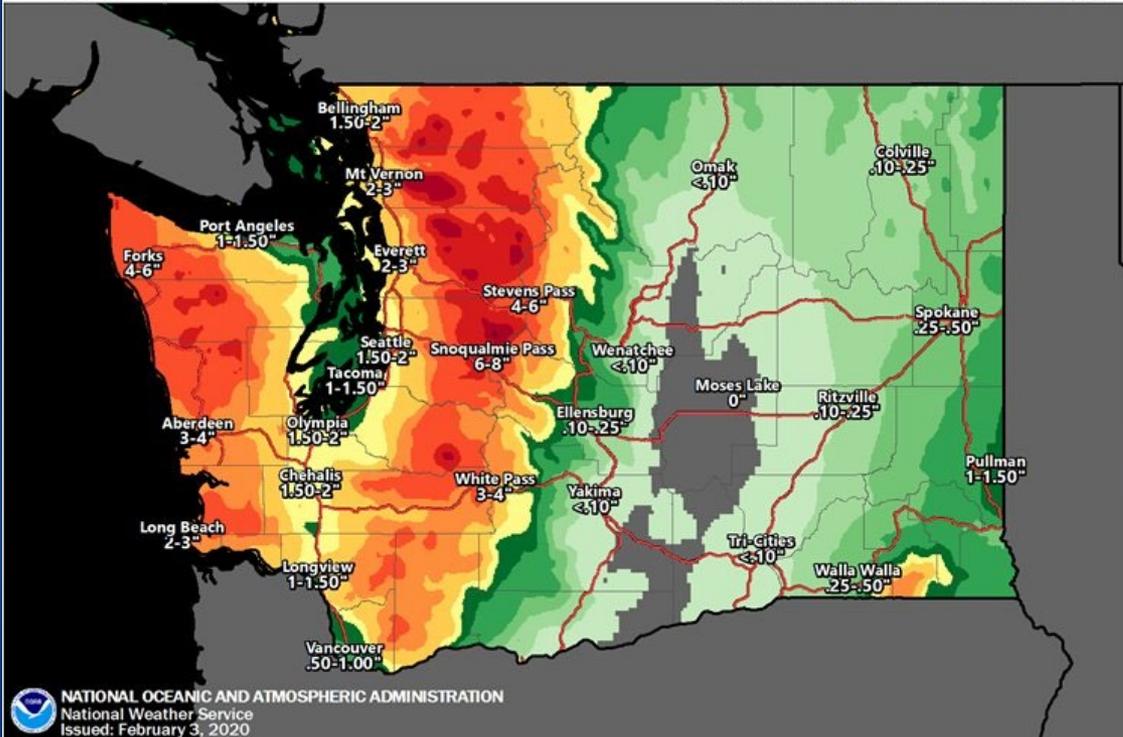
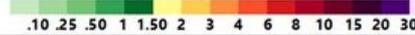
Rick Brater, Road Services Division

February 2020 Storm Event Overview

3

5-Day Total Precipitation Forecast

Through 4PM 02/07/2020



- ▶ Significant rain event
- ▶ Flooding & slide hazards
- ▶ 8.77 inches rain, 1/20/20 - 2/08/20
- ▶ Flood Level 4 – Issaquah Creek, Cedar River, Green River
- ▶ Flood Level 3 – Snoqualmie River, Tolt Rivers
- ▶ Governor declared state emergency weather proclamation (2/05/20)
- ▶ County Executive declared local proclamation of emergency (2/06/20)

Source: National Weather Service, February 3, 2020

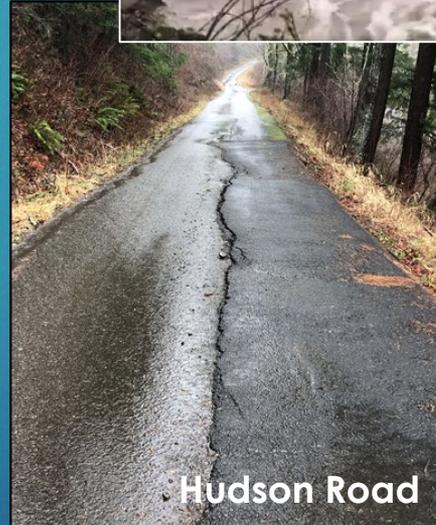
By the numbers. . .

- ▶ Flows on the **Cedar River** were the highest since 2009, leading to closure of SR169, flooded homes, and loss of access for many homeowners.
- ▶ Flows on the **Green River** at Auburn were the highest since 1996.
- ▶ The **Snoqualmie River** reached Phase 3, with extensive flooding of farms and multiple road closures.
- ▶ **Issaquah Creek** saw highest flows since 2006, triggering road closures and emergency evacuations for more than 200 people.
- ▶ **Lake Sammamish** at highest elevation since 1997.

Roads Emergency Response

5

- ▶ Over 170 Roads staff working overtime, round the clock, 2/11/20 - 2/17/20
 - ▶ Closing roads
 - ▶ Debris removal
 - ▶ Traffic control
- ▶ 60+ roads closed or lane restricted
 - ▶ Ames Lake Road
 - ▶ Avondale Road
 - ▶ Novelty Hill Road
 - ▶ West Valley Highway
 - ▶ Cedar Grove Road, (SR 169 and Issaquah Hobart)
 - ▶ Jones Road
 - ▶ Snoqualmie Valley frequently flooded roads (NE 80th; NE 124th St.)
- ▶ Federal funding process underway (FEMA & FHWA)



February 2020 Storm Event

6



356th Drive South East



South West Cemetery Road



Middle Fork Road



312th Ave SE off Upper Preston



Northfork Road



Jones Road

Flooding: Snoqualmie Valley

7

- ▶ 60 inch and 24 inch box culverts plugged with debris
- ▶ West Snoqualmie Valley Road closed several days due to water and debris over roadway
- ▶ Additional drainage repairs needed



Issaquah-Hobart Road

(from May Valley Road to South East 96th Street)

8

- ▶ Large rocks and soil from adjacent hillside clogged two 8 foot box culverts
- ▶ Closed road, due to water and debris on pavement
- ▶ Crews cleaned blocked culverts and pavement
- ▶ Additional shoulder repair needed



356th Drive South East Slide

9

- ▶ Slow-moving slide under roadway
- ▶ Sole access road for 75 homes
- ▶ 2/10/20: voluntary evacuation
- ▶ Road is currently load limited (no heavy commercial trucks) and reduced to one lane
- ▶ Geotech investigation closed the road to traffic for 3 days (8:30 a.m. until 5 p.m.) during week of Feb 24th
- ▶ Repair strategy in process

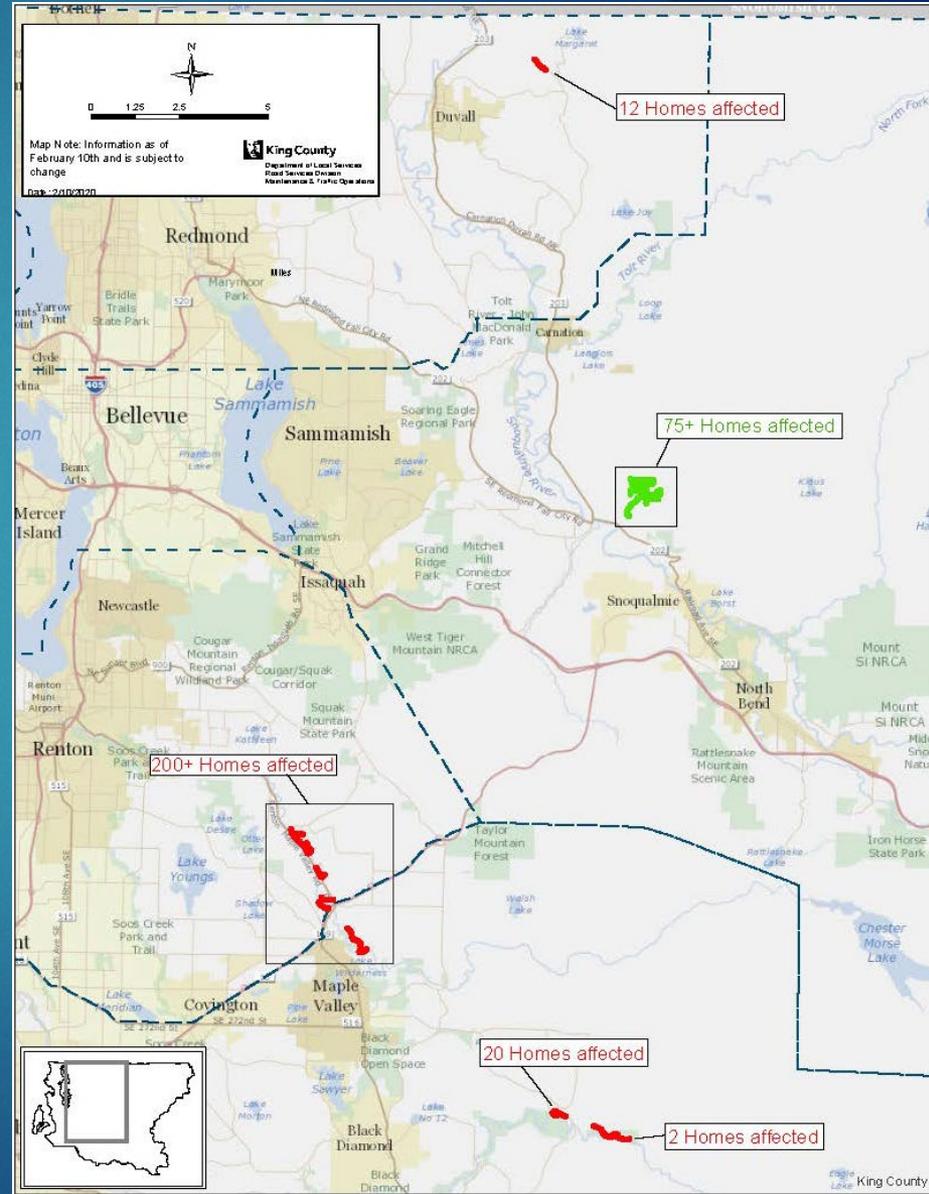


Sole access road communities at risk

10

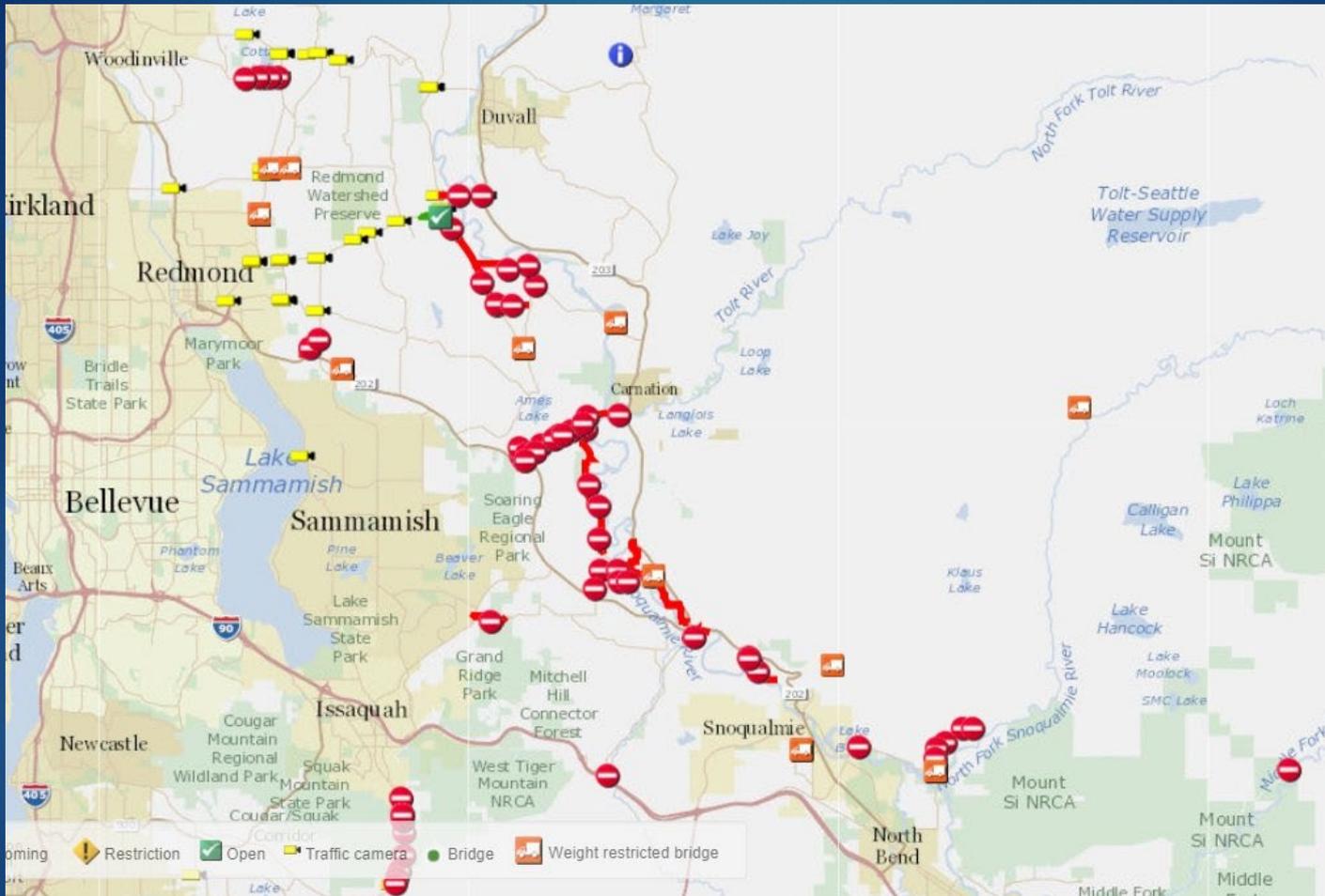
- Hudson (2 homes)
- South East 309th Street (20 homes)
- Byers Road, Dorre Don, and Cedar River neighborhoods (200 homes)
- 356th Drive South East (75 homes)
- Mountainview 178th/310th (12 homes)

2/10/20 Status Report
(Peak of Flood and Slide Hazard Response)



Communications - MyCommute Map

11



Road closures updated in real time and available to the public through MyCommute

Customer Communications

12

- ▶ Over 1,551 customer service calls, 2/05/20 - 2/17/20
- ▶ 38 news stories including local and national coverage
- ▶ Roads Facebook followers doubled in February with 776 new followers since 2/03



Top media Tweet earned 36.1K impressions

Our crews are giving 🧡 to clean rocks (some as large as basketballs!) from the plugged culvert. It's a big job- 🚧 May not be able to reopen Issaquah-Hobart @ May Valley rd tonight.

#wawx @cityofissaquah pic.twitter.com/BQNuZGLdyW



8 49 83

	Twitter	Facebook
Impressions and reach	777.5K	66.2K
New followers	700 (3,122 followers)	776 (1,551 followers)
# posts	53 tweets	17 posts

Customer Feedback

"Thank YOU crew workers for getting this road operational again!!!" 2/9

Issaquah-Hobart Closure



Issaquah-Fall City Road at South East Duthie Hill Road



South East 309th Street

"What specifically is being repaired and when will the road reopen? I hope there is some level of active traffic control today.

The evening commute was a real mess yesterday and there were some dangerous driving practices." 2/11

NE 132nd St between Avondale Rd NE and NE 133rd St

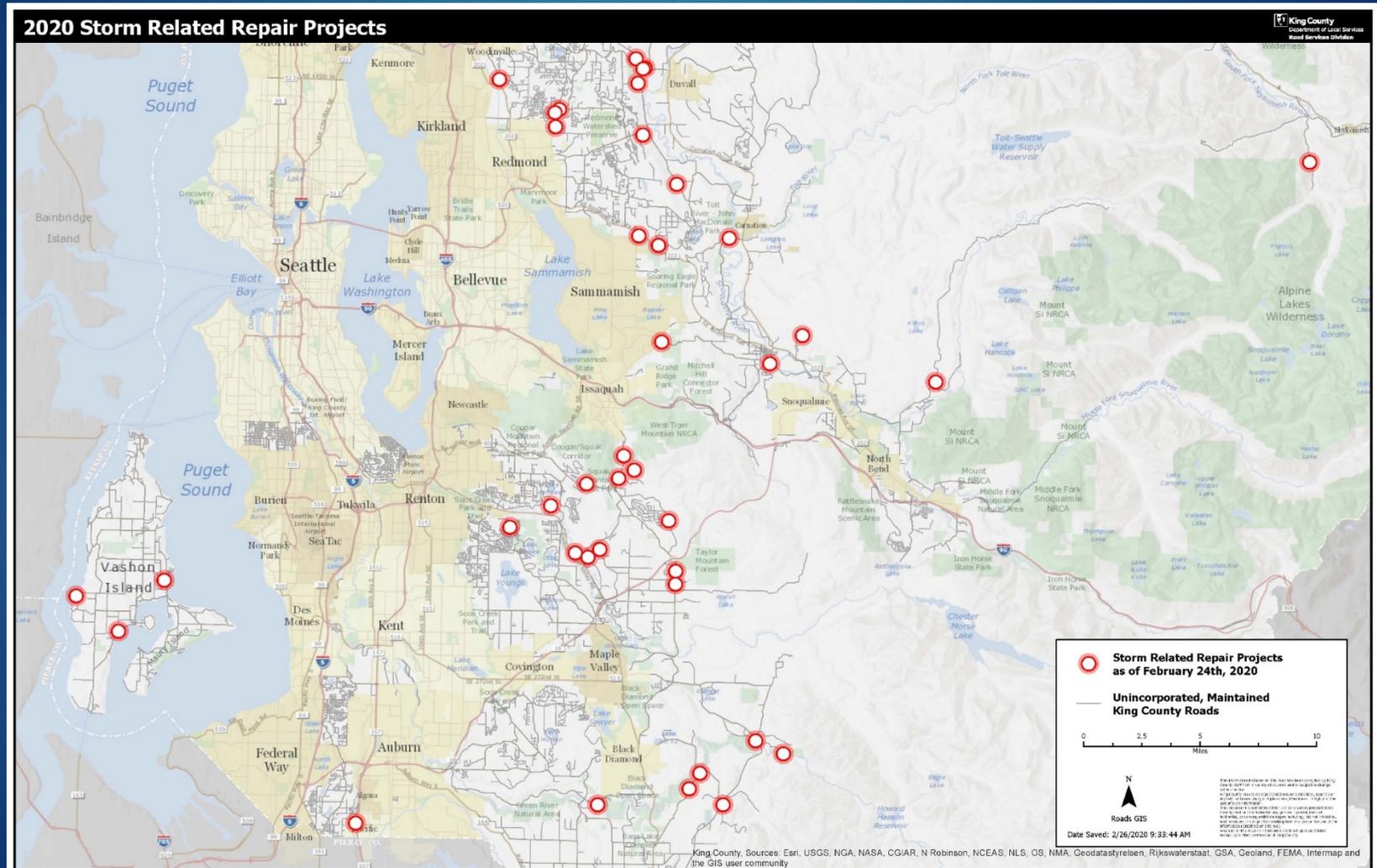
"I'm a homeowner impacted by the 356th slide... I wanted to just thank you and your team... all of whom consistently gave us updated information... so we could make smart choices. I understand the road situation is still tentative, but it has been extremely helpful to get your notices with detailed information."

356th Drive South East

Storm Repair Projects

40+ projects totaling \$10+ million (as of 2/26/20)
(includes FEMA, FHWA & Roads Fund-covered roads)

14





OFFICE OF EMERGENCY MANAGEMENT

Brendan McCluskey, Office of Emergency
Management

Coordinating Damage Assessment & Funding – Public Facilities

16

- ▶ DNRP Parks - \$1,822,836*
- ▶ DNRP WLRD (Rivers) - \$8,099,952
- ▶ DNRP WLRD (Stormwater) - \$125,000
- ▶ DNRP SWD (Solid Waste) - \$18,555
- ▶ DLS Roads - \$4,884,500* (FEMA funding - eligible roads)
- ▶ DES Fleet - \$153,177*
- ▶ DES Emergency Management - \$3,343*
- ▶ Cities/Other - \$11,809,751 (\$10,254,413*)

Thresholds:
King County: \$7,415,996
State: \$10,288,546

TOTAL = \$26,917,114
(\$17,118,269*)

* = Verified by FEMA / WA EMD

Coordinating Damage Assessment & Funding

17

– Private Properties

- ▶ Local Services – Emergency Services coordinated damage reporting meeting – organized quickly! (43 attendees)
- ▶ Shared information about recovery funding and eligibility
- ▶ Collected damage estimates to meet federal and state funding thresholds
- ▶ Shared distribution of damage reporting flyer: KC county agencies & Councilmembers - Thank you!



DID YOU SUFFER PROPERTY DAMAGE IN THE RECENT FLOODING?
WE WANT TO HEAR FROM YOU BY FEB. 21!

If you suffered property damage or other losses to your home or business since January 20, 2020, you may be eligible for financial assistance. Eligibility is determined through a damage assessment process, now underway, that takes into account the total reported losses within King County.

Submit reports by 5 p.m., Feb. 21:

- Online at kingcounty.gov/damage
- By phone at 1-800-525-5044 from 8 a.m. to 5 p.m.

Submitting a report does not guarantee reimbursement.

Before you submit your report:

- Contact your insurance provider about existing coverage and deductibles. Damage reports are for uninsured losses.
- Document damage with photographs and keep records of all cleanup and repair costs.


King County

Coordinating Damage Assessment & Funding – Private Properties

18

- 144 individuals reporting losses (residential)
 - \$10,742,018 in total losses
 - \$3,237,460 in uninsured losses
- 19 businesses reporting losses
 - \$1,085,175 in total losses
 - \$704,775 in uninsured losses
 - 114 lost business days

PARKS

Doug Hodson, Parks Division

Parks and Trails

20

- ▶ **Flooding** and heavy damage, **such as landslides, tread washouts, erosion, fallen trees and debris**, required **temporary closure** of parks, facilities, and trails:
 - ▶ Marymoor Park (flooding)
 - ▶ Cougar Mountain Regional Wildland Park (flooding, landslide, trail damage)
 - ▶ Tolt-MacDonald Park (flooding, landslide)
 - ▶ Duthie Hill Mountain Bike Park (flooding)
 - ▶ Cedar River Trail (flooding, erosion)
 - ▶ Snoqualmie Valley Trail (landslide)
 - ▶ Sammamish River Trail (flooding)
 - ▶ Poo Poo Point parking lot (flooding, debris)

Parks and Trails

21

- ▶ Emergency management and coordination:
 - ▶ Portions of Cedar River and Snoqualmie Valley Trails used as **emergency access for residents** of flooded neighborhoods or with access blocked by a landslide

- ▶ **Facilities still closed**, major repairs required:
 - ▶ Cedar River Trail (multiple locations – flooding and erosion)
 - ▶ Cavanaugh Pond Natural Area (levee breach, shift of flow of Cedar River into natural area)
 - ▶ Snoqualmie Valley Trail (landslide covering trail)
 - ▶ Preston-Snoqualmie Trail (landslide covering trail)
 - ▶ Tolt-MacDonald Park (Maintenance road washout)
 - ▶ Taylor Mountain Forest (multiple backcountry trails; culvert washout)

Preston-Snoqualmie Trail

22



Sammamish River Trail (Redmond)

23



Marymoor – Community Garden

24





RIVERS & STORMWATER

Megan Smith, Water & Land Resources Division

King County Rivers

(Service to King County Flood District)

- ▶ Flood Warning Center
- ▶ Flood Patrol
- ▶ Flood Facility Inspection and Repair
- ▶ We work closely with King County Office of Emergency Management, Department of Local Services (Roads, Permitting), and King County Parks
- ▶ We use 4 flood warning phases, with Phase 4 meaning severe flooding

Flood phases:

phase	status
0	No flooding expected
1	Internal alert
2	Minor flooding expected
3	Moderate flooding expected
4	Severe flooding expected



By the numbers. . .

27

- ▶ On Feb. 5, King County's Flood Warning Center opened for the **5th** time since Jan. 1
- ▶ By midday on Monday, Feb. 10, the Flood Warning Center was nearing its **1,000th phone call** of the current activation.
- ▶ Flood patrol crews were **in the field continuously, beginning on Feb. 5**, with two-person teams working 12-hour shifts.



Cedar River – SR 169 Closure

28



Cedar River – Flooded Homes

29



Cedar River – Byer's Bend Levee Breach/Emergency Repair

30



Cedar River – River Bend, levee breach/emergency Repair to protect trail and fiber optic line

31



Cedar River – Rainbow Bend

34



- Over 60 families formerly at risk in the Rainbow Bend reach.
- Worked with willing seller and relocated residents to safer housing.
- 40-acre site now provides flood storage that prevents damage to SR 169, regional trail, and fiberoptic line.

Green River – Signature Pointe

33



Green River – Agricultural Flooding

34



Snoqualmie Valley – Flooding of 124th, a cross-valley road

35



Stormwater Services

36

- ▶ Stormwater Services staff completed more than 25 emergency draining investigations.
- ▶ Majority related to high stream flows or elevated groundwater levels.
- ▶ Bear Creek (Redmond/Woodinville) flows at highest level since 1997.
- ▶ Wilderness Rim neighborhood near North Bend particularly hard hit.
- ▶ Pumping required at Horseshoe Lake near Black Diamond to prevent flooding of residences.
- ▶ Flooding on “alluvial fans” (deposits of dirt, rocks and water at the base of ravines) also forced water out of creeks on over roadways.



QUESTIONS?