

NEWS FROM MARIN CONSERVATION LEAGUE

March - April 2023



Armando Quintero to address Annual Dinner

We are fortunate to welcome Armando Quintero back to MCL as keynote speaker at our **Annual Dinner** on **Friday, April 21**, at the **Key Room** in **Novato**. Now in his third year as Director of California Department of Parks and Recreation (State Parks), Armando continues to draw on his many years of experience as a park ranger, his understanding of science in managing public lands, his capacity to partner with others, and a natural curiosity and positive energy as he confronts new challenges in overseeing the state's diverse 280-unit park system.

Armando has been particularly gratified to find new opportunities for opening park gates to California residents who, too often, are confronted by barriers of cost or transportation or other limiting circumstances. Armando will share his quest to connect the people of California more closely to their parks as he discusses: **"Parks and Public Lands: Redefining Boundaries."**

We look forward to hosting members and their guests. Event will include **election of MCL officers and directors** (see proposed slate on page 12), honoring our **2023 environmental awardees**, dinner and a no-host bar. Invitations to be mailed shortly.

Don't miss MCL's March events:

MCL After Hours Mar 22, 7-8:30pm
"CEQA under Siege" with Attorney Rachel Hooper, (see page 5)

MCL Environmental Breakfast
 Mar 31, 7:30-9am

"The Future of Regional Water Supply Resiliency" with District General Managers Ben Horenstein (Marin Water), Tony Williams (North Marin Water), and Grant Davis (Sonoma Water), details soon.



Sixteen hundred acres of Bel Marin Keys Unit V, once destined for housing and a 16-hole golf course, instead will be restored to historic tidal wetlands (Hamilton Wetlands below).

CEQA under siege (again): MCL's perspective

by Nona Dennis

When has the California Environmental Quality Act NOT been under siege? Ever since the passage of California's landmark environmental law in 1970, followed in 1972 by its application to virtually every discretionary governmental action that qualifies as a "project" ("Friends of Mammoth"), scarcely a year has gone by without legislative attack. CEQA has been the real or imagined scapegoat for the economy and demographic shifts, and for every possible delay in California land use planning and development. State Senator Scott Wiener has called it "The law that swallowed California."

True, excesses and spurious, self-serving claims of "significant impact" that have nothing to do with the physical environment, as well as minimal compliance in many local jurisdictions, have plagued all sides of CEQA. While some accuse it of preserving the status quo for the privileged, others recognize its enormous value, for example in empowering disadvantaged communities to ward off the impacts of truly toxic projects. In response to valid complaints, noteworthy additions to the

statute and revisions to the CEQA Guidelines over the decades have addressed the most egregious excesses by introducing provisions that can "streamline" the preparation and review of EIRs and forestall litigation – albeit not to everyone's satisfaction. How has CEQA generally "worked" or "not worked" to fulfill state-wide promises – and locally to protect Marin's exceptional environment while reconciling economic and social needs? In spite of its detractors, over the past 50+ years, CEQA's basic tenets of "look before you leap," public participation, and accountability and full

"CEQA under siege" cont. p. 4

INSIDE THIS ISSUE

President's message	p 2
Tribute to Phyllis Faber	p 2
Huffman on Climate Progress	p 3
Forest resiliency	p 6
Offshore wind	p 8
Nature note: Oaks	p 11
Marin Master Gardeners	p 11



President's Message

Change and transitions at Marin Conservation League

As I complete my third and last year as MCL's President, I've been thinking about the recent past.

As mentioned in my very first MCL President's message, my wife, Bonnie Marks, and I moved to Marin from Oakland in 2014 because we had found ourselves in Marin's beautiful parks, open spaces, and agricultural areas most weekends. When I became active in MCL in 2016, I initially focused on climate change issues but increasingly became committed to the success of all of MCL's work in protecting and enhancing all aspects of Marin's environment.

So, in the Fall of 2018, I worked with then President Linda Novy on what evolved into Marin Conservation League's Strategic Plan process. In April 2020, when I became President, I continued that work through to the Board of Directors' adoption of the Plan in December 2020, and implementation after that.

During this period our advocacy work on many Marin environmental issues was (and still is!) going very well, thanks to the smart and hard work of Board members, friends of MCL and others on our four main issue committees—Parks and Open Space, Land Use Transportation and Water, Climate Action, and Agricultural Land Use—all supported by our staff.

Nevertheless, we wanted to ensure that this (now) 89-year-old organization will be effective for many years to come. The 2021-23 Strategic Plan called for integrating climate change and social justice understanding into all of our work, and on improving communications and outreach to our members and the larger public.

In past President's messages, I've described how climate change has in fact become integrated into all of our work—in our mission, vision, and guiding principles, in strong policy statements on greenhouse gas emission reductions and sea level rise, and in our advocacy work to slow climate change while thoughtfully adapting to its numerous effects on Marin's environment, such as sea level rise, and increased wildfire risk

and biodiversity losses. We are truly prepared to advocate effectively on a whole host of modern, complicated climate change-related issues that really matter to Marin. Integrating social justice issues fully into our advocacy still is a work in progress.

Although we've made real progress in many other areas, more professional management and leadership can help us move ahead even faster. So, I was particularly excited and pleased that the MCL Board recently approved establishing an Executive Director position—an investment in the long-term success of the organization. If you know of potential candidates, please contact us—we definitely want to hear from you!

I am also really pleased to support Terri Thomas' nomination as the next President of MCL. The former head of Natural Resources Management and Science at both the Golden Gate National Recreation Area and the Presidio Trust, Terri brings to MCL a 34-year career in national parks and her deep domain expertise in ecological sciences and land management. She's great at problem solving, brings people to the table, and moves things forward.

Meanwhile two dedicated long-time Board members, Nona Dennis and Susan Stompe, are stepping off the board after many years. Fortunately for us and Marin, Nona and Susan will remain active in MCL's work. Both past MCL Presidents have been, and continue to be, remarkably productive and effective advocates for Marin's environment—icons in Marin's environmental community. We are in their debt.

As I step down from my role as President, I am grateful for my continuing opportunity to work with so many dedicated and talented people. I leave the position confident that, as it has done for so many years in the past, Marin Conservation League, collaborating with others, will continue to effectively address tough challenges, while seizing every opportunity to "preserve, protect and enhance" Marin's natural assets—and make the world a better place for plants, animals and people.

A handwritten signature in black ink that reads "Bob".

Robert Miller

A Tribute to Phyllis Faber

Awetlands biologist, a botany-lover, Phyllis Faber was a dedicated environmental conservationist and agriculture advocate. Beautifully written tributes about her many accomplishments abound. In addition to her work as a CEQA consultant and subsequent role in the restoration of Muzzi Marsh, along with her many other contributions, here are some we treasure:

Phyllis embraced field biology as important to education, stating that decisions that are unfavorable to organisms are often made not by intent, but by ignorance. Phyllis was an educator, a founding teacher of the Environmental Forum of Marin and a cofounder of the Marin Chapter of the California Native Plant Society.

Recognizing the virtues of planning, in 1972 Phyllis helped lead the successful citizen initiative for a California Coastal Zone Conservation Act. She was then



appointed as a regional official on the Coastal Commission. She is often quoted, "to prevail, science has to fit together with policy in a political world."

Phyllis reflected on her life's path: "You learn and see that change is needed, and where you can personally make change." In the late 1970s, as ranchers came under increasing pressure to sell their properties to developers, Phyllis with her good friend and dairy rancher Ellen Straus cofounded the Marin Agricultural Land Trust. It was the first land trust for farmland in the country.

Phyllis served on many boards, including on MCL's from 1980 to 1983. In 1990, Phyllis was awarded **MCL's Marin Green Award for Environmental Leadership**. Over the years, she continued to be a familiar presence at MCL Environmental Breakfasts and Annual Dinners. MCL shares Marin's appreciation of Phyllis and of her legacy of preservation and protection.

CLIMATE ACTION

Congressman Huffman discusses climate progress at MCL's Climate Action Working Group

by Bill Carney and Belle Cole

In January, Marin Conservation League (MCL's) Climate Action Working Group (CAWG) hosted Congressman Jared Huffman, who discussed large Congressional climate gains in 2022 and the prospects for continued action now that control of the U.S. House of Representatives has changed hands.

Huffman highlighted the \$370 billion in climate programs in the **Inflation Reduction Act**. "In the last two-year session of Congress, we did some big, transformative things," he said. "Not only to support zero emission of greenhouse gas, but to support workforce development and investment in the clean energy economy."

"Going back to the prior year," he continued, "the **Bipartisan Infrastructure Law** included the largest federal investment in public transit ever, money for rail, bike infrastructure, recreational trails, safe routes to schools. Investments in a national EV charging network, but also money to get EV charging infrastructure into every community."

Huffman pointed to some immediate benefits at the local level from the recent **Omnibus Appropriations Bill**: "I was able to get \$2 million for EV charging expansion in San Rafael; \$791,000 for EV infrastructure and equity in Novato; \$650,000 for energy-efficient lighting at Golden Gate Village in Marin City."

Watch the [MCL YouTube](#) recording for full discussion,

- Ways to protect and extend national climate legislation gains in the Republican-controlled Congress.
- 2022 United Nations Climate Change Conference (COP 27) frontline report, and how to pay 'loss & damage' costs.
- Congressman Huffman's recently introduced Protecting Communities from Plastics Act.
- Lessons from Marin for the upcoming Farm Bill, like carbon sequestration in soil.
- Overcoming issues with offshore wind, Highway 37, environmental justice and more. (See "The future of offshore wind along California's coast" on page 8.)

Huffman was part of the U.S. delegation to the **COP 27 UN Summit** in Egypt, reporting, "There certainly was backsliding in the sense that national commitments need to become much more specific and much more rigorous. There was a little bit of progress on the so-called 'loss and damage' issue, which is really important to bringing developing countries along."

"But Republicans are going to oppose direct funding of the Green Climate Fund (to help developing nations) every single time. We have to find other ways to do it. I talk to developers who want to do solar and wind in Africa and other emerging economies, but they can't get access to banks the way that their fossil fuel competitors can. If we can change that, it is a way of moving money into these countries to help

them decarbonize and also develop economically."

Back in the U.S., Huffman also reported on his **Protecting Communities from Plastics Act**. "I've been working with (Senator) Cory Booker to set much more rigorous standards for these so-called chemical recycling plants. I think we should be deeply skeptical of all forms of plastic recycling. We need to focus on just reducing the amount of plastic we have in our lives and in our economy."

Following Congressman Huffman's wide-ranging discussion, CAWG meeting participants turned to considering how some of the key programs he described could support ongoing advocacy and actions at MCL. Among the topics covered:

ELECTRIFICATION. The Inflation Reduction Act financial incentives greatly augment state and local funds that help make both electric vehicles (EVs) and electric building appliances affordable. MCL continues to support a robust coordinated effort by Marin County and its towns, cities, and agencies to accelerate electrification. Working together, the County and other jurisdictions are now enacting model reach codes requiring electrification in new construction, incentivizing electrification when renovating existing buildings, and assuring electric vehicle charging infrastructure in both new and renovated buildings.

THE FARM BILL AND SUSTAINABLE AGRICULTURE. The Congressman noted Marin's pioneering innovations in agriculture as a model with national applicability as the Farm Bill is renewed this year. MCL actively supported the renewal of Measure A in 2022 that allocated 20% of funds to Sustainable Agriculture, of which 30% will provide matching grants for a range of projects to expand climate-beneficial farming practices, such as compost and mulch application, carbon sequestration, water retention, and habitat enhancement.

SEA LEVEL RISE AND STATE ROUTE 37. Congressman Huffman stressed the prioritization of environmental justice that the Biden administration has required for federal climate expenditures, from greenhouse gas reduction programs like electrification to climate preparedness efforts like addressing sea level rise. MCL encourages and promotes local stakeholder engagement, especially in comprehensive sea level rise planning in environmental justice communities like the Canal and Marin City. MCL, working together with other environmental stakeholders interested in restoration of the San Pablo Baylands, is urging that all future SR 37 Corridor expenditures (beginning with the rebuilding of Novato Creek Bridge) align with the goal of elevating the road to a causeway well above predicted sea level rise. 🌿



Congressman Jared Huffman

CEQA under siege *from page 1*

disclosure (transparency) in governmental decisions, have steadfastly endured.

Currently CEQA is being blamed for the slow pace of building affordable housing in the face of critical shortages. In recent years, existential concern over California's lack of housing for a growing population has once again targeted CEQA as the central obstacle, countered by strong disagreement from proponents of the law, who say this hostile depiction fails to acknowledge its many benefits. See "[CEQA misinformation campaign is distracting, dangerous](#)" article in the Daily Journal.

MCL's use of CEQA

Marin Conservation League has been a staunch defender of CEQA since the law first emerged in the early 1970s as a welcome new planning tool. The response of both staff and elected officials of county, cities and towns and many other public agencies, such as Marin Water, to the new law was mixed. It meant assuming new responsibilities and taking on staff; guaranteeing public participation and transparency; and providing accountability for approving or denying projects on the basis of environmental impacts, including assuring that mitigation measures would be implemented. To the development community, it meant adding a new costly information gathering and public review process to already burdensome permit conditions, and exposing projects to the threat of legal challenge. For environmental non-profits like MCL, however, it offered a new promise of receiving comprehensive information about pending development projects and the opportunity to influence their outcome, in some instances, approval with mitigation of impacts or, in a few cases, eventual defeat.

MCL has made good use of the CEQA process in Marin, devoting the time necessary to review EIRs methodically and patiently engaging in the process of comments and hearings, sometimes for years. MCL has frequently been fortunate, as it is now, in having experienced CEQA practitioners on the board and committees to aid in analysis and responses.

In the county's history of EIRs, a few "big ones" are memorable:

- Bel Marin Keys Unit V would have expanded the Bel Marin Keys community onto new filled lands within an enlarged

"CEQA has enabled valid, constructive public debate over major decisions."

lagoon and 16??-hole golf course in diked historic tidelands before the project was eventually denied. Instead, 1,600 acres are currently destined for restoration of historic tidal wetlands instead of housing. In contrast, after several EIR iterations and legal challenges, new housing at Black Point was approved and a golf course was developed in similar historic tidelands despite environmental objections.

- Years of EIR reviews yielded more than a hundred and fifty mitigation measures, which became the permit conditions that have allowed the San Rafael Quarry to continue operating, but with less impact on adjacent neighborhoods.
- The EIR documents for the Buck Institute for Research on Aging were voluminous (they were carried into the Supervisors' chambers on a cart!) and included a special section on impacts to Quality of Life due to the Institute's plan to use live animals in research. Many other impacts

were cited by the public before the project was approved.

- The EIR for "Measure Q" (SMART train) was also huge and controversial. Much of its focus was on impacts to the natural resources of baylands along its Marin right-of-way, as well as on air quality impacts. MCL found that the EIR did not adequately mitigate significant impacts, and in a relatively rare incursion into economic impacts, also, opined that the train "didn't pencil out."

We cite these few memorable cases in Marin to demonstrate that CEQA, "win or lose," has enabled valid, constructive public debate over major agency decisions, although it goes without saying that many circumstances other than CEQA factor into such decisions. Nor do these examples accurately represent how CEQA has played out in the County for 50 years. Hundreds of lesser "projects" are filed and implemented every year, the majority of them "exempt" from further CEQA documentation due to their minor effects on the environment. Notices of Exemption must be publicly posted and, occasionally, an exemption will be challenged. The challenger has 30 days by law to prove that the action is a "project" and that it may harm the environment, thus requiring more extensive CEQA documentation and public review. Such challenges are infrequent.

cont. p. 5



Small areas of wetlands impacted along the SMART rail, like Gallinas Creek channels (at Civic Center Station) were mitigated off-site.

Introducing the "Program EIR"

A lot has changed since the launching of CEQA in 1970. From the few pages of an early EIR (e.g., 1973 Marin Countywide Plan EIR), environmental documents, layered by judicial decisions, have become infinitely more complicated and controversial, adding time and cost and risk of litigation to many project decisions. In recent years, the CEQA Guidelines have undergone a variety of reforms in response to concerns about its being an obstacle to growth and progress. Many local governments have also found ways to break down the barriers and streamline their local development review processes. Exemptions are not the only mechanisms that have allowed the bulk and frequency of large EIR documents to be greatly reduced. Other efforts have included greater use of CEQA tools such as the "Program EIR." (See textbox) The Program EIR presents a "high level" review of environmental issues and topics with the intent that it be used as the basis for "tiering" site-specific environmental reviews of future or subsequent actions encompassed within a larger "program" like a general plan.

Program EIRs, in fact, have become the preferred form of review for many large, multifaceted plans and programs. A few examples in Marin stand out: Marin Countywide Plan (2007); Marin County Parks Road and Trail Management Plan (2015); Marin Water's (MMWD) EIR on its Biodiversity, Fire, and Fuels Integrated Plan ("Vegetation Plan"); and, at a much larger scale, the Department of Forestry and Fire Protection's statewide Vegetation Treatment Plan (CalVTP) Programmatic EIR, which covers over 2 million acres of forested land in California and is now being used locally, with some environmental trepidations, to cover environmental impacts of numerous vegetation-as-fuel management actions around the County.

CEQA, Housing, and Long-range planning

In this time of housing crisis in California, regulations and exemptions have been passed by the legislature to accompany the many new state housing laws passed in an attempt to minimize the permitting process for developing new housing. Program EIRs, with their broad policy goals in analyzing impacts of long-range



Plans for preserving historic buildings like Boyd Gate House (B Street) in downtown San Rafael are outlined in the City's General Plan and Program EIR.

and precise plans, are particularly suitable in their application to housing development.

One local example is the City of San Rafael's use of a Program EIR to cover its recently adopted Downtown San Rafael Precise Plan. An area projected for substantial growth, Downtown San Rafael is known for its abundance

of historic buildings. The Program EIR includes a detailed inventory and assessment of these buildings to determine their historic status and importance for preservation, especially in the context of housing demand. This information will minimize ("streamline"), and in some cases eliminate the need to conduct detailed site assessments at the time of development review as San Rafael's Downtown Plan evolves. In a time of heightened threats to CEQA, Program EIRs will continue to be a proven tool in streamlining the permitting process. Although they won't solve all obstacles that confront housing, Program EIRs can be effective without compromising consideration of key environmental values or inviting radical reform to the CEQA Statute or Guidelines.

Two prior MCL newsletter issues contain relevant CEQA information, history, and context:

["County Environmental Coordinator Tim Haddad, a CEQA Pioneer"](#) and ["CEQA at 40—A Brief History"](#), Mar Apr 2010

["Environmental Law, CEQA under siege"](#), Jan Feb 2013



MARIN
CONSERVATION
LEAGUE

Join us for
MCL After Hours

CEQA Under Siege
with Attorney Rachel Hooper

Rachel's practice includes CEQA,
NEPA, General Planning & Zoning,
Land Use Initiatives and Referenda.

Wednesday, March 22, 2023
7:00 - 8:30 PM

REGISTER:
<https://bit.ly/MCLHooper>



Marin's public land agencies actively manage forests to restore resiliency

by Mike Swezy

Forests and woodlands in Marin County are rich natural ecosystems that provide numerous benefits including wildlife habitat, clean air, drinking water, carbon sequestration, and world-class recreational opportunities. However, Marin's diverse forests are under threat due to a combination of historic stressors including loss of stewardship by indigenous people due to European colonization, development, past logging, invasive plants, tree disease, and unprecedented fuel loads resulting from fire suppression. Climate change has compounded these threats with prolonged drought, record high temperatures, and longer fire seasons, raising the specter of catastrophic wildfire and wide-scale loss of forest cover. A soon-to-be released forest management strategy by Marin's public land managers provides a framework for hands-on management to address threats and restore ecological resiliency while there is still time.

The Marin Regional Forest Health Strategy (Forest Health Strategy) was largely initiated based on findings of the [2016 One Tam Peak Health Report](#). One Tam is a multi-agency collaboration between the National Park Service, California State Parks, Marin Water, Marin County Parks, and the Golden Gate National Parks Conservancy that is dedicated to the long-term health of Mt. Tamalpais. The Peak Health report measured the overall ecological health of the Mt. Tamalpais region. It found that although trends for many forest and woodland plant communities were troubled or declining, conditions were such that improved resiliency could be achieved through active management.

Increasing the pace and scale of addressing wildfire risk

The Forest Health Strategy was funded by a grant from the [Regional Forest and Fire Capacity Program](#) through the California State Coastal Conservancy. According to Danny Franco, Senior Project Manager with the Golden Gate National Parks Conservancy, "the Forest Health Strategy outlines a science-based approach towards the goal of increasing forest health and resilience, and for selecting,



Bishop pine forest at Tomales Bay State Park

planning, funding, and implementing future projects." Forest resiliency is defined as the capacity of forest ecosystems to absorb or recover from disturbance while undergoing change to retain desired ecosystem services and functions.

The Forest Health Strategy will contain a review of forest ecosystem stressors and forest conditions, with a framework for identifying where on the landscape there are opportunities for restoration, along with a menu of management approaches such as vegetation thinning, prescribed fire, and pathogen management, and guidance on measuring outcomes to inform future management.

The Forest Health Strategy, with its detailed findings and recommendations, will be released later this year. An added dimension to the study deserves recognition: because the Forest Health Strategy is based on countywide spatial data including a fine-scale vegetation map and detailed information on forest structure, its utility as a decision-making and project development tool can be applied across Marin (i.e., not just to public parklands). For example, it could assist wildfire risk reduction efforts by the Marin Wildfire Prevention Authority and its partner fire agencies by helping design and implement approaches that can be ecologically beneficial.

Innovative forest restoration projects in Marin parklands

The Forest Health Strategy is focused on five forest types: coast redwood forest, Douglas-fir

forests, Bishop pine forest, Sargent cypress forest, and open canopy oak woodlands. In order to help demonstrate what active management and forest resilience means in real terms, the following are three examples of forest health type projects that are either underway or in planning across the Marin landscape. These projects are not direct products of the Forest Health Strategy; rather they were generated out of the thinking and collaboration that went into its development. They may represent the kinds of project that could be produced using the strategy and decision tools presented.

Bishop pine forest restoration at Tomales Bay State Park

Bishop pine is the only native pine tree known to Marin County and it is endemic to the Point Reyes Peninsula and in a few scattered patches on Pine Mountain above Kent Lake. Environmental scientists at the California Department of Parks and Recreation are developing a forest management project at Tomales Bay State Park (SP) where Bishop pine forests are in decline due to more than a century of fire exclusion and introduced pathogens.

Bishop pines have a relatively short lifespan of approximately 80-100 years and are generally considered to be fire-dependent. Wildfires in Bishop pine forests are typically high intensity fires that kill most trees, and burn off duff and litter. The heat from fire opens cones and releases seed that can then germinate in the exposed mineral soil. As a result, a new

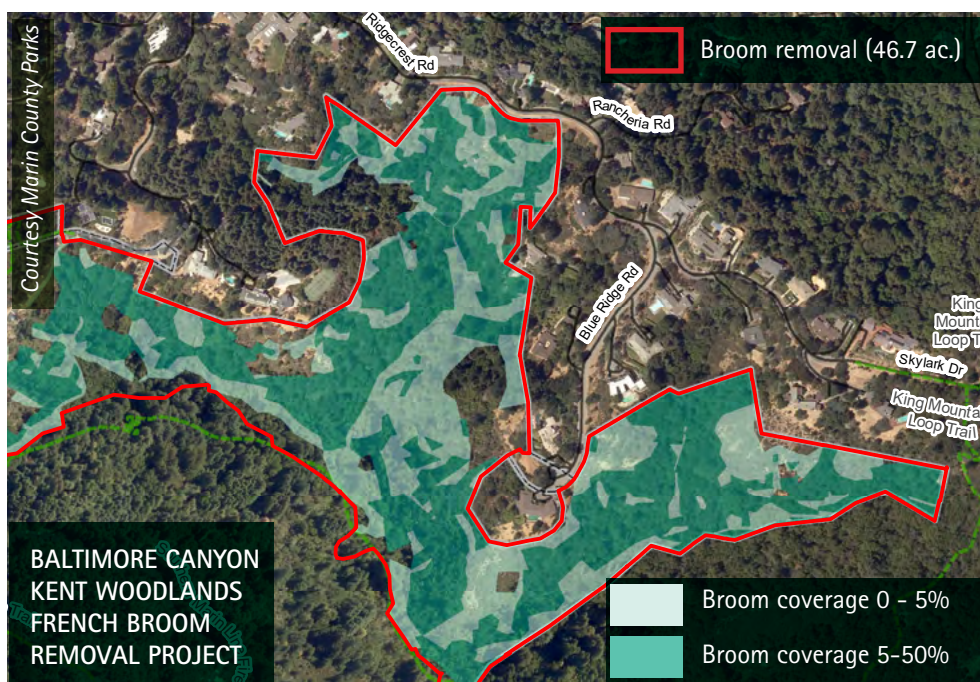
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forest results from these seedlings creating a new "even-aged" forest. This forest recovery is what happened after the Vision Fire in 1995. As you cross Inverness Ridge on your way to Limantour Beach you can see the incredible thickets of young Bishop pine trees that sprung up after the fire.

Tomales Bay SP contains about 1,100 acres of Bishop pine which is a significant portion of its larger extent on the Point Reyes peninsula. Older forests in the park, what scientists call late seral stage (formerly known as "old growth"), are dying as they reach the end of their life span. Older trees produce less seed. Due to the suppression of naturally-occurring fires and the absence of managed burning by Coast Miwok, there is little seedling regeneration under the older stands. Experts believe that unless action is taken these older stands will die off without reproducing themselves, converting them to a hardwood dominated forest.

Hardwood forests at Tomales Bay SP are in decline too. The tree pathogen *Phytophthora ramorum*, which causes Sudden Oak Death, is causing high levels of mortality in tanoak and coast live oak. As these dead trees fall, they add to the fuel on the ground, and create canopy openings that spur additional shrub growth. The accumulation of material on the forest floor inhibits hardwood tree seedlings and the entire stand is at risk from a wildfire due to the high fuel loads.

The Tomales Bay State Park Forest Health and Wildfire Resilience Project goals are to "reestablish tribal priorities for forest management in the park, improve resilience of the forested areas of



the park, and preserve and steward Bishop pine forest." Bree Hardcastle, SP Environmental Scientist has stated that "a key objective of our plan is to collaborate with the Federated Indians of Graton Rancheria in the scoping, planning, and implementation of the project."

To achieve the desired ecological restoration, the project will use mechanical and manual treatments that reduce accumulated understory material and create openings for seedling establishment. These treatments, including the use of pile burning to dispose of cut materials, would attempt to mimic the effects of Coast Miwok burning practices in Bishop pine, mixed conifer hardwood, and hardwood forests. Another key

goal is to create a mosaic of Bishop pine early, middle and late seral stages.

This project is undergoing rigorous environmental review requiring California Coastal Commission approval along with evaluation under the state's Vegetation Treatment Program Programmatic Environmental Impact Report.

Marin County Parks (MCP) tackles key broom infestation in Kent Woodlands

French broom (*Genista monspessulana*) is a well-known invader of native habitats replacing native species, and where unmanaged, can significantly increase wildfire risk. MCP has begun

"Forest resilience, cont. p. 10"



French broom removal in Baltimore Canyon fuel break near Kent Woodlands, before (2020) (left) and after (2022) (right).

The future of offshore wind along California's coast

by Ken Strong

In order to meet its ambitious goals to "electrify everything" with clean renewable energy, California will need to significantly expand renewable energy generation. While some of that can be accomplished by expanding solar—both rooftop and utility scale, and onshore wind, the development of offshore wind energy will likely play a necessary and significant part in California timely meeting its goals. The California Energy Commission (CEC) projects 25 GW of offshore wind energy is needed by 2045 to meet the state mandate of 100 percent clean energy.

Why now?

California Assembly Bill 525 (AB 525), signed into law last Spring, required the CEC to study and report to the legislature on the potential for development of wind energy off the California Coast. In December 2022, the US Bureau of Offshore Energy Management (BOEM) conducted the first lease sales in Federal waters off Humboldt and Morro Bay. To follow these developments, in [July 2022 MCL's Climate Action Working Group](#) hosted Lori Bindini of the Redwood Coast Energy Authority speaking about the proposed development of offshore wind off the Humboldt Coast and Irene Guiterrez of NRDC discussing environmental concerns with offshore wind.

What and where is offshore wind in California?

Some of the [best potential wind energy](#) in the world is off the Northern California coast. The wind offshore blows the most in late afternoon and evening, when solar is declining or absent. Developing offshore wind will help solve the "intermittency problem" of renewable energy. Generating electricity from offshore wind, rather than onshore solar or wind farms, may also help relieve tension as onshore solar and wind farms increasingly meet resistance from stakeholders who object to siting such facilities on particular public or private land.¹

Offshore wind has been widely developed in Europe and China and is now being developed off of New England and the Mid-Atlantic. Most of these fixed-bottom developments are in areas where the continental shelf is under 100 meters deep, which supports wind turbines mounted on the sea bed.



Wind turbines are assembled on top of floating platforms at a port before being deployed.

Off of the West Coast of the US the continental shelf is much deeper. This will require floating offshore wind turbines. One advantage of floating offshore wind is that it will be anchored well offshore, roughly 20-25 miles, which dramatically reduces any visual impact of the turbines on coastal viewsheds and impacts on near shore fisheries and shore birds.

Designing, building and operating floating offshore wind is just starting in Europe and China. The newness of this industry means there is an opportunity for California to get in at the ground floor of a new industry that is likely to expand along the Pacific Coast and in Asia over the next several decades. In addition to meeting climate goals, there will be significant economic benefits in developing a California-based offshore wind industry in the near term and opportunity to influence what responsible offshore wind energy industry looks like in US waters.

What is necessary to make it happen?

The size of offshore wind towers and blades is truly massive. The large size increases their efficiency and therefore their energy capacity. Towers exceed 280 feet in height and the diameter of the rotor blades on a project just completed in China exceeds 825 feet.

Because of the size of the blades, towers, turbines and floating platforms, it is not feasible for these components to be built anywhere other than on the West Coast or Asia. They

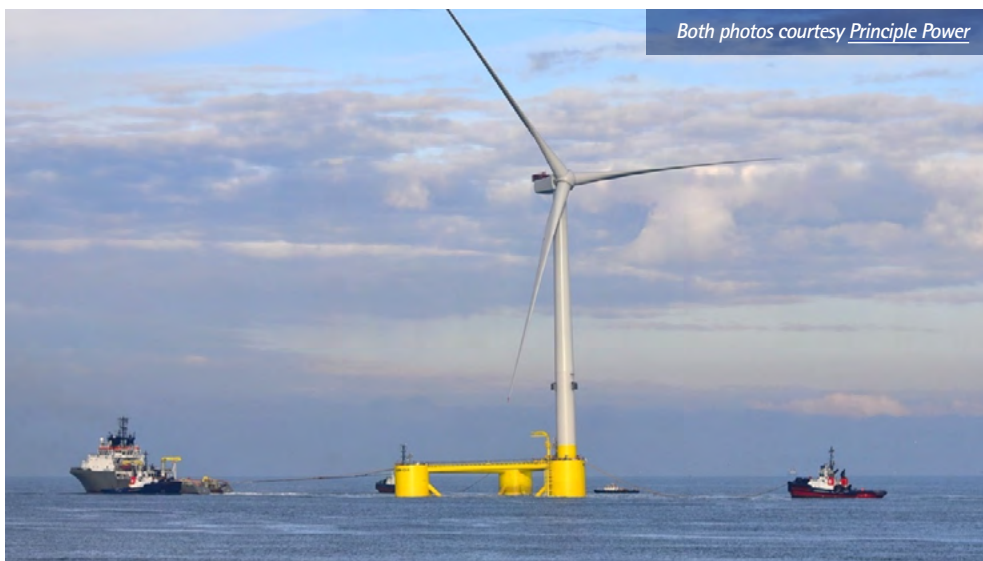
will have to be assembled at port facilities on the West Coast and then towed into place. [\(See video.\)](#)² Port facilities will be needed for transport and assembly of these components and also for ongoing maintenance. Facilities for manufacturing smaller components will be needed as well, and a specialized workforce will need to be trained.

The Wind Energy Areas (WEA) off of Humboldt and Morro Bay were selected based on wind resources and avoidance of marine protected areas and areas deemed critical to national defense. Other future WEA are being evaluated off of Crescent City, Cape Mendocino and Southern Oregon. Now that potential lease holders of the two WEA areas have been selected, the auction winners will, under Federal and State guidance, assess in more detail the sea space within the WEA for possible siting of the proposed wind farms, including the number of wind turbines the lease area can support. These assessments are required to take into consideration seabed geology, marine resources, fisheries, impacts on mammals and birds, and cultural impacts. Significant outreach and consultation with local stakeholders and tribal interests is also required.

cont. p. 9

¹ One MW of utility scale solar = 10 acres of land. Offshore wind energy may offset the need for some utility scale solar.

² Video of floating offshore wind turbine installation of the Kincardine project off Scotland

Both photos courtesy [Principle Power](#)

Principle Power's WindFloat with turbine is towed to its mooring site off the coast of Scotland.

Under AB 525, the state is now conducting a number of studies to gather information about the necessary port development, permitting process, and transmission upgrades to facilitate infrastructure construction and offtake of energy produced offshore. The information from these studies is to be incorporated into a strategic plan to submit to the California legislature by June 30, 2023. Another study by the National Renewable Energy Lab (NREL) concerning strategies for port development is due by December 2023.

The current timeline anticipates the first offshore wind turbines being placed in operation in 2030. As you can see, there is a lot of infrastructure that will have to be planned, permitted and constructed to meet that schedule.

How is offshore-generated wind energy accessed?

Wind energy development off of Morro Bay can tie into existing grid connections at Diablo Canyon or Morro Bay. At present the only existing electricity generating facility in Humboldt County is a 163 MW natural gas fired power plant on Humboldt Bay. This does not have excess capacity to support the industry needed to develop any significant aspect of an offshore wind industry. There is currently very limited transmission infrastructure to bring power into or out of Humboldt County. Therefore, expansion of the existing transmission system is necessary to support construction of

offshore wind or to bring the energy produced offshore to the rest of California where most of the electricity will be needed.

According to the Schatz Group at Humboldt Polytechnic State University and the California Independent System Operator, several options for expanding transmission are being studied and a report is expected in July 2023. The likely options involve either constructing a 500KV transmission line east from Humboldt to tie in with the existing north/south transmission corridor east of I-5 or laying an undersea transmission cable that would connect to an existing substation in the San Francisco Bay Area, such as the Potrero substation in San Francisco. Both of these options will have environmental impacts that will need to be assessed.

Environmental concerns

The California coast and its offshore marine environments are remarkably rich ecosystems that provide habitat for wildlife, including for endangered and threatened species. Clean energy development must avoid, minimize, and mitigate impacts at all phases of construction and operation.

Marine impacts

There is a good deal of information available from bottom-mounted offshore wind farms in Europe to assess the impact of those facilities on fisheries, marine organisms and near-shore birds. However, there is little information to date on how floating wind turbines moored

to the bottom will impact migrating whales and seabirds 20-30 miles off the coast. In May 2022 BOEM released its completed Environmental Assessment of the Humboldt WEA finding no significant impacts. Under the federal permitting process, once the lease holders submit project specific plans to BOEM identifying where within the lease area they propose to site floating turbines, those plans will be subject to environmental, technical and public review. Environmental organizations have submitted lengthy [comments to BOEM](#) urging studies to establish existing baseline conditions along with regular monitoring during project development so that impacts can be assessed as the first WEAs are developed and those environmental impacts identified can be mitigated.

Comments filed with the CEC by fisheries groups identify a number of potential impacts on the fisheries industry and others from the development of offshore wind. All of these potential impacts will need to be considered as the development of offshore wind is considered.

Onshore impacts of developing offshore wind

At this time, it is not known whether any onshore transmission upgrades that are proposed for the Humboldt offshore wind energy will augment existing transmission right of ways or involve building new transmission corridors. New technologies have been developed that permit potentially doubling the capacity of existing transmission lines by reconductoring with high performance conductor lines.

How might offshore wind impact Marin County?

Neither the Humboldt offshore wind project nor the potential projects off Cape Mendocino will directly affect Marin, although Marin is likely to ultimately benefit from the renewable energy generated offshore. MCE, formerly Marin Clean Energy, is considering contracting for offshore wind energy once it is developed. It remains to be seen whether there would be impacts to fisheries or impacts from port development within San Francisco Bay that would affect Marin in a significant way.



Forest resiliency *from page 7*



The before and after of a BFFIP 2020 vegetation management project in the Porteous Fuelbreak. Photos courtesy Marin Water.

a 45-acre broom removal project at the upper end of Larkspur Creek in Baltimore Canyon Open Space Preserve that would create a fuel break next to homes in the Kent Woodlands neighborhood (See map, left.) The project is called a "wide area fuel break" because it covers more land than typical linear-shaped fuel breaks and blends ecologic enhancement with wildfire risk reduction goals.

MCP Superintendent Jim Chayka is excited about the project "because it will employ novel cutting practices where the broom is cut using hedgers in a way that mulches it in place thereby allowing for onsite decomposition." As broom is a prolific sprouter after cutting, the project includes two years of follow-up treatments according to MCP's integrated pest management protocols.

Since the primary fuel removed is French broom, the work supports ecological restoration in that it provides more growing resources for native species and opens the understory to native shrubs and forbs. From a wildfire standpoint the project, situated near a wildfire-vulnerable neighborhood, reduces ladder fuels which reduces the likelihood of fire climbing up into tree canopies. During a wildfire the overall fuel reduction and the ladder fuel treatment would reduce ember production. Embers carried by winds cause more home ignitions in wildfires than an advancing flaming front. This project is an example of MCP's management for wildfire risk reduction as called for in the recently approved Measure A funding renewal.

Marin Water Forest Health Projects protect watershed on Mt. Tam

Marin Water's watershed management staff have long been active in managing vegetation on Mt. Tamalpais but recently efforts have ramped up due to two grants that augment Marin Water budgeted expenditures. In 2021, Marin Water received a \$1 million grant from the California Coastal Conservancy in collaboration with One Tam and MCP on a proposal for fuel reduction and forest restoration work on the watershed and open space lands. In the same year another collaboration with One Tam and MCP netted a \$3.5 million CAL FIRE Forest Health Grant, for a proposal for critical forest restoration, fuel reduction, and invasive management work, with \$3 million going to Marin Water for work on the Mt. Tamalpais Watershed.

Under the guidance of their Biodiversity and Fire Fuels Integrated Plan EIR, Marin Water has accomplished almost 1,500 acres of work in



2022 in a multi-dimensional program that includes initial removal and maintenance of broom in and out of existing fuel breaks, creation of new strategic fuel breaks, forest restoration activities, and stemming Douglas-fir invasion in grassland and oak woodland habitats.

Marin Water is looking to increase the pace and scale of forest health work on watershed lands and plans to use the ongoing funding to treat up to 2,500 acres annually. The overall aim of this work is to restore a wildfire resilient forest structure similar to what existed for thousands of years before fire suppression over the last 150 years. The work consists of limbing up trees, reducing dead and downed woody fuel, and thinning understory vegetation. Once the initial largely handcrew work is completed, lands are in a condition such that future maintenance could be accomplished by prescribed burning. Recent forest health and grassland/oak woodland restoration work near Lake Lagunitas has been the site of field trips for stakeholder groups and is a great place for interested individuals to see firsthand how this work looks on the ground.

On a recent field trip, Watershed Resources Manager Shaun Horne remarked that "we are spending over \$400,000 a year on planning, compliance and monitoring in our efforts to ensure that this work meets a high environmental standard. What we learn gets employed in future project design and implementation."



Marin County Agencies Year-in-Review for 2022 Countywide Vegetation Management Actions for Fuel Reduction

Agencies participating:

State Parks, Marin Water, National Park Service, Marin County Parks,
and Marin Wildfire Prevention Authority

MCL's Parks and Open Space Committee

March 9, 10am-noon (new time)

Meeting will be a hybrid in-person and Zoom format.

Register or call the MCL office (415) 485-6257 for more info.

NATURE NOTE

Fire and California's magnificent oaks

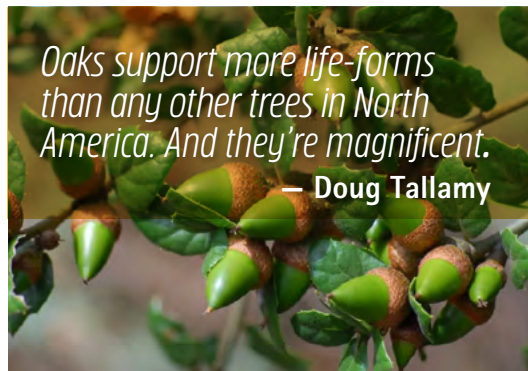
by Terri Thomas

As keystone tree species, California's oaks harbor more wildlife than any other plant community. Animals depend on oaks both for food and shelter. The number of species in woodlands is augmented as the food chain expands. The coast live oak woodland, for example, supports numerous species of insects that, in turn, provide food for birds. Birds that nest in or near oaks include woodpeckers, flickers, hummingbirds, chickadees, nuthatches, and a wealth of songbirds. Mammals, too, benefit from their association with oaks. Acorns are food for black-tailed deer, squirrels, mice, voles, rabbits, raccoons, opossums, and foxes.

California's oak woodlands thrive from frequent low-intensity fires. When fire is suppressed, fire-sensitive Douglas-fir and invasive eucalyptus can outcompete for available space, water and sunlight, overtopping the less shade-tolerant oaks, invading the oak woodland community, and decreasing biodiversity. All native California oaks evolved in Mediterranean climates where natural fires burned regularly. Consequently, fire is an essential element of oak ecosystems.

Oak woodlands also evolved with burning by indigenous people. Tribes burned woodlands to facilitate access to the understory, to stimulate growth of materials used for weaving and to improve habitat for game animals. Burning also killed insects that damaged acorn crops and made it easier to collect acorns, a critical food source. Wood from the oaks served as a source for firewood, tools, and medicine.

Historic burning of woodland understories resulted in fires of low intensity that maintained the open structure and mix of vegetation in the woodlands. Oaks have adaptations that make them successful at surviving fire. Their large root systems and root collar buds growing below ground allow them to resprout after a fire. Also, oaks have thick bark and



hard wood which helps to protect them. Indigenous people used seasonal burning as a management tool to kill brush and small trees while maintaining cohorts of large oak trees. This reduced above-ground stems of vines, shrubs, and other woody vegetation, creating less competition for the larger oaks which are the greatest acorn producers. Regular burning also benefitted forbs, grasses, and sedges in the woodland understory.

Since the early part of the 20th century, fires have been aggressively suppressed in California resulting in fewer fires, but enabling escaped wildfires to burn at higher intensity. The policy of suppressing fires greatly reduced the practice of initiating beneficial fires. Subsequently fire-sensitive species that compete with oak woodland, such as Douglas-fir and eucalyptus, increased.

These competitors can be reduced through a combination of selectively removing the invasive trees followed by carefully planned prescribed fire. Prescribed fire re-establishes the bare mineral soil that promotes the acorn and seed germination required for nitrogen-fixing plants to restore the soil with nutrients for new vegetation. With the shade from Douglas-fir and eucalyptus reduced, seeds from native plants that have been dormant in the soil are able to grow. This increase in native plants attracts greater numbers of wildlife to the oak woodlands. The result is a return to a vibrant, rich, and diverse ecosystem!

Fire is a regenerative tool allowing the oak ecosystem to spring back like a phoenix. The fire-following wildflowers return to the landscape, along with other natives taking advantage of the open sunny soil, to create a kaleidoscope of color that can include scarlet delphinium, red paintbrush, orange poppies, golden daisies, and blue lupine attracting hummingbirds, butterflies and other insects—nature breathing, springing back from the ashes. 🌿

UC Marin Master Gardeners' Native Plant Guild

by Barbara Robertson

A year ago, UC Marin Master Gardeners (MMG) introduced an overarching concept called [Earth-Friendly Gardening](#) to its members as they carry out their mission to provide horticultural information to home gardeners and to the public. Earth-Friendly Gardening has four principles:

- 1) Nurture soil; 2) Encourage biodiversity; 3) Mitigate climate change; and 4) Protect wildlife and the environment.

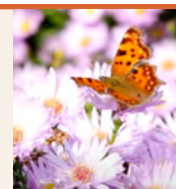
One way in which MMG helps encourage biodiversity is through its annual pollinator plant sale. This year, the sale to the public will occur March 4 at the Falkirk Greenhouse in San Rafael, from 9 am to noon. MMG volunteers raised more than 40 varieties of plants from seed in the greenhouse, carefully choosing ones that do well in Marin gardens and provide a year-round food source for pollinators. The \$5 four-inch pots will go quickly, so come early!

Within MMG, the Native Plant Guild has embraced all the Earth-Friendly Gardening principles, but especially the goals of encouraging biodiversity and protecting and extending Marin's unique

plant communities. In addition to public seminars and articles by Native Plant Guild members in the Marin Independent Journal, Guild Members worked with the MMG video team to create two native plant videos in 2022. "[Success with Native Plants: 4 Essential Tips](#)" has had nearly 1000 views. And, "[Color Your Garden with CA Native Plants – All Year Round](#)" has had over 4000 views.

Last year, Native Plant Guild members helped populate Marin County Park's (MCP) native plant nursery with seedlings and will help plant them at Ring Mountain Open Space this spring. (See "[Community-centered restoration](#)" in Nov- Dec 2022 issue.) MCP nursery technician, Aja Mathews, recently helped lead a workshop for Guild members on raising native plants from seed.

Check out [MMG's website](#) for more information about the popular tomato and succulent sales: <https://marinmg.ucanr.edu>, and view [MMG's Earth-Friendly Gardening video](#): <https://bit.ly/EarthFriendlyGardening>.



MARIN CONSERVATION LEAGUE
BOARD OF DIRECTORS

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Terri Thomas, Sausalito, Vice President
David Lewis, Novato, Secretary
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Jeff Stump, Inverness
Mike Swezy, Fairfax
Greg Zitney, Novato

Board of Directors meetings are held at 6:00 PM on the 3rd Tuesday of the month.

Issue Committee Meeting Schedule

(subject to change—check website)

Land Use and Transportation:

1st Wed. of the month, 10:00 AM—12:00 PM

Parks and Open Space:

2nd Thurs. of the month, 3:00 PM—5:00 PM

Climate Action Working Group:

3rd Fri. of the month, 9:00 AM—11:00 AM

Agricultural Land Use:

Meets quarterly, 4th Fri. of the month,
9:30—11:30 AM

North Marin Unit:

Check website for times

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Marin Conservation League was founded in 1934 to preserve, protect and enhance Marin County's natural assets. MCL is a non-profit 501(c)3 organization. All contributions and memberships are tax-deductible to the extent allowed by law.

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Marin Conservation League's Annual Meeting & Election - April 21, 2023

PROPOSED SLATE OF OFFICERS AND DIRECTORS 2023-2024

The Marin Conservation League's Nominating Committee, chaired by Terri Thomas, has nominated the following persons for election as MCL Officers and Directors at the 2023 Annual Meeting and Election. All MCL members are eligible to vote.

NOMINATED FOR ELECTION AS OFFICERS FOR 2023-2024:

President	Terri Thomas, Sausalito
First Vice-President	Linda Novy, Fairfax
Second Vice-President	Pam Reaves, San Rafael
Treasurer	Richard Jensen, Corte Madera
Secretary	Larry Minikes, San Rafael

NOMINATED FOR ELECTION AS DIRECTORS NEW TO THE MCL BOARD:

Term ending 2026
Jane Medley, San Rafael
Aviva Rossi, Fairfax

NOMINATED FOR RE-ELECTION TO THE MCL BOARD:

Term ending 2026
Jeff Stump, Inverness

NOMINATED FOR ELECTION TO THE MCL BOARD:

Term ending 2026
David Lewis, Novato
Bob Miller, San Rafael

THESE DIRECTORS WILL CONTINUE TO SERVE EXISTING TERMS:

Term ending 2024
Roger Harris, Corte Madera
Paul Jensen, San Rafael
Larry Kennings, Mill Valley
Kate Powers, San Rafael
Mike Swezy, Fairfax
Greg Zitney, Novato

Term ending 2025
Belle Cole, San Rafael
Ken Drexler, Fairfax
Nancy Hughes, Novato
Georgia McIntosh, Mill Valley