



# RUNOFF

CALIFORNIA-NEVADA CHAPTER SWCS – FALL 2014

## PRESIDENT'S MESSAGE – Rob Roy



An interesting article appeared this month in the online prestigious journal, Nature. The article dealt with the often debated subject of Conservation Agriculture (CA) as represented by the use of three crop management principles; the direct planting of crops with minimum soil disturbance or tillage, establishing permanent soil cover through cover crops and retaining crop residues, and crop rotation. One of the main findings of the article's meta data analysis was that no-till can negatively impact crop yields although under certain conditions it produces yields equivalent to or even greater than conventional tillage systems.

The authors present their evidence against the backdrop of CA's promise as "an approach to managing agro-ecosystems for improved and sustained productivity, increased profits, and food security while preserving and enhancing the resource base and the environment".

Clearly, a growing world population is, in many parts of the world,

driving the need for improved productivity. This scenario I feel is the one where CA faces a great challenge. The final message delivered is that in the context of agricultural regions containing a disproportionate number of the world's poor that currently struggle with food security issues (resource-poor and vulnerable smallholder farming systems), efforts to expand conservation agriculture must remain conscious of the potential for no-till to 'backfire'.

The article produced significant comment from those in the Agricultural community and affiliated research community. One of the best comments I think came to me through Jeff Mitchell - it was a commentary on the Nature article from Dr. Dwayne Beck with the Dakota Lakes Research Farm in South Dakota. Dwayne's insightful comment was "Simply eliminating tillage from what is a system designed to be managed with tillage is not successful. It is not a no-till or conservation agriculture system." He further commented on the extractive nature of farming and included this great quote "Tillage is to agriculture what FRACKING is to mining and petroleum extraction." You can I hope appreciate the significance of this comment presented somewhat out of context.

I am reminded of Jethro Tull, who in the early 18th century, invented the grain drill and the cultivator allowing weed-choked fields to be cultivated. Tull demonstrated that cultivation could be helpful, but he gave a wrong reason – that cultivation helped plants take in small particles of earth. This is one example of how a practice, which is good on some kinds of soil, may be established through observation and eventually advocated for all kinds of soil for the wrong reasons.

I struggle with the idea of promoting no-till farming in a society with food security issues where yields may be reduced through experimentation with this technology. Can you imagine standing with a group of small farmers (again, resource poor and vulnerable) in a part of the world where their survival is largely based on how much food they produce and suggesting a planting strategy that could negatively impact their yield?

However, in those parts of the world, where we have food security and a popular desire to improve soil health, carbon sequestration, and reduce runoff, we can promote production systems utilizing the concepts of CA as we strive to develop resilient and productive landscapes. Let us continue to strive to develop the best technology that can be advocated for the right reasons in the right places.

About 25 years after Jethro Tull invented his cultivator, Jonathan Swift gave us the following quote from Gulliver's Travels:

*Do not go gentle into that good night,  
Old age should burn and rave at close of day;  
Rage, rage against the dying of the light.*

*Dylan Thomas*

*And he gave it for his opinion, that whoever could make two ears of corn or two blades of grass, to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together.*

**CALIFORNIA-NEVADA CHAPTER MEMBERS**

114 on November 17, 2014

If any of your colleagues are not listed, please encourage them to become a member of SWCS.

Paul	Amaral	-	Auburn
Brian	Andraski	-	Carson City, NV
Andrew	Andresen	-	Kelseyville
Ladi	Asgill	-	Delhi
Augustine	Avwunudiogba	-	Turlock
William	Baker	-	Temecula
Matt	Baldzikowski	-	Los Altos
Erik	Beardsley	-	Red Bluff
Erika	Boyland	-	Bakersfield
Colin	Brown	-	New Haven, CT
Walter	Bunter Jr.	-	Davis
Joel	Butterworth	-	Sonoma
California	Dairy Campaign	-	Turlock
Richard	Casale	-	Aptos
Dennis	Chessman	-	Davis
James	Chidester	-	Concord
Alec	Ching	-	San Jose
Denny	Churchill	-	Quincy
Richard	Clark	-	La Verne
Duane	Cornett	-	Marysville
Dennis	Corwin	-	Riverside
Gary	Cottle	-	Fallon, NV
Christian	Davis	-	Sacramento
Randy	Davis	-	Marysville
Mary	Dellavalle	-	Apple Valley
W.	Denham	-	Pasadena
George	Dingilian	-	Corona
Jeff	Dlott	-	Soquel
John	Drumm	-	Davis
RaeAnn	Dubay	-	Red Bluff
Rex	Dufour	-	Davis
Mel	Duncan	-	Folsom
Matt	Dunnahoe	-	Auburn
Jim	Earsom	-	Loma Linda
Norman	Elam	-	Palm Springs
Thomas	Esgate	-	Penn Valley
Julie	Fallon	-	Santa Maria
Ali	Farsad	-	Goleta
Clarence	Finch	-	Fresno
Allison	Flynn	-	El Cerrito
Josh	Fodor	-	Santa Cruz
Alan	Forkey	-	Yuba City
Donald	Funk	-	Paso Robles
Thomas	Gamette	-	Folsom
Christoper	Giovannoni	-	Watsonville
Dave	Goorahoo	-	Fresno
E.	Griner	-	Bonsall
Brent	Hallock	-	San Luis Obispo
Keith	Hamblin	-	Redding
Douglas	Hanford	-	Sonoma
Howard	Harris	-	Ridgecrest
Richard	Hathaway III	-	Hat Creek
Michael	Hogan	-	Tahoe City
Phil	Hogan	-	Woodland
Lisa	Hokholt	-	Livermore

Matthew	Howe	-	Carlsbad
Daniel	Howes	-	San Luis Obispo
Ray	Hunter	-	Fresno
Kay	Joy Barge	-	Salinas
Zahangir	Kabir	-	Davis
Jeremy	Kearns	-	American Canyon
Hyoungkyun	Kim	-	Dublin
James	Kocsis	-	Davis
James	Komar	-	Red Bluff
Eric	Larson	-	Sebastopol
Steve	Lewis	-	Minden, NV
Ping	Li	-	South San Francisco
William	Lincoln	-	Middletown
Chris	Marr	-	Rancho Cordova
Drew	Mather	-	Hollister
Sandra	Mathews	-	Hayward
Jonathon	Mello	-	San Diego
Roland	Meyer	-	Davis
Sonya	Miller	-	Galt
Jeremy	Mora	-	Salinas
Daniel	Mountjoy	-	Watsonville
Louis	Nagy	-	Ventura
Sally	Negroni	-	Dixon
Son	Nguyen	-	La Mesa
Patti	Novak-Echenique	-	Silver Springs, NV
Margaret	Perry	-	Atascadero
Jeff	Peters	-	Richmond
Roger	Poff	-	Nevada City
Athena	Pratt	-	Hollister
Gil	Pridmore	-	Napa
Wendy	Rash	-	Winters
Floyd	Rathbun	-	Fallon, NV
Benjamin	Rau	-	Sacramento
Kevin	Roberson	-	Orange
Andrew	Rosenau	-	Sacramento
Brent	Rouppet Ph.D.	-	Lodi
Robert	Roy	-	Fresno
Jeffrey	Rubin	-	Oakland
Diana	Ruiz	-	Riverside
Carol-Anne	Rutenbergs	-	Auburn
George	Sato	-	Rancho Cordova
Alan	Sayce	-	Whittier
Michael	Simmons	-	Goleta
Michael	Singer	-	Davis
Robert	Slayback	-	Lodi
James	Spear	-	Red Bluff
Mark	Steffek	-	Alturas
David	Steiner	-	Napa
Mark	Stowell	-	Irvine
Sarah	Tanuvasa	-	Bakersfield
Ronald	Taskey	-	Atascadero
Francisco	Tirado	-	San Salvador
Lorin	Trubschenck	-	Lompoc
Tina	Vander Hoek	-	Templeton
Mark	Weltz	-	Reno, NV
Ruth	Wildman	-	Davis
Joe	Williams	-	Visalia
John	Wilson	-	Los Angeles
Jane	Wohletz	-	Concord

## NEW CHAPTER MEMBERS

We extend a **GREAT BIG WELCOME** to the following eight members who recently joined the SWCS and our California-Nevada Chapter SWCS. We have **114 members** as of November 17, 2014.

<b>William Baker</b> - Temecula	<b>Ping Li</b> - South San Francisco
<b>Mary Dellavalle</b> - Apple Valley	<b>Chris Marr</b> - Rancho Cordova
<b>Josh Fodor</b> - Santa Cruz	<b>Jonathon Mello</b> - San Diego
<b>Matthew Howe</b> - Carlsbad	<b>Francisco Tirado</b> - San Salvador

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

The Scholarship Committee will soon be mailing announcements with application forms to colleges and universities in California that the Chapter is offering one \$1,000 scholarship. Applications are due by January 31 and a selection will be approved and announced before the Chapter's Annual Conference this Spring, and 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. Application forms will also be available on our Chapter website at: [www.caswcs.org](http://www.caswcs.org)

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.

Chapter Executive Council Director **Tina Vander Hoek**, Soil Conservationist with the USDA Natural Resources Conservation Service at Templeton, chairs the Scholarship Committee and Kay **Joy** Assistant State Conservationist of Field Operations (ASTCFO) USDA Natural Resources Conservation Service at Salinas also serves on the committee. If you would care to serve on the committee and help nominate our next deserving scholar, please contact me at 805-434-0396 or via email at: [tina.vanderhoek@ca.usda.gov](mailto:tina.vanderhoek@ca.usda.gov)

We need and welcome 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. Thanks. The California-Nevada Chapter SWCS Scholarship Committee.

## CHAPTER ELECTIONS NEXT MARCH

Chapter members will be electing three Executive Council Directors, a Treasurer, and a President-Elect at the next election in March. Directors **Ladi Asgill**, **Tina Vander Hoek**, and **Wendy Rash** will be up for reelection. Directors, Treasurer, and President-Elect serve for two years. 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.

Past-President **Tibor Horvath** will Chair the Nominations Committee. Let Tibor know that you want your name on the ballot. [Tibor.Horvath@ky.usda.gov](mailto:Tibor.Horvath@ky.usda.gov)

## HELP WITH PLANNING FOR OUR CHAPTER ANNUAL SPRING 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. Express your preference for where to hold it next Spring. 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.

## HOLIDAY GIFT IDEA FROM SWCS

Introduce a friend to the benefits of a SWCS Membership with a discounted rate of \$45 for a first time member. Your gift will not only support local, national, and international soil and water conservation, but will allow the recipient to receive professional education, networking opportunities, and all the other great member benefits you enjoy! Plus, they'll receive an introductory welcome packet, too! Contact [memberservices@swcs.org](mailto:memberservices@swcs.org) for more information.

## CHAPTER RECEIVES SWCS PRESIDENT'S AWARD

The California-Nevada Chapter received the **President's Award** for their contributions in planning the 2013 SWCS International Annual Conference that was held in Reno.

Chapter Treasurer **Tom Esgate** accepted the award for our Chapter on July 29, 2014 in Lombard, Illinois at the 69th SWCS International Annual Conference on **Making Waves in Conservation Our Life on Land & its Impact on Water**. Directors **Ladi Asgill** and **Zahangir Kabir** also attended.

The award citation stated that:

The Chapter demonstrated leadership and commitment by engaging with SWCS headquarters to plan the silent auction, offsite tours, entertainment, and coordination of all volunteers and facilitators.

The dedication and follow through of the Chapter planning committee was instrumental to the overall success of the conference. The Society is grateful for all the time invested by these individuals and is pleased to present the President's Award for their efforts.



Chapter Treasurer **Tom Esgate** accepted the SWCS President's Award from SWCS President Dan Towery on right and SWCS Executive Director Jim Gulliford on left.

## CALL FOR PRESENTATIONS NOW OPEN

The 2015 SWCS 70th International Annual Conference will be held July 26-29, 2015, at the Sheraton Hotel in Greensboro, North Carolina. The Soil and Water Conservation Society is currently seeking oral presentations, posters, symposia, and workshops. The theme is **“Coming Home to Conservation: Putting Science into Practice Adaptive Management of Conservation Efforts”**.

Submissions are being accepted for the General Conference Sessions, which include eight traditional topic areas and two special areas of focus. Special consideration will be given to presentations that cater to the conference theme. Conference sessions include:

Precision Conservation	Conservation Policy and Program Design
Water Science in the Public Interest	Outreach, Education, and Community Engagement
2015 General Conference Submissions	Social Sciences Informing Conservation
Conservation Economics and Policy	Soil Health Resources, Indicators, Assessment, and Management
Conservation Models, Tools, and Technologies	Water Resource Assessment and Management
Conservation in Nontraditional Agriculture	

The submission deadline is **December 19, 2014**. For instructions on how to submit your proposal, visit [www.swcs.org/15ac](http://www.swcs.org/15ac)

## BE AN AMBASSADOR IN NATURAL RESOURCE CONSERVATION

Be an ambassador in natural resource conservation by promoting environmental education. The Natural Resources Conservation Service has a Teachers and Students webpage located at [this link](#). Within it, you'll find many free educational tools. Here is an example:

**“It's a dirty job but someone has to do it -- S.K. Worm, the official annelid, or worm, of the Natural Resources Conservation Service helps students explore and learn about soil.”**

Please share these materials through newsletters, emails, social media and any other venues you have available. Make a classroom visit. Meet with elementary school teachers. Go on the radio. Write a letter to the editor of your local newspaper. The more educators that are informed, the better our message of conservation will resonate with students in California and Nevada.



**S.K. Worm**



## COLUSA COUNTY SOIL GEOMORPHOLOGY TOUR A BIG SUCCESS

Article and Photos by **Phil Hogan**, District Conservationist, USDA NRCS, Woodland, CA Field Office

USDA Natural Resources Conservation Service's Chico Soil Survey Party Leader **Ryan Miebach**, Soil Scientist **Andrew Conlin**, and Ecological Site Description Coordinator **Judy Welles** lead a highly successful Colusa County Soil Geomorphology Tour on Tuesday, November 4, 2014.

Picking up on an idea initially brought forward by Woodland Field Office Range Management Specialist **Nick Gallagher**, the tour was planned and carried out by Miebach, Conlin, Welles and **Jim Komar**, Area I Soil Scientist.

Soil geomorphology is the science that treats the general configuration of the earth's surface; specifically the study of the classification, description, nature, origin, and development of landforms and their relationships to underlying structures, and of the history of geologic changes as recorded by these surface features. The term is especially applied to the genetic interpretation of landforms (USDA NRCS National Soil Survey Handbook Part 629 - Glossary of Landform and Geologic Terms).

Forty enthusiastic USDA NRCS field employees from the Sacramento Valley (and one from Auburn) patiently listened to Miebach, Conlin, and Komar over the course of a day through the cool morning, the very warm afternoon, and thousands of swarming bees at one stop (this writer was stung on the back of the neck. Komar was stung on the hand). Miebach and Conlin chose sites that followed a cross-section of the Sacramento Valley from just north of the town of Colusa and west along Highway 20 up into the Interior Coast Ranges. The group transitioned through two Major Land Resource Areas (MLRAs):

- MLRA 17 (Sacramento and San Joaquin Valleys); and
- MLRA 15 (Central California Coast Range).
- 

### **Stop 1; North of Colusa off Highway 45 within a mature walnut orchard**

- MLRA: 17 "Sacramento Valley"
- Landscape/Landform: Structural Valley/Flood Plain
- Geologic Unit/Parent Material: Recent Alluvium (Holocene)
- General Soils Map (GSM) Unit: 1 "Vina-Moonbend-Scribner association"
- Soil Survey Geographic Database (SSURGO) Mapunit: 125; Moonbend silt loam, 0 to 2 percent slopes

### **Stop 2; Colusa National Wildlife Refuge**

- MLRA: 17 "Sacramento Valley"
- Landscape/Landform: Structural Valley/Flood Basin
- Geologic Unit/Parent Material: Basin Deposits (Holocene)
- General Soils Map (GSM) Unit: 2 "Willows-Clear Lake-Capay association"
- SSURGO Mapunit: 104; Willows silty clay, 0 to 1 percent slopes, frequently flooded

### **Stop 3; South East of Williams off Abel Rd**

- MLRA: 17 "Sacramento Valley"
- Landscape/Landform: Structural Valley/Alluvial Fan
- Geologic Unit/Parent Material: Recent Alluvium (Holocene)
- General Soils Map (GSM) Unit: 3 "Westfan-Mallard association"
- SSURGO Mapunit: 112; Westfan loam, 0 to 2 percent slopes

This site had just been harvested for rice. There was water at the bottom of the soil pit. It is also not far away from the encroaching houses of the growing town of Williams.



Soil Scientist **Andrew Conlin** described the soil found at Stop 1



Soil Scientist **Andrew Conlin** describes the cold wet soils found at Stop 2



Soil Scientist **Andrew Conlin** uses the backhoe to fill in the soil pit at Stop 3

**Stop 4; 0.7 miles past the Junction of HWY 20 with Walnut Drive and Leesville Road**

- MLRA: 17 “Sacramento Valley”
- Landscape/Landform: Structural Valley/Fan Remnant
- Geologic Unit: Riverbank Formation
- Parent Material: Older Alluvium (Pleistocene)
- General Soils Map (GSM) Unit: 4 “Hillgate-Arbuckle-Corval-Corning association”
- SSURGO Mapunit: 145; Hillgate loam, 0 to 2 percent slopes



Soil Survey Party Leader **Ryan Miebach** at Stop 4.

MLRA 17 is in the foreground and MLRA 15 is in the background.

Stop 4 was right at the transition

**Stop 5; Off Leesville Rd ~ 3 miles NW of HWY 20**

- MLRA: 15 “Central California Coast Range”
- Landscape/Landform: Foothills/Ridges, Hill Slopes
- Geologic Unit: Great Valley Sequence (Lower Cretaceous)
- Parent Material: Sandstone, Shale, Conglomerate
- General Soils Map (GSM) Unit: 6 “Millsholm-Goldeagle-Contra Costa association”
- SSURGO Mapunit: 334; Millsholm-Contra Costa association, 30 to 75 percent slopes



Ecological Site Description Coordinator **Judy Welles** at Stop 5 in the interior Coast Range.



Area 1 Soil Scientist and Area Forester **Jim Komar**.

## COLUSA COUNTY SOIL GEOMORPHOLOGY TOUR A BIG SUCCESS – CONT'D

According to **Ryan Miebach**, Soil Survey Party Leader, “soil tours are not uncommon for Soil Scientists who have worked on initial soil surveys. But these tours are typically performed during an annual review for the Soil Data Quality Specialist and other Soil Scientists or closely related disciplines. What is fairly uncommon is for a Soil Scientist to give tours to groups outside of these annual reviews to non-soil scientists and to the general public at that.”

Miebach goes on to say that “**Andrew Conlin** has been providing several different soil/geomorphology/vegetation tours in Butte County since the late 90’s; most notably his Bidwell Park tours. I had been on several of these tours and had recognized his ability to express the landscape/soil/vegetation concepts to people in a not so technical way that elevated the knowledge of even those who attended who had never thought of the word soil before and who’s only concept of landscape was a photo orientation. We started discussing the idea of sharing the soil concepts from a wider range of area.”

Unknown to Miebach is that at about that same time requests for soil tours had come in from **Nick Gallagher** and a few other field office folks to **Jim Komar** and **Jim Spear**. Komar came to the Chico Soil Survey office with the idea on Spear’s behalf and the soil survey staff was very excited about the opportunity.

“Our desire was to create a bridge between those of us Soil Scientists who collect, create, manage, and distribute Soil Survey information with the Conservation Field Office Staffs who are the primary users of that information and thereby foster a deeper awareness of the soils data, what it means, and how to interpret it. The Soil Survey Staff realized that our information can be obscure to others, so it is rewarding to be able to relay concepts and context to others outside of our field. The opportunity to prepare this soils tour was very gratifying because it allowed us to learn about an area that we were less familiar with because we did not map it and to reflect on our communication with those outside of our discipline” Miebach concluded.

One thing is for certain. Each of the tour participants will now be able to go back to their respective field offices and provide a higher level of technical assistance to their cooperators.

### CHAPTER LOGO SHIRTS & VESTS AVAILABLE (NOV 2014)

Proceeds go to the Chapter Scholarship Fund. Price includes sales tax. **Shipping costs are extra**  
Send your order to our Davis address or via email to Walt Bunter at [wbunter@pacbell.net](mailto:wbunter@pacbell.net)



**Silk Touch Sport Shirt** - Fabric/Style: 5-ounce, 65/35 poly/cotton pique; flat knit collar and cuffs, double-needle armholes and bottom hem, side vents; metal buttons with dyed-to-match rims.

**Ladies Shirts: \$25.00**

Color: <b>Bark</b>	Size:	S	L		
Number on Hand:		1	1		
Color: <b>Stone</b>	Size:	XS	S	L	XL
Number on Hand:		1	2	1	1

**Men’s Shirts:**

Color: <b>Bark</b>	\$30.00	Size:	2XL *		
Number on Hand:			1		
Color: <b>Stone</b>	\$25.00	Size:	S	L	XL
Number on Hand:			1	1	1



**R-Tek™ Fleece Vest - \$35.00 only 3 left**

Fabric/Style: 13-ounce, 100% filament polyester R-Tek™ fleece offers lightweight warmth; twill taping inside the neck with the armholes and waistband trimmed in Lycra; zip-close pockets.

**Ladies Vests** have Princess seams that offer a feminine fit in a style that’s a natural for layering:

Color: <b>Black</b>	Size:	S	M
Number on Hand:		1	1

**Men’s Vest:**

Color: <b>Black</b>	Size:	M
Number on Hand:		1



CALIFORNIA-NEVADA CHAPTER SWCS  
430 G STREET #4172  
DAVIS CA 95616-4172



#### CHAPTER CAP FOR \$10 DONATION

The caps are stored in Davis at the USDA building and you can pick it up there or have it delivered by contacting Walt Bunter at [wbunter@pacbell.net](mailto:wbunter@pacbell.net)

Send your \$10 donation check made payable to CALIFORNIA-NEVADA CHAPTER SWCS to Treasurer **Tom Esgate**, 18888 Meadowlark Court, Penn Valley, CA 95946-9681

#### 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  
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**Phil Hogan**, Director  
**Zahangir Kabir**, Director  
**Wendy Rash**, Director

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

Editor and Publisher:  
**Walt Bunter** – [wbunter@pacbell.net](mailto:wbunter@pacbell.net)

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

**“As a nation we need to renew our acquaintance with the land and reaffirm our faith in its continuity of productiveness—when properly treated. If we are bold in our thinking, courageous in accepting new ideas, and willing to work with instead of against our land, we shall find in conservation farming an avenue to the greatest food production the world has ever known—not only for the war, but for the peace that is to follow.”** Pages 178-179.

**Hugh Hammond Bennett**

This quote is from: H. H. Bennett. "Adjustment of Agriculture to Its Environment." *Annals of the Association of American Geographers* XXXIII (December, 1943): 163-198. This was Bennett's presidential address to the Association of American Geographers. September 18, 1943, Washington, DC

**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 JANUARY 18**

#### 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.