

## Still cooking with gas? Decarbonizing the built environment

by Sarah Loughran

To set the stage: With average global temperature at 1.1°C above pre-industrial times, we are already experiencing the effects of a changing climate. According to a report issued by the United Nations (October 2018), we must keep the average global temperature below 1.5°C to avoid long-lasting or irreversible impacts. The UN report charges us to slash global emission of carbon dioxide in half by 2030, achieve net zero emissions (i.e., offset all carbon emissions by removing an equal quantity from the atmosphere) by 2050, and, in the decades to come, remove one-half to 1 trillion tons of human-caused emissions already in the atmosphere. The global situation is dire; almost all key nations have failed miserably in meeting the 2015 Paris Climate Agreement greenhouse gas (GHG) emission reduction goals—which were already insufficient to meet the 1.5°C target.

Staying below 1.5°C will require hundreds of different strategies to be enacted across the globe—and soon. To quote Bill McKibben, “there is no silver bullet, only silver buckshot.” Two of those ‘silver buckshot’ pellets involve decarbonizing our built environment by reducing both ‘operating’ GHG emissions and ‘embodied’ emissions, i.e., those that are emitted throughout the lifecycle of construction materials, from extraction, refining, transportation and use, to waste and disposal. Unlike operational emissions, which can be improved over time through efficiency upgrades and switching to renewable energy, embodied emissions

[Continued on page 8](#)

## Putting a tax on wildfire: an environmental perspective



Courtesy California Native Plant Society

*Native plants can thrive in a fire-wise landscape.*

by Nona Dennis

By the close of 2019, Marin had survived another fire season. The balmy weeks of October–November’s “Indian Summer” – the Bay Area’s golden time of year – were muted by drifting smoke from the Kincadee Fire and interrupted by the new but related inconvenience of Public Safety Power Shutdowns. No one in Marin could remain unconscious of the increasing threat of wildfire, intensified by a changing climate and continuing buildup of vegetative fuel.

If any one lesson can be drawn from recent North Bay wildfires, it is that fire knows no boundaries: public and private lands, homes, neighborhoods and communities in one area are no safer from the advancing front of a wind-driven wildfire than those in surrounding or even distant communities, regardless of where a fire might ignite. The need for a county-wide response is obvious. To this end, an initiative to create a joint powers authority (JPA) was under development

throughout 2019 for the purpose of creating and sustaining a coordinated local wildfire public safety and preparedness program. The County of Marin, six fire protection districts, two community service districts, a public utility district, four towns, and three cities came together to form the Marin Wildfire Prevention Authority (MWPA). Only Tiburon and Belvedere opted out, claiming

[Continued on page 10](#)

### In This Issue—

Beyond broom, invasive weeds on Mt. Tam— [page 2](#)

Update: Strawberry Seminary — [page 4](#)

Public lands briefs: E-bikes on natural surface roads, Road & Trail Management Plan moves to Ring Mountain — [page 5](#)

Events — [pages 6 & 7](#)

Measure D — [page 11](#)

## A Message from the President - Looking to the future in 2020

### Dear Members and Friends,

MCL's Long Range Planning and Evaluation Committee, facilitated by an experienced consulting firm, is engaged in updating MCL's strategic plan. This work includes a refresh of MCL's mission statement, crafting a new vision statement, and aligning program priorities with the most pressing environmental challenges in Marin and the larger world we inhabit.

To ensure we have broad and relevant input into the planning process, we are reaching out to past and current board members, other members, and colleagues and friends to review MCL's existing and new priorities, current organizational structure, and the continuing need for leadership.

In January, MCL board members and staff will hold a one-day retreat to discuss the findings from this outreach and the committee's own work, and begin to craft a revised strategic plan. In April 2020, we will have more information for you. We strongly believe that MCL's future role in the County and as a contributing member of the global environment will benefit from this vigorous and well-structured assessment.



Holly Smith

*MCL's Long Range Planning and Evaluation Committee, a portion shown above, works diligently on updating MCL's strategic plan.*

MCL is playing a leadership role in two March 2020 ballot measures. We are actively working with the Trust for Public Land to ensure a No on Measure D, a March 2020 ballot measure that would limit the former San Geronimo Golf Course property's use to a golf course only, subject to countywide vote. Such a constraint could limit habitat restoration, connecting trails in the local community and the region, and other uses under consideration for the property, such as a new fire station. In addition, this poorly conceived ballot measure, if approved, could set precedent for overriding local

control of any of the other 27 community plans around the county. Please refer to our cover story, [Reimagining San Geronimo Valley](#), in the November-December 2019 MCL newsletter for more information.

MCL is also supporting a Yes on Measure C - Marin Wildfire Prevention Authority (MWPA). Over the past year, MCL's Fire & Environment Working Group (FEWG) has been collaborating with other groups to ensure that environmental values and climate issues will be incorporated into the program priorities the measure would authorize. We believe the MWPA addresses important needs in Marin County. Please see "[Putting a tax on wildfire: an environmental perspective](#)" in this issue, page 1, for comprehensive information.

Thank you for your unwavering support of MCL. It encourages us to continue protecting Marin's precious beauty and biodiversity for current and future generations.

Best to you in 2020!

Linda J. Novy



## Beyond broom: One Tam gains ground in battle with invasive weeds on Mt. Tam

by Nona Dennis, with Rachel Kesel

It is a truism that invasive species pose one of the greatest threats to the world's biodiversity, second only to habitat destruction. Among Marin's local invasive plant species, "broom" is the best known and its widespread patches are probably the most visible, especially when in bright yellow spring bloom. This notorious group of four species in the pea family arrived in the Bay Area in the mid-1800s and found our Mediterranean climate so agreeable that its infestations in local open space, watershed, and park lands are measured now in football field-equivalents.

MCL noted the "growing broom problem" on Mt. Tamalpais in minutes and newsletters as early as the 1970s. In recent years, the

notoriety especially of French broom, which produces large amounts of dry matter posing a significant fire hazard, has been heightened by threat of wildfire - hence the heavy emphasis of vegetation management programs on eradicating or controlling broom. Many of our readers have participated in "broom bust" days, or have adopted patches that keep them hand-pulling on a more or less permanent basis.

Broom is not the only invasive weed in Marin's landscape. Local vegetation manuals list broom along with at least 60 other invasive weed species, two-dozen of which are considered highest priority for control - a primary watch-list - and the rest, widespread weeds of lesser priority.

### What is EDRR and how does it work?

At a recent meeting in November, 2019, MCL's Parks & Open Space Committee received a report on the status of invasive weed control on Mt. Tamalpais from Rachel Kesel, Conservation Management Specialist for the One Tam collaborative. She described what has become the primary tactic for bringing invasive weeds under control: Early Detection Rapid Response (EDRR). In simple terms, the tactic consists of small teams roaming the mountain in vehicles or on foot,

[Continued on page 3](#)

## Beyond broom *from page 2*

covering every mile of emergency road and trail, on the look-out for errant populations – small recently established and detectable patches of invasive weeds that can be marked and returned to with hands and small tools for removal. Hundreds of miles can be covered systematically, and dozens of patches can be caught before they become entrenched.

Early Detection and Rapid Response as a method for proactively dealing with new outbreaks of invasive weeds has been around for a number of years. As described by the Bay Area Early Detection Network, this “stitch-in-time” approach prevents the environmental and economic damage caused by invaders and dramatically reduces the need for resources required to control large, established invasive plant populations. It is a method widely adopted by land management agencies, including those in Marin.

What stands out in the One Tam EDRR program is the opportunity for synergy among the participating agencies. The program was launched after hiring a conservation management specialist in 2015 and bringing together vegetation specialists from the four agencies and Parks Conservancy. The goal was to survey the entire mountain for invasive plant species and rare native plants in three to five years, using early detection and rapid response as the primary tactic.

### *The EDRR team goes to work*

The team first created a list of mountain-wide early detection species to target, dividing them into “Priority One” species and “Local Detections.” The twenty-three Priority One species include annual grasses (cheatgrass, barbed goatgrass, medusahead), riparian invaders (rattlebox, hanging sedge, evergreen clematis) and more. These species would be mapped regardless of the size of the population. Forty Local Detection species are fairly widespread across the mountain, and include species that land managers spend significant time managing, including panic veldt grass, French broom and jubata (“pampas”) grass. For the purposes of early detection, only small populations under 100 square meters would be mapped. Presence



Rachel Kesel

*Above: David Greenberger, Allison Titus, and Josh Nuzzo about to survey Highway 1.*



Matt Lavin Flickr

*Left: An up close view of barbed goatgrass (Aegilops triuncialis), a priority species for early detection.*

and absence data would be taken for all sixty plus species on all surveys.

As the team chose management targets, they were faced with the problem of sharing data among five organizations, each on its own computer server. They turned to Calflora’s Weed Manager software and mobile app, Observer Pro, to standardize data collection. This enabled the organizations to readily share data wherever there was internet connection, overcoming many of the hurdles of a traditional GIS system on separate servers. The team also worked with Calflora software to create new features and to customize for One Tam’s needs.

The One Tam team began surveys in March of 2016 to identify priority locations for return treatment. Some locations were scattered in remote areas; others were in areas of high visitor use with the potential for spreading. The National Park Service has a robust EDRR program of its own and determined that riparian surveys would be most valuable, such as along Redwood Creek and in several gulches off Bolinas Ridge. Marin County Parks had already surveyed its most impacted roads and trails in two previous seasons, leaving a mix of moderately impacted lands to cover.

The 2016 survey season took the team across most of Mount Tam’s habitats – from coastal scrub to redwood forests, riparian areas to barrens, chaparral to grasslands. Including some repeat surveys, the team surveyed over 50 miles of roads, trails, and riparian zones for invasive plant species that are either new to the mountain or found in new locations and treated 65 patches of Tam’s highest priority invasive plant species, which currently have limited distributions across the mountain and Marin County.

During the 2016-2017 season, the EDRR teams surveyed over 80 miles of roads, trails, and riparian corridors, and treated 56 patches of Tam’s highest priority invasive weeds that currently have limited distributions across the mountain and Marin County. In 2018, as reported in 2019 Work Plan, the team analyzed invasive weed, grassland and rare plant monitoring data, fine-tuned survey protocols, and continued mountain-wide surveys, covering approximately 100 miles of roads, trails, and riparian corridors. All new priority detections were treated.

By mid-2019, the EDRR Team was covering

*Continued on page 11*

## Status Update

# Another round for Strawberry Seminary property

Every few years this Newsletter reminds us of the truism that land use and other environmental issues don't end with the year – they simply carry forward into the next calendar year, and in many cases, into the next and the next. Now as we enter a new decade, the destiny of a major property in southern Marin is back in play: the 127-acre site (22 acres under water) of the former Golden Gate Baptist Seminary (GGBTS) in Strawberry, whose expansive grounds have a lengthy history of attempts to redevelop even while continuing to house active, if interim, uses.

In plain view of the daily stream of traffic on Richardson Bay overpass, the pine-studded site formerly occupied by the Seminary has been out of public view for several years, but not out of sight for the local Strawberry community that surrounds it. Over the past eighteen months, a small group of residents has been meeting with property owner North Coast Land Holding (NCLH) to consider the future of the site. Convened in 2017 by Supervisor Kate Sears, the "Seminary Tomorrow Working Group" has put in thousands of hours of facilitated committee and subcommittee meetings, until concluding its discussions late last year as NCLH decided to go forward to the county with its considerably revised plan for redevelopment.

### Redevelopment background

Plans to redevelop the Seminary grounds are not new! Before NCLH purchased the site in 2014, it had been home to the GGBTS since the late 1950s and already had gone through a number of expansions and transformations. In 2011, the Seminary attempted to revise its 1982 Master Plan by subdividing the campus to allow residential development on areas considered surplus to its educational mission. Most conspicuous would have been 38 market-rate residences on Seminary Point, directly across from the Richardson Bay overpass. After starts and stalls, the proposal hit major resistance from the Strawberry

community and died.

Under continuing financial pressure, the Seminary decided to relocate its educational programs to Southern California and sold the property to NCLH, whose concept plan was to build

rental and affordable housing and renovate the campus assets for a new school occupant. That prospective occupant turned out to be the Branson School in the town of Ross seeking to expand its constrained student population to 1,000. That proposal also went through extensive study and was eventually killed by the local Strawberry community. NCLH then pursued a new tack, in part by dropping the high school concept in favor of a more restrictive internationally-recognized institution that would favor off-campus research and limited on-campus classroom space for up to the 1,000 graduate students that are currently permitted.

### Looking to the future

By end of 2019, Supervisor Kate Sears, who has been working diligently with the community on this issue, reported that the "Seminary Tomorrow" group had met with NCLH for 18 months and, while they had made great progress, were still short of full agreement on details of NCLH's proposal.

According to Sear's report, the Seminary, when owned by the Baptists, operated an up-to-1,000 graduate-level student body and



Nona Dennis

*A rainy day on the Seminary campus, Strawberry, with Ring Mountain in the distance.*

as many as 299 units of student and faculty housing. What emerged from the working group's discussions is more complicated: a smaller top-tier graduate-level university, with some percentage living on site; a continuing-care residential community; a blend of affordable and market rate housing; a school fitness center, open also to Strawberry residents; a childcare center, with preference for Strawberry families; protection of key open space areas, with a network of trails; and a traffic management plan and coordinator. At least two items remained unresolved when the Seminary Tomorrow group concluded: the need for clear operational parameters to define maximum student population, and questions over the percentage of residential dwellings that could be occupied by on-site students and/or faculty. Throughout the years of debates on acceptable land uses for the site, the dominant concern continues to be "traffic – traffic- traffic," and how expected increases will be mitigated and managed.

The NCLH convened a public meeting in early December, 2019, to describe the proposed plan and provide details on how traffic has been analyzed, and to announce

*Continued on page 11*

## Briefs from public lands in Marin

# MCL continues to oppose electric bikes on open space natural surface roads and trails

Marin Conservation League continues to resist political pressure to open natural surface roads and trails on Marin public lands to electric bikes on at least two fronts: by contesting an August 31, 2019, order from National Park Service (NPS) to immediately allow e-bikes where other types of bikes are allowed in all national parks; and by participating in Marin Municipal Water District's Citizens Advisory Committee to determine whether the District should allow e-bike access on fire roads on watershed lands.

When the NPS order was made public and GGNRA responded by drafting a revised Compendium of rules for the park, including a listing of roads and trails where e-bikes would be allowed, MCL wrote a letter expressing opposition to opening access to specific routes in the park. The letter cited safety concerns associated with potential speed of e-bikes, advancing technology, and the increase in total bike traffic made possible by e-bike rentals and lower skill levels among new e-bikers. When MCL was approached by the nation-wide Public Employees for Environmental Responsibility (PEER) to join

their complaint against NPS as a co-plaintiff, MCL was more than happy to weigh-in at a more fundamental level, especially where public process and transparency had been violated. The PEER complaint, filed in early December, claims basically that the NPS' August 31 order violated NPS's own regulations, evaded legally-required environmental reviews and rule-making, and therefore should be rescinded. The NPS order had come on the heels of a similar order from Department of Interior (DOI), issuing the same directive to all public land agencies under DOI jurisdiction, thus affecting millions of acres of BLM and BOR (Reclamation) lands, in addition to all NPS park units and U.S. Fish and Wildlife Service refuges.

MMWD is also studying the possibility of permitting e-bikes on fire roads. The Citizens Advisory Committee (CAC) convened in 2019 is continuing into 2020, after examining a variety of regulations applied to e-bike use by other land managers and the technical performance of e-bikes and whether e-bike use would be compatible with other user groups. At its January 14, 2020 meeting the CAC is considering enforcement, and will

begin to draft recommendations for the Board. The primary pressure for opening natural surface roads to electric mountain bikes is coming from a small but vocal and persistent cohort of older cyclists who find that e-bikes can over-ride the various signs of an aging body that make conventional mountain biking ever more challenging. On the assumption that e-bike use will not be limited to this small cohort, MCL opposes opening the gates.

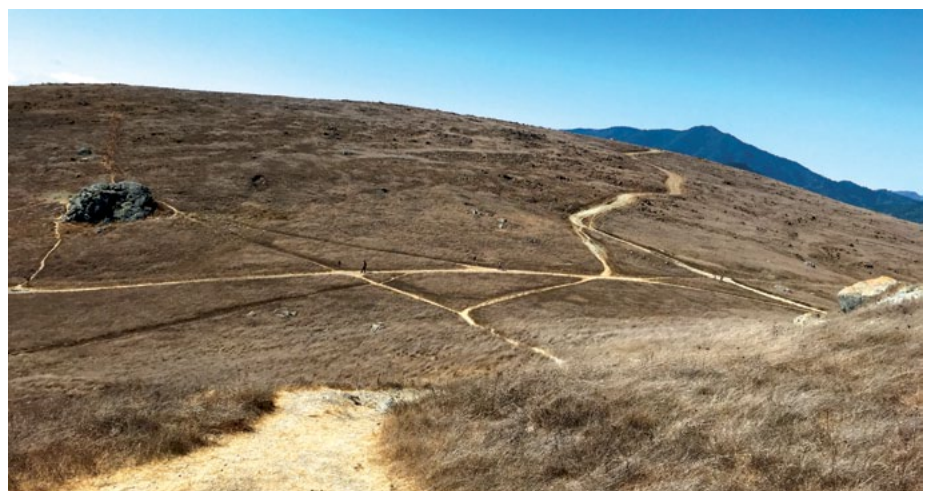
MCL recently adopted a policy that supports the use of e-bikes on paved and smooth-surface multi-use paths around Marin. However, we continue to believe that expanding use to e-bikes is neither compatible nor safe on the roads and trails on public lands currently used by thousands of other visitors – conventional bikers, hikers, bird and flower-watchers, dog-walkers, runners, people on horseback, generally spanning all ages.

For more information on the e-bike issue, see MCL Newsletters, [March-April 2018](#) and [May-June 2019](#).

## County's Road and Trail Management Plan moves to Ring Mountain in Region 6

Over recent months, Marin County Parks staff and their consultants have been systematically surveying the popular Ring Mountain Open Space Preserve on the Tiburon Peninsula. The surveys have identified and mapped rare plant populations and other sensitive resources, inventoried the roads and both "official" and informal trails that criss-cross the 387-acre preserve, and surveyed the visitors who use them to enjoy spectacular vistas, study ecological resources and cultural history, or just walk their dogs.

County Parks' focus on Ring Mountain comes near the end of a six-year process in



Marin County Parks

Informal "social trails" criss-cross Ring Mountain.

[Continued on page 9](#)

## Events

### Holiday Party - recap

The rain couldn't dampen our party spirits on Friday, December 6, 2019. Thank you to the more than 100 hundred guests who joined in the merriment of the evening. It is always a pleasure to host the annual MCL Holiday Party as a way to show appreciation for our members, supporters, and friends. We can't wait to do it all again next year!



*Sharon Farrell and Nona Dennis share stories*



*Merry & Bright! Left to right: Holly Smith, Kara Kelly, Morissa Zuckerman, and Kirsten Nolan*



*Stuart Siegel and Martin Lowenstein*

Photos: Kirsten Nolan, Linda Novy

*Larry Minikes mans the bar, with Jeff Stump (left) and Alex Stadtner (right)*



*From left to right: Don Dickenson, Vicki Nichols, Doug Lee, Janice Austin, and Linda Novy gather around the faux fire.*



*Supervisor Dennis Rodoni and Rick Fraites taste test the spread.*



*...Always good to connect with friends and meet new ones. Thanks for all you do to make MCL so welcoming.*

*Barbara & Ken Strong*



View more photos of the night on our facebook page: [www.facebook.com/marinconservationleague](http://www.facebook.com/marinconservationleague)

## Events

### A Public Symposium

## Home Gardening in a Changing Climate: *Fire Smart - Water Wise - Biodiverse*

Saturday, February 29, 8:30am–4:00 p.m

Marin Art and Garden Center  
30 Sir Francis Drake Blvd., Ross



Marin homeowners find themselves facing contradictory directives and hard choices as they attempt to create beautiful home landscapes that are resilient to wildfire, drought, or flood, yet still thrive and maintain healthy soils and diverse habitat for native plants and wildlife.

MCL, California Native Plant Society, Bee Audacious, and other non-profits are co-sponsoring a public symposium to address these apparently conflicting themes. A gathering of experts will discuss methods to manage water, enrich soil, and create landscapes that are resistant to wildfire but support thriving native plants that encourage biodiversity. The panel will show how an integrated and diversified approach can simplify garden maintenance, produce healthier outdoor living spaces, be nature-affirming, and create natural resilience to swings in temperature and water regimes. Renewal can happen anywhere. Why not start with your favorite place?

Visit [marinconservationleague.org](http://marinconservationleague.org) for event details including the schedule of speakers and ticket information.



## Recap-

### Business-Environment Breakfast: Is Silent Spring just around the corner?

Speakers Dr. Paul da Silva and PhD student Nina Sokolov presented to an intrigued and interactive crowd on Friday, November 8, 2019. Dr. da Silva informed the audience that the number one factor in declining bird and insect populations is habitat loss! But what can we do about it? Make more habitat! And increase use of native plants known to be important for local insects. The Home Gardening in a Changing Climate Symposium on February 29 (details above) will be an excellent educational resource to learn more.



*Dr. Paul da Silva discusses the correlation between habitat loss and the decline of species populations.*



Photos: Kirsten Nolan

*Bill Carney was one of many guests who utilized the question and answer period with panelists Dr. Paul da Silva, Nina Sokolov, and Bonnie Morse*

Watch the MCL website for upcoming 2020 Business-Environment Breakfasts: [marinconservationleague.org/events](http://marinconservationleague.org/events)

## Building decarbonization *from page 1*

are released before the building is even constructed, without the opportunity for later emission-reducing interventions.

### *Are zero net energy homes possible?*

How can we decarbonize – reduce or eliminate both operational and embodied emissions – from new construction as well as from our existing building stock? Are zero net energy homes possible? MCL's Climate Action Working Group has explored these questions over the past six months, hosting three experts to learn more: Ann Edminster, an architect and international expert on zero energy and efficient green homes, is the author of *Energy Free Homes for a Small Planet*. Alice Zanmiller is a Sustainability Planner and Mark Chhabria runs the Electrify Marin program, both with the County of Marin.

Decarbonizing the built environment requires achieving net zero energy in new construction and retrofitting the existing building stock. New construction is an easier target for limiting operational emissions, given the availability of solar power and wide array of energy efficient lighting, heating/cooling equipment, insulation, etc. Reducing emissions from 'embodied carbon' will require significant innovation upstream in the life cycle of construction materials like concrete, and adopting new building codes that force reduction of embodied emissions. Given the slow rate of new construction in Marin, retrofitting the existing building stock is much more important. It is also trickier, in that any gains in reducing operational emissions from current buildings may be offset by the emissions embodied in replacement appliances, fixtures, and other systems requiring energy. Progress on both fronts rests upon advances in technology, changes in federal, state, and local policy, individual education and choices, and funding.

### *Moving away from natural gas and propane*

Roughly one-third of GHG emissions in Marin County come from the operations

*An ad by the American Gas Association in Better Homes & Garden, December 1940*

of residential, commercial and industrial structures. In Marin homes, as in most California homes, natural gas and propane are commonly used for space heating, water heating, and cooking. Many jurisdictions are looking at reach codes (codes that exceed state standards) and incentives to eliminate natural gas in new construction. For example, Santa Rosa and Pacifica have new building codes eliminating natural gas hook-ups, although Pacifica has made an exception for natural gas used for cooking. Despite the advent of induction cooktops, many people, scarred by the terrible performance of the electric stoves of yore, cling to their gas stoves as if their lives (and bellies) depend on it!

According to Ann Edminster, it is crucial that we stop building natural gas infrastructure to support our old habits. In

addition to generating higher GHG emissions than electricity in most places, natural gas infrastructure is expensive to build and maintain and is unnecessary considering technological advances in electric induction cooktops, space heaters, and water heaters.

### *Electrifying existing buildings*

Existing buildings can be retrofitted to eliminate the use of natural gas and propane. There are obvious costs associated with replacement, however – in GHG emissions embodied in the replacement unit, and in the financial outlay for replacement. For these reasons, it is best to replace gas appliances towards the end of their lifespan but before

*Continued on page 9*



## Building decarbonization *from page 8*

they fail completely, so as to allow enough time to explore electric alternatives.

The mandate of the County's Electrify Marin program, as described by Mark Chhabria, is to speed up electrifying our homes. The program provides education about the air-quality and safety benefits of switching away from gas appliances and provides incentives to do so. For example, Electrify Marin provides up to \$1,000 for installation of a qualified electric appliance and removal of a natural gas appliance. More information can be found in the [Marin County Electric Home Guide](#).

Electrifying outdated appliances can be costly if the electric panel requires upgrading to handle higher levels of peak electricity use. But the costs of electrification versus natural gas use are going down, aided by advances in technology. For example, products like the NeoCharge Smart Splitter enable two 240 watt uses to share one outlet, e.g., your Level 2 car charger and your clothes dryer, as long as they pull power one at a time. Meanwhile, as users of natural gas decline in numbers, those still using it will not only face the rising cost of the natural gas itself but also bear a larger share of the base cost of natural gas infrastructure. In encouraging residents to electrify their homes, public programs should emphasize the potential cost burdens of remaining on natural gas.

State and local policies must change to achieve extensive building decarbonization. One organization - [The Building Decarbonization Coalition](#) - is working on that. Their Roadmap to Decarbonize California's Buildings lays out a plan for the state to cut building emissions 20 percent in the next six years and 40 percent by 2030 - and to adopt zero-emission building codes for residential and commercial buildings by 2025 and 2027, respectively. Among other programs, the Coalition is working to effect policies that would enable homeowners to

minimize upgrades to their electrical panels to accommodate home electrification.

### *Embodied Carbon in Concrete*

Concrete is the most widely used construction material in the world, and it carries a high embodied energy burden. Portland cement, the common binding agent used in concrete, accounts for around 8 percent of global GHG emissions. Alternatives with far lower GHG emissions do exist, such as fly ash, slag, and silicate-based pozzolans. The County of Marin recently adopted a new ordinance requiring builders to reduce either the amount of cement used or the total embodied emissions of the concrete mix by substituting lower GHG-emitting materials that are locally available and cost-competitive with Portland cement. This requirement should be adopted by other jurisdictions.



*Kirsten Nolan*

*Building sites in Marin will soon be required to reduce the amount of cement used or the total embodied emissions of the concrete mix in order to reduce GHG emissions.*

### *Need for consistency*

The County of Marin's Green Building Reach Code provides energy standards for new buildings that exceed state requirements. Mill Valley has also adopted these standards, while San Rafael has adopted a different energy reach code. Several other Marin County jurisdictions have expressed interest in exploring adoption in early 2020. Consistency in codes among cities and towns would streamline green building compliance for builders and support collective climate goals. If all of Marin's jurisdictions were to adopt the same green building codes, builders would benefit from a consistent set of rules, and suppliers could meet collective demand for green building materials.

## Ring Mountain *from page 6*

which the Road and Trail Management Plan (RTMP), adopted in 2014, has guided the study of each of the County's 34 open space preserves, with the goal of establishing a sustainable system of roads and trails, and at the same time reducing the environmental impact of visitor use on sensitive resources - in other words, striking an appropriate balance that protects sensitive natural resources while enabling visitors to experience the preserve without adverse impact. Among other tasks, the process has involved determining which trails should be adopted and managed as permanent "system trails," and which informal or redundant trails should be decommissioned, that is, blocked from use and returned to a natural condition

Ring Mountain presents unique challenges! Like most of the preserves obtained by the County since the creation of the Open Space District in 1972, it has a history of prior uses - in this case ranching and, later, was open to uncontrolled public access with many points of entry. The result is a network of informal trails - many in degraded condition - that were never intended to support the heavy use they now experience. Furthermore, Ring Mountain is made up of distinctive geologic formations and as a consequence supports extensive populations of endemic (unique to the site) rare and endangered plants, many of them with trails running through them. Ensuring resource protection into the future will require selecting and improving trails that avoid sensitive resources, encouraging visitors to stay on trails through signage and/or discrete barriers, enforcing the dog leash rule, and decommissioning trails that threaten sensitive plant populations.

Watch for announcements of an upcoming workshop to enable the public to review the proposed road and trail system on Ring Mountain!

*Sign up for MCL's online e-news to receive important action alerts, timely MCL issue updates, and community events, delivered straight to your inbox:*  
[marinconservationleague.org](http://marinconservationleague.org)

## Wildfire tax *from page 1*

duplication of their own voter-approved fire protection program. In October, the County Board of Supervisors approved the MWPA for the March 2020 ballot.

As the MWPA concept evolved over past months, MCL and other organized environmental and climate interests actively participated by drafting language in the MPWA measure to ensure that climate and environmental concerns will be incorporated into the many programs and actions the measure proposes – that vegetation is not viewed solely as fuel for wildfires but also valued for its essential ecological functions in the landscape and its complex role in both carbon storage and release and managed accordingly

### *How the MWPA will work*

Most readers are already aware of the March 3, 2020 ballot measure. If passed by two-thirds of the voters, it is expected to raise about \$19.3 million annually over a 10-year period by imposing a parcel tax throughout the county. Although the JPA will focus largely on private land, it will also strengthen coordination agreements of long standing between fire agencies, law enforcement, volunteer fire departments, the Office of Emergency Services, CAL FIRE, national and state parks, public watersheds, and County open space, thus directly or indirectly representing 98 percent of the land area of the county and more than 96 percent of the county's residents.

Funds will be allocated in three categories. Sixty percent will be dedicated to four core program areas: maintaining and/or removing combustible vegetation such as fire-prone, non-native plants, brush, shrubs and trees; improving wildfire detection, emergency alert and warning systems, and infrastructure to enable organized and safe evacuations; offering grants to senior and other needy homeowners to assist them in preparing for emergencies and making their homes more resistant to fire and their landscapes defensible; and conducting comprehensive education programs to show residents how to harden their homes by making eaves, gutters, vents, windows, building materials, and roofs resistant to heat, flames, and embers.

Twenty percent will focus on evaluating defensible space on individual properties in the wildland-urban interface (WUI) through an inspection system. A defensible space acts as a buffer between a structure and the grass, trees, shrubs that surround it, to protect both the buildings from igniting by slowing or stopping the spread of wildfire and the firefighters who are trying to protect it. The remaining twenty percent will be allocated to the MWPA member agencies and districts to fund local wildfire mitigation programs and projects in their service areas. All funds will remain in Marin County, and the JPA will place a cap of 10 percent on administrative costs.

To fund the MWPA, owners of improved commercial and residential parcels will pay an annual parcel tax of \$.10 cents per square foot – for example, \$180 a year for a typical 1,800-square foot home. Owners of multifamily residential structures with three or more units will be taxed \$75 per unit, and the tax on unimproved parcels will vary between \$25 and \$150 based on acreage.

The MWPA's governance structure will include elected officials and staff members of the 17 member agencies and municipalities, as well as outside affiliated organizations, and grouped into five zones: Novato, San Rafael, Ross Valley, Southern Marin, and County (West Marin). A board of directors will comprise two elected officials from each zone plus one elected official from the small fire districts. A technical advisory committee will include outside affiliated organizations that can provide expert technical support to the JPA, such as FireSAFE MARIN and Marin Municipal Water District. A citizens' oversight committee will ensure fiscal accountability.

### *Integrating climate and environment into fire protection, and why it matters*

The first drafts of the initiative revealed



Townoffairfax.org

*Crew cutting brush.*

a predominant view of vegetation as fuel, characterized solely by its susceptibility to ignition and other behavioral responses to wildfire. The attributes of vegetation as an ecologically significant feature in the landscape were generally ignored. Anticipating widespread vegetation management and removal to clear evacuation routes and reduce fire hazards to human lives and structures, MCL and other environmental nonprofits recognized the need to integrate ecologically sound practices that protect biodiversity and at the same time optimize carbon storage and modulate the release of greenhouse gases. The initiative should result not simply in removing threatening vegetation but also in maintaining healthy landscapes and soils, able to manage runoff and avoid erosion, maintain wildlife habitat, and better manage carbon.

The MWPA drafters agreed to include language supporting biodiversity and climate resilience into the initiative itself. They also urged member agencies to make environmental appointments to the Technical Advisory and Citizens Oversight Committees, thus ensuring that climate and environmental perspectives will be an integral part of proposed programs.

MCL and other environmental and climate action organizations plan to participate in MWPA actions as it develops and implements its educational programs by: 1) Compiling a guide for "best practices" in vegetation, water, and soil management, wildlife habitat, composting and other 'green waste' and

*Continued on page 11*

## Wildfire tax *from page 10*

carbon sequestration practices; 2) Refining lists of the most fire-prone and, conversely, most appropriate replacement plant species to promote the biodiversity of native species and a healthy landscape for both humans and wildlife; and 3) Supplementing the educational materials currently being distributed by FireSAFE Marin with the guidance listed above. This Newsletter will continue to report on the effectiveness of these efforts as the MWPA launches this spring.

## Broom *from page 3*

ground at a faster-than-anticipated rate - with both mapping and treatments—and was considering how to prioritize patches of invasive plants for new treatment. The team was also planning to prepare a white paper on the efficacy and economics of EDRR as an important tool for detecting and managing weeds.

### *Continuing progress in 2020*

Under the proposed 2020 Work Plan, the EDRR team will continue its efforts to detect and eliminate small patches of high-priority weeds before they develop into large, firmly established nuisance populations. To date, the team has covered over 425 miles of roads, trails, drainages - completing a comprehensive three-year survey of 62 priority weeds within the One Tam area of focus - 52,000 acres encompassing Mt. Tam and Samuel P. Taylor State Parks, MMWD watershed, Redwood Creek watershed and other areas of GGNRA, and several County open space preserves that within the area of focus. The team is working to increase control efforts and to share its expertise with start-up EDRR programs elsewhere in California and other Western states. The 2020 work plan calls for the team to continue detection



Andreas Fockstein, flickr

*An attractive vine in gardens, "Evergreen Clematis" smothers whole forests.*

## Strawberry *from page 4*

that it intended to submit a development application to the county "by the end of the year" and move forward with an application and an Environmental Impact Report in 2020. At this preliminary stage, MCL believes that redevelopment of the site, which has been relatively quiet for several years, has the potential to be a community asset but, at the same time, will have regional as well as local impacts, notably on traffic on 101 and several Southern Marin interchanges. The MCL Land Use and Transportation Committee will play an active role in tracking the application, and when appropriate, all phases of the EIR process. This will be a multi-year effort!

along roads, trails, and drainages and at known disturbance sites; summarize the three-year baseline assessment; test weed prioritization methods on three species and summarize results; partner with California Invasive Species Council (CalIPC) to evaluate the EDRR approach; increase detections in the Conlon Avenue area of Muir Woods and initiate treatment of the highly invasive vine *Clematis vitalba*; and advance the Calflora database use from development phase to operational.

The success of this ambitious program assures us that invasive weeds on Mt. Tam are meeting their match!

### **Vote NO on Measure D**

#### **Protect San Geronimo Valley for water quality, wildlife, public safety and enjoyment**

In opposition to acquisition of the former San Geronimo Golf Course for a public park and open space, a narrow special-interest group crafted a ballot measure - Measure D - that would limit use of the land to golf ONLY and hand over future control of the 157-acre site to a countywide referendum. If approved, Measure D would block conservation of the property, a critical new fire department headquarters, restoration of endangered fish habitat, and new recreational opportunities. This "planning-at-the-ballot-box" measure also would expose all of Marin's community plans (28 total) to countywide referendum, taking away local decision making.

**Save Marin County from bad planning by voting NO on Measure D  
A NO vote costs Marin County taxpayers nothing.**

**MARIN CONSERVATION LEAGUE  
BOARD OF DIRECTORS**

**Officers**

Linda Novy, Fairfax, President  
Bob Miller, San Rafael, 1<sup>st</sup> Vice President  
Doug Wilson, Mill Valley, 2<sup>nd</sup> Vice President  
Susan Stompe, Novato, Secretary  
Kenneth Drexler, Fairfax, Treasurer

**Directors**

Nancy Benjamin, Tiburon  
Bob Berner, Dillon Beach  
Nona Dennis, Mill Valley  
Roger Harris, Corte Madera  
Larry Kennings, Mill Valley  
David Lewis, Novato  
Sarah Loughran, San Rafael  
Larry Minikes, San Rafael  
Vicki Nichols, Sausalito  
Kate Powers, San Rafael  
Jeff Stump, Inverness  
Mike Swezy, Fairfax  
Arlin Weinberger, San Rafael  
Greg Zitney, Novato

*Board of Directors meetings are held at 7:00 PM on the 3<sup>rd</sup> Tuesday of the month at the MCL office and are open to the public.*

**Staff**

Holly Smith, Richmond  
Office & Events Manager  
Kirsten Nolan, San Rafael  
Communications Coordinator

**Contact Information**

175 N. Redwood Dr., Ste. 135  
San Rafael CA 94903 | 415.485.6257  
[www.marinconservationleague.org](http://www.marinconservationleague.org)  
[mcl@marinconservationleague.org](mailto:mcl@marinconservationleague.org)

**Issue Committee Meeting Schedule  
(subject to change—check website)**

*Land Use and Transportation:*

1<sup>st</sup> Wed. of the month, 9:00—11:00 AM

*Parks and Open Space:*

2<sup>nd</sup> Thurs. of the month, 3:00—5:00 PM

*Fire and Environment Working Group:*

2<sup>nd</sup> Mon. of the month, 1:00 PM—3:00 PM

*Climate Action Working Group:*

3<sup>rd</sup> Fri. of the month, 9:00 AM—11:00 AM

*Agricultural Land Use: meets quarterly;*

*North Marin Unit: Check website for times and locations*

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.

*Editor: Nona Dennis*

*Design and Production: Kirsten Nolan*

*Printed in Marin on recycled paper with soy ink.*

*Please share and recycle.*



# NEWS FROM MARIN CONSERVATION LEAGUE

Non-Profit  
Organization  
U.S. POSTAGE PAID  
Permit No. 151  
San Rafael, CA

January - February 2020

175 N. Redwood Dr., Ste. 135  
San Rafael, CA 94903

RETURN SERVICE REQUESTED

**Renew now! Memberships are valid for the calendar year.  
Save paper and resources, renew online!**  
[marinconservationleague.org](http://marinconservationleague.org)

Name

Address

City/State/ZIP

Phone

Email

*\*Join at the \$250 level or above and you will be invited to MCL's Fall Leaders Circle Event!*

**SIGN ME UP AS A:**

\$35 Steward

\$100 Baylands

\$500 Redwoods

\$50 Creeks

\$250 Woodlands\*

\$1,000 Peter Behr

My check, payable to MCL, is enclosed

I will renew via credit card

Card Number

Exp. Date

Name on Card

sec. code

Signature

Mail to MCL, 175 N. Redwood Dr. Ste. 135, San Rafael, CA 94903  
or JOIN ONLINE at [marinconservationleague.org](http://marinconservationleague.org)

All contributions and dues are tax deductible to the extent allowed by law. MCL memberships are calendar-year based.