



Photo Courtesy of Nina Suzuki

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CARING FOR OUR Watersheds California

Caring For Our Watersheds is a program that empowers students to imagine, develop and create solutions in their local watersheds. The program promotes watershed awareness and stewardship, values student ideas and offers support when turning theoretical ideas into action. Judges in the environmental field score the entries and 10 projects are selected for final competition, held this year on April 13. Students presented their projects and finalists received cash awards and matching awards for their school. In addition, \$10,000 in implementation funding (up to \$1,000

per project) is available to all participants, so any student can see his or her idea turn into reality.



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*Caring for Our Watersheds is a joint program of the
Center for Land-Based Learning and Agrium.*

Finalists at the Caring
For Our Watersheds
Final Competition on
April 13, 2013.



2013

CARING FOR OUR WATERSHEDS FINALISTS

OUT OF 280 PROPOSALS SUBMITTED THIS YEAR, THESE 10 ADVANCED TO THE FINAL COMPETITION WHERE STUDENTS COMPETED FOR \$12,000 IN AWARDS FOR THEMSELVES AND THEIR SCHOOLS.

Project: AN ALTERNATE RODENTICIDE

Team Members: Ruby Dunham, Kyle Cervantes

School: Colusa High School

Description: Build and install barn owl boxes on a local ranch to both provide habitat and natural control of rodent populations. This would help decrease secondary poisoning of raptors, a current threat to their survival as well as decrease the introduction of these chemicals into our watersheds.

Project: GOODBYE INVASIVE SPECIES

Team Members: Preethi Raju

School: Mira Loma High School

Description: Organize efforts to control and eradicate non-native Himalayan blackberry along areas of Arcade Creek. Students would remove the species, which negatively impacts the riparian wildlife habitat, using mechanical (non-herbicide) control methods.

Project: VERMICOMPOSTING

Team Members: Jessica "Hannah" Barnes

School: Rio Americano High School

Description: Create a vermicomposting bin on campus as both a demonstration project and a way to provide an organic fertilizer source for use on landscaping and gardens. Science classes at school would each "adopt" the bin for given intervals, allowing students to learn the basic principles of worm composting.

Project: REMOVING THE THORNS

Team Members: Dayna Berry

School: Antelope High School

Description: Remove existing non-native rose bushes around the school stadium and replace them with a variety of native plants. The native plantings, adapted to the local climate, would not require long-term irrigation or pesticides and would also provide a habitat and food source for local birds, butterflies and other wildlife.

Project: THE EFFECTS OF COMMERCIAL SOAP ON OUR WATERSHEDS

Team Members: Tavneet Kaur Gill

School: Antelope High School

Description: Replace bathroom hand soap in school bathrooms with eco-friendly product. Chemicals present in bathroom hand soap, especially triclosan and triclocarban, have potentially harmful health and environmental impacts.

Project: DESTRUCTIVE TIRES

Team Members: Guadalupe Ramos, Sidney Wills

School: Colusa High School

Description: Organize a clean-up day to gather illegally dumped tires along waterways in the community and transport them to a recycling facility. The breakdown of these tires can release chemicals such as oil and lead into surrounding environment.

Project: HABITAT RESTORATION AND WOOD DUCK CONSERVATION

Team Members: Scott Sturges, Dominic Tullo, Ty Patrick

School: Christian Borthers High School

Description: Restore habitat for wildlife, especially the wood duck, by planting native species of trees and shrubs, and by installing nesting boxes. Wood ducks have suffered population declines due to habitat loss and hunting.

Project: CREEK EDUCATION AND CLEAN-UP

Team Members: Stephanie Coker-Putman

School: Antelope High School

Description: Team up with an elementary school class to clean up Sierra Creek, which is behind the school. The elementary school class will be given a lesson on watershed pollution before the clean-up day, helping to instill the message of stewardship in the young students.

Project: SCHOOL COMPOSTING

Team Members: Nekayla Smith, Justine Cortez, Daschneel Naicker

School: Valley High School

Description: Initiate a composting system at school to reduce the amount of waste going to the landfill and create a source of organic compost for their garden. Cardboard lunch trays and food scraps, currently thrown in the garbage, would be collected as major inputs for the system, which would be maintained by the school Green Club.

Project: WATERSHED AMBASSADOR OUTREACH PROGRAM

Team Members: Isabella Escoto, Laura Cruz, Tha Vue, Maribel Munoz

School: Florin High School

Description: Implement a 10-session watershed education program for students in an after-school program at a nearby elementary school. Young students would complete a watershed activity book which includes a variety of hands-on lessons about their local waterways. The high school students can help communicate concepts in the young students' native languages if necessary.

PROJECTS IMPLEMENTED TO DATE

Antelope High School:

- Recycling Bins on Campus
- Pollinator Garden
- Sierra Creek Oak Planting
- Reusable Bags — distribution and education

William Daylor High School:

- Building Recycling Bins
- Drip irrigation/Solar Powered Pump — water catchment system

Colusa High School:

- Monofilament Recycling Containers — placed at Sacramento River boat landings

Da Vinci High School:

- Native Plant Pollinator Garden

Florin High School:

- Water Efficient Landscaping/Planter Boxes

Stockton Collegiate High School:

- Salmonids in the Classroom — raising salmon in class for release to river

The Language of GROWTH

Florin High School students translate water-efficient landscaping

by CHRIS MATEO

Despite their different languages, it's obvious the Florin High School students who make up "Team Watershed" understand the secret to their success isn't growing plants, but growing a community.

One year after placing second in the Caring For Our Watersheds competition with their project "Water-efficient Landscaping," the 12 students and their teachers reflect on the team's achievements.

“Our proposal showed how we can stop wasting water, but still water our plants.”

Tania Salas

Student, Florin High School

Teachers Dana Chu and Kathryn Sleeper worked with four students to clean up campus planter boxes that were filled with tree stumps and surrounded by garbage. The idea was to fill the boxes with native California plants that used very little water. "Our

proposal showed how we can stop wasting water, but still water our plants," says Tania Salas, a member of the original group.

Junior Tanisha Torres explains how the group adapted their project to fit the needs of the community — the team presented their project to a panel of Caring For Our Watersheds judges in English and Spanish. For most of the team, English is their second language, a commonality that inspired their efforts and helped recruit more members.

After the competition, the students waited to implement their project until November, spending four Saturdays planting.

Since last year, the team has tripled in size. Along with these new teammates comes an even more unique presentation in Hmong, Vietnamese and Mandarin.

The students plan on educating more students, parents and community members on the benefits of native plants by giving tours at back-to-school nights and installing signage by the planters in multiple languages.



Team members from Florin High School tend to the school's planter boxes.



Students from Florin High School took second place in last year's contest.

RESTORING Native Plants

Antelope student wins 2012 Caring For Our Watersheds contest

On her daily run near Sierra Creek, Antelope High School senior Stephani Smith knew something was wrong with the dirty, muddy area with little water and no trees. But what could a high school student do?

When Smith's science teacher, Katie Cantrell, told her class about an opportunity to care for local watersheds through the Caring For Our Watersheds project, she immediately thought of ways to improve the creek. "When I saw an opportunity to help our community in a big way, I took it," Smith says.

Smith proposed planting native oaks along the creek and won the 2012 Caring For Our Watersheds competition.

Smith used implementation money to bring her project to life. She and Cantrell worked with multiple organizations to make plans — from how many trees they'd need to recruiting volunteers from the neighborhood.

Cantrell says the project helped her students understand what can be done to take care of the

environment. "I think it is important that my students implement projects because it is very easy to say in your head, "Oh someone else will deal with it.""

Smith, dozens of her peers and members of the community worked to plant the oaks last year.

"It felt amazing to be out there planting the saplings and seeing all my friends from school helping out as well. It was like a dream come true," Smith says. **CM**

“It felt amazing to be out there planting the saplings and seeing all my friends from school helping out as well. It was like a dream come true.”

Stephani Smith

2012 Caring For Our Watersheds Contest Winner,
Antelope High School



Students use plastic tubes to ensure the safety of newly planted trees.



Planting trees along Sierra Creek not only improved the watershed but also the beauty of the neighborhood.



The Center for Land-Based Learning's Nina Suzuki, left, and Beth Del Real, right, partner with John Killey of Agrium, center, to make the annual Caring For Our Watersheds contest possible.

Photo by Anne Stokes

A LEGACY OF *Environmental Stewardship*

Agrium and Center for Land-Based Learning partner to care for our watersheds

by Kendall Fields

Water is always in motion — even a creek way upstream in Antelope has an effect on the state of California's water. By caring for our watersheds, we are helping all components of the environment.

"Water is a vital part of our environment ... and having young people actually doing something is encouraging," Agrium Environmental Specialist John Killey says.

"The beauty isn't in winning, but in doing. It all goes toward preserving the environment, so it's really a win all around."

John Killey

Agrium Environmental Specialist

Caring For Our Watersheds is funded by Agrium, an international fertilizer producer with a branch in West Sacramento. In Agrium locations around the world, the company has set up a program called Caring For Our Watersheds with a partner organization that runs it.

For the Sacramento region, that partner organization is the Center For Land-Based Learning.

The Center for Land-Based learning (CLBL), which began coordinating the program in 2010, is an organization that is dedicated to creating the next generation of land stewards. CLBL engages students and the community in its programs: SLEWS (Student Landowner Education and Watershed Stewardship), FARMS Leadership, GreenCorps, and the California Farm Academy. These programs develop leadership skills, teach how sustainable

agriculture practices contribute to a healthier ecosystem and create connections to agricultural and environmental careers. It's CLBL's ability to bring together community resources and environmental organizations that has fostered the success of the Caring For Our Watersheds program in the Sacramento region.

"All of CLBL's programs emphasize hands-on learning and making real change. That's why Caring For Our Watersheds is a great fit, because it encourages youth-led ideas and helps make them happen," says Caring For Our Watersheds Coordinator Beth Del Real.

For Killey, who is also a judge for the contest, the most impressive part about Caring For Our Watersheds is seeing projects get implemented — even those that don't make it to the finals. Agrium provides separate implementation money for students, which is available regardless of competition placement. "The beauty isn't in winning, but in doing," Killey says. "It all goes toward preserving the environment, so it's really a win all around."

In addition to Agrium's support, the program relies on adult volunteers and help from partners like the U.S. Fish and Wildlife Service to continue its efforts of sustaining area watersheds.

Killey says it is especially moving to see students invested in these projects and when they implement their project, it is the ultimate reward. "Actions speak louder than words. The barriers these students overcome to get their project [implemented] is so much greater and more valuable than any presentation."

CARING FOR OUR WATERSHEDS PARTNERS

Judges and Volunteers

Amy Williams — UC Davis Geography Graduate
Bobby Franklin — Plant Manager, Agrium
Brian Brown — Project WET, Water Education Foundation
Catherine Fong — UC Davis Graduate Student, Hydrology
Charmaine Boulmay — Sacramento Splash
Dan Welsh — U.S. Fish and Wildlife Service
Flo Gardipee — U.S. Fish and Wildlife Service
John Killey — Agrium, Environmental Specialist
Joshua McCabe — U.S. Forest Service
Karen Velas — Audubon CA Landowner Stewardship Program
Mariah Meek — UC Davis Ecology Ph.D.
Michelle Robinson — Dept. of Water Resources
Mike Dunphy — U.S. Fish and Wildlife Service
Phil Romig — Sacramento County Office of Education
Rebecca Ford — Retired College English Instructor
Trina Camping — UC Davis Soil Science Graduate
Vicki Sacksteder — San Juan Water District

Participating Teachers & Schools

Aart Dewaard — George Washington Carver High School
Chris Chu — The MET Sacramento
Colleen Kelly — Mira Loma High School
Craig Richards — Colusa High School
Dana Chu — Florin High School
Dana Jenks — George Washington Carver High School
Danny Delgado — Christian Brothers High School
Erna Piper — William Daylor High School
Joyce Dibble — Rio Americano High School
Kathryn Sleeper — Florin High School
Katie Cantrell — Antelope High School
Ken Steele — Valley High School

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Sacramento Area Creeks Council
Sacramento Tree Foundation
Stewardship Through Education LLC
U.S. Fish & Wildlife Service