

Chelan County Flood Control Zone District

June 2021 Newsletter



Photo by Frank Cone

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FCZD steps into new era

I'm happy to report that Chelan County did not experience any high intensity rainfall events this past year that caused extraordinary damage to our roads and infrastructure. In a year when we needed to catch a little break, it appears that happened for us.

With last year being more of a planning year for the Chelan County Flood Control Zone District, we head into the summer ready for our first large-scale construction project. In July, we begin building a bridge on South Lakeshore Road at Slide Ridge. We have a story for you about the project on page 2. The project marks a milestone for the district and will be an example of the important flood mitigation work we hope to continue in the future with the support of the revenues generated by the district.

With those revenues, we also were able to secure about \$2.3 million in flood mitigation grants from FEMA. About \$1.3 million of that money will be used in the Slide Ridge

project, and the other monies will be put to use in 2022 when we start the No. 1 Canyon Flood Basin #2 project. Read more about our additional projects on page 3.

And, lastly, as we prepare for 2022, we will begin in the coming months working on updating the 2017 Comprehensive Flood Hazard Management Plan. The plan serves as a guidance document for a five-year performance period for the FCZD. The plan presents not only a long-term vision for managing all flood hazards in Chelan County but also recommends near-term actions to achieve that vision. It is the foundation of the district and will serve as our road map into the future.

For a full report on this past year, read the 2020 FCZD Progress Report online at co.chelan.wa.us/flood-control-zone-district.

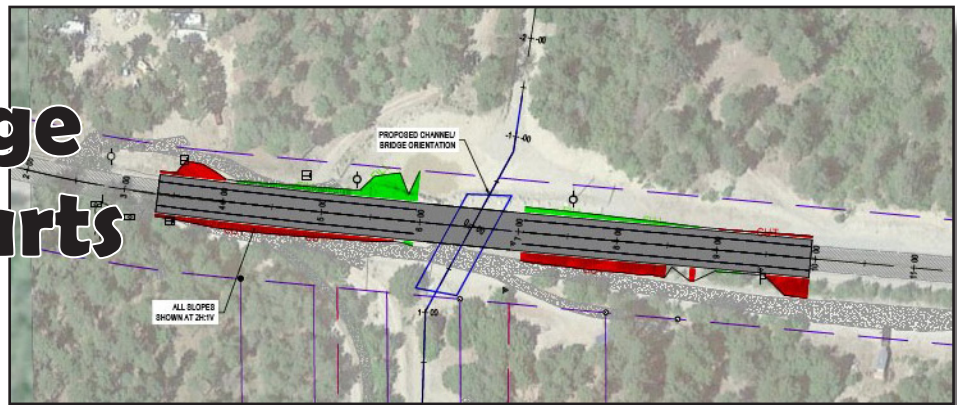
-- Eric Pierson, FCZD District Administrator



MISSION STATEMENT: Through partnerships and careful planning, identify sustainable, cost-effective actions that will mitigate the impacts from flood hazards, to protect the health, safety, quality of life, environment and economy of the communities within Chelan County.

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Slide Ridge project starts in July



New bridge will allow debris, mud to flow under roadway

The FCZD breaks ground on its first construction project this summer when dirt is turned on a new \$3.2 million bridge at South Lakeshore Road's Slide Ridge.

The Slide Ridge Retrofit project includes the construction of a 108-foot long bridge that will allow any debris and mud flowing from Slide Ridge to move under the roadway – not over as it does when material overwhelms the culverts currently on site – and down an engineered channel to Lake Chelan.

“The Slide Ridge project is not only an important flood mitigation project, but it also is an example of how the FCZD has grown,” said Eric Pierson, district administrator. “Four years after the Comprehensive Flood Hazard Management Plan was created, we’re starting our first large-scale construction project. It’s an example of why this district was established.”

Located on the east facing slope on the Chelan Mountain terrain, Slide Ridge, also known as Granite Ridge, produces frequent, violent discharges of soil and rocky material. Hundreds of years of these violent discharges created an alluvial fan, or a fan-shaped deposit of soil and rocks, at Lake Chelan.



The slide area is frequently hit by intense rain and thunderstorms that deliver more than an inch of rainfall in an hour's time. Rainfall on Slide Ridge results in water flowing down its steep slopes, where it dislodges rock down the slope to Lake Chelan. The storms have left a mix of woody, rocky and muddy debris as high as 12 feet on South Lakeshore Road, the only north-south corridor for residents living along the west side of Lake Chelan, one of the largest tourist destinations in the state.

Cleanup costs of removing the material, hauling it offsite and re-establishing the

existing engineered channel have cost taxpayers nearly \$1 million from 2003 to 2019.

The construction project will remove the existing roadway and 72-inch culvert at the site now and construct the bridge over the earthen channel. Work also includes filling in a portion of the existing debris basin, removing the existing culverts, raising the roadway, improving residential access points, regrading and making slight alignment changes to the existing channel, and extending berms and side slopes to the lake's low-water mark.

The construction project was awarded earlier this year to KRCI of East Wenatchee. Construction starts in July and should take about six months. The project will be paid for with a nearly \$1.3 million grant from FEMA and money from the FCZD.

“The flooding and debris flows from Slide Ridge will never be eliminated,” Pierson said. “This project will make it more efficient to remove the material that comes off Slide Ridge and will make it safer for the public because debris should no longer be blocking the only access for up-lake homes.”

- ◆ Closures of South Lakeshore Road from mud and debris flows will be drastically minimized, which is invaluable to the county and the people who use the road to access their properties.
- ◆ A bridge will allow uninterrupted emergency response to the 400 residential lots beyond Slide Ridge.

Project Outcomes

- ◆ Utilities in the project area will be less likely to fail from the impact of debris and mud coming off of Slide Ridge.
- ◆ Access to state and federal lands beyond Slide Ridge will remain open.

- ◆ The project eases concern that one day someone may become trapped in the mud and debris flows from Slide Ridge.
- ◆ Costs of maintaining the roadway and engineered channel will be substantially less for Chelan County Public Works.

More projects coming your way from FCZD

With construction starting on the Slide Ridge Retrofit Project, momentum is also building for the following FCZD projects:

Antoine Creek Culvert Replacement Project: Construction

begins in early June on the Antoine Creek Culvert Replacement Project. Batchelor Excavation of Manson will up-size three culverts on Antoine Creek Road near Chelan to 8-foot-by-3-foot box culverts, allowing for increased water flows and debris to pass during larger runoff events and minimizing post-wildfire flooding frequency. Construction is expected to take about 15 working days. In 2015, the Antoine Creek Basin was burned in the Chelan Complex Fire, resulting in a burn scar that has increased the discharge and velocity of surface water flows in the basin. The project is being paid for with FCZD money as well as a Hazard Mitigation Grant from FEMA.

Project page: <https://bit.ly/3vCoiE4>

◆
Ski Hill Basin Analysis: In the past, the Ski Hill Basin has experienced increased volumes of runoff, impacting both public and private property. A team of consultants is currently working on an analysis of the basin that will identify flood risks and create a



Ski Hill Basin 2016 spring runoff damages.

framework for reducing flooding impacts to public and private property within Chelan County and the city of Leavenworth. As part of that analysis, in February 2021 the community was asked to view and comment on six alternatives the team identified

that will mitigate, to various degrees and costs, flooding in the basin.

The team is analyzing the results and later this year will present the top-ranked alternatives. When completed, the analysis will guide future projects in the basin. The analysis is being paid for by the FCZD. **Project page:** <https://bit.ly/3vIKMD2>

◆ **No. 1 Canyon Debris Basins:**

A team of consultants has designed a series of four flood debris basins that will be built

on 21 acres of county-owned land near the end of No. 1 Canyon Road in Wenatchee. The debris basins will provide a collection and release point for re-occurring, debris-laden floodwaters that often strike the canyon following rain events or during heavy snowmelt.

Construction is planned for summer 2022 and should take three months. The project is being paid for with a \$1 million flood mitigation grant from FEMA and by the FCZD. **Project page:** <https://bit.ly/3wHfpZI>

Pre-disaster grants provide big opportunities for small communities

In the past three years, the FCZD has garnered nearly \$2.3 million in pre-disaster mitigation grants from FEMA. The grants will be used to construct two unique mitigation projects that were identified as high priorities in the district's Comprehensive Flood Hazard Management Plan.

In 2018, the first pre-disaster mitigation grant was awarded to the FCZD for its Slide Ridge Retrofit project (see page 2). The \$1.3 million grant will pay for nearly half the cost of construction.

"To help the state understand the magnitude of Slide Ridge and its potential for

loss of life and damage to property, we invited our mitigation program manager and his team to join us on site," said Jason Detamore, environmental affairs coordinator for Chelan County Public Works. "It really gave the state a realistic picture of what we're dealing with in Chelan County."

With the success of the first grant and a relationship now built between the county and state, the FCZD was encouraged to seek out additional pre-mitigation funding. In 2019, a pre-disaster mitigation grant of nearly \$1 million was awarded to the FCZD to build four manmade basins

in No. 1 Canyon, just west of Wenatchee (see above).

"The process of completing our Comprehensive Flood Hazard Management Plan allowed us to identify those flood-prone areas of greatest impact to our community as well as the projects that could mitigate those hazards," he said.

Pre-disaster mitigation grants provide big opportunities for small communities such as Chelan County.

"We are a small county with a young flood control district," Detamore said. "It would have taken us years to construct these important flood mitigation projects without the federal grant dollars."

Watch flood preparation videos by Washington Emergency Management
www.youtube.com/user/EMDPrepare/videos

Changes coming to new flood insurance policies Oct. 1

The National Flood Insurance Program (NFIP) is changing the way flood insurance policies premium are determined.

Beginning Oct. 1, the NFIP is implementing Risk Rating 2.0 for new policies, and renewing policies will be subject to the new rates on or after April 1, 2022.

According to FEMA, this new method of rating risk will use best practices and cutting-edge technology to determine rates that are more equitable and better reflect a property's flood risk.



More info at: <https://bit.ly/2Ro8eXA>

Current flood insurance premiums are based on the type of construction and how high the structure is elevated above the base flood elevation. Risk Rating 2.0 will use several new factors to determine the cost of premiums, such as distance from the flooding source, replacement cost of the structure, and historical losses, in addition to the type of construction and the elevation of the structure.

In Washington, 33 percent of policies are expected to decrease after the new rating system goes into effect, and 67 percent of policies are expected to increase from \$0 to \$20 a month.

Risk Rating 2.0 will not change how floodplains are regulated by your city or county; all development regulations and processes will remain the same. If you have questions about how Risk Rating 2.0 may affect your flood insurance premiums, call your insurance agent after August 1.

What exactly is an elevation certificate?

If you recently built a new home in the floodplain or purchased a new flood insurance policy, you probably have an elevation certificate. An elevation certificate is an official FEMA form that has several uses.

Flood Insurance: Your insurance agent needs a copy of your elevation certificate to determine your annual flood insurance premium. The certificate provides information that factors together to determine your flood insurance premium, including: the type of foundation (such as crawlspace, piers, or slab on grade), the number of vents into your crawlspace, and the elevations of your first floor, adjacent grades, and machinery (such as your heat pump or water heater).

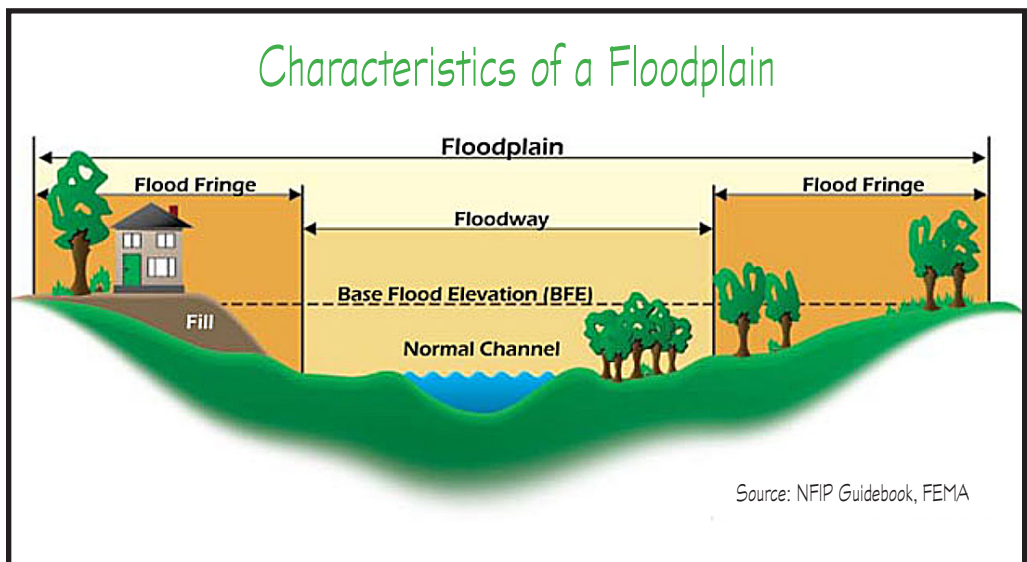
Floodplain Regulations: When you build a structure in the floodplain, you are required to provide up to three elevation certificates during the building process. These certificates help your city or county to ensure that your new structure complies with floodplain regulations. Structure that are compliant have both lower flood insurance premiums and lower risk from flood damage.

The first elevation certificate is required along with your building permit application. The certificate demonstrates how you propose to construct the building, for example the proposed elevation of the first floor and the proposed number of crawlspace vents.

The second certificate is required after the foundation is constructed to verify that it is at the correct elevation. This certificate provides a check mid-construction and the opportunity to fix issues before construction progresses. For example, it's easier to raise your floor a couple inches before you build the walls than later in the building process.

The third certificate is required prior to final approval. This certificate is based on the as-built structure and is the final check to determine if the structure is compliant. This is also the certificate that you'll provide to your flood insurance agent.

If you have questions about your elevation certificate, or need a copy of it, call Chelan County Community Development at 667-6225.



Sign up for Chelan County emergency alerts at public.alertsense.com

To determine if you are in the floodplain, go to the FEMA Flood Map Service Center (<https://msc.fema.gov/portal/home>)

A little preparation goes a long way

And it may just save your life

Since 1970, every county in Washington has received a Presidential Disaster Declaration for flooding. Flooding can cause injury and loss of life as well as damage to structures, crops, land, roads and utilities. Floods also cause landslides and transport debris and toxic products.

When it comes to flooding, much of the work must be done ahead of time - before an event occurs. Take preparedness action now to minimize your risk and reduce the time and effort it takes to recover from a flood. Washington State Emergency Management offers the following tips:

BEFORE

- Contact Chelan County Community Development to determine if you are in a flood zone or flood pathway.
- Purchase flood insurance.
- Keep all insurance policies and a list of valuable items in a safe place.
- Take photos or a videotape of your valuables.
- Prepare your home; clear debris from gutters and clear storm drains.
- Identify and practice your flood evacuation routes. Plan multiple evacuation routes in case one route becomes impassable.
- Prepare disaster supply kits for your home, workplace and vehicle.
- Purchase a windup/battery operated NOAA Weather alert radio and extra batteries.
- Know what emergency plans are in place at your workplace, school and daycare center.
- Update your out-of-area contact cards.
- Find out who in your area might need special assistance, specifically the young, elderly, disabled or non-English speaking neighbors.
- Check with your veterinarian for animal care instructions in an emergency situation.
- Keep your car filled with gas.

- When severe weather is predicted, be sure to monitor your weather radio, local TV / radio station, or mobile app for alerts and instructions.
- If water rises quickly, or if you are advised to evacuate, move quickly to higher ground.
- If you have time before leaving the house, turn off utilities.
- Take your disaster supply kit and your important documents.
- Check for shelter sites if you need a safe place to stay.
- Stay away from downed power lines.
- Do not attempt to walk across flowing streams - as

AFTER

- Return to your home only after an "ALL CLEAR" has been issued by local authorities.
- Keep electricity turned off until a qualified electrician has inspected your system.
- Before entering your home, check for structural damage and other hazards such as exposed electrical wires. Avoid weakened floors, walls, and rooftops.
- Open all doors and windows. Use fans if possible to air out the building.
- Do not use your septic system when water is standing on the ground around it. The ground below will not absorb water from sinks or toilets. When the soil has dried, it is probably safe to use your septic system. To be sure, contact your local health department.
- If your well is flooded, your tap water is probably
- Do not attempt to drive through standing water on roadways. As little as 2 feet of water can float most vehicles. The roadbed also may have washed away or be unstable.
- If water rises in or around your home and you become trapped inside: Move to a higher floor, attic or even the roof; take a cell phone and call for help; wait for help to arrive; do not try to swim; and take a battery-operated radio and listen for updates.
- unsafe; learn how to decontaminate it.
- If you have public water, the health department will let you know, through radio and television, if your water is not safe to drink. Until your water is safe, use bottled water.
- If you come in contact with floodwaters wash your hands frequently with soap and clean water.
- Wear gloves and boots when cleaning up.
- Discard all food that has come into contact with floodwater. Canned food is alright, but thoroughly wash the can before opening.
- Washing dirt and mud from walls, counters, and hard surfaced floors with soap and water. Disinfect surfaces by wiping with a solution of one cup bleach per gallon water.
- Wash all clothes and linens in hot water.
- Discard mattresses and stuffed furniture.
- Do not pump the basement out until floodwater recedes.

DURING

COMMUNITY RESOURCES

Chelan County road alerts at
co.chelan.wa.us

Chelan County Flood Control Zone District
co.chelan.wa.us/flood-control-zone-district

Join Chelan County Road Alerts Listserv by emailing
public.works@co.chelan.wa.us

Chelan County emergency alerts
public.alertsense.com

Chelan-Douglas Health District
cdhd.wa.gov

Disaster Preparedness
Ready.gov

FEMA
fema.gov

National Weather Service
weather.gov

Flood Safety
weather.gov/safety/flood

American Red Cross
redcross.org