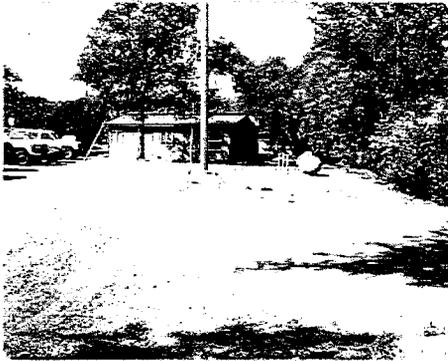


Sierra Nevada Foothills Native Plant Demonstration Garden



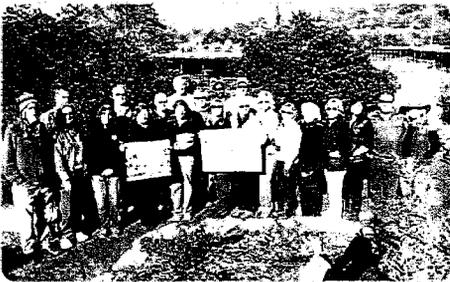
© Kris Randal

A dedicated group of staff, volunteers and partners began working in 2008 to make over this then-barren, weed-infested site.



© Kris Randal

Their efforts have transformed this setting into the mosaic of native plants that now beautify and enrich the area.



© Pamela Herrler, NRCS

The garden project earned the volunteers and partners the Natural Resources Conservation Service's 2010 Earth Team Volunteers Award for the State of California.

This garden celebrates the values of plants native to the central Sierra Nevada foothills. Graphic panels along the garden path and the supplemental brochure will help you learn how these plants have adapted to this area's Mediterranean climate—how they conserve water, tolerate drought, protect water quality and control soil erosion. You will also discover ways they benefit wildlife and their importance to native pollinators and to California Indian people past and present.

The Upper Merced River Watershed Council's adjacent Conservation Landscaping Project displays landscape design features that can also help conserve water and soil.

Please stay on the pathway for your own safety and to prevent damage to the plants.



MARIPOSA COUNTY



RESOURCE
CONSERVATION DISTRICT



SIERRA NEVADA
CONSERVANCY

A generous 2008 grant from the Sierra Nevada Conservancy to the project sponsor, the Mariposa County Resource Conservation District, funded this project.

Sierra Nevada Conservancy-Progress Report

**Sierra Nevada Conservancy Grant Program
Safe Drinking Water, Water Quality and Supply, Flood Control
River and Coastal Protection Act of 2008 (Proposition 84)**

Grantee Name: Mariposa County Resource Conservation District

Project title: Sierra Nevada Foothill Native Plant Demonstration Garden

SNC Reference Number: SNC 070308

Submittal Date: March 1, 2012

Report Preparer: Kristine Randal

Phone #: (209) 966-3431

Check one:

Final Report

6-Month Progress Reports should reflect the previous six months. **Final Reports** should reflect the entire grant period.

A. Progress Report Summary: (Please provide a general description of work completed during this reporting period.)

I advised the Upper Merced River Watershed Council staff on native plant selection and about minimizing construction impacts on oak trees during the installation of their *Conservation Landscaping Project*, co-located at the fairgrounds with this demonstration garden and funded through a separate grant. The two entities also partnered with one another to ensure thematic and factual consistency in displaying and interpreting BMPs and other conservation measures. It was important to keep each garden project discrete but complementary with the other.

A PowerPoint presentation and several newspaper articles were produced to promote the demonstration garden and its goals.

An educational tri-fold poster display board was developed to augment all community and school presentations.

Volunteers were actively and continuously recruited at many community programs and other events. Presentations highlighted the goals and attributes of the local native plant demonstration garden.

The Mariposa County Juvenile Probation Community Service Program regularly scheduled work crews to weed and perform a variety of necessary tasks at the site.

Throughout the life of the project, volunteers and probation work crews continually pulled, bagged and removed weeds from the site. They also moved dirt, rocks and mulch, trenched for irrigation lines and graded the pathway to comply with ADA standards and prepare it for surfacing with disintegrated granite (DG).

Collaborated with five professional botanists to select plants and design the garden layout.

In October 2009, repaired flood damage to the site caused by torrential rains and excessive drainage from across the adjacent road.

Scheduled several planting dates in November 2009, attracting 19 volunteers the first day. All plants were installed in the garden.

Trained a group of volunteers in spring 2010 to serve as docents and guide students from the partnering school, Woodland Elementary, through the garden for a plant identification activity. Also recruited as a volunteer a former Farm Advisor to teach a lesson on botany and pollination for that event.

In 2011, Granite Construction Company donated weed-block cloth that volunteers laboriously cut and fitted to the pathway.

The ADA pathway was surfaced with packed disintegrated granite by a contractor with experience in ADA-compliant construction.

Seven interpretive signs and a supplemental plant-identification brochure were written, designed and produced professionally for the garden. Numbered stakes corresponding to numbered plants identified in the brochure were purchased and installed in front of key plants.

Several dedicated volunteers securely embedded posts at specific planting sites to hold the interpretive panels. Panels were installed near the end of the reporting period.

B. Deliverables or Outcomes completed during this Reporting Period or Milestones

Achieved: (Include specific information, such as public meetings held, agency participation, partnerships developed, or acres mapped, treated or restored.)

All deliverables, outlined below, were achieved.

At public meetings and organizational events time was spent recruiting volunteers and promoting and describing the garden and its goals and attributes. These public functions included:

- Yosemite Area Audubon Society monthly programs
- Mariposa County Fair
- Mariposa Rotary Club meeting
- Upper Merced River Watershed Council programs
- Mariposa County Master Gardener workshops
- Butterfly Garden Club meeting
- American Indian Council of Mariposa County meeting
- Fundraising dinner for the *California Native Garden Foundation*
- Mariposa Contractors' Association's annual Home & Garden Show
- MCRCD's annual native plant and wildflower seed sales
- Earth Day celebration at the Mariposa County Landfill
- Sierra Foothills Chapter, California Native Plant Society (CNPS) programs
- Mariposa Agri-nature Trail "Weekend in the Country" events

Mass emails sent to members of partnering organizations as well as numerous newspaper articles helped recruit additional volunteers. This process is, and will continue to be, ongoing. A list of volunteers was compiled with 54 people responding and physically working at the garden or otherwise supporting the project. Twelve of our volunteers participated regularly or when asked. Recently, two more volunteers have signed on, and recruitment will continue indefinitely.

As project partners, the Mariposa County Juvenile Probation Community Service Program has consistently provided community-service volunteers since the project's inception and will continue helping the MCRCD maintain the garden indefinitely.

It was the hard work of volunteers and community-service labor that prepared the project site for grading, trenching, gravel redistribution and planting. Early on, they raked and removed gravel so that a layer of thick, clear plastic could be laid onto the ground to solarize the soil and kill weed seeds. Six weeks later, they helped remove the plastic and mix gypsum into the clay soil to make it more permeable. They then covered the site with a thick layer of donated wood chips to act as a mulch and prevent weed growth, add nutrients and prevent potential erosion during rainy months.

Planting mounds were formed and raked from several truckloads of donated soil from Granite Construction Company.

Hard physical labor was required to grade the future pathway. One volunteer donated his small tractor with a blade to help with this process. Most of the remaining

grading was done by hand with pick axes and shovels. Excavated soil was added to existing planting mounds, used to create an additional mound, as filler for smoothing out irregularities on the path and stockpiled for future use. Once this task was completed, BendaBoard edging was installed along both sides of the pathway.

Trenches for irrigation lines were dug with a rented trencher, the water lines and gravel added, and most of the automated drip system installed by volunteers. A hired irrigation specialist completed the installation. Volunteers also dug drainage lines and installed drain grates to mitigate flooding caused by heavy rains.

The plant list was compiled in collaboration with botanists, American Indian Council of Mariposa County members, the local CNPS chapter, UCCE Master Gardeners and Intermountain Nursery. All plant values related to the themes of the demonstration garden were researched and plants that best showcased these values sited. I scheduled two major planting days and ordered plants from three nurseries. Several people also donated seeds and local native plants.

Plants were placed beginning in November 2009. On planting day the volunteers were trained in making gopher baskets and given planting instructions. A crane operator using his own equipment volunteered to place eight donated granite boulders in the garden, while several other volunteers with the Chrysalis Institute poured a papercrete retaining wall around a soil mound. At two other planting mounds an artistic local stonemason built retaining walls using large granite boulders he collected and donated, while a local couple demonstrated how to use excess rocks gathered on site to create a smaller wall along the edge of a third planting mound. Within two days, most of the plants were embedded in the garden. Some plants have recently been added to replace a few failures.

The curriculum component involved working with a local retired educator to develop California standards-based curriculum for fourth-grade students. We visited Woodland Elementary School and involved the students in hands-on learning activities, using these curriculum materials as a pre-site lesson plan to prepare the students for their garden visit the following week.

Two fourth-grade classes were bused to the garden, where they were divided into groups and identified plants under the tutelage of appointed docents. The students made temporary plant identifier signs and included information they had learned about the diverse array of plant values. These interpretive signs were later laminated and displayed at the garden.

A local contractor with knowledge of ADA standards was hired to surface the pathway in compliance with those standards.

In collaboration with a volunteer, I researched, wrote and edited text, and selected images for interpretive signs and a supplemental brochure that professionals in exhibit design, sign fabrication and printing then produced. The brochure is a plant identification guide keyed to numbered stakes situated alongside the individual plants. Volunteers installed the exhibit panels on wood posts purchased locally and embedded in concrete at selected sites along the path.

The six-month progress reports were submitted.

C. Challenges or Opportunities Encountered: (Please describe what has worked and what hasn't; include any solutions you initiated to resolve problems. If your project is not on schedule, please explain why here.)

Notable challenges have included the formidable (and unending!) task of removing an abundance of noxious, nonnative weeds from the hard, packed, rocky red clay that characterizes the site. A construction company across the street from the garden adds to this problem by importing weed seed on trucks' tires and when workers dump relocated dirt piles. The project site is also located at the county fairgrounds where horses, cattle and other ranch animals and their weed-infested feed are continually passing by the garden. However, our constant attention to weed eradication, mulching and planting natives has helped reduce the numbers and diversity of these weeds. (Please refer to section B, Deliverables, page 3 for more details.) The partnership with the Mariposa County Juvenile Probation Community Service Program is a win-win for both the MCRCD garden and probation work crews, who earn community-service hours by regularly eradicating weeds at this site.

Winter flooding at the site has been another major challenge. In October 2009 a major storm eroded and washed out our recently excavated pathway and dry stream bed, but we learned from that experience and were able to make necessary repairs and corrections. We asked the Department of Public Works to deepen a silt-engulfed drainage ditch across the adjacent road. The construction company across the road also helped by diverting the drainage away from the street and down toward its property. In the meantime we added some drains, earth and rock barriers and gravel to redirect excessive rainwater to drainage channels and lines.

Excavating the pathway with hand tools and grading it to meet ADA standards was time-consuming and backbreaking. Over time we came to realize that completing this job needed more than volunteers, even though they all worked relentlessly on the task. We ended up hiring a contractor experienced in ADA pathway construction to surface the path with disintegrated granite.

The state bond freeze that temporarily suspended grant-funded projects slowed volunteer momentum and dampened their enthusiasm. Moreover, I was forced to find other part-time jobs before the freeze was lifted, leading to job and time conflicts when the project resumed. By that time volunteer interest had waned and their availability was spotty. These difficulties combined to impede progress on the project.

D. Unanticipated Successes Achieved: (Please describe any additional successes beyond completing scheduled tasks or meeting scheduled milestones.)

An unexpected success was achieved when the volunteers received the NRCS Earth Team Volunteers Award for the State of California in October 2010. The NRCS district conservationist for Mariposa County, Dawn Afman, alerted us to this competition and encouraged us to nominate the garden volunteers for this statewide award. In October, the MCRCD project manager was invited to the NRCS awards ceremony held in Sacramento to accept the award. The following month NRCS met with many of the volunteers at the garden for a presentation and photo op. Several articles subsequently appeared in local and statewide publications. The award was a deserved honor that recognized the volunteers for the many hours they had dedicated to this garden since its inception in early 2008.

E. Compare Actual Costs to Budgeted Costs: (Please refer to your grant agreement to list your deliverables/budget categories and budgeted costs compared to actual costs incurred during this reporting period in the table below.)

PROJECT BUDGET CATEGORIES	Budgeted SNC Dollars	Actual Dollars
Plants	1162.32	1162.32
Rental Equipment	297.92	297.92
Planting Mixes & Mulches	1124.86	1124.86
Irrigation & Garden Amenities	8522.87	8522.87
Labor Expenses		
Interpretive Signs & Brochures	6999.56	6999.56
Student Transportation	78.03	78.03
Project Coordinator Salary	36400.00	36400
Payroll Tax	3253.16	4383.02
Administrative	6159.28	6159.28
GRAND TOTAL	63998.00	65128.18

Explanation: (if needed)

The project advance funds earned a total of \$1,130.18 in interest. Those funds will be applied to Irrigation & Garden Amenities (\$0.32) and Payroll Tax (\$1,129.86).

F. Do you have information to report on the project-specific Performance Measures for your project? (If so, please list the Performance Measures below and describe your progress.)

Grant applications in this first round in 2007 were not required to address Performance Measures. Consequently, none were established.

G. Were there any other relevant materials produced under the terms of this Agreement that are not a part of the budgeted deliverables? If so, please attach copies. (Include digital photos, maps, media coverage of project, or other work products.)

Yes. Please see attached media coverage information. Photos have been submitted to number 8 in the final report section below.

H. Next Steps: (Work anticipated in the next 6 months, including location and timing of any scheduled events related to the project.)

Volunteers will add mulch as well as a donated arbor and memorial bench in March. Volunteers will also install an interpretive sign on native bees donated by the Xerces Society for Invertebrate Conservation in the near future.

Scheduled participation in the Mariposa Agri-Nature Trail's Weekend in the Country will occur in September 2012 and annually at the demonstration garden.

The garden will also be available for regular visits by local residents, tourists, school groups and other organizations. The MCRCD will refer customers to the garden during its annual native plant and wildflower seed sales and when advising people on the strong conservation values of local native plants.

Please Complete this Section for FINAL Report ONLY

Capacity-Building Results and Collaboration and Cooperation with Stakeholders:

(What partnerships did you initiate or strengthen as a result of this project? How did they affect the project outcome? If applicable, how did this grant increase your organization's capacity? What is your plan to sustain this increase?)

From the very beginning of this project, Kathy Wallis, supervisor of the Mariposa County Probation Department Community Service Work Program, scheduled work crews to assist at the garden site. Juvenile work parties were organized on Saturdays, and adult workers were later provided on some weekdays, significantly increasing the work accomplished. Bill Nance also organized work crews when Kathy was unavailable, and this relationship with Probation became a win-win for both organizations. This rewarding partnership has fulfilled both the probation workers' obligation to perform community service and the need for garden volunteers.

As a result of this successful partnership, the Probation Department will continue to participate regularly at the garden and whenever needed. This relationship will not only enable Probation's juveniles and adults to earn needed community-service hours, but will contribute to a less weedy and more beautiful garden for the community.

The Mariposa County Fairgrounds has benefited from this project's many improvements to the fairgrounds property. The project not only transformed an ugly, weedy site into an attraction that will boost tourism and the local economy, but it also mitigated a long-standing stormwater runoff problem for this fairgrounds location. As partners, both organizations have been positively impacted by the development of the garden.

As the tenant of the fairgrounds building that occupies the site, the Sierra Nevada Conservancy should also benefit from the site's more inviting and welcoming appearance, and the project's success should further reinforce the MCRCD's strong relationship with the SNC.

The MCRCD now has a site to offer educational walks on the importance and many attributes of local native plants. In 2010 the RCD participated in the annual Mariposa Agri-nature Trail Weekend in the Country by leading a walk at the demonstration garden. As partners, we will continue to offer these popular interpretive tours each year on the Agri-nature weekends. The MCRCD recognizes the importance of supporting tourism via this relationship, which also enhances the local economy while educating the public on the diverse attributes of native plants and their ecological importance within the local environment.

Description of Project Accomplishments:

1. Most Significant Accomplishment

Describe in one concise, well-written paragraph; the most significant accomplishment that resulted from this grant.

The most significant accomplishment this grant has realized is the completion of the native plant demonstration garden itself. Mobilizing the support and contributions of an impressive army of volunteers, project partners and donors, this initiative has transformed a barren, weed-infested site used for random parking into an attractive, educational showcase of 65 species of indigenous flora. Professionally designed and fabricated wayside exhibits and a supplemental brochure interpret the featured plants' ecological, landscape and cultural values--how they are adapted to tolerate drought, conserve water, protect water quality, stabilize soil and reduce erosion; their relationships and benefits to wildlife and native pollinators; and their importance to Native American people, both ancestrally and today. Located in a publicly accessible area of the Mariposa County Fairgrounds, the demonstration garden will be a magnet for both residents and visitors to study, enjoy and appreciate the rich, beautiful mosaic of flowering plants, grasses, shrubs and trees native to the central Sierra Nevada foothills.

2. WOW Factor

If applicable, please describe anything that happened as a result of the project or during the project that is particularly impressive.

The most visible WOW! occurred in spring 2010, the first growing season after planting the previous fall. Most impressive was a stunning profusion of wildflowers in a kaleidoscopic array of colors amidst grasses and shrubs that had prospered beyond expectations and spread luxuriantly within those first several months.

Equally impressive has been the large base of partner, donor and--especially--volunteer support and participation. The sustained involvement and commitment of several talented volunteers who have individually contributed hundreds of hours to this project over the entire four years has been especially gratifying. The turnout of 19 volunteers on the first planting day in November 2009 assured an extraordinarily productive day that no doubt contributed significantly to the luxuriant first growing season cited above. Receiving the NRCS's Earth Team Volunteers of the Year award for the State of California in October 2010 was the acme of achievement and acknowledgment for their role in this project's success.

The importance of several notable donations in extending the limited budget for this project cannot be overstated. Those donations have enabled us to add a memorial

bench and arbor, an additional interpretive sign about native bees and some amenities that might otherwise not have been affordable.

The experience at the garden with 47 Woodland Elementary School fourth-grade students in May 2010 elicited a "WOW!" from almost everyone involved. Retired educator and volunteer Janette Gamble was invaluable, working with me in preparing standards-based curriculum materials for an introductory classroom visit by Janette and me and the subsequent field trip to the garden. The students were divided into small groups to participate in a plant-identification exercise facilitated by six docents, including Janette. Retired Mariposa County Farm Advisor Karen Robb also participated in the garden visit by presenting two sessions on pollinators. Culminating the identification exercise, the students created their own interpretive signs for the plants they had identified. WES then laminated the signs to be used as temporary identifiers in the garden. Perhaps the most telling endorsement of the visit was a request from two boys just before the group left for a picnic lunch: "Can we identify some more plants?" WOW!

One of the last steps in development of the demonstration garden was planning, researching, writing, designing and fabricating the interpretive signs and a supplemental brochure keyed to numbered stakes that aid in identifying the plants. The professional graphic designer who designed the signs and brochure and the company that manufactured the signs did a superb job in creating eye-catching exhibit panels that significantly enrich the garden experience and make it much more meaningful. Another WOW!

3. Design and Implementation

When considering the design and implementation of this project, what lessons did you learn that might help other grantees implement similar work?

First, know your site! Try to obtain information on the land-use history of the site as well as any natural events that might prove challenging. We underestimated the huge variety of weeds on the site, a condition probably attributable to its location at the well-visited county fairgrounds and across the road from a construction staging area. We had to spend more time than we anticipated tackling this issue to get the upper hand. We have seen some weed species disappear, only to be replaced by new weeds, so this issue will always be one we will have to address. In fact, we have identified yellow starthistle at the construction company property, but have yet to find it at the garden. We will always need to be vigilant.

We also experienced flooding problems that we did not expect during heavy rainstorms. A large mini-storage complex up and across the road from the garden sheds rainwater from its unguttered roofs and asphalt-covered property like a waterfall. The rushing water would gush into unmanaged roadside ditches that would

quickly fill up with silt and leaves, forcing the runoff out of the ditches and across the road to the garden. We spent lots of unexpected volunteer time repairing the mess, but with the help of the neighbors, Public Works and added drains, barriers and gravel, we eventually resolved the problem.

It is important to know the locations of utility lines and other services that may create impediments to site development or impose impacts on site improvements. After the plants had been embedded in the garden, a propane tank was removed from the garden to be replaced by another company's tank. The truck that removed the existing tank and delivered the replacement tank actually drove over one of the planting mounds. Fortunately, the only damage was a slight tire indentation in the soil and a broken irrigation line that was simple to repair. It could have been much worse!

Get to know the soil at the site and research the plants adapted to those particular growing conditions. If the site embodies only one soil type, try to arrange to develop planting areas of different soil types commonly found in your area.

In our case, the site's soil is red clay, embedded with an abundance of rocks of all sizes and therefore not very permeable. However, the NRCS had it tested and found that it has plenty of nutrients available to plants that can tolerate this kind of soil texture. In fact, we knew that many local native plants are adapted to clay soil and noticed the elderberry, toyon, redbud and oaks that were already established at this site, providing an opportunity to educate local landowners on which plants to maintain or add to this soil. We were fortunate that Granite Construction Company donated several truckloads of more permeable soils, allowing us to showcase plants that grow well in that type of substrate and giving us a more diverse grouping of native plants.

We also took advantage of the rocks in the clay soil by adding them to a planting mound retaining wall, demonstrating positive ways landowners can utilize these bulky minerals.

If accessibility is an issue, have an ADA specialist advise you on what you need to do before you begin the physical work. We would have been better served had we built into the grant a bulldozer to level the site before any other work began. It was literally an uphill battle trying to level the land mostly by pick and shovel. It was amazing that we didn't lose any volunteers after this back-breaking work! Thankfully, we had enough money budgeted in the grant to hire a contractor experienced in ADA requirements to complete the ADA-compliant pathway.

Interpretive signage and a brochure should be a priority when designing and planning a garden. These elements can really enhance the quality, beauty and professional look of the site.

We have been exceptionally pleased with the outcome of the completed interpretive panels for the garden and feel fortunate to have found such an amiable and talented designer dedicated to a quality product and outcome. However, we wish we had requested more money to afford us a full-color brochure instead of the one-color choice that we were financially limited to order.

Volunteers, donors and partners are the key to the success of your project. Make sure you have plenty of eager support that will be sustained over time before committing to any garden project. It is hard physical work!

Last, although this was never a problem for us, it is important to have a reliable water source to sustain the plants during the first few years or periods of drought. We tried to select only natives with high tolerance for drought and stayed away from riparian natives that always appreciate more irrigation throughout the year.

4. Indirect Impact :

Please describe any indirect benefits of the project such as information that has been developed as a result of the project is being used by several other organizations to improve decision-making, or a conservation easement funded by this grant that encouraged other landowners in the area to have conservation easements on their property.

The garden project has broadened the base of stakeholders by attracting them to a variety of activities that occur at the site. For example, the diversity of plants has attracted more bird life to the project site by enriching the habitat. Ever since the site was planted, the YAAS has included this garden when birding or participating in bird counts for Citizen Science surveys. The Yosemite Area Audubon Society (YAAS) board is currently exploring with its new education chair the possibility of staging environmental learning events and birding activities for students at the garden.

Curriculum based on California Academic Content Standards was developed to include school group visits to the site. The first visit during project development was by partner Woodland Elementary School's fourth-grade classes and was enthusiastically deemed a success by all involved.

UCCE Master Gardeners can also use this site to educate and identify plants in answer to local residents' inquiries.

The MCRCDD will offer garden tours to the Mariposa County Board of Supervisors and many local organizations to enlighten them about conservation issues important to the ecological health and sustainability of local natural resources. We are hopeful this garden and its educational materials will aid them in decisions that will affect residents and their future.

5. Collaboration and Conflict Resolution

If you worked in collaboration or cooperation with other organizations or institutions, describe those arrangements and their importance to the project. Also, describe if you encountered conflict in the project and how you dealt with it, or if there was conflict avoided as a result of the project.

One of the themes of the garden is the cultural and historical uses of local native plants by California Indians. Therefore it was important to partner with the American Indian Council of Mariposa County before the grant was approved to get their support. After the project got under way, we obtained a list of suggested plants important to the Indian community from the council. Several ensuing discussions with local Indian residents yielded information about the uses and significance of particular plants to past and present native people. Many of these plants were eventually incorporated into the garden.

To avoid any problems or misunderstandings, we asked the Indian Council to review and edit, if necessary, the draft text of the Native American interpretive panel during the development of the garden's interpretive signs. An MCRCDD board member (and garden volunteer) and I met with the Indian Council during one of their monthly meetings to seek their endorsement of the content and to correct any inaccuracies. It was understood from the outset of the project that the council's support and input on cultural uses and values of native plants were essential in both planning and planting that mound and to its interpretation.

Another partnership was solidified when the MCRCDD and Yosemite Area Audubon Society (YAAS) collaborated to present a program on some of the ways local Indian people used native plants, including many of the plants at the MCRCDD garden. This collaboration not only helped educate the public on native plants' cultural values, but also became another opportunity to inform community members on the goals and attributes of the garden project. Cultural interpreters Ben and Kimberly Cunningham-Summerfield of Midpines gave the presentation, which was well-attended and quite popular and further enhanced the reputation of YAAS programs.

Before the grant was awarded, the Xerces Society for Invertebrate Conservation offered to donate to the garden, should the project be funded, a sign (value: \$500) on local native bees. Xerces provided the MCRCDD with a couple of sign choices to educate garden visitors on the conservation needs of these crucial pollinators.

A barrier to fulfilling this commitment developed when we realized that the Xerces sign would be incompatible with the other six interpretive signs that had been created by a professional designer for the garden. Xerces agreed to allow the designer to create a sign on bees with the proviso that Xerces could first approve the text and the overall look of the sign.

This partnership with the Xerces Society further profited the MCRCD when two separate public presentations on native bees by Xerces spokeswomen were offered by the YAAS and, later, the NRCS.

The Xerces Society and its staff have been delightful to work with throughout the entirety of this four-year project.

6. Capacity-Building

SNC is interested in both the capacity of your organization, as well as local and regional capacity. Please describe the overall health of your organization including areas in need of assistance. SNC is interested in the strength and involvement of your board, significant changes to your staff, size and involvement of membership. In addition, describe how your project improved capabilities of partners, or the larger community.

Generally the health of the MCRCD is strong, but additional staff and funding to fulfill its needs is always welcome and would extend the reach, visibility and overall effectiveness of the organization. The MCRCD board has supported this project from the beginning and committed itself in accepting the grant agreement to maintain the garden for a minimum of ten years. Three of the four current board members have performed physical work in developing the garden; one has participated in virtually every phase of the project, contributing hundreds of hours over the past four years.

This project has helped enhance the reputation and public awareness of the RCD and its goals and conservation mission.

The creation of a native plant demonstration garden in close proximity to the MCRCD offices has been a long-time dream of the organization. This garden will assist the MCRCD in educating both a growing population of foothill residents and area visitors on the ecological adaptations, roles and values of native plants in conserving water, protecting water quality, stabilizing soils, controlling weeds, benefiting wildlife, attracting pollinators and enhancing fire safety. This heightened public awareness and the application of these precepts to home yards and gardens will enhance property values, reduce homeowner maintenance costs and help Mariposa County realize its long-term resource conservation goals.

7. Challenges

Did the project face internal or external challenges? How were they addressed? Describe each challenge and any actions that you took to address it. Was there something that SNC did or could have done to assist you? Did you have to change any of your key objectives in response to conditions "on the ground"?

On December 17, 2008, the Pooled Money Investment Board of the State of California suspended all grant-funded projects due to the California state budget crisis. At that time the MCRCD still had most of its advance funds available for the project. On April 17, 2008, we learned that the state had lifted the freeze on the use of remaining advance funds.

The four months that the project was frozen undid much of the work that we had accomplished before the suspension was ordered, necessitating remedial work when we resumed the project. In the beginning, the delay impacted the immediate availability of some key volunteers whom we needed to proceed with the project.

To solve this problem, I wrote and submitted articles to local newspapers and made presentations to community organizations promoting the garden and requesting volunteer help. Frequent emails to volunteers updating them on garden progress and the assistance needed encouraged previously faithful participants to re-engage and new volunteers to join the effort.

The Mariposa County Probation Department Community Service Work Program also provides work parties when needed. Eventually, other volunteers began to lend a hand.

Because of the four-month hiatus, we had to work constantly to "catch up" in order to prepare the site for a necessary fall planting schedule. It was imperative to put in the native plants at the correct time of year, the fall, to assure their success and survival. Our first planting day occurred on November 21, when we had 19 volunteers installing more than 100 plants. Two more planting days were scheduled before the freezing weather of winter arrived, and we embedded all the remaining plants.

One of the challenges was coordinating and reconciling differences in the needs and expectations of the Upper Merced River Watershed Council with those for this project. The UMRWC's co-located conservation landscaping project, funded by a separate grant, was completed years before the MCRCD demo garden, and some confusion about the two gardens located within the same small area emerged. However, with the demonstration garden now completed and the aid of interpretive exhibits and a brochure, distinguishing the discrete purposes of these two educational and complementary garden projects should be easier.

Physical challenges and realities posed by the project site were listed previously.

8. Photographs

Grantees are strongly encouraged to submit photos, slides or digital images whenever possible. These images will be used for SNC publications such as annual reports or on the website. Please make sure you clearly identify location, activity, and your project with each submitted image. Images will be credited to the submitting organization, unless specified otherwise.

Photos documenting the progress of the garden are included in a CD for this report.

9. Post Grant Plans

What are the post-grant plans for the project if it does not conclude with the grant? Include a description of the following (if applicable): (1) Changes in operations or scope; (2) Replication or use of findings; (3) Names of other organizations you expect to involve; (4) Plans to support the project financially, and; (5) Communication plans?

1. The proximity of the new garden to the MCRCD office will offer the opportunity to show customers at the annual native plant and wildflower seed sale fully grown specimens of some of the species featured at the sale and perhaps conduct short tours of the garden. The nearby location will also make it easier to answer some residents' inquiries about native plants by showing them those plants and providing them alternative ideas for natural landscaping.
2. Not applicable.
3. Most of the partners in the garden project will remain connected with the garden in various ways. As stated previously, the Mariposa County Probation Department will continue to bring community-service volunteers to the garden to weed and perform other ongoing tasks. The YAAS will continue to include the garden in some of its birding trips and educational outreach activities with both schools and adult groups. The MCRCD will continue to offer garden tours as part of the Mariposa Agri-nature Trail's annual Weekend in the Country. Even more than the MCRCD, the Master Gardeners will be able to capitalize on the garden's proximity to the MG office, also in the Ag Building at the fairgrounds, to help residents identify plants on their properties, understand how to nurture and maintain healthy plants and appreciate the benefits of gardening with natives. The UMRWC will continue to manage its adjacent conservation landscaping project, necessitating communication and coordination with the MCRCD.

We have offered the American Indian Council of Mariposa County the ongoing opportunity, in coordination with the MCRCD, to gather parts of plants with

traditional cultural values from the garden at seasonal times appropriate for collecting them. This selective culling will not only benefit the local Native American community, but should also enhance the health of the garden by thinning dense growth. We expect this use to continue indefinitely.

The MCRCD intends to engage two additional partners not involved up to this point. We will recruit the Mariposa-Yosemite Tourism Bureau to promote the garden as a tourist attraction and the Mariposa County Fire-safe Council to use the garden, specifically plants characterized as fire-resistant, to promote fire-safe landscaping.

4. The MCRCD can provide nominal funding for some maintenance, repairs and replacement, if needed, but we will have to rely primarily on volunteer support for most maintenance work. We will consider fundraising as a means of building financial support and possibly seek future grants.
5. The MCRCD will promote the garden on its website, through links on partners' websites, through the Mariposa-Yosemite Tourism Bureau, articles in local and regional media, publicity at public meetings and events, presentations to community organizations and scheduled site visits and tours.

10. Post Grant Contact

Who can be contacted a few years from now to follow up on the project? Please provide name and contact information.

MCRCD Manager Pat Garcia
(209) 966-3431

SNC-approved Performance Measures: (Please list each Performance Measure for your Project, as identified in your Grant Agreement, and the results/outcomes.)

At the time this grant was awarded, performance measures were not required or identified in the agreement.

Final Performance Report:

The Grantee shall provide a final performance report to the SNC as specified in the Project Schedule in Exhibit "A." The report shall include, but not be limited to the following:

1. Resources leveraged:

- a. Resources leveraged to complete this Project (matching funds, in-kind contributions, etc.)

NRCS district conservationist Dawn Afman provided soil analysis, technical expertise and advice on the garden site before planting. She also partnered with the MCRCD in promoting and putting together a community workshop on pollinators by contacting the Xerces Society and obtaining a speaker for the all-day event.

NRCS technical expertise was valued at \$35 for 40 hours:	\$1,400
Soil analysis:	35
Total value of in-kind services:	\$1,435

The Chrysalis Institute built a papercrete retaining wall around a circular planting mound valued at: **\$273**

A local stone mason donated large boulders, his skill and time. He built two retaining walls in about three days at a labor rate of \$35/hour. The value of this contribution is estimated at: **\$1,300**

Granite Construction Company donated four truckloads of soil to create planting mounds at the garden valued at:	\$1,000
This company also provided weed block cloth for the pathway:	250
Total value:	\$1,250

A local crane operator (\$100 per hour) and two workers transported granite boulders to accent the garden and placed them at the project site. Value:	\$1,000
He also donated five yards of wood-chip mulch worth \$30 per yard, plus \$50 delivery, valued at:	\$200
Total value:	\$1,200

A local property owner donated two truckloads of fine wood chips that two workers hauled to the site (six hours each at \$20/hour) early in the garden's development. Value:	\$570
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Yosemite Area Audubon Society (YAAS) donated a memorial sign, arbor and bench for:	\$1,000
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Exhibit B - Sierra Nevada Foothills Native Plant Demonstration Garden - Agreement No. G0743004

The Xerces Society for Invertebrate Conservation donated an exhibit panel on native bee conservation valued at: **\$500**

Xerces also presented an in-kind workshop early in the project in partnership with the MCRCD and YAAS, valued at: **\$850**

Total value of Xerces contributions: **\$1,350**

Intermountain Nursery sold us native plants at wholesale prices and delivered the plants free of charge. Total savings amounted to: **\$448**

California Native Plant Society (CNPS) members and community residents donated up to 31 plants and local wildflower seeds, valued at: **\$263**

Author/illustrator John Muir Laws donated use of four oak leaf illustrations for an interpretive sign and brochure. Value: \$150 each. Total value: **\$600**

A contractor offered his services at \$40/hour to build a wooden retaining wall and install donated t-posts plus use of his truck to deliver supplies. Value: **\$256**

The Mariposa County Juvenile Probation Community Service Program committed 441 hours to the garden project, valued at \$12/hour. Total value: **\$5,292**

Community volunteers plus probation community-service crews provided approximately 1,500 hours to the garden project from its inception in spring 2008 through February 2012. The public volunteers worked 1,059 hours during this time. The value of this volunteer work for the state of California is worth: **\$22,239**

A professional ADA specialist helped design the accessible walkway for the garden at \$75/hour. In-kind service valued at: **\$375**

MCRCD board chair Glenn Franklin planned, designed and, with assistance, installed the garden irrigation system and contributed to planting plans and other garden establishment processes at an in-kind value of \$35/hour. Value: **\$4,500**

Len McKenzie, MCRCD board chair when the project commenced and currently its treasurer, contributed an estimated 100 hours of writing and editing the interpretive panels and brochure at an in-kind value of \$75/hour. **\$7,500**

The MCRCD donated wildflower and California poppy seeds valued at \$54 and eight deergrasses to the garden. Value: **\$118**

One couple and one organization gave monetary donations totaling: **\$150**

Coldwell Banker Mountain Leisure Properties donated a holder to contain the brochures. Value: **\$20**

The Upper Merced River Watershed Council (UMRWC) created a smaller, complementary garden at the project site earlier in 2008 with a grant funded by the Sierra Nevada Alliance. The grant totaled: **\$22,000**

In-kind services grand total: **\$72,139**

b. Resources leveraged as a result of this Project.

NRCS and the Xerces Society for Invertebrate Conservation have been partners for many years, advocating the conservation of native bees and other pollinators. The relationship between the MCRCD and NRCS was strengthened through the creation of the garden and access to Xerces. Both organizations can utilize the garden to show clients examples of plants that provide rich nectar sources for local pollinators.

The Xerces Society's conservation message has been incorporated into the garden through signage and references about pollinators in the brochure. Conservation of our local wildlife populations and educating the public on the values of these actions is an integral component of the MCRCD and Xerces missions. This new partnership is one we respect and look forward to maintaining for mutual benefits into the future.

The Mariposa County Juvenile Probation Community Service Program was an important partner from the beginning of this garden project and made a substantial difference in the work that was accomplished. The MCRCD and Probation are committed to working together now and into the future to help weed, mulch, replace plants as needed, clean up and maintain the garden site. The MCRCD recognizes that it will always depend on volunteers to keep up the garden, and Probation needs a place it can consistently go to allow its work crews to earn needed community-service hours. This win-win relationship has been strengthened over the years by good experiences working side by side at the project site, and we both look forward to continuing this positive partnership.

The MCRCD has gained, over the life of the project, a strong and dependable community-based volunteer corps. We expect to continue recruiting garden volunteers through media announcements, on the MCRCD and other websites, at events such as the Mariposa County Fair and each time we give a public tour, workshop or presentation. Mariposa seems to have a strong volunteer pool, and many people are interested in supporting a project that exemplifies so many natural resource values. People seem to enjoy working outside and learning about the plants and associated wildlife around them. The more workshops, presentations and tours the MCRCD can offer, the more volunteers we will attract, enabling us not only to maintain the garden at a high level of quality, but also to further our mission of educating the public while increasing the organization's visibility and profile. Another win-win!

The UMRWC and the MCRCD share garden space at the project site surrounding the SNC office. Both gardens benefit one another with their similar messages about water conservation and water quality. Both the UMRWC and the MCRCD have worked

together to promote the values of both gardens at many workshops and events and will continue to do so.

CNPS and community members interested in indigenous plants have been supportive of this project from its inception. Not only have they contributed local native plants, but also advice on gardening with natives and how to set up and design a garden. CNPS especially appreciates this garden for its public educational value and has promised to continue promoting and supporting it.

Noted artist and naturalist John Muir Laws has made his artwork available to this project and, in the process, has added beauty, realism and gravitas to the project's sign and brochure. His sincere interest in and knowledge of the flora and fauna of our region--the Sierra Nevada--as well as his generous offer to share his artwork, without charge, to support our project has made him a valued and dependable partner. We expect, if necessary or needed, to be able to continue this kind of relationship with him for not only the garden, but for other future interpretive projects.

2. Impact on collaboration and cooperation among stakeholders:

a. Number of people/entities involved in Project.

Approximately 203 people were involved in the project and 23 businesses/entities.

b. Increased cooperation/decreased conflict among stakeholders.

This project has established or further strengthened relationships and increased cooperation between the MCRCD and all of the partners listed in the grant agreement and interpretive brochure, particularly the SNC, the Mariposa County Fairgrounds, the NRCS, the Mariposa County Juvenile Probation Community Service Program and the American Indian Council of Mariposa County.

One of the themes of the garden is cultural uses of local native plants by California Indians. Therefore it was important to partner with the American Indian Council of Mariposa County before the grant was approved to get their support. After the project got under way, we obtained from the council a list of suggested plants important to the Indian community. Several ensuing discussions with local Indian residents yielded information about the uses and significance of particular plants to past and present native people. Many of these plants were eventually incorporated into the garden.

To avoid any problems or misunderstandings, we asked the Indian Council to review and edit, if necessary, the draft text of the Native American interpretive panel during the development of the garden's interpretive signs. An MCRCD board member (and garden volunteer) and I met with the Indian Council during one of their monthly meetings to seek their endorsement of the content and to correct any inaccuracies. It was understood from the outset of the project that the council's support and input on cultural uses and

values of native plants were essential in both planning and planting that mound and to its interpretation.

We also allayed a misunderstanding with garden partners UCCE Master Gardeners, who are authorized only to educate the public but may not perform physical work on projects other than those directly sponsored by the MGS, by agreeing to their participation in their authorized capacity, but not requiring their physical participation. Nonetheless, several MGS volunteered their physical labor as individuals rather than as MGS.

Another partnership was solidified when the MCRCD and Yosemite Area Audubon Society (YAAS) collaborated to present a program on some of the ways local Indian people used native plants, including many of the plants at the MCRCD garden. This collaboration not only helped educate the public on native plants' cultural values, but also became another opportunity to inform community members on the goals and attributes of the garden project. Cultural interpreters Ben And Kimberly Cunningham-Summerfield of Midpines gave the well-attended presentation, which further enhanced the reputation of YAAS programs.

Before the grant was awarded, the Xerces Society for Invertebrate Conservation offered to donate to the garden, should the project be funded, an interpretive sign (value: \$500) on local native bees. Xerces provided the MCRCD with a couple of sign choices to educate garden visitors on the conservation needs of these crucial pollinators.

A barrier to fulfilling this commitment developed when we realized that the Xerces sign would be incompatible with the other six interpretive signs created by a professional designer. Xerces agreed to allow the designer to create a sign on bees with the proviso that Xerces could first approve the text and the overall look of the sign.

This partnership with the Xerces Society further profited the MCRCD when two separate public presentations on native bees by Xerces spokeswomen were offered by the YAAS and, later, the NRCS.

3. Capacity-building within region.

- a. Description of how completion of this Project improved capabilities of grant recipients, partners, or larger community.

This project perfectly exemplifies the MCRCD's goals and mission and therefore helps define this organization's role and place within the community. Conservation goals the MCRCD tries to achieve through community outreach include erosion-control methods, maintaining water quality, water conservation, enhancing wildlife habitat by protecting native plants, fire-safety issues, eradication of invasive weeds, etc. The demonstration garden addresses all of these issues, and its proximity to the MCRCD's office will serve the organization in educating the community on natural-resource conservation issues. The MCRCD is not a regulatory authority and always strives to educate the public to help

transform problems into solutions that benefit all living things. The easily accessible garden will help reinforce the MCRCD's conservation messages and heighten its public visibility.

As people become more knowledgeable and interested in the conservation values of native plants, local nurseries and other plant vendors will likely benefit from an increased demand for some of these plants and the resulting revenue. Ideally, more people will be influenced by the water-saving attributes of many native plants showcased at this garden and will plant them to conserve water.

Tourism is Mariposa County's economic engine and its primary source of business growth and financial sustainability. This new garden site is a welcome addition to the tourist-drawing Agri-nature Trail event and will always be included on the list of attractions for tourists and residents to visit during this popular weekend. The UCCE Master Gardeners are also planning to use this garden as a tour attraction during the 2014 California Master Gardeners Conference, bringing in around 600 participants to Mariposa. The community of Mariposa will always benefit when tourists visit this educational garden.

To aid in attracting tourists and to give the MCRCD more visibility, the garden has inspired the MCRCD board and staff to work on developing a website describing the many virtues of this garden. This will further enhance the goals and influence of the MCRCD in this community as well as throughout California.

The MCRCD project manager and a garden volunteer, a retired educator, have developed California standards-based curriculum for fourth-grade students, and several lesson plans for other grades have been collected for use by educators. The garden will always be available to students and teachers to enhance learning through hands-on experiences. The Yosemite Area Audubon Society, Upper Merced River Watershed Council, UCCE 4H and the California Native Plant Society are just a few of the organizations that have voiced interest in educating youth at this site.

The MCRCD has always supported the efforts and goals of the Mariposa County Fire Safe Council in educating residents on maintaining their properties with fire-safe landscaping. The garden provides another tool for the two organizations to work together in promoting that goal. Residents interested in using fire-resistant native plants can use the garden and its complementary brochure to discover some of those plants.

4. One-page description of Project accomplishments:

- a. The intent of this project was simple: To develop a demonstration garden that displays a diversity of plants native to the central Sierra Nevada foothills and interprets their values for the enjoyment and education of Mariposa County residents and visitors. The project has fulfilled that goal in a publicly accessible area, the purest measure of success. Over four years, a host of volunteers, directed by staff and supported by a number of donors and project partners, transformed a barren site to an illuminating showcase of 65 species

of indigenous flora. Professionally designed and produced wayside exhibits and a supplemental plant identification guide interpret those plants' values. The successful completion of the project will directly benefit all visitors to the garden by enriching their experience. Moreover, it will benefit the local community of property owners and gardeners who will learn about and take home the time-, labor- and money-saving benefits of gardening and landscaping with natives; the local Indian community who will be allowed to gather culturally important plants and plant parts seasonally; tourists who will find another attraction in Mariposa; and the local tourism industry and Mariposa County, both of which will benefit financially from potential revenue.

- b. Indirect beneficiaries of this project, addressed under item 4 in the final report, include local schools that will bring classes to the garden for experiential learning; the Mariposa County Fairgrounds, which now has an enhanced, more inviting site for visitors; the MCRCDD staff and UCCE Master Gardeners, whose office proximity to the garden will help them acquaint residents with native plants; and organizations such as the Yosemite Area Audubon Society, now drawn to the garden and its enriched variety of birds for field trips and citizen-science surveys. The YAAS will likely include the garden in an expanded school outreach program.
 - c. Item 2, "WOW Factor," in the final report highlights several especially gratifying experiences and noteworthy events during the term of the project. The community's response to calls for partner, donor and volunteer support and involvement was heartening and instrumental in assuring a successful outcome. The volunteers' productive achievements led to unanticipated recognition as the NRCS's Earth Team Volunteers of the Year award for the State of California in 2010. A singularly positive experience was the enthusiastic participation of the Woodland Elementary School fourth-graders in the plant-identification exercise during their garden visit. The superlative design and production quality of the interpretive signs has added a hugely positive dimension to the project. But perhaps what gives me "goose bumps" more than these incremental accomplishments is the metamorphosis we witnessed in bringing this previously blighted site to life and creating a new community asset.
 - d. Lessons learned in this project are cited in detail in item 3 of the final report. In-depth site evaluation--its land-use history, its physical attributes and idiosyncrasies, actual and potential challenges in site development and management (e.g., flooding during heavy rainstorms, grading issues), locations of utility lines and services, soil profiles and ecological conditions and dynamics--is crucial for effective project planning and implementation. In retrospect, a more detailed site investigation and background research would have anticipated some of the eventual problems and enabled me to address the causes before they materialized as issues. Addressing the grade issues earlier would have prompted me to request additional funds to level the site with heavy equipment before other work commenced to facilitate accessibility compliance.
5. Describe the type and number of stakeholder groups involved and estimate the number of volunteer hours worked.

Exhibit B - Sierra Nevada Foothills Native Plant Demonstration Garden - Agreement No. G0743004

There were 58 volunteers comprising a diverse mix of people--contractors, botanists, artists, teachers, small-business owners, full-time and part-time workers, and retirees. Altogether they contributed an estimated 1,059 hours to the project.

The Mariposa County Probation Community Service Program involved about 65 people who earned community-service hours totaling 441 hours at the garden from spring 2008 to late 2011.

Combined, these two groups totaled 123 people who contributed about 1,500 hours.

The 23 businesses and organizations involved in the project include:

Woodland Elementary School (47 students contributed temporary plant identification cards after visiting the garden site), Chrysalis Institute, Granite Construction Company, Intermountain Nursery, Evans Tree Service, Foster True Value Hardware, Bootjack Equipment Rental and Feed, The Homestead in Ahwahnee, Coldwell Banker Mountain Leisure Properties, Yosemite Gateway District of California Garden Clubs, National Park Service--Yosemite Museum, National Park Service--Yosemite Research Library, California Native Garden Foundation, Sierra Foothills Chapter of the California Native Plant Society, American Indian Council of Mariposa County, Mariposa County 4H, UCCE Mariposa County Master Gardeners, Mariposa Agri-nature Trail ("Weekend in the Country"), Upper Merced River Watershed Council, USDA Natural Resources Conservation Service, Mariposa County Juvenile Probation Community Service Program, Mariposa County Fairgrounds and Sierra Nevada Conservancy, whose office the garden embraces.

6. Number of visitors to the garden for educational, recreational, and tourism purposes.

In June 2010 two fourth-grade classes numbering 47 students, two teachers and a handful of parents visited the garden for state standards-based lessons on botany and pollinators.

In 2010 a total of 24 people took two guided tours of the garden-in-progress during the Agri-nature Trail's "Weekend in the Country." Numbers of other people visited the garden on their own during that weekend event.

Other visitors learning about the many values of native plants included three 4H participants, two John Muir Festival docents, eight garden docent trainees, one Mariposa County Supervisor, ten local residents and six Master Gardeners.

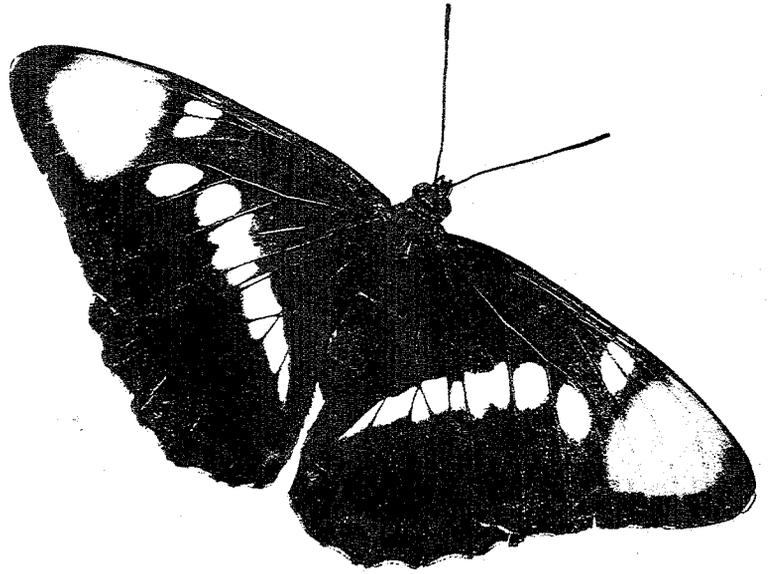
One California native plant author visited the site during its early stages and made recommendations. Two Xerces Society employees visited the garden during different project development times to give advice and support.

Another educational event brought 25 attendees to the garden when the Upper Merced River Watershed Council partnered with the MCRCD, Intermountain Nursery and the UCCE Master Gardeners to host a workshop on gardening with natives.

Before the garden was completed, 138-plus people visited the project site.

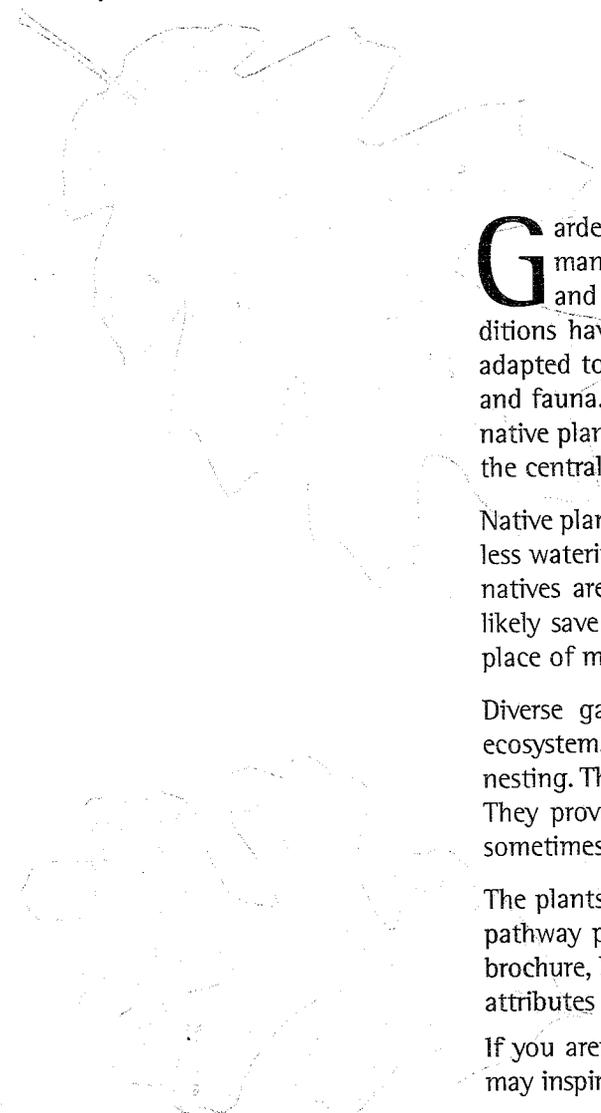
Plant Identification Guide

to the Sierra Nevada Foothills Native Plant Demonstration Garden



*“When we try to pick out
anything by itself, we find
it hitched to everything
else in the universe.”*

John Muir



Gardening with plants native to an area, or natural landscaping, offers many benefits, both to the gardener and to the ecological dynamics in and around the garden setting. Wherever you live, unless the natural conditions have been substantially altered, the indigenous plants of that area are adapted to its climate, geography, soils, water availability and other native flora and fauna. This demonstration garden showcases a diversity of drought-tolerant native plants adapted to the Mediterranean climate and other natural rhythms of the central Sierra Nevada foothills.

Native plant gardens and home landscapes generally thrive with less maintenance, less watering, fewer if any soil amendments, and no pesticides or fertilizers since natives are more resistant to local pests and diseases. Natural landscaping will likely save you time, labor and money. Native ground covers can even take the place of manicured turf, beautifying and enriching your yard.

Diverse gardens and landscapes mimic a sustainable natural community, or ecosystem. They afford habitat for wildlife, meeting animals' needs for shelter and nesting. They attract native pollinators such as bees, butterflies and hummingbirds. They provide seeds, nuts, fruits and other edibles for birds, other wildlife and sometimes people. They stabilize soil, conserve water and protect water quality.

The plants in this garden exemplify those qualities. Interpretive panels along the pathway present an overview of the plants' ecological and cultural values. This brochure, keyed to numbered stakes, identifies the specific plants, describing their attributes and adaptations in more detail.

If you aren't already going native with plants in your yard or garden, this walk may inspire you to discover the joys and benefits of natural landscaping.

EXPLANATORY NOTES:

An asterisk (*) behind a plant name indicates the plant is especially drought-tolerant.

The term endemic in a description means that plant's natural distribution is restricted to the area cited.

Plants described as fire-resistant are not fire-proof. All plants burn, but those with moist, supple leaves; watery (rather than resinous) sap; and little dead material are less flammable and slower to catch fire. Proper spacing, pruning, watering when needed and prompt removal of dead plant parts reduce any plant's vulnerability to fire, but it is not necessary to remove all vegetation to create a fire-safe landscape.

A generous 2008 grant from the Sierra Nevada Conservancy to the Mariposa County Resource Conservation District, the project sponsor, funded the development of this garden under the direction of project manager Kris Randal.



MARIPOSA COUNTY



RESOURCE
CONSERVATION DISTRICT

Common Plant Name Scientific Name		Plant Values Garden; Wildlife; Native American Uses
1	Alumroot <i>Heuchera micrantha</i>	Dry shade under oaks; flowers attract hummingbirds; winter greens for Native Americans.
2	Purple Haze Aster <i>Aster chilensis</i>	Good erosion control on slopes. Vigorous spreader via rhizomes, to 2 feet tall or more; fall flowers attract butterflies and bees.
3	Western Mountain Aster <i>Aster occidentalis</i>	Same as above.
4	Blue-eyed Grass <i>Sisyrinchium bellum</i>	Blooms early to late spring. Spreads by seeds; good in meadows or between larger plants. Tolerates clay soils. Good in dry conditions, but can take some water. Fire-resistant.
5	Buckbrush* <i>Ceanothus cuneatus</i>	Dry conditions; white, fragrant, early-spring blossoms attract pollinators. Roots stabilize and add nitrogen to poor soils. Elevation up to 6,000 feet. Provides habitat and food to birds and deer. Native American baskets, cradleboards and seedbeaters.
6	Nude Buckwheat* <i>Eriogonum nudum</i>	Good in rock gardens; like all buckwheats, its flowers provide rich source of nectar to bees. Blooms in summer.
7	Sulfur-flower Buckwheat <i>E. umbellatum 'Shasta'</i>	Ground cover, up to 18" tall, eventually spreads to 5 feet. Good in full sun, but tolerates some shade. Winter leaves may turn reddish; yellow, compact flowers (mid- to late spring) attract pollinators.
8	Tripod Buckwheat* <i>E. tripodum</i>	California endemic that can be used as ground cover on serpentine soils. Yellow summer blooms offer copious nectar to native bees.
9	Wright's Buckwheat* <i>E. wrightii</i>	Dry, rocky areas or rock gardens. Silver-leafed; small white blooms offer pollinators nectar summer to fall.
10	Bush Anemone <i>Carpenteria californica</i>	Evergreen flowering shrub endemic to Fresno County. Favors afternoon shade. Large, white, fragrant flowers with yellow centers attract pollinators.
11	California Barberry <i>Berberis dictyota</i>	Endemic shrub that grows in dry, rocky places. Plant in background as an edger because of its thick, spiny leaves. Yellow flowers in March and April. Bluish berries attract wildlife, esp. birds.
12	California Bay Laurel <i>Umbellularia californica</i>	Avocado family; pale yellow, fragrant flowers in winter; one-seeded fruit attracts wildlife. California Indians roasted the edible seeds; aromatic leaves repelled insects from acorn granaries; used wood as tool.
13	California Buckeye* <i>Aesculus californica</i>	Elevation up to 4,000 feet. Small tree; apple-green leaves in late winter, fragrant flowers in late spring. In fall ornament-like seedpods hang from branches. Pale, bare branches beautify winter days. Nectar consumed by native pollinators, but toxic to European honeybees. Calcium-rich, dead, brown leaves eaten by pregnant mule deer. Indians mashed toxic seedpods to aid in capturing fish, but leached out toxin to eat pods when acorn crops were lean; used wood as fire drill.
14	California Coffeeberry <i>Rhamnus californica</i>	Elevation 1,000 to 7,000 feet; sun to partial shade. Adapted to many soil types, but favors good drainage. Summer berries change color, from green to purple to black, as they ripen in fall; relished by birds, esp. band-tailed pigeons. Tiny, nectar-rich flowers popular with pollinators. Fire-resistant.
15	California Fuchsia* <i>Epilobium canum</i>	Formerly known as <i>Zauschneria</i> . Grows best in gravelly, rocky soils with good drainage. May need occasional water during extended hot weather. Attractive in rock gardens or near boulders; can be slightly invasive. Listed as fire-resistant. Cut back in winter. Red, tubular flowers (August - November) provide nectar to migrating hummingbirds.
16	California Fuchsia 'Select Mattole' <i>Epilobium septentrionale</i>	Similar growing needs as above, but does best with some summer water. Lower-growing, spreads out to 3 feet with silver foliage and orange flowers. Attractive along rock walls and raised beds.
17	California Poppy <i>Eschscholzia californica</i>	California's state flower. Orange, glossy-petaled wildflower spreads by seeds; good in meadows; fire-resistant. Long taproot helps control erosion. Offers no nectar, but abundant pollen attracts bees and beetles. Native Americans used plant parts in cooking, medicinally and for grooming.

Common Plant Name Scientific Name	Plant Values Garden; Wildlife; Native American Uses
18 California Grape 'Roger Red' <i>Vitis californica</i>	Grapevines thrive on fence or large trellis. Red fall foliage. Fire-resistant. Fruit attractive to birds and other wildlife. Used as food and twine by Native Americans.
19 California Wild Rose <i>Rosa californica</i>	Rambling, spiny plant; best in wild and natural areas. Adapted to clay soils; useful for erosion control and barriers. Displays attractive, fragrant pink blossoms from spring to summer and orange rose hips in fall. Thickets offer food and nest protection for towhees and other birds. Used by California Indians as food and fire drill.
20 Chia <i>Salvia columbariae</i>	Annual; blue flowers embedded within rounded head of stiff, purple bracts. Visited by bees; high-energy seeds eaten by California Indians.
21 Sticky Cinquefoil <i>Potentilla glandulosa</i>	Adaptable to many soil types in sun or shade. Yellow-flowering perennial (rose family) attracts various pollinators.
22 Chaparral Clematis <i>Clematis lasiantha</i>	18-foot vine for trellis or fence. Attractive white flowers and fuzzy seed heads from summer to fall. Pollinators visit late-spring flowers.
23 Coyote Brush 'Pigeon Point' <i>Baccharis pilularis</i>	Deer-resistant, 2-foot-tall, 5-foot-wide ground cover that grows quickly. Habitat value for wildlife. Small October-blooming flowers offer many pollinators nectar in late fall.
24 Coyote Mint <i>Monardella villosa</i>	Grows best in dry, rocky areas. Fragrant, minty leaves. Butterflies and other pollinators visit purplish to white flowers (June - August).
25 Deergrass <i>Muhlenbergia rigens</i>	Striking, large bunchgrass. Grows best in full sun with some water, but can tolerate dry conditions. Controls erosion on slopes and in areas that flood. Deer-resistant. Habitat for bumblebees, butterflies, hibernating ladybugs and lizards. Where grass is abundant, deer find shelter for bedding and birthing. Indians used flowering stalks to make water-tight baskets.
26 Elderberry <i>Sambucus mexicana</i>	Usually multi-trunked tree or shrub; grows best with some water. Most plant parts poisonous, but fully ripe, bluish berries can be made into jams. Pollinators flock to cream-colored flowers; many birds relish summertime fruit. Indian people savor berries; use pithy stems and branches for flutes and musical clappers and as fire drills.
27 Idaho Fescue <i>Festuca idahoensis</i>	Attractive, small bunchgrass; does best in well-drained soils in sun to partial shade.
28 Flannel Bush* <i>Fremontodendron californicum</i>	Keep water away from trunk during first year and don't overwater. After first year, ignore plant and don't water. Plant in background or wild areas. May need to cage from deer until plant is large. Showy, waxy, yellow flowers (May) attract pollinators and complement blue flowers of some <i>Ceanothus</i> species. Indian uses include cordage and tools.
29 Bitter Gooseberry <i>Ribes amarum</i>	Grows well under oaks. Late winter-blooming, fuchsia-like flowers decorate spiny, arching branches. Flowers provide nectar for Anna's hummingbirds. Indians charred spines from gooseberry fruit to eat.
30 Chaparral Honeysuckle <i>Lonicera interrupta</i>	Elevation 1,000 to 6,000 feet. Vine could cover an arbor. Yellow tubular flowers attract hummingbirds and other pollinators; orange berries eaten by birds and other wildlife. Stems used in Native American baskets.
31 Parry's Horkelia <i>Horkelia parryi</i>	Small ground cover endemic to California. Grows naturally in Sierra Nevada foothills chaparral. Grow it between stepping stones in afternoon shade. Rose family; small white flowers attract native bees and other pollinators.
32 Incense Cedar <i>Calocedrus decurrens</i>	Attractive, tall evergreen tree grows at least 1 foot/year once established. Adaptable to many soil types, but prefers well-drained. Bark and foliage emit spicy fragrance. Offers dense cover, nesting sites and insect foraging for birds. Indians used large slabs of bark for their shelters (<i>um-a-chas</i>) and branches to shield acorn granaries from rain and snow.
33 Indian Hemp <i>Apocynum cannabinum</i>	One of few wetland natives featured in this garden; can take over in moist areas. Small flowers in summer provide pollinators with nectar; Indians value this plant for basketry, cordage and tools.

Common Plant Name Scientific Name	Plant Values Garden; Wildlife; Native American Uses
34 Canyon Live-forever* <i>Dudleya cymosa</i>	Find this plant growing between stones in rock wall of the Native American planting mound, mimicking its natural affinity for local canyons' vertical rock faces. Also thrives in rock gardens with no summer water. Fire-resistant. Red-yellow flowers favored by hummingbirds.
35 Silver Bush Lupine* <i>Lupinus albifrons</i>	Too much water will kill this plant. Silver foliage contrasts with violet flower spires in spring. Does best with good drainage and rocky soils. Attracts native bees and hummingbirds.
36 Manzanita 'Green Supreme' <i>Arctostaphylos sp.</i>	Low-growing ground cover; up to 5-foot spread. Deer-resistant and can grow in clay soils. Grows well near oaks.
37 Mariposa Manzanita* <i>A. viscida</i>	Beautiful red-barked shrub with pale green leaves and dainty pink to white flowers; Anna's hummingbirds depend on nectar-rich, late-winter to early-spring blossoms and favor them over feeders. Sticky berries feed variety of birds and other wildlife. Indians consumed berries as food and drink.
38 Narrow-leaf Milkweed <i>Asclepias fascicularis</i>	This perennial dies back in winter and returns each spring. Use in more natural or wild areas of garden. One of many foothill varieties of milkweeds, sole food of monarch butterfly. Attracts variety of pollinators. Indians timed seasonal harvest of this plant to get greens, cordage and medicine.
39 Showy Milkweed <i>A. speciosa</i>	Big, fuzzy, whitish leaves. Grows commonly in Yosemite Valley. Like all milkweeds, tied to survival of monarch butterfly. More group plantings of milkweeds could ensure survival of this magnificent insect.
40 Mock Orange 'Desert Snow' <i>Philadelphus lewisii</i>	6' x 6' shrub for sun or partial shade; accepts regular water or dry conditions. Fragrant white flowers (May) attract butterflies and native bees.
41 Mountain Mahogany <i>Cercocarpus betuloides</i>	Use as hedge or screen; can prune. Curled, fuzzy, silver seeds offer fall beauty when backlit. Small flowers important to native pollinators. Indian women used stem as digging stick for prying wildflower bulbs out of soil.
42 Mugwort <i>Artemisia douglasiana</i>	Tolerates shade and heavy soil. Can cut back to base in winter. Indians used leaves as poison oak remedy, insect repellent and in ceremonies.
43 Purple Needlegrass <i>Nassella pulchra</i>	California's state grass. This bunchgrass is good for sowing in wild meadows or for erosion control. Indians collected seeds for food.
44 Blue Oak* <i>Quercus douglasii</i>	Keep summer irrigation, soil compaction and trenching away from this tree. Keystone species that offers habitat, shelter, nesting sites and food for large diversity of wildlife. Indians used wood as fire drill. Endemic to California.
45 Interior Live Oak <i>Q. wislizenii</i>	Same as above. Evergreen oak provides winter protection and foraging areas for birds and other wildlife. All oaks are important for acorn crops. Indians regularly burned around oaks to improve acorn production.
46 Oregon Grape 'Compacta' <i>Berberis aquifolium</i>	Thrives in all soils; grows slowly via rhizomes. 'Compacta' is a clumping ground cover 1 to 3 feet tall in sun to shade. Oregon-grape ground covers are good around oaks in dry shade and are fire-resistant. Copper foliage in spring.
47 Creeping Oregon Grape <i>B. a. var. repens</i>	1- to 2-foot ground cover with late-winter yellow flowers followed by purple edible fruit. Good for wildlife habitat. Indians used roots medicinally.
48 Azure Penstemon <i>Penstemon azureus</i>	Needs good drainage and some summer water. Fire-resistant. Brilliant blue, tubular flowers attract hummingbirds and native bees.
49 Firecracker Penstemon <i>P. eatonii</i>	Needs good drainage and some water. Bright red flowers favored by hummingbirds; blooms for several months.
50 Foothill Penstemon <i>P. heterophyllus</i>	Grows naturally in dry, rocky areas. Does well in rock gardens and mixed borders. Tolerates heavy soils and summer water. Beautiful blue to purple flowers attract hummingbirds and native bees.
51 Gay Penstemon <i>P. laetus</i>	Needs good drainage. Can take some water, but keep on dry side. Rock gardens. Blue-violet to lavender flowers attract hummingbirds.

Common Plant Name Scientific Name	Plant Values Garden; Wildlife; Native American Uses
52 Pitcher Sage* <i>Lepechinia calycina</i>	Large white to light-pink tubular flowers. Fuzzy foliage has sage fragrance. Grow on hot, dry slopes or in shade of oak. Adapts to many soil types but favors well-drained.
53 Rabbitbrush* <i>Chrysothamnus nauseosus</i>	Silver foliage contrasts with darker greens of other native plants with low water requirements. Superb in butterfly garden. Attracts variety of butterflies in late fall.
54 Threadleaf Ragwort* <i>Senecio flaccidus</i>	Grows in dry, rocky areas. Sunny yellow flowers (July to October) extend season for butterflies to sip nectar.
55 Redberry <i>Rhamnus ilicifolia</i>	Sometimes mistaken for scrub oak, this small, evergreen shrub often grows near shade of oaks. Tiny green flowers appear on female plants only in March and April and attract host of native pollinators. Glistening red berries in July offer food to variety of birds.
56 'Bee's Bliss' Sage <i>S. clevelandii x sonomensis</i>	Fast-growing ground cover up to 1 foot high and 8 feet wide. Deer-resistant. Drought-tolerant, but gray-green leaves look best with occasional water. Prolific lavender flowers attract hummingbirds and bumblebees in spring.
57 Creeping Sage <i>Salvia sonomensis</i>	Low-growing, creeping ground cover that looks best in afternoon shade. Drought-tolerant; can be grown near oaks if not watered more than once a month. Deer-resistant. Bluish flowers attract hummingbirds and bees.
58 Snowberry <i>Symphoricarpos acutus</i>	Ground cover under shade of trees; adaptable to many soil types. Small white to pink flowers attract native pollinators; white berries feed quail and other birds.
59 Soap Root* <i>Chlorogalum pomeridianum</i>	Large, hairy bulb dormant in winter. In summer, sends up tall, airy stems with small, white lily flowers that open in afternoon. Indian uses are numerous: soap, cooked as food, brush tool.
60 Sourberry <i>Rhus trilobata</i>	Leaves similar to poison oak, but sourberry's middle leaflet lacks long stem. Instead, its 3 leaflets touch. Eventually forms large groupings of plants. Chartreuse flowers attractive with redbud flowers; good wildlife habitat. Birds feed on berries. Important basketry plant for Indians; berries for food and drink.
61 Toyon/California Holly <i>Heteromeles arbutifolia</i>	Attractive, evergreen shrub; once covered Hollywood Hills, hence the name. Grows in most soil types; white flowers in spring rated as top pollinator attractor. Red berries in winter feed array of birds. Indians cooked berries, used other parts for medicine.
62 Western Blue Flax <i>Linum lewisii</i>	Beautiful blue flowers topping wiry stems give airy, delicate look to garden. Reseeds easily; good in meadows and wildflower areas.
63 Western Redbud <i>Cercis occidentalis</i>	All-season beauty, especially magenta spring blossoms and fall color of heart-shaped leaves. Provides nectar to migrating and local hummingbirds, butterflies and bumblebees. Important basketry plant for Native Americans.
64 Woolly Leaf Mountain Lilac* <i>Ceanothus tomentosus</i>	Brilliant blue flowers cover this evergreen shrub in late spring. Attracts many pollinators.
65 Common Yarrow <i>Achillea millefolium</i>	Can be invasive, but makes great lawn substitute, taking less water and no fertilizers or chemicals. Mow after seeds set. Fire-resistant. Flowers attract diversity of beneficial insects. Plant known to have medicinal properties.

*The Mariposa County Resource Conservation District and project creator and manager
Kris Randal gratefully acknowledge the generous contributions and support from the
following project partners and donors:*

Special thanks to the Yosemite Area Audubon Society for its \$1,000 donation in memory of YAAS founder Jean Beaton and to the Xerces Society for Invertebrate Conservation for its donation of the exhibit panel on native bees.

ORGANIZATIONS AND BUSINESSES

Sierra Nevada Conservancy (grantor)	California Native Plant Society, Sierra Foothills Chapter	The Chrysalis Institute
Mariposa County Fairgrounds	California Native Garden Foundation	Granite Construction Company
USDA, Natural Resources Conservation Service	Yosemite Gateway District of California Garden Clubs (monetary donation)	Intermountain Nursery
Upper Merced River Watershed Council	American Indian Council of Mariposa County	Evans Tree Service
Mariposa County Juvenile Probation Community Service Program	Woodland Elementary School	Foster True Value Hardware
Mariposa Agri-nature Trail ("Weekend in the Country")	National Park Service, Yosemite Museum	Bootjack Equipment Rental and Feed
UCCE, Mariposa County Master Gardeners	National Park Service, Yosemite Research Library	The Homestead, Ahwahnee
Mariposa County 4H		Coldwell Banker Mountain Leisure Properties

INDIVIDUALS

Al and Carliene Anderson (mulch)	Brian Bullis, fairgrounds manager	author, naturalist and artist (artwork)
Kat Anderson ethnobotanist and author (photographs)	Alison Colwell, botanist	Scott McGrath metal sculptor (arbor and bench)
Rick Bergman	Pat Conlisk (stonemasonry)	Alrie Middlebrook gardening expert and author
Bonnie Bladen native plant nursery owner	Bob Evans (crane service and mulch)	Bill Nance, Probation program
Dr. Barton and Martha Brown (monetary donation)	Jessa Guisse, Xerces Society	Mace Vaughn, Xerces Society, NRCS
Bob Brown (photographs)	Dan Horner (photographs)	Kathy Wallis, Probation program supervisor
	Ashok Khosla (photograph)	
	John Muir Laws	

VOLUNTEERS

The MCRCD also thanks these dedicated volunteers whose work has brought this garden to life:

Special thanks to Jim Spotts, whose talents, many hours of labor, donations of materials and sustained commitment to this project from its inception have contributed immensely to its fruition.

Lonnie Allen	Gary Friesen	Liana Lopez
Kevin Bowman	Joel Friesen	Len McKenzie
Jeff Bradhurst	Jeff Gabe	Ann Mendershausen
Mary Britt	Janette Gamble	Ralph Mendershausen
Cindy Brooks	Pat Garcia	Gail Miller
Kris Casto	Granite Construction Company	Peggy Moore
Susan Clark	Jennifer Harsha	Christy Peterson
Alison Colwell	Mark Holcombe	Donovan Peterson
Dee-Dee Combes	Dan Horner	Pierce Peterson
Pat Conlisk	Mike Hubert	Jerry Progner
Gay Dorius	Meg Keoppen	Karen Robb
Bill Downey	Ignas Kevirtis	Ron Rodgers
Julie Dowsing	Ruth Kevirtis	Marsha Theurer
Larry Ends	Sabuk Kevirtis	Tim Theurer
Bob Evans	Rita Kidd	Holly Warner
Don Fox	Tony Kidd	Vivian White
Glenn Franklin	Marion Laffler	Trudy Williams
John Henry Franklin	Amanda Loftis	Lowell Young

Notes

A large rectangular area with rounded corners, containing 25 horizontal lines for writing. Three binder holes are visible on the right side.

A DEMONSTRATION GARDEN OF SIERRA NEVADA FOOTHILL NATIVE PLANTS

Kris Randal of the Mariposa County Resource Conservation District (MCRCD) is the garden project manager of a Sierra Nevada Conservancy (SNC)-funded native plant garden. The goal of the garden is to educate all ages on the importance of preserving native plants, the role they play in the foothill ecosystems, as well as how the average person can garden with natives. Kris is looking for volunteers who enjoy gardening, working in the outdoors and learning about the natural world around them. Some of those duties would entail garden activities such as weeding, raking, shoveling soil and mulch, and placing plants into the ground.

Volunteers will help plant some examples of Sierra Nevada foothill native trees, shrubs, groundcovers and wildflowers. Plants to be included will strongly emphasize water conservation and drought tolerance; be effective in maintaining clean waters with erosion control attributes; provide important wildlife values and attract birds, butterflies and other pollinators; provide information on the historical and cultural usage of plants by local Native Americans; address fire safety issues; and provide information about conservation and care of native oaks in a residential garden setting.

The garden site is located at the Mariposa County Fairgrounds about 300 feet up Fairgrounds Road from the Ag Building. It surrounds the Sierra Nevada Conservancy office building, where the public will have free access to view this educational display.

If you are interested in participating in this important community project, please contact Kris Randal at kris.randal@ca.usda.gov or kris_randal@yahoo.com. You may also leave a message on the RCD office phone at (209) 966-3431 extension 2.

Volunteers work on model home landscape demonstration

This might look like just another landscape project, but some hardworking people hope that the community will find something more. This is a model home landscape demonstration garden. This garden will demonstrate how foothill residents can create inviting landscapes that are easily maintained, provide wildlife habitat, conserve water and hold soil in place – all considered best management practices for the foothills environment.

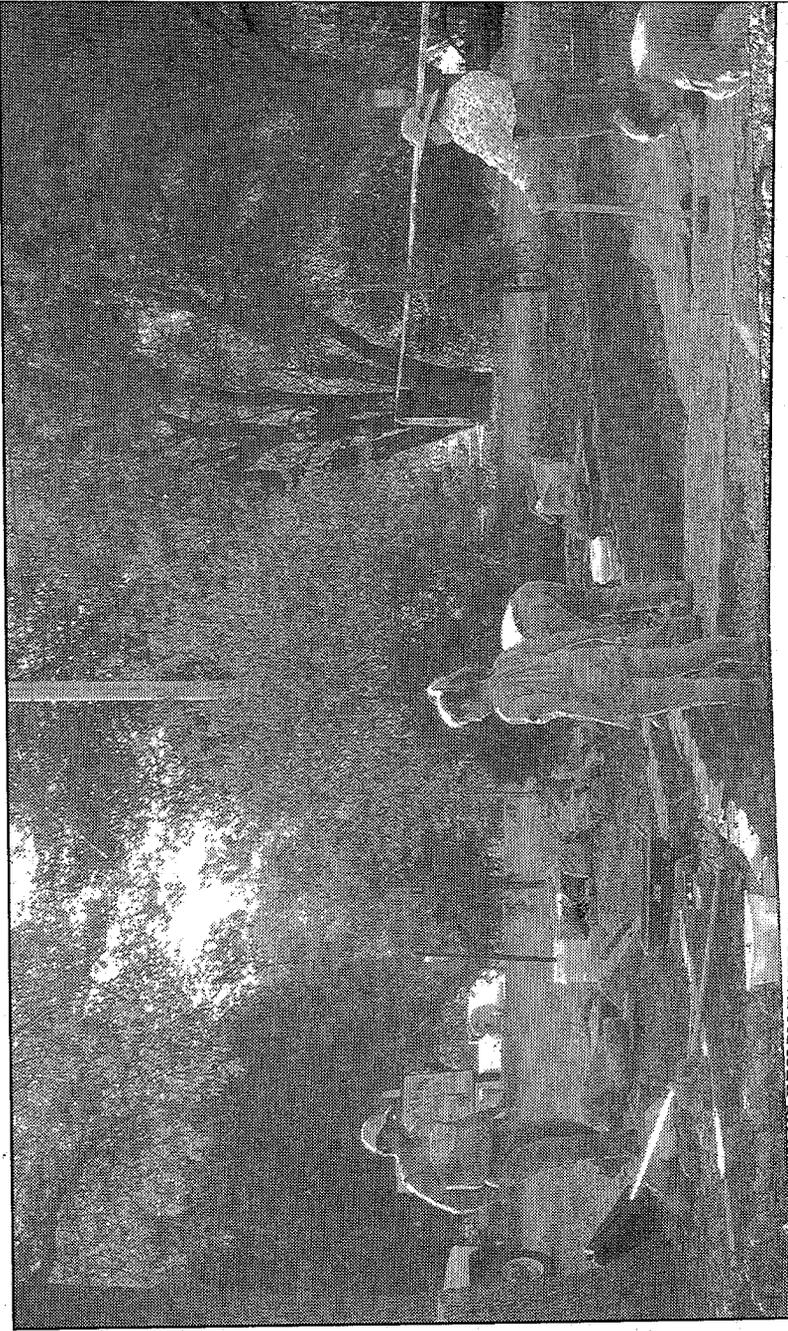
Liana Lopez, watershed coordinator for the Upper Merced River Watershed Council, a project of the Mariposa County Resource Conservation District, inspired volunteers to dig in to make this garden happen. The demonstration garden includes: a dry creekbed crafted of natural stone for drainage; stone steps, brick retaining walls and terraces to manage erosion; rain gutters, downspouts, and a storage tank for harvesting and storing rainwater.

These materials were chosen because they are readily available for home landscapers. The garden design addresses some of the main management concerns for Mariposa landowners. Reference materials for landscape design will soon be available in a free descriptive brochure at the garden site.

In addition to providing the funding for this project, the Sierra Nevada Alliance's Conservation Landscaping Training provided the background for Lopez to design the basic garden plan. Several local experts refined the plan by sharing their area of expertise, volunteering time to research materials and methods for landscaping in the Sierra foothills.

José Lopez helped with the design and construction of the terraces and steps. Terri Alice contributed her knowledge of rain catchment systems. Overall landscaping recommendations and accessibility features were contributed by Don Fox. Kris Randal has provided valuable advice on protecting oaks in the landscape design and selecting native plants.

Volunteers Michael Rood, Franklin Romine, Irene Campos and Jose Ruvallaba, representing Granite Construction, Inc. commuted from Merced and Fresno for two work days. Philip Campos, Robin Binder, Ferol



THE DESIGN TAKES SHAPE AS VOLUNTEERS LABOR AT THE LANDSCAPE DEMONSTRATION PROJECT.

Conklin, Gay Dorias, Marty Nielson, Nakita Lopez, Anne Steed, Connie Nielson, and Holly Warner rounded out the volunteer roster.

This model home landscape demonstration garden is now open for Mariposa County residents to visit. The project site was provided by the Mariposa County Fairgrounds. It is located outside the Sierra Nevada Conservancy office at 5039 Fairgrounds Road.

Over the next few months it will continue to grow. Randal, outreach coordinator for the Mariposa County Resource Conservation District, received a grant from the Sierra Nevada Conservancy to demonstrate how to choose and plant native vegetation in the garden.

Information about the various plants will help those that are appropriate.

There's still work to be done in the garden. Volunteer work opportunities in the near future watershed office can be reached at 966-2221 or shed@sti.net.

This is an on-going project so stop by the site for ideas. There is no charge to visit this project, always open to the public.

Funding for this project has been provided in part through an agreement with the State Resources Control Board.

**The Mariposa County
Master Gardeners Program
In cooperation with the
Resource Conservation District
is pleased to present the upcoming
Public Workshop on**

Landscape Restoration



SPEAKER: KRIS RANDAL, Project Manager for the Resource Conservation District's Demonstration Garden

TIME & PLACE: Saturday, September 20, 2008

10:00 AM to 12 Noon

MIDPINES COMMUNITY HALL

6364 Hwy 140, Midpines, CA 95345

The Telegraph Fire affected not only dozens of square miles of wild lands, but also the landscapes of many Mariposa County residents.

Kris will discuss strategies regarding:

- 1) Erosion Control
- 2) Fire-safe planting
- 3) Incorporation of native plants in a restoration plan beneficial to the indigenous wildlife in our Sierra locale.

You will learn about what can be done by you to:

- A) Restore the areas of your property that were affected by the fire.
- B) What steps you can take before the onset of Mariposa County's rainy, winter season.

To register call (209) 966-2417 or come by the University of California Cooperative Extension office, located at 5009 Fairgrounds Road, Mariposa, CA 95338. Space is limited, so reserve your spot today.



ENTRY APPLICATION FOR
MARIPOSA COUNTY CONTRACTOR'S ASSOCIATION
19TH ANNUAL
2008 OUTDOOR HOME & GARDEN TRADE SHOW
SATURDAY--OCTOBER 4, 2008

Place: Mariposa County Fairgrounds
Time: 9:00 AM to 3:30 PM
Booth Size: 15' x 15' (backdrops NO higher than 8')
Booth Setup Time: 7:00 AM to 9:00 AM
Booth Take Down Time: 3:30 PM to 4:30 PM

Outdoor dinner & raffle immediately following show

Business Name: Mariposa County Resource Conservation District (MCRCD)
Address: P.O. Box 746 (5009 Fairgrounds Rd) Mariposa, CA 95338
Phone #: (209) 966-3431 #2 Fax: (209) 742-7508
Type of Business/Trade: Conservation issues

Product or Materials to be Displayed at Show: Native Plant Demonstration Garden info / Firm
Erosion Controls
Person in Charge of Booth/Contact: Kris Randal or Land Mike Hubert

Entry fee: \$100.00 (NON-REFUNDABLE), payable by cash, check or money order.
ONLY PAYMENT IN FULL CONFIRMS YOUR BOOTH RESERVATION.
(Two dinner tickets are included per booth. Extra tickets are \$10.00 each.)

How many will attend dinner after the show? 2?

YOUR Door Prize Raffle Donation: 3 ponderosa pines + 3 deer grasses
(Early description of prize will let us advertise it in newspapers, radio & TV before the show)

Is electricity needed for your booth? YES () NO (X)
(Booths with electricity are reserved on a first come first served basis.)
(RESERVE YOURS NOW!)

All materials, chairs, tables, cords, etc. for booth must be provided by participant.

GRAND PRIZE will be a GAS BBQ

Mail Entry to: MCCA -- P.O. Box 497 -- Mariposa, CA 95338

Fax Entry to: ANDY at: (209) 742-4686

Questions??: BURT (209) 742-2190 or ANDY (209) 742 2085

Oct 16, 2008

MCRCD develops native garden

Contributed by Kris Randal

The Mariposa County Resource Conservation District (MCRCD) received a Sierra Nevada Conservancy (SNC) grant this past spring. The grant is to develop a Sierra Nevada Foothills Native Plant Demonstration Garden at the Mariposa County Fairgrounds outside the SNC office. This site will focus on the many benefits of gardening with native ground covers, grasses, wildflowers, shrubs, and trees.

Not only will this demonstration garden inform homeowners about growing and planting natives, but it will also showcase plants that are drought-tolerant and aid in water conservation; provide erosion controls and enhance water quality; provide habitat, food and shelter for wildlife such as birds and pollinators, including local native bee populations; are important historically and culturally to Native Americans as tools, food, medicines and for basketry; and are fire-resistant.

In recent years population expansion has spread to the Sierra Nevada foothills and is impacting its natural resources and ecosystems. Water conservation, erosion, fragmentation and degradation of oak woodlands, other plant communities and wildlife habitats are major concerns. Educating the public on the role it can play in maintaining healthy and functional ecosystems is a critical need. The goal is to educate

ecosystems, their water-conserving properties and how residents can garden with natives. By growing and maintaining native plants on Sierra lands, residents can all become conservationists and begin to understand how everything is linked to everything else.

Key partners include: Natural Resources Conservation Service, Mariposa County Master Gardeners, American Indian Council of Mariposa County, California Native Plant Society, Xerces Society for Invertebrate Conservation, Mariposa Fire Safe Council, Woodland Elementary School, Mariposa County 4H, Upper Merced River Watershed Council, Yosemite Area Audubon Society, Mariposa County Fairgrounds and Intermountain Nursery.

A complementary demonstration home landscaping project is also located at the site. Funded by a SNA grant to the Upper Merced River Watershed Council, an arm of the MCRCD, the project displays some best management practices (BMPs) that control erosion and conserve water. Liana Lopez of the watershed council has installed a water catchment system and terracing as examples of simple BMPs homeowners can consider.

This home landscaping project will be completed by early spring of 2009, while the native plant demonstration garden, which surrounds the SNC office and abuts the long parking area, is scheduled

raking gravel and weed eradication were among the first chores. Volunteers Jeff Gabe, Pat Garcia, Len McKenzie and Jim Spotts have helped with these tasks. Kathy Wallis of the Mariposa County Probation Department Community Service Work Program also organized several workdays for youth crews whose efforts contributed substantially to this phase of the project.

On another day, Kathy, Don Fox, Spotts and the probation youth work crew also tacked down heavy, clear plastic sheeting to solarize the soil and kill weed seeds. Sheeting had not been included in the original grant budget, and Monica Evans, the manager of Foster True Value Hardware in Mariposa, sold it to the MCRCD at cost. McKenzie also donated a roll of plastic.

Volunteers, most of them working a full day, recently removed the plastic and spread 350 pounds of gypsum and two inches of fine wood chips over the site. Volunteers included Gabe, who also donated the use of his spreader for the gypsum; Iggy, Ruth and son Sabuk Ketvertis, a hard-working family who recently experienced the fury of the Telegraph Fire on their Midpines property and yet have taken time to volunteer at the garden; Spotts, a constant and dedicated volunteer; new Mariposa residents Tim and Marsha Theurer; and McKenzie.

Mariposa landowner Al Anderson donated a large quantity of fine wood chips for garden mulch and

worked with building contractor Lonnie Allen to load, haul and make two deliveries of the wood chips. The MCRCD appreciates their contributions of resources, equipment, time, gasoline and skills in providing this service.

Retired Yosemite accessibility coordinator Fox is creating the design and placement of the ADA-compliant pathway, while U. S. Geological Survey botanist Peggy Moore is currently working with Kris Randal, MCRCD garden project manager, on the garden design, layout and plant choices. The project has many partners but needs additional active volunteers.

Planting won't occur until the fall of 2009. The intervening work will include preparing the site, weeding, digging irrigation trenches, more weeding, laying down the pathways, creating soil planting mounds and more weeding. The MCRCD anticipates a need for donations of boulders, rocks, possibly broken cement slabs and soil to create planting mounds.

This native plant demonstration garden will provide an educational opportunity for residents, school groups and visitors to the area. Anyone interested in donating time or materials should contact: Randal, garden project manager at 966-3431 extension 2 or by e-mail to kris.randal@ca.usda.gov

GROWING AREA INVENTORY REDUCTION SALE!!

If you are a CNPS member, you have an opportunity to shop for native plants on Sunday, January 11, 2009 at the chapter's growing area in Sonora.

Growing area manager, Stephanie Garcia, and I have decided to hold an inventory reduction sale. We have many species of plants that we would like to sell in order to make room for new plants to grow for next year's sale. The plants will be offered at prices lower than at the recent sale. The majority of plants are 1 gallon size, but we do have a few 5 gallon plants that will be greatly reduced in order to sell.

So mark your calendar for Sunday, January 11th 2009 from 11:00am to 1:00pm to take advantage of this one time sale. Choose from Ceanothus, Grasses, Sugar Pine, native Oaks, Wild Ginger and Silktassel. We have several more plants in limited quantities so come early for the best buys.

The growing area is located at 18861 Rugged Trail Road [Member Pat Reh's home]. Sonora. From the Junction Shopping Center on Mono Way, drive up Tuolumne Road....Rugged Trail Road is just past Lambert Lake Road on the right. Look for a sign 'Blue Iron Drivelines'. This is a private road so please respect the homeowners and drive slowly as the road is not paved and dust is a problem. Watch for the 'Native Plant Sale sign. The growing area is on the left just past Pat's house and down a slight hill. Remember that we accept cash and checks only.

We hope to see you on the 11th in January.

Carolee James, Plant Sales Chair

MARIPOSA COUNTY RESOURCE CONSERVATION DISTRICT

Sierra Nevada Foothills Native Plant Demonstration Garden.

The Mariposa County Resource Conservation District (MCRCD) received a Sierra Nevada Conservancy (SNC) grant this past spring to develop a Sierra Nevada Foothills Native Plant Demonstration Garden at the Mariposa County Fairgrounds outside the SNC office. This site will focus on the many benefits of gardening with native ground covers, grasses, wildflowers, shrubs and trees. Not only will this demonstration garden inform homeowners about growing and planting natives, but it will also showcase plants that:

- Are drought-tolerant and aid in water conservation;
- Provide erosion controls and enhance water quality;
- Provide habitat, food and shelter for wildlife such as birds and pollinators, including local native bee populations;

- Are important historically and culturally to American Indians as tools, food, medicines and for basketry;
- Are fire-resistant.

For more information call: Kris Randal, Garden Project Manager, (209) 966-3431 ext: 2.

TREES PLANTED IN HONOR OF TWO CHAPTER MEMBERS

Sonora Beautiful Committee planted native trees in honor of two of our founding members, Ellen Burke and MaryRuth Casebeer, both whom passed away in May 2008. Ellen and MaryRuth made significant gardening contributions in the local communities. Ellen was a long-time member of the Tuolumne County Gardening Club. MaryRuth taught gardening to elementary school kids at Sullivan Creek and Curtis Creek Schools. Both were avid native plant gardeners. The committee planted the trees on October 25th at the Tuolumne County Library.



Ellen Burke's daughter Margo (left), shows off the vine maple, (*Acer circinatum*), planted in honor of her mother by Sonora Beautiful Committee."

"MaryRuth Casebeer's son Karl and daughters Susan and Kristen watch David Wiig of Sonora Beautiful Committee put the finishing touches on planting a flowering currant (*Ribes sanguineum*). This flowering currant is a companion to the black oak (*Quercus kelloggii*) planted in MaryRuth's honor."

January 2009

LOCAL NEWS

January Yosemite Audubon program explores gardening

CONTRIBUTED BY LEN MCKENZIE

Do you love to garden? Do you dream of creating a place of beauty, an artfully designed space showcasing a luxuriant array of flowering plants that attract birds and pollinators but need little water or fertilizer? Do you find gardening relaxing yet want low garden maintenance?

Sierra foothill gardeners can create that space of beauty and a personal sense of place by using local native plants in designing and building their gardens, according to Kris Randal, president of the Yosemite Area Audubon Society and project manager of the Mariposa County Resource Conservation District's planned native plant demonstration garden at the Mariposa County Fairgrounds.

"Gardening with a diverse mix of natives adapted to the ecological conditions of this area offers many benefits," she said. "Native plants are drought-tolerant and require less water, attract native pollinators, enhance habitat value to birds and other wildlife, require less maintenance, save money and offer a rich balance of color and texture."

The values of ecologically sustainable gardening will be the featured theme at the upcoming meeting of Yosemite Area Audubon. Alrie Middlebrook, a noted expert on ecological gardening and garden design, will present a slide program, "Ecological Gardens: A Garden-making Ethic," Thursday, Jan. 8, beginning at 7 p.m. The program will be held at the Mariposa Methodist Church parish hall on Sixth Street between Highway 140 and Bullion Street in downtown Mariposa.

Middlebrook is the founder and president of Middlebrook Gardens, an award-winning garden design/build firm in San Jose specializing in California native gardening and sustainable landscaping. She is also the president of the California Native Garden Foundation, a nonprofit that seeks to educate the public and the design community on the values of native gardens.

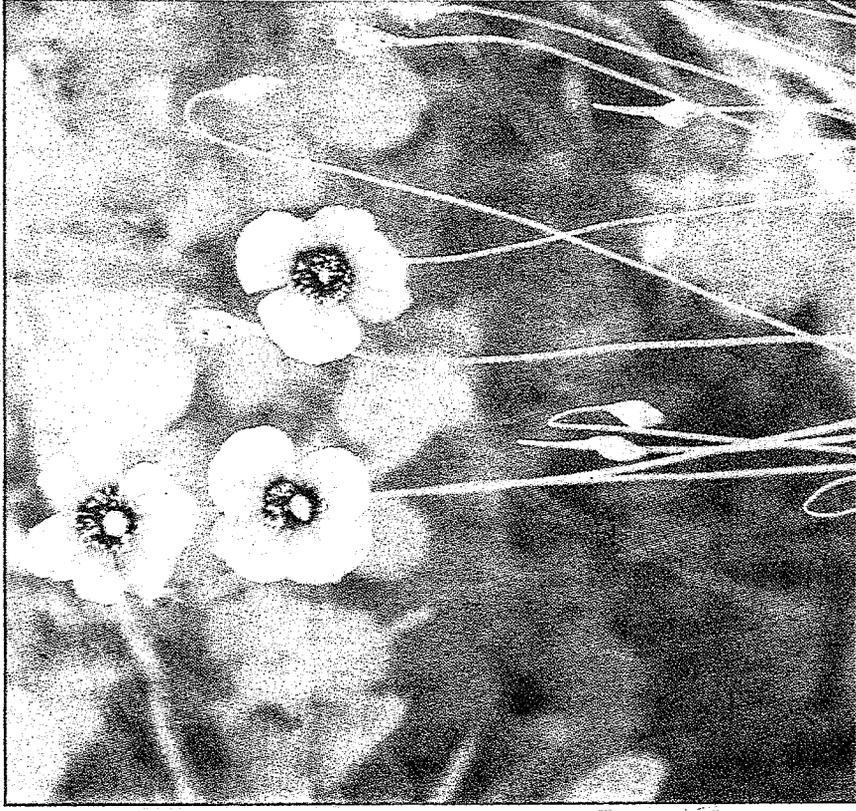
Middlebrook co-wrote (with Glenn Keator) the groundbreaking book, "Designing California Native Gardens: The Plant Community Approach to Artful, Ecological Gardens,"

(University of California Press, 2007) that describes her "garden-making ethic" and her approach to garden design. She is also the author of "Eating California." This past summer her foundation organized a fundraiser, "Eating California: A Tasting Menu Progressive Banquet," that featured more than 40 native California edibles in a seven-course dinner.

"I recently had the opportunity to attend a workshop that featured a presentation by Alrie," Audubon president Randal said. "She's an incredibly dynamic and inspiring speaker and a recognized authority on a plant-community approach to garden design. I'm delighted she's agreed to come to Mariposa to share her expertise with us."

Like all Audubon programs, Middlebrook's presentation is open and free to the public, although donations to defray program costs and to support Audubon's local activities are welcome. Refreshments will be available. Call 742-5579 for additional information about the program.

The Yosemite Area Audubon Society will also offer a birding trip to Lake Yosemite east of Merced Saturday, Jan. 17. Participants will meet at 8 a.m. at the Mariposa Rest Area adjacent to the history center on Highway 140. Suitable for



CALIFORNIA REDBUD AND WIND Poppies would be attractive members sustainable garden in the Sierra Foothills. Garden designer Alrie focus on native plants in her presentation "Ecological Gardens Ethic" Thursday, Jan. 8, at 7 p.m. This Audubon program will be held at the Methodist Church Parish Hall.

both beginners and experienced birders the public is welcome. Dress warmly and bring field guides, lunch and beverages.

The Yosemite Area Audubon Society National Audubon Society. Both the regional and the local chapter are dedicated to natural habitats and native species, a goal that is inspiring others to help protect those



4-H Spirit



Mariposa County 4-H Youth Development Newsletter

September 2009

**NEW 4-H PROGRAM
YEAR BEGINS
OCTOBER 1!**

JOIN TODAY!



Inside this issue:

**Cookies Needed
for Ironstone
Concours d'
Elegance**

**Dedicated Leader
Nomination Form
Due Sept. 15th**

**NEW 4-H
Enrollment
deadlines**

**Record Books Due
By Sept. 18th**

**Club & Project
News**

REMINDERS FOR LEADERS AND MEMBERS

Attention All Treasurers!

Peer reviews and on-line financial reports must be completed and then report turned into the office by September 15th. Also do the e-postcard by November 15th!

National 4-H Week

October 4-10 is National 4-H Week. We are asking clubs and projects to promote Mariposa County 4-H Youth Development Program by making and displaying posters throughout our town, doing presentations (*in your 4-H uniform*) at local schools or service clubs, having displays in local businesses, inviting a friend to a 4-H meeting, wearing your uniform to church or have a community service day during this week. If you would like to attend the Board of Supervisor's meeting on October 6, please contact Donna at 966-4829 or be there at 9a. in your 4-H uniform.

4-H RE-ENROLLMENT FORMS MAILED

Members and leaders who plan on re-enrolling for the 2009-10 4-H year will need to re-enroll at the UCCE office or postmarked by October 1st or sooner. New members postmarked by November 1st.

Members, enroll into projects that you are interested in by the enrollment deadline date of December 15. This is the deadline date for all 2010 fairs.

2009-10 enrollment fees are \$15.00 for ALL members \$10.00 for ALL volunteer leaders.

Remember to make checks payable to "UC Regents".

**RETURN FORMS BY
SEPTEMBER 22 OR NO LATER
THAN OCTOBER 1ST SO A
PRINTED ROSTER CAN BE
GIVEN TO THE CCLS FOR
OCTOBER MEETINGS.**

National 4-H Week Club Window Display Contest

During 4-H Week there will be a contest for the best window display. The display should promote 4-H and your club. They must be set-up by October 2nd.

Please let Donna know where your club's display will be by October 2nd with viewing hours. Judging will be based on creativity, informational/educational value, and accessibility to general public and overall look of the display. Winner will be announced at Achievement Night.

Good Luck!!

New Project for 2009-10

By Niarja Marchand, leader

If you are in grades 2 & up come join in the fun and become a Junior Master Gardener!

Learn how our lives depend on plants, about insects and plant diseases, how you can attract butterflies and songbirds to your garden and learn about fascinating careers in the field of agriculture.

Many fun projects; start your own winter (or spring) garden, make a grow card, or design a garden. Other activities include a community service project and more.

Join us in the fun and see what being a Junior Master Gardener is all about. We need at least 5 members to start the project.

A DEMONSTRATION GARDEN OF SIERRA NEVADA FOOTHILL NATIVE PLANTS

Kris Randal of the Mariposa County Resource Conservation District (MCRCD) is the garden project manager of a Sierra Nevada Conservancy (SNC)-funded native plant garden. The goal of the garden is to educate all ages on the importance of preserving native plants, the role they play in the foothill ecosystems, as well as how the average person can garden with natives. Kris is looking for volunteers who enjoy gardening, working in the outdoors and learning about the natural world around them. Some of those duties would entail garden activities such as weeding, raking, shoveling soil and mulch, and placing plants into the ground.

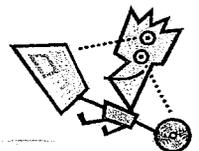
Volunteers will help plant some examples of Sierra Nevada foothill native trees, shrubs, groundcovers and wildflowers. Plants to be included will strongly emphasize water conservation and drought tolerance; be effective in maintaining clean waters with erosion control attributes; provide important wildlife values and attract birds, butterflies and other pollinators; provide information on the historical and cultural usage of plants by local Native Americans; address fire safety issues; and provide information about conservation and care of native oaks in a residential garden setting.

The garden site is located at the Mariposa County Fairgrounds about 300 feet up Fairgrounds Road from the Ag Building. It surrounds the Sierra Nevada Conservancy office building, where the public will have free access to view this educational display.

Volunteering at the garden provides a great opportunity for 4-H members to fulfill community service hours and achieve star ranking. If you are interested in participating in this important community project, please contact Kris Randal at kris.randal@ca.usda.gov or kris_randal@yahoo.com. You may also leave a message on the RCD office phone at (209) 966-3431 extension 2.

UCCE MARIPOSA WEBSITE & 4-H SPIRIT

Remember you can get the 4-H Spirit Newsletter sent to you via email by subscribing to Just go to <http://cemariposa.ucdavis.edu> click on 4-H publication and enter your email address. You will receive each new issue as soon as it is published.



NOTE: For the upcoming program year the 4-H Spirit will not be mailed out to members or leaders due to budget cuts. Copies of the 4-H Spirit will be given to the club community club leaders for those who do not have internet access.

For publication 11/19/09

**Contact: Kris Randal
(209) 742-5579**

Help Plant Foothills Demonstration Garden

Don Fox (left) and Jeff Gabe are among the volunteers who have contributed ideas, expertise and many hours of labor to the Mariposa County Resource Conservation District's Sierra foothills native plant demonstration garden project, now taking shape at the Mariposa County Fairgrounds on Fairgrounds Road. Here, they are installing edging around a planting mound along a pathway that will be ADA-accessible. Funded by the Sierra Nevada Conservancy, whose Mariposa office is located at the site, the garden will display an array of native plants adapted to the climate and soils of the foothills. The site, when the project is finished next summer, will feature drought-tolerant plants that conserve water, provide habitat value to wildlife, offer many uses to the native Miwok people and can be used in fire-defensible landscaping. The work to date has focused on site preparation and physical development. Beginning Saturday, November 21, volunteers will start putting plants in the ground, and additional volunteers are needed and welcome. Anyone interested in participating should contact the MCRCD's project manager, Kris Randal, at (209) 966-3431 for more information or to sign up as a volunteer.

Sierra Lifestyles

Resource Conservation District is grateful for its native garden volunteers

CONTRIBUTED BY KRIS RANDAL,
MARIPOSA COUNTY RESOURCE
CONSERVATION DISTRICT

Since August, when the Sierra Nevada Conservancy (SNC) notified the Mariposa County Resource Conservation District (MCRCD) that the suspension of funding for Proposition 84 projects had been lifted, rapid changes have occurred at the MCRCD's Sierra Nevada Foothills Native Plant Demonstration Garden at the Mariposa County Fairgrounds.

One reason for the rush is that the best time to place native plants into the ground is in the fall, when days are still warm and nights aren't too cold. This timing allows plants to get established, as the roots expand to deeper soil levels before the searing heat of summer arrives.

The groundwork that needed to be accomplished before planting could be done was long, involved and technical. Not only was the project behind schedule because the California state budget crisis had frozen the garden project, but the impending real freeze of winter could prevent planting if the groundwork weren't done first and quickly.

Even though the project had lost some of its initial momentum, it didn't take long for dedicated volunteers to return to the garden. During this phase, consistent volunteers have included Dee-Dee Combes, Don Fox, Glenn Franklin, Gary Friesen, Joel Friesen, Jeff Gabe, Janette Gamble, Ruth Ketvertis, Len McKenzie and Jim Spotts. Julie Downsing and Iggy Ketvirtis and newcomers Meg Keoppen and Vivian White occasionally joined the project.

On almost every Saturday of scheduled work, the MCRCD could look forward to a lot of hard physical labor contributed by the Mariposa County Probation Department's adult work

crew overseen by Kathy Wallis, as well as the juvenile probation crew headed by Bill Nance. This win-win commitment has met both the probation workers' obligation to fulfill community service and the need for volunteers at the garden.

For the last few months the volunteers have been eradicating weeds, creating soil mounds, developing proper drainages, digging irrigation trenches and

Fox not only gave instruction about accessibility requirements, but he also rolled up his sleeves and energetically attacked the rocky clay soil with pick and shovel. Gabe and Gamble were regulars at the site, also picking, shoveling and raking the



VOLUNTEERS GLENN FRANKLIN (LEFT) AND LEN MCKENZIE WORK ON THE DRAINAGE AND IRRIGATION SYSTEMS FOR THE GARDEN IN OCTOBER.

painstakingly leveling the pathway to comply with accessibility standards of the Americans with Disabilities Act (ADA).

Under the guidance of retired Yosemite National Park landscape architect and ADA specialist Fox, Spotts and Gary Friesen have toiled many hours to attain the proper grade for the pathway. Jim, a licensed contractor, used his transect to get the lay of the land and donated weeks of his time tackling the challenges of ADA compliance issues. He also donated a clay culvert for the

drainage crossing he helped develop.

Gary Friesen, a busy commercial pilot, spent many hours during his times at home measuring and constructing the footpath, using his digital level to establish the proper percentage of grade needed for ADA compliance. He also manned a



STONE MASON PAT CONLISK WORKS ON THE RETAINING WALL HE BUILT AT THE NATIVE GARDEN.

which he had delivered a few days earlier, with his huge crane. The boulders not only add a natural look to the garden, but also enhance wildlife habitat.

Also participating was Pat Conlisk, a stonemason who built a retaining wall with large rocks that he donated for one of the planting mounds. Conlisk is well known for his artistic masonry skills and his innovative creations of unusual brick or stone patios, rock walls, fireplaces and houses.

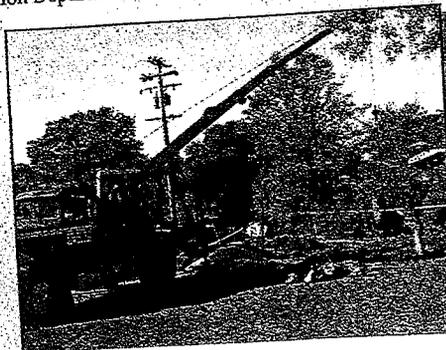
On Sunday, the Chrysalis Institute poured a papercrete retaining wall around the circular "pollinator" planting mound in the center of the garden. Kevin Bowman, Donovan Peterson and Pierce Peterson worked together to create the round, foot-high wall, while Christy Peterson and Trudy Williams provided assistance. Painting the wall will come next, and the plants will be added as the finishing touch. While the Chrysalis Institute has built storage buildings and the broad-jump runway at the Mariposa County High School's track and field facility, this is its first papercrete retaining wall.

Also on Sunday, Cindy Brooks and Larry Ends of The Homestead bed and breakfast in Ahwahnee donated their time to create a dry earth rock wall along part of the Native American planting mound. Ends had built many natural retaining walls at The Homestead, its clay soil and rocky materials similar to the garden's site. This example will demonstrate what landowners can do with excess rocks from their own properties.

By the end of the day, 100 plants had been installed in the native plant demonstration garden. However, about 150 more natives as well as 28 bunch grasses remain to be planted, necessitating additional days of planting.

The next planting day will be Saturday, Dec. 5, starting at 9 a.m. Anyone who would like to help and learn about the plants in the process, can join the group at 51 Fairgrounds Road, the Sierra Nevada Conservancy offices. Participants should wear long sleeve and bring gloves, hats and shovels or other planting tools, as well as water and lunch.

For more information, contact project manager Kris Randal at



MCRCD is Grateful for Native Plant Demonstration Garden Volunteers

Contributed by Kris Randal, MCRCD

Since August, when the Sierra Nevada Conservancy (SNC) notified the Mariposa County Resource Conservation District (MCRCD) that the suspension of funding for Proposition 84 projects had been lifted, rapid changes have occurred at the MCRCD's **Sierra Nevada Foothills Native Plant Demonstration Garden** at the Mariposa County Fairgrounds.

One reason for the rush is that the best time to place native plants into the ground is in the fall, when days are still warm and nights aren't too cold. This timing allows plants to get established, as the roots expand to deeper soil levels before the searing heat of summer arrives.

Unfortunately, the groundwork that needed to be accomplished before planting could be done was long, involved and technical. Not only was the project behind schedule because the California state budget crisis had frozen the garden project, but the impending *real* freeze of winter could prevent planting if the groundwork weren't done first and quickly.

"The world is hugged by the faithful arms of volunteers" – Everett Mamor

Even though the project had lost some of its initial momentum, it didn't take long for dedicated volunteers to return to the garden. During this phase, consistent volunteers have included Dee-Dee Combes, Don Fox, Glenn Franklin, Gary Friesen, Joel Friesen, Jeff Gabe, Janette Gamble, Ruth Ketvertis, Len McKenzie and Jim Spotts. Julie Dowsing and Iggy Ketvirtis and newcomers Meg Keoppen and Vivian White occasionally joined the project.

On almost every Saturday of scheduled work, the MCRCD could look forward to a lot of hard physical labor contributed by the Mariposa County Probation Department's adult work crew overseen by Kathy Wallis, as well as the juvenile probation crew headed by Bill Nance. This win-win commitment has met both the probation workers' obligation to fulfill community service and the need for volunteers at the garden. It has been a rewarding relationship.

For the last few months the volunteers have been eradicating weeds, creating soil mounds, developing proper drainages, digging irrigation trenches and painstakingly leveling the pathway to comply with accessibility standards of the Americans with Disabilities Act (ADA).

Under the guidance of retired Yosemite National Park landscape architect and ADA specialist Don Fox, Jim Spotts and Gary Friesen have toiled many hours to attain the proper grade for the pathway. Jim, a licensed contractor, used his transect to get the lay of the land and donated weeks of his time tackling the challenges of ADA compliance issues. He also donated a clay culvert for the drainage crossing he helped develop. Gary, a busy commercial pilot, spent many hours during his times at home measuring and constructing the footpath, using his digital level to establish the proper percentage of grade needed for ADA compliance. He also manned a rented rototiller and used his tractor to prep the garden site.

November 2009

Don not only gave instruction about accessibility requirements, but he also rolled up his sleeves and energetically attacked the rocky clay soil with pick and shovel. Jeff Gabe and Janette Gamble were regulars at the site, also picking, shoveling and raking the soil to the required grade.

Next came the placement of the edging that had to be located at the correct grade level for the pathway. Much measuring and readjusting of the edging occurred. It took many days of dedicated effort by our consistent volunteers to finish the edging and prepare the landscape for the final goal of planting. Many thanks go especially to Don, Gary, Jeff and Len for their commitment and endurance on this aspect of the project.

Certified arborist and past manager of the Santa Maria Parks and Recreation Department Glenn Franklin took time from his busy schedule to design and install the drainage and irrigation systems.

First day of planting

On Saturday, November 21, there were two donors and 17 volunteers to help plant, make wire gopher baskets, spread out weed-barrier cloth and apply mulch.

Two new volunteers, Kris Casto and Dan Horner, both from the Rotary Club, as well as our usual dedicated volunteers—Alison Colwell, Dee-Dee Combes, Glenn Franklin Joel Friesen, Jeff Gabe, Janette Gamble, Pat Garcia, Len McKenzie, Peggy Moore and Kathy Wallis from the Probation Department, with an eager crew of five, participated in this phase of the project.

To get the group started, Glenn demonstrated proper planting and gopher basket-making techniques, while Pat made sure that all participants signed in. Alison, who donated many local and unusual native plants, helped with the planting plan, as did Peggy—who has helped from the beginning of the project with native plant choices and garden design. These four volunteers made especially helpful contributions that day since I was busy dealing with the moving and placement of huge granite boulders.

Bob Evans of Evans Tree Service arrived to place the boulders, which he had delivered a few days earlier, with his huge crane. It was truly an amazing sight to watch him maneuver these rocks in midair with such skill and control. Besides boulders, his business also removes downed trees, abandoned cars and other such heavy objects. The MCRCDC is grateful for his willingness to donate his expertise and machinery to move eight heavy boulders so effortlessly. The boulders not only add a natural look to the garden, but also enhance wildlife habitat. As soon as the first boulder was installed, a western toad emerged from a nearby rock pile and ambled up the slope to settle beneath the cool shade of the newly placed rock. Voila! Instant toad habitat!

Also participating was Pat Conlisk, a talented, artistic stonemason who built a beautiful retaining wall with large rocks that he donated for one of the planting mounds. Pat is well known for his artistic masonry skills and his innovative creations of unusual brick or stone patios, rock walls, fireplaces and houses. The MCRCDC is honored to have his participation in the garden project. His contributions, hard work, time and talents have greatly enhanced the quality of the site.

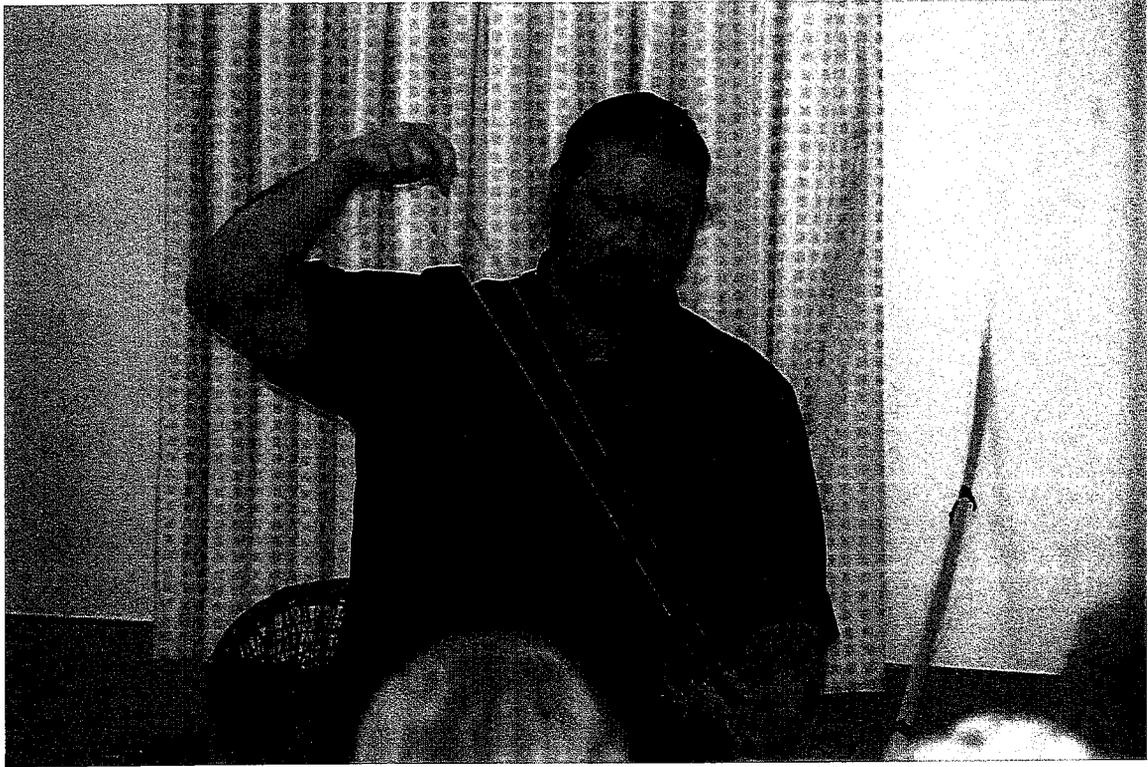
On Sunday, the Chrysalis Institute poured a papercrete retaining wall around the circular "pollinator" planting mound in the center of the garden. It was fascinating to observe shredded paper waste being recycled in this manner. Kevin Bowman, Donovan Peterson and Pierce Peterson worked together to create the round, foot-high wall, while Christy Peterson and Trudy Williams provided assistance. Painting the wall will come next, and the plants will be added as the finishing touch. While the Chrysalis Institute has built storage buildings and the broad-jump runway at the Mariposa County High School's track and field facility, this is its first papercrete retaining wall. It promises to be an eye-catching and functional addition to the garden.

Also on Sunday, Cindy Brooks and Larry Ends of The Homestead bed and breakfast in Ahwahnee donated their time to create a dry-earth rock wall along part of the Native American planting mound. Larry had built many natural retaining walls at The Homestead, its clay soil and rocky materials similar to the garden's site. This example will demonstrate what landowners can do with excess rocks from their own properties. Thank you, Larry and Cindy!

By the end of Sunday, 100 plants had been installed in the native plant demonstration garden! However, about 150 more natives as well as 28 bunch grasses remain to be planted, necessitating additional days of planting.

The next planting day will be Saturday, December 5, starting at 9:00 a.m. If you would like to help and learn about the plants in the process, please join the group at 5039 Fairgrounds Road, the Sierra Nevada Conservancy offices. Wear long sleeves and bring gloves, hats and shovels or other planting tools, as well as water and lunch. Some snacks and drinks will be provided.

For more information, contact project manager Kris Randal at the MCRC office at 966-3431 or send emails to kris.randal@ca.usda.gov



California Indians Uses of Native Plants

Presented at Yosemite Area Audubon Society

February 11, 2010

Audubon program focuses on Native uses of area plants

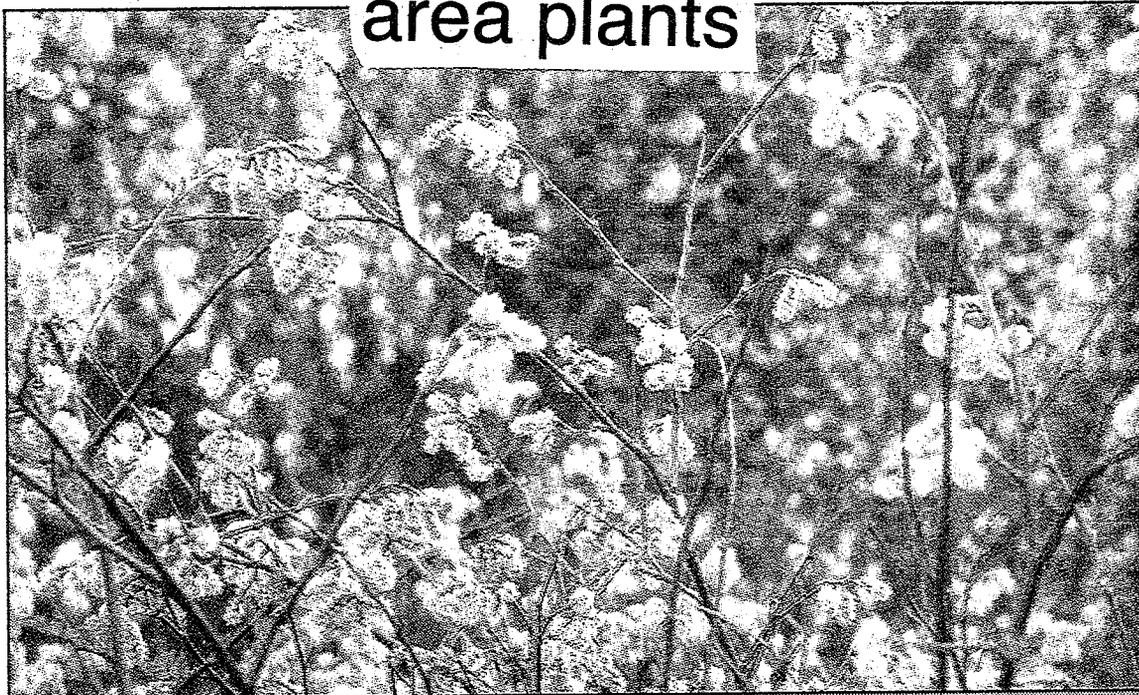
CONTRIBUTED BY LEN MCKENZIE

Cultural interpreters and Midpines residents Ben and Kimberly Cunningham-Summerfield will present "California Indian Uses of Native Plants," a program featuring slides and hand specimens, at the monthly program of the Yosemite Area Audubon Society Thursday, Feb. 11, at the Mariposa Methodist Church parish hall on Sixth Street between Highway 140 and Bullion Street. The program will begin at 7 p.m.

In her book "Tending the Wild," ethnobotanist Kat Anderson wrote, "Every day of every year for millennia, the indigenous people of California interacted with the native plants and animals that surrounded them. They transformed roots, leaves, shoots, bones, shells, and feathers into medicines, meals, bows, and baskets and achieved an intimacy with nature unmatched by the modern-day wilderness guide, trained field botanist, or applied ecologist."

Ben, a Mountain Maidu, and Kimberly, a Tsalagi (Cherokee), will present a brief overview of the various uses of some native plants by the tribes of California, emphasizing those that are important locally. They will discuss traditional uses, both past and present, of flora that may be found near and about local residents' homes. They will reveal how many of those uses have changed over time and have been revitalized in the last decade or so.

The Cunningham-Summerfields will also share Native American insights about a number of well-known plants and display some products made from native flora. Many of those plants will be featured in a new



THE YELLOW-GREEN FLOWERS OF A SOURBERRY (*RHUS TRILOBATA*) STAND OUT AGAINST THE PINK BACKDROP OF A REDBUD (*CERCIS OCCIDENTALIS*), BOTH OF THEM IMPORTANT BASKETRY PLANTS FOR AMERICAN INDIANS OF THE SIERRA FOOTHILLS. "CALIFORNIA INDIAN USES OF NATIVE PLANTS" IS THE TOPIC OF THE YOSEMITE AREA AUDUBON SOCIETY'S MONTHLY PROGRAM.

Sierra Foothills Native Plant Demonstration Garden, now under development by the Mariposa County Resource Conservation District at the Mariposa County Fairgrounds, a project funded by the Sierra Nevada Conservancy.

Ben earned his bachelor's and master's degrees from California State University, Chico. During the last 23 years he has studied botany from several different perspectives, including rangeland management, uses of native plants, traditional uses of fire and as a native cultural practitioner. As a national park ranger he has worked in natural resources management, fire management and interpretation. His passion for the environment is inherent from family endeavors and his cultural background. He has provided programs for various universities, science academies, international and na-

tional conferences, state and national parks, museums, live radio, special-interest groups and other organizations. Topics of instruction and demonstrations have included native uses of plants, intellectual properties, musical performances, storytelling, wildlife, geology and indigenous traditional skills.

Kimberly has been demonstrating and presenting programs since her teenage years in the 1970s. She is a cultural practitioner who teaches weaving, cordage making, food preparation, gathering, uses of fire, tool-making and storytelling. Her audiences have been local, national and international, representing a wide variety of backgrounds and ages. She will assist her husband in this presentation.

The Cunningham-Summerfields' presentation is open and free to the public, although donations to de-

fray program costs and to support Audubon's local activities are welcome. Refreshments will be available.

The Yosemite Area Audubon Society will also offer a birding trip to the Merced National Wildlife Refuge on Saturday, Feb. 20, beginning at 8 a.m. at the Mariposa Rest Area on Highway 140 adjacent to the history center. The trip is free and the public is welcome. Wear warm clothing and bring binoculars, field guides, wet-weather gear, lunch and water.

Call 742-5579 for additional information about either the program or the birding trip.

The Yosemite Area Audubon Society is affiliated with the National Audubon Society. Both the national organization and the local chapter are dedicated to the preservation of natural habitats and native species, and to educating and inspiring others to help protect those resource val-

The Foothill Quail

California Indians Managing the Land

By Kris Randal



February 2010

The Mariposa County Resource Conservation District's (MCRC) Sierra Foothills Native Plant Demonstration Garden, a project funded through a Sierra Nevada Conservancy (SNC) grant, displays a diversity of plants and highlights an array of important vegetation attributes that should be of interest to residents and visitors alike.

These qualities include:

- Drought-tolerance, which helps landowners conserve water;
 - Erosion control, impeding stormwater runoff and protecting water quality;
 - Habitat, food and shelter for native wildlife;
 - Adaptations to local soils, climate, weather patterns and the surrounding natural environment, obviating the need for pesticides and fertilizers and saving landowners time and money for caretaking; and
- Many utilitarian values in sustaining California Indians for thousands of years.

The next
Yosemite Area Audubon

Society program, on Thursday, February 11, will focus on some of the ways local Indian people used native plants, including many of the plants now embedded at the MCRC garden site. Cultural interpreters Ben and Kimberly Cunningham-Summerfield of Midpines will present a program on this topic at 7 p.m. that evening at the Mariposa Methodist Church parish hall.

In recent years, many researchers have realized that California Indians actually managed the landscape through regular burning, pruning, coppicing, seeding and harvesting. These practices improved the quality and quantity of the collected materials that would become tools, baskets, weapons, medicines and food.

Indigenous peoples annually set low-intensity fires in oak woodlands to maintain their health and productivity and help improve the production of acorns, a food staple. They burned moisture-robbing, competitive grasses and brush and, in the process, recycled nutrients, enriching the next acorn crop. Fire also removed insect pests, pathogens and parasites.

In the fall the native people burned redbud (*Cercis occidentalis*) and sourberry (*Rhus trilobata*)—important basketry plants—to induce straighter, branchless sprouts. The resulting spring growth was smoother and more pliable than older branches of these plants and was easily worked into baskets. With some individual plants, pruning was also effective, as was coppicing, when the entire plant was cut to the ground to encourage new growth.

Although not often seen today, large stands of deergrass (*Muhlenbergia rigens*) were burned every two to five years in fall or winter to reduce dead vegetation and increase the numbers of flowering stalks of these grasses. The women used the long stems in a variety of coiled baskets, which were especially prized for their water-holding properties. When placed in water, the flowering stems would swell, making the finished baskets perfect cooking

Page 1 Christmas Bird Count

Page 2 Sandhill Crane Migration

Page 3 Water Reform Bill Avian Field Marks

Page 4 Birding Through Time in Yosemite

Page 5 Events & Directory of Officers

California Condor
(*Gymnogyps californianus*)
How many California condors once lived is not known. In 1982, there were fewer than 25 left in the wild. Today, their numbers have increased to approximately 200. They are scavengers, but instead of relying on their sense of smell they watch for other scavengers feeding on carrion.

California Indians Managing the Land

By Kris Randal

and water containers. Since a single cooking basket requires about 3,750 flower stalks collected from more than three dozen individual deergrass plants, the Indians managed vast areas of deergrass by regularly burning them to promote regrowth for future harvests.

They made arrows from one- to two-year-old wood of mock orange, gooseberry, snowberry and button willow that had been pruned or burned to encourage the best growth for this type of weapon. In fact, they cultivated a variety of plants in this manner to obtain the best quality of materials for cordage, digging sticks, structures, ceremonial dress, cages, traps, musical instruments and games. Another benefit of burning plants that resprout was the young, tender growth that fed deer and other wildlife. The animals, in turn, provided the Indians a meat source. When Europeans first encountered California Indians, they noticed that the women carried digging sticks to evict edible bulbs from the earth. Little did the Europeans realize that the indigenous people were managing extensive areas of wild onions and other bulbs as a food crop. As the women collected the bulbs, they returned smaller bulbets to the excavated earthen cavity, along with some seeds from the plants' dried flower heads, ensuring the availability of these food plants in future seasons. Europeans also observed large stretches of segregated wildflower species, rewarding the eye with separated

colors of orange, gold, purple and white, extending for acres and sometimes miles. It is now thought that the Indians maintained these large areas of single wildflower species to make them easier to harvest. However, many tribes burned the fields after collecting seeds to recycle nutrients and rid the area of other competitive plants. Later, they would scatter some of the collected seed in the burned areas for future harvesting. Native women collected seeds of certain wildflowers to roast and grind into a flour to add to soups, or to use as *pinole* and made into cakes or balls. The seeds of each species had their own color and flavor and were stored separately. The original American people intuitively recognized basic ecological principles and practiced sustainable living for centuries before Europeans arrived. To learn more about the various practices of California Indians and their stewardship of the land, read, "Tending the Wild" by ethnobotanist Kat Anderson. The last line of the book reads, "The rich indigenous history with the land still remains largely untold and is waiting to be rediscovered, acknowledged, preserved, and reenacted in landscapes across California." Indeed, it has much to teach us.

Christmas Bird Count 2009

Sara Stock

Bird Lovers -

What a fun time we had together during the 110th Christmas Bird Count on December 20, 2009 in Yosemite! The birds, weather, scenery, and companionship were all wonderful! Thanks to each and every one of you who participated and who contributed to another successful bird count! If you weren't able to participate this year, there's always next year (Sunday, December 19, 2010), and there will always be more birds to see and count. Attached is a summary of the 2009 results (and a tab for 2008 results for those of you who want to compare with last year's results). 47 participants (a Yosemite record!) counted and identified 1,771 birds of 59 species across 7 zones in Yosemite. Highlights included a Williamson's Sapsucker along the Old Big Oak Flat Road Trail, an Orange-crowned Warbler in East Yosemite Valley, three Cassin's Finches up on Turtle Back Dome, and 4 wren species (Canyon, Bewick's, House, and Winter), all in El Portal except for the Winter Wren which was observed on the Old

Big Oak Flat Road rail. We saw some species that were missed last year, such as Great Blue Heron, Northern Pygmy-Owl, White-headed Woodpecker, and Cedar Waxwing, but missed the huge flocks of American Robins and Band-tailed Pigeons that have been counted in past years. Even though the count was one day shy of the solstice, we experienced t-shirt weather across zones (even in the Badger Pass zone!), with blue sky and sunshine. For the second year in a row, we had coverage in Zone 7 (above Big Oak Flat Road along the Old Big Oak Flat Road Trail) and were able to split El Portal into 3 teams. This year we had two new Zone Leaders - Thank You Karyn O'Hearn and Michael Ross! We had several participants who traveled from far-flung places to count - special thanks to Dan and Tracy Webster and Steven Umland from Sonora; John Turner from LaGrange; Dale Swanson from Atwater; Jeff Davis from Fresno; Adam and Caitlyn Rich from Twain Harte; and Colleen Kamoroff from Davis! There was amazing food at the Compilation Dinner. **Contd on Page 3**

Christmas Bird Count Results

Mallard	Red-breasted Sapsucker	Mountain Chickadee	Hermit Thrush	Cassin's Finch
Sharp-shinned Hawk	Nuttall's Woodpecker	Chestnut-backed Chickadee	American Robin	Lesser Goldfinch
Cooper's Hawk	Downy Woodpecker		Wren-tit	House Sparrow
Red-shouldered Hawk	Hairy Woodpecker		European Starling	
Red-tailed Hawk	White-headed Woodpecker	Oak Titmouse	Cedar Waxwing	Total Species 59
Mountain Quail	Northern Flicker (Red-shafted)	Bush-tit	Orange-crowned Warbler	
Golden Eagle	Pileated Woodpecker	Red-breasted Nuthatch	Yellow-rumped Warbler (Audubon's)	Individuals 1771
California Quail	Black Phoebe	White-breasted Nuthatch	Spotted Towhee	
Great Blue Heron	Hutton's Vireo	Brown Creeper	California Towhee	Participants 47
Northern Pygmy-Owl	Steller's Jay	Canyon Wren	Fox Sparrow	
Anna's Hummingbird	Western Scrub-Jay	Bewick's Wren	Song Sparrow	
Anna's Hummingbird	Common Raven	House Wren	Golden-crowned Sparrow	
Belted Kingfisher		Winter Wren	Oregon Dark-eyed Junco	
Williamson's Sapsucker		American Dipper	Brewer's Blackbird	

MARIPOSA AGRI-NATURE TRAIL

A Weekend in the Country - April 24 & 25, 2010
 Saturday 10:00am - 5:00pm • Sunday 10:00 am - 4:00pm

[Home](#) [Locations](#) [Art in Action](#) [Tours & Workshops](#) [Updates / Links](#)

Guided Walks, Talks and Workshops

Scavenger Hunt

Location #1

Catheys Valley Girl Scout Troup 139 will be on hand to lead a nature trail scavenger hunt. Kids of all ages can hike along the trail to locate small keepsakes & prizes. Fun is to be had by all.

Catch & Release Fishing

Location #1

For kids of all ages. Catch a fish with a barbless hook & release it to live another day.

Yarn Spinning

Location #1

Sunday 12:00 pm - 4:00 pm

Eleanor Fearman will be demonstrating the traditional method of spinning as she works her wheel. You can learn the technique that Eleanor uses to spin raw materials into yarn. You will find that Eleanor is a kind and patient teacher!

Raised Bed Gardening / Organic Practices

Location #3

Come and learn from John & Caren about raised-bed gardening using organic practices. Their raised beds benefit from compost, manure tea & worm castings for sustainable agriculture all derived from their alpacas. They will demonstrate how the raised beds are built, soil preparation & mixing, irrigation techniques & a natural fertilization method.

Capturing the Moment

Location #4

Saturday & Sunday, 8:00 am - 9:30 am

Enjoy the morning sunlight & learn how to get that dazzling nature photograph from professional photographers Charles Phillips & Billy Skogen. Discover new techniques & test the limits of your camera. You're welcome, experienced or not, with a digital or

Conservation Landscaping Project & Native Plant Demonstration Garden

Location #8B

Do you need fresh ideas for an inviting landscape that is easily maintained, provides wildlife habitat, conserves water & holds soil in place? Stroll along a dry creek bed & around terraces that control erosion & improve drainage. See a rain-catchment system for irrigation. Walk amidst a diversity of foothill native plants in the demonstration garden. Upper Merced River Watershed Council coordinators will be on hand to answer questions & provide guidance.

Going Native with Plants

Location #8B

Saturday 10:00 am-11:30 am

Sunday 2:00 pm-3:30 pm

Meet Kris Randal, the Mariposa County Resource Conservation District's project manager of the Sierra Foothills Native Plant Demonstration Garden, for a short walk around this new garden site still under development. Kris will interpret the native plants along the route, highlighting their Native American uses, their drought-resistant & water-conservation qualities, their habitat values for wildlife & how these plants can be used in fire-safe landscaping.

California's Mining Heritage

Location #8A

Saturday 11:30 am - 12:30 pm

Sunday 1:00 pm-2:00 pm

California State Mining & Mineral Museum coordinator Randy Bolt will give a slide presentation on various mining equipment & methods used during the gold rush & following years. Learn how mining shaped the culture & economy of early California.

"Mariposa History Comes Alive"

Mariposa's Place in the Gold Rush.

4-H Activities

Location #11

4-H kids are excited about their activities. They understand animal husbandry & showmanship with chickens. They know self-defense moves. There will be much more.

Kids Activities

Location #1

Catch & release fish. Girl Scouts Scavenger Hunt

Location #11

4-H activities.

Ag-Ventures

Heritage Laven

Location #3

Diane Silguero is showcasing her hand-made products including lavender wraps using her free lavender. A wonderful line of products for you, your home &

Clyde's Backyard

Location #11

Clyde Steese, a member of the Mariposa Beekeepers Association. He has 200 hives foraging on blossoms of sage, buckwheat & present an educational slide on local 100% raw honey. Purchases (209)966-6698

Miners Mix Fine

Location #11

Miners Mix native

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May Rock, California's Newest Landmark

Location #4

Saturday 2:00-3:00 pm
 Sunday 10:00-11:00 am
 May Rock, which is one of the largest outcroppings of quartz in the United States, has a place in Mariposa history. The Bondshu family has been its steward for three generations. Bob & Bill will tell you about its historical & geological significance. This site was officially dedicated by the MATUCA Clampers as a California landmark on April 3, 2010. May Rock is located on Hwy 49 N just south of Mt. Bullion Vineyard (location 4). Gates will be open only during workshop hours.

Drip Irrigation in the Garden

Location #7

Is irrigation a time consuming & back breaking chore for you? Master Gardeners will be demonstrating drip irrigation setup & timers. Drip irrigation allows you the time to enjoy your garden & conserves water. Come with your questions.

Gardening Tool Maintenance

Location #7

Are your garden tools dull? Does it seem like your soil gets harder each day? Are your shrubs more difficult to trim? Come & listen to the Master Gardeners who will have displays & demonstrate what needs to be done to sharpen, clean & prepare tools for your spring garden.

Gopher Control

Location #7

Got gophers? Who doesn't! Frustrated in your efforts to reduce their population in your garden? Master Gardeners will be available to share their latest techniques on gopher trapping. This will include a short video presentation & a display of helpful equipment.

Conservation Landscaping Project

& Native Plant Demonstration Garden

Location #8B

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"Mariposa History Comes Alive"

Mariposa's Place in the Gold Rush.

Location #8A

Saturday 10 am - 11 am
 The California Gold Rush was a complex & huge migration that transformed the landscape & produced a premature statehood & chaotic social conditions. Within a very few years the economy was transformed from subsistence hunting & gathering, or pastoral ranching, to industrial mining. Learn from Ralph Mendershausen how Mariposa's own Gold Rush followed & diverged from those trends.

Sierra Foothill Conservancy

Location #8B

Come visit the Sierra Foothill Conservancy booth to learn about conservation of working landscapes. They have a great schedule of hikes & classes this year & offer great volunteer opportunities for the community. You can also learn more about SFC's Plain Air project & how you can get involved.

Early Birds

Location #11

Saturday & Sunday 9:00 am - 10:30 am
 Join Len McKenzie of the Yosemite Area Audubon Society for a beginners' bird walk. Discover the pleasures of identifying birds by sight & sound & watching their behavior. Bring binoculars if you have them & wear comfortable walking shoes.

Wine Grapevine Growing & Pruning

Location #10

Saturday 1:00-2:00 pm
 Sunday 11:00 am-12:00pm
 If you have visions of being "a little old winemaker from California" or have an interest or questions about growing wine-grapes in the Sierra Foothills, come & listen to Marvin Silver who has 25 years of experience in his vineyard. Subjects to be discussed include how to prune, trellis, farm for flavors, watering & other grape-growing related issues.

4-H Activities

Location #11

4-H kids are excited to demonstrate some of their activities. They will help you understand better about chicken showmanship with some of their beautiful chickens. They will show off some of their self-defense moves that everyone should know. There will be interpretive reading & much more.

Kids Activities

Location #1

Catch & release fishing
 Girl Scouts Scavenger Hunt

Location #11

4-H activities.

Ag-Ventures

Heritage Lavender Farm

Location #3

Diane Silguero offers from her farm many hand-made products such as sachets & heat wraps using her hand-harvested, pesticide-free lavender. In addition, she has a wonderful line of aromatherapy products for you, your home & your pets.

Clyde's Backyard Honey

Location #11

Clyde Steese, a beekeeper for 10 years, is a member of the CA State Beekeepers Assn. He has 200 hives in his apiary. His bees forage on blossoms from local mountain sage, buckwheat & wildflowers. Clyde will present an educational exhibit. A taste of his local 100% raw honey is like a taste of spring. Purchase some for your honey. (209)966-6698

Miners Mix Fine Gourmet Spice Blends

Location #11

Miners Mix natural spice blends enable consumers to easily & quickly produce their own wholesome gourmet specialty sauces & foods without artificial ingredients or preservatives. The result is a real flavor as it once was, bold yet balanced, before the development of additives, preservatives & the "science" behind Food Science.

Hungry???

LET'S DO LUNCH

Saturday and Sunday 11:30 am - 2:00 pm

Location #5 Oak Knoll Ranch
 (Weekend in the Country fundraiser)

Location #11 Wire Ranch
 (4H fundraiser)



See reverse side
 ← to read

A DEMONSTRATION GARDEN OF SIERRA NEVADA FOOTHILL NATIVE PLANTS

The Mariposa County Resource Conservation District (MCRCD) is now developing a native plant demonstration garden funded by a grant from the Sierra Nevada Conservancy (SNC). The goal of the garden is to educate all ages on the importance of preserving native plants, the roles they play in foothill ecosystems, and how the average person can garden with natives.

The garden displays an array of plants that conserve water and are drought-tolerant; help protect water quality with erosion-control attributes and provide important wildlife values, attracting birds, butterflies, native bees and other important pollinators. Interpretive media, yet to be produced, will also describe the historical and cultural uses of plants by local Native Americans; address fire-safety issues and provide information about conservation and care of native oaks in a residential garden setting.

Kris Randal, the project manager, has worked with 39 volunteers in designing, grading, weeding, installing irrigation, and planting and mulching the garden site, located at the Mariposa County Fairgrounds outside the SNC offices.

Many community members have donated plants, boulders and wood mulch, along with their time, special skills and equipment. Beautiful rock retaining walls and a papercrete enclosure are the results of some of those efforts.

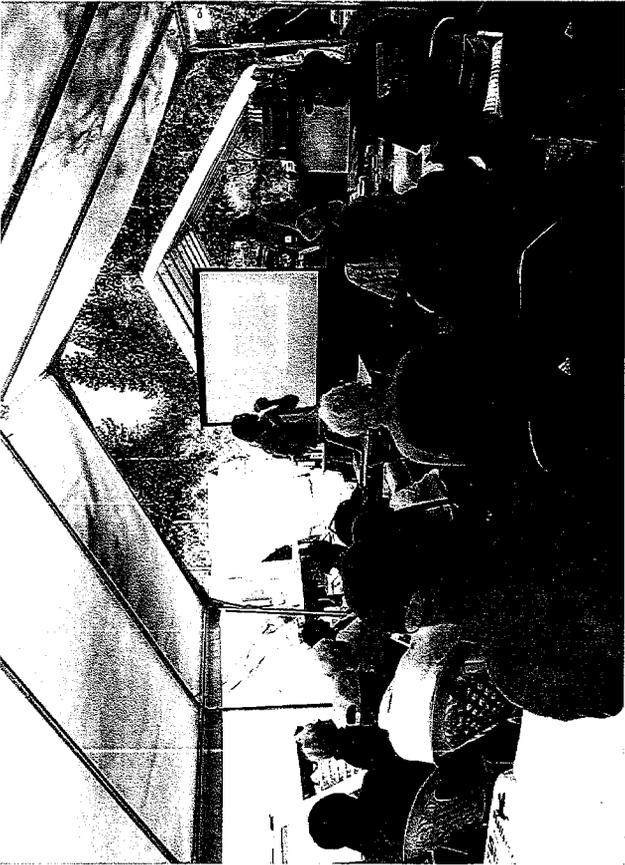
Kris is currently collaborating with educators to develop state standards-based curriculum for elementary schools to relate local native plants to science, history, the arts, math and language requirements. Schools will be able to visit the garden site while learning the lessons incorporated into the curriculum.

Kris will lead two tours at the garden site during this spring's biannual Weekend in the Country, an Agri-Nature Trail event April 24 and 25. 2010

Agri-Nature Tour 2010



Pollination Workshop



Pollinator Workshop



Highlights

Focuses on the conservation and creation of habitat for native bees

Workshop will take place on a local farm with a presentation on the natural history of native bees and crop pollination research

Presents practical steps you can take to increase native pollinators on your land

Hosted by Mountain Meadow Farms

Co-sponsors:

Natural Resources Conservation Service
Mariposa County Resource Conservation District

P.O. Box 746, Mariposa, CA 95338
209-966-3431

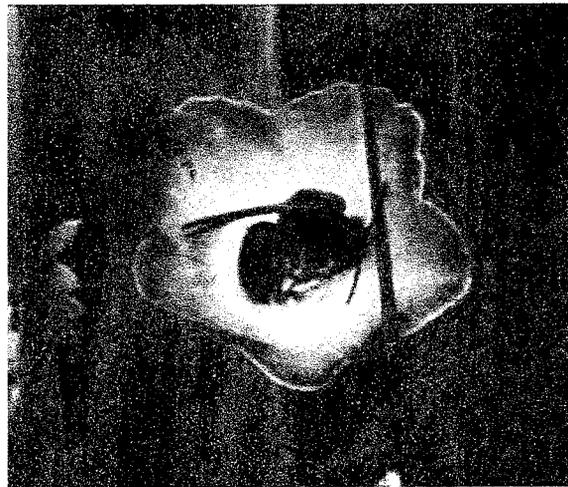
When: Thursday, May 13th 2010
9:00 A.M. - 3:00 P.M.

Where: Mountain Meadow Farms
5633 Meadow Lane, Mariposa, CA

Course Fee: \$20 (includes lunch)

Register by May 10: Space is limited
Call 209-966-3431

Checks payable to MCRCD or cash



Jessa Guisse - Entomologist

The Xerces Society

For more information visit:

www.mcrccd.net



Persons with disabilities who require alternative means of communication or assistance should contact our office at the above number, at least 5 days prior to the event. An equal opportunity provider and employer

LOCAL NEWS

Program buzzes about bees

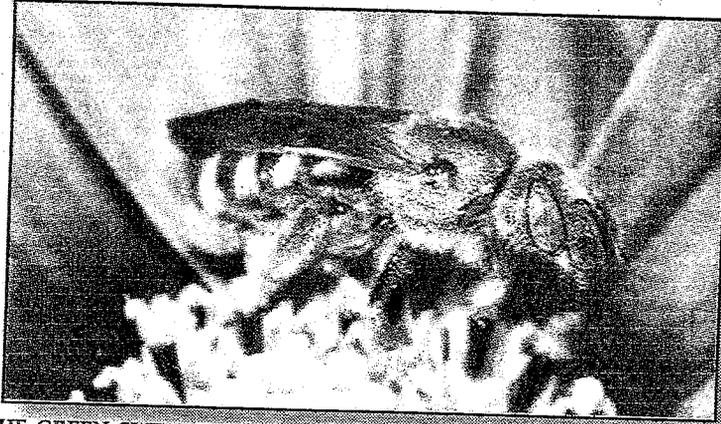
CONTRIBUTED BY KRIS RANDAL

For every three bites of food eaten, pollinators were responsible for bringing one of those bites to the hungry person. In fact, roughly 35 percent of global food production and an estimated 60-80 percent of the world's flowering plants rely on a vast array of bee species and other pollinators.

Pests and diseases, including the recent dramatic outbreak of Colony Collapse Disorder (CCD), are now threatening European honeybee populations worldwide. Since the 1940s the number of honeybee colonies in the United States has dropped by more than 40 percent. Consequently, it is especially important to protect and conserve native bees to maintain the crucial pollination services needed to sustain gardens and crops. Natural habitat plays a key role in meeting the needs of these valuable insects.

On Thursday, May 13, the Natural Resources Conservation Service (NRCS) and the Mariposa County Resource Conservation District (MCRCD) will offer a workshop to inform the public about local native bees and how to encourage pollinator activity. Designed for growers, ranchers and agricultural and natural resource professionals, the workshop will promote agricultural sustainability through conservation of habitat for native bees and other beneficial insects.

NRCS District Conservationist Dawn Afman has arranged with Mariposa farmer Brenda Ostrom to host the program at her Mountain Meadow Farms at 5633 Meadow Lane, from 9 a.m. to 3 p.m. A \$20 fee is required and lunch will be provided.



THE GREEN SWEAT BEE IS ONE OF MANY NATIVE BEES THAT PLAY A CRITICAL ROLE AS POLLINATORS OF NATIVE AND GARDEN PLANTS AND FARM CROPS.

ent a slide show describing many of our local bee species.

Guisse has a master's degree in environmental entomology from California State University, Chico, and a bachelor's degree in sustainable farming from Hampshire College in Amherst, Mass. Having joined the Xerces Society in 2008, she has coordinated with government agencies and private stakeholders throughout the state to encourage habitat conservation for native pollinators. She previously owned a private business that worked with farmers to manage native bees for crop pollination.

Guisse's talk will introduce participants to the diversity of native bees, their biology and their value as pollinators. The program will also describe practical steps property owners can take to improve native bee habitat on their land. Many of the guidelines presented will provide resources not only for native species, but will also benefit European honeybees.

Both the Xerces Society and NRCS are partners in the MCRCD's Sierra Nevada Conservancy grant-funded development of the Sierra Foothills Native Plant Demonstration Garden at the

tive vegetation that will sustain native bees and other pollinators.

California harbors more than 1,500 species of native bees that occur in all sizes and colors and are superb pollinators. In fact, in some cases they are even more efficient than honeybees. For example, even though tomatoes can be wind-pollinated, native bumblebees are the best pollinators of plants in the tomato family, even better than any manufactured fan or other intervention.

Their strong, vibrating wings knock the pollen loose from deep within the tomato flower onto the bees' bodies. The bees then transfer that pollen to the next flower they visit. The end results are beautiful, ripe, red fruits.

Although native bumblebees are social and nest in colonies, much like the non-native honeybees, most native bees are solitary nesters. About one-third of them nest in dead wood such as snags (dead trees), branches and fence posts, while the other two-thirds nest in the ground. Workshop participants will learn how to provide nesting sites and habitat by practicing proper bee conservation

Bee Wise: Workshop to Promote Pollinators

Did you know that for every three bites of food you eat, pollinators were responsible for bringing one of those bites to you? In fact, roughly 35% of our global food production and an estimated 60-80% of the world's flowering plants rely on a vast array of bee species and other pollinators

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NRCS District Conservationist Dawn Afman has arranged with Mariposa farmer Brenda Ostrom to host the program at her Mountain Meadow Farms, 5633 Meadow Lane, from 9:00 a.m. to 3:00 p.m. A \$20 fee is required and lunch will be provided. The scheduled speaker, Jessa Guisse, California pollinator outreach coordinator for the Xerces Society for Invertebrate Conservation, will present a slide show describing many of our local bee species.

Ms. Guisse has a Master of Science degree in environmental entomology from California State University, Chico, and a bachelor's degree in sustainable farming from Hampshire College in Amherst, Massachusetts. Having joined the Xerces Society in 2008, she has coordinated with government agencies and private stakeholders throughout the state to encourage habitat conservation for native pollinators. She previously owned a private business that worked with farmers to manage native bees for crop pollination.

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Both the Xerces Society and NRCS are partners in the MCRCD's Sierra Nevada Conservancy grant-funded development of the Sierra Foothills Native Plant Demonstration Garden at the Mariposa County Fairgrounds. A major focus of this project is to promote gardening with a diversity of native vegetation that will sustain our native bees and other pollinators.

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Submitted by Kris Randal
For publication April 29, 2010

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Most bees native to the United States don't sting. Yet, many people's fear of stings—a stinging bee's means of protecting itself and its hive—overshadows their acceptance of native bees' critical ecological role as pollinators of native and garden plants and farm crops. In short, bees' importance to our own future is underappreciated.

Native bees remind us that all life has ecological value and that the sustained health of the earth's ecosystems is essential to our own welfare and survival.

You can reserve your place at this invaluable pollinator workshop by calling the offices of the NRCS and the MCRCD at (209) 966-3431.

Fourth Grade Students Identify Plants at MCRCDC Demonstration Garden

On Friday, June 4, two fourth grade classes from Woodland Elementary School became the first students to visit the Mariposa County Resource Conservation District's (MCRCDC) Sierra Foothills Native Plant Demonstration Garden. The purpose of their visit was to obtain particular knowledge and have a good and memorable experience

The garden is located at 5039 Fairgrounds Road surrounding the offices of the Sierra Nevada Conservancy (SNC), which is funding the grant for the garden project. In fact, the SNC grant financed the bus transportation of the students, teachers and some parents, which made this field trip possible.

One of the requirements of the garden grant was to develop California State standard-based curriculum for one of the grades. The demonstration garden contains many educational components with two of them focusing on the importance of providing nectar and pollen for pollinators; and the wildlife support-system of native plants, such as food, nesting and habitat sources. These themes were a perfect fit for the fourth grade life science standards, which include the study of food chains, food webs and the interdependencies of flora and fauna.

Educator Janette Gamble volunteered many hours developing the life science curriculum along with MCRCDC project manager, Kris Randal. They presented a food chain/food web activity and lesson plan for both Nancy Gunderson's and Donna Wight's—the fourth grade teachers—classrooms at Woodland School the week before the field trip. This presentation made it possible for the students to become familiar with some of the native plants at the garden site, as well as with many of the local wildlife species of Mariposa.

To prepare for the students' visit to the garden and to continue fulfilling the fourth grade life science requirements, two activities had to be developed to accommodate and alternate between the two classes. Retired Mariposa County Farm Advisor, Karen Robb volunteered to present an activity and lesson plan based on pollinators, while volunteers were recruited and trained as docents to guide small groups of students throughout the garden on a plant identification scavenger hunt. The docents included Susan Clark, Dee-Dee Combes, Pat Garcia, Janette Gamble, Marion Lafler and Ann Mendershuasen. Mandy Loftis and Len McKenzie volunteered to help with logistics and assist the docents.

The Fairgrounds are partners with the MCRCDC garden grant and therefore, Fairgrounds manager Brian Bullis, arranged to have two sets of three picnic benches delivered to the separate activity sites. As a result, students were able to study flower parts or make plant identification cards in a nice setting, under the cool shade of oaks.

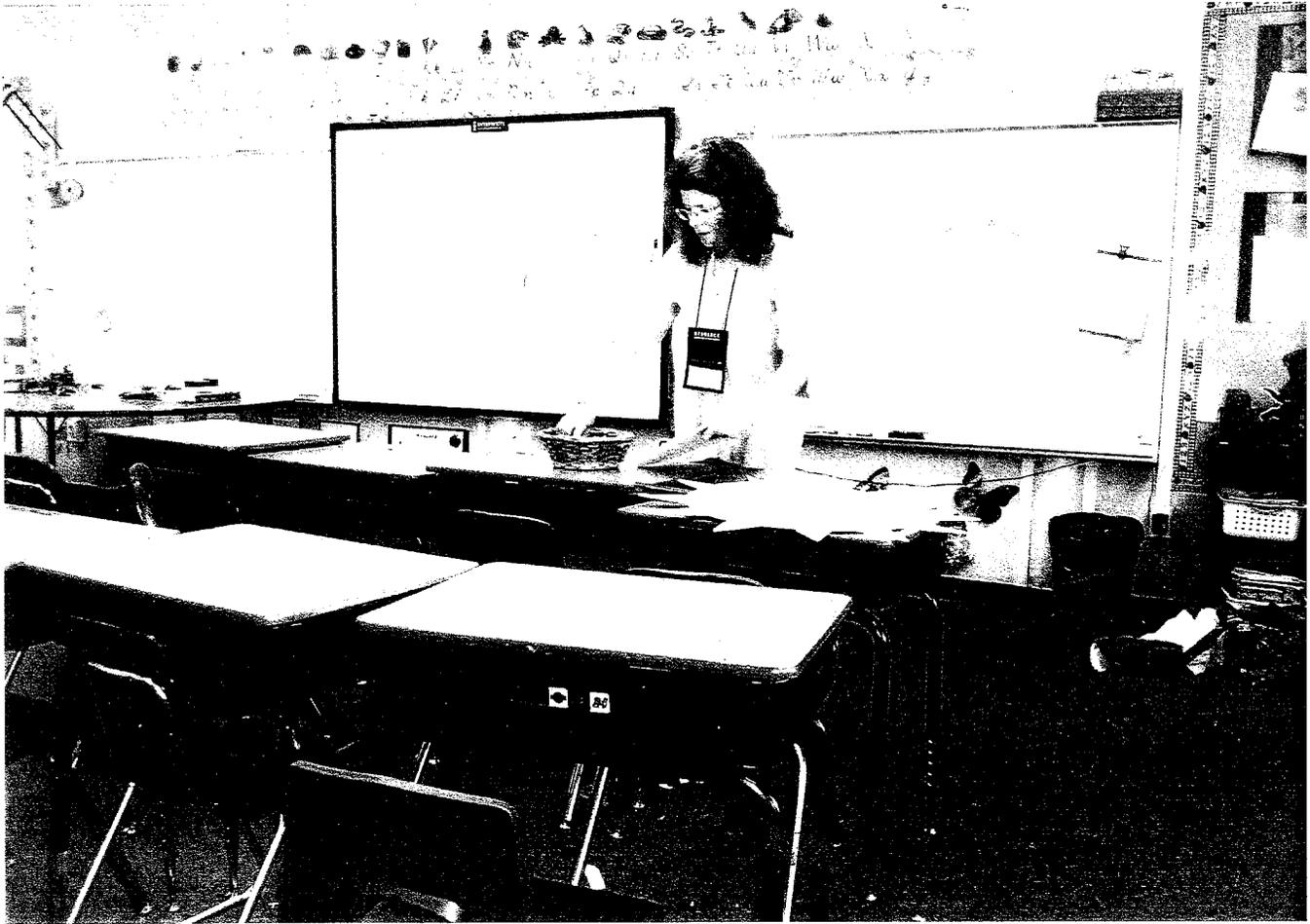
At the pollinator site, Karen Robb taught the students about different flower structures and the diverse array of pollinators that many of these flowers attract. Pollination and the interdependence of plants and animals is one of the required lessons in the standards and many local flowers from the garden were dissected for the students to study.

At the garden site, the other students learned how to identify particular native plants by participating in a scavenger hunt. With the guidance of their docents, small groups of four students, each paired-up to find one plant per pair, would search for "their" plant by reading clue cards they were given. Docents encouraged a hands-on approach to investigating plants aromatic qualities, texture, leaf placement and shape, etc.

Next, the docents lead their groups to a table that was covered with photos of a variety of native plants. A second scavenger hunt began as the students searched the table for "their" plant. On the back of the photo was an information card detailing many of the plant's attributes, such as its adaptability or survival mechanisms; usage by California Indians; wildlife values; garden uses, etc. The students would then take the information card back to the picnic tables and create an identification card for that plant, using any information that they learned and thought important to include on their cards.

Since the native plant garden is still a work in progress and the plants do not have any labels yet, the students were also providing a community service by creating plant identification signs. These temporary signs will be laminated and then attached to the plants for the public to observe, until the native plant project is able to purchase signs near the garden completion date.

Right before the students were to exit to the Fairgrounds picnic area to eat their lunches, several of the students who finished their plant ID cards asked, "Can't we identify more plants, first?" What better proof can you have, that a good day was had by all?



***Life Sciences – 4th Grade Science Standards**

- 2. All organisms need energy and matter to live and grow. As a basis for understanding this concept:**
 - a. Students know plants are the primary source of matter and energy entering most food chains.**
 - b. Students know producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs and may compete with each other for resources in an ecosystem.**
 - c. Students know decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.**
- 3. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:**
 - a. Students know ecosystems can be characterized by their living and nonliving components.**
 - b. Students know that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.**
 - c. Students know many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.**
 - d. Students know that most microorganisms do not cause disease and that many are beneficial.**

Grade Four

...Students in grade four expand their knowledge of food chains and food webs to include not only the producers and consumers they have previously discussed but also the decomposers of plant and animal remains, such as insects, fungi, and bacteria. They will also learn about other ecological relationships, such as animals using plants for shelter or nesting and plants using animals for pollination and seed dispersal....

Life Sciences

Students in grade four have already learned about types of plants and animals that inhabit different biomes and will have a simple understanding of adaptation from studies in grades one and three. The standards in grade four help to refine students' understanding of ecological principles and prepare them to learn much more about the subject in grade six.

- 2. All organisms need energy and matter to live and grow. As a basis for understanding this concept:**
 - a. Students know plants are the primary source of matter and energy entering most food chains.**

A food chain is a representation of the orderly flow of matter and energy from organism to organism by consumption. Plants harness energy from the sun, herbivores eat plants, and carnivores eat herbivores. Solar energy therefore sustains herbivores and, indirectly, the carnivores that eat them; this is the important principle to be taught.

- b. Students know producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs and may compete with each other for resources in an ecosystem.**

Students may recall from previous grade levels that animals eat plants or other animals. This standard extends the subject to a greater depth. Food chains and food webs represent the relationships between organisms (i.e., which organisms are consumed by which other organisms). Generally, food chains and food webs must originate with a primary producer, such as a plant that is producing biomass.

Herbivores and omnivores eat the plants; carnivores (secondary consumers) in turn eat the herbivores and omnivores. Decomposers consume plant and animal waste, a step that returns nutrients to the soil and begins the process again. Decomposers, such as fungi and bacteria, should be included at each level of the food web as they consume the remains and wastes of plants and animals.

c. Students know decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.

Plant and animal wastes, including their dead remains, provide food for decomposer organisms such as bacteria, insects, fungi, and earthworms. Decomposers are adept at breaking down and consuming waste materials and therefore complete the food chain, returning nutrients to the soil so that plants may thrive as producers. Bacteria and fungi also pass energy to other parts of a food web. Those microorganisms are themselves consumed by slightly larger organisms, such as worms and small insects, and those small consumers are food for larger animals, such as birds. Microorganisms and their biological ability to decompose matter may be observed in video or film productions using time-lapse photography. Molds grown on bread and fruit may be studied with the use of magnifying lenses; however, it is dangerous for a class to collect wild fungi, culture bacteria, or molds derived from soils or rotting meats.

Notes from Kris: We could focus on the kids learning about the values of native plants, as food, shelter, nesting, etc., pointing out particular plants and associated wildlife at the garden. Also that grade would notice the different kind of pollinators coming to the flowering plants. Could also include a pre-site lesson with photos and info. About pollinators on the backs of children and they have to find out what pollinator is on their backs. We would have a field trip looking for some of these animals, as well as learning about other values of the plants to the wildlife. Perhaps a time to reflect and draw what they saw/learned.

For the 3rd and 4th graders, a focus on Native American stewardship of the land. A good intro. Recycling, re-use, etc. A tour focusing on California Indian use of plants. How collected, stored and prepared. A "Sensational Walk" of the senses: sight, smell, hearing touching.

3. Living organisms depend on one another and on their environment for survival. Students have learned in previous grades about the interactions of organisms in an ecosystem; this standard set develops the subject still further. The living and nonliving components are clearly distinguished, and the significant effects of invisible microorganisms are also discussed. **As a basis for understanding this concept:**

a. Students know ecosystems can be characterized by their living and nonliving components.

Each ecosystem is characterized by a set of living (biotic) and nonliving (abiotic) components that distinguish it from other ecosystems. For example, tropical rain forests, coral reefs, and deserts all have distinctly different biotic and abiotic components. This standard challenges students to be systematic in describing the components of an ecosystem and in identifying the characteristics of life.

- b. Students know that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.**

This standard is partly an extension of the study of adaptive characteristics of plants and animals that students may have encountered in grade three. All living organisms have biological requirements for growth and survival and can live only in environments to which they are well adapted. If an environment changes in a way that is harmful to an organism, the organism may not be able to survive. Adaptation is a genetic process that takes many generations to be perceived, so a single individual cannot “adapt” to a change. For example, the thick, blubbery skin of whales is an evolutionary adaptation to cold water. This adaptation is different from the types of changes that help a single individual survive, such as a change in seasonal diet or coloration, which are properly called *accommodations*.

- c. Students know many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.**

The idea of plants and animals being mutually dependent was a topic of discussion in grade one. The concept can now be discussed at a much deeper level because students will have an emerging grasp of ecology and natural history. Many plants depend on bees, birds, and bats to pollinate their flowers. The resulting seeds may be scattered away from the parent plant by becoming entangled in the fur of animals. Other seedpods are moved and stored by animals in seed caches; some are consumed and deposited (still fertile) in animal wastes. The fruits of some plants are attractive food sources for animals. Plants often provide shelter for animals, hiding them from predators.

- d. Students know that most microorganisms do not cause disease and that many are beneficial.**

Microorganisms play a vital role in the environment. This standard helps students to look beyond the common misconceptions that bacteria are responsible only for diseases and that microorganisms

Mariposa Master Gardener General Meeting Agenda

Monday June 21, 2010 3:00PM till 5:00PM Mariposa Board of Supervisors Chambers

Call to order -

Continuing education - Kris Randal will speak about the MCRCD's Sierra Foothills Native Plant Demonstration Garden and the importance of growing Native plants

Minutes - May, 2010 General meeting

Corrections -

Additions -

Approved as printed -

Minutes - Executive Board Meeting - June 14, 2010

Questions/Comments -

Bookkeeper report /Present Budget for 2010-2011 year - Noma

Maxwell Norton -

Kris Randal -

Committee Reports -

Phone desk schedule - Rusty

Garden Tour - Judy

Workshop update -

Creek garden/ Fall Ag tour weekend, and workdays - Betty M.

Calendar - Gerry

Farmers Market - Judy

Unfinished Business - Secretary Position

Round Table -

Announcements -

Merced Fair June 15th until June 20

June 21st - MG General Meeting BOS Chambers, 3-5PM

June 26th - Judging Fair entries for Vegetables and Flowers - Midpines 10-12

July 12th - Executive board meeting UCCE conference room

July 19th - MG General meeting - BOS Chambers, 3-5PM

Motion to Adjourn

**Sierra Nevada Foothills Native Plant Demonstration Garden
Mariposa County Resource Conservation District
Group Volunteer Award Nomination**

(1) Magnitude of work

This Earth Team has transformed a 2,000-square-foot weed-infested site at the Mariposa County Fairgrounds into a Sierra Nevada Foothills Native Plant Demonstration Garden, a project of the Mariposa County Resource Conservation District (MCRCD) funded by a grant from the Sierra Nevada Conservancy (SNC). The garden showcases, in a public, home-like setting, a diversity of indigenous trees, shrubs, groundcovers and wildflowers that exemplify adaptations for drought tolerance and water conservation, require little if any irrigation, stabilize soil and control erosion, protect water quality, repel invasive weeds, offer important habitat values for wildlife and attract native pollinators. Interpretive signs and a pamphlet, yet to be completed, will interpret these qualities and California Indians' cultural uses of these plants and promote fire-safe landscaping.

Begun in 2008, the project is now about 80 percent complete. A cadre of dedicated volunteers (see the attached list), working under the direction of MCRCD project manager Kris Randal, who conceived and planned the project, has been crucial in accomplishing the design and physical work to convert this eyesore into an educational attraction that will benefit area residents and visitors alike. Indeed, this project could not have been achieved without their persevering commitment and continuing support. Their considerable contributions, collectively totaling _____ hours, have included:

- Site preparation, including extensive, continual weeding and the additions of donated soil and both donated and purchased mulches for planting mounds;
- Identification and selection of plants and assistance in the layout and configuration of planting areas;
- Trenching, installation, backfilling and activation of the electronically regulated drip-irrigation system;
- Storm damage repairs and installation of drainage devices to prevent future damage from stormwater runoff;
- Hand excavation and grading of the pathway to comply with ADA standards and slope limits and installation of edging to stabilize and secure the eventual surface layer of disintegrated granite (DG);
- Placement of about 250 plants in the ground, enveloped in hand-cut wire gopher baskets, during a three-week window in late fall 2009, including two major planting days, followed by intermittent hand watering until the automated drip-irrigation system became operational in summer 2010;
- Delivery and placement by crane of eight large donated boulders by the crane's owner/operator who volunteered his time and equipment;
- Construction of two native rock retaining walls by a stonemason who collected the rocks and volunteered his time to build the walls; construction of a third rock retaining wall by two

**Sierra Nevada Foothills Native Plant Demonstration Garden
Mariposa County Resource Conservation District
Group Volunteer Award Nomination**

volunteers experienced and skilled in the craft; and fabrication of a "papercrete" retaining wall around a fourth mound by other volunteers;

- Development by a retired educator of California curriculum-based lesson plans and onsite activities targeted for fourth-grade students;
- Instruction on native plant identification and the plants' values by six trained docents and a retired county farm advisor to 47 fourth-graders in two classes during a site visit in late May; identifier cards created by the students during the field trip were later placed in the garden as interim interpretive signs.

Volunteers will complete the interpretive signs, complementary pamphlet and accessible pathway by the end of CY2010.

(2) Need for the Service and Achievement

This project has been, and will continue to be for many years, highly useful in educating both a growing population of foothill residents and area visitors on the ecological adaptations, roles and values of native plants in conserving water, protecting water quality, stabilizing soils, controlling weeds, benefiting wildlife, attracting pollinators and enhancing fire safety. This heightened public awareness and the application of these precepts to home yards and gardens will enhance property values, reduce homeowner maintenance costs and help Mariposa County realize its long-term resource conservation goals. The project has also mitigated a long-standing stormwater runoff problem for the Mariposa County Fairgrounds and transformed an ugly site into an attraction that will boost tourism and the local economy.

(3) Challenges

Notable challenges have included the formidable (and unending!) task of removing an abundance of noxious, nonnative weeds from the hard, packed, rocky red clay that characterizes the site; excavating the pathway with hand tools and grading it to meet ADA standards; and resolving the drainage issues.

(4) Partnerships

This project has drawn many favorable comments and endorsements from individuals and organizational representatives who have visited the site, affirming the strong public interest and support expressed when the MCRCD submitted the grant proposal and in the sustained volunteer involvement in its development. The initiative has established or strengthened MCRCD partnerships with the Sierra Nevada Conservancy, Mariposa County, the Mariposa County Fairgrounds, Mariposa County Probation Department (which fulfilled community-service obligations), Master Gardeners, the Natural Resources Conservation Service, the Xerces Society for Invertebrate Conservation, the American Indian Council of Mariposa County, the Mariposa Agri-Nature Trail, the Mariposa Rotary Club, the Yosemite Area Audubon Society and a number of local businesses. The level of volunteer support is indicative of the positive image and acceptance of volunteerism in the Mariposa community.

Receiving Volunteers of the Year Award @ NRECS Ceremony





SOME OF THE 50-PLUS VOLUNTEERS AND PARTNERS WHO HAVE CONTRIBUTED TO THE MARIPOSA COUNTY RESOURCE CONSERVATION DISTRICT'S NATIVE PLANT DEMONSTRATION GARDEN PROJECT VISITED THE PROJECT SITE TUESDAY TO BE RECOGNIZED BY THE NATURAL RESOURCES CONSERVATION SERVICE AS CALIFORNIA'S NRCS EARTH TEAM OF THE YEAR FOR 2010. PICTURED IN FRONT, FROM LEFT TO RIGHT, ARE DONOVAN PETERSON, DONNA WICE, KATHY WALLIS, PAT GARCIA, KRIS RANDAL, MARY LINN, KRIS CASTO, MARION LAFLER, DEE DEE COMBES, JULIE DOWSING, JANETTE GAMBLE, MANDY VANCE, GLENN FRANKLIN AND DAWN AFMAN. STANDING BEHIND ARE JIM SPOTTS, JEFF GABE, LEN MCKENZIE, MAXWELL NORTON, LONNIE ALLEN, CURTIS TARVER, NRCS ASSISTANT STATE CONSERVATIONIST, AND MARK HOLCOMBE.

Garden Project receives NRCS Volunteer Award

CONTRIBUTED BY
LEN MCKENZIE

The Natural Resources Conservation Service of the U.S. Department of Agriculture has honored a Mariposa County Resource Conservation District (MCRCD) project with its 2010 Earth Team Volunteers of the Year award for the State of California. The award was presented at a statewide NRCS meeting held last month in Sacramento, and NRCS officials came to Mariposa this week to visit the project site.

The MCRCD's Earth Team of dedicated volunteers, working under the direction of MCRCD

project manager Kris Randal, has transformed a 2,000-square-foot eroded, weed-infested site at the Mariposa County Fairgrounds into a Sierra Nevada Foothills Native Plant Demonstration Garden. The project, conceived and planned by Randal, is now about 80 percent complete. The site will be wheelchair-accessible to comply with the Americans with Disabilities Act when the garden pathway is surfaced within the next several weeks.

Funded by a 2008 grant from the Sierra Nevada Conservancy, the garden showcases, in a public, home-like setting, a

SEE AWARD ON PAGE A-15

AWARD: Local Group Honored

CONTINUED FROM FRONT PAGE

diversity of indigenous trees, shrubs, groundcovers and wildflowers that exemplify adaptations for drought tolerance and water conservation, require little if any irrigation, stabilize soil and control erosion, protect water quality, repel invasive weeds, offer important habitat values for wildlife and attract native pollinators. Interpretive signs and a pamphlet, yet to be completed, will interpret these qualities, highlight California Indians' cultural uses of these plants and promote fire-safe landscaping.

NRCS officials Curtis Tarver, assistant state conservationist for field operations; Pamela Hertzler, the California state Earth Team coordinator and a soil conservationist in the NRCS's Merced office; and

athan Groveman, a public affairs specialist in the NRCS's state office in Davis, visited the garden Tuesday to see the site first-hand and to meet some of the volunteers.

Randal emphasized that the volunteers' contributions have been pivotal in accomplishing the design and physical work to convert this eyesore into an educational attraction that will benefit area residents and visitors alike. "This project could not have been achieved without their persevering commitment and sustained support," she said. "The NRCS's recognition of this achievement is deeply gratifying, and I can't thank the volunteers enough for their support." She added, "And I can't pass up the opportunity to say thanks again to the Sierra Nevada Conservancy, which enabled this project in the first place."

Volunteers' contributions have included site planning and design; site preparation, including endless weeding and additions of soil and mulches; identification and selection of plants; configuration of planting areas; installation of the irrigation system; storm damage

repairs and installation of drainage devices; pathway excavation, grading and edging to comply with ADA standards; and placement of about 250 plants in the ground, enveloped in hand-cut wire gopher baskets, followed by intermittent hand watering over a period of eight months.

Saying she doesn't want to underplay the important role all of the volunteers have played in the project to date, Randal specifically cited the many hours of physical work, expertise and quality control donated by volunteers Jim Spotts, Don Fox, Gary Friesen, Jeff Gabe, Janette Gamble, Peggy Moore, Dee-Dee Combes, Glenn Franklin and Len McKenzie.

Randal also acknowledged the ongoing commitment of Kathy Wallis of the Mariposa County Probation Department and the participation of the department's community-service enrollees. "Kathy's and her crews' involvement in this project have been invaluable," Randal said. Led by Wallis, the department has made more than 20 trips to the garden, bringing an average of four people per trip. "Not only have the participants earned community-service credits," Randal said, "putting in many hours of physical labor, mostly

weeding, but the experience has educated them on the values of native plants and the value of the project to the community. Several participants have continued to volunteer at the garden after fulfilling their community-service obligation."

Additional specialized skills and equipment have included the delivery and placement by crane of eight large boulders by the crane's owner/operator, Bob Evans, who volunteered his time and equipment. Stonemason Pat Conlisk constructed two native rock retain-

ing walls with rocks he collected locally; Larry Ends and Cindy Brooks of Ahwahnee crafted a third rock retaining wall using rocks they collected onsite; and Donovan Peterson and Kevin Bowman of the Chrysalis Institute fabricated a "papercrete" retaining wall around a fourth planting mound.

Using their own equipment, Mark Holcombe and Lonnie Allen delivered two trailer loads of wood chips, donated by landowners Al and Carliene Anderson, to be used as mulch.

Retired educator Gamble, Randal noted, has been especially helpful in developing curriculum-based lesson plans and onsite activities targeted for fourth-grade students. Gamble and Randal used the lesson plans in visits to the Woodland School fourth-grade classes in preparation for a field trip to the garden by 47 fourth-graders last spring. Five docents along with Gamble and retired Mariposa County Farm Advisor Karen Robb provided the instruction on native plants, the plants' values and important plant pollinators during the site visit. The students created identifier cards that were later placed in the garden as interim interpretive signs.

McKenzie will complete the permanent interpretive signs and a complementary pamphlet within the next several months, Randal added.

Randal also noted that the demonstration garden shares the site outside the Sierra Nevada Conservancy's office at the fairgrounds with the Upper Merced River Watershed Council's Landscape Conservation Project, funded under a separate grant from the Sierra Nevada Alliance. Exhibiting water-conservation amenities and practices that property owners can adopt at home, the landscaping project is complementary to the garden project and their themes are mutually reinforcing.

Randal went on to say this project has been, and will continue to be for many years, highly useful in educating both a growing population of

foothill residents and area visitors. This heightened public awareness and the application of these precepts to home yards and gardens will enhance property values, reduce home owner maintenance costs and help Mariposa County realize its long-term resource conservation goals. The project has also mitigated a long-standing stormwater runoff problem for the Mariposa County Fairgrounds and transformed a ugly site into an attraction that will boost tourism and the local economy.

Bees and Flowers: A Partnership for Life

Pollination is critical for plant reproduction. Without it, plants will not produce fruit or seed. More than 70% of plants rely on an animal—in most cases, an insect—to move their pollen.

Bees are the most important group of pollinators. They are the primary pollinators for more than one hundred crops grown on this continent. Together, these crops are valued at over \$20 billion per year.

North America has 4,000 species of bees. The nonnative European honey bee is the most common managed pollinator. However, many wild native bees also pollinate crops. Native bees are often adapted for specific plants, resulting in more efficient pollination and the production of larger and more abundant fruits and seeds.

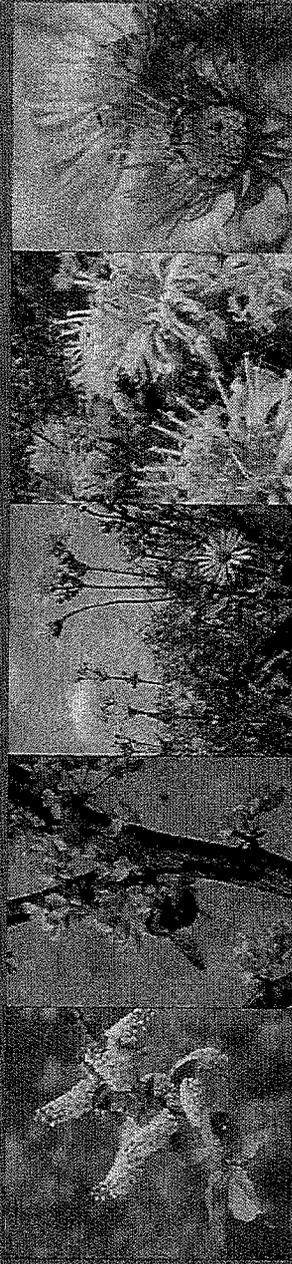
Bees are threatened by diseases and changes in the landscape that reduce habitat.

A Partnership for Bees

Flowers sustain bees through their entire life cycle. Adult bees drink sugar-rich nectar to get energy for flight and warmth, and females collect nectar and pollen to provide for their offspring. Flowers are disappearing from many modern landscapes.

In recognition of this, the Rose Lake Plant Materials Center partnered with the Xerces Society for Invertebrate Conservation to establish the pollinator habitat seen before you. We hope that you will be inspired to take action to support bees.

Many NRCS conservation practices can be used to benefit pollinators and support the pollination needs of crops. The NRCS provides technical assistance to support conservation efforts for pollinators and other wildlife on farms.



Providing Habitat for Bees

Pollinator-friendly flowers can be easily integrated into the farmed landscape. Hedgerow plantings that include flowering shrubs with overlapping bloom will provide pollen and nectar for bees throughout the growing season. Conservation cover plantings with a diversity of flowers offer food for bees while the stable, unfilled ground provides nesting opportunities for a range of bees. Buffer strips and ditchside or roadside vegetation can also support flowers, and thus bees.

Use native plants wherever possible, and try to have three or more

species in bloom at one time. Particularly important are flowers that bloom early or late in the season, helping bee populations grow at critical periods of the year.

Also try to provide nest sites in pollinator habitat. Patches of bare earth allow mining bees and others to excavate nests. Mason and leafcutter bees will occupy drilled wooden blocks or bundles of hollow stems. Bumble bees will nest under grass tussocks.

Simple steps will make a significant difference for our vital bees.

For more information about providing bee habitat, visit www.xerces.org



Sierra Festyles

Resource Conservation District is grateful for its native garden volunteers

CONTRIBUTED BY KRIS RANDAL, MARIPOSA COUNTY RESOURCE CONSERVATION DISTRICT

Since August, when the Sierra Nevada Conservancy (SNC) notified the Mariposa County Resource Conservation District (MCRCD) that the suspension of funding for Proposition 84 projects had been lifted, rapid changes have occurred at the MCRCD's Sierra Nevada Foothills Native Plant Demonstration Garden at the Mariposa County Fairgrounds.

One reason for the rush is that the best time to place native plants into the ground is in the fall, when days are still warm and nights aren't too cold. This timing allows plants to get established, as the roots expand to deeper soil levels before the searing heat of summer arrives.

crew overseen by Kathy Wallis, as well as the juvenile probation crew headed by Bill Nance. This win-win commitment has met both the probation workers' obligation to fulfill community service and the need for volunteers at the garden.

For the last few months the volunteers have been eradicating weeds, creating soil mounds, developing proper drainages, digging irrigation trenches and

Fox not only gave instruction about accessibility requirements, but he also rolled up his sleeves and energetically attacked the rocky clay soil with pick and shovel. Gabe and Gamble were regulars at the site, also picking, shoveling and raking the



STONE MASON PAT CONLISK WORKS ON THE REMAINING WALL HE BUILT AT THE NATIVE GARDEN.

which he had delivered a few days earlier, with his huge crane. The boulders not only add a natural look to the garden but also enhance wildlife habitat.

Also participating was Pat Conlisk, a stonemason who built a retaining wall with large rocks that he donated for one of the planting mounds. Conlisk is well known for his artistic masonry skills and his innovative creations of unusual brick or stone patios, rock walls, fireplaces and houses.

On Sunday, the Chrysalis Institute poured the papercrete retaining wall around the circular "pollina-

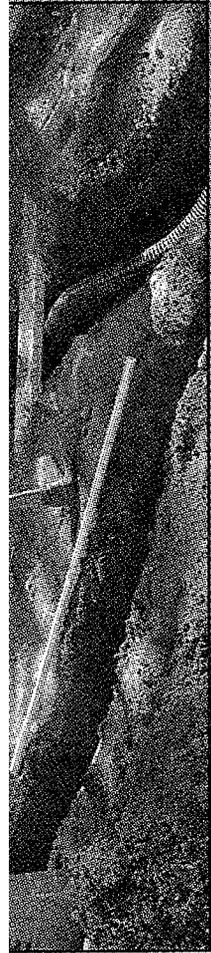


The remaining wall that needed

schedule because the California state budget crisis had frozen the garden project, but the impending real freeze of winter could prevent planting if the groundwork weren't done first and quickly.

Even though the project had lost some of its initial momentum, it didn't take long for dedicated volunteers to return to the garden. During this phase, consistent volunteers have included Dee-Dee Combes, Don Fox, Glenn Franklin, Gary Friesen, Joel Friesen, Jeff Gabe, Janette Gamble, Ruth Ketvertis, Len McKenzie and Jim Spotts. Julie Dowsing and Iggy Ketvertis and newcomers Meg Keoppen and Vivian White occasionally joined the project.

On almost every Saturday of scheduled work, the MCRCD would look forward to a lot of hard physical labor contributed by the Mariposa County Probation Department's adult work



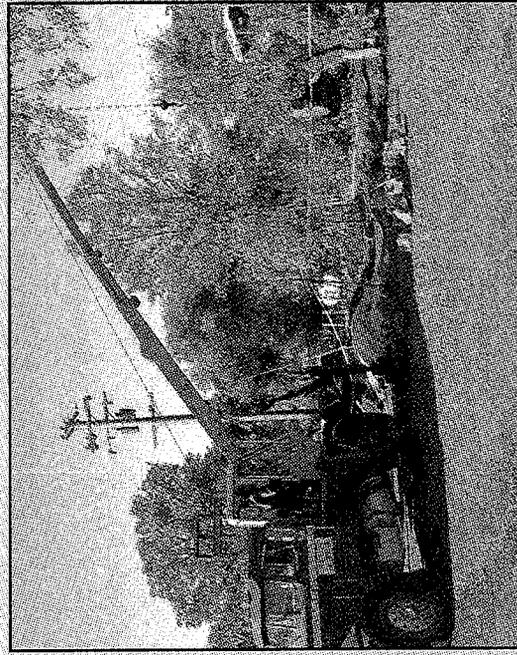
VOLUNTEERS GLENN FRANKLIN (LEFT) AND LEN MCKENZIE WORK ON THE DRAINAGE AND IRRIGATION SYSTEMS FOR THE GARDEN IN OCTOBER.

painstakingly leveling the pathway to comply with accessibility standards of the Americans with Disabilities Act (ADA).

Under the guidance of retired Yosemite National Park landscape architect and ADA specialist Fox, Spotts and Gary Friesen have toiled many hours to attain the proper grade for the pathway.

Jim, a licensed contractor, used his transect to get the lay of the land and donated weeks of his time tackling the challenges of ADA compliance issues. He also donated a clay culvert for the drainage crossing he helped develop.

Gary Friesen, a busy commercial pilot, spent many hours during his times at home measuring and constructing the footpath, using his digital level to establish the proper percentage of grade needed for ADA compliance. He also manned a rented rototiller and used his tractor to prep the garden site.



BOB EVANS OF EVANS' TREE SERVICE PLACES HUGE BOULDERS AROUND THE GARDEN SITE TO ENHANCE ITS LOOK AND PROVIDE WILDLIFE HABITAT.

Christy Peterson and Trudy Williams provided assistance. Painting the wall will come next, and the plants will be added as the finishing touch. While the Chrysalis Institute has built storage buildings and the broad-jump runway at the Mariposa County High School's track and field facility, this is its first papercrete retaining wall.

Also on Sunday, Cindy Brooks and Larry Ends of The Homestead bed and breakfast in Ahwahnee donated their time to create a dry-earth rock wall along part of the Native American planting mound. Ends had built many natural retaining walls at The Homestead, its clay soil and rocky materials similar to the garden's site. This example will demonstrate what landowners can do with excess rocks from their own properties.

By the end of the day, 100 plants had been installed in the native plant demonstration garden. However, about 150 more natives as well as 28 bunch grasses remain to be planted, necessitating additional days of planting.

The next planting day will be Saturday, Dec. 5, starting at 9 a.m. Anyone who would like to help and learn about the plants in the process, can join the group at 5039 Fairgrounds Road, the Sierra Nevada Conservancy offices. Participants should wear long sleeves and bring gloves, hats and shovels or other planting tools, as well as water and lunch.

For more information, contact project manager Kris Randal at the MCRCD office at 966-3431 or send emails to kris.randal@ca.usda.gov