



**Shasta Environmental Alliance**

**Stewardship - Education - Advocacy**

**Follow Us!**



# November Newsletter



**Solar Farms and Land Use:**

by

Across California and throughout the West, new solar farms are rising on open land that once held pastures, oak woodlands, and small farms. They represent progress toward clean energy but also raise difficult questions about land use, fragmentation, and what kinds of landscapes we are willing to give up in pursuit of carbon-free electricity. Some projects have also raised environmental justice and tribal sovereignty concerns, reminding us that renewable energy development can reproduce the same inequities it seeks to solve if communities are not fully included in decision making.

## **The Scale Behind the Shine**

Solar energy development is often discussed in sweeping numbers such as hundreds of megawatts, millions of panels, and thousands of acres. Yet many projects now appearing in rural counties are much smaller. A two or three megawatt solar farm might seem modest compared to the vast arrays in the Mojave Desert, but it still qualifies as a “utility scale” plant because it connects to the electrical grid and sells power wholesale rather than serving a single property or community.

These small utility scale projects typically cover fifteen to forty acres. That is large enough to clear habitat, change drainage, and fence off land that once supported wildlife movement or agriculture. Multiply that by dozens of projects scattered across a county and the cumulative footprint becomes significant.

## **When “Small” Still Means Big Change**

Even modest solar installations require grading, access roads, and perimeter fencing. In a single project area, the loss might seem minor. But together, these developments resemble a slow fragmentation of rural and natural lands. Each project clears ground, reshapes drainage, and replaces open views with glass and steel. Habitat corridors narrow, groundwater infiltration changes, and the rural character erodes. These local impacts are often invisible within the larger story of renewable progress.

## **The Land Use Tradeoff**

The climate benefits of solar are real. Each megawatt hour of clean electricity displaces emissions that would otherwise come from fossil fuels.

biodiversity, grazing, or crops.

When projects occupy farmland or forest edges, they displace both habitat and livelihoods. Even where vegetation regrows beneath panels, altered light, fencing, and access roads divide ecosystems that once functioned as continuous landscapes. Across many counties, small scale developments have fragmented open space as effectively as highways or housing tracts once did.

## **Water Quality and Aquatic Impacts**

Many solar farms lie near watershed boundaries where creeks or riparian corridors support sensitive aquatic life. When vegetation is removed and soil compacted, rainfall that once filtered into the ground instead runs off quickly, carrying sediment and pollutants into waterways. This degrades water quality and harms fish that rely on clean, cool, shaded streams. Sedimentation can smother spawning beds, increase temperature, and reduce oxygen levels. Each project's impact may seem minor, but cumulative effects across a watershed can be significant.

## **Rethinking What We Call “Renewable”**

The promise of renewable energy depends on more than the absence of carbon. True sustainability means protecting soil, water, and living systems while we decarbonize. The challenge is not to reject solar power but to site it wisely.

Some of the best opportunities lie in dual use design, often called agrivoltaics, where panels share space with crops or grazing animals. Other ideal sites include degraded or already disturbed lands such as brownfields, parking lots, industrial areas, canal tops, and commercial rooftops where solar can thrive without erasing valuable habitat or farmland.

Community scale and rooftop systems also reduce the need for long distance transmission and keep generation close to where power is used. They may not appear as impressive in output statistics, but together they add up while preserving open landscapes.

## **A Smarter Path Forward**

---

pattern of sacrificing natural systems for industrial expansion. To balance climate and conservation goals, planners and policymakers should:

- **Prioritize disturbed or low value lands** for new solar development.
- **Avoid converting prime farmland, forests, and intact habitat.**
- **Design with wildlife corridors and soil health in mind.**
- **Require site restoration** when projects reach the end of their life.
- **Invest in distributed generation** to minimize new land disturbance.
- **Acknowledge and prevent green colonialism** by ensuring that renewable energy projects do not shift environmental burdens onto rural, tribal, or economically disadvantaged communities.

Equitable planning must include early consultation, respect for cultural landscapes, and fair distribution of both benefits and impacts.

### What can you do?

Change begins locally, and individual actions help shape the way renewable energy develops across a region.

- **Stay informed** by following local planning meetings and environmental review notices for proposed solar projects in your area. Public input early in the process can influence siting and design.
- **Ask the right questions** about land conversion, watershed impacts, fish habitat, and cumulative effects. Decision makers often respond to specific, well-informed concerns.
- **Support rooftop and community solar programs** that keep energy generation close to where it is used and reduce the need for new land disturbance.
- **Advocate for fair siting policies** that include rural residents, Indigenous nations, and underrepresented communities in planning discussions.
- **Promote habitat-friendly practices** such as native groundcover under panels, wildlife-friendly fencing, and site restoration commitments.
- **Use your voice** to insist that climate solutions honor both ecological integrity and social justice. Renewable energy should strengthen the communities and landscapes it touches, not divide or degrade them.

Every letter, comment, and conversation helps guide the renewable transition toward a future that is both low-carbon and genuinely sustainable.

---



## Families in the Forest Trip Report

by Holly White-Wolfe

On Sunday, October 26, SEA volunteers Holly White-Wolfe and Juliet Malik led a joyful “Families in the Forest” outing along Clear Creek in Redding, CA. Despite the rain, two families—three children and four adults—bundled up and shared umbrellas while exploring Horsetown Preserve.

Children eagerly trotted down the trails, identifying pine nuts, blackberries, and grapes. A three-year-old surprised the group by spotting earth star mushrooms nestled in the leaf litter. One dad guided the group in examining two trees for signs of beaver activity, helping distinguish between tooth marks and axe cuts. A pile of squirrel-munched pine cones sparked curiosity and a pine nut tasting break, prompting wonder at the effort squirrels invest for such tiny rewards.

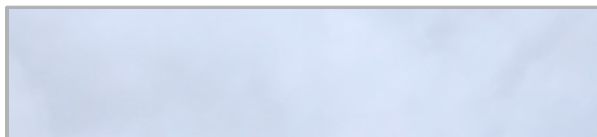
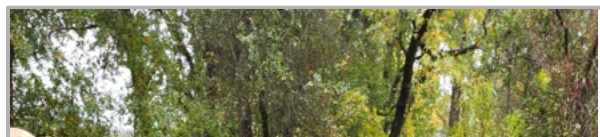




Image Credit: Juliet Malik

After hiking the short loop near Clear Creek, the group gathered in the outdoor classroom to compare pine cones—like the pokey Ponderosa and the gentle Jeffrey pine—by rolling them between their palms. A whimsical forest gnome joined the adventure, helping children build their sense of place by identifying Mount Shasta (the tall one with snow) and the Sacramento River (the wide one we walk beside).

This event was designed to support family flourishing through nature immersion. Research shows that just two hours per week in nature can improve health, reduce stress, and enhance mental clarity (Weir, 2020; Grinde & Patil, 2009). Families left with muddy boots, full hearts, and a deeper connection to the ecosystem they call home.

Grinde, B., & Patil, G. G. (2009). Biophilia: Does Visual Contact with Nature Impact on Health and Well-Being? *International Journal of Environmental Research and Public Health*, 6(9), 2332–2343. <https://doi.org/10.3390/ijerph6092332>

Weir, K. (2020). Nurtured by nature, 51(3). <https://www.apa.org/monitor/2020/04/nurtured-nature>

## Upcoming Events



### WILDFIRE: FRIEND OR FOE?

**Date:** November 24, 2025: 6:00pm to 8:00pm

**Location:** Viva Downtown - 1435 Butte Street, Redding, Ca (just east of the mural)

A [Parking Map](#) is available [Here](#). Street parking is free after 6pm in non-red zones, but parking structures will still require a fee.

Wildfire is part of California’s story, shaping our landscapes, communities, and way of life. Join Shasta Environmental Alliance for an evening that brings together science, culture, and practical wisdom to help us better understand how to live safely with fire.

Kalyn Nash from Western Shasta Resource Conservation District will guide us through California’s historic fire regimes and explain why fire is not only inevitable but essential to healthy ecosystems. Members of Native Roots Network will share Indigenous knowledge and cultural perspectives on traditional burning practices that have sustained local landscapes for generations.

community through home hardening and preparedness.

This free presentation invites us to look beyond fire as destruction and see it as part of California's living systems. Join us to deepen your connection with the land and discover how fire, culture, and ecology shape the resilience of the places we call home.

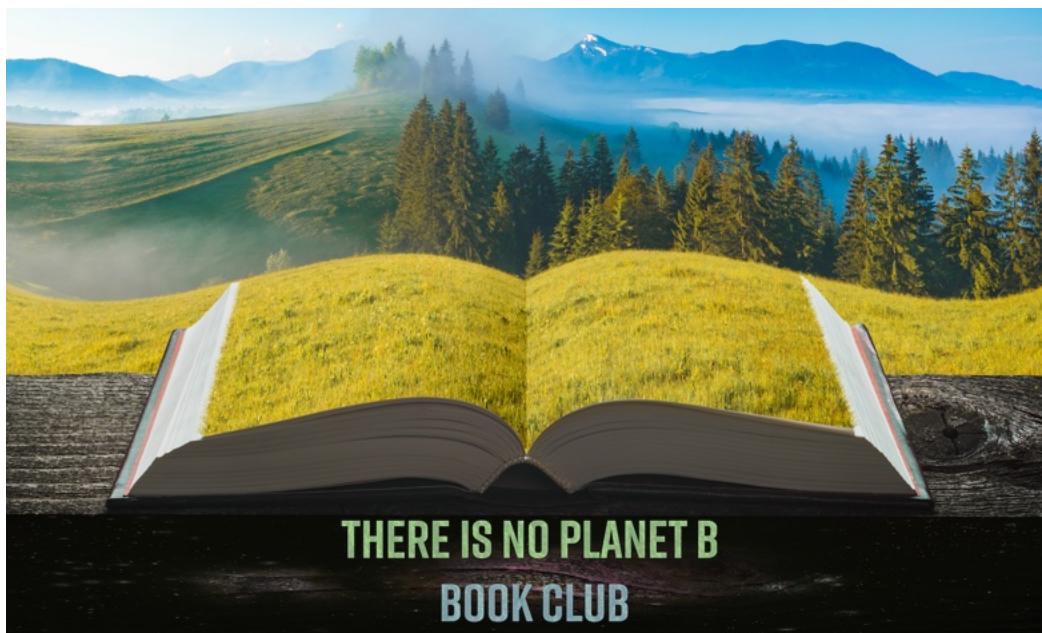
Any questions? Contact [juliet@ecoshasta.org](mailto:juliet@ecoshasta.org)

Stay up to date on future events at: <https://www.ecoshasta.org/calendar/>

---

## There Is No Planet B Book Club

**Coming Soon!**



We're excited to announce SEA's first community book club! Starting in February 2026, we invite you to join us in exploring books that imagine climate futures we can feel hopeful about. As D. W. Orr reminds us, "Hope is a verb with its sleeves rolled up." So let's roll up our sleeves, open some inspiring books, and come together for conversations about what community climate resilience can look like.

Our first book (if you'd like to get a head start) will be ***What If We Get It Right?*** by Ayana Elizabeth Johnson. Meeting dates, times, and location are still to be announced.

# Species of the Month: Valley Oak, *Quercus lobata*

by Ren Redlich



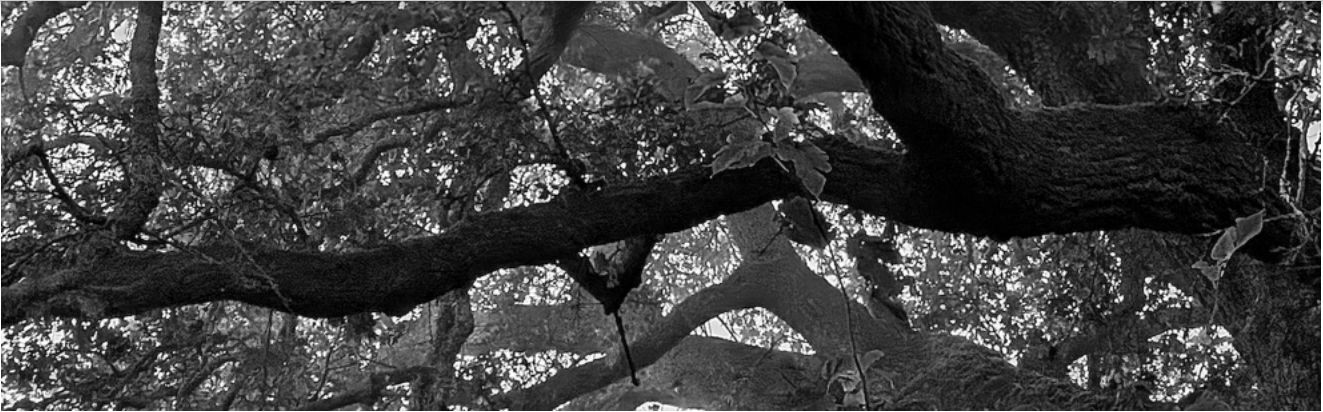


Image Credit: Ren Redlich

The **Species Feature for November** is my friend, the Valley Oak. Oaks support the most species and form the most complex food webs of any tree genus in North America. Valley Oaks are also the largest native oak species in California. This applies to their acorns as well, which can reach up to 2.5 inches long.

Acorns were one of the most important food sources for the Indigenous peoples of California, a practice that continues to this day. Because acorns contain tannins that are unpalatable to humans, they must be processed prior to consumption. Native Americans would gather acorns, store them, dry them, shell them, leach them of tannins, and pound them into flour for use as mush, soup, bread, and other foods.

The abundance of acorns over hundreds of years was made possible by native tribes tending to the oak woodlands. Part of this caretaking involved fire. The systematic lighting of mild surface fires influenced the ecosystem in several ways, including the reduction of underbrush, the propagation of new shoots, and the culling of worms and weevils that prey on the oak.

Stewardship of oak woodlands was a vital part of life for Indigenous peoples—not only for acorns, but for the health of smaller ecosystems and California as a whole. Because the Valley Oak is the largest of the oak species in California, its parts provided many uses. Native people used the leaves, galls, burls, fungi, sprouts, acorns, branches, bark, and trunk for various tools, medicines, and even art.

Oaks were a vital part of life, and I think about that every time I observe the massive Valley Oak in my backyard. It stands at the center of several yards and provides shade and homes to many species. The tree is silent, but the animals and birds that sway its branches, the acorns it drops to the ground, and the rustling of its leaves in the wind all affirm that oaks truly

# Wild turkey, *Meleagris gallopavo*

by Stacey Alexander



Image Credit: California Department of Fish and Wildlife

Did you know that our California turkeys are not actually California turkeys at all? The wild turkeys (*Meleagris gallopavo*) you see around Redding (and all of California) are actually originally from Texas, and the population we have now was the third attempt to introduce turkeys to California.

The Fish and Game Commission, as part of a state-sponsored recreational hunting program, originally tried to introduce farm-raised turkeys from Mexico. In 1908, 22 turkeys were released in the San Bernardino Mountains. Later that year, turkeys were also released into lower Yosemite Valley, Sequoia National Park, and Tulare County. But by 1918, all of the introduced turkeys were wiped out, in part due to blackhead disease, an infectious poultry disease caused by the protozoan parasite.

There was a second attempt to introduce turkeys to California in 1928. Thousands of farm-raised Arizona turkeys were released in 23 counties across California. These turkeys did not last long in the wild due to their

to San Diego County. This introduction was the one that stuck. These wild Texas turkeys quickly adapted to California living and can now be found from the coast of San Diego to the foothills of the Klamath and Cascade mountain ranges. The success of this introduction has led to turkeys occupying 29 thousand square miles of California — that is about a quarter of the state!

What has been the impact of all these turkeys on California's native flora and fauna? The answer is unclear. Scientists have three main concerns regarding wild turkeys: their consumption of endangered reptiles and amphibians, their competition with ground dwelling birds for resources and their contribution to the spread of a tree disease called sudden oak death via foraging. To date, none of these concerns have been addressed in any long-term, comprehensive study.



Map created by Map: Caitlin Dempsey

There have been a few short-term studies that support these environmental concerns but for now more research and long-term studies of wild turkeys in California are needed to fully understand their effects upon the environment. Wild turkeys could settle into a very normal niche in their regional environments or could end up requiring monumental efforts to control their populations, only time will tell what role wild turkeys have on our California landscape.

---

## Be a Voice for the Environment

Do you care deeply about protecting our local environment and the wildlife, forests, rivers, and public lands that make it special? Join our board and help guide advocacy

difference for the environment and your community.

Ready to get involved? [Fill out our interest form here.](#)

[Join Us](#)

[Forward this Newsletter to a Friend](#)



Copyright (C) 2025 Shasta Environmental Alliance (SEA). All rights reserved. \*|\*

Want to change how you receive these emails?  
You can [update your preferences](#) or [unsubscribe](#)

[View in your browser](#)