Shane Krogan presents
High Sierra Volunteers

In 1995 Shane Krogen discovered the Forest Service “Adopt-a-Trail” program, which enables individuals, business and special interest groups to adopt and maintain trails within the National Forest. Shane adopted a 12.2 mile segment of the California Riding and Hiking Trail in the vicinity of Huntington Lake.

In the summer of 1997 the US Forest Service approached him and presented a challenge. Due to budget restraints, they needed volunteer help maintaining over 400 miles of trails between Yosemite and Sequoia-Kings Canyon National, including 27 miles of the Pacific Crest/John Muir Trail through some of the most scenic portions of the John Muir Wilderness. His response was the formation of the High Sierra Volunteer Trail Crew. During the spring of 1998, a small but very dedicated group contributed ten days of trail work which amounted to 800 hours of volunteer time.

With strong support from local media, their volunteer group quickly expanded to over 35 on each outing, with all ages from children to seniors participating. Over the many years of effort clearing and maintaining trails through some of America’s great national treasures, the High Sierra Volunteer Trailcrew has been recognized with several service awards for their dedicated environmental stewardship.
Bear in mind the consequences.

The Yellowstone grizzly bear is an irreplaceable part of America’s natural heritage, a symbol of the independence that defines the American character and an icon of all that is wild and free. The Bush administration set forth a proposal that would remove federal protection for the Yellowstone grizzly bear. Help Sierra Club protect our forest friends; they prefer the woods than being on display.

Get grizzly and JOIN Sierra Club.

Join today and receive a FREE Sierra Club Weekender Bag!

Name ___________________________ ___________________________
Address __________________________ State _______________________
City________________________ State __________________________
Zip_________ Phone (______)
Email __________________________

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Contributing ☐ $150 ☐ $175
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Senior ☐ $24 ☐ $32
Student/Limited Income ☐ $24 ☐ $32

Contributions, gifts and dues to Sierra Club are not tax deductible; they support our effective, citizen-based advocacy and lobbying efforts. Your dues include $7.50 for a subscription to Sierra Magazine and $1 for your Chapter newsletters.

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Chapter Phone (559) 229-4031
Web Site www.tehipite.sierraclub.org

Tehipite Chapter Officers:

Chapter Chair
Bill Fjellbo (559) 642-4511 jbfjellbo@sti.net

Chapter Vice-Chair
Gary Lasky (559) 790-3495 data.nations@gmail.com

Chapter Secretary
—

Chapter Treasurer
Wayne Dill wd@whcpafirm.com

Executive Committee Members:

Heather Anderson (559) 681-6305 heather.anderson8@comcast.net
David Cehrs (559) 875-9495 dcehrs@juno.com
William Fjellbo (559) 642-4511 jbfjellbo@sti.net
Richard Kangas (559) 896-5337 rkangas02@comcast.net
Gary Lasky (559) 790-3495 data.nations@gmail.com
Karen Laws (559) 227-2644 karen3245laws@gmail.com
Marcia Rasmussen (559) 332-2419 marcia@bigbaldy.com

Merced Group Appointee
Rod Webster (209) 723-4747 rwebster@elite.net

Chapter Committee Chairs:

Honors & Awards
Marcia Rasmussen (559) 332-2419 marcia@bigbaldy.com

Hospitality
Karen Hammer (559) 298-5272 ecuagirl45@yahoo.com

Membership/Newsletter Distribution
Marian Orvis (559) 226-0145

Outings and Outings Leader Training
Marcia Rasmussen (559) 332-2419 marcia@bigbaldy.com
Steve Fretz (559) 439-6673 safretz@earthlink.net

Political Committee
Bill Fjellbo (559) 642-4511 jbfjellbo@sti.net

Programs
Heather Anderson (559) 681-6305 heather.anderson8@comcast.net

Publicity
Karen Hammer (559) 298-5272 ecuagirl45@yahoo.com

Tehipite Topics Editor
Bob Turner (360) 305-2328 robertturner52@gmail.com

Tehipite Topics Website Editor
John Rasmussen (559) 332-2419 john@bigbaldy.com

Conservation Committee:

Conservation Chair
—

Energy, Climate Change, Population
—

Kings Canyon National Park
John Rasmussen (559) 332-2419 john@bigbaldy.com

National Forest Chair
Richard Kangas (559) 896-5337 rkangas02@comcast.net

San Joaquin River
Chris Acree (559) 709-4913

Sprawl, Air Quality
Gary Lasky (559) 790-3495 data.nations@gmail.com

Water, Kings River
David Cehrs (559) 875-9495 dcehrs@juno.com

Wilderness/Desert
Ron Mackie (559) 683-0293 rmackie@sierratel.com

Yosemite National Park
George Whitmore (559) 229-5808 geowhit1954@comcast.net

Council of Club Leaders:

CCL ExComm
Gary Lasky (559) 790-3495

CCL Delegate
Gerald Vinnard (559) 431-5780

California/Nevada Regional Conservation Committee:

CNRCC ExComm
Gerald Vinnard (559) 431-5780

CNRCC Delegate
Heather Anderson (559) 681-6305

CNRCC Alternate
Richard Kangas (559) 896-5337
Tehipite Chapter Meetings

Conservation & Executive Committee Meetings
Second Wednesday of each month, except July and August ~ Open to the Public
September 12, October 10, November 14, December 12, January 9, February 13, March 13, April 10, May 8, June 12
The Conservation Committee meets at 7 PM. The Executive Committee meets at 8 PM.
University of California Center, 550 E. Shaw Avenue, Fresno (between First and Fresno Streets)

General Meetings
FREE AND OPEN TO THE GENERAL PUBLIC
University of California Center, 550 E. Shaw Avenue, Fresno (between First and Fresno Streets)

June 20, Shane Krogan of the High Sierra Volunteers
July and August, No meetings
September 19, Gene Richards — Travels to the Middle Kingdom and Lessons for Life
October 17, Brandy Anglen, FCC Science Instructor, Study Abroad Programs at FCC — Some tidbits from past trips and highlight of the upcoming travel to Madagascar in 2013
November, No meeting
December 19, Helen Gigliotti presents her photographs

Heather Anderson
Wild Water
Solo Exhibition in the front room at the Fig Tree Gallery through July 1 2012
644 Van Ness Ave. Fresno CA 93721
Open Friday to Sunday 12 - 4
or by appointment 559.485.0460

Heather is the author of Art Education and Eco Awareness, A Teacher's Guide to Art and the Natural Environment. Wilderness has been Anderson's driving passion for more than 50 years, and she has combined this with two other loves: teaching and painting. Heather earned a Ph.D. in Art Education from the University of Oregon, where her dissertation was on teaching students about the environment through art.
**Merced Group Meetings**

**Conservation & Executive Committee Meetings**
The first Wednesday of each month at 7:00 PM — Rod Webster’s home, 345 E. 20th St., Merced
Conservation meeting is first and can last 30-40 minutes.
Anyone with an interest in local, state, or national conservation issues is welcome to attend.

**Merced Group General Meetings**
Usually the third Thursday of each month (May and December excepted)
Starts at 7:00, usually over by 8:30 or so
Merced United Methodist Church, 899 Yosemite Parkway (that’s Hwy 140 to Yosemite)

Other events often going on, so park in the lot along Cypress Avenue and enter there to find us easily.

**Thursday June 21, 7PM**
Steve Veirs, retired park ranger
presents
*Redwoods: Comparing Coastal Skyscrapers and Sierra Giants*
Steve served for years at Redwood National Park in northern California. He has also overseen and monitored scientific research on both sequoia sempervirens, the coastal species, as well as sequoia giganteum, our local Sierra monoliths. He still conducts classes for park rangers in Kings Canyon/Sequoia NP. Come learn some fascinating facts about California’s unique and distinctive redwoods.

**July – Planning Meeting** (no general meeting this month)
Date and location yet to be determined.
Contact Rod Webster if interested and I’ll keep you posted.

Those who are interested can help plan next year’s programs. We use our collective thoughts and contacts to map out possible topics and brainstorm prospective speakers. We will also discuss having some more open-ended, interactive programs in the coming 2012-13 year.

These would not have featured speakers with formalized presentations, but instead topics of general interest would be posed that we would explore and discuss among ourselves. Ideas for topics and how to facilitate these kinds of meetings will be explored.

**August – no meeting**

**September – regular monthly meetings resume**

**NOTE:** It is sometimes difficult to have finalized info for some meetings at the time of publication. July and Sept. are good cases in point. We do try to run an item in the local papers the week of, but that is an imperfect communication at best. Some 50-60 folks are on my "friends of Merced Sierra Club" email list so I can reach them in case of late developments or changes. If you would like to be added to that list just email me at <rwebster@elite.net> I promise to be very discreet in its use. Usually that means a notice or reminder once or twice a month. No email? — a phone # works too. Mine is (209) 723-4747.
We received a Whitney Trail permit for 15 people on July 22!

We still have 1 or 2 spots open on this trip. When these places are filled, we will accept a few people on a waiting list, in case there are cancellations. Contact the trip leader right away if you would like to go.

Mt. Whitney Day Hike

Date: Saturday, July 21 to July 23, 2012
Start of Hike: Sunday, July 22, 4:00 AM
Leader: Marcia Rasmussen
Co-leader: John Rasmussen
Outing Type: Day Hike
Rating: Difficult (5E)
Climbing & Descending Elevation: 6,000 feet
Starting Elevation: 8,500 feet
Maximum Elevation: 14,500 feet
Distance: 22.00 miles

This is a long, strenuous hike; participants will be screened for appropriate fitness/experience. Hikers will be required to send a $15 deposit to hold their places on the trip. Though this is a DAY hike, we will carpool to Lone Pine on Saturday. We will look into lodging at the Lone Pine Hostel, though participants are free to camp or find their own lodging if they wish. We will meet at the trailhead in time to depart at 4:00 AM on Sunday. We will stay over until Monday morning and carpool home. Participants will be asked to pay for group lodging, meals, gas for carpool drivers, and incidental group expenses. For more information, contact Marcia Rasmussen at Marcia@BigBaldy.com or (559) 332-2419. Check our website frequently for updates: http://tehipite.sierraclub.org/outings.

Outing to Willow Creek with Sierra Club’s California/Nevada Wilderness Committee

Date: Sunday, September 23, 2012 – 8:00am
Leader: Karen Hammer
Outing Type: Day Hike
Destination: Angel Falls and Devils Slide Falls
Rating: Easy (1A)
Distance: 4 to 5 miles

Members of Sierra Club’s California/Nevada Wilderness Committee will be in town for a weekend gathering and would like to join local Sierra Club members for a medium-length hike on Sunday before returning home. Come join members of the committee on an outing to two breathtaking waterfalls on Willow Creek above Bass Lake.

Contact: After Sept. 8, call Karen Hammer at (559) 298-5272 for more details.
Becoming Beloved Ancestors: Will Wisdom Sit in Fresno?
Carolyn Raffensperger and Law for an Ecological Age

by Robert Turner

Wisdom does not always reside with the most educated or technologically advanced cultures. Our civilization, relying as it does on written records and a monetary economy, has its own biases that are often difficult to overcome, and we can sometimes gain new insights by looking at our world from the perspective of a different way of thinking. For many Native American cultures, based as they are on a heritage only recently influenced by the world of written records, libraries, and archives, their version of history is recollected as spatial memory rather than as temporal memory. Prominent landmarks, sacred locations, special rocks or trees or springs all hold tales associated with them, so that when one speaks of a particular river bank, for instance, where a parlay was held, a whole story comes to mind, complete with a moral lesson to be conveyed.

“For Indian men and women,” writes Keith Basso in his book Wisdom Sits in Places, “the past lies embedded in features of the earth—in canyons and lakes, mountains and arroyos, rocks and vacant fields—which together endow their lands with multiple forms of significance that reach into their lives and shape the way they think.” Quoting N. Scott Momaday, he says that “men and women learn to appropriate their landscapes, to think and act with them as well as about and upon them…” Basso goes on to say that the challenge is “to fathom what it is that a particular landscape, filled to brimming with past and present significance can be called upon to say, and what, through the saying, it can be called upon to do.”

Archaeologist and environmental lawyer Carolyn Raffensperger, director of the Science & Environmental Health Network, in her visit to Fresno City College April 21, asked those in the audience to consider what sort of institutional memory will come to be associated with the city and valley of Fresno in years to come. Will stories evoked by the mention of Fresno be coupled with sadness, waste, and environmental and social tragedy, or will people instead think of heroic efforts and wise choices that were made to enhance this place we call home, for both our time and that of future generations?

“Becoming Beloved Ancestors: Leaving a Healthy World to Future Generations” was the title of Dr. Raffensperger’s inspiring and visionary talk, sponsored by a number of local progressive and environmental groups, including the Tehipite Chapter of the Sierra Club. She began by asking what sort of imagery is evoked by the name of Fresno. Her own notions, built as they are from the perspective of a distant Dakotan, included hot, dry, in a valley, and lots of agriculture. And while the Fresnans in the audience recognized these aspects of our home city, the image we brought forth was of an oasis, located in a fertile valley that feeds distant lands in addition to our own, and integrally tied to the nearby mountains with their reservoirs of snow and cascading streams.

Each place carries a story, said Dr. Raffensperger. This is how the White Mountain Apache define history. You name a place and you know the story that goes with it. The stories each carry a moral, saying, “This is how you should live.” Fukushima, Love Canal, Chernobyl, Bhobal, catastrophes that will linger torpid and toxic for thousands of years — these names immediately evoke images of human technological hubris and man-induced ecological contamination. More than the dates of these disasters, we remember their places in our minds, and a warning goes forward with each recollection: Do not allow this to happen again.

In 2011, Dr. Raffensperger was asked to draft “the principles of perpetual care” for the Giant Mine, an abandoned gold mine in Yellowknife, in Canada’s Northwest Territories. Appropriately named “Giant” for its size and the scale of its toxicity, it can easily be called the Toxic Forever Mine, with its 237,000 tonnes of arsenic trioxide that were blown back into the vast caverns below the surface. Greater than ten times the amount of gold that was produced there, this waste can dissolve in water and has already poisoned lakes and creeks in the area. The activity of mining is now complete at this site, but the much longer task of ensuring the safety of its environs is only now beginning.

“How do you plan for 250,000 years of toxic presence? Can we warn generations that far into the future? How do we protect them? What do they need to know? By what right do we leave a legacy to the future beings that they will have to pay for and that is so toxic?”

“It would be so easy to forget the Giant Mine,” writes Dr. Raffensperger in her essay, “Wisdom Sits Here: Learning from a Ravaged Land.” “It is far away and the local human population nearby is small. But the Giant Mine holds a story that contains a moral. It tells us the consequences of heedless greed. It is a warning in and of itself: gut the land and you gut yourself. Simply saying the words, Giant Mine or Fukushima invokes an entire history of technology, of place, of human insanity.”

One way of turning these tragedies into wisdom tales is to let them be lessons to prevent such catastrophes from ever happening again. This has given rise to a wider and clearer elucidation of the Precautionary Principle in the public sphere, invoking it as a basis, not just for personal decision-making, but for legal and governmental action, as well. The common sense idea behind many well-known adages such as “Better safe than sorry,” the Precautionary Principle states that when the health of humans and the environment is at stake, it may not be necessary to wait for scientific certainty
The Precautionary Principle

The Science and Environmental Health Network is working to implement the precautionary principle as a basis for environmental and public health policy. The principle and the main components of its implementation are stated this way in the 1998 Wingspread Statement on the Precautionary Principle:

“When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the precautionary principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action.”

The precautionary principle or precautionary approach states that if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is harmful, the burden of proof that it is not harmful falls on those taking the action.

This principle allows policy makers to make discretionary decisions in situations where there is the possibility of harm from taking a particular course or making a certain decision when extensive scientific knowledge on the matter is lacking. The principle implies that there is a social responsibility to protect the public from exposure to harm, when scientific investigation has found a plausible risk. These protections can be relaxed only if further scientific findings emerge that provide sound evidence that no harm will result.

In some legal systems, as in the law of the European Union, the application of the precautionary principle has been made a statutory requirement.

from the website of The Science & Environmental Health Network
http://www.sehn.org

to take protective action. Since 1998, the Science and Environmental Health Network has been the leading proponent in the United States of the Precautionary Principle as a new basis for environmental and public health policy, working with organizations, coalitions, and governments to implement precautionary policies at local and state levels.

Acting on the Precautionary Principle certainly has its practical side. Taking care and preparing for what might be a dangerous future is less expensive than cleaning up the messes that were only dimly foreseen. But more important is that it is the responsible thing to do. The world does not belong to just the current generation of humans, but to all of our descendants for generations to come as well as the rest of the life that will be sharing this planet with them. We have a duty to clean up our own tragedies and disasters and leave a better world to future generations.

Dr. Raffensperger pointed out that our current American legal system was designed for a different world. In a time when the Earth’s resources seemed endless, the legal system was structured to promote economic activity even if it caused environmental damage, since the benefits of economic growth were believed to outweigh such costs. Most legal actions, therefore, have been based on free market law, not on offenses against the community. Even when it has been clear that it is not in our long-term interest to let our shared resources be depleted by people and corporations consulting only their own self-interest, we continue to operate under antiquated legal principles that measure the economic costs and benefits of our environmental impacts. If we don’t want environmental law to continue to be regulated under free market law, then we need to move it into the realm of rights law.

We once took slavery out of the free market law and moved it into rights law. Maybe clear air and clean water, free-running rivers, and a sustainable agricultural land are in the same category. These things that we share are not just the foundation of the economy but integral to the quality of our lives.

Today our voice for the health of the earth and the future of the generations to come is merely considered as a competing interest equal to profit of corporations. When government agents mediate between these competing interests their view of success is when all the parties leave the table unhappy. Then they feel that they have done their job well. This has led many to argue that government is too big and should make way for the market to take care of things. What if we decided instead to have the state ensure our environmental wealth and health as a common right and to regulate it as caretaker, licensing those who ask to take a share of this commons for their own profit. What if we decided we will not let the commonwealth be degraded and abused, we will not leave a broken, unhealthy environment to the future.

The Science & Environmental Health Network is encouraging a change in our legal code so that it rewards healthy, sustainable economic...
activity and promotes the public welfare, now and for future
generations. Much can be done on the local level, where
regulations can be reviewed for their impact on future
generations, city budgets can report on how well the
commons are faring, including our rivers, parks,
groundwater, and air, and permits can be granted with
community benefit contracts, where companies put up
bonds and relinquish them if they pollute in the future. The
new environmental rights law is a law of sharing, a law of
community, revoking the individual's right to profit off of
pollution. It is a profoundly democratic principle, since the
public, and especially those still unborn, do not consent to
anyone stealing their future.

The law can be transformed to recognize that we must
live within the ecological constraints of the Earth, while also
building on our nation's historic commitment to equal
rights and justice for all. The "law for the ecological age"
would promote the long-term welfare and health of the
Earth and her inhabitants, implementing the precautionary
principle and environmental justice, incorporating the
interests of future generations, accounting for cumulative
impacts to overburdened communities, abiding by the
Public Trust Doctrine, and shifting the burden of proof to
those who could potentially damage our common
environmental goods.

It is our task as environmentalists, Dr. Raffensperger
believes, to tell stories of places that allow wisdom to sit in
those places. Can we transform the stories of Chernobyl
and Love Canal, of the Giant Mine, into ones that take these
great tragedies, that take the deaths, contaminated water
and destruction that arose from what took place, and make
it so that wisdom sits there?

"I imagine how we would tell the story of the Giant
Mine to the great grandchildren of the great grandchildren
as a wisdom tale. Imagine that we cleaned up the Giant
Mine so the water runs clean. The animals and plants are
healthy and the human community thrives. Imagine that
we told the story of gold mining and tearing apart the land
and lives, poisoned everything around. And then we gave
the ending. We learned. We know better. We restored the
Giant Mine to health. We could be beloved ancestors. Wisdom would sit in that place."

So how do we make it so that wisdom sits in Fresno?
Can we make Fresno into a story with an uplifting moral?
Will we be remembered as beloved ancestors?

In introducing her to the audience at Fresno City
College, Jean Hayes, of the Women's International League
for Peace & Freedom and Earth Democracy Group, stated
that Carolyn Raffensperger brings words of hope, and hope
breeds creativity, and creativity will help solve our
problems. For the young, especially, there is hard work
ahead, but it is worthy work, it is necessary work, and their
commitment and genius are needed in it. Hope is not the
certainty of success, but it is the compass direction of our
action. It is the deep orientation of our soul and self.

This article has borrowed heavily from the website of the Science and Environmental Health Network. I encourage everyone with
an interest in the future of environmental law to go to the site at www.sehn.org and read the statements and essays about the
Precautionary Principle in action, Law for the Ecological Age, Ethical Economics, Ecological Medicine, and Guardianship for
Future Generations.

Besides the Tehipite Chapter of the Sierra Club, other sponsors for the event were: the Fresno Chapter of the League of Women
Voters, Revive the San Joaquin, the Sustainable Actions Club at Fresno City College, the Valley Water Consortium, the Unitarian
Universalists of Fresno Social Justice Committee, and the Fresno Branch of the Women's International League for Peace &
Freedom.

Flash!

Fresno will host the next meeting of the Sierra
Club's California/Nevada Wilderness Committee
on Saturday, September 22. Tehipite Chapter
members who care about wilderness, other wild
places, national forests and parks are invited to
join the Saturday meeting and the associated
hike on Sunday. Contact Vicky Hoover at
vicky.hoover@sierraclub.org for more details,
exact location and agenda.
Intermountain Nursery and the Value of Landscaping with Native Plants

by Robert Turner

Intermountain Nursery is unique in its devotion to growing and supplying California native plants to the Central Valley area. Located at a 1700-foot elevation in the Sierra foothills just northeast of Prather on Auberry Road, the nursery has planted twenty demonstration gardens to showcase these natives, as well as other drought tolerant plants appropriate for a Mediterranean climate, in their mature, uncropped growth. These gardens are accessible for self-guided tours throughout the year. After hearing Bonnie Bladen speak at the April 2012 Tehipite Chapter meeting, though, I chose to attend a nursery garden tour with Bonnie herself as our guide, just one of Intermountain Nursery’s many educational events held throughout the year.

We began our tour in the back of the grounds beside Little Sandy Creek, which tumbles its way over the local granodiorite bedrock and boulders before merging with the Big Sandy just a few hundred feet beyond. The five-acre nursery grounds used to be an Native American gathering place, making a nice winter camp where the two creeks come together. There are grinding holes and a spiritual rock, and two walnut trees were planted there by the native residents.

Bonnie lectured us about the value of what is now being called River-Friendly Landscaping. This collection of environmentally-friendly gardening practices is designed to help one create a healthy, beautiful, and vibrant yard while conserving water and energy, reducing yard waste, nurturing soil health, and preventing pollution in our air and local rivers. Too much of Fresno is landscaped with species from England that are water hogs, meant to stay lushly green all summer.

The key element in River-Friendly Landscaping is choosing to landscape with species that are suitable to the site’s climate zone. In Fresno, that is a Mediterranean, or dry-summer subtropical, climate, where we go 4 to 6 months without any significant precipitation. By choosing plants suitable for our climate zone, our gardens would require less water, fertilizers, and maintenance than your typical urban garden.

Using a variety of local California native plants is usually best, since the wildlife of the area is already well-adapted to these plants, and your garden will attract native pollinators and other insects, providing food to help restore the population of birds and other small animals. Through careful site-planning, especially if you live near an urban-wild interface, your garden can become part of a natural corridor for a diversity of organisms, helping to increase habitat and range for local wildlife.

Knowing which plants require full sun exposure and which prefer or tolerate partial or full shade is a necessary part of planning what species to plant. Speaking about oak habitat, we were told that there are only a few plants that are both drought tolerant and shade tolerant. Since the
area under an oak tree is susceptible to fungus, it must be maintained as a dry site and not watered. Here the unusual combination of drought tolerant and shade tolerant characteristics in plants such as coral bells (Heucera) and columbines (Aquilegia) makes them suitable for planting beneath the oak trees. But if one wants to use some of the more usual water-liking shade plants, then you can put them in planters or place them out farther from the trunk, which is healthier for the oak tree.

As we were guided around the demonstration gardens, Bonnie impressed us with her fluent knowledge of every plant’s individual characteristics, telling us without notes the general habit of the plant, the color of its blooms and when it flowers, its watering and exposure needs, and the height and width of its mature development. This last she considers the most important aspect of the plant and the one most often disregarded in planning out a garden. Too often homeowners want immediate results when they design a new garden. Since the plants they buy are still relatively small, they crowd them in too closely for their mature size. Not only have they spent more than necessary by buying too many plants, but they have also created a future maintenance headache requiring regular pruning. But if one wants a completely done garden right away, you can plant close together and then remove plants as they grow.

Another common practice that creates excessive green waste is growing lots of hedges that need to be sheared. Unless one is looking to conduct their own composting operation, all of these excessive trimmings must be hauled off by the city. But if one places plants far enough apart, they can attain their natural shape and so need less maintenance, saving money and energy.

Garden installation is a process. Professional landscapers need to school their clients in the value of proper spacing, looking ahead to the mature size of the plant and a landscape that will evolve and grow into beauty. Given a few seasons, the exercise of patience pays off with a garden that looks more natural, more like how nature has landscaped the foothills.

When designing a garden one needs to know your soil. Hardpans will require mounds. The crown of most plants needs to be in soil that drains, though some plants can be inundated. Ground cover manzanita, for instance, a plant that needs no shearing and has a beautiful purple wood, needs a little soil above the hardpan. Clay soils are not necessarily bad, but you need to know so that you water less.

How we initiate watering our new plantings can also make a difference. Lots of California plants evolved without summer water. Bonnie recommends that watering be done infrequently but more intensely to imitate the natural cycle. In the beginning one may water twice a week until the new plants become established, but then one should water less, only once weekly, but for two to four hour settings to let the water soak far into the soil. This encourages plants to grow their roots more deeply, so they become firmly anchored and dependent on lasting groundwater rather than surface moisture.

Less frequent but more intense watering is especially valuable for trees, as they will then be forced to reach down deep for water. This gives the tree deeper roots, more stability, and makes it less invasive of foundations and sidewalks. It is going down for the groundwater, accessing more minerals, and wrapping around rocks, so it can withstand heavier winds.
### The Seven Principles of River-Friendly Landscaping (RFL)

<table>
<thead>
<tr>
<th>RFL Practice</th>
<th>Benefits</th>
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<tbody>
<tr>
<td><strong>LANDSCAPE LOCALLY</strong> — take into account the existing site characteristics</td>
<td></td>
</tr>
<tr>
<td>Consider climate, sun exposure, and soil type when selecting plants</td>
<td>Plants are stronger and healthier, reducing need for water, fertilizer, and pest control.</td>
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<tr>
<td>Avoid using invasive species</td>
<td>We avoid having invasive plants escaping into our natural areas, where they can spread rapidly and outcompete natives, degrade wildlife habitat, and increase fire danger.</td>
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<tr>
<td><strong>LANDSCAPE FOR LESS TO THE LANDFILL</strong></td>
<td></td>
</tr>
<tr>
<td>Grasscycle (leave the grass clippings on the lawn after mowing)</td>
<td>Reduces green waste, saves time and money, and contributes to a vigorous lawn.</td>
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<tr>
<td>Use on-site plant debris as mulch</td>
<td>Keeping plant debris on-site returns valuable nutrients and organic matter to the soil, improving soil and plant health. It also reduces the cost and pollution associated with transporting it off-site.</td>
</tr>
<tr>
<td>Compost on-site plant debris</td>
<td>Plants require less pruning which results in less green waste.</td>
</tr>
<tr>
<td>Choose plants that can grow to their natural size in the space allotted them</td>
<td>Reduces waste, conserves natural resources, strengthens market for recycled products.</td>
</tr>
<tr>
<td><strong>NURTURE THE SOIL</strong> — promote beneficial soil organisms</td>
<td></td>
</tr>
<tr>
<td>Amend the soil with compost before planting</td>
<td>Fosters a diverse, fertile, and disease suppressive soil, resulting in stronger, healthier plants. Improves soil structure, aeration, and water holding capacity.</td>
</tr>
<tr>
<td>Mulch regularly</td>
<td>Mulch conserves water, suppresses weed growth, and improves soil structure.</td>
</tr>
<tr>
<td>Feed soils naturally; avoid synthetic, quick release fertilizers</td>
<td>Compost and mulch naturally feed the soil. Slow release fertilizers make nutrients available to the plants when they are needed, resulting in a more even rate of growth.</td>
</tr>
<tr>
<td><strong>CONSERVE WATER</strong></td>
<td></td>
</tr>
<tr>
<td>Minimize/eliminate lawn</td>
<td>Lawn requires much more water to keep healthy than other landscape plants. By reducing or eliminating the lawn area, you will be conserving water and energy, as well as reducing the need for fertilizers and pesticides.</td>
</tr>
<tr>
<td>Grow low-water use California natives or Mediterranean plants</td>
<td>Native and Mediterranean plants are naturally suited to our climate, thereby requiring less soil preparation, watering, mowing, fertilizing, and spraying. Using local natives reduces the risk of spreading invasive species.</td>
</tr>
<tr>
<td>Design, install, and maintain high efficiency irrigation systems</td>
<td>Conserves water by limiting evaporation and runoff. Also reduces plant diseases and minimizes weed growth.</td>
</tr>
<tr>
<td><strong>CONSERVE ENERGY</strong></td>
<td></td>
</tr>
<tr>
<td>Plant and protect trees to shade homes, paved areas, and air conditioners</td>
<td>When properly placed, mature trees can reduce the interior temperature of a building by as much as 20 degrees, reducing summer cooling costs by 25-40%. Air conditioner run more efficiently when shaded.</td>
</tr>
<tr>
<td>Avoid unnecessary outdoor lighting</td>
<td>Saves energy</td>
</tr>
<tr>
<td><strong>PROTECT WATER &amp; AIR QUALITY</strong></td>
<td></td>
</tr>
<tr>
<td>Choose pest-resistant plant varieties</td>
<td>Reduces/eliminates the need for pesticides, thereby protecting the health of local waterways</td>
</tr>
<tr>
<td>Include plants that support beneficial insects</td>
<td></td>
</tr>
<tr>
<td>Use manual tools in place of power tools</td>
<td>Reduces air and water pollutants that result from the use of power tools</td>
</tr>
<tr>
<td><strong>CREATE &amp; PROTECT WILDLIFE HABITAT</strong></td>
<td></td>
</tr>
<tr>
<td>Create diversity by choosing California native plants first</td>
<td>A diverse landscape better resists disease and insect pests. Natives flourish with less water, fertilizer, and maintenance, and foster local wildlife</td>
</tr>
<tr>
<td>Reduce/eliminate the use of pesticides and herbicides</td>
<td>Beneficial organisms are not harmed, allowing them to keep pests under control.</td>
</tr>
<tr>
<td>Provide water &amp; shelter</td>
<td>Water and shelter support wildlife and add interesting elements to the landscape.</td>
</tr>
</tbody>
</table>

Infrequent watering also lets the soil dry out between waterings, which is good for the microbial ecology of the soil. You do not want anaerobic soils, which are always wet.

One way to preserve a healthy soil moisture while also controlling weed growth without herbicides is to lay out mulch between the plants. Sheets of cardboard will mold to the ground, then one can mulch over that, keeping 3 to 4 feet away from the bottom of plants. At Intermountain Nursery they always mulch with almond chips, made from the hardwood, not the bark, as it breaks down more slowly than bark and doesn’t float away in the rain.

Planting for diversity makes for a healthier garden ecosystem. A diverse landscape includes annuals, biennials and perennials of many different sizes, shapes, colors and textures. It includes evergreens and deciduous plants, species that bloom at different times of the year, and those that bear fruit or berries. Not all insects are generalists, but many have coevolved with certain plant species. By providing habitat for specialty insects, one is more likely to develop a landscape with a healthy balance of native pollinators, beneficial insects, and other organisms that can reduce the need for pesticides.

Just as in the parks and open spaces of a city, gardens and small developed landscapes can also provide food, water, shelter, and nesting sites for birds, butterflies, beneficial insects and other creatures, thus helping to conserve valuable wildlife resources and restore damaged ecosystems.

Intermountain Nursery is not there just to educate, of course. The center of the property is occupied by rows of native plants ready to purchase and take home for planting in your garden. Penstemon, Cistus, Aster, and Fuchsia; Yarrow, Erigeron, Artemisia, and Ceanothus; and numerous species of the genus Salvia — autumn sage, germander sage, purple sage, aromas sage, and hummingbird sage; all labeled with descriptions and guidance for planting and care.

A wide variety of herbs are available, many of them well suited to serve as aromatic groundcovers. Some creeping thymes can be used as a lawn substitute, and while it may be better to have walking stones, the thyme can be safely trod upon, as well. Herbs in general do very well in California, as they are Mediterranean plants and very hardy. And, of course, they also can be used for cooking.

Six-foot high grafted fruit saplings of all types are well supplied. There is the flowering climbing vine Wisteria, the evergreen Manzanita with its orange, red, or purple bark, and Chilopsis, the Desert Willow that will grow only up to 15 feet, to
A Rare and Popular Native Flower

The stunningly beautiful Tree Anemone is endemic to only seven sites in Fresno and Madera Counties, where it is native to the decomposed granite soil along seasonal creeks between 2500 and 4000 feet, growing amongst the dense chaparral. Extremely popular in European gardens, especially in England, where a cold-tolerant cultivar thrives, this rare native evergreen shrub is now much more common in cultivation than in the wild. Natural seedlings are rare, but the species is well adapted to wildfire, reproducing by stump sprouts after burning. Those who wish to grow this and other native plants in their gardens should only obtain them from commercial nurseries, which have the necessary permits to collect wild seeds on public lands. The permit process is essential in order to make sure that collectors do not negatively impact the population and genetic diversity of our native ecosystems.

The Intermountain Nursery provides not just retail services for individual gardeners and landscapers, but also wholesale supplies for other retailers and professional landscaping contractors. They have provided CalTrans with drought-tolerant species to line our freeways and interchanges, saving vast amounts of money and helping to conserve the state’s precious water supply, and are engaged in a native plant restoration project on an in-holding within the Sierra National Forest. They will contract to grow and install site-specific plants for erosion control and re-vegetation projects in the Sierra foothills.

If you want to visit, the nursery is open seven days a week year round except between Christmas and New Year’s. Hours are Monday - Saturday, 8am to 5pm and Sunday, 10am to 4pm.

“A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community.”
— Aldo Leopold, A Sand County Almanac

The Mary Elizabeth Miller Preserve at Black Mountain

The Mary Elizabeth Miller Preserve at Black Mountain, located between Prather and Tollhouse, is one of four nature preserves owned by the Sierra Foothill Conservancy. Though all are located in the Sierra Nevada foothills of Fresno County, they are remarkably diverse in their history, their topography, and their plant and animal life. In fact, they stand as splendid examples of the rich diversity of different habitat types in this region.

Home to the distinctive Carpenteria, or Tree Anemone, Black Mountain is the first 3,600 foot foothill to face the winter storms coming in from the Central Valley, and so receives substantially more rain than the foothills to the west and twice as much as the valley floor. As a result of this extra moisture, the plant life is abundant and extremely varied. In March, April and May, over a hundred different kinds of flowering plants, some quite rare, cover the slopes with their blooms. Animal life is correspondingly rich.

Black Mountain has two quite distinct habitats: dense, woody chaparral on the north-facing slope and grassland/oak woodland on the south-facing slope. Its slopes, ravines and natural springs create diverse microhabitats, harboring almost the entire suite of central Sierra foothill species. By conserving contiguous land on the mountain, wildlife corridors are maintained and allow for species to move upslope in the face of global warming.

Hiking on the Miller Preserve is easy, much of it on a dirt road, and is especially recommended for families with children.

To learn more go to www.sierrafoothill.org/preserves.
LeConte Memorial Lodge
A Sierra Club Legacy

by Elaine Gorman

As I drove on Highway 120, approaching Yosemite Valley, my first view of the Merced River Canyon was breathtaking. And although I have been on this route many times, the soaring granite walls above the churning water of the Merced still fills me with awe. No wonder the turnouts were filled with visitors with cameras, enjoying the waterfalls and canyon vistas! Dogwoods rimmed the roadsides and trails with cascades of white blooms. The unusually warm mid-May weather seemed to fill everyone with a heightened sense of happiness and adventure.

The Mother Lode Chapter was well-represented during my week of service at LeConte Memorial Lodge (LML) — Jim and Anita from Yokuts group, Reuben from Sacramento group, and me from Tuolumne group. Our fifth volunteer, Stanton, is a member of the Redwood chapter. We welcomed visitors to LML, helping curator Bonnie Gisel to educate visitors to Yosemite, encouraging them to check out the exhibits on Joseph LeConte, John Muir, Yosemite, Sierra Club, and climate change. “Grub” the bear continues to collect thoughts and signatures from visitors as they add strips of green paper “fur” to the large decoupage structure created by Bonnie. Families enjoyed the children’s nature corner, where kids are able to draw, read, and play with nature-inspired toys and games. If a visitor had a question that we didn’t know, a quick look in one of the hundreds of books in the library could usually supply the answer.

During my time in Yosemite Valley, as I walked along the trails, relaxed in camp, or spent time at LML, I kept thinking about efforts to protect this special place, Yosemite National Park. How the forethought of John Muir, Joseph LeConte, and other early Sierra Club members helped to preserve it for future generations. Muir and LeConte met in Yosemite Valley during LeConte’s first visit to Yosemite with his UC Berkeley students. They became fast friends and scientific collaborators on theories of geologic & glacial processes. Muir and LeConte were charter members of the Sierra Club, and LML was built to honor the achievements of Dr. LeConte. Dr. Gisel and Sierra Club volunteers continue the tradition of education and advocacy at LeConte Memorial Lodge.

On my last day, I took a final walk from LML, through Housekeeping and on the “secret” path that crosses the Merced River, heads toward Yosemite Village, and loops back to LML via Sentinel Bridge. On this little-used trail, I hoped for a glimpse of a coyote or some other wildlife. Under a bower of big-leaf maple, I saw a cluster of bleeding hearts, the beautiful dark pink blooms catching my attention. As I admired them, I thought again about the achievements of the Sierra Club and its members, how their dedication and efforts have allowed me to be able to experience beautiful places like Yosemite and to explore Sierra Nevada wilderness. It was appropriate that my wish for a final wild encounter turned out to be the bleeding heart, as my heart yearns for a healthy planet, full of wildlife and wilderness. There is so much work to be done . . . .
Yosemites,” showing the stark contrast between a “crystal-clear lake” and the reality of the dusty area between “Tuolumne Lake” and the canyon walls. On our hike, I had seen no one picnicking, recreating, or enjoying the beauty of the reservoir.

Even in 1987, Donald Hodel, Secretary of the Interior, proposed undamming and restoring Hetch Hetchy Valley to its former pristine self. But in San Francisco, his proposal was met with panic. Mayor Feinstein thought the idea “the height of folly,” and declared the water to be “the city’s birthright.” We think it is America’s birthright.

How to go about it? David Brower, former Sierra Club Director, suggested taking down the dam by the Army Corps of Engineers and charging the cost to the Department of Defense. How to replace San Francisco’s lost water supply? The same amount of water still falls on the Tuolumne watershed and there are other reservoirs downriver where San Francisco could easily store water. Convincing the city to give up the hydropower revenue is a more difficult issue.

It is embarrassing that the nation which originated both the idea of national parks and the standards for their protection allowed two dams to invade its premier park. (A little known dam, the Cascades Diversion Dam, once located on the Merced River just west of Yosemite Valley, was removed in 2004 due to decay. The National Park Service restored the free-flowing conditions of the Merced, in keeping with its designation as a Wild and Scenic River.) Many countries have established park systems modeled on ours. We urge them to adhere to our standards of no factories, no commercialization, and no powerhouses, but we do not heed our own advice.

This time it is important to restore the valley to a wilderness area, not to another Yosemite Valley with its commercial agenda of overcrowded campgrounds, motel units, and eating places in the guise of “visitor services.” Let’s not begin its degradation at the same time as its restoration.

The mission of Restore Hetch Hetchy is to return the Hetch Hetchy Valley in Yosemite National Park to its natural splendor while continuing to meet the water and power needs of all communities that depend on the Tuolumne River. In order for this to occur San Francisco must vote to reform its 19th-century water system and remove its reservoir from Yosemite. Restore Hetch Hetchy has launched the Yosemite Restoration Campaign, which is in the process of qualifying an initiative for the San Francisco ballot this Fall that will require the City to develop a plan to accomplish both goals. The restoration of Hetch Hetchy will significantly advance the field of restoration science and imbue future generations with a stronger appreciation for ecological restoration.

What to do? Become informed. Join “Restore Hetch Hetchy.” Participate in its annual fund-raising event called Muir’s March (www.muirsmarch.org). For me, I will return once again to see Muir’s “grand landscape garden.”
John Muir and Hetch Hetch Valley

by Heather Anderson

Years ago, our young family hiked into the Hetch Hetchy area. After a walk along the reservoir with its dry, draw-down area, we at last climbed up into the land of lakes. It was spring. The lakes were beginning to give up the snow and ice, and the oaks were just unfolding new leaves. It was a time of promise, beauty, and beginnings. The real beginning, however, was in 1913 as John Muir was nearing the end of his life, and had just finished his last environmental battle to save the Tuolumne River from being dammed. He was broken-hearted at the phone call informing him of Congress’ decision to construct the O’Shaughnessey Dam, which would provide water and electricity for San Francisco. Muir saw Hetch Hetchy Valley as comparable to Yosemite Valley in every way, with cliffs similar to those of El Capitan and Cathedral Rocks, and waterfalls like Bridalveil and Yosemite Falls roaring and thundering in vertical descent. He described the valley in his book as a “grand landscape garden, one of the rarest and most precious mountain temples.” To the temple destroyers, Muir was more vociferous. “Dam Hetch Hetchy! As well dam for water-tanks the people’s cathedrals and churches, for no holier temple has ever been consecrated by the heart of man.”

Though construction began on the dam in 1920, that did not still the opposition. William Colby, an early club leader, vowed to tear down the dam if it shall take until doomsday. Dave Brower produced a film in 1955 of the “Two — CONTINUED INSIDE ON PAGE 15 —