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Rachael and David Long transform their Dunnigan Hills farm to a wildlife habitat

For over a century, native plants on a 250 acre ranch in Zamora have had to wait while the land around them was dryland farmed to grains and forages. Four years ago Rachael and David Long stopped farming half the land and rejuvenated part of it with Purple needlegrass, allowing hardy native plants that survived the farming era, such as Lupine, Owls clover, Milkweed, Tarweed, and Vinegar weed, to spring forth and contribute to the renewal of the ranch.

The Longs bought the 250 acres of “highly erodible” farmland on County Road 91B in the Dunnigan Hills in 1999. Their concern for the land and love for wildlife inspired them to begin restoration projects the year they bought the heavily farmed ranch. Today, after just a few years of conservation planning and implementation, pheasants burst forth from the 25-acre field of Purple needlegrass, and snake skins, curled around the base of the native grasses, leave traces of prosperous wildlife. Around one of the three ponds the Longs installed to reduce sediment from reaching the Colusa Drain are footprints of killdeer, raccoon, ducks, and deer.

It still takes a bit of imagination to envision the land as wildlife habitat – Yellow starthistle still competes for space and water; gullies caused from erosion are still unfilled. But watching barn swallows dip and takeoff like a military touch and go exercise as they drink of the sweet rain water captured within one of the carefully



Rachael Long walks through 25 acres of Purple needlegrass on her ranch.

graded ponds, one can imagine a future of restoration where fledgling cottonwoods and willows grow into an ecosystem that constrains soil erosion, crowds out noxious weeds and provides wildlife habitat and fodder.

“We have 115 acres in the Conservation Reserve Program (a Yolo County Farm Service Agency program)” Rachael said. “In 2001 we planted 25 acres with native grasses. We even see deer out here now.”

Years of dryland farming – where the land is left fallow and cleared during the summer months then planted in the fall — has caused sheet and rill erosion, exposing subsoils on the hill tops. For years, winter runoff has washed over the land into neighboring farms, causing flooding and dumping tons of sediment into

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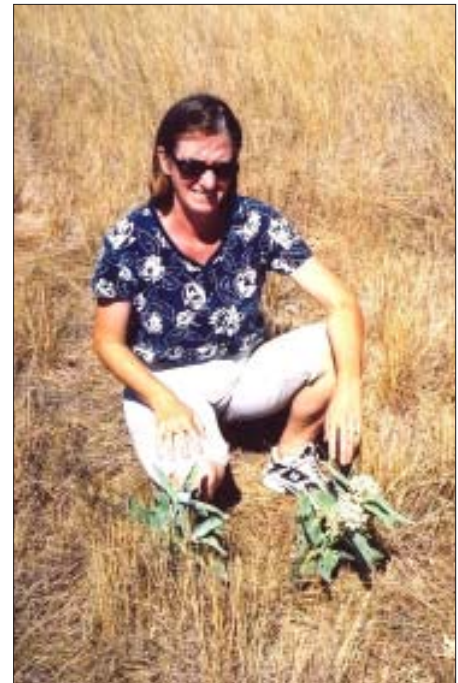
the Colusa Basin Drain. The three ponds now capture a lot of this water and a drainage system controls the runoff.

When it's not wet from winter rains, the tired soil holds little moisture and native plants must compete with vigorous weeds. To encourage native plant growth the Longs have installed a creative solar pump system using an old domestic well near Oat Creek, located on the east end of the property. The pump delivers the water to a hilltop tank which then gravity feeds the life-giving resource through a drip irrigation system to the Coyotebrush, Coffeeberry and willows surrounding the ponds. The Longs also installed 2000 feet of PVC pipe to deliver the water to a half-mile-long hedgerow they planted for wildlife habitat on the north side of the ranch.

Once established, the shrubs and trees will require minimal irrigation and their deep roots will allow the soil to hold more water, reducing runoff.

"Upper watershed management like the Longs implemented means less runoff in the lower watershed. I wish more people in the Dunnigan Hills would follow their example," said Phil Hogan, Yolo County NRCS district conservationist. "Water will still run off, but with these efforts it will be cleaner and create less flooding potential in the lower watershed." ☞

Rachael Long inspects native plants that grew independently on her heavily-farmed ranch.



Investigations into the benefits of vegetated ditches

The Yolo RCD is heading up investigations into the benefits of vegetation in field drain ditches for cleaning sediment and pesticides out of water that ultimately goes to the Yolo Bypass (see Conservation Quarterly, Spring 05).

On July 22nd a team of scientists and RCD staff descended on the research site at Harlan & Dumars farm and completed extensive sampling of soil, vegetation and water after treatment with diazinon or permethrin. The sampling continued for five days after the initial treatment. Sample analysis is currently in progress. When it is complete, modelers will conduct further analysis to predict the interactions between plants, soil, water and pesticides.

Using information from this project site and the modeling efforts, phase II of the project will begin in the fall, when ditches will be constructed and planted in the fields of interested farmers throughout the county and tested under real-world conditions.

For further information, or if you are a farmer interested in participating in the second phase of the project (flashboard riser, ditch construction and planting costs will be covered) please call the RCD at 530-662-2037 x 118. ☞



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Debra Denton and Charlie Cooper work on the project site during the trial run in July.

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Began 1999; Finished 2005

The Lower Union School Slough Watershed Improvement Program Closes

Seven years of projects and research on a 26 sq. mile watershed and all its challenges have finally been brought to a close. In early 1999, Audubon-California received CALFED Ecosystem Restoration Program (ERP) funding for a joint project with the Yolo County Resource Conservation District called the Union School Slough Watershed Improvement Program. This first-ever

continuation of the earlier program but with a significant water quality focus. The program was built on previous work and included a watershed-wide and site-specific monitoring program with implementation of additional restoration, conservation and education projects with new landowners. It also included the development of a web-based conservation effects and planning support model for landowner and professional use.



One of the elements of the study was to test sediment traps like this one. Results showed they capture a considerable amount of valuable soil.



The LUSSWP project also studied wildlife along the waterway

watershed project focused on working with landowners within the watershed to install conservation projects that helped solve management problems, complimented the working landscape, and provided habitat for local wildlife. Three years later, in the fall of 2001, the Yolo RCD received CALFED ERP funding for the Lower Union School Slough Watershed Improvement Program – a

All the activities of the project supported the adoption of the recommendations of the Willow Slough Watershed Integrated Resources Management Plan (1996). The goal of the Plan is to accomplish implementation of conservation activities that maintain and improve agricultural sustainability, wildlife habitat and water quality over vast acreages of the Willow Slough watershed and Yolo County to ultimately benefit the California Bay-Delta watershed. The work may also serve as an effective

model for other agriculturally-based regions of the San Francisco Bay-Delta watershed.

Copies of the final report are available at the RCD office, 221 West Court Street, Suite 1, Woodland. ☞

VEGETATION MANAGEMENT

Want to plant or maintain a roadside or plot of native grass but lack the equipment? The YCRCDC can assist you with specialized equipment for native planting and maintenance, including a harrow, seeder, and mower—all pullable by ATV.

Contact Jenny Drewitz at 530.662.2037, ext. 114 for more information on specifications and rates for rental or hire.



RICE ROLLER for rent

\$3.00/acre - available immediately
Call Yolo RCD at 662.2037, ext. 119

Goodbye to long-time Board Member

He consulted, supported and promoted the Yolo County Resource Conservation District for seven years, then joined the Board of Directors in 2001. Now he's moved to Mendocino. Robert Becker received a special goodbye from RCD supporters at its annual dinner in June and deserves special recognition one more time!

During Executive Director Katy Pye's tenure, Becker provided technical writing, public relations and accounting services for the organization. He shepherded the initial grant proposals that led to tremendous growth and was most helpful in supporting management as the RCD adjusted to a growing staff and increased programs.

"He provided business brains," said Paul Robins, Executive Director. "He has helped me think through challenges and helped the organization transition when I took over as E.D." ☞



CONGRATULATIONS PAUL FOR 10 YEARS AT THE RCD!



Oh, I love the RCD . . .
it's the only place for me!



Paul has a remarkable knowledge of natural resources, partner agencies, and means of achieving mutual goals. This facilitates a common interest and goal between opposing parties.
- Jeanette Wrynski



Free irrigation services offered to local growers

The Yolo County Resource Conservation District invites Yolo and Colusa county growers to request free irrigation system evaluations for the 2005 growing season. Last year the Yolo-Colusa County Mobile Water Lab helped local growers identify means of improving irrigation efficiency by 15% (on average). With a free analysis from the Mobile Water Lab, growers can save money, water and electricity.

"Additionally, excess water increases run-off into canals and streams, and the Ag Waiver is increasing the pressure on growers to manage the quality of that water," said Kyle Wooldridge Yolo County RCD engineering technician. "With our free service, we can save growers money and help them manage their run-off."

The grant-funded program works around growers' busy summer schedules. The services include irrigation system evaluations, optional water quality testing, soil surveys, and recommendations on irrigation and run-off management.

The Mobile Water Lab is currently taking appointments for the 2005 irrigation season. Anyone interested in a free evaluation can contact Clara Mamone at (530) 662-2037 x120 or mamone@yolorcd.org. The number of evaluations per season is limited, so schedule an appointment for a free irrigation evaluation as soon as possible. ☞

Yolo-Solano Ag Water Quality Management Support Program kicks off

Up to 60 sediment traps, 20 vegetated filter systems and many acres of cover crops and conservation tillage systems will be installed throughout Yolo County as part of the on-farm Ag Water Quality Management Support Program over the next two years.

Funded by a grant from Proposition 50, the program will assist growers as they respond to the Irrigated Lands Waiver implemented by the Regional Water Quality Control Board. This project supports the efforts of the Yolo County Farm Bureau Education Corporation, Solano RCD and Dixon RCD. A final agreement with the state was signed this month. The project will continue through 2007.

"We will provide implementation support, education and monitoring for on-farm water management projects in cooperation with our partners," said YCRCD Executive Director Paul Robins. "The area to be covered includes all of the irrigated lands in Yolo and Solano counties."

The Mobile Water Labs in Yolo and Solano counties will work with growers to implement improved water quality management practices and train them in self-monitoring methods. The goal is to reduce agrochemical and sediment levels in water that runs off farms into local waterways.

For more information on the project, Paul can be reached at extension 116. ☞

John Reynolds shows appreciation of native plants by volunteering

For 10 years Yolo County has reaped the benefit of John Reynolds' dedication to native plants. Watering hedgerows for Yolo County RCD is his latest volunteer project.



"He's been so great; he's taken this volunteer work on like a job," said Jenny Drewitz, weed management director.

While serving as superintendent at the Davis Cemetery for six years, Reynolds applied

his interest in native grasses to the Grassland Regional Park. There he and mentor Vince Forcella planted 10 to 15 acres of native grasses and hundreds of oak trees.

He currently volunteers for the Putah Creek Council directing bucket brigades to water oak trees, and he experiments with growing native grass plugs at his home, learning from the challenges.

"I'm working with Creeping wildrye now...it's very slow growing," he said. "I'm also trying Valley oak. I look for opportunities to plant them."

Reynold's work at YCRCD is helping two growers who installed hedgerows with the RCD over the past two years but now have very little staff time available to maintain them. The three hedgerows are between Woodland and Winters near county roads 96 and 29. He is in charge of irrigating the hedgerow plants and conducting some weed control.

"The landowners are very busy this time of year and have no time to irrigate the hedgerows," Drewitz said. "Without John we wouldn't be able to help the landowners with maintenance and would probably suffer some plant death as a result."

The RCD is very grateful to John for volunteering his time to help them in such a committed way. ☞

New Mobile Lab Manager is eager to aid irrigation improvements

She's been in the office less than a week but is ready to get out in the field. Clara Maria Mamone was recently selected among several applicants to take the position of Mobile Lab Manager at YCRCD. She replaces Max Stevenson who moved to the Yolo County Flood Control and Water Conservation District last fall.

Clara completed her education in agricultural engineering at University of Buenos Aires in Argentina. Her first work experience was in water supply for rice fields. She managed a natural reservoir for Guaviravi S.A., a company which supplied water for 12,500 acres of agricultural fields.

"This work was the most challenging of my whole career," Clara said.

After one year there she defended her thesis upon her rice experience, researching the incidence of different diseases in the crop. She continued working in the seed and agrochemical industry for nearly seven years, including marketing and developing agrochemicals. She developed technical bulletins and brochures of new products and worked together with local authorities to register these agrochemicals. She also developed labeling for new products and updated the toxicology information on original products. She provided technical advice to farmers regarding agrochemical doses and application. Before coming to America as a newlywed last March, she worked for an organic farm that produced wine, meat and oil for export.

"It represents for me a great challenge to work for the Ag Water Quality Management Support Program together with an experienced group of professionals at the Yolo County Resource Conservation District," Clara said.

"Considering the importance that irrigation water supply has for most crops in California and the limited resource of water, it's imperative to manage irrigation water in the most efficient way. Through the Water Quality Assistance Program we will work together with farmers to develop more efficient agricultural water management techniques."



Yolo County RCD Publications

The Yolo County RCD offers various resource materials for sale. To place an order, send your request to Yolo County RCD - Orders, 221 W. Court Street, Suite 1, Woodland, CA 95695; call 530.662.2037, ext. 119; or send an e-mail to Smccloud@yolorcd.org.



Please add tax and shipping and handling costs to publication prices below:

- Know Your Natives: A Pictorial Guide to California Native Grasses (includes supplement) \$30
- Bring Farm Edges Back to Life! \$15
- California Native Grass (poster) \$17
- Monitoring on Your Farm \$15
- Working Habitat for Working Farms (video) \$10
- Yolo County Soil Survey (CD-ROM) \$13.92
- Capay Valley Conservation & Restoration Manual \$15
(free to Capay Valley residents)

Please add 7.75% sales tax to prices

NEW \$15⁰⁰

Know Your Natives supplement now available!

Shipping & handling:

(no charge if item is purchased on site)

1 item: \$3.00

2-5 items: \$5.00

6-10 items: \$10.00

more than 10 items: \$15.00

Find project progress reports, events, links, and updated conservation articles on the RCD website at www.yolorcd.org

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