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Landscape Water Waste in Fresno - A Newcomers Perspective

By Gina Padilla

I am a nomadic sort who recently landed in Fresno. I came from Los Angeles where water and the lack of it have become increasingly present in the Angelinos consciousness .

Water has been on my mind for several years as I completed and left behind my xeriscaped cactus, succulent masterpiece of a yard. I was looking forward to a more aware collective conscience here in the agricultural Mecca of the semi-arid Central Valley. Instead I found exactly the opposite!

One conservation measure is this watering schedule which appears to be a closely guarded secret for some reason. I stumbled across the watering schedule by reprogramming my watering timer and the landlord offhandedly mentioning the odd day and even day schedule. I didn't really get the full story until a month after being here, just some vague references to watering days.



The local paper here has a endency to delight in the contradictions of the water debate. One day the front page features shots of dusty farmers holding placards marching for water to irrigate their fields. The story tells of farmland that in the wake of the three-year drought lies unfarmed due to lack of water. It describes workers unemployed due to lack of produce to pick and cultivate. The next headline screams "WHAT DROUGHT?" and features a picturesque photo of falls in Yosemite. B Hot Enough? - More on Water! Article Examining Future Water Lack Scenarios on Page 6

Then I saw another cryptic note in the paper that stated Fresno City Council in an effort to conserve water was banning lawn mowing during the day. What, mowing at night? Did you tell the gardeners? Lawnmowers will destroy a sprinkler head and how is that good water conservation?

I notice that the churches, and there are lots of BIG churches, water mid- day, afternoon. Basically any ole time. As do the shopping centers, apartment buildings, heck everybody! I ford huge rivers of water pouring from lawns as I walk my neighborhood, and I am not walking at 5:00am when we should be watering, but at midday. My sidewalks are often slick with mold, moss and silt rivers which pour off the saturated lawns. We have a pond around the corner from my house! It's in the street, and even when we have these record 106 degree days, the pond never lowers as it's fed by a steady daily stream of over watered lawns.

I joined in the neighborhood gardener's group, and have witnessed a grass clipping removal plan that seems to be the collective neighborhood decision. I argued and cajoled to keep my compost pile. Plants stand in stark sandy hard packed dirt, their roots exposed, blowers blowing the smallest remaining remnant of organic material left, and there are no cacti or succulents for as far as the eye can see. I see ferns, lilacs, tender tropical water loving flowers, thirsty palms and roses and roses and roses. I don't see any vegetables either but as we are surrounded by farms so I suppose vegetable gardening could be seen as a form of treasonous endeavor. I scan the paper, and await my utility bill to direct me to the free mulch sites, the bewaterwise.com sites, the thorough explanation of watering schedules and the bill. What! No bill?? I don't even have a meter!?

I have to say as a newcomer to this gorgeous city, with its bike paths, grape fields and farmer's markets this watering business is WAY out of hand. Take it from me: you can live without food (I could live months) but water, now that's a precious delicate resource that Fresno seems to have little respect for, and that my dear Fresnans has this rambling nomad very, very concerned.



Author to Speak on Legendary Hiker Norman Clyde

Wednesday, June 17th at 7:00 pm

University of California Center 550 E. Shaw Ave., Fresno - (across from Fashion Fair)

Robert C. Pavlik will discuss his book: Norman Clyde: Legendary Mountaineer of California's Sierra Nevada.

Clyde (1885-1972) was a mountaineer, nature photographer, and naturalist. He made over 100 first ascents in the Sierra and elsewhere. In 1923, he set record for climbing Mount Shasta in 3 hours and 17 minutes. He is famous for the huge packs he carried. Clyde was a climbing leader for the Sierra Club. Books will be available for purchase.

NO meetings until September

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SIERRA CLUB FOUNDED 1892	John Honnette.	Programs Heather Anderson
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Conservation & Executive Committees

Wednesday, June 10th, at 7:00 P.M. University of California Center, 550 E. Shaw Ave., Fresno

Come and find out about what our chapter is doing behind the scenes and how you can get involved - all members welcome

Volunteer Corner

No more cookies? This may be our fate at our general meetings. Rae Marx, who has been helping out for years is leaving as hospitality volunteer. This can be a fun job and only takes a few hours a month. Anyone interested? Thanks Rae. You will be missed.

John Flaherty

Merced Group

Merced Group

Sierra Club Box 387 Merced, CA 95341

Group Chair Rod Webster (209) 723-4747rwebster@elite.net Group Vice-Chair

Jon Hawthorne . . (209) 723-5152

Group Treasurer

JoAnne Clarke.....(209) 726-0636 *Group Secretary* Annette Allsup (209) 723-5152 *Member-at-Large* Jule Biesiada juleb13@sbcglobal.net *Conservation Chair* JoAnne Clarke.....(209) 726-0636 jo_clarke@att.net

Publications

Annette Allsup (209) 723-5152
Agriculture
Charlie Magneson . (209) 394-7045
<i>Membership</i> open
Publicity
Rod Webster (209) 723-4747
Population open

Merced Group General Meeting

Thursday, June 18th, 7 pm

(last general meeting until Sept.)

Dental Building Classroom at Golden Valley Health Center, 737 W. Childs Ave.

We will meet in the classroom located in the Dental Building. Just park in the lots on N St. or 4th St. and follow the signs. The Health Center campus is well lit at night and there is security on patrol all evening so it is a very secure and inviting location. Third Thursday of each month. Meetings start at 7:00 P.M. and are usually over by 8:30 or so.

"Yosemite: Day Hikes and Overnights"

Local club members will do a "slide show" on some of their favorite hikes in Yosemite National Park. Included is a moonlight ascent of Half Dome, and day hikes to Hetch-Hetchy and other easily accessible sights off the Tioga Road. Overnight outings will focus on the less crowded northern portion of the park. This less used area remains inviting even during the summer high season.

So

come and relive your own high country adventures or be inspired to 'head on out' to some new destinations this summer.

Summer 'break'. No general meetings for the months of July and August. We'll resume on the third Thursday of Sept.

Conservation and Executive Committee Meetings Thursday, June 4th Rod Webster's home, 7:00 P.M.

345 E. 20th St., Merced

The conservation meeting is first and lasts 30-40 minutes. Anyone with an interest in local, state or national conservation issues is welcome to attend. Come just to

get informed or get as involved as you wish.

Planning Meeting Sunday July 12, 2:00 P.M.

Sunday, July 12th, at 2:00, those interested in planning next year's programs are invited to Charlie and Sally Magneson's to brainstorm ideas. This meeting is open to everyone. We need topics and ideas for speakers to fill seven regular monthly meetings, plus a featured presenter for our annual December banquet. Also ideas for the May picnic are in order. This is a fun time of inspiration and possibility. We try to pencil in the coming year with timely and locally relevant issues and speakers, maintaining that cautious balance between informative and entertaining. If this sounds of interest to you, feel free to join us. Or for more information contact Rod at 723-4747.

Charlie and Sally live at 10235 El Capitan. Coming from the south on Santa Fe, cross the bridge over the Merced River, turn right on to El Cap at the first intersection. Their home is the first one on the right. From the north, turn left just before the bridge.

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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.

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Remembering Former Hike Leader Janecek

Last month, we were saddened to learn about the passing of Tom Janecek.

Tom was a gifted actor, who played major roles in a number of live theatre productions in our community. No one who saw it will ever forget his outstanding performance as King Lear in last summer's Shakespeare production.

More importantly for us, Tom was an active participant in our Chapter's outings program for many years. He also very capably served as our Tehipite Topics editor for several years, and played a major role in the development of the outstanding newsletter we appreciate today.

Those of us who enjoyed the opportunity to share outings with Tom will all remember his pleasant personality, quick wit and positive, cheerful attitude. We have lost an excellent companion and a wonderful friend, and he will be missed by all of us.

SAVE THE DATE

National River Cleanup - June 6-14

Daily cleanups by canoe on the San Joaquin River sponsored by RiverTree Volunteers. Cleanups on all three stretches from Lost Lake to Highway 41, Hwy 41 Bridge to Highway 99 Bridge, Highway 99 to Skaggs Bridge County Park. Call leaders to reserve a free canoe seat. June 6 and 9 are

already booked. Richard Sloan (559) 696-2971 or Chuck Kroeger (559) 284-5476

Muir's March -September 13-19

To generate funds for the campaign to restore Hetch Hetchy Valley in Yosemite National Park. Each "marcher" will raise a minimum of \$1800 from their family and friends in order to participate.

7 days of challenges....

45 miles of sweat.....

A guided 7-day backpacking trip/fundraiser for 20 people (2 groups) through the Tuolumne Grand Canyon to the O'Shaughnessy Dam.

Each participant will raise a minimum of \$1,800 in order to participate. You'll recieve fundraising training and assistance as well as the opportunity to train for the trip with experienced backcountry guides.

For more information call (415) 956-0401

The above events are not sponsored by the Sierra Club

의 Outing Ratings 4			
Distance	Elevation Gain		
1) up to 6 miles	A) under 1,000 feet		
2) 6 to 10 miles	B) 1,000 to 2,000 feet		
3) 10 to 15 miles	C) 2,000 to 3,000 feet		
4) 15 to 20 miles	D) 3,000 to 4,000 feet		
5) over 20 miles	E) over 4,000 feet		

Our Tehipite Chapter Outings Co-Chairs are Carolyn Ordway (559) 449-7780 or jbord606@yahoo.com and Dave Wallace at wagga@comcast.net. Please contact them with any questions concerning our outings program. Contact the trip leader directly if you are interested in one of the listed trips.

Tehipite Chapter outings are free and open to the public. All leaders are unpaid volunteers assuming responsibility for a good trip, and your cooperation is mandatory. Please review additional trip and participant requirements at www.tehipite.sierraclub. org/outings.

CST #2087766-40. Registration as a seller of travel does not constitute approval by the State of California. California has established a Travel Consumer Restitution Fund (TCRF) under the California Seller of Travel Act. The TCRF is not applicable to these Outings. The law requires us to advise you that you would not be eligible to make any claim from the TCRF in the unlikely event of default by the Sierra Club. California law also requires certain sellers of travel to have a trust account or bond. The Sierra Club has such a trust account.

5th Annual Yokuts Summer Backpack

July 28 - Aug. 2

This year's backpack will be extended to 6 days. We tentatively plan to explore the canyons of northeast Yosemite. Trip details such as trailheads, wilderness permit, and exact route have not yet been finalized, so please "stay tuned" for further information. However, if you appreciate a little bit of mystery, send in your non-refundable \$40 deposit to reserve a spot. Expect shared commissary, special surprises, and if lucky, a layover day. Limited to 12 experienced backpackers.

Outings Schedule

June 6th - Saturday

Dayhike, Moderate Grant Grove hike to Panoramic Point Don Redmond (559) 268-1537

June 13th - Saturday

Fun Day in Yosemite, 2C hike, moderately strenuous. Climb the 4 mile trail from the valley to Glacier Peak. Possible visit to LeConte Memorial Lodge, home of the Sierrra Club in YNP, before or after hike. Finish the day with a 5 p.m. barbecue on the lawn of the historic Wawona Hotel. (Bring your swim togs just in case!) *Karen Hammer (559) 298-5272*

June 20th - Saturday

Glacier Point day hike, moderate Hike to Taft Point and Sentinel Dome in Yosemite. *Walt Taguchi (559) 435-2818*

June 27th - Saturday

Weaver Lake day hike, moderate Hike to Weaver Lake from Big Meadows, Sequoia National Park. Part of hike is off trail. *Walt Taguchi (559) 435-2818*

July 5th - Sunday

Ostrander Lake day hike - moderate Follow the XC ski route to the lake (no hiking trail) to the Ostrander hut in Yosemite. Return via the hiking trail. *Walt Taguchi (559) 435-2818*

Sunday, July 12 (w/July 11 option)

Hike to Cliff Lake, 2A or 3A (about 10 miles) Option to travel on Saturday and have a pot luck dinner Saturday evening at our campsite near the trailhead at Courtwright Reservoir. Share your favorite wilderness experiences, scout stories and conservation ideas. Call the leader early on this one. *Karen Hammer (559) 298-5272*

Sunday, October 4

Annual hike to Twin Lakes and George Lake, 2A Last two years we've enjoyed fall colors among the aspens, light dusting of snow on the trail, and spectacular mountain vistas. *Karen Hammer (559) 298-5272*

> Reminder: Check chapter website for updates and hikes not listed here

Our Unsustainable Water Demand

by David Cehrs

Since 1945 the demand for water in the Central San Joaquin Valley has exceeded supply. This is shown by the near continuous decline in the water table, underground. The rate of decline varies spatially and by district. Beneath the Fresno Irrigation District (FID), which includes metropolitan Fresno/Clovis, the average decline has been 0.7 feet per year since 1922. Beneath Consolidated Irrigation District (CID), which is to the south of FID and includes Sanger, Fowler, Selma, Kingsburg, and Caruthers, the average decline has been 0.5 feet per year since 1923. In the larger Kings River Conservation District which includes the valley floor east of the valley axis (and both FID & CID), the decline has been at a rate of 0.9 feet per year since 1986. The largest absolute declines are both beneath urban areas. In urban Fresno and Clovis since 1952, there has been more than 100 feet of decline. The decline near Raisin City, west of Fresno, exceeds 160 feet. This is not unique to Fresno County. Similar declines have been recorded up and down the valley and statewide.

The hydrologic inputs (supply) to the system include rain, river flow, and irrigation district deliveries. Fresno precipitation records go back to 1879 and indicate a general increase in precipitation over time. River flow also varies year to year, but is fairly constant through time. Irrigation district deliveries have increased through time. On the demand side, irrigated agricultural land and water demand peaked in the 1980's and is now declining. This is offset by domestic acreage and water demand which have been increasing since the 1960's. So while inputs to the system have been increasing so have demands. Surface water of the Kings and San Joaquin rivers are completely used, on average, three out of every four years. The extra demands for water by the agricultural and domestic communities are now taken from groundwate, resulting in a chronic and unsustainable groundwater overdraft.

The Fresno Irrigation District data is representative of all the districts and shows a clear correlation between increasing population and declining groundwater. Eventually we will run out of ground water if this continues.

Water sustainability in Fresno County can only be achieved if we reduce demand by 15 percent. This is a huge number, volumetrically, and will require reductions in water use by some if not all segments of the community. Using a very complete data set derived for the Upper Kings Basin Water Forum hydrologic model, which does not include Westland Irrigation District, I have developed five scenarios to achieve sustainability.

To reduce demand by 15 percent, the first scenario keeps domestic and agricultural use per acre constant, but reduces the amount of irrigated acreage. Domestic use is presently 275 gallons per person per day. Agricultural use is 2.83 acre feet per acre per year. To equalize supply and demand, 109,000 acres (14% of presently irrigated land) would not be irrigated.

The second scenario reduces both domestic and agricultural demand. Domestic use would decline by from the current average of 275 gallons per person per day to 75 gallons. Agricultural use would decline from 2.83 acre feet per acre per year to 2.7 acre feet per acre per year. 16,000 acres would be retired from irrigation.

The average water demand in California is about 200 gallons per person. About half of this domestic demand is used for landscaping, the dominant feature being lawns. Agricultural demand is 2.83 acre feet per acre (one acre foot of water equals 325,851 gallons), below the state average of 3.37.

But what about the anticipated population growth? The Blueprint, a new planning document for the eight counties of the San Joaquin Valley, predicts that Fresno County will add one million people by 2050. Scenarios #3 to #5 then include the additional one million people.

Scenario 3: With another million people and with domestic and agricultural use remaining at present levels, 225,000 acres would have to be retired from irrigation.

Scenario 4: Domestic use would be cut to 35 gallons, agricultural use to 2.7 acre feet. No acreage would be retired. In the Netherlands, London and SE England, and more importantly Brisbane, Australia which is in year eight of a drought, their per capita consumption is 35 gallons. To achieve this rate, showers are kept to four minutes and there is NO landscape watering;. Native plants are allowed. This is a major lifestyle change.

Scenario 5: Domestic use would be cut to 200 gallons and there would be no irrigated agricultural land. This scenario grows people, but no food. This scenario would support 9.5 million people (but I'm not sure what they would eat). In all my sustainability scenarios there are no water winners (those who would get and use more water). There are only water losers. Some would lose a little water, others lots of water. Some would get none.

Lately, we have all been hearing about California's water wars, ranging from delta smelt, to peripheral canals, to Westlands having no water, to the loss of agricultural jobs and increasing unemployment. These are all indicative of the problem--competition for water is increasing yet supply is not. The environment lost its water in the 1940's and 1950's with the construction of dams and canals catching and diverting Sierran rivers. This agricultural use took water from Tulare Lake and sloughs that were home for vast numbers of waterfowl that used to inhabit this important flyway. More recently, agriculture has been losing its water share to domestic use: water pumped to cities all over the state. In our current water wars you never hear agriculture complaining about domestic water use. California law indicates that the highest and best use for water, domestic use, will always prevail when there is a water conflict or need for water. Thus, agriculture is currently going after the only available water they see left--environmental water. The remaining enviro mental water is small when compared to all other water uses.

So we have a water problem. But there's more. With increasing population the demand for food will increase. Unfortunately, increasing populations will take irrigated agriculture out of production, resulting in less food being grown. So how will we eat? Buy imports. But the importation of food requires countries or regions to have excess supply of food to export and cheap transportation costs. Australia is no longer exporting food due to their own drought; Saudi Arabia and China are buying land worldwide to grow their own food, food that will not be exported to us. And as we saw last year the cost of fuel can go up precipitously. If the cost of transport is high the amount of imported food will decline as it becomes too expensive to purchase. Water problems and food problems go hand in hand.

We can either grow food or grow people, not both. Arizona, with the exception of the Welton-Mohawk Irrigation District, has decided to grow people in Phoenix and Tucson instead of food. And a question needs to be asked at the same time: Is there a strategic value to growing your own food? Japan subsidizes its rice growers for a reason, just as some EU countries, France and Poland for example, subsidize their agriculture sectors.

Many scientific studies have indicated that southwest North America is likely to get even drier. If this threat becomes real we will have less total water input to California, the Sierra Nevada, and this valley. With the high probability of future declines in water supply through climate change and increasing water demands due to increasing population this means our current water supply problems will only be exacerbated and the sustainability scenarios more onerous.

Are there solutions? Yes, some more realistic than others. The first two solutions require courage and leadership, which seem to be lacking from our current crop of elected officials.

Legislative apportionment. The legislature would apportion water to the various entities --ag, domestic, environment. This would elicit enmity from all constituents, jeopardizing votes and reelection. Don't count on this happening.

Administrative allocation. The state water bureaucracy would allocate water. But it would ultimately hinge on gubernatorial endorsement. Constituent anger at lifestyle changes don't bode well for this option. (A local variant would entail a local water agency or council allocating the water.)

Adjudicate the basins. This requires the filing of law suits indicating the demand for water is greater than the supply in a particular basin or area. The court would then decide on a balanced water budget and finally allocate the limited water resources to the various user communities. This is time and money consuming, open to appeals, negotiations, and water deals. We may not have the time for this option.

Collapse. If we do nothing and let nature take its course, things will change. But the changes will not be equitable or fair; they will be destructive and harsh. This has happened in the past to some quite sophisticated or dominant societies, including the Maya of Central America and the Anasazi of the American southwest.

WATER SUPPLY IS A FINITE RESOURCE, renewable annually and variable through time and space. IT IS IMPOSSIBLE TO HAVE INFI-NITE GROWTH ON A FINITE RESOURCE. This is a problem not only in Fresno County, but in the San Joaquin Valley, throughout California, and in many of the other western states.

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Deadline for *Tehipite Topics* is the second Friday of each month. Submit material to TehipiteTopics@gmail.com