

# Walla Walla County Conservation District

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Published regularly to provide information to land users

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## In this issue:

Welcome Renee  
Hadley! Best of Luck  
Rick

Cover Crops

Embarking on VSP

Pollinators

## Burn Permits

*If you need help with  
your burn permit(s),  
Jeff Klundt and Lisa  
Stearns are available  
to help Monday  
through Thursday or  
by appointment.*

## Change of Hats at the District

After almost 15 years of leading the District, Rick Jones has decided it is time to retire, again. His expertise and leadership resulted in a tremendous surge of conservation projects installed in our county. Rick says his greatest accomplishment at WWCCD has been “seeing things actually get done”. The following projects were constructed under Rick’s leadership: passage barriers removed: Hofer Dam, Gose Street, Spring Creek; large diversions screened: Garrison Creek, Blalock Irrigation District, Titus Creek; fish habitat restored: Dozier, Doan Creek and McCaw (Phase A); and the incredible irrigation efficiency projects: Touchet East-West, Gardena Farms Irrigation District South and North Lateral, Bergevin-Williams Old Lowden Consolidation, to say nothing of all the miles of CREP,



screens, meters, and smaller projects installed under his watch. What a great list of projects Rick and the Walla Walla County Conservation District have completed! At the end of May, Rick will put on his retirement hat. Rick will be devoting his time to restoring old cars, listening to ‘70’s music, doing a little hunting and fishing, and maybe taking his yellow Corvette for a spin out once in awhile. We wish Rick the very best on his next adventure.

The change of hats will go to Renee M. Hadley at the end of May. She started at WWCCD mid-March and is attempting to absorb all of Rick’s institutional knowledge while he is still here. Renee completed her bachelor’s degree in geology with a minor in botany from Washington State University. She assisted many research projects on invasive species eradication and vegetation surveys, and worked at the WSU Herbarium. She served 2 years as an Environment Volunteer in rural Madagascar. During that time, she learned that being a tree hugger and trying to save the world are not practical when your community has other priorities, like eating protein more than once a year, having enough fuel to cook a hot meal and obtaining clean water. Renee is a licensed geologist with Washington State and has spent the last 10 years as a private consultant in geotechnical engineering. While aquifer mapping, landslide hazard and shoreline erosion assessments, stormwater management design and construction monitoring were great learning experiences, Renee wanted to focus her efforts on what can make a difference, which eventually led her to WWCCD.

# Soil Health and Cover Crops

Wayne H. Thompson – Regional Extension Agronomist and WSU Dryland Cropping Systems Specialist for Walla Walla, Franklin, Garfield, Columbia and Asotin Counties

It is common knowledge in the mid-western US that cover crops (and green manure crops) improve soil quality. Soil health improves with increased soil particle aggregation. Improved soil aggregation enhances soil water-holding capacity, nutrient and pH buffering capacity, and the density and diversity of beneficial microbes and soil fauna. The Inland Pacific Northwest (IPNW) is semi-arid, with a cool to cold precipitation season, followed by a season with high temperatures and severe drying. In this environment, the window of time with prime conditions for accelerated microbial activity is very narrow. For this reason, the process of building soil quality in the IPNW with conventional minimum tillage systems is very slow. It may require centuries to build levels of humus needed to optimize a soil's water-holding and buffering capacity.

There are some less conventional management options known to accelerate humus formation and improve soil health. Well-cured animal manure, compost and waste water biosolids applied at relatively high rates, combined with strict no-till systems and straw retention, may offer a superior solution for lower rainfall areas. Conditions in higher rainfall areas are more flexible and may be able to sustain cropping systems that include green manure or cover crops.

Cover crops are terminated at early stages of development during a rapid growth phase, typically before flowering when root systems and above-ground biomass are most succulent. Succulent root systems flush with moisture, nutrients, and sugars can support high levels of microbial activity.

A cover crop might best be considered a flex crop, planted only when postharvest or pre-season conditions permit. A fall-planted green manure crop terminated by freezing winter temperatures and/or mechanical methods, followed by late winter and early spring conditions with ample soil moisture and warming soil temperature, will provide favorable conditions for accelerated microbial activity, rapid decomposition of root materials to humus, and with time – soil aggregate formation. Late winter and early spring plantings may be appropriate in some fallow years. In this system, the cover crop would be terminated after a targeted amount of soil water is evapotranspired and/or biomass has accumulated. Again, the succulent nutrient-rich roots and warming soils could produce an environment that supports rapid microbial activity while the terminated above-ground biomass provides soil shading – positive drivers for rapid and sustained decomposition of roots to humus – soil aggregate formation – and healthier soil.

There are many unknowns with cover crops. Which species vector disease and attract pests? Will the decomposition process release phytotoxic compounds? Will cover crops substantially increase the risk of commodity crop failure? How will crop insurance be affected? Does nutrient loss by leaching decrease with improved water-holding and nutrient buffering capacity? Will the fertilizer bill actually decrease over time? Will low-rate applications of agricultural liming materials help to remediate acid soil stratification or just help stimulate microbial activity? So many questions ...

The imagination of a farmer's mind is amazing. Industry, government or academic, research or extension, agronomists and soil scientists can merely strive to promote thought and contemplation. As with most major forward strides in agriculture, soil quality best practices will be unraveled on the farm, as breakthroughs originating under the guiding hands of the farmer.

## ***Responsibility for Screening and Metering Does Not Expire!***

The District still has funding available for both NOAH compliant fish screen installations and flow meters. New metering solutions have been developed, along with lower cost solar panels for sites needing electrical modifications. If you need a screen or meter, it's important to get your name on the list!

Call Greg Kinsinger at 522-6340 ext. 109 or Lisa Stearns at ext. 116





## The Voluntary Stewardship Program

The Voluntary Stewardship Program (VSP) is an alternative to the Growth Management Act (GMA) and its Critical Areas Ordinance requirements. VSP is intended to give local ag producers a strong say in developing a county work plan that respects critical areas while maintaining the viability of agriculture in the community.

The important difference between the Critical Areas Ordinance and VSP is that under VSP, the viability of agriculture is given the same consideration as protection of the critical areas. Only those lands that intersect with agricultural activities will be addressed under VSP. This means, for example, that VSP has no affect on lands managed by the Corps of Engineers for recreation such as the Bennington Lake area or on lands being developed for housing or commercial purposes. The five types of critical areas subject to VSP are wetlands, frequently flooded areas, aquifer recharge areas, geologically hazardous areas, and habitat for endangered species.

Under VSP, protection of crucial areas is achieved though voluntary, not regulatory actions. Goals are met by having producers voluntarily adopt practices that help meet the benchmarks set by the local work group instead of targeting individual producers. Many local producers have already adopted voluntary practices through the EQIP, CREP and other programs that facilitate good stewardship.

The County Commissioners elected to have the Walla Walla County Conservation District direct the program. Jeff Klundt is designated as the lead on VSP for our county. The first step is designating a local watershed group that will guide the development of the county work plan. The group will have representatives from our agriculture community, including livestock and non-commercial ag operations, watershed planning groups, and other stakeholders. The county work plan will include, among other things, a list of the critical areas subject to VSP, an outreach plan, and benchmarks or goals for the county. The process is guided by the Washington Conservation Commission; more information on the VSP process can be found at their website: <http://scc.wa.gov/voluntary-stewardship-program/>.

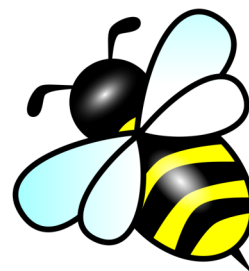


### Colony Collapse Disorder

submitted by Nathan Andreini, member  
Washington Ag Forestry Leadership Program Class 37

**One** of the biggest challenges to face beekeepers in the last decade has been Colony Collapse Disorder. The most recent spike in this syndrome was noticed in late 2006. North American beekeepers experienced a dramatic loss of western honeybee colonies. Losses reported by commercial beekeepers by early 2007 ranged from 30% to 90% of their colonies. The causes of Colony Collapse disorder are not known. Researchers believe a variety of factors may contribute to the disorder. The most commonly suspected factors are: pesticides and fungicides, including a class of pesticides known as neonicotinoids, pathogens such as viruses and fungi, mites, stresses due to trucking colonies frequently over long distances, and malnutrition. Studies have shown that these factors have all been present, sometimes singly but often together, in colonies that have succumbed to collapse. The Washington State Department of Agriculture convened a work group to report on the challenges facing honey bees in Washington. *(continued on next page)*

(con. from pg. 3) The work group's report, released in December 2014, concluded: "...improving honey bee health and habitat is likely to make the biggest impact in keeping Washington beekeeping businesses healthy ... making sound decisions to support bee health requires sound information and data. ...a level economic playing field is essential to keeping Washington's beekeeping industry competitive". Research published in 2009 by Dhruba Naug of Colorado State University showed a strong correlation between lack of quality habitat and the severity of colony collapse disorder in the U.S. Therefore, improvement of habitat and forage appears to be a critical step in the right direction to reduce the impact of colony collapse disorder. Additionally, more research is needed to understand the causes of the disorder. To that end, the work group recommended expansion of the Apiary program at Washington State University. The full report is available on line: simply search for "Honey Bee Work Group".



***Almost all NRCS programs, including CRP and CSP, can include pollinator habitat components. To find out what you can do to support pollinators in your operation, contact the NRCS.***

## Field Burn Permits Expire

### ***File your Burn Reports and Request Burn Refunds Early!***

Please remember to bring in your requests for a burn permit refund before the June 10th deadline. Every year a few producers forget to apply and leave money on the table, as Ecology can no longer issue even a partial refund once the deadline has passed. If you have completed your burn, report this to Ecology ASAP as it helps them "clear the board" of unburned acres and frees up opportunities for your neighbors to finish their spring burns.

## Walla Walla County Conservation District

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**View the WWCCD  
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