



*Celebrate*

60 years of  
Resource Conservation

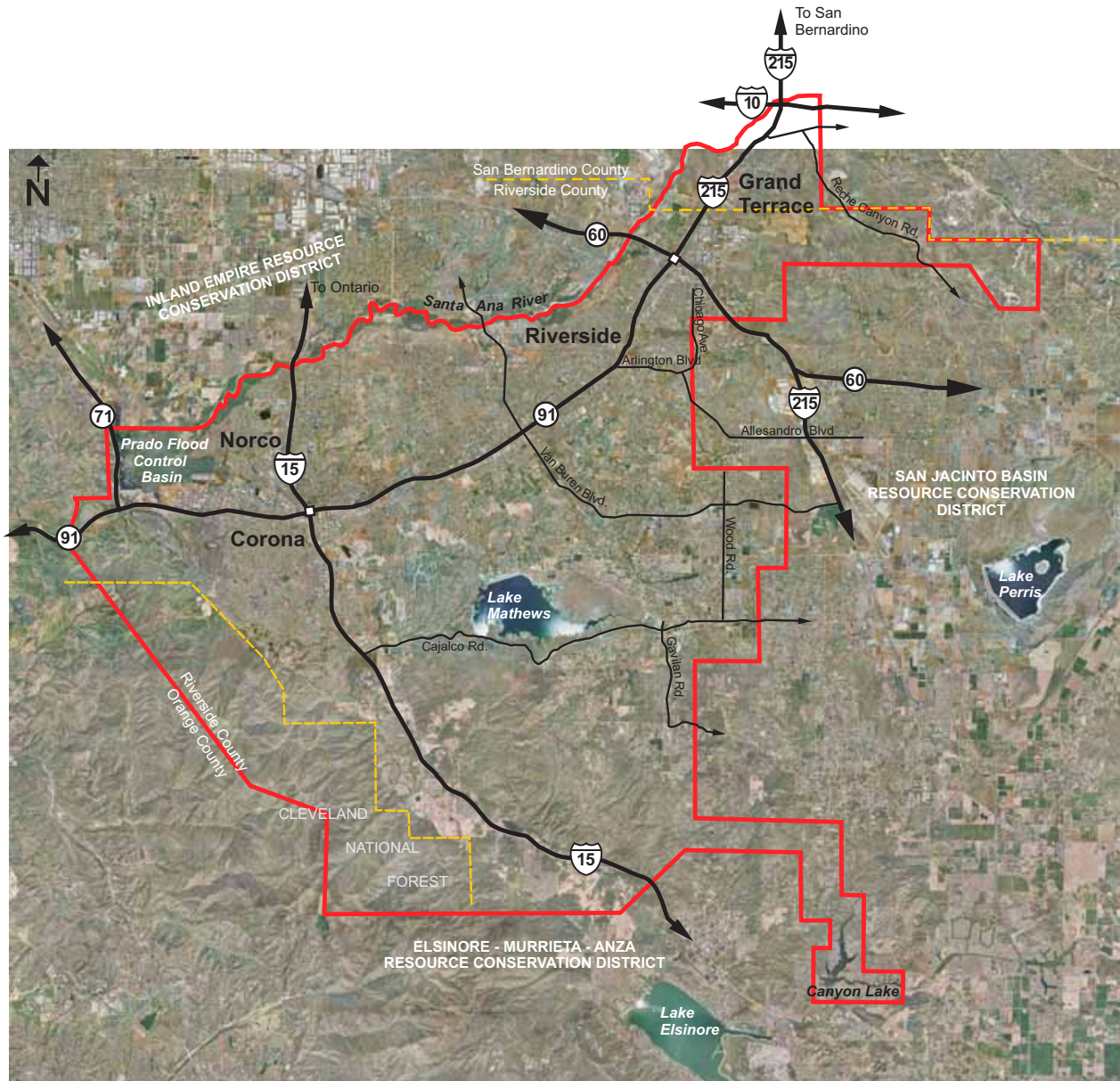
1953-2013

Riverside-Corona Resource  
Conservation District



## The Riverside-Corona Resource Conservation District

The Riverside-Corona Resource Conservation District provides resource management assistance to private and public landusers and conducts land treatment, and education programs to steward natural resources. RCRCD fosters the sustainable use of natural resources for each land-use, including native habitats, urban/ suburban areas and agriculture.



RCRCD includes about 200,000 acres in western Riverside and San Bernardino Counties of Southern California and serves Riverside, Corona, Norco, Grand Terrace, Colton, Reche Canyon, Temescal Canyon, Gavilan Hills, Highgrove and Woodcrest. The District falls within the Santa Ana River watershed, and the Santa Ana River borders the district boundary on the northwest.

The Riverside-Corona Resource Conservation District (RCRCD) is an independent, special district, enabled under Division 9 of the California Public Resources Code. As defined in Division 9, Resource Conservation Districts are given broad abilities to help sustain natural resources and to protect resources from preventable damage and waste. RCRCD programs specifically address water conservation, soil erosion, storm water quality, habitat restoration, conservation education, and more.



The Riverside-Corona Resource Conservation District celebrated many things during 2013, its 60th Anniversary year. Besides conducting a successful year providing our usual services, we offered special programs and hailed some personal accomplishments, including the 50th year that president Bud Bonnett served on our Board of Directors and a statewide award recognizing our District Manager Shelli Lamb.

60th year milestones included:

- launching the first In-Lieu Fee program in Southern California under the new 2008 rule
- acquiring a new sub office and habitat preserve at Sycamore Creek in Temescal Canyon
- hosting an open house and NatureFest at Sycamore Creek Preserve which included hikes, presentations, and kids' activities
- providing training for Project NestWatch and other citizen science projects.

RCRCD was created by a vote of the people in 1953, but at that time, most conservation work was done on farmland. Over the past 60 years, our programs have evolved to address current, local issues. Today, we work to sustain natural resources in all land uses, including native habitats, urban/suburban areas, and agriculture by providing resource management assistance, education programs and by conducting on-the-land projects.



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The Inland Urban Forest Council (IUFC) acknowledged RCRCD's 60th Anniversary with the gift of a beautiful hand-built wooden bench. Dr. Fred Roth awarded the gift to District Manager Shelli Lamb. The plaque reads: "Presented to the Riverside-Corona Resource Conservation District June 13, 2013 on the occasion of its 60th anniversary with great appreciation for RCRCD's support, from the Inland Urban Forest Council. Made with locally recycled urban lumber. Handcrafted by Dr. Fred Roth."

Of note: Shelli Lamb (seen on right) was selected as "District Manager of the Year" in 2013 by the California Association of Resource Conservation Districts for her outstanding efforts and nearly 30 years of dedicated service as RCRCD's District Manager.

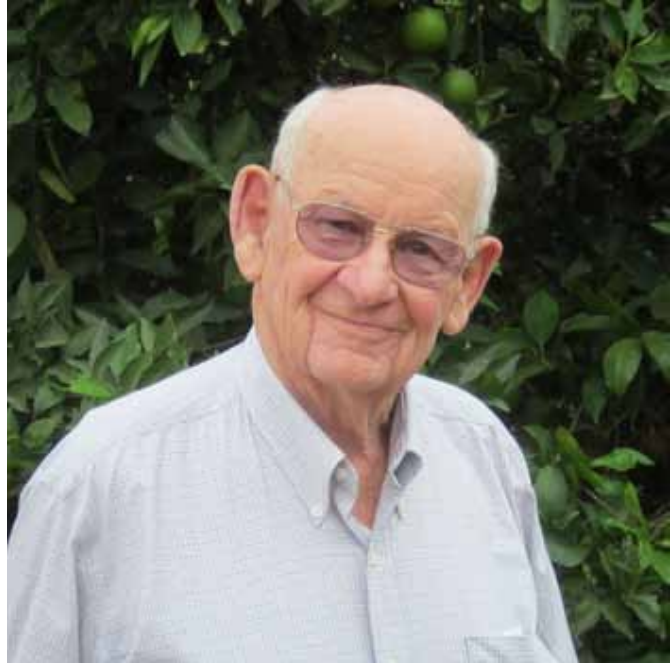
We invite you to learn more by visiting our website at [www.RCRCD.com](http://www.RCRCD.com) . To find out about upcoming events, like us at <https://www.facebook.com/RCRCD> .

### WOW! 50 Year Volunteer!

We were doing a LOT of celebrating last year, as it was also the 50th Anniversary of the president of our Board of Directors: Alfred B. Bonnett, Jr.

'Bud' Bonnett has served on our board expertly supervising conservation programs, budgets, and investments. In November of 2012 he was awarded both the Lifetime Achievement Award and the Director of the Year Award from the California Association of Resource Conservation Districts.

Bud is a community leader and role model of volunteerism. He was a pioneer in the use of drip irrigation in southern California. After studying citrus production at Cal Poly (then at San Dimas, later the campus moved to Pomona) he became a grower, an agricultural engineer and the owner of Bonnett Pipe and Supply. As an agricultural engineer, Bud was on the cutting edge of water-use efficiency. He developed a computer program that designed irrigation systems so they would be more uniform to conserve water. He was an early-adopter in the use of automatic clocks (timers), sensors and plastic pipe. He designed systems that used some of the first micro-sprinklers from 1965-67. His designs were used in many of our large blocks of citrus that were planted from the 1960s through 1970s.



Alfred B. Bonnett, Jr.

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Bud Bonnett, 1972

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In 2012, Jolyn Murphy, aide to Congressman Ken Calvert, presented a congressional award for 50 years of service to Bud Bonnett, the president of RCRC's Board of Directors, at the California Association of Resource Conservation Districts' (CARCD) South Coast Area meeting.

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# Assisting Land Users with Resource Management

For the past six decades, RCRCRD has provided technical assistance to land users, “cooperators”, who are interested in conserving natural resources while using or developing property. Services provided to cooperators may include onsite evaluation of a problem, such as an inefficient irrigation system.



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Kerwin Russell provided assistance to RCRCRD cooperators in 1983.

## Water Conservation

In the early years of local agriculture, water was distributed through furrows. To make use of sloping hillsides, contour furrows carried irrigation water across slope along a line of elevation. With the advent of plastic pipe during the 1960s, growers were able to quickly install pipelines, and sprinkler irrigation became popular, providing for more efficient use of land and water. Groves could be laid out in rectangular blocks, increasing the number of trees per acre and allowing for more uniform application of water. Sprinklers eliminated the wasted runoff that would flow away at the end of furrows. Following sprinklers, modern

drip irrigation became a valuable innovation in agriculture. With low-volume systems and micro-spray heads, growers are able to control the amount of water that is applied to each tree. A well designed and managed irrigation system applies just enough water to meet plant needs for high production, without wasting water.

1962 Soil Conservation Service



In 1962, the economical method for lining reservoirs was soil cement. Bags of cement were mixed into the soil at the Jameson-Teague property in Horsethief Canyon.



In 1987, the District received funding from the California Department of Water Resources and Western Municipal Water District to begin an Irrigation Water Management (IWM) Mobile Lab to evaluate irrigation systems for efficiency and uniformity. That program continues today. A Mobile Lab auditor travels to cropland, homes, and large turf areas at parks, schools, and golf courses to test irrigation systems. The auditor then develops a report with recommendations for system improvements to help irrigators conserve water and save money. More than 2,000 irrigation audits have been conducted for cooperators since 1987. The audits are partially funded by Western Municipal Water District and the City of Riverside.



An irrigation auditor measures system output and looks for problems, such as uneven water distribution.

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Photo by Kerwin Russell

### Soil and Water Testing

In 1994, RCRCDD began offering low-cost soil and water testing for District residents. Soil tests evaluate macronutrients and micronutrients, soil texture, conductivity, and pH level. Water tests evaluate nitrate-nitrogen, phosphorus, pH level and conductivity.

### On-site Assistance

Limited natural resource management and conservation planning information is provided to RCRCDD cooperators by our technical partner the USDA Natural Resources Conservation Service (NRCS). NRCS was originally the Soil Conservation Service and changed its name in 1994.



Cover crop in young citrus grove at the California Citrus State Historic Park. Circa 1990

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# Habitat Land Management and Preservation

Due to shifts in land use from farmland and open space to urban areas, many RCRC D programs now focus on conserving our remaining native habitat lands. Today, the District works to improve degraded habitats by:

- removing invasive species
- re-establishing native plants
- propagating and restocking native animals
- controlling erosion and sediment
- removing trash and debris, and more.

After restoration is completed, staff continues to monitor habitat lands for critical wildlife species, invasion of exotic weeds, water quality, Off-Road Vehicle (ORV) intrusion, noise, and other impacts.



Lower Springbrook restoration at Fairmount Park in 2007.

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Restoration projects may be cooperative efforts between private landowners and agencies on private or public lands, including RCRC D conservation easements. The amount of restoration is determined by permit requirements (by regulatory agencies) and field assessments. During 2013, RCRC D worked with 23 developers and the City of Riverside to restore and monitor habitat, which helped mitigate for land use changes and development impacts. The California Department of Fish and Wildlife, Army Corps of Engineers and Santa Ana Regional Water Quality Control Board allow RCRC D to work in waterways by issuing Permits 1601, 1603, 404 and 401.

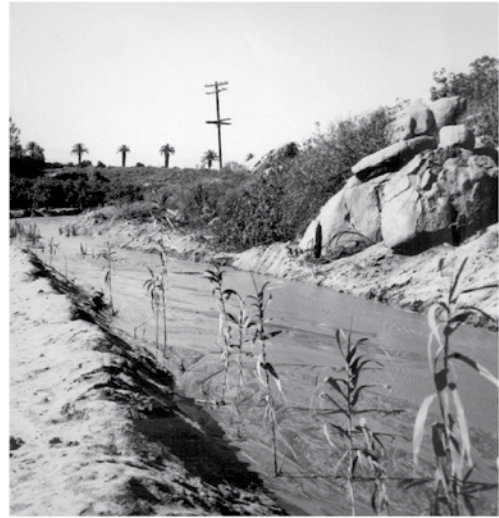
Mitigation restoration was completed at three project sites during 2013, including restoration of an alkali meadow and a native fish habitat in the lower Tequesquite Arroyo and an alkali meadow habitat in the Cajalco Creek flood plain.



RCRCD also protects important areas from future development by accepting donations of land (fee title) and conservation easements. The District currently manages 16 conservation easements and 135 acres of donated (fee title) land. For more information about conserving critical habitat, see <http://www.rcrcd.com/Publications/ConservingCriticalHabitat.pdf>.

Historical records show that as early as 1969, this District was working on preserving open space: District Conservationist Earl Shade (Soil Conservation Service) worked on an Arroyo Development Study with the Riverside 2000 Committee of the Chamber of Commerce.

In the early days, *Arundo donax* was planted for erosion control along waterways. To the surprise of early conservationists, *Arundo* was so successful, it grew explosively and displaced native plants and clogging waterways, even causing flooding at River Road. Today, we are removing invasive exotic species including *Arundo*.



© 1969-Soil Conservation Service

1969 planting of *Arundo* in the Alessandro Arroyo above Hawarden Hills.

In the early 1990s, Natural Resources Manager Kerwin Russell began removing the invasive *Arundo donax* at the Alessandro Arroyo. For species like *Arundo*, removal is a lengthy process requiring quarterly applications of a specially approved herbicide. By 1998, RCRCD began its first large scale invasive species removal project at the request of Congressman Ken Calvert to protect the River Road bridge at the Santa Ana River in Norco. In 1998, RCRCD was given the Integrated Pest Management (IPM) Innovator Award for using an approach to remove invasive plants that minimized negative impacts on the environment. The award was given by the California Environmental Protection Agency's Department of Pesticide Regulation.



© 2007-Riverside-Corona RCD.

Kerwin Russell sprayed invasive plants with herbicide to prevent re-growth. Invasive non-native plants displace native plants that are needed by local wildlife.

**Why is it important to restore native species?**

Plant and animal species in an ecosystem have developed together and hold complementary roles; they are *interdependent*. Removal of even one species from an ecosystem can disrupt natural interactions and reduce another species ability to survive.



### **New Tool: In-Lieu Fee Program**

Over the past two years, District Manager Shelli Lamb has worked with the US Army Corps of Engineers to develop an “In-Lieu Fee” program. The program was developed in response to an increased demand for mitigation sites that are needed to offset impacts due to urban development in the inland region.

“In-lieu fee” (ILF) is an approach to habitat mitigation in which a land developer (permittee) pays a fee to a third party in lieu of conducting project-specific mitigation and instead of buying credits from a wetland mitigation bank. ILF mitigation is used to compensate for unavoidable impacts to wetlands or other critical habitat lands when other approaches to compensation are not available, practicable, or when the use of an ILF is in the best interest of the environment.

RCRCD entered into an in-lieu fee agreement with the US Army Corps of Engineers (ACOE), a regulatory agency. ACOE issues permits to individuals or public or private entities (permittees) who are required to mitigate for loss of habitat associated with development or other activities taking place in “waters of the United States.” The sponsor, RCRCD, is authorized to sell mitigation “credits” to permittees. RCRCD may use the pooled “credit” funds to create conservation sites and to restore the habitat areas, thus making up for the loss of important riparian and other “wet” areas. Habitat mitigation is required by Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

For pricing and availability of the In-Lieu Fee Program’s rehabilitation, enhancement and buffer credits, please contact Shelli Lamb at (951) 683-7691, Ext 202 or email [lamb@rcrcd.com](mailto:lamb@rcrcd.com) .



Prenda Arroyo

**Wildlife Corridors**

RCRCD manages many valuable conservation lands that are important to the region’s plants and animals. The native landscapes often provide corridors for wildlife movement and migration between larger blocks of habitat. The District has acquired numerous easements with the goal to preserve land that extend from the Cleveland National Forest through Temescal Canyon to the Gavilan Plateau and Lake Mathews. The native habitats also help improve water quality, stabilize eroding waterways, and provide beautiful vistas.

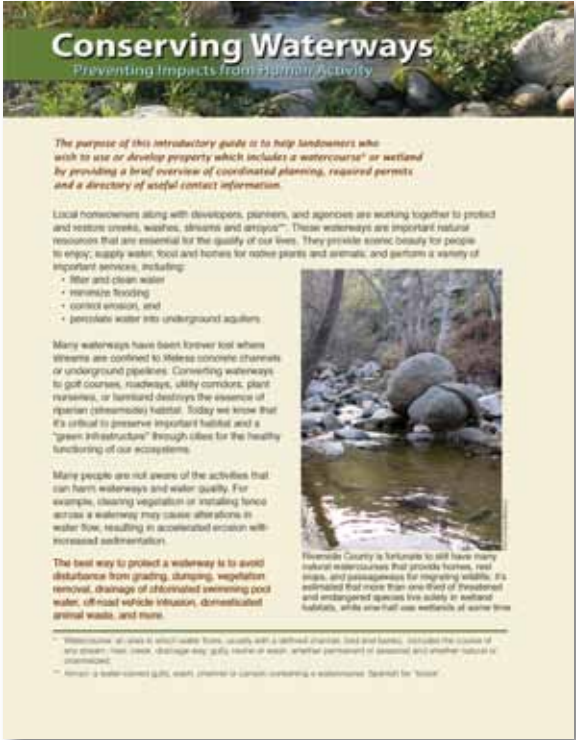


Bobcat  
*Lynx rufus californicus*

Matt Knott/Shutterstock

**Waterway Conservation**

Many of RCRCD’s conservation easements are along beautiful and important arroyos (waterways) that flow through unincorporated parts of Riverside County and across adjoining portions of the City of Riverside. Staff helped develop the publication *Waterway Conservation: Preventing Impacts from Human Activity* for the Riverside County/City Arroyo-Watershed Committee (CCAC). The CCAC worked from 2003-2011 to protect local waterways, adjoining wildlife habitat and water quality. The unique committee, comprised of city and county staff and community volunteers, sought to improve coordination between the City and County, reviewed development standards, and worked to educate the community about the value and care of watercourses.



Former County Supervisor Bob Buster initiated the committee and funded printing of the publication that RCRCD distributed to more than 400 local leaders and to thousands of residents, who live adjacent to arroyos. View the publication online at <https://www.rcrcd.org/files/5f43d25b4/Conserving-Waterways2018web.pdf> .



### Fish and Amphibian Programs

Over the past ten years, RCRC D has conducted a variety of restoration and research projects in an effort to increase native fish and amphibian populations in their ranges of the Santa Ana Watershed.

Native fish and amphibian species are impacted by loss or degradation of stream habitat, water pollution, drought, non-native fish and aquatic animals, flood control structures, water diversion, sand and gravel mining, and changes in the watershed that result in erosion, sediment and debris flows.

RCRC D's stream supports a native fish population of Speckled Dace, Arroyo Chub, and Santa Ana Sucker, a threatened species. The number of fish varies from year to year, depending on natural reproduction. The recirculating, 300-foot long stream was constructed to support and propagate native fish.

Four 100 foot-long raceways were used for the breeding and study of native fish, in a project conducted with the California Department of Fish and Game (DFG)-Region 6, and the US Fish and Wildlife Service (FWS). The US Geological Survey (USGS) analyzed the results.

RCRC D recently worked with the same partners, local water districts, and the City of Riverside on the restoration of the lower Tequesquite Arroyo for the benefit of the Santa Ana Sucker. The Santa Ana River Restoration/Recovery Trust Fund, held by San Bernardino Valley Municipal Water District, granted \$125,000 for the lower Tequesquite Arroyo restoration. Staff also restored riparian areas adjacent to Anza Drain and Hole Creek in collaboration with the County and City of Riverside.



Pacific tree frog  
*Pseudacris regilla*

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Biologists used a seine to net Santa Ana sucker fish from the stream at the LandUse Learning Center. A seine is a fishing net that hangs vertically in the water with floats at the top and weights at the bottom edge.

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## Plant Programs and Projects

To have native plants for habitat restoration, landscaping and other projects, RCRC D developed a native plant nursery about 10 years ago. Our staff propagates plants for a variety of re-vegetation projects and helps train others in the production and use of native plants in ways that are beneficial to the natural biological diversity of Southern California.

Since 2008, Plant Restoration Ecologist Dr. Arlee Montalvo has been collaborating to develop standards for the use and propagation of native seeds for the inland region. She has hosted two workshops and is currently working

on a project that was funded by the USDA Forest Service, Native Plant Materials Program: “Project on Native Plant Materials for Southern California Ecoregions”. Montalvo, with others, has been producing seed and developing plant profiles that explain techniques for the use of plants for habitat restoration, and more. You can find the plant profiles on our website by tabbing to “Habitat Services”, then “Plant Materials”. Additional funding will continue this project through the fall of 2015.



Local native plants were transported from the RCRC D nursery to a restoration site during 2013.

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## Native Seed Collections

The District works with the native seed industry to collect seed from local, native populations to maintain the genetic diversity of the inland region.

RCRC D stores locally-collected seed for future restoration, water quality, and bank stabilization projects in a walk-in, cold storage room. We are currently assisting the Irvine Ranch Conservancy by storing seed that will be used for its future restoration projects.



Yellow pin cushion flower seed was collected at Three Sister’s Farm in late spring 2012.

Photograph by Harneads of Three Sisters’ Farms



## Then

Riverside-Corona RCD education programs have also evolved with the times. In the early days, some board members would host classes for farm field days, or simply invite other farmers over to show how conservation practices were being installed and utilized.

In 1977, District education programs focused on the drought, and water conservation became a priority for farmers. “Low volume” irrigation systems were being installed for new plantings. Around 1986, RCRCD began to periodically offer irrigation maintenance and installation workshops. By 1992, the Irrigation Mobile Lab had held 18 seminars using portable equipment on a trailer. Kerwin Russell, then the Irrigation Mobile Lab auditor, presented the Protector Del Agua in Spanish to 150 participants over a three-year period.

Also, hands-on irrigation system installation classes were conducted in conjunction with the Irrigation Association. Craig Mogi, our current irrigation auditor, now helps train others about system maintenance and performance.

Since at least 1993, the District has worked to help educate homeowners, land users and local groups about stewardship at the wildland-urban interface. Diana Ruiz produced *Stream Care - Every Person's Guide to Healing Waterways* with a companion audio-visual presentation in collaboration with the Riverside Land Conservancy and many other agencies. The project was funded with a Forestry Stewardship Grant in 1995.

The publication and narrated slide-show were used to educate homeowners along the Alessandro Arroyo. That publication has since been revised to apply to a broader region. Learn more about *Living on the Edge*, including creating defensible space to protect against wildfire, at <https://www.rcrcd.org/files/45b80a884/LivingOnTheEdge.pdf>.



Sheila Kee (then of U.C. Cooperative Extension) promoted creating backyard habitat during the “Living on the Edge” Field Day at Mt. Rubidoux in 1994.

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Records show that RCRCDC first helped conduct a land judging competition in 1957. “Land judging” entails evaluating a soil profile to determine the capability and limitations of the soil for various land uses. During the 1970s, ‘80s and ‘90s, the District hosted annual land judging and student Speak-Off competitions for high school Future Farmers of America (FFA) clubs, including those at Norte Vista, Arlington, Norco, Corona and La Sierra. The FFA programs provided excellent training in agriculture, soils, leadership, public speaking,



Future Farmers of America at the Norte Vista-La Sierra Field Day, hosted by Loma Linda University (now La Sierra University), circa 1990.

and parliamentary procedure. About 25 years ago, Norte Vista High School dominated the ag competitions with an award-winning ag department, under the tutelage of Murl Craft. Some of the Novi students went on to become ag teachers, irrigation specialists, and urban foresters. Back then, the Ag Department at Loma Linda University (now La Sierra University) hosted an annual FFA competition. La Sierra University has since closed its Ag Department, and the lands that were once farm fields, horse tracks, and a dairy have been transformed into new college departments, homes, schools, and businesses.

Similar to FFA Farm Field Days, the Envirothon is a competition during which students demonstrate their knowledge of environmental science and natural resource management. At the outdoor competition, each team member answers questions pertaining to the site in the fields of aquatics, forestry, soils and wildlife. The final component is an oral presentation, presented by the five member team, about a current environmental issue.



Arlington High School’s Envirothon team trained in Aquatics at Tequesquite Creek in 2013.



The Envirothon, originally known as the Environmental Olympics, started in Pennsylvania in 1979. California joined in 1993, and RCRC D started sponsoring high school teams around 1998. Initially, all local high schools were invited to compete. Over the years, the District sponsored teams from Arlington, Poly, La Sierra, Corona, and Santiago High Schools. Teams from Arlington High have consistently placed, winning the California competition 5 times and the North American Competition in 2010.



© Photo by Deborah Logan for Canon Envirothon

Riverside's Arlington High School team won the North American competition in 2010, beating teams from across the country and parts of Canada.

Diane Stephens (parent), Cory Davis, Elijah Kenan, Elizabeth Murry, Kristen Treat, Alexis Wood, Erin Snyder (RCRC D Resource Educator), Ashley Pham, Sheri Harris (Arlington High School's team advisor) and Brian Frost (Arlington's Vice Principal)

Over the years, RCRC D has created a variety of educational programs concerning natural resources and their stewardship. Staff conducted tree planting events, the first local waterway cleanups, and the first storm drain inlet labeling. In the '80s the District's school and teacher education programs focused on soil, erosion, and sediment. In 1988, RCRC D joined with Western Municipal Water District (WMWD) to conduct teacher training classes about water, through UC Riverside Extension.



© 1980-Riverside-Corona FCD. All Rights Reserved  
Photo by Diana Ruiz

In 1980, then Education Development Coordinator Diana Ruiz launched soils education programs including the Soil Saver Club and early childhood, hands-on activities like Earthworm Alley.



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Conservation education outreach event. NRCS Soil Conservationist Nghi Deip (on left) compared erosion between soils with vegetative cover, mulch cover, and no cover.

In 1990, we started school tree plantings with presentations and a Mini-Grant program, which provides funding for schools and youth groups for on-the-land projects, including tree plantings, composting, pollinator habitats and gardens. Myra Linn School became a “Special Friend” to the District and was given a mini grant, tree planting, teacher training, and more. Principal Larry Holiday commissioned a mural “Stairway to the Stars” and included an Earth Team conservationist in the mural.



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Photo by Diana Ruiz

An Earth Team volunteer was included in the mural at Myra Linn Elementary School.

Thanks to a Small Business Administration grant in 1993, RCRCDC conducted tree programs at 14 Corona-Norco schools and planted 136 trees using small businesses. The District began the *Growing Together* tree education program in 1997 with support from National Tree Trust. That year, about 500 students at 17 schools planted tree seeds and learned about the value of trees.



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Photo by Diana Ruiz

Every child got a chance to help plant a tree.

We commissioned children’s songwriter Sara Badera to write songs for classroom programs and for Riverside Celebrates Trees! She wrote “My Gift to the World” for Arbor Day. Children joined our “Tree Time Singers” and performed at the annual tree planting event. In 1998, we worked with Keep Riverside Clean & Beautiful and the city arborist to conduct the first *Riverside Celebrates Trees!*, which turned out to be a month long celebration of Arbor Day, including a Tree Fair, plantings, presentations, and a tree art display. Volunteers planted 100 trees at Fairmount Park to honor its 100th anniversary. That event continued for 10 years and grew to include about 800 volunteers.



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Photo by Diana Ruiz

First *Riverside Celebrates Trees!* even in 1998. Visitors used the stereoscope to see the aerial photo of Fairmount Park in 3D.



For nearly 30 years the District has provided free educational materials about natural resources for teachers, students and homeschoolers, including posters, cd/videos, and booklets. Diana Ruiz and artist Melissa Badalian developed the Pollution Patrol Club and the tale of Fancy Fin. For 15 years, staff conducted hands-on classroom presentations for western Riverside County elementary schools for the Cities and County of Riverside's *StormWater-CleanWater Protection Program*. Sara Badera wrote the song "Keep Our Water Clean", and Melissa Badalian's watershed posters were used to teach about the Santa Ana River Watershed. About 100,000 students learned about water pollution and ways they could help prevent it. Also for the program, we conducted the first storm drain labelling in 1994. The first year, 172 volunteers labeled 268 storm drains with the words "Only Rain in the Drain" for the *Stencil a Drain Campaign*.

For the California Association of RCD's annual meeting in 2008, we wrote and performed a short mystery "Who Killed Phinneus Frog?". Later, teacher Vikky Picket used a simplified script with her first graders, who took the tale on the road, performing at different schools and teaching other students. One newspaper subtitled its review: "Who made the frog croak? - Children learn water conservation through murder mystery play."



Beverly Howard, Mrs Storm Water taught kids to keep storm water clean.



In 1995, RCRCD started the storm drain labeling program with volunteers from the Cities and County of Riverside.

In 1986, RCRC and partners hosted the first Environmental Expo at Riverside Community College, before it found a home at Cal State, San Bernardino and became NEST, the Network for Environmental Science Teaching (NEST). The event was a collaborative project between Dr. Darlene Stoner (then of Cal State University, San Bernardino), Riverside Community College, RCRC, Ron Pidot, (then curator of Riverside Municipal Museum) Nonwood Hazard (then of Riverside County Office of Education) and Shelli Lamb of RCRC. For our booth, Diana Ruiz developed soils activities and the Soil Saver Club. Our education programs were recognized with an international award for Environmental Achievement from the International Erosion Control Association in 1992.

**Soil Saver Club Members 2011-2013**

- |                           |                  |
|---------------------------|------------------|
| Priscilla Lemus           | Angel Soung      |
| Mehr Aulakh               | Trinity Bey      |
| Analee & Leeanna Deamicis | Paris Millur     |
| Kaya Monroe               | Benjamin Sevenko |
| Zahra Hasta               | Evan Evalle      |
| Lisett Nieto              | Kevin Peterson   |
| Celine El-Zaynab          | Joshua           |
| Chance Washington         | Bella Elzzin     |
| Ella Nawabi               | Ne Biu Elias     |
| Theresa                   | Spencer Spiegel  |
| Maximo Failla             | Aiden DuFour     |
| Nyie Patel                | Noknoi Willyard  |



Soils "experience" at Riverside Community College (RCC) in 1986, as part of the first Environmental Expo. Diana Ruiz (on right).

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More recently, in 2010, we adopted Stokoe Elementary. We created an exhibit for their museum and provided garden mini grants. The exhibit was a collaboration with the Santa Ana Watershed Association and the Inland Empire Water Keepers.



Stokoe Museum Exhibit

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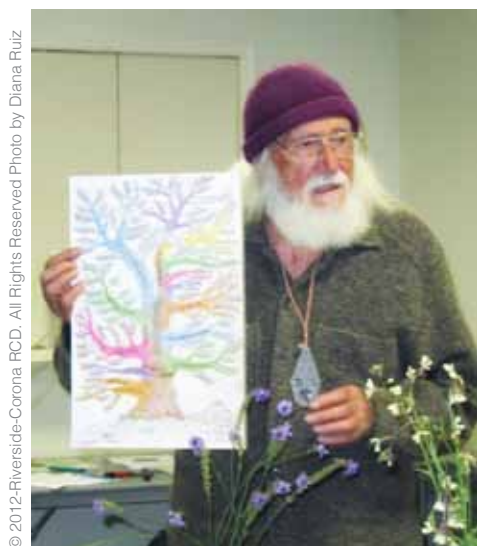


In 2002, RCRCDD launched the *Help Create a Sustainable Community* public outreach program which included presentations and booklets for local leaders, community groups, staff meetings, and high school classes. Lacking educational materials about local plants and animals, we began to develop localized tools to help raise awareness and create a sense of place for residents of western Riverside County. We developed posters about soils, wildlife, and important local plant communities that we give to teachers. We commissioned and self-published the book *Backyard Birds of the Inland Empire* by Sheila Kee. The first edition, published in 2002, won a National Association of Conservation Districts' Outreach Award. The second edition was published by Heyday Books, whose founder Malcom Margolin established the Inlandia Imprint and helped launch the Inlandia Institute which supports Inland Empire writers and literacy.



RCRCDD also helped sponsor the publishing of *Flora of the Santa Ana River and Environs* by Oscar Clarke, Greg Ballmer, Danielle Svela and Dr. Arlee Montalvo. We are currently developing the book *Wildflowers and Important Native Plants of the Inland Empire* by Barbara Iyer, a well-known, local naturalist. We are also working on an insect/ bug book with UC Riverside's Friends of the Entomology Museum, specifically Doug Yanega and Greg Ballmer.

Oscar Clarke was a great friend to the District and provided information for plant community plantings and posters.



Botanist extraordinaire Oscar F. Clarke (1919-2013)

An outgrowth of the “Backyard Birds” book was our Blue Bird Nest Box Monitoring program and creation of a local Bluebird Trail. Since 2001, nearly 70 volunteers have hung nest boxes for native cavity-nesting birds. During nesting season, volunteers check the nest boxes weekly to collect data. Over the years, those efforts have helped fledge over 2,000 native birds, including 1,831 Western bluebirds, 280 wrens, 25 tree swallows, 17 woodpeckers, 14 Ash-throated flycatchers and 6 chickadees from nest boxes provided by RCRCDD.



Our volunteers manage the longest running, most prolific Bluebird Trail in Riverside County.

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© 2010-Riverside-Corona RCD. All Rights Reserved Photo by Diana Ruiz

## Now

Today, RCRCDC continues with a variety of education and outreach programs. During 2013, we held several special programs for our 60 Years of Conservation celebration:

- NatureFest, was an open house at the new Sycamore Creek sub-office to introduce neighbors to the Preserve. The event included crafts, hikes, and short presentations about conserving water, wildlife, habitat and more.
- Resource Educator Erin Snyder provided four trainings about Cornell University's Project NestWatch and bluebird nest box monitoring, citizen-science programs for volunteers, bird groups and visitors.
- We hosted the spring area meeting of the California Association of Resource Conservation Districts' (CARCD) South Coast Area for Southern California conservation district leaders at our new sub-office.



Resource Educator Erin Snyder (on right) conducted hands-on learning activities at NatureFest 2013.

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Photo by Diana Ruiz

For the past three years, we have been conducting water conservation programs for schools and youth groups on behalf of the City of Corona's Department of Water and Power. The presentations include information about Corona's water supply and hands-on activities about keeping storm water clean.



Erin Snyder conducted classroom water conservation program using the Fancy Fin story.

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Photo by Diana Ruiz

Over the years, RCRCDC has supported many student interns, has fostered several scout and college projects, and currently hosts California School for the Deaf (CSDR) service learning students. Throughout the academic year, CSDR students complete a variety of projects. The students create compost, work the garden plots, spread mulch, plant butterfly host-plants, at the Land Use Learning Center. They help package and distribute publications door-to-door to homeowners along the edge of waterways. Students also monitor bluebird nest boxes at their school site and at Olivewood Memorial Park.



California School for the Deaf (CSDR) service learning students spread mulch on the amphitheater banks. Thank You!

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Photo by Diana Ruiz

Nature Fest visitors learned about habitat management.

We are currently designing interpretive signs about the Tequesquite Arroyo and restoration of an alkali meadow for the City of Riverside. We have created numerous interpretive signs for various locations, including habitat restoration sites, a golf course, and our own Land Use Learning Center, which is by far our largest educational undertaking.

## LandUse Learning Center

The LandUse Learning Center (LLC) is a 3-acre demonstration of sustainable practices for the three main land uses of Southern California: native habitats, urban areas, and agriculture.

The **Native Habitat Area** includes a created stream that's used to study and propagate Arroyo chub, Speckled dace, and the Santa Ana sucker, a threatened fish. The fish reproduce in the stream, are then tagged, counted, measured and released into the Santa Ana River or its tributaries. Four locally important plant communities are depicted with plantings: coastal-sage-scrub, chaparral, riparian and oak woodland. Artist Melissa Badalian has created posters depicting plants and animals that are commonly found in those plant communities.



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Ribbon cutting ceremony for the City Makeover Grant in the Urban Area garden, 2007. From left to right: then Riverside Mayor Ron Loveridge, Lynn Lipinski of Metropolitan Water District, Carl Pongs RCRC director, and Diana Ruiz, RCRC Public Affairs Manager.

The **Urban Area** includes an Arbor Trail and four styles of backyards from "wild" to formal: a habitat garden, a landscape with natives and cultivars, a Mediterranean-courtyard, and a sustainable-edible backyard. Interpretive signs about urban forestry have been installed throughout the Arbor Trail, thanks to bond funding through CALFIRE.

The Urban Area was developed with a City Makeover Grant from Metropolitan Water District in 2007.



Lawn replacement plots (before).



Comparative plantings of native lawns (after).

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Photos by Diana Ruiz

The Urban Area showcases plants, suited to the local climate, that are used to attract wildlife, provide food, and replace high-water use plants. Recent additions to the Urban Area included two hedge demonstrations that use native plants, rather than imported ornamentals, and lawn alternatives. For four of the lawn replacements, native grass mixes were donated by Delta Bluegrass Company through distributor S & S Seeds.

The **Agricultural Area** was planted with a variety of crops suited to our local climate, including citrus, avocado, deciduous fruit trees, grape and berry vines. Cover crops and a native hedgerow demonstration were planted and designed to support beneficial insects. Bat and bird boxes were installed near corresponding interpretive signs to demonstrate biological control of pests.

The purpose of the LandUse Learning Center is to foster conservation efforts and to empower Southern Californians to practice natural resource stewardship at home, at work, and in the community.

The LLC demonstrates conservation measures for homeowners and farmers, and will soon provide programming for school and youth groups.



Visitors learn about sustainable agriculture in the Ag Area.

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## Partnerships and Collaboration

RCRCD works with numerous organizations and agencies to provide programs. Through synergistic partnerships we are able to reach broader audiences and accomplish more of our conservation goals. Of our nearly \$5 million budget in 2013, only 17% was derived from property taxes. Grants provided 22%. 33% came from mitigation funds and In Lieu Fee credits. Contract services and miscellaneous reimbursables provided the remaining 28%. Over the years, funding partners have included numerous federal, state, and local agencies.



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Photo by Diana Ruiz.

Susan Jett and Michael Wall (then of Rancho Santa Ana Botanic Gardens) and Shelton Douthit (then of Riverside Land Conservancy) provided information for “Living on the Edge” Field Day, 1994.



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Photo by Diana Ruiz.

Alessandro Arroyo hike for homeowners. Ron Pidot (then of the Riverside Municipal Museum) displayed animal specimens. The stewardship program was sponsored by RCRCD, the Riverside Land Conservancy (RLC), and other agencies. Beverly Maloof (then a RLC board member), on right.

In 1988 a group of conservation minded people started discussing the need for a local land trust. In 1989, the Riverside Land Conservancy (RLC) became a nonprofit for that purpose. Shelton Douthit was hired, and he was a master at gaining collaborators. RCRCD partnered with RLC on the Alessandro Arroyo Stewardship Project, Mt. Rubidoux Field Day, two homeowner hikes and more. RLC presented this District with the Land Stewardship Award for Outstanding Public Agency Cooperation in 1992.

During the late 1990s, RCRCD collaborated on development of a nonprofit organization called SAWA, or the Santa Ana Watershed Association of Resource Conservation Districts. That collaboration included resource conservation districts, the US Fish and Wildlife Service, and Orange County Water District. Since then, SAWA has worked to restore habitat along the Santa Ana River and its tributaries, by removing invasive species, such as the brown-headed cowbird and *Arundo donax*, a non-native plant. RCRCD remains a member and worked with SAWA and partners to bring the California Naturalist program to the Inland Empire in 2013. The new state program, through the University of California Cooperative Extension, is similar to the Master Gardener program. Volunteers participate in a 40-hour course, learning to become certified naturalists. More at [www.facebook.com/InlandEmpireNaturalist](http://www.facebook.com/InlandEmpireNaturalist) .

RCRCD continued to collaborate with the California Native Plant Society's (CNPS) local Riverside-San Bernardino chapter. For a decade, staff has helped with hosting meetings, hikes, and presentations.



RCRCD supports an annual plant sale and promotes CNPS activities, including California Native Plant Week, for which we jointly produced educational bookmarks. In turn, CNPS helped write RCRCD's Wild about Natives publication, found at <https://www.rcrcd.org/files/da6576344/wildaboutNativesweb.pdf>

RCRCD teams with the Inland Urban Forest Council (IUFC) to develop tree education materials, to host arborist training, and to promote the free Urban Forest Management Tool Kit. *Tree Care* is a publication that we developed jointly with IUFC. IUFC provides it to homeowners, businesses, and arborists. See it at <https://www.rcrcd.org/files/d49cf6036/TreeCare.pdf>. The IUFC steering committee will be training Master Gardeners about tree pruning at our facility this coming spring.

The IUFC steering committee provided technical and interpretative advice for the Arbor Trail at our LandUse Learning Center. The committee helped inventory trees to aid in the development of an Urban Forest Management Plan. Nancy Sappington and Dave Roger coached us in using the Urban Forest Management "Tool Kit". The online tool is a system that guides decision makers in developing a plan that is unique to each location.

**Susan Sims, also on the steering committee, is an agricultural biologist who owns and operates Sims Tree Health Specialists. She provided an assessment of oaks and staff training at no charge at Sycamore Creek. Susan founded the Wildlife Aware program to teach people, especially arborists and landscapers, about the importance of working with the needs of wildlife in regard to tree trimming timing and practices. Many of our staff members trained in the program.**



Susan Sims (center) provided training about native oaks. Wendy Walker (left), Shani Pynn (right)

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RCRCD works with the City of Riverside on a variety of projects. Shelli Lamb and Diana Ruiz have served on the City's Green Accountability and Performance Committee, an outgrowth of the Green Action Plan. The committee reviews the City's progress toward sustainability. The City has received numerous awards for its efforts. In 2009, the California Department of Conservation designated Riverside as California's first Emerald City for its green initiatives and use of renewable energy. Congratulations Riverside!

RCRCD has been working with the Riverside Metropolitan Museum and partners to develop a strategic plan and partnership model for a Citizen Science program. As part of the effort, a Citizen Science Nature Center is being built at Sycamore Canyon Wilderness Park, and the Riverside Nature Spotter app was launched. The i-phone app is a tool that helps nature lovers share their observations of insects, plants, and animals. Spotters send photos with questions about what they've seen, and a naturalist replies with feedback. Observations are collected and used to create an online database located at iNaturalist.org.



Our partners include the National Park Service; Smithsonian Institute's National Museum of Natural History; US Forest Service Pacific Southwest Research Station; UC Riverside's Center for Conservation Biology and the Natural Reserve System; and the City's museum and Department of Parks, Recreation and Community Services.

Each year, RCRCD partners with, and promotes numerous community sustainability events, including Citizen Science Day at the Riverside Metropolitan Museum, Duck Daze, Earth Night in the Garden at Western Municipal Water District, and UC Riverside's Climate and Sustainability Fair, to name a few. Thousands of people attended these events and are provided hands-on learning experiences and educational materials.



Children enjoyed hands-on activities at Earth Night in the Garden event.

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## Partners at the Resource Conservation Center

RCRCD manages the Resource Conservation Center, a 9-acre facility that includes the LandUse Learning Center, native plant nursery, seed storage refrigerators, fish runways, and retrofitted buildings that house agencies with complimentary missions. The facility was the former USDA Soil Salinity Laboratory (1937-1995), at the base of Mt. Rubidoux. RCRCDs technical partner, the Natural Resources Conservation Service (NRCS) acquired the abandoned and antiquated facility at the District's request. The facility was leased to RCRCD with the promise of an eventual transfer of ownership. In 1999, the District began retrofits to demonstrate reuse and repurposing of the buildings, greenhouses and research areas.

The Resource Conservation Center currently houses the Natural Resources Conservation Service (NRCS) Area Office, the monitoring unit for the Riverside County Multi-Species Habitat Conservation Plan (MSHCP), and the California Department of Food and Agriculture's (CDFA's) facility for research and control of the Glassy-winged Sharpshooter and the Asian Citrus Psyllid. Here's how the agencies depict their work at the Resource Conservation Center.

## Natural Resources Conservation Service Office

by Kate Cammack, NRCS

The Natural Resources Conservation Service (NRCS) Area 4 Office is co-located with Riverside Corona Resource Conservation District (RCRCD), in Riverside, California. The Area 4 Office provides support for ten Southern California NRCS Field Offices that cover 65,000 square miles. NRCS programs are available to help landowners with conservation on their lands, including the Environmental Quality Incentive Program (EQIP), the Wildlife Habitat Incentive Program (WHIP), and the Conservation Stewardship Program (CSP). These Farm Bill programs address the resource concerns of the area, including soil, air and water quality, and wildlife issues.

The Area 4 NRCS office is managed by the Assistant State Conservationist for Field Operations, Jae Lee, and includes the Area Resource Conservationists, a Farm Bill Program Assistant, Tribal Liaison, Archaeologist, Information Technology Technician and the Management Assistant. To learn more about NRCS in California see: <https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/> .



In 1998, District Conservationist Bob Hewitt (on right) taught an erosion control workshop on Mt. Rubidoux.

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## California Department of Food and Agriculture

by Dr. David Morgan, CDFA

The California Department of Food and Agriculture (CDFA) first leased greenhouses and office space at the Resource Conservation Center in 2001 when the Glassy-winged sharpshooter (GWSS) was reaching epidemic levels in Southern California. While this insect was most abundant in Citrus trees, its real damage was confined to grapevines and ornamental plants such as Oleander and Liquidambar. GWSS vectors a bacterium, *Xylella fastidiosa*, that ultimately kills these plants. The abundance of host plants in urban areas ensured that large populations persisted throughout the year and were impossible to control with insecticides. The responsibility of CDFA operations, dubbed the Mount Rubidoux Field Station, was to find and evaluate effective biological control agents, develop efficient production methods, and release and monitor the control agents. After 12 years, the Biological Control Group has released over two million minute wasps that kill the eggs of GWSS. These insects can kill over 90% of GWSS eggs and are largely responsible for the dramatic decline of this disease vector in Southern California.



Glassy-winged sharpshooter (GWSS)

© 1999 - The Regents of The University of California

In 2011, The CDFA redirected the activities of the Biological Control Group at Mount Rubidoux; a new insect had arrived in California, the Asian Citrus Psyllid (ACP). As with GWSS, this bug is a vector of a plant disease. The insect only feeds on Citrus plants and the disease it carries, Huanglongbing (HLB), or citrus greening, is fatal to citrus trees. HLB is already devastating the Citrus industry in other countries and in Florida. Researchers at the University of California, Riverside, traveled to Pakistan and brought back a minute wasp, *Tamarixia radiata*, that is an effective natural enemy of ACP. After much research, this insect was released from quarantine and into California in December of 2011.

The role of the CDFA at Mount Rubidoux has been to support the University by providing plants for rearing and studying the pest and *T. radiata*. Biological control activities are increasing as ACP spreads in urban areas, and the CDFA is now taking a lead role in this effort. The greenhouses at Mount Rubidoux have switched from plant production alone to the production of plants and biological control agents. Staff oversee the production of agents here and, soon, at a facility being constructed at California Poly, Pomona. Agents produced at these locations are being released throughout the urban areas where ACP has been found as a means of reducing the population of this pest. This includes locations from Imperial and San Diego Counties up to Los Angeles and San Bernardino Counties. By releasing *Tamarixia* in urban areas the pressure of pests on commercial citrus production will be reduced and a degree of control can be achieved without the need for chemical treatment.

## Western Riverside County Regional Conservation Authority

by RCA staff

The Western Riverside County Regional Conservation Authority (RCA) was created in 2004 to implement one of America's most ambitious environmental efforts, the Western Riverside County Multiple Species Habitat Conservation Plan (Plan). The Plan protects 146 native species of plants and animals and preserves a half million acres of their habitat. This effort to set aside habitat and protect species allows the development and transportation infrastructure necessary for a healthy economy to move ahead without sacrificing our region's environment and quality of life.



Least Bell's vireo fledglings. This native song bird is endangered as a result of nest parasitism by the brown-headed cowbird and loss of habitat.

© Terry Fleaser

While land acquisition for the reserve system is the core activity of the RCA, RCA is also charged with the critical responsibility of protecting Riverside County's investment in habitat and species conservation. Once land is acquired, it must be managed correctly to ensure species can flourish. In areas where development and wild lands intersect, management can be a difficult challenge. This work consists of evaluating land as it is acquired, facilitating authorized public access, controlling unauthorized public access, maintaining and, in some cases, improving wildlife habitats.

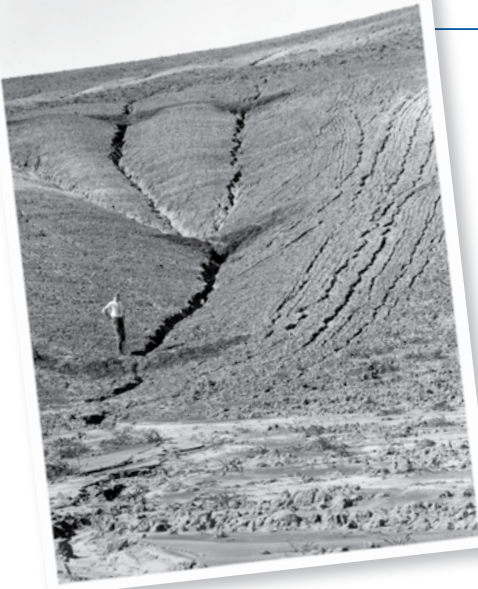
Monitoring ensures RCA is able to evaluate the effectiveness of its work. The Biological Monitoring Program, located at the Resource Conservation Center, collects data on the 146 "Covered" species and the vegetation communities where they live, to evaluate RCA's progress at meeting conservation objectives.

The first eight years of the Biological Monitoring Program were devoted primarily to inventories. This inventory phase helped answer questions such as: Where do the Covered species occur? What are their activity patterns? What are the most effective methods and ideal environmental conditions for detecting target species? What Covered species can be targeted simultaneously to increase survey efficiency? During this process, scientists test the reliability of available survey methods and develop protocols to carry out long-term monitoring.

A Biological Monitoring Program Work Plan is developed yearly, and monitoring surveys are published on an ongoing basis. These and other products are available at the RCA's website: <http://www.wrc-rca.org/>. See their newsletter at: <https://www.wrc-rca.org/?s=newsletter> .



# Celebrating 60 years of Resource Conservation! 1953-2013



During 1952, 126 farmers owning 6,700 acres sent a petition to the Riverside County Board of Supervisors requesting formation of a Soil Conservation District. By 1958, the District had gained 429 cooperators in five years covering 22,714 acres of land. 239 cooperators had basic conservation plans thanks to the hard working USDA Soil Conservation Staff. Conservation practices included contour furrows, outlet drain lines, cover crops, mulch, check dams, channel stabilization, grassed waterways, reservoirs, irrigation systems and irrigation management.

## Soil Conservation Election Tomorrow 7/19/53

**By GORDON WILSON**

Voters will go to the polls tomorrow to decide whether to organize the proposed Riverside-Corona Soil Conservation District.

They also will elect five directors for the district from among six candidates, all prominent farmers.

There are 15,000 eligible voters in the 312 square miles of the district. If a majority of those who go to the polls vote yes on the proposition the district will come into being. The turnout is expected to be less than 50 per cent of those eligible.

The polls are open from 7 a.m. to 7 p.m.

The proposal has been supported by a large group of prominent ranchers. The petition to the County supervisors that asked for an election was signed by 126 farmers who own 6,700 acres in the district.

There has been no apparent opposition.

The establishment of a district will make the farmers in it eligible to receive advice and help from the Soil Conservation Service of the U. S. Department of Agriculture. The conservation service tries to prevent the loss of top soil to winds or floods.

Northern boundary of the district will be the Santa Ana River in San Bernardino County. Southern boundary will be near Elsinore and the Orange County line. Eastern boundary will be near Perris. Western boundary will be at the Santa Ana River in Riverside County.

The district will take in the farming land of Riverside, Corona, Alford, Val Verde, Woodcrest, Reche Canyon, Highgrove, Norco, La Sierra, Prado Reservoir, and Lake Mathews.

There will be islands of non-district land in the district. These will be the residential neighborhoods of Riverside and Corona and Home Gardens. They will get no direct benefit from the district. They will not vote in the election, and they will not be taxed.

Of the approximately 200,000 acres in the district, about 8,000 are in southern San Bernardino County.

The six candidates for the five directorships are E. M. Bonnett Jr., Rolla Cook, Stanley Cooley, Clifford Dudley, Charles Kortz, Jim Topham. Dudley was chairman of the group of farmers that initiated the proposal.

These men said:

"There is a big job of soil and water conservation that can be accomplished within the district. There is a large amount of hill land being used for agriculture. Most of this land needs additional conservation practices to reduce runoff, thus preventing soil erosion and water loss.

"This kind of work is encouraged by a Soil Conservation District. The land owner does the work on his own land when he becomes



Stanley G. Cooley



Charles M. Kortz



Jim E. Topham



Rolla L. Cook



Clifford H. Dudley



E. M. Bonnett Jr.

(Continued from Page 13)

... convinced that he wants to do it. In other words, the work is done by the farmer on a purely voluntary basis.

"The district is able to encourage farmers to do this work because they are able to get technical assistance from the U. S. Soil Conservation Service.

"These districts also can secure special equipment that is needed for the work when it is not otherwise available within the area. This equipment is not free equipment. Farmers who use it do so on a rental basis."

The supporters said the district will help the farmer plan, for his own farm-irrigation systems, check dams, hillside plantings to encourage watering without erosion, planting of strip crops, works to combat movement of soil by wind-storms, drainage, ponds, reservoirs.

The maximum taxing power would be two cents per \$100 assessed value of the land in the district. There would be no tax on buildings on the land.

The proposed district is the only part of western Riverside County that is not already in a soil conservation district. About 75 per cent of the farmlands in the United States are in soil conservation districts.

### RCRCD Board of Directors

You will not find a more dedicated group of volunteers as those who serve on the RCRCD’s Board of Directors. Board members are usually land owners who have special knowledge of local resource issues. They direct district programs and oversee finances. They are appointed by the County Board of Supervisors and serve four-year terms without pay.



RCRCD Board members Carol Bartels, Bud Bonnett, John Gless, Jr., Carl Pongs, Roy Takeno, and District Manager Shelli Lamb.

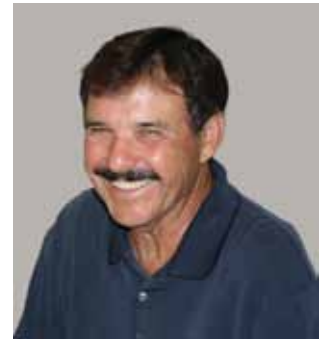
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**Alfred “Bud” Bonnett, president,** is a citrus grower and retired agricultural engineer (See page 3)

**Roy Takeno, vice-president,** is a farmer, landscape contractor, and a farm manager. He has been involved in agriculture his entire life. He sponsored the development of the native fish stream and is serving his 34th year.



**John Gless, JR., director,** is a well-known grower who oversees his multi-generational family enterprise. He and his father started as district cooperators in 1967. His entire family has been involved in agriculture. He’s served on the Board for over 25 years.



**Carl Pongs, director,** is a grower and general manager of Greenbelt Growers. He’s been on the Board since 2006.



**Carol Bartels, treasurer,** is a seasoned accountant who has been watching over RCRCD finances since 1993.



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District Board Meetings are usually conducted the third Tuesday of each month at 1:00 p.m. Please call (951) 683-7691 Ext. 202 for more Board Meeting information. We welcome your input.



**Charles Colladay**, retired, is a third generation citrus grower who worked in agriculture since 1959. He served 29 years.

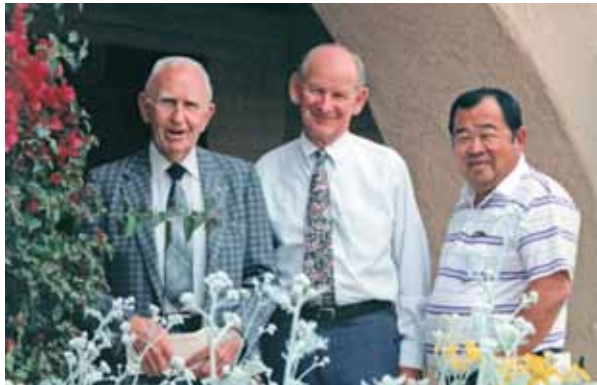


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**Stan Cooley** (1908-2006) served on the Board almost since the district's inception in 1953. He managed a diverse farming and ranching operation along the Santa Ana River on land that was settled by his grandparents in 1857.



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Circa 1980: both Stan Cooley (left) and Bud Bonnett (center) contributed over 50 years each of volunteer service on the RCRC Board of Directors. Roy Takeno (right) has served on the board since 1980. Charles Colladay, (not pictured) served 29 years.



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Principal Larry Holiday and board member Stan Cooley (on right) with Myra Linn students in 2003



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Board member Roy Takeno provided funding for digging the native stream in the LandUse Learning Center.



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In 1985, the *Resources* newsletter received the first place award from the NACD and the Equipment Manufacturers Institute (EMI). Stan Cooley and Shelli Lamb, district manager, accepted the award.



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A 1997 surprise party for Shelli Lamb celebrating 20 years with RCRC. Shelli (on left) with Claire Smith, then Associate Board member.

## Meet the Staff



### **Shelli Lamb, District Manager**

Shelli oversees RCRCDD programs, personnel, and finances. She coordinates all business on behalf of the Board of Directors. Shelli is excellent at developing partnerships and financial collaborations. She has served as president of the Ramona Animal Shelter, chair of the Santa Ana Watershed Association of RCDs, and treasurer of the Soil and Water Conservation Society- California chapter, Alvord Education Foundation, and California Association of Resource Conservation Districts' (CARCD) Employee Association, an organization which she founded in the 1990's. Shelli started her career at RCRCDD as secretary in 1977 while pursuing a degree in Human Development. After completing her Bachelor's degree, she went on to get her Certificate in Management from California State University, San Bernardino in 1985. She has been District Manager nearly 30 years. Shelli has grown district programs and budgets through contracts, mitigation, and partnerships from less than \$82,000 in 1984 to nearly \$5 million today.



### **Kerwin Russell, Natural Resources Manager**

Kerwin oversees habitat restoration, water conservation, and fisheries recovery projects. He holds a special permit for scientific collection of native fish and amphibians with the California Department of Fish and Wildlife and another with US Fish and Wildlife Service for collecting and breeding the Santa Ana Sucker. He serves on the board of the Santa Ana Watershed Association (SAWA) and the Santa Ana River - Orange County Weed Management Area. Kerwin joined RCRCDD in 1988 as an Irrigation Water Management Specialist. Prior to that, he was a landscape contractor and a high school vocational teacher in horticulture and agriculture. He holds a Bachelor of Science degree in Environmental Horticulture with an emphasis in vocational education and a minor in Geology from California State University, San Bernardino.



### **Dr. Arlee Montalvo, Senior Plant Restoration Ecologist**

Arlee Montalvo, PhD has been RCRCDD's restoration ecologist since 2004. She monitors native landscapes, develops plans to restore degraded habitats, and manages the native plant nursery and native habitat area of the LLC. Arlee has worked for over 30 years doing research on native plants. Her research and field experiments bridge basic and applied aspects of plant biology. She has worked on native plant landscaping, optimization of native plant palettes for restoration, native seed transfer, and research on different cultivation practices and planting methods for restoration. Arlee has a Master's degree in Biology/Botany from Humboldt State University and a Ph.D. from UC Riverside.



### **Diana Ruiz, Public Affairs Manager**

Diana manages the education and public outreach programs. Her role includes collaborating with numerous groups and agencies, especially in relation to natural resource education and development of the LandUse Learning Center, for which she has been the principal conceptual/interpretive designer. She has served on the board of a variety of groups, including the Inland Urban Forest Council, Riverside Land Conservancy, Inlandia Institute, Riverside Citizen Science, and Santa Ana Watershed Association. Diana first started working in natural resource management as a student trainee with the Soil Conservation Service in 1975. Later, she served as acting District Conservationist to western Riverside and Orange County RCDs. She started working with this District as the Education Development Coordinator nearly 30 years ago and holds a Bachelor of Science degree in Renewable Natural Resources from UC Davis.





### **Erin Snyder, Resource Educator**

Erin has been conducting classroom presentations, staging outreach events, and coordinating the Bluebird Nest Box program and other volunteer projects since 1999. Her experience includes more than ten years teaching at both elementary and secondary levels, for which she held a California Teaching Credential. She has volunteered for most of her life, particularly working on environmental projects with youth groups such as Girls Scouts, 4H, and park programs.



### **Shani Pynn, Habitat Restoration Specialist**

Shani coordinates habitat restoration, including planning and monitoring, for the In Lieu Fee Program and mitigation projects. She also ensures that several conservation easements are properly managed. Shani coordinates the monitoring of streams for water quality and assists with the native fish and amphibian programs. She began her career at RCRC in 2005 as a student intern, while attending Riverside Community College. She completed a Bachelor of Science degree (with honors) in Plant Biology at UC Davis in 2007 and came back to work full-time.



### **Craig Mogi, Resource Conservationist**

Craig is a certified landscape irrigation auditor and conducts irrigation evaluations to help landowners conserve water. He is our in-house Geographic Information Systems (GIS) and IT specialist and also conducts low-cost soil and water testing. Craig began his career with RCRC in 2003 as a student intern. He completed a Bachelor of Science degree in Environmental Science at UC Riverside in 2012 and was promoted to Resource Conservationist.



### **Wendy Walker, Plant Materials Assistant**

Wendy helps propagate native plants in the nursery and manage the Land Use Learning Center. She also assists with habitat restoration projects. She came to RCRC with horticultural experience and holds an Associate's Degree in Liberal Studies from Victor Valley College. In addition, she serves on the Executive Committee for Friends of Juniper Flats and is field trip leader for the Sierra Club, San Geronio Chapter.



### **Brett Mills, Biological Resources Specialist**

As a Biological Resource Specialist, Brett works to restore native fish and amphibians to local waterways. He recently came to RCRC with 13-years of biological field work experience, which included leading restoration projects for threatened and endangered species. Brett is certified in Fisheries and Wildlife Management from American Public University, is certified in the California Rapid Assessment Model (CRAM), and is a Wetland Delineation Practitioner for the arid west region of the United States. Brett also has experience and training in informal environmental education programs, and recently became certified as a California Naturalist. He is studying towards completion of a degree in Environmental Management. 30 years ago and holds a Bachelor of Science degree in Renewable Natural Resources from UC Davis.



**Matt Klohn, Facility Maintenance Worker**

Matt helps restore and maintain the Resource Conservation Center buildings and 9-acre campus. He has many years of experience in construction and home repair.



**Robert Dempster, Intern**



**Bob Hewitt, District Conservationist**

Bob has worked in the field of soil and water conservation for 40 years. As a District Conservationist for the USDA, Natural Resources Conservation Service, Bob provides technical support to three Resource Conservation Districts (RCDs) including RCRCDC. Bob, himself, practices sustainable agriculture. He uses integrated pest management and other conservation measures to conserve the natural resources on his organic citrus grove. The Soil and Water Conservation Society (SWCS) honored Bob in 2006 for his personal and professional efforts to preserve prime farmlands and important natural areas in Western Riverside County. Over the years, Bob has served on numerous committees including Riverside County Trails and Riverside Land Conservancy. He holds a Bachelor of Science degree in Biology from Cal Poly-Pomona.

**Bob Dunkle, Soil Conservation Technician**

“Dunk” provides technical assistance to cooperators of this district and other RCDs in San Bernardino and San Diego Counties. He started working for the Soil Conservation Service (now the Natural Resources Conservation Service - NRCS) in Syracuse, Nebraska, 1965. Bob relocated to California in 1988 and served as the head construction inspector during the \$120 million Emergency Tree and Brush Removal program from 2003 to 2010.





Diana Ruiz (left), USDA Soil Conservationist circa 1980



Pictured left to right: Matt Klohn, Shani Pynn, Arlee Montalvo, Stephanie Johnson, Craig Mogi. Top row: Erin Snyder and Robert Dempster.



Shelli Lamb accepted the First Place National and State Winner of the Conservation Education Award.



Kerwin Russell, Natural Resource Manager with antiquated computer



Randy Solis (then a city ranger), Richard Wagoner (then District Conservationist) and Shelli Lamb. In 1994 the City of Riverside thanked RCRC and the Soil Conservation Service for developing a Mt. Rubidoux Resource Management Plan.



Diana Ruiz, Education Development Coordinator taught soil texturing at Environmental Expo in 1986.



Bob Hewitt and Bob Dunkle worked on the amphitheater design circa 2000.



Shani Pynn, Habitat Restoration Specialist, taught a Riverside Community College biology class about chaparral plants.



Brett Mills (left) taught a Riverside Community College environmental science class about the western pond turtle and the work of wildlife biologists.



Brett Mills studying earthworms in 1985.



Erin Snyder with students at NatureFest 2013



Dr. Arlee Montalvo taught at the RCC tour in 2013



Craig Mogi and Kerwin Russell



Lindsay Potvin at NatureFest 2013





Looking southeast from 8th and Main Streets in Riverside, CA 1875

Riverside was founded in the early 1870s and is considered the birthplace of the California citrus industry. The first orange trees were planted in 1871, but the citrus that Riverside is famous for actually began three years later when a friend sent three Brazilian navel orange trees to Eliza Tibbets. Navel oranges thrived in the climate, and Riverside went on to dominate the navel orange industry for more than 60 years.

By 1882, there were more than half a million citrus trees in California, almost half of which were in the greater Riverside area. The soils were fertile, and canals were built to distribute water derived from underground water basins (aquifers). A “Citrus Belt” was planted from Pasadena to the Inland Empire (western Riverside and San Bernardino Counties), and the citrus industry powered the Southern California economy.

During the 1880’s, the railroads brought thousands of people to Southern California. The development of refrigerated railroad cars helped establish Riverside as the wealthiest city per capita in the United States by 1895.

Investors from England and Canada transplanted their ideas and constructed the first Southern California golf course and polo field in Riverside. Riverside is also the home of the historic Mission Inn, the largest Mission Revival style building in the United States.

Early residents understood the value of trees, but not just for agriculture. They planted trees along city streets and historic Victoria Avenue. Today, Riverside is known as a city of trees. Riverside Public Utilities provides free shade trees to homeowners to reduce energy use and to mitigate for the urban heat-island effect and greenhouse gases. Trees beautify neighborhoods, create habitat for urban-adapted wildlife, and enhance the quality of life. The National Arbor Day Foundation awarded Riverside the “Tree City, USA” status in 1987.



View of Victoria Ave, Riverside, CA in 1930

In 1907, local growers opened a Citrus Experiment Station across from the Resource Conservation Center campus at 4400 Glenwood Drive. It was a research laboratory to solve problems in citrus, such as disease and pest infestation. The Citrus Station became a world-renown center of research, and its work broadened to include many other crops. (In 1917 the Station was enlarged and relocated to the western slopes of the Box Springs Mountains. That site grew to become the University of California at Riverside in 1954.)

In 1937, the US Salinity Laboratory was established at this location. From then until 1995 the Agricultural Research Service's lab served as the nation's primary facility dedicated to research of salinity problems in agriculture.

Today, this site is being *reused* as a Resource Conservation Center, a location for community action, information exchange and collaboration to solve resource problems. The 9-acre facility is home to the Riverside-Corona Resource Conservation District and other agencies that work to use natural resources in sustainable ways.



Salinity Laboratory in 1947



# Thank You

Over the past 60 years, numerous individuals, businesses, and agencies have given of their time and talent to help with RCRCO projects; too many to name. To name a few recent supporters, the Board of Directors and staff greatly appreciate the support of the following:

Delta Bluegrass Company for donating native sod to demonstrate low water-use alternatives for lawns.

The Irvine Ranch Conservancy for donating native plant seed for cover crop demonstrations in the Land Use Learning Center.

S&S Seeds for donating the seeds for demonstrating the Xerces Pollinator Mix for Central and Southern California.

Susan Sims of Sims Tree Health Specialists for providing an oak health assessment, staff oak training, and Wildlife Aware training.

Ken Crowl of Riverside Landscape for donating trees and coordinating the Kiwanis Memorial Grove plantings with Nancy Melendez and Dave Roger.

Emery Horvatin built and donated bluebird nest boxes and a bat box.

Kevin Hauser of Kuffel Creek Apple Tree Nursery for donating apple trees and guidance for the Ag Area orchard.

Best Best and Krieger for ongoing support and specifically for sponsoring the NACD conference tour and portions of the Land Use Learning Center.

Kevin Shephard of Shephard Construction Company for donation of concrete trail and stucco work.

Entomologists Greg Ballmer, Ken Osborne, and Doug Yanega shared their expertise and assisted on education projects.

California School for the Deaf students helped maintain the Land Use Learning Center and distribute publications.

Summer volunteer interns: Sisters Corina and Felicia Silva.

College volunteers: Sigma Chi fraternity from Cal State San Bernardino, University of Redlands economic students, Japanese foreign exchange students, and Dr. Tonya Huff and her biology class from Riverside Community College.

Volunteers Debbie and Jim George and Tom Vaneski for community outreach efforts.

Volunteer Stan and Ileen Chrzan for donation of dozens of succulents.

Marks Tree Service for tons and tons and tons of mulch.

A final note about past collaborators: please forgive us if you worked with us in the past, and we did not mention your name. We've simply had too many wonderful partners, volunteers and friends over 60 years to name everyone.





**Riverside-Corona  
Resource Conservation District**

4500 Glenwood Drive  
Building A  
Riverside, CA 92501  
(951) 683-7691  
(951) 683-3814 FAX  
Web site: <http://www.rcrcd.com>

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Natural Resources Manager Ext. 203

**Arlee Montalvo**  
Sr Plant Restoration Ecologist Ext. 218

**Diana Ruiz** (909) 238-8338  
Public Affairs Manager

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Today, RCRCD programs are again evolving to address the impacts of climate change, urban densification, and the need for water reliability. This region’s quality of life and economic well-being rely on imported water. You will be hearing about the Bay Delta Conservation Plan, a comprehensive conservation strategy aimed at protecting dozens of species of fish and wildlife, while permitting the reliable operation of California’s two biggest water delivery projects.

**See: <https://www.epa.gov/sfbay-delta/bay-delta-conservation-plan-california-waterfix>**

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The University of California’s Division of Agriculture and Natural Resources is the bridge between local issues and the power of UC Research. Learn about drought strategies and more at: <http://ucanr.edu/>

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