Okanogan Conservation District

June 2016

Fire Recovery Dollars Are On The Way to the Okanogan

INSIDE

In response to two years of record-breaking wildfires in Washington State, the legislature has appropriated fire recovery funds to eleven counties, including Okanogan. The funds will be used to address natural resource concerns related to fire damage and the subsequent recovery. Priority projects will include fence replacement, prevention of crop damage, reduction of soil erosion, and water quality protection.

Okanogan CD staff did hundreds of site visits after the fires with the help of districts around the state.

Okanogan CD staff meeting with landowners to document fire damage in September 2015.

Okanogan CD staff are working with fire-impacted landowners to develop and prioritize projects for funding. Once planned, projects are submitted to the Washington State Conservation Commission for approval. As soon as a project is approved, a landowner may begin work on the project. When the project is completed and has passed inspection, the landowner will be reimbursed up to 75% of the final cost. **Projects must be completed and inspected by June 30, 2017 in order to be reimbursed**. Funding is limited; not all projects will be funded.

If you were affected by the 2014 or 2015 fires and you have not yet contacted us, please do so right away. Fill out a wildfire intake form at http://www.okanogancd.org/Fires. If you have already contacted us, but have further question about your eligibility for fire recovery funds, please call us at 509-422-0855.

Irrigation Water Management

By Amy Martin, Water Quality Conservation Planner

Irrigation water management (IWM) is the system of controlling the rate, amount and timing of irrigation water applications. Many growers develop an IWM plan that will meet crop water needs during the heat of the summer, but then apply that plan during the entire growing season. Refining an IWM schedule to account for seasonal variations in climate and crop needs, as well as soil properties, can maximize crop production and avoid over– or under-watering. Improved irrigation efficiency can also save energy, reducing your annual power bill.

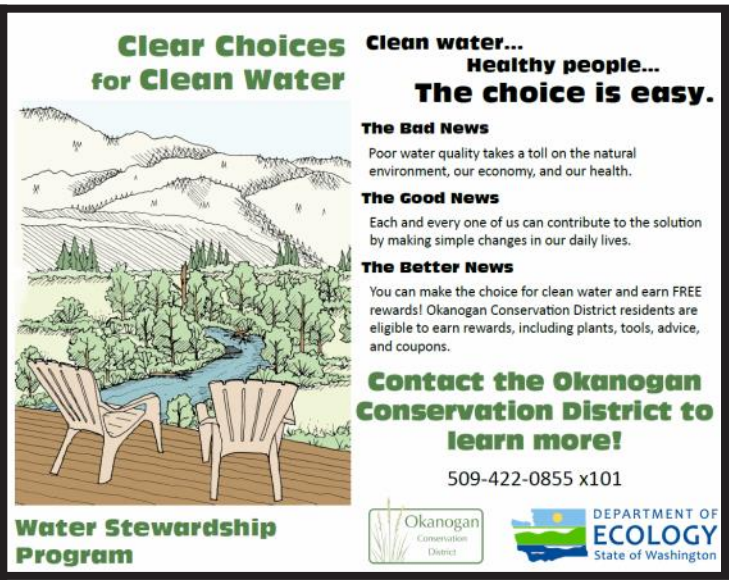
Under-watering has clear consequences for plant health, but overwatering can also be problematic and lead to soil nutrient loss or stunted root growth. Too much water in the soil displaces oxygen, which is necessary for productive root development. This is most likely to occur early in the season, when irrigation water is applied while soil water is at or near water holding capacity, and plants are using much less water than during the hottest time of the year. For example, apples in this area triple their water use between April and July. There may be opportunities to improve early spring growth by more specifically scheduling irrigation applications to account for seasonal moisture needs.

Information such as soil type, soil properties, evapotranspiration rates, crop rooting depth, soil moisture monitoring and current irrigation water application are used to develop an IWM plan that maximizes water efficiency and productivity. The Okanogan Conservation District can work with you to collect the information necessary to determine an irrigation schedule that meets your needs for all seasons.

If you're considering upgrading your irrigation system, call the District and see how we may connect you to programs and resources related to irrigation system upgrades.

Earn rewards for water conservation? Yes, you can!

If you live within the Okanogan Conservation District's service area, you can sign up to earn rewards in our new water stewardship program. It's easy, fun, and benefits all of us!



Two Summer Interns at Okanogan CD

Please join us in welcoming our new interns!

Dahlia Guerrette, left and Stacie Powers, right

Dahlia Guerrette, Okanogan High School Class of 2015, is our first WSU Conservation District Intern. Dahlia recently completed her first year at WSU and is ready to learn how districts work collaboratively with landowners to conserve natural resources.

Dahlia applied for this internship because she is trying to figure out if she wants to major in natural resources, or take another path. As an intern, she will shadow all of our employees on site visits and meetings, as well as help out with office work. Choosing a career path is hard without an idea of what a certain job requires, so this inside look into all the different jobs that make up a conservation district will be instructive.

She says she loves the atmosphere in the office and her coworkers are great...but check back in August, because she told us that she wants to get out of her comfort zone, and we are doing our best to meet that objective! The WSU/CDs internship was organized and funded by the Washington State Conservation Commission, and coordinated by WSCC staff (and Cougar) Ray Ledgerwood. The original idea came from Monte Marti at Snohomish CD, Craig Nelson at Okanogan CD, and Jennifer Boie at Palouse CD, and each of these three districts have interns this summer. If the pilot year goes well, the goals is to expand the program to more districts and additional colleges and universities.

Stacie Powers joins our team from New Hampshire. She graduated from the University of New Hampshire where she earned a degree in environmental conservation this past May. She will be working alongside Leslie Michel, Okanogan CD's soil scientist. Her position is funded through the Natural Resources Conservation Service Conservation Innovation Grants program. Through this grant, Okanogan CD is collaborating with several producers to examine the feasibility of planting cover crops in the low-rainfall, non-irrigated wheat-fallow region of Washington.

"I am really excited I got the chance to work with the conservation district and move across the country to work on soil health. I am especially excited that I can now learn about an ecosystem that is completely new to me. I have previously worked and volunteered with the Nature Conservancy of New Hampshire and I have also worked with the Forest Service in the White Mountains of New Hampshire for a research project concerned with ice storms and forest health."

Patience and Persistence Pay Off Post-fire

By Bob Clark, Senior Conservation Planner

Michael and Valerie Sarratt's remarkable persistence and patience have them on the road to recovery following the Carlton Complex fire. Mike and Valerie's property was "flood central" during 2014's devastating floods in the Benson Creek drainage. While the Sarratts are by no means the only landowners adversely effected by flood waters, Michael and Valerie experienced flood-wrought devastation equal to or greater than most landowners affected by post-fire flooding.

The Sarratt property lies at the confluence of the North and South Forks of Benson Creek. While most of the flood waters that affected their buildings came from the South Fork, flood waters from the over-topped and eroded Wenner Lakes on the North Fork joined South Fork waters just downstream of their buildings. It was these combined flood waters that very nearly swept Michael away. Aside from causing this near death experience, the flood waters extensively eroded the remainder of their property, destroying pasture, an irrigation system, and fences. It also wreaked havoc on the Benson Creek road. Because their house and garage are on the south side of the creek, the flood wiped out vehicle access to their home.

An intense storm cell over recently burned ground caused massive flooding at the Sarratt's property in August 2014.

Enter the Okanogan Conservation District with help from the Natural Resources Conservation Service (NRCS) Emergency Watershed Protection (EWP) Program. EWP funds were approved to build a protective dike to help prevent future flows from affecting the Sarratts' home; however, the creek first needed to be rerouted further from the house and garage to allow the dike to be built in a location that would better protect the house. A new bridge was also needed over

Ryan Roberts, NCW CDs engineer (left) worked alongside Allemandi Construction during the bridge installation.

Patience and Persistence Pay Off Post-fire

the creek to provide access to the home and to allow heavy machinery to reach the area where the dike needed to be installed. NRCS funding could not be used for any of the work besides the dike itself, so Okanogan CD turned to the Washington State Conservation Commission for the funds needed to complete the crucial parts of the project that were not covered by EWP. These Carlton Complex Fire Recovery funds were provided by the state legislature in the 2015 supplemental budget.

While there may be more work ahead to keep pace with the stabilization of Benson Creek, Michael Sarratt's continued energy and dedication to the recovery of his property makes success that much more likely.

Implementing the needed protection and restoration measures proved to be a complex and time-consuming process. A number of different agencies were involved, which required patience and good communication between all the parties. Okanogan CD and North Central Washington Conservation Districts' engineer worked collaboratively with Washington State Fish and Wildlife on design and construction parameters for the stream relocation and bridge installation. Okanogan CD staff applied for the Hydraulic Project Approval permit on behalf on the Sarratts. Stream course relocation, bridge installation, and dike construction were accomplished using a contractor who built other flood protection structures throughout the Carlton Complex fire area.

Okanogan CD was so impressed by Michael and Valerie's patience, persistence, and positive attitudes in the face of delays and complexity that we presented them with our 2015 Cutting Edge Cooperator award in February.

The freeze/thaw cycles of this past winter brought loose, decomposed granite downstream from the burned areas, yet the stream course remained largely intact. This spring, Okanogan CD hired Methow Natives to install plants along the creek banks. While the energy of the flowing water is still eroding some short reaches of the stream bank, time will tell if the plants will keep erosion in check.

Why Should We Care About Honey Bees?

From the Washington State AgForestry Class 37 Bee Info Series #1

If you've ever felt hungry, you will inherently realize why we should care about pollinators, specifically honey bees. As far as pollinators go, honey bees offer some distinct benefits for crop pollination: they work in mass numbers (colonies of up to 50,000 bees), they can pollinate a wide variety of plants, and they can be managed by humans.

Lack of suitable foraging habitat is one of the biggest issues facing honey bees globally, and this is true in Washington State as well. In fact, the four main issues affecting honey bees are all applicable in Washington. They are: lack of forage/proper nutrition, parasites & pathogens, pesticide exposure, and lack of genetic diversity. Just like people, bees flourish under ideal conditions and suffer from reduced hive health when they struggle to meet those conditions.

Planting bee-friendly plants is a great way to help the honey bees. You will see a list of beneficial plants on the following page. Parasites and pathogens can be very destructive to the hive, especially the parasitic *Varroa* mite. The *Varroa* mite has been the single most destructive issue for hives in the U.S. since the late 1980's. It's important to protect your hives with proper miticide to reduce the predation by *Varroa* mites. Pesticide exposure is another issue being studied for its effects on bees. That will also be covered in an upcoming article. Similar to humans, bees need genetic diversity to have robust hives. The above issues have caused reduced genetic diversity and have a detrimental effect to overall hive health. By addressing the above three issues we can help promote more genetic diversity in the hives.

Our public policy group from AgForestry Class 37 looks forward to exploring practical solutions to how we can all work together to help our pollinators. Learn more about the AgForesty Leadership Program here: www.agforestry.org

Honey Bees and Plants

From the Washington State AgForestry Class 37 Bee Info Series #2

Since 2006, as much as 70% of some bee populations have died as a result of Colony Collapse Disorder (CCD). Seventy farm-grown crops, about one-third of our natural food supply, rely on honey bees for pollination. You can help restore the honey bee population with a bee friendly garden and landscape.

It isn't difficult to make your yard, garden or even patio space beneficial for bees. You'll be helping these important insects, as well as bringing more nature to your back door. The greater the plant diversity, the more bees you will attract and support. Always try to choose as many native plants as possible, and consult with experts to find vegetation that will thrive in your specific conditions. WSU Extension Master Gardeners have many articles regarding bee keeping, beneficial plants, and other resources on the topic.

Bee-friendly garden plants attract and nourish honey bees with nectar producing plants. Wildflowers, including asters, goldenrod, sunflowers, even dandelions will provide food for hives and native bee populations alike. Flowering vegetables and fruits will not only provide a great source of food for your family but they will also provide nectar for the bees. Trees provide additional nectar and protection for honey bees, and provide shade that helps reduce evaporation of water and shelter for nesting and foraging. Plant long blooming flowers or a variety of plants that will bloom at different times throughout the spring and fall. Honey bees need to eat until they retreat to their hives for the winter. Try to group at least ten bee plants in a bunch or grouping.

Annuals: Asters, Calliopsis, Clover, Dandelions, Marigolds, Poppies, Sunflowers, Zinnias.

Perennials: Buttercups, Clematis, Cosmos, Crocuses, Dahlias, Echinacea, Geraniums, Germander, Hyacinth, Roses, Sedum, Snowdrops, Honeysuckle, Indigo.

Garden Plants: Blackberries, Cantaloupe, Cucumbers, Gourds, Peppers, Pumpkins, Raspberries, Squash, Strawberries, Watermelons, Wild Garlic, and many herbs.

Trees: Alder, Fruit Trees (especially Crab Apples), Hawthornes, Magnolias, Maples, Poplars, and Willows.

Honey bees need water in addition to nectar to have a strong colony. Provide a pond, a fountain, or some other fresh water source. Watering your garden at optimal hours to avoid evaporation will provide a suitable source of water as well.

We all need to take simple steps around our homes, farms, and forests to provide an environment that is healthy for bees. Little actions have big results, so next time you are at the nursery take a moment to pick a plant that will not only benefit you, but benefit the honey bees as well.

Okanogan Conservation District

1251 S. 2nd Avenue, Rm 102

Okanogan, WA 98840

Okanogan Conservation District

www.okanogancd.org

Providing local leadership through educational, technical, and financial assistance to landowners to help them voluntarily conserve and enhance natural resources for over 75 years.

This newsletter is published by the Okanogan Conservation District with partial funding from Washington State Conservation Commission, Washington State Department of Ecology, and various other sources.