

Flood Newsletter

2016 FLOOD CONTROL ZONE DISTRICT PROJECTS

- **Develop** goals and policies for future project implementation.
- **Update** the 1996 Comprehensive Flood Hazard Management Plan.
- **Continue** the planning process for the Naneum, Wilson and Cherry Creek Watershed.
- **Implement** the Yakima River Corridor Plan—Hansen Pits to Ringer Loop.
- **Implement** the Manastash Creek Corridor Plan, including acquisitions and easements.
- **Review** of new digital floodplain maps from FEMA.
- **Apply** for grants to acquire flood prone property and perform river assessments.



Wilson Creek Falls

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Letter From Your Public Works Director

November is Flood Awareness Month!

Visit the County's flood information website for more information and for tips on how to prevent or reduce damage from flooding on your property. <http://www.co.kittitas.wa.us/public-works/flood/default.aspx>.

As the Flood Control Zone District enters its fourth year of operations, we are moving to formulate a capital facilities plan for the District. During the past three years, staff has successfully leveraged District funding nearly seven to one. The added money has allowed significant focus on troublesome drainages throughout the County. What is required now is a process to rate, rank, and prioritize identified projects for implementation. In early 2016, we propose convening an advisory committee that will assist staff through the project selection process. Our target for priority project identification is early summer 2016.

Providing we can meet this schedule, projects will be placed into a capital improvement plan – similar to what we do in our road improvement program. In that fashion, we identify projects for immediate implementation in the first year of the plan and schedule other improvements over the following five-year period. Given the diversity of recommendations coming out of the

drainage basin planning efforts, we anticipate a mix of actions such as public education, additional basin analysis, habitat enhancement, acquisitions, drainage facility maintenance, and new capital construction projects.

Once the capital facility plan is formalized, the Flood Control Zone District will look for collaborating opportunities with the County's Transportation Improvement Plan. This will allow the Flood Control Zone District to complement road drainage improvements providing comprehensive solutions to areas experiencing troublesome flooding or poor drainage. The District is looking forward to implementing a capital facility plan that is both efficient and cost effective.

After many years of working to update the old Flood Insurance Rate Maps, the District is moving forward with Federal Emergency Management Agency staff to develop digital maps of the old paper maps currently in use. While these will not be the updated accurate maps we desire – they will improve staff's ability to issue floodplain development permits. We are working on a process that holds promise to improve the digital maps for future use. The "re-mapping" work program will likely take several more years to complete.

Mark R. Cook, Public Works Director



Buying flood insurance is the most important step to take in protecting your home from flood-related losses.

FLOOD PROTECTION & PREPARATION

- **Know your risk.** Are you located within a known flood area?
- **Check your insurance coverage.** Standard homeowners insurance doesn't cover flood related losses.
- **Prepare your property.** Ensure that items and buildings within the floodplain are elevated and anchored. Elevate your utilities, such as air conditioners and heat pumps, to avoid damage from minor floods.
- **Minimize flood damage.** Store valuable, important documents and electronics higher.
- **Keep drainage systems clean.** Keep ditches and culverts free of debris and remove tarp dams when not in use.
- **Put together a disaster kit and disaster plan.** Keep essential items, such as medication and extra food and water, on hand, and be sure your family knows who to contact in case of emergency.

THE SALMON LIFECYCLE

The lifecycle of salmon within Kittitas County is a difficult and long journey spanning years and hundreds of miles.

The lifecycle begins and ends at spawning. Eggs are laid in nests in gravel beds, called **Redds**. The eggs overwinter in the gravel beds and hatch as a tiny fish with an attached yolk sac called an **Alevin**. After absorbing all of the yolk, the salmon emerges from the gravel bed and becomes a **Fry**.

In Kittitas County, the salmon fry spend 1-3 years in the rivers, eating and growing. During this time, protection under logs, behind rocks, and in side channels is vital for survival. When the salmon is ready to migrate downstream to the ocean, it becomes a **Smolt**.

When smolting, the salmon's scales begin to grow and turn a silvery color. After leaving tributaries and traveling down the Yakima and Columbia Rivers,

the smolt reach the estuary at the mouth of the Columbia River, where they spend some time before traveling out to sea.

Once at sea, salmon may spend 1-4 years feeding, growing, and avoiding predators, until it is time for the salmon to return home to spawn. Both male and female salmon begin the long journey upstream, crossing over numerous dams and fish ladders. For those salmon returning to Kittitas County, they swim against the current for over 500 miles. During the journey upstream, the salmon begins to change. It loses its luster, changes color, and males grow hooked noses and large teeth.

The female salmon seeks out gravel beds and uses her tail and body to dig a nest called a **Redd**. After the eggs are laid and the male salmon fertilizes them, the female salmon covers the eggs. The male and female salmon die within days, providing nutrients

to the river ecosystem. The eggs overwinter, starting the cycle over again.

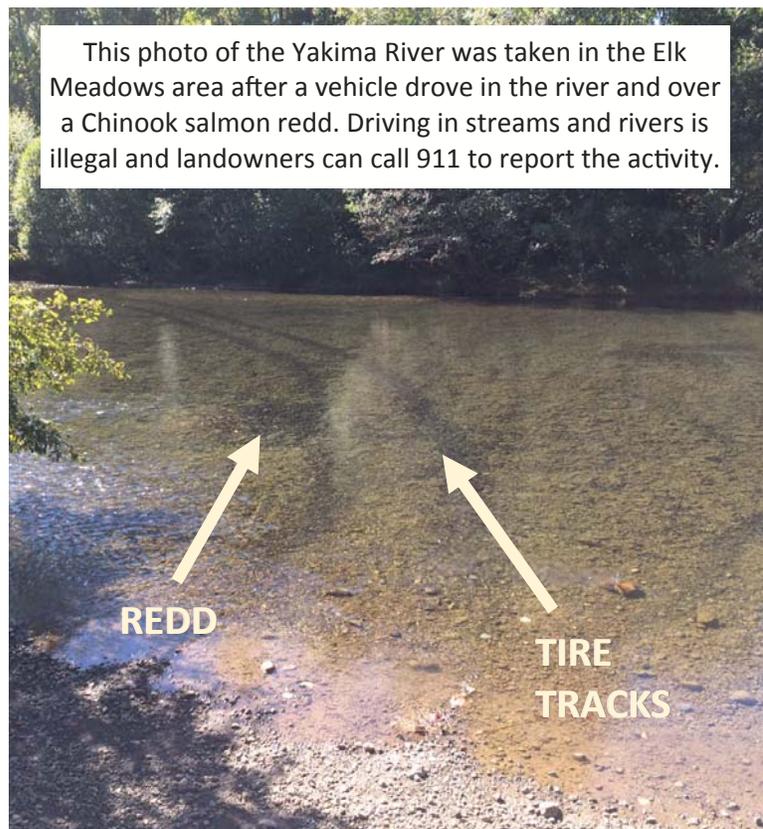
During the time period between spawning and the fry emerging from the gravel beds, any disturbance of the nest can damage or crush the eggs. For salmon, this time period lasts from September to March.

Steelhead have a similar lifecycle to salmon, but spawn in the spring and the fry emerge from the gravels in summer. Steelhead are anadromous Rainbow Trout. Instead of remaining in fresh water, they migrate to the ocean to live until they are ready to spawn. Steelhead can migrate and spawn more than once before dying, unlike salmon.

Some salmon and steelhead redds are visible in the gravel. During nest building, the gravels are cleaned, creating an area of a different color in the river bed. Not all redds are visible, so it is important to take care even if you don't see any redds.

Redds must remain undisturbed for the fry to emerge from the gravels. Even though a Chinook salmon lays thousands of eggs, only a very small percentage survive and are able to return to spawn. Humans, dogs, and vehicles can crush eggs and disturb nests. Fly fishermen need to be aware of spawning areas to avoid stepping on the nests. If you are fortunate enough to watch spawning salmon on their nest, please do not disturb them.

A spawning salmon has achieved a strenuous feat of survival and perseverance, and staying aware of spawning areas and protecting redds will help the cycle continue.



REGULATION REMINDER!

FLOODPLAIN DEVELOPMENT PERMIT

All landowners are required to apply for a Floodplain Development Permit prior to performing any development within the 100-year floodplain. Development includes any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials. This permit can be applied for from the Kittitas County Public Works Department.

To determine if your property is within the floodplain, use the County's COMPAS mapping program at <http://gis.co.kittitas.wa.us/>. For more information on development within the floodplain, visit: <http://www.co.kittitas.wa.us/public-works/flood/regulations.aspx>.

SHORELINE PERMITS

Shorelines of the State are specific streams, rivers and lakes within Kittitas County. A jurisdictional area exists along those waterbodies which manages the uses and activities along the shoreline. Those uses are regulated through the County's Shoreline Master Program (SMP). An update to the current 1975 SMP is expected to be adopted Winter 2016.

The jurisdictional area along shorelines is generally 200-feet from the ordinary high water mark of the waterbody. The updated SMP will include the associated side channels and wetlands of the waterbody into the jurisdictional area.

Activities proposed within the shoreline jurisdiction must be permitted or determined to be exempt from a permit. Most common residential, agricultural, and maintenance activities will be determined to be exempt. An application is required to receive the exemption. Other activities, such as commercial develop-

ments, campgrounds, or major restoration projects, must be permitted. For more information contact Community Development Services or visit: <http://www.co.kittitas.wa.us/cds/smp/>.

GRADING PERMIT

The county's grading permit regulations were enacted in December 2014. The regulations require a grading permit for any project unless certain exemptions are met. Most small projects under 100 cubic yards will be exempt, as well as some larger projects if the exemptions are met. The purpose of the regulation is to minimize the impacts associated with grading. For more information contact Public Works or visit the grading information website at <http://www.co.kittitas.wa.us/public-works/development/grading-permit.aspx>.

NANEUM, WILSON AND CHERRY CREEK WATERSHED ASSESSMENT UPDATE

The Flood Control Zone District has been actively working on the Naneum, Wilson, and Cherry Creek Watershed Assessment .

Due to the drought, many of the field work activities planned for fall 2015 had to be postponed. Project leaders had hoped to hold a landowners meeting in the fall, but have decided to also postpone the meeting until early 2016 to allow for more time for data collection.

If you would like to be placed on a list to receive project updates and notifications by email, please send an email to christina.wollman@co.kittitas.wa.us or call 509-962-7523. Information related to the project will also be posted on the Flood Information Website.

RESOURCES

Kittitas County Public Works
publicworks@co.kittitas.wa.us
509-962-7523
Office: 411 N. Ruby St, Ste. 1
Ellensburg, WA 98926

Kittitas County Community
Development Services
[cgs@co.kittitas.wa.us](mailto:cds@co.kittitas.wa.us)
509-962-7506
Office: 411 N. Ruby St, Ste. 2
Ellensburg, WA 98926

Kittitas County Emergency
Management Office
509-925-9525

National Flood Insurance
Program
Floodsmart.gov
1-888-379-9531

Disaster & Readiness
Information
Ready.gov

City of Ellensburg Public
Works
509-962-7230

City of Kittitas
509-968-0220

City of Cle Elum
509-674-2262

City of Roslyn
509-649-3105

Town of South Cle Elum
509-674-4322

FCZD Mailing List & Flood Information Website

Sign up to receive Flood Control Zone District updates and information by visiting the flood information website at:

<http://www.co.kittitas.wa.us/public-works/flood>

To find out if property you own or plan to purchase is located in a mapped floodplain or floodway, contact the Kittitas County Public Works Department.



Cargo Containers in the Floodplain

Cargo containers, also referred to as shipping or storage containers, are designed to float, regardless of whether the container is in the ocean or rising floodwaters. In a flood situation, the container can lift off the ground and cause damage by floating into structures or into the river channel. The photo below, found on the Seattle Times website, was taken in Lewis County after the floodwaters receded in 2007.

Within unincorporated Kittitas County, a cargo container is considered a structure and must comply with all zoning, critical area, and setback regulations. Check with your local jurisdiction for regulations if you are within a city or town. Placing a cargo container within the floodplain of unincorporated Kittitas County always requires a floodplain development permit, and a building permit is required unless the structure is within the industrial or commercial zones or used at a permitted job site for less than 30 days.



Within the floodplain, a container used for residential storage purposes must comply with the regulations for garages and small storage sheds (KCC 14.08.260). The floor of the container must be elevated above the base flood elevation, or vents must be placed in the sides of the container to allow floodwater to flow through during a flood event. The containers must be anchored to prevent floatation or movement.

Unless the container is within an industrial or commercial zone, the installation of the container within the floodplain must be designed by a licensed engineer. For more information on the placement of a cargo container, contact the Kittitas County Community Development Services Department at 509-962-7506.