

Flooding in the Ross Valley

by Sandy Guldman¹

(Like other watersheds in East Marin, the Corte Madera Creek watershed has been extensively altered over the past centuries. Much of the upper watershed is protected as public land and thus remains relatively natural. In contrast, commercial buildings, fences, backyards of residences, and other structures crowd the middle and lower reaches of the creek. Despite pervasive development and significant barriers to migration, the watershed still supports spawning and rearing habitat of the threatened steelhead. The current issues that plague the watershed, however, relate more to human habitation of the Ross Valley than to salmonid habitat. The following account provides a status report on ongoing attempts to resolve Ross Valley's chronic flood risk. Editor)

Steep terrain in the surrounding watershed and intense rainfall combine to cause rapid increases in streamflow that often exceed the capacity of Ross Valley stream channels and overflow into the aptly named floodplain. As a consequence, the Ross Valley has experienced some of the most devastating floods in Marin's history. Severe floods occurred in 1925, 1944, 1982, and 2005. The 2005 flood caused over \$95 million in damages. During a flood, fire and emergency services cannot function properly and trying to escape rapidly rising water is dangerous. Floods harm the entire community, and solutions have been elusive.

Responding to the 2005 flood, Ross
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Fire-wise and environment-wise: making the connection



Marin County Fire Department

In the absence of "ladder" fuel, a fast-moving surface fire leaves trees relatively undamaged

Nona Dennis

Six months have passed since wildfires took 43 lives and destroyed whole communities in the North Bay last October. People who barely escaped or whose homes were lost are struggling to get back on their feet. The landscape is one of devastation. At the same time, a recent walk in Sonoma Valley Regional Park, which was in the path of the destructive Nuns Fire, revealed blackened oaks and madrones with new foliage emerging from upper branches or sprouting from root crowns. Fields that were scorched last October have been transformed into patches of color as grasses and wildflowers appear from bulbs, rhizomes, seed banks and other sources of carbohydrate stored and waiting for renewal after fire.

Many of these plants are "fire followers" that depend on fire to clear away accumulated duff and dead undergrowth, breakdown seed coats, activate growth "buds," bring in sunlight, restore nutrients

to the soil, and in myriad ways respond positively to the effects of fire. The contrast between human misery and vegetative rebirth is stark, but it is also a reminder that wildfire is a natural part of the environment – "about as important as sun and rain," according to Harold Biswell, pioneering fire ecologist.

The post-wildfire renewal is reassuring

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A Message from the President-New beginnings

Last month was a new beginning: as the incoming president of Marin Conservation League (MCL), I am excited about my new role working with our creative and dedicated staff



and Board of Directors, and taking an even deeper dive into the environmental issues facing Marin. April also marked beginning terms for five new MCL Directors. You will meet them in this and subsequent Newsletters. April also signaled new beginnings for fire-scarred North Bay, where residents are trying to rebuild their lives, and for resilient native plants that are regenerating new growth out of blackened branches and soil.

A little background on my history with MCL: in the early 1990s, sustainability

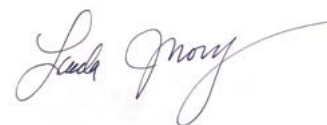
was an emerging concept, as was the notion that businesses could do good for the environment and do good for themselves. As a local business woman, I was interested in this concept and joined MCL's Business and Environment Breakfast (B&E) meeting team. We collaborated with Marin's Community Development Agency in exploring a "green audit" that ultimately contributed to the Green Business Certification. I've remained involved in the B&E program for the last 25 years, while also serving on MCL's board for two three-year terms. I continue to be drawn to the breadth and depth of MCL's mission "to preserve, protect, and enhance the natural assets of Marin County," to MCL's systematic and thorough Issue Committee work, and to the wide-ranging expertise of MCL's current and past Directors and others active in the Issue Committees.

Currently, the MCL committees are: working on vegetation and road and trail management plans in public lands (Parks

and Open Space Committee); promoting ways to reduce greenhouse gases and adapt to climate change (Climate Action Working Group); advocating for linking the economic viability of ranching in West Marin with a healthy environment, including watershed protection (Agricultural Land Use Committee); and working on wetlands protection, transportation and land use issues, and promoting critical ballot measures such as Proposition 68, the "Parks, Environment and Clean Water Bond" (Land Use and Transportation Committee).

It requires time and energy to vigorously move MCL's mission forward, and we couldn't do it without you, our members! We are grateful for your continuing support and welcome hearing from you.

Linda Novy



Proposition 68 needs your support!

California voters should have no reservations about approving Proposition 68, the "California Drought, Water, Parks, Climate, Coastal Protection and Outdoor Access for All Act" on the June 5 ballot. The \$4.1 billion bond measure is the first statewide parks and water bond to go before the voters since 2006, and it will fill a lot of pots that have been empty. As a parks and natural resource bond measure, Prop. 68 is a top priority for the Bay Area's land conservation community.

\$60 million would be dedicated to the Bay Area, including \$21.25 million for the San Francisco Bay Conservancy Program, \$20 million in grants to match Measure AA restoration funds, and \$14 million for the Ocean Protection Trust Fund. In addition, under a per capita provision, each Bay Area city would receive a minimum of \$200,000 and every county in the state is guaranteed at least \$400,000 for parks projects. Overall, Prop. 68 will authorize \$2.83 billion for

a wide variety of parks projects, including \$218 million to improve state parks that are desperate for money to pay for decades-old deferred maintenance. Local agencies and partners that operate many units of the state park system would receive \$5 million. Conservancies, river parkways, urban stream restoration programs, trails and greenways, and habitat resiliency programs all stand to benefit from the proposition. The proposition also includes more than \$1 billion in flood protection and repair, and \$390 million in regional water sustainability programs such as groundwater planning and water recycling, including agricultural irrigation systems that save water. It does not fund new dams or tunnels.

The state legislature passed SB5, the



basis for Prop. 68, with bipartisan support. It has widespread support from business (California Chamber of Commerce), labor, political, and environmental groups. The only known organized opponent is the Howard Jarvis Taxpayers Association, which argues that the money should come from the general fund. The California constitution requires voter approval by a simple majority before the state can issue general obligation bonds. Tell your friends and neighbors to [Vote Yes on Prop 68!](#)

Editorial

Public acquisition of San Geronimo Valley Golf Course -right decision for the long term!



Kristen Nolan

Last year, the opportunity to acquire the San Geronimo Golf Course as public land seemed like a gift for the entire county. The Trust for Public Land (TPL), a national conservation nonprofit with a 40-year history of successfully facilitating the acquisition of lands for the public, recognized the value of the 157-acre property and was able to assist the County by stepping up to purchase it for eventual transfer.

The economics of golfing showed continuing decline. The golf course apparently was nearing the end of its long history as a recreational resource, and the owners were in a hurry to sell. The zoning designation for the property as resort and commercial recreation raised the threat that private development could alter the valley's rural character forever. Instead, this beautiful property would become a resource for outdoor activity for the San Geronimo community and the wider public and at the same time fulfill the long-term goal of enhancing fish and wildlife habitat. County Parks staff knew that acquiring public land typically can take years; Supervisor Dennis Rodoni recognized the specialness of place that the property holds in the San Geronimo

Valley; and the Board of Supervisors saw it as a future asset for the entire county.

In the six months since the Board of Supervisors approved the deal and county parks staff began to work through the complicated negotiations, the atmosphere surrounding the acquisition has become filled with strident voices of opposition. The vitriol directed at the county and at individuals seems strangely at odds with the benign intent. At first it was a cadre of golfers who arguably would miss the beautiful course and had legitimate cause for complaint. They were joined by a group of residents with apparent differences rooted in past Valley debates, using CEQA as a tool for turmoil. Others with habitual fiscal concerns turned the debate into a taxpayers tirade.

Marin County is no stranger to public debate, nor is Marin Conservation League! MCL believes, however, that the county acted incisively in recognizing and taking strategic advantage of a rare opportunity to place the property under public stewardship. MCL believes also that the County has been open and transparent in moving through the process of contracting with Touchstone for interim management of the site as a golf course. This is a long-

term investment, and over the next few years, there will be abundant opportunity for diverse voices to discuss future uses of the land and evaluate their benefits and impacts through the CEQA process. Supervisor Rodoni wrote in a recent *Marin Voice* piece: "While restoring the creeks and watershed is a high priority, I have heard many exciting ideas about the possible use of this valley property, and I welcome them all for discussion and evaluation." The list of possibilities will grow, and each deserves careful scrutiny in constructive discussion, not destructive rancor.

MCL urges you to let the Board of Supervisors and the Marin County Parks staff know that they have made the right decision in securing this land for the people of Marin County and for the long-term benefit of fish and wildlife habitats in the San Geronimo Valley, bos@marincounty.org.

Editor

Moving ahead with "Project Drawdown"

Doug Wilson

What if an entire county such as Marin could act in unity to combat climate change? That may be just a fantasy, but as the impacts of climate change intrude ever more directly into our lives, a readiness to deal with them seems to be spreading through Marin. The spread has been occurring slowly but surely since April 2002, when the Marin County Board of Supervisors adopted a resolution recognizing the threat that climate change poses to our global community and pledged to take steps locally to address greenhouse gas emissions. Most recently, the County, in collaboration with several community groups, initiated a campaign to dramatically draw down our greenhouse gas emissions.

With the working title of Project Drawdown/Marin Climate Action Network (PDD/MCAN), this ambitious campaign is an attempt to bring together a wide and representative range of groups, institutions, municipalities, businesses, and individuals who recognize our common interests in confronting the climate challenge.

Preliminary talks are underway regarding strategies and structure for the campaign. Six strategies or areas of concern have been separated out for attention: 1) clean 100% renewable energy; 2) zero emission transportation; 3) zero emission buildings and infrastructure; 4) healthy and local food production with minimal waste; 5) carbon sequestration; and 6) climate resilient communities.

The concept of PDD/MCAN is to assemble a strong mix of expertise and representation from stakeholders in each strategy area, to meet and develop practical knowledge that can move us all forward, and then to launch concerted public outreach efforts through all available media.

This endeavor presents new challenges and requires responses that are unprecedented. We are in the odd position

of knowing that sea levels will rise, and also anticipating what will be required of us to mitigate the worst threats to life on our planet. We know that our behavior as individuals and as a society must change, but we have yet to work out how best to motivate those changes and precisely which changes will be most effective.

This initiative follows from the County's launch of Project Drawdown last October, and from many recent public events sponsored by Marin's environmental organizations. Emphasis of the campaign is on the 'mitigation' side, as opposed to the 'adaptation' side, of climate action. Reducing greenhouse gas emissions, as outlined in Marin's 2015 Climate Action Plan (CAP), is the primary focus. The CAP adopted, among a range of benchmarks, California's long-term goal of reducing emissions to 80 percent below 1990 emission levels by 2050, a daunting task from any perspective. But it must happen.

The Drawdown campaign will need to reach and engage everyone – and the sooner the better.

Assembling the expertise and stakeholder representation in the six strategy areas and developing workable plans for action will require at least the rest of 2018. Expertise will be brought in where needed, and representation will be sought based on equity, geographic area and major stakeholder groups. Details regarding procedure are yet to be worked out, but in each case meetings will be held and recommendations for further action



Healthy and local food production with minimal waste is one of six areas of concern in Project Drawdown

will be developed. The precise form of the managing structure or council is still being worked out, although the County will play a significant role.

Each of the strategy area groups will have a strong exploratory aspect, so that outreach efforts will be well-grounded in science and in practicality. This latter aspect has often been a weak spot in one-time public presentations. Staff and funding will be necessary to adequately launch public outreach through mass media, social media, and all other available channels.

Since the effects of climate change will spare no one, the campaign will need to reach and engage everyone wherever they live or work – and the sooner the better. In announcing a Board of Supervisors' Sustainability Workshop on April 17, Supervisors Kate Sears and Damon Connolly emphasized that to remain at the forefront of climate and sustainability initiatives, it is imperative that we engage with each other and find opportunities to collaborate as we embark on the next steps toward becoming a sustainable and resilient community. To stay tuned, join in the discussion at MCL's Climate Action Working Group meetings, third Friday of the month, 9:00 to 11:00, at MCL, 175 Redwood Drive, San Rafael.

Public Lands

West Peak restoration takes another step

The restoration of the West Peak of Mt. Tamalpais, site of the former Mill Valley Air Force Station (MVAFS), is considered a "Legacy Project" by both Marin Municipal Water District and the Tamalpais Lands Collaborative (One Tam). It will take an important step closer to realization on June 21 when the District Watershed Committee receives a presentation of a "preferred concept" for restoration and makes a recommendation to the full District Board. The 106-acre site offers visitors unsurpassed views of the Bay Area, and in spite of the 30-year history of occupancy as an Air Force Radar Station – evidenced by remnant buildings, foundations, debris, rusty fencing, concrete and asphalt pavement, and old excavations – it also hosts distinctive plant and wildlife habitats, including grassland and chaparral and serpentine barrens that support six of Mt. Tam's rarest plant species.

As reported in MCL's January-February 2018 Newsletter (<http://www.conservationleague.org/images/stories/>

[Newsletters/NL18A_JanFeb_forweb.pdf](#), pg. 6), the District and One Tam's philanthropic partner, Golden Gate National Parks Conservancy, assembled a team in 2016 to investigate the feasibility of restoring the peak to a more natural condition. Among other constraints, the team encountered hazardous levels of lead paint and asbestos in building materials and in some soils that would require abatement; six acres of impervious concrete and asphalt pavement; and thousands of cubic yards of soil that had been scraped off the top of the peak for construction of the radar installation and redeposited elsewhere on the site. They also found significant natural resources on the site and noteworthy opportunities for improving surface water management.

The team leaders found that the majority of visitors who hike to West Peak to enjoy the spectacular views also value the quiet setting and sense of discovery. Although they would appreciate improved access and signage and recognize the importance of retaining historically-significant remnants

of the former military occupancy, they would prefer that improvements be low-key and that visitation be kept at low levels.

Preferred restoration concept

With their gathered information, the team considered actions that could be taken toward restoring the peak's environment and presented reasonable minimum and maximum levels of restoration to the public for comment in October 2017. The preferred restoration concept to be presented to the District Watershed Committee in June is the outcome of public comment and the team's deliberations. Depending on the Board's response and further public comment, the report is intended to serve as the basis for future environmental review (CEQA), and eventual project design, fundraising and construction.

The preferred concept proposes restoring nearly 18 acres of the site and includes the following specific actions:

- Demolish 10 remaining buildings and abate hazardous materials, including lead contaminated soils;
- Remove power poles, lines, fences, guardrails, railings and loose debris;
- Demolish and off-haul 5.3 acres of asphalt paving to restore groundwater infiltration;
- Demolish and crush concrete paving and structures to restore permeability and natural drainage, and reuse onsite to reshape topography;
- Excavate 27,000 cubic yards of serpentine soil fill from three major deposits and place up to 24" deep in areas to be revegetated with serpentine-adapted plant species;
- Restore more natural topography by rebuilding some slopes, removing road saddles, and recreating the natural



Gary Yost

Family hikers enjoy the 360-degree views of the Bay Area and beyond.

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Events

MCL welcomed five new Directors to the Board at the Annual Meeting on April 6. We are pleased to introduce three of them in these pages. You will meet the remaining two in the September-October issue.



Jeff Stump is the Director of Conservation for Marin Agricultural Land Trust and has worked in land conservation and policy at the local, state and national level for 25 years. Prior to joining MALT, Jeff worked for the American Land Conservancy and the California Coastal Commission. Jeff sits on the Marin Carbon Project Steering Committee and works closely with its implementation task force. He holds a Bachelor of Science in environmental policy analysis and planning from the University of California at Davis. Jeff lives in Inverness and spends much of his free time hiking the local trails.



Nancy Benjamin grew up in Saxtons River, Vermont, and has lived and been active in environmental causes in the Bay Area for 25 years. She worked with Christie's in both New York City and San Francisco. Among her many volunteer activities, Nancy is a One Tam Ambassador focused on community outreach and development, an Interpretive Docent at Mt. Tam State Park, and serves on the board of the Environmental Forum of Marin. Nancy has also served as editor of San Rafael Chamber of Commerce's green business e-newsletter, on various committees for the Golden Gate National Parks Conservancy, the Bay Area Discovery Museum, and San Francisco Friends School. Nancy lives in Tiburon.



Roger Harris made a mid-career shift after teaching political science at a Historically Black College in Mississippi and pursued a new career as a Certified Wildlife Biologist. He was assistant director of the Richardson Bay Audubon Center, and directed another nature center before becoming a principal in an environmental consulting firm, where he specialized in endangered species, wetlands, and native habitat restoration. Now retired, Roger leads field trips and lectures locally for a number of environmental organizations. He also leads international trips for the Oceanic Society. Roger serves on the Marin County Parks and Open Space Commission and is past president and current board member of the Task Force on the Americas, a 42-year-old human rights organization based in Marin. Roger lives in Corte Madera.



On March 10, MCL's Invasive Plant Subcommittee joined forces with Marin County Parks and the Cascade Canyon FireWise Group in a Fire Reduction and Broom Pull event.

Pulling broom in the Cascade Canyon Open Space can be fun and fruitful!

Events



Left: MCL's Annual Dinner and Meeting , hosted at Homeward Bound of Marin on April 6, was another sold out event!

Right: Keynote speaker Grant Davis is flanked by Georgia McDaniel (left) and MCL President Linda Novy and Cynthia Koehler (right).



Below: Peter Behr Lifetime Achievement Award honoree Nona Dennis tries (unsuccessfully) to quell her standing ovation.



Left: Supervisor Kate Sears and retired Judge Faye D'Opal shared in the jubilant spirit of the evening.

photos by Kirsten Nolan, Linda Novy, Holly Smith

Volunteer Opportunity–Willow Care Day

Please sign up to help give the willow sprigs we planted last February a chance to get through the hot months to come! The willow sprigs will need watering, an application of Dri Water and weeding. Our goal is to have enough of them survive to give these gullies and streams some good cover. Once the willows are established, more species of plants and trees will sneak in under their boughs.

Please bring hats, shovels, trowels, gloves, good walking shoes or boots, long pants, sun screen, water and lunch. We will all eat lunch together after the workday.

Co-sponsored by Trout Unlimited. TU built a great fence around one of the restoration areas, harvested the sprigs, and planted the first day of willow planting with MCL members.



What: Willow Care Day

When: Sunday, May 27
10am - 1pm

Where: Chileno Valley Ranch
5105 Chileno Valley Rd
Petaluma, CA 94952

Register: <https://mclwillowcareday.eventbrite.com>

All ages welcome

Nature Notes, and One Tam Symposium III

Who would have thought that the tanoak (*Notholithocarpus* [formerly *Lithocarpus densiflorus*) would ever become a celebrity species?

That, indeed, is the plan for the science symposium being organized by Tamalpais Lands Collaborative – One Tam – for October 5, 10:00 – 4:30, at the Mill Valley Community Center. The focus of the symposium, the third in the series of science symposia on the “health” of Mt. Tamalpais launched in 2016 by One Tam, will be on Mt. Tam’s Forest Ecosystems and tanoak will be at the center of the day’s discussions.

Andrea Williams, vegetation ecologist with Marin Municipal Water District, puts it this way: “Tanoak is central to the life of the forest, but so often we overlook it--or if we do think of it, it’s only within the context of sudden oak death (SOD). We want to celebrate tanoak: its abundant, fat, fuzzy acorns and their ridiculous caps; its use as food for people and voles and matsutake (prized mushroom frequently associated with tanoak forest soil); as a tannin-rich ingredient in leather-making. We want to trace its path from being integral to people’s lives, to ‘junk’ tree in forestry, to ‘zombie’ in the present day.”

Tanoak, also known as “tanbark oak,” is not a true oak of the genus *Quercus* that is so widely distributed throughout California and represented on Mt. Tam by at least eight species. It is a close relative – a member of the chestnut family, which includes a tree-shrub also present on

Mt. Tam, the chinquapin (*Chrysolepis chrysophylla*). Like true oaks, tanoak bears abundant hard, acorn-like fruits with distinctive bract-covered cups, but it differs in both arrangement of flowers and mode of pollination.

Tanoak will figure prominently in the October symposium on forest ecosystems on Mt. Tam. As Williams implies above, the tanoak’s largely negative image over the past two decades has been due to its role in the spread of the pathogen *Phytophthora ramorum*, known as sudden oak death. After making its first appearances in the Mill Valley area in 1995, that pathogen has spread relentlessly through 1,000s of acres of Pacific coastal forests, killing tanoak and coast live oak trees by the millions and implicating more than a hundred intermediate hosts for SOD that do not themselves die but survive as infectious neighbors.

It is hard to kill a tanoak, however. The tree is a vigorous sprouter following fire and logging and can be born-again in the forested watershed as a dense shrub understory with redwood and Douglas

fir, creating thickets unappealing to most wildlife and burdening the forest with a huge fuel load waiting for the next wildfire. It also competes for water and nutrients with the larger trees favored to capture and sequester carbon. MMWD’s Resilient Forest Project on Mt. Tam, now in its second phase, is conducting a series of experimental forest manipulations to determine their beneficial effects on wildfire response and resiliency, carbon retention, water yield, habitat values, and aesthetics in areas most impacted by SOD (http://www.conservationleague.org/images/stories/Newsletters/NL15E_SepOct2015_ForWeb.pdf, “MMWD studies forest health in the watershed”). The primary target for thinning and removal is brushy material made up largely of resurgent tanoak, along with several other common shrub species, with the aim of not only reducing fuel loads but also opening up space for redwood trees and creating a healthier habitat for wildlife.

Tanoak is more than a liability to the forest, however, as we will no doubt learn at the October symposium. Its acorns are an important food source for many animals, including birds, rodents, deer, bears, and raccoons. Stands of tanoak provide thermal cover, refuge, and nesting habitat for wildlife. Combined with a conifer overstory, tanoak may also indirectly improve habitat for the endangered northern spotted owl by providing canopy structure and den materials for its favored prey, the dusky-footed woodrat.

For more on the science of forest ecosystems on Mt. Tam, and the role that tanoak plays, mark your calendar for October 5. This Newsletter will return in September with current news about the symposium.

flowering tanoak:
John Rush
flickr creative
commons



Tanoak will be prominently featured at the science symposium scheduled for Oct. 5th at the Mill Valley Community Center.

Flooding *from page 1*

Valley residents passed the Ross Valley Storm Drainage Fee (Fee). This Fee helps fund the Marin County Flood Control and Water Conservation District's (FCD's) Ross Valley Flood Protection and Watershed Program (RVFPWP) and leverage other funding for flood risk reduction. The Fee will raise over \$40 million during a 20-year period (2007-2027) to reduce the most severe flood risk. As of mid-March 2018, about \$34 million in state and federal funds had been awarded to the Program, matching local Fees nearly dollar-for-dollar.

Currently, stream channels can contain the flow at a 6-year level of protection (a flow with about a 20% chance of

being exceeded in any year). The Board of Supervisors, which governs the FCD, adopted a goal of providing protection from the 100-year event (a flow with a 1% chance of occurring in any one year), and a Capital Improvement Program (CIP) with a suite of flood reduction measures was developed to:

- increase creek capacity,
- remove or modify obstructions to flow,
- increase floodplain storage,
- promote flood preparedness, and
- provide community education.

Implementing the entire CIP program is far beyond the funding provided by the Fee, but the CIP provides a framework for projects that could eventually lead to meeting the ambitious goal of 100-year protection for the watershed—provided there is public support.

Detention basins are used worldwide for managing flooding. Two detention basins were proposed early by the RVFPWP. The California Department of Water Resources (DWR) awarded the Town of San Anselmo a grant for half of the estimated funding needed to construct a dual-use park and detention basin facility at Memorial Park. However, opponents succeeded in killing the project through a local ballot measure. The Marin County FCD was awarded a similar grant, also by DWR, to partially fund retrofitting Phoenix Lake as a dual-use facility for water supply and flood management/detention. Unfortunately, feasibility studies showed that the dam at Phoenix Lake would need to be replaced for the lake to operate as a detention facility.

Doing so would exceed available funds and take longer to complete than the grant allowed, so that project has been deferred indefinitely.

In close coordination with the Towns, the FCD has developed two new project bundles that meet the objectives of the original grants, and DWR has agreed to transfer the funding to the new projects. The challenge will be to gain community support and complete construction in 2020 as required by both grants.

1. San Anselmo Flood Risk Reduction

Project: This project would reduce flood risk in Fairfax and San Anselmo and restore riparian habitat along San Anselmo Creek using the funds from the former Memorial Park project to:

- construct a detention basin at 3000 Sir Francis Drake Blvd (former Sunnyside Nursery growing grounds) on land now owned by the FCD,
- remove or modify the building at 634-636 San Anselmo Avenue in downtown San Anselmo that spans the creek and limits its capacity, and
- install floodwalls adjacent to the banks and stabilize creek slopes as necessary to protect properties adjacent to the creek.

2. Corte Madera Creek Flood Risk Management Project—Phase 1: With funds remaining from the Phoenix Lake project, the FCD would construct measures that address some of the worst flooding issues in the lower watershed. (These will precede anticipated work on the larger US Army Corps of Engineers' Corte Madera Creek Flood Risk Management Project to improve and complete the project initially constructed in the early 1970s).

These early measures ("Phase 1") are located on land owned by the Town of Ross and the FCD and would:

- remove a wooden fish ladder in Ross that constricts flow,
- create a natural flood plain and riparian corridor by removing portions of the concrete channel to lower flood water surfaces at Frederick Allen Park, and install floodwalls adjacent to Frederick



Blasen Landscape Architecture

Above: Rendering shows proposed removal of 634-636 San Anselmo Ave. building to enlarge creek capacity.

Below: San Anselmo Ave. in the 2005 flood.



Marin County file photo, photographer: unknown

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Fire-wise *from page 1*

but it offers scant comfort to those who continue to suffer from the recent fires. Nor is it foremost in the minds of Marin residents who raise the obvious questions: When will this happen in Marin, and what are we doing to prepare? If the forums, meetings, and neighborhood workshops that have taken place over the past six months and continue to take place are any indication, the county is doing a lot to prepare for wildfire.

Guided by a Strategic Plan and Community Wildfire Protection Plan (CWPP), Marin's fire experts are devoting much of their time to educating the public in fire preparedness. Emergency response agencies are honing their plans for evacuation. Agencies that are responsible for the county's parklands, watersheds, and open space are redoubling their efforts to reduce the fuel loads that feed wildfire, while at the same time safeguarding biodiversity. The bottom line is that fire readiness is everybody's responsibility: it is incumbent on residents and their neighbors to prepare for wildfire by "hardening" their structures and creating "defensible space" around their homes.

In the neighborhood workshops and printed materials that fire experts are using to educate citizens to prepare their properties and themselves for wildfire, one question is rarely addressed, however: Given that environment is such an integral part of recovery from wildfire, where does

environment fit into preparing for wildfire? Of the four goals laid out by FireSafe Marin for reducing wildfire hazard, the protection of human life, homes, and structures are the obvious first three priorities. Protection of the environment is listed as the fourth priority, and yet it is rarely mentioned.

Is it possible to be both fire-wise and environment-wise at the same time?

We value living in nature

Much of the question relates to where we choose to live. We are attracted to natural areas to be close to nature. We value the scenic beauty and solitude and take advantage of shade. Native plants enhance wildlife habitat we enjoy observing. Woodlands reduce the erosive impact of rain on the ground, and root systems stabilize slopes. These are a few of the benefits of vegetation and living in the wildland-urban interface (WUI), where homes and human developments mingle with or abut undeveloped wildland. Along with these benefits come risks, and those risks are especially high in Marin, with its long history of wildfire suppression and resultant fuel buildup.

According to Marin's 2017 Strategic Fire Plan and CWPP, 60,000 acres—18 percent of the county's land area—fall within the WUI. Approximately 69,000 living units valued at \$59 billion exist within Marin's WUI. The greatest risks in the WUI are density of vegetation, its proximity to ignitable



Assemblymember Marc Levine convenes a panel of experts at a Town Hall on fire preparedness at College of Marin, February 10.



Toyon is moderately fire resistant, has excellent wildlife value, and, as shown, sprouts readily from root crown after fire.

people's activities – accidental internal fires, burning trash, sparks from tools, discarding smoking materials, vehicle exhaust, and arson. Thus, as communities continue to expand into these high-risk areas, the danger only increases.

Many factors play into the progress and behavior of wildfire but vegetation can easily become the villain as "fuel food" for fire, characterized by its propensity to ignite and burn. Therefore, the key concept of "defensible space" is to reduce risk by managing the role vegetation plays as fuel – in particular the arrangement of plant material in relation to structures. In simple terms, this consists of a clear zone of roughly 100-foot diameter to buffer the spread of wildfire toward a structure and protect firefighters. Two main subzones include, first, 30 feet in which tree branches are trimmed at least 10 feet from structural elements and flammable materials like dead plant material, leaves, etc. are cleared, and a second zone extending out from 30 feet to 100 feet, in which vertical and horizontal space is maintained between low ground cover, shrubs and trees. A third zone is often included that leaves five feet adjacent to the structure clear of all vegetation. To be effective, defensible space must be coupled with "hardening" the exposed structure – e.g., choosing fire-resistant building materials, clearing all incidental sources of ignition, and closing vents or other points of access for

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Fire-wise *from page 10*

embers or surface fire. Visit firesafemarin.org to learn more.

Fire-scaping with environment in mind

A common misconception is that a defensible landscape calls for stripping of trees and other plants, leaving a barren wasteland. While reduction of fuels is a key component, defensible space does not require removal of most vegetation, but rather spacing plantings strategically to limit the horizontal and vertical ("laddering") spread of fire. (Note that defensible space does not necessarily eliminate fire hazard; all plants will burn given the proper conditions). Landscapes can be fire-wise and still function as environmentally friendly landscapes in the WUI.

Fire-wise principles incorporated into landscaping to create defensible space can maintain native plants and provide habitat for native birds, butterflies, and other wildlife. Key resources that wildlife require, such as food, water, cover, even downed logs or dead tree snags for shelter or nesting habitat, can be incorporated into defensible space, helping to maintain connections with adjacent wildland habitats. Productive soils can be nurtured and surface water managed to infiltrate. Fire-wise and environment-wise landscaping can also be easy to care for. There are differences within the academic community over what constitutes fire-prone and fire-resistant plants, but in general terms, plants that retain moisture such as succulents, have hard leaf surfaces, are low in volatile oils, are compact in structure, and produce less litter are more resistant to fire. In choosing native and/or Bay Area-friendly plants ("right plant-right place"), homeowners in the WUI can create attractive low maintenance landscape, protect the health of neighboring habitats, and take significant steps toward reducing wildfire hazard on their own properties. (See also <http://www.firesafemarin.org/plants/fire-resistant>)

West Peak *from page 5*

drainage and wetland in the pool area;

- Replant restored topography with seed and nursery-grown plants to expand serpentine barrens, grassland and chaparral habitats, and encourage natural reforestation of outlying pads;

- Develop a small trailhead with 10-12 parking spaces at the site gate off East Ridgecrest;

- Develop an accessible trail across the summit, connecting Mountain Top Trail and Arturo Trail, and develop a short trail loop around the north side of the summit if compatible with habitat restoration;

- Retain concrete sidewalk and barracks foundations as historic features, providing subtle, small scale interpretation of the former Air force Station; and

- Upgrade trail way-finding signs, and use remnant foundations for informal seating or viewing platforms.

For a short documentary of the site in its present condition see "Invisible Peak" by Gary Yost, www.invisiblepeak.com/film.

Flooding *from page 9*

Allen Park and downstream at the Granton Park neighborhood in Kentfield adjacent to the creek.

The proposed project not only would reduce the risk of flooding in large parts of Ross and Kentfield; it would remove significant barriers to steelhead migration and enhance riparian habitat.

A small but adamant group is opposing both projects, seemingly because they do not trust the competence of agencies or their contractors. Some opponents claim there is no reason to increase capacity of the concrete channel in Ross since it does not overflow during floods, failing to recognize that during major floods, half of the flow has left the constrained channel upstream and is destructively gushing down Poplar and Kent avenues. One opponent has suggested spending the Fee on floodgates and raising private homes rather than wasting money on large-scale projects with broad public benefits, contrary to the principle that public funds should be spent for the public good—that the Ross Valley Fee should fund flood management projects that benefit the community at large. Proponents who have worked diligently for years to resolve Ross Valley flooding in a manner that benefits both the public and fish habitat are understandably frustrated.

Learn More and Take Action: To find out more about the program, visit the Marin Watershed Program website at <http://www.marinwatersheds.org/creeks-watersheds/ross-valley-flood-protection-watershed-program>. Urge the Board of Supervisors and elected officials of Fairfax, Larkspur, Ross, and San Anselmo to move forward with these two components of the RVFPWP that could finally reduce the chronic risk of flooding for the benefit of the entire community of Ross Valley.

¹Sandy Guldman is former President of Friends of Corte Madera Creek

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

Land Use and Transportation:

1st Wed. of the month, 9:00—11:00 AM

Parks and Open Space:

2nd Thurs. of the month, 3:00—5:00 PM

Invasive Plant Subcommittee of POS:

3rd Wed. of the month, 3:00—5:00 PM

Climate Action Working Group: 3rd Fri. of the month, 9:00 AM—11:00 AM

*Agricultural Land Use: meets quarterly;
Water and Watersheds, 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.

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Save the Date!

MCL's Picnic on the Patio

Saturday, July 14, 2018

The graphic features a white background with several slices of orange and lime arranged around the text. The text is centered and uses a bold, sans-serif font. The overall design is clean and inviting, with a focus on the event details.