



# RUNOFF

CALIFORNIA-NEVADA CHAPTER SWCS –WINTER 2015

## PRESIDENT'S MESSAGE - ROB ROY



Greetings California Nevada SWCS members!

Calling all interested parties who may be interested in a leadership position with our Chapter. We are currently accepting nominations for Executive Council positions. The positions up for election in 2015 are President-Elect, Treasurer, and three Executive Council Directors. Each of these positions serve for two years.

This is a great opportunity to lead educational events and to work with a diverse group of people in the conservation field. Opportunities to form partnerships with conservation entities are excellent. Please consider running for an office and providing leadership to our Chapter membership of about 112 conservationists in Nevada and California.

One thing I can promise you is that as a leader of this group you will learn a lot. In the words of John F. Kennedy "*Leadership and learning are indispensable to each other.*"

I would like to get the nominations made by the middle of March and have the elections in early April. So if you are interested, please get back to me ASAP. You can reach me at [Robert.roy@ca.usda.gov](mailto:Robert.roy@ca.usda.gov) or at 559-252-2191 ext 117.

Directors **Ladi Asgill**, **Tina Vander Hoek**, and **Wendy Rash** will be up for reelection. We need candidates from **Nevada** to meet the requirements of our Bylaws that "At least one officer shall reside in Nevada". All the members of the Executive Council are officers.

We are also planning our annual meeting which will likely take place this year in June in Reno. Again a great opportunity if you would like to serve on a committee to help plan and organize this event. We are in the process of developing a theme for the event – there are many issues out there which we can develop a series of educational seminars or workshops so let me know if you are interested.

## HELP WITH PLANNING FOR OUR CHAPTER ANNUAL CONFERENCE

Contact President Elect **Joe Williams** at [joe.williams@ca.usda.gov](mailto:joe.williams@ca.usda.gov) and join the annual conference planning committee. Initial consideration is to hold it in June in Reno. Help select the date for the conference. Work with the committee to select a theme and organize the agenda that includes technology training, installation of officers and awards presentations. Help find speakers and sponsors. Practice your publicity skills.

## NEW CHAPTER MEMBERS

We extend a **GREAT BIG WELCOME** to the following six members who recently joined the SWCS and our California-Nevada Chapter SWCS. We have **112 members** as of February 10, 2015.

**Diana Carson-Walker** - Visalia

**James Smith** - Mesquite, NV

**John McCann** - Reno, NV

**Phil Smith** - Hanford

**Bobette Parsons** - Grass Valley

**Jenna Swarthout** - Menlo Park

## CHAPTER SOON TO AWARD ONE SCHOLARSHIP WORTH \$1,000

**Tina Vander Hoek**, Scholarship Committee Chair and Chapter Executive Council Director, has announced that “We have 12 applicants this year, this is a record”. **There are four candidates from CSU Chico, three from CSU Fresno, three from Cal Poly San Luis Obispo, one from CSU Humboldt and one from Shasta College.** The Committee will select and nominate one candidate for Executive Council approval. The scholarship will be awarded at the Chapter’s Annual Conference in time for the 2015/2016 school year.

The Chapter's goal is to encourage undergraduate students interested in soil and water conservation to obtain technical expertise and to pursue careers in soil and water resources. Applicants must (1) have successfully completed two years of study at an accredited college or university, (2) be enrolled in an undergraduate curriculum related to soil and water resources, and (3) have a cumulative grade point average of 2.5 or better on a 4.0 scale.

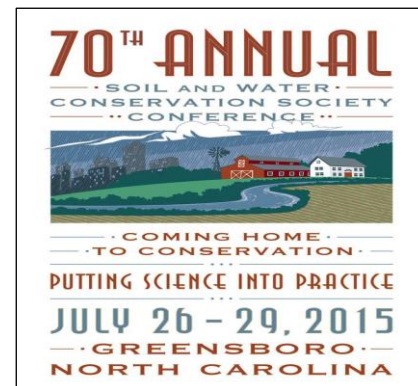
If you would care to serve on the committee and help evaluate these deserving scholars, please contact Tina at 805-434-0396 or via email at: [tina.vanderhoek@ca.usda.gov](mailto:tina.vanderhoek@ca.usda.gov). The Committee needs and welcomes more minds to help make a fair and solid choice for our scholarship. You would have the opportunity to get to know the character, achievements, and community contributions of the applicants. It’s one way of meeting and supporting our future leaders. Please consider your involvement.

## MAKE PLANS FOR JULY 26-29 IN GREENSBORO

The 2015 SWCS 70th International Annual Conference will be held July 26-29, 2015, at the Sheraton Hotel in Greensboro, North Carolina. The theme is “**Coming Home to Conservation: Putting Science into Practice Adaptive Management of Conservation Efforts**”. Visit [www.swcs.org/15ac](http://www.swcs.org/15ac)

The General Conference Sessions will include two special areas of focus on Precision Conservation and Water Science in the Public Interest and eight traditional topic areas:

- Conservation Economics and Policy
- Conservation Models, Tools, and Technologies
- Conservation in Nontraditional Agriculture
- Conservation Policy and Program Design
- Outreach, Education, and Community Engagement
- Social Sciences Informing Conservation
- Soil Health Resources, Indicators, Assessment, and Management
- Water Resource Assessment and Management



## SOCIETIES SUPPORT FUNDING FOR FARM BILL CONSERVATION PROGRAMS

In a joint letter, the SWCS, American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, California Climate & Agriculture Network, National Association of Conservation Districts and 27 more groups urged the House and Senate Budget Committee leadership to protect mandatory funding for farm bill conservation programs during the fiscal year (FY) 2016 budget process **and opposes the more than \$800 million in cuts to the Farm Bill Conservation Title proposed in the President’s FY 2016 budget.** The letter also outlines the benefits of conservation programs in preparing for extreme weather events and protecting critical natural resources.

The February 18, 2015 letter was sent to The Honorable **Mike Enzi**, Chairman, and The Honorable **Bernie Sanders**, Ranking Member, of the Senate Budget Committee, and to The Honorable **Tom Price**, Chairman, and The Honorable **Chris Van Hollen**, Ranking Member, of the House Budget Committee

## **CALIFORNIA CONSERVATION INVESTMENT BY NRCS, FARMERS AND RANCHERS REACHES \$200 MILLION IN FEDERAL FISCAL YEAR 2014**

DAVIS, Calif., Dec. 17, 2014-California's agricultural landscape received a healthy boost of conservation in fiscal year 2014. Over 2,400 farmers and ranchers teamed up with the USDA's Natural Resources Conservation Service (NRCS) and partners to voluntarily invest time and money in protecting and improving soil, water, air, plants and wildlife habitat across California's landscape, through the Environmental Quality Incentives Program (EQIP).

NRCS California invested nearly \$100 million in working lands conservation programs. When contributions by farmers and ranchers are included, this figure nearly doubles. This monumental investment came during the transition year from the 2008 Farm Bill to the new 2014 Farm Bill.

Each EQIP participant, and over 200 others, worked with NRCS to voluntarily create a conservation plan that identifies goals for improving natural resources on their property. The plan outlines possible structural and management solutions to address resource needs such as erosion, conserving and protecting water, enhancing air quality, improving soil and plant health on range and forestland, creating habitat and more.

"This was a challenging year for producers and conservation in general, due to dry conditions around the state," says Carlos Suarez, State Conservationist for NRCS in California. "Recognizing this, I am extremely impressed by the work undertaken by our customers and partners to survive and thrive using the conservation practices available to them. NRCS created dozens of conservation plans with producers to help them make the most of every drop of water."

In a year of extreme drought, NRCS assisted farmers and ranchers to sustain their operations for better years ahead. The Agency launched a \$25 million drought initiative in February 2014 to complement the actions of state and other federal agencies to provide critical services to the agricultural community. The funds were spread to assist farmers in addressing soil erosion, soil health, fallow fields, and irrigation efficiency. Additionally, twenty agricultural landowners whose property was damaged by catastrophic wildfires received approximately \$920,000 for conservation assistance such as erosion control, preventing encroachment by invasive plants, and aiding water quality.

In 2014, NRCS continued its commitment to helping California's dairy industry to remain healthy and sustainable. NRCS worked with producers and invested over \$8 million in manure management plans and structural practices designed to help dairymen continue their efforts to comply with increasingly stringent federal and state water quality regulations.

California is home to some of the compromised air quality in the nation. To help achieve clean air goals, NRCS invested over \$21 million to address dust, particulate matter, and on-farm engine emissions. Through NRCS's National Air Quality Initiative, farmers recycled old, high-polluting diesel engines and replaced them with significantly cleaner systems. Since 2009, these efforts have reduced oxides of nitrogen emissions, an ozone precursor, by an average of 2,600 tons per year.

The 2014 Farm Bill retired the Agricultural Water Enhancement Program and the Cooperative Conservation Partnership Initiative. A new Regional Conservation Partnership Program (RCPP), a multi-layered program to address localized conservation needs, replaced them. A wide variety of conservation projects will be approved through RCPP to address watershed issues, declining wildlife habitat, and other critical needs throughout the country.

In addition, the 2014 Farm Bill retired the Wetlands Reserve Program, Farm and Ranch Lands Protection Program, and Grasslands Reserve Program. The new Agricultural Conservation Easement Program continued many of the same easement priorities in a more streamlined fashion. NRCS has provided leadership in a partnership effort to help America's private landowners and managers conserve their soil, water and other natural resources since 1935.

## CALIFORNIA SUSTAINABLE AGRICULTURAL LANDS CONSERVATION PROGRAM

The Sustainable Agricultural Lands Conservation Program (SALCP) supports the State's greenhouse gas (GHG) emission goals by making strategic investments to protect agricultural lands. Protecting critical agricultural lands from conversion to urban or rural residential development, promotes smart growth within existing jurisdictions, ensures open space remains available, and supports a healthy agricultural economy and resulting food security. A healthy and resilient agricultural sector is becoming increasingly important in meeting the challenges occurring and anticipated as a result of climate change.

There are three major elements proposed for the SALCP:

1. Sustainable Agricultural Land Strategy Plans— Short term grants to counties, cities, and partners, to inventory and evaluate which agricultural lands are most highly productive and critically threatened and develop locally appropriate strategies, programs and actions that ensure the long term protection of those lands.
2. Agricultural Conservation Easements—Provide funding to leverage the protection of strategically located, highly productive, and critically threatened agricultural land, via permanent agricultural conservation easements.
3. Financial Incentives for Adoption and Use of Land Management Practices —Leverage USDA and other funding to incentivize management practices designed to reduce GHGs, sequester carbon and provide other co-benefits on working agricultural operations.

### Program Goals and Objectives

The principal goal of this grant program is to fund plans and conservation acquisitions in order to avoid increases in greenhouse gas emissions associated with agricultural lands, consistent with AB 32: the California Global Warming Solutions Act of 2006, which is a multi-year program to reduce Greenhouse Gas (GHG) emissions in California to 1990 levels by 2020. Grants are funded by the Greenhouse Gas Reduction Fund.

Recent University of California research estimates that land in agricultural and healthy open space use sequesters up to 70 times more carbon than any form of urban development. Conserving and managing agricultural land contributes towards the goals to reduce GHG emissions by:

- Encouraging focused, compact, transit oriented development within discrete growth boundaries.
- Reducing GHG emissions and increasing soil carbon sequestration through the implementation and use of farm-scale conservation management practices.

The SALCP will complement California's existing farmland conservation efforts, including the Land Conservation (Williamson) Act, the California Farmland Conservancy Program, and the many local and regional agricultural land conservation policies in place throughout the state. For the purposes of this program agricultural land will include both cultivated and non-cultivated (e.g., rangeland and pasture) lands.

Sustainable Agricultural Land Strategy Grants application deadline is March 20, 2015.

**Eligible Applicants are** Counties and/or cities as the lead applicant(s) in collaboration with other partners. There must be a minimum ten percent (10%) local match. At least five percent (5%) of the requested grant amount must be a cash match; the balance may be in-kind.

### Eligible Projects

Sustainable Agricultural Land Strategy Plans might include, but not be limited to:

- Development of the criteria used to define the greatest local priorities for conservation, decreased GHG emissions, or those that may result in enhanced carbon sequestration.
- Delineation of agricultural lands with the greatest local priorities for conservation, decreased GHG emissions, or those that may result in enhanced carbon sequestration.
- Community consensus-building to develop a strategy for agricultural land preservation.
- Development and adoption of a Sustainable Agricultural Land Strategy, which may include an agricultural land mitigation program or a county or city agricultural element, conservation element, or other similar policy documents.

- Development of potential agricultural conservation easement projects by conducting appraisals, surveys, title review, and other activities directly related to the funding application and acquisition.<sup>6</sup>
- Planning for critical agricultural infrastructure needs; such as processing facilities, local marketing opportunities, water quality or quantity improvements, or waste handling, to support sustainability in existing rural and agricultural communities.

For additional information, contact the **California Department of Conservation**  
**DIVISION OF LAND RESOURCE PROTECTION** (916) 324-0850  
<http://www.conservation.ca.gov/dlrp/SALCP/Pages/Index.aspx>

## IT WAS A BIG YEAR FOR DIRT

By Alan **Guebert**, Farm and Food File columnist, Mason City Globe Gazette

This year I'm not taking any chances, so I'm announcing 2015's first big global event, the already-announced (on Dec. 5 by the United Nation's Food and Agriculture Organization) "**International Year of Soils.**" The goal of this year-long, worldwide emphasis, explains the U.N., is "to increase awareness and understanding of the importance of soil for food security and essential ecosystem functions." For example, according to a 2001 report published by the U.S. Department of Agriculture's Natural Resources Conservation Service, the yield reduction in Africa due to soil erosion already stands at more than 8 percent.

That irreversible loss doesn't sound like much if you farm in the black earth country of Illinois or the yards-deep soil of the Pacific Northwest's Palouse. It's life and death, however, if you live — or hope to live — in Tanzania or Kenya. The story is the same in many of the world's key farming regions. According to the same NRCS study, the "annual loss in productivity" due to soil erosion and degradation in southern Asia is equal to "36 million metric tons of cereal equivalent." In U.S. terms, 36 MMT "cereal equivalent" is 65 percent of the entire 2014-15 American wheat crop.

We in the U.S. have no room to brag. "It is estimated that the total annual cost of erosion is about \$44 billion per year or about \$247 per hectare (\$100 per acre) of cropland and pasture," reckoned USDA in 2001. Taken across the globe, total soil erosion and soil degradation numbers are knee-buckling: "The annual loss of 75 billion tons of soil costs the world about \$400 billion per year, are about \$70 per person per year."

Changing the perspective doesn't change the importance of soil or soil erosion. According to USDA, only 3 percent of the earth's surface is "considered as prime Class I land (while) another 8 percent is in Classes II and III. This 11 percent of land must feed the 7.6 billion population expected in 2020."

## SOIL HEALTH SYMPOSIUM & WORKSHOP HELD IN ONTARIO, OREGON

Speakers at this year's Soil Health Symposium and Workshop sponsored by the Payette Soil and Water Conservation District last month stressed the importance of soil, which is an important, although often ignored, component to growing crops. "Soils are one of the most under-appreciated parts of agriculture," said **Jerry Hatfield**, director of the U.S. Department of Agriculture's Agriculture Research Service National Laboratory for Agriculture and the Environment. "**Our greatest global threat is soil degradation,**" **Hatfield said.**

"With a growing global population, there is a need to grow more and more food on less and less land, as more land becomes degraded and unproductive, he said. The biggest problems are in China and India, which will become non-self-sufficient in a few years.

Soil degradation begins with poor land management. That, in turn, can lead to such problems as water and wind erosion, and soil compaction, which can reduce water infiltration into the soils and affect plant growth. Rebuilding the soil can be done, but it is hard work," **Hatfield said.**

## **NEW PARTNERSHIP-DRIVEN PROJECTS BOOST CONSERVATION IN CALIFORNIA**

DAVIS, Calif., Jan. 14, 2015 - The USDA's Natural Resources Conservation Service (NRCS) in California announces six new partnership-driven conservation projects, funded under the Regional Conservation Partnership Program (RCPP), newly created in the 2014 Farm Bill. Nationwide, RCPP is providing federal financial and technical resources for more than 100 approved projects, totaling \$372 million.

"We are excited and energized by the new opportunities made possible with a strong mix of partners involved in the RCPP projects that will take place here in California," said NRCS State Conservationist **Carlos Suarez**. "It is very powerful to be able to engage in partnerships that embrace both agricultural and environmental interests and perspectives—and find collaborative ways of making progress on critical issues such as avian habitat, climate change, groundwater protection and more."

Each project has its own set of conservation benefits, specific goals and management practices. Four of the selected projects benefit agricultural lands geographically located within California, and two additional projects provide conservation benefits on a multi-state level. The four projects that are totally within California borders will receive approximately \$12 million with partners providing matching resources to implement the work. The work will tap into resources from both the NRCS Environmental Quality Incentives Program and the Agricultural Conservation Easement Program.

### **California-Specific Project Overviews:**

- **Enhancement of Tricolored Blackbird Habitat on Agricultural Land.**
- Lead partner: Audubon California with participation from Western United Dairymen. Project will address factors that challenge dairy farmers and threaten Tricolored Blackbird populations, with the goal of finding a sustainable solution for management of colonies on farms and saving the species from extinction. In addition to using working lands programs and wetland easements to protect and increase habitat, an educational campaign will help increase awareness of farmers' role in saving the species.
- **Expansion of Waterbird Habitat Project in the Central Valley.**
- Lead partner: California Rice Commission. Project will increase technical and financial assistance to California's rice growers to increase wildlife features on approximately 165,000 acres of rice fields. A special component will address the specific needs of upland-nesting bird species on 12,000 acres.
- **The Pajaro Valley Community Water Dialogue.**
- Lead partner: Resource Conservation District of Santa Cruz County. Project will provide assistance to local growers to implement conservation practices that reduce groundwater pumping, increase aquifer recharge, and protect surface water by reducing nitrate leaching into the groundwater.
- **Bay Area Climate Change Practices on Agricultural Lands.**
- Lead partner: Marin Agricultural Land Trust. Project will help farmers accelerate conservation planning and implement conservation measures that combat climate change. Practices will take place on lands protected by long-term agricultural easements. Partners and landowners will monitor soil quality, water quality, and in-stream habitat on these lands.

RCPP selected competitive conservation projects, designed by local partners specifically for their state or region. Eligible partners included private companies, universities, non-profit organizations, local and tribal governments and others joining with agricultural and conservation organizations and producers to invest money, manpower and materials to their proposed initiatives.

## DO YOU HAVE ENOUGH SEED FOR THIS PROJECT?

By Walt Bunter

Seeding rates are designed to deliver the desired number of viable seeds per square foot or foot of row to achieve the plant population desired to meet the production goal or conservation benefit. Most of the seeding specifications you encounter will specify pounds of pure live seed per acre.

Pure live seed (PLS) refers to the amount of viable seed in the bag or lot of seed. Check the tag on each bag or lot of seed delivered to the project site for the percent germination and percent purity of each specified species.

**Most landowners and contractors will need to be informed of what PLS means before they buy the seed for the project. You should plan to be at the project site and assist them to use the correct seeding rate.**

They need to know that a 50 pound bag of seed X **may not** be enough to satisfy a specified rate of 5 lbs/acre for the 10 acre project.

They will appreciate your help because it helps them remain eligible for payment under the contract or cost-sharing program. Document your assistance and save the calculations and seed bag or seed lot data.

### MAKING THE ADJUSTMENTS

You can calculate PLS for each species by multiplying the percent germination by the percent purity. If the bag or lot of seed contains less than 95 percent PLS of a specified species or is coated by the supplier, then the actual seeding rate needs to be increased based on the "Adjusted Seeding Rate" calculated using the following steps.

#### **Step 1. Check the percent (%) PLS for each species.**

Example: If the seed bag or lot tag shows: 90% purity and 70% germination for species A, then that bag or lot of seed contains:  $90\% \times 70\% = (0.90 \times 0.70) \times 100 = 63\%$  actual weight of PLS of species A.

#### **Step 2. Determine the adjustment factor.**

Example:  $100\%$  specified PLS divided by  $63\%$  actual PLS =  $1.00 / 0.63 = 1.59$  factor for species A.

#### **Step 3. Calculate the Adjusted Seeding Rate for uncoated seed.**

Example: If the specified seeding rate for species A is 10 lbs PLS/acre and the adjustment factor = 1.59, then the Adjusted Seeding Rate =  $1.59 \times 10$  lbs/acre = 15.9 lbs/acre. Therefore, you need to plant species A at the rate of 15.9 or 16 lbs/acre to meet the 10 lbs PLS/acre specification.

Sometimes the seed of legumes like clover is coated by the supplier with a coating of an inoculant or other materials. When the specified seeding rate is based on uncoated seed, you will need to adjust the seeding rate for both PLS and the weight of the coating. No coating adjustment is needed when you inoculate seed at the site.

#### **Step 4. Calculate the Adjusted Seeding Rate for coated seed.**

Example: If the seed for species A used in Steps 1-3 above is coated (or pelleted) seed and the coating increases seed weight by 33.3%, then only 66.7% of the weight of species A in that bag or lot of seed is actual seeds. You need to increase the seeding rate by a factor of  $100\% / 66.7\% = 1.00 / 0.667 = 1.5$ .

The Adjusted Seeding Rate for coated seed from that bag or lot of seed =  $1.5 \times 15.9$  lbs/acre = 23.85 lbs/acre. Therefore, you need to plant the coated seed at the rate of 23.85 or 24 lbs/acre to meet the 10 lbs PLS/acre seeding rate specification.

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Walt Bunter is a retired USDA Natural Resources Conservation Service State Agronomist.

## MISSION STATEMENT

The Chapter is a multidisciplinary scientific and educational organization dedicated to natural resource enhancement through an ethic which recognizes the interdependence of human communities and natural systems.

The Chapter achieves its mission through its members using mutual cooperation and understanding to create opportunities for improving soil and water conservation in California and Nevada.

## CHAPTER EXECUTIVE COUNCIL

**Rob Roy**, President  
**Joe Williams**, President-Elect  
**Tibor Horvath**, Past President  
**Erika Boyland**, Secretary  
**Tom Esgate**, Treasurer  
**Ladi Asgill**, Director  
**Austin Avwunudiogba**, Director  
**Tina Vander Hoek**, Director  
**Phil Hogan**, Director  
**Zahangir Kabir**, Director  
**Wendy Rash**, Director

**RUNOFF** is the official California-Nevada Chapter SWCS newsletter.

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Please submit articles via email to the Editor.  
RUNOFF reserves the right to edit all submissions.

**“From every conceivable angle—economic, social, cultural, public health, national defense—conservation of natural resources is an objective on which all should agree.**

**Public interest in making the wisest possible use of a nation's natural resources is, in a sense, of greater importance than the individual's interest—if that is of any significance. Actually, both are tied together in such a completely complementary way, there is no point in pursuing the subject beyond indicating that no man should have the right legally or otherwise, to recklessly or willfully destroy or unnecessarily waste any resources on which public welfare is dependent.**

**Our American experience, however, has apparently developed a majority feeling to the effect that our soil conservation effort should, insofar as security permits, proceed along lines of cooperative action, without the use of compulsion at any point, at least not until there has been time for adequate education and farmer response.**

**Farmers have only temporary control over their land. It can be theirs for a lifetime and no longer. The public's interest, however, goes on and on, endlessly, if nations are to endure”.**

**Hugh Hammond Bennett**

The above quotes are from: Hugh Hammond Bennett. *The Hugh Bennett Lectures*. Raleigh, North Carolina: The Agricultural Foundation, Inc., North Carolina State College, June 1959.

**CHECKOUT THE CA-NV CHAPTER  
SWCS WEBSITE**

[www.caswcs.org](http://www.caswcs.org)

PLEASE SUBMIT  
PHOTOS,  
NEWS ITEMS, AND  
FEATURE ARTICLES  
TO THE EDITOR FOR THE  
WINTER ISSUE OF RUNOFF

**BY MARCH 24**