

# PEATDUSTER

Volume 54-1 Page 1

Delta-Sierra Group Newsletter

January - March 2023

Visit us at [www.sierraclub.org/mother-lode/delta-sierra](http://www.sierraclub.org/mother-lode/delta-sierra)



HWY 99: FLOODING, CLOSURES & RESCUES  
SACRAMENTO COUNTY



## 2023 Bald Eagle Tours - Volunteers needed!

It's almost time for our ever-popular Eagle Tours in January and we are looking for volunteers to help spot Eagles! **(Note: This event is not sponsored by the Sierra Club.)**

We will host 2 tours each day January 14th and 28th on both Camanche and Pardee Reservoirs in search of the magnificent Bald Eagle as well as Golden Eagles and many more avian species!



Morning Tour 9:00 – 12:00 Afternoon Tour 1:00 – 4:00

As always, we need a little help from our friends (you all) in the form of volunteer birder/deck-hand/spotter/collaborator/luminary. Over the last several years, we have conducted the tours in tag team fashion – a ranger and a volunteer with birding experience. The system works well and it is a great way to share new experiences. There are a few basics to remember: It can be cold and each tour is out for the full 3 hours, although conditions are usually pretty nice, wind and waves can be part of the setting, some experience with identifying birds is valuable, and a sense of adventure is always a plus!

If you are interested in volunteering all you need to do is pick the date you would like to help out and the time. You have your choice of staying on the boat for the morning and afternoon tour or picking just one tour.

If you are interested in helping out for the 2023 tours please respond to Lora Sparrowk at [lora.sparrowk@ebmud.com](mailto:lora.sparrowk@ebmud.com)

Lora Sparrowk is a Ranger Naturalist II for East Bay Municipal Utility District Mokelumne River Watershed Unit. Her phone number is (209) 772-8260.

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# The Great Valley We've Never Known: A Geological Journey Through Time

Presented by Garry Hayes

Monday, January 23, 2023 at 7:00 pm  
Fireside Room, Central United Methodist Church  
3700 Pacific Avenue, Stockton, California

**Indoor in-person meetings require proof of COVID vaccinations and the wearing of a mask.**

Ninety-five percent of the Great Valley has been developed, but many of us have a pretty good idea of the nature of the ecosystem that existed just prior to European colonization. The indigenous people of the valley knew a much different place. But what about the times before humans?



The sediments of the valley reveal ecosystems that existed in the past, as far back as the times of the dinosaurs 140 million years ago. And you may be surprised at what used to live here!

The discussion is about the paleontological and geological history of the Great Valley and includes lots of good fossils, including the first dinosaur fossil ever found in California. It also includes the whole cast of the movie *Ice Age*, *The Meg*, and some of *Jurassic World*.

Speaker Garry Hayes has taught geology at Modesto Junior College for 33 years and has taken students on field study excursions across California and the American West, as well as Canada, Hawaii, Italy, Australia, and Scotland. He attended Chaffey College, a community college in Southern California, and earned his BA degree in Geology at Pomona College in 1980, literally on the day that Mt. St. Helens erupted. He then pursued an MS in Geology at the University of Nevada, Reno, and taught at Santa Barbara City College before coming to Modesto.



**NOTE: NO MEETING IS SCHEDULED FOR FEBRUARY**

## A Brief History of the Hydrology of the San Joaquin Valley With Bart Bohn

Monday, March 27, 2023 at 7 pm

Fireside Room, Central United Methodist Church

3700 Pacific Avenue, Stockton, California

**Indoor in-person meetings require proof of COVID  
vaccinations and the wearing of a mask.**



This dynamic presentation will first describe the natural system of flows in the San Joaquin River and its many tributaries, then explore the changes that have been made with regard to surface storage behind 22 major dams and massive conveyance systems. The resulting system and impacts will be graphically portrayed and discussed as we examine the new hydrology of the San Joaquin River from the Sierras to the Sea.

Bart Bohn retired as a Colonel in the Army Corps of Engineers, is a former CalTrans District Director, and served as a County CAO. He holds a Master's Degree in the Management of Water Resources. Project experience includes flood control and salmon restoration on the Columbia River.

Bart Bohn was born and raised in Lodi. He graduated from Lodi High in 1963 and received an appointment to the United States Military Academy. Graduating in 1967, Bohn began a 30-year career as an Engineer Officer in the Army. He commanded engineer troop units and served in engineering organizations for 12 years overseas.

His final assignment, in the Pacific Northwest, focused on flood control, salmon restoration, hydropower generation, and navigation on the Columbia River. In addition, environmental cleanup of commercial and defense sites

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*This photo shows the upper reach of the San Joaquin River just below Friant Dam near Fresno with surviving riparian forest. Twenty miles further downstream the riverbed is dry.*

Bohn then was appointed as the Caltrans Regional Director in Fresno followed later by appointment as the County Administrative Officer at Fresno County. During this time he began serving on the Board of Directors of the San Joaquin River Parkway and Conservation Trust. He completed his working career in the private sector as a consultant to the California High Speed Rail Project.

From his early exposure to the Mokelumne River and the Delta, Bohn has enjoyed living and working on a dozen major rivers. His education included a Masters in management of water resources from the University of Washington. This led to his interest in understanding how water is managed across California.



*The lower right photo is a typical view of water conveyance across the southern half of the San Joaquin Valley. This canal leads into the Tulare Lake basin.*

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## Greetings from the Chair For Delta-Sierra Group



A huge thanks goes to our very hard-working Conservation Chair, Mary Elizabeth, who closely monitors and produces detailed comment letters to city councils, planning commissions and San Joaquin County regarding projects being planned and voted on. Her knowledge base and ability to tackle these complex project issues and sort through the issues that could make a difference in quality of life in our area, amazes me (especially since she still works full time!).

Recently she signaled our initial notice of alarm about the proposed Mariposa warehouse project in south Stockton. Together with our member, Eric Parfrey, who also produces and helps edit detailed letters, our Delta-Sierra Group Executive Committee voted to support a retainer fee engaging the Shute, Mihaly, and Weinberger law firm to respond to the Mariposa Project.

With the support of the Mother Lode Chapter as well as support from the national Sierra Club efforts on warehousing, our group met over many months with representatives of the City of Stockton to achieve the final settlement agreement that was approved by the Stockton City Council on December 6, 2022.

This agreement requires significant mitigation measures, such as use of solar and other renewable energy sources, large setbacks and landscaped barriers, and a community benefit fund, to address the environmental impacts of this project. The state Attorney General's office was an invaluable partner with us in this effort. For more information on this important victory, check out this recent SFGate article.

<https://www.sfgate.com/news/bayarea/article/Large-Warehouse-Project-Approved-With-Additional-17638651.php>

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From a county-wide perspective, Tracy, Manteca, and Lathrop also have dynamic citizen groups working on current concerns related to warehousing and we are joining together in a coalition to support each other about warehousing accountability. We hope to use the settlement with Stockton as a template for mitigations in other cities and on other projects and we hope to improve upon it. This coalition will be an important focus of our efforts in the new year. If you'd like to help with this effort, please email me at [deltasierragroup1@gmail.com](mailto:deltasierragroup1@gmail.com)

We are so grateful to Jeri Bigbee, our Membership Chair, for coordinating these monthly emails. They are making a difference in maintaining contact with you, our members, and we are looking forward to more efforts to connect in 2023. Happy Holidays and a Joyous New Year!

## ON THE COVER

Our condolences to those who lost a family member or friend during these California storms or in other parts of our nation. The slow turning cyclone acted like a naughty child knocking trees over as if they were toothpicks stuck in the ground. It generated hurricane wind gusts and torrential rain now called atmospheric rivers. Governor Galvin Newsom declared a state of emergency. Thus far we have had 11 breaches of Sacramento and San Joaquin County levees. Three of these levees are more serious because they are longer making access for repair more difficult. Power for some was out for hours and in some cases for days. Flooding was rampant.

In Lodi retention ponds that have been used as soccer fields during school breaks filled to capacity and overflowed. Perhaps we forget that we live in flat land. Stockton is a typical flat land valley town. Storm water and sewer systems are separate parts of the infrastructure. In parts of the town there are large catch basins and pumps are used to elevate the storm water so that water can complete its journey by gravity to the San Joaquin River. When the power goes out a pressure head occurs that can pop a man hole cover off. What a sight to see water gushing from the manhole at the intersection of March Lane and West Lane!

Fire Departments were called for all kinds of emergencies.

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If flood water can cover a truck, it can cover farm animals and wild critters. Animal shelters have been filled to the brink with lost pets. The homeless population in Sacramento is stated as 9278 in 2022. Some live along the American River. A fire department water rescue unit patrolled the river offering evacuation. According to the Internet, Stockton would have 893 individuals counted to be homeless on any given night. In storms like this we hope the homeless and helpless animals find shelter and compassion.

On the cover we used photos from the Internet. The top one was taken by Jose Carlos Fajardo, Associated Press. The bottom photo was taken from Sacramento television station Channel 3.

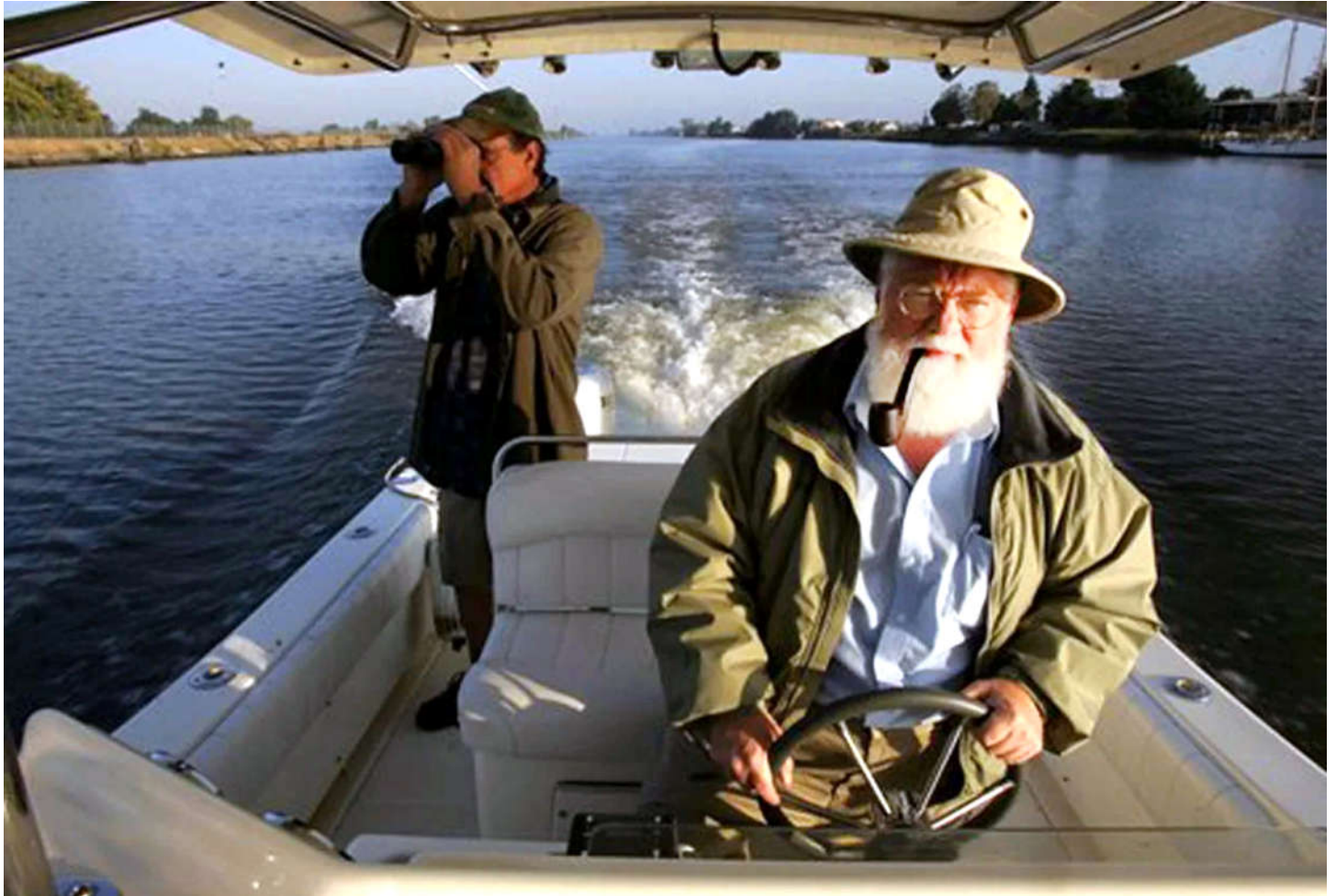
There is a bright spot during these dismal days. The reservoirs are being filled. The small Folsom Reservoir rose 40 feet (13 meters) and had to release water. If you want to know how other California reservoirs are doing, the Department of Water Resources designed this handy website that is updated daily. It's worth a bookmark on your computer.

<https://cdec.water.ca.gov/resapp/RescondMain>



Golden California - REE

## Sadly, Bill Jennings Has Charted A New Course, But He Leaves Behind A Huge Wake.



**Legendary California Fishery and Water Quality Activist Bill Jennings Dies at Age 79 by Chris Shutes.**

The California Sportfishing Protection Alliance and the fish of California lost Bill Jennings on December 27, 2022. Above all, Bill was a relentless activist. For over 40 years, he used the law, meticulously documented data, an irascible wit, and a stinging pen to defend and protect his beloved Bay-Delta Estuary and all the rivers that feed it.

Bill was chairman of CSPA's board of directors since 1988 and its executive director since 2005. He led CSPA in decades of battles to increase flows into the Sacramento – San Joaquin Delta and through to San Francisco Bay.

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He campaigned tirelessly against multiple incarnations of canals and tunnels around the Delta. Through his “Watershed Enforcers” program, Bill chased down stormwater, wastewater, and agricultural polluters all over the state.

Bill went through hundreds of regulatory processes at the State Water Resources Control Board, regional water quality control boards, and other agencies. He showed up, presented data, and demanded solutions. Bill was swift and sure with litigation when agencies fell short.

Born in Kentucky in 1943, Bill grew up in northern Kentucky and southern Ohio. He attended the University of Tennessee, where he became active in the Civil Rights Movement. For several years during the Vietnam War, Bill was also a leading figure in draft resistance in Tennessee.

As a young man, Bill spent many years traveling back and forth across the country, selling pipe tobacco products out of his van. He spent several summers in West Yellowstone, Montana, where he learned to fly fish. Later he spent many summers camping in Yosemite Valley.

Bill settled in Stockton in the ‘80s, where he opened and ran a store that doubled as a fly fishing and tobacconist shop. In the late ‘80s, Bill helped form and became president of the Committee to Save the Mokelumne River. Following multiple fish kills in Camanche Reservoir and the lower Mokelumne River, he initiated a dizzying series of actions at the State Water Board, San Joaquin County Superior Court, and the Federal Energy Regulatory Commission.

As a result, the East Bay Municipal Utility District cleaned up the Penn (copper) Mine, increased river flows in the lower Mokelumne River by a factor of five, and added oxygen to the water supply of an upgraded Mokelumne River Fish Hatchery. Today, the Mokelumne River is one of the most important sources of salmon in California.

From 1995-2005, Bill was the head of Deltakeeper, which deployed several vessels to monitor water quality throughout the Delta. Bill and his team analyzed many of the collected samples in the kitchen and other rooms set up in Bill’s waterfront office and home. The data they collected also provided evidence for regulatory and legal actions.

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In 2005, Deltakeeper dissolved, and Bill became CSPA's executive director. Under his leadership, CSPA expanded its Watershed Enforcers program, carrying 5-10 water quality lawsuits at any given time. The program has cleaned up dozens of wastewater and industrial stormwater sources of pollution. It has also generated millions of dollars in settlement fees that have provided grant funding to watershed, fishing, and environmental nonprofit organizations.

Bill led CSPA in developing extensive evidentiary records in the State Water Board's 2010 Delta flow criteria hearings and in 2015-2018 hearings on the proposed "twin tunnels" that would have diverted water under the Delta. He also led two sets of lawsuits against the State Water Board's changes to flow and water temperature requirements during droughts; two of these lawsuits are ongoing.

For over three decades, Bill had his finger on the pulse of California water politics and policy. He was known throughout the broader California water community as blunt and gruff, but personally congenial. He was a board member of the California Water Impact Network and served for many years on the Restore the Delta board.

Bill was also very well known in his home town of Stockton and throughout San Joaquin County, where he was active in socially progressive causes.

Bill received countless awards and honors. He was recognized by San Joaquin County, the California State Legislature, and the U.S. Congress. He received awards from the California Department of Fish and Game and the American Fisheries Society. He was recognized formally and informally by many fishing groups, and spoke at many public functions. In early 2022, Bill was elected to the California Outdoors Hall of Fame.

Bill leaves an enduring and unique legacy of protecting California fisheries, habitat, and water quality. The breadth and depth of his achievements are unlikely to be equaled.

Contributions in Bill's memory can be made to the Stockton-based organization he directed, the California Sportfishing Protection Alliance, whose mailing address is P.O. Box 1061, Groveland, CA 95321. Donations can also be made on the CSPA website at <http://calsport.org>

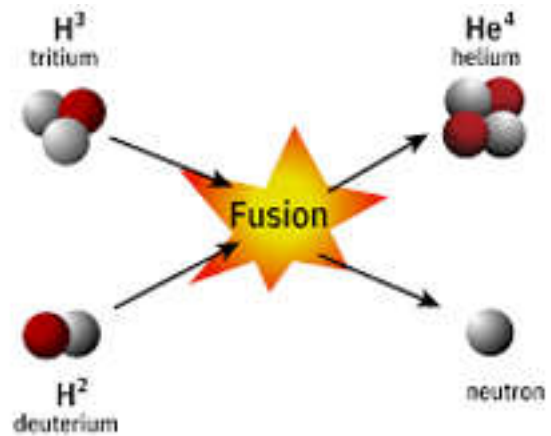
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## BITS AND PIECES

The last quarter of 2022 was full of surprises without even mentioning the election, war in Ukraine, inflation, the pandemic that now includes Covid, flu and respiratory syncytial virus, the more than 600 mass shootings we had in 2022, the massive storms and flooding or DT's announcements about running for president again (DT used to mean delirium tremens!) Right now we want to review some of the more prominent events in this article we are simply calling B&P.

**B&P Livermore, California.** It was national news for a short time, but overshadowed by other events and soon forgotten. On December 5, a team at Lawrence Livermore National Laboratory National Ignition Facility conducted the first controlled fusion experiment in history. This was a serious milestone, because the fusion process produced more energy than the laser energy used to drive it.

So how's this work? Bill Gates book, *How To Avoid A Climate Crisis*, probably provides the simplest explanation. "Fusion relies on the same basic process that powers the sun. You Start with a gas and most research focuses on certain types of hydrogen and get it extraordinarily hot, well over 50 million degrees Celsius, while it's in an electrically charged state known as plasma.



At these temperatures, the particles are moving so fast that they hit each other and fuse together, just as the hydrogen atoms in the sun do. When the hydrogen particles fuse, they turn into helium, and in the process they release a great deal of energy, which can be used to generate electricity. (Scientists have various ways of containing the plasma; the most common methods use either powerful magnets or lasers.) and there's enough of it to meet the world's energy needs for many thousands of years."

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“Fusion’s waste products would be radioactive for hundreds of years, versus hundreds of thousands for waste plutonium and other elements from fission, and at a much lower level—about as dangerous as radioactive hospital waste. There’s no chain reaction to run out of control, because the fusion ceases as soon as you stop supplying fuel or switch off the device that’s containing the plasma.”

Now you’re probably wondering where we obtain helium. It is a non-renewable gas that is a part of the mix of raw natural gas along with nitrogen and methane. It has to be processed to reach a 99.99% purity. Fusion will certainly help keep our party balloons filled. To avoid bends, as well as, the toxic effects of high concentrations of nitrogen in the blood, the tanks used by scuba divers are filled with air diluted with helium.

B&P Galt, California. The last tornado of the season touched down at a small ranch in Galt November 8, 2022. It was only down for about 60 seconds, but it downed power lines and tore the roof from a barn. It also blew the windows of a bus when it passed near Highway 99 and Arno Road. Galt is located about 25 miles north of Stockton and has a population of about 25,500. While this is considered to be a rare event, there have been 23 reported tornadoes since 1950 according to <https://www.homefacts.com>



B&P Bend Oregon. Recycle your old gear. Susan Alcorn, a former speaker at one of our nightly meetings publishes a newsletter that included information about a company called Outside, that accepts high quality outdoor gear, repairs it if needed and sells it to the public on their website.

What makes this unique is they pay the shipping. So perhaps you have something too good to toss into the dumpster, can’t sell, but would want a like-minded person to have. I had to try it and got as far as creating a FedEx label just to test the system. Now I need to go back and learn what they will accept. The web address is: <https://www.outsideonline.com>

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B&P The Planet. The United Nations celebrated November 15, 2022 as the "Day of 8 Billion". Eight billion people, that is. Here are a few more statistics. The world population is expected to be 9 billion about 2037 and 10 billion about 2057. We believe we see a trend occurring and that not anyone read Paul Ehrlich's 1968 book, *The Population Bomb!*

2022 - 8 billion after 11 years.  
 2011 - 7 billion after 12 years.  
 1999 - 6 billion after 12 years.  
 1987 - 5 billion after 13 years.  
 1974 - 4 billion after 14 years.  
 1960 - 3 billion after 33 years.  
 1927 - 2 billion after 123 years.  
 1804 - 1 billion.



Paul Ehtlich who is now 90, is one of the leading persons interviewed who tell Scott Pelley from 60 Minutes that humans would need "five more Earths" to maintain our current way of life. You can watch it here:

<https://www.youtube.com/watch?v=6TqhcZsxrPA>

B&P Castione, Switzerland. Here is another form of *Block Chain Technology* and we are not talking about crypto currency. It is a "battery" made out of concrete blocks by Energy Vault, a Swiss clean energy company.

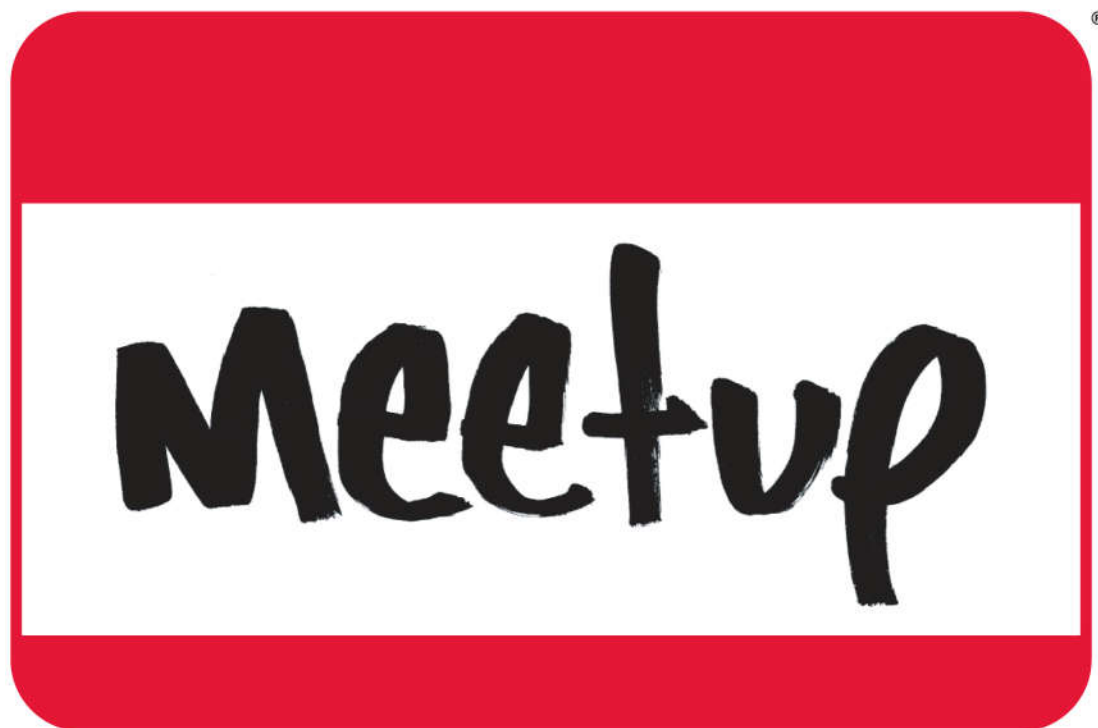


They convert excessive, unused electricity into potential energy which is a type of energy store with the potential to be turned back into electricity by driving a generator. Energy Vault's battery does this by stacking concrete blocks into an organized potential-energy-rich tower. The battery is charged by using that excess electricity to power crane motors which lift concrete blocks. The higher a block is lifted, the more potential energy it has stored.

Later, the battery can be discharged by driving the crane motors in reverse, converting the concrete blocks potential energy back into electricity. The round-trip efficiency of the system, from stacking to unstacking, is about 85%.

**Stockton, Modesto & Sonora Sierra Club Groups**  
**Find us at this active link:**

<https://www.meetup.com/S-M-S-SierraClub/>



**We have been in operation since October 2011 and now have 2458 members.**



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## Executive Committee

Please use the following email address to contact any members of your Executive Committee or volunteers. In the subject line please include the name of the person or persons you wish to contact.

[deltasierragroup1@gmail.com](mailto:deltasierragroup1@gmail.com)

**Chair & Program Chair: Margo Praus**

**Vice Chair: Paul Plathe**

**Treasurer & Chapter Delegate: Richard Abood**

**Secretary: Open**

**Conservation & Outings Chair, Chapter Delegate Alternate & Website: Mary**

**Committee Member: Knute Momberg**

### Non-Voting Volunteer Positions:

**Membership Chair: Jeri Bigbee**

**Newsletter Editor: Robert Evans**

**Friends of the Calaveras: Jim Marsh**

**San Joaquin Valley Air Pollution Control District Citizens**

**Advisory Committee: Ned Lebia**

The expiration of Executive Committee member terms are as follows: Margo and the open position for secretary expire December 2025. Knute and Dick terms expire December 2023. Paul and Mary terms expire December 2024. Positions for voting including Chair, Vice Chair and Chapter Delegates must be filled by Sierra Club members.

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DELTA-SIERRA GROUP  
P.O. BOX 9258  
STOCKTON, CA 95208

**THE LAST PAGE**

**Pzzzt**  
**Please email**  
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**Peatdster to**  
**your friends.**



**“We are in the fight of our lives, and we are losing. Greenhouse gas emissions keep growing, global temperatures keep rising, and our planet is fast approaching tipping points that will make climate chaos irreversible. We are on a highway to climate hell with our foot still on the accelerator.”**



**Antonio Guterres, United Nations Secretary-General**  
**COP27 2022 Climate Change Summit**  
**Sharm el-Sheikh, Egypt**

**Explore, enjoy and protect the planet while you can.**