

MCL Tours Watershed to Observe French Broom Invasion Control Methods

By Alison Seaman

MMWD's 21,000 acres of watersheds and forests make up a jewel of natural beauty for over 900 native plant species. The vegetation creates many diverse wildlife habitats and provides the public an extensive network of recreational access routes.

The entire vegetation is managed following specific procedures defined in a Vegetation Management Plan (VMP), published in 1995. The 1995 plan focused on the risk posed by uncontrolled wild fires and recommended the use of prescribed burns

It was crystal clear that broom is incredibly hard to eradicate...!

and the construction of ridge top fuel breaks to lessen that risk. Over the last few years the focus has changed: while fuel breaks are still considered critical to fire management, the emphasis is shifting to defensible space immediately adjacent to structures. There is also an increased recognition that the incredible biodiversity of Mt Tamalpais is threatened by invasive species, climate change, forest diseases such as Sudden Oak Death, and fire suppression. The VMP is now undergoing an update that will encompass these new concerns and define other proven practices and procedures for fire contain-

ment; managing vegetation overgrowth; controlling invasive weeds; and maintaining biodiversity. See MMWD's website, marinwater.org, for a list of public documents, etc pertaining to the Update process.

French Broom, a non-native plant species found throughout the San Francisco Bay Region, constitutes 90% of invasive vegetation within the entire 21,000 acres. It is present in over 60% of the fuel break system where the native vegetation has undergone some form of control and removal. Indeed, maintaining viable access routes and fuel breaks that are unimpeded by overgrowth and flammable, invasive vegetation, creates a plethora of environmental challenges that consumes 100% of MMWD's vegetation budget, while only containing 70% of the problem. To help the public better understand the sheer scale and complexity of preserving these ecosystems against broom, MMWD offered MCL members a guided tour led by Janet Klein, highly accredited and experienced plant ecologist. The three hour tour provided valuable insights into the life cycle of broom; past and current effective management practices; and the potential challenges facing MMWD in the future.

Our tour (see map for route) took us through four very different topological sites that had been subjected to various treatments. It was crystal clear that broom is incredibly hard to eradicate, even after repeated treatments on the same site for 15 years! Every method, such as flaming, mechanical removal, pulling by hand, or spot



Ecologist Janet Klein (right) displays broom samples to Tom Roberts andCarolynn Kanas

application of 2% glyphosate (for 4 years before the current 2005 ban) has differing degrees of success. Each site continues to require constant maintenance to remove new young broom plants as well as any existing stronger re-growth of roots that remain.

Site 1, Kentfield Fuel Break This location demonstrates several approaches and responses. When a site is cleared to create a fuel break the first response is a weed explosion, which can soon develop into a solid wall of broom. Treatment options such as mowing, which doesn't kill the broom, must be repeated annually in order to maintain a serviceable fuel break. Treatment options that stimulate weed seed germination, such as hand pulling or prescribed burning, can lead to the re-establishment of the weed population, creating the need for annual re-

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A Message from the President



You will see with this Newsletter that Marin Conservation League has taken on a new "look." This is just one step-albeit a major one-in a process of updating all of our communication tools. The plan for this has

been on-going since late last year and includes updating stationery, the masthead of this Newsletter, and, next, a major overhaul of our website. Our website has already been enhanced with more timely information, a secure means of donating online, and easier ways to communicate with you, our members. Substantial reconstruction this year will make the website more user-friendly, and much more attractive! We have already adopted new design features in our e-mail communications with members who have provided an e-mail address and we urge all of our members to do so, as we move inevi-

tably toward increased internet communication and a reduced trail of paper.

What has prompted these moves? Seventy-five years is a kind of threshold for change, an opportunity not only to look back and celebrate past accomplishments, but to look critically into the future before it passes us by. We looked for a new logo that would be both classic and contemporary, a clear coupling of name and symbol. It is never easy to give up a familiar image. For that reason the circle containing mountain, sun, trees and water that has symbolized the "natural assets" embodied in MCL's statement of mission for some decades will remain a part of MCL's communication toolbox, but in a limited capacity.

Stepping back in time to view various periods in Marin Conservation League's 75-year history is a little like being a fly on the wall of history, observing what people did, how they interacted, their concerns from decade to decade. Throughout the League's evolu-

tion, both change and constancy have been evident. Heraclitus said that you can never step into the same river twice, and that certainly is apparent in this history: the four women who founded the League did not occupy the same world we do – for one thing, there were several wars to come. At the same time, there are common threads that endure throughout the League's history: threads of civic duty, love of the beauty of nature, and community of spirit – the satisfaction that comes from working together toward common goals. If these are the "river" then it is the same river that hundreds of people have stepped into, perhaps with differing personal agendas, but with the common purpose of preserving Marin's unique heritage. Change has been a necessary and productive part of the process also. At 75 years, Marin Conservation League continues to work toward this common purpose, but it is also recognizes that in change there is growth!

Rona B. Dennis

Bill Press to Speak at Annual Dinner April 17 in Mill Valley

Journalist Harold Gilliam to receive Peter Behr Lifetime Achievement Award

Bill Press, syndicated political commentator and author of four books, returns to Marin County to be our keynote speaker on April 17! This is not really a return for Bill, since he owns a home in Inverness and returns whenever he can for holidays. Bill learned his first political lessons in Marin by running Peter Behr's successful campaign for State Senate in 1970, rising to Behr's Chief of Staff. Bill served as Director of the Office of Planning and Research under Governor Jerry Brown and later he chaired the California Democratic Central Committee before launching his career as a political commentator. Bill rose to national prominence as co-host of CNN's "The Spin Room" and "Cross-fire" and then of MSNBC's "Buchanan



Image Courtesy Bill Press

and Press." He currently anchors "The Bill Press Show" in Washington D.C. Bill has received numerous awards for his work, including four Emmys and a Golden Mike Award. In 1992, the Associated Press named him Best Commentator of the Year.

Bill last appeared before the Marin Conservation League exactly 30 years ago, 1979, in the company of Peter Behr – so for MCL, this is a significant return!

MCL is proud to announce that Harold Gilliam, author of many books on the San Francisco Bay Area and science writer for the *San Francisco Chronicle* for many years, will join us to receive MCL's 2009 Peter Behr Lifetime Achievement Award.. Gilliam was an integral part of the San Francisco Bay Area's environmental coming of age, beginning in the 1950s and 1960s, before the term "environment" had come into common use. Throughout the last half of the 20th century, he chronicled the critical environmental battles around the Bay with humor, passion, and keen scientific understanding. His writing captured the high drama of such encounters as PG&E's proposed nuclear power plant on Bodega Head and the saga of saving San Francisco Bay, which he initially saw as a lost cause. Among the books he has authored, *Island in Time: The Pt. Reyes Peninsula*, and *The Weather of San Francisco Bay Region* are now classics.

Status Updates

MMWD's Plans for Future Water Supply Raise Questions

by Carson Cox

On February 11th, the Marin Municipal Water District Board of Directors met to evaluate a portfolio of water supply options and to select an approach to close a projected water supply shortfall of 6,700 acre feet per year (AFY) by 2025 (an acre-foot of water is enough to cover one acre of land one foot deep, or 325,851 gallons). After hearing from many citizens, the majority of whom strongly urged conservation as the preferred approach (including several speakers from MCL), the Board adopted a multi-part portfolio including additional conservation, operational changes to MMWD reservoirs to expand effective capacity, expanded use of recycled water, a commitment to work with the North Marin Water District to assure that an enlarged, shared pipeline would be capable of delivering both districts' full water allocation from the Russian river, and continued consideration of desalinated water from the Bay. The Board had already committed to cutting about half of the deficit by implementing a higher level of conservation, leaving 3,400 AFY still needed. In voting to conclude the EIR process by filing a Notice of Determination for a 5 million gallon a day (5 MGD) desalination plant, Board members emphasized that this action did not constitute a final decision to build the plant.

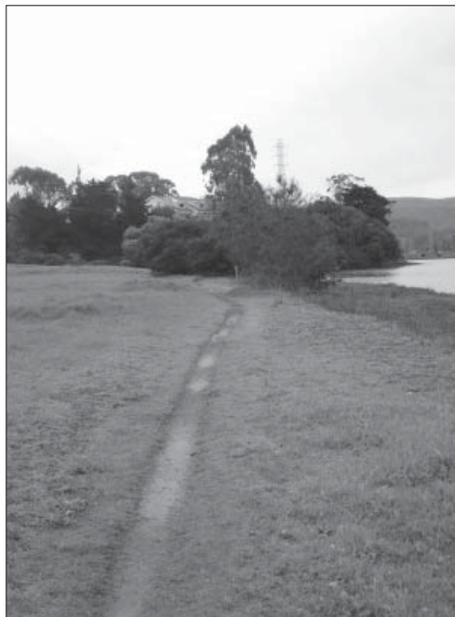
MCL has worked extensively with MMWD over several decades on addressing water supply needs in an environmentally responsible manner. We have not always agreed with the District, but we are encouraged by the Board's "conservation first" approach and its determination to make more efficient use of our existing water supplies. However, by also appearing to move forward on desalination at this time, the Board's action raises concerns that a decision to build a costly and energy-intensive desalination plant might be made before expanded conservation efforts have had enough time to demonstrate positive results. Although we commend MMWD's current conservation efforts, MCL believes that our water supplies

(over 30% goes to landscape irrigation) can be made still more efficient in the near future through a combination of aggressive measures including restructuring water rates, additional investments in leak detection, and increased opportunities for replacing water-inefficient appliances, reusing reclaimed wastewater for irrigation, and greatly reducing irrigation use. MCL will continue to work with MMWD to ensure that future water supplies are environmentally sustainable as well as secure.

The Meadow at Bayfront Park by Tom Allen

The "Meadow" at Bayfront Park in Mill Valley was first envisioned in 2003 during a public review of the Master Plan for Bayfront Park. At that time there was considerable competition for the limited waterfront land between active and passive recreational users. A short time later, Friends of Bayfront Meadow (FOBM) was founded by a group of local citizens for the purpose of preserving and enhancing this special five-acre piece of open space. It is intended for passive recreational use by nature-loving Mill Valley residents, in contrast to most other areas of the park that are devoted to intensive sports or dogs.

The Meadow is located between Hamil-



A good day for ducks at Bayfront Meadow, Mill Valley

ton Drive, across from the Mill Valley Public Safety Building, and the 800-foot tidal shoreline of Upper Richardson Bay. The views of the opposite shoreline, with the hills of Mill Valley and Mt. Tamalpais beyond, are spectacular, but the terrain was in shoddy condition as a result of various construction activities years ago.

FOBM is partnering with Mill Valley's Park and Recreation Department to clean up and rehabilitate the current landscape. For the first few years the focus was on reshaping and contouring the land and enhancing soils (even weeds wouldn't grow in some places!). The "Meadow" project has received great support from Rick Misuraca, Mill Valley Park Superintendent, who has made most of the arrangements for the Meadow enhancements and provided important oversight of all projects.

During 2008, FOBM invested significantly in basic irrigation facilities, extending available reclaimed irrigation water into the Meadow from nearby Park sources. This is a necessary pre-requisite to introducing new drought-resistant vegetation and colorful native wildflowers. Numerous informal footpaths throughout the Meadow will eventually be resurfaced. More details about the Meadow and the original "meadow vision" document (first published in 2004) can be obtained by request to tomallen2@comcast.net.

Marin Conservation League has acted as FOBM's fiscal agent almost from the beginning and has provided valuable guidance along the way. Marin residents with funds remaining in their charity budgets may help the cause by making their checks payable to Marin Conservation League, 1623A Fifth Ave., San Rafael, CA 94901, and writing "Friends of Bayfront Meadow" in the memo section. It's all tax deductible!

San Rafael Quarry

A Final EIR was completed for the Amended Surface Mining and Quarrying Permit and Amended Reclamation Plan. MCL is commenting on the adequacy of the extensive documents in the first two weeks of March. The principal environmental issues involve air quality (dust) and noise impacts

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Peter Asmus' New Book Explores California's Energy Innovations



Journalist and Marin Conservation League Director Peter Asmus' latest book, *Introduction to Energy in California* (University of California Press, July 2009,) offers an analysis of challenges and solutions facing California and the world

on energy-related issues such as global climate change. By focusing on humanity's efforts to harness sources of energy, the book is designed to serve as a key reference guide for the array of energy technologies clamoring for our attention in the 21st century. It also recognizes the natural history that created these energy sources in the beginning.

Featuring a forward by Art Rosenfeld, the father of modern energy efficiency programs pioneered in California, and an afterword by

Arthur O' Donnell, one of California's most trusted energy journalists and the current executive director of the Center for Resource Solutions, this modular book is a science-based overview of all major energy sources described within the context of California's dynamic history. Asmus refuses to shy away from controversial subjects, and provides pros and cons of each energy source, including nuclear power and liquefied natural gas, as well as hydro-electric and renewables.

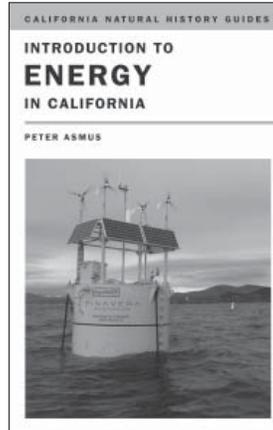
The volume is composed of modular parts that can be read sequentially or as stand-alone sections. Part I begins with a chronological history of energy development in California. Parts II and III represent a compendium of all of major energy sources, delving into the

pros and cons of each. Part IV then describes several key challenges facing California today, bringing the state's energy history up to date. Part V looks to solutions from the private sector, government, communities and the last section of the book – Part VI – offers some profiles of ongoing experiments of pioneering technology and systems thinking here in the Golden State.

Peter, author of *Reaping the Wind: how Mechanical Wizards and Profiteers Helped Shape Our Energy Future*, among others, states his "hope is that this book allows readers to better understand the world of

energy and inspire all to become part of the solution."

Introduction to Energy in California may be pre-ordered at local bookstores.



"Green" Means Business: Preparing a New Generation of Leaders

March 25 Business—Environment Breakfast to Focus on Green MBA

For more than 15 years, Marin Conservation League has explored the connections between business, local economies (and politics), and the environment in a series of quarterly breakfast forums. Arranged to

allow a convivial and informative morning gathering over breakfast, these forums continue to be a popular way of bringing together communities that are too often seen as separate.

The **7:30 am forum on March 25 at the Embassy Suites in North San Rafael** will explore the new direction of MBA programs toward sustainable management and the "greening" of business. Two local programs will be featured: the Green MBA program at Dominican University, San Rafael; and the MBA in Sustainability Enterprise at the Presidio School of Management, San Francisco. Both schools occupy a special niche in the business world, a niche, however, that is

slowly entering the mainstream.

Representing the Dominican University MBA will be **John Stayton**, one of its founders. John spent 15 years in Silicon Valley in high-tech industrial marketing before changing careers to educate others. **Steven L. Swig J.D.**, a founder, Board member, and President Emeritus of the Presidio School will represent that program. We will have an opportunity to discuss how environmental themes are incorporated into these programs, how they differ from traditional MBA programs, and how they hope to change the direction of future businesses toward sustainability.

Yes! I will attend the March 25 Marin Conservation League Business—Environment Breakfast with John Stayton and Steven Swig! My check for \$30 per person is enclosed.

Number of guests: _____

Name(s): _____

Title and Company or Affiliation: _____

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Mail to Marin Conservation League, 1623A Fifth Ave., San Rafael, CA 94901

*Ticket Price:
\$30 per person
Includes full organic
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RSVP by March 19*



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Above, plus your name or business acknowledged in the Annual Dinner program

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Above, plus an oral acknowledgement at the Annual Dinner and two dinner tickets

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Above, plus a special acknowledgement in *Legacy of the Land*
and four dinner tickets

For a sponsorship form, see page 8 or go to
www.marinconservationleague.org

Broom Tour Highlights Difficulty of Controlling Invader

from Page 1

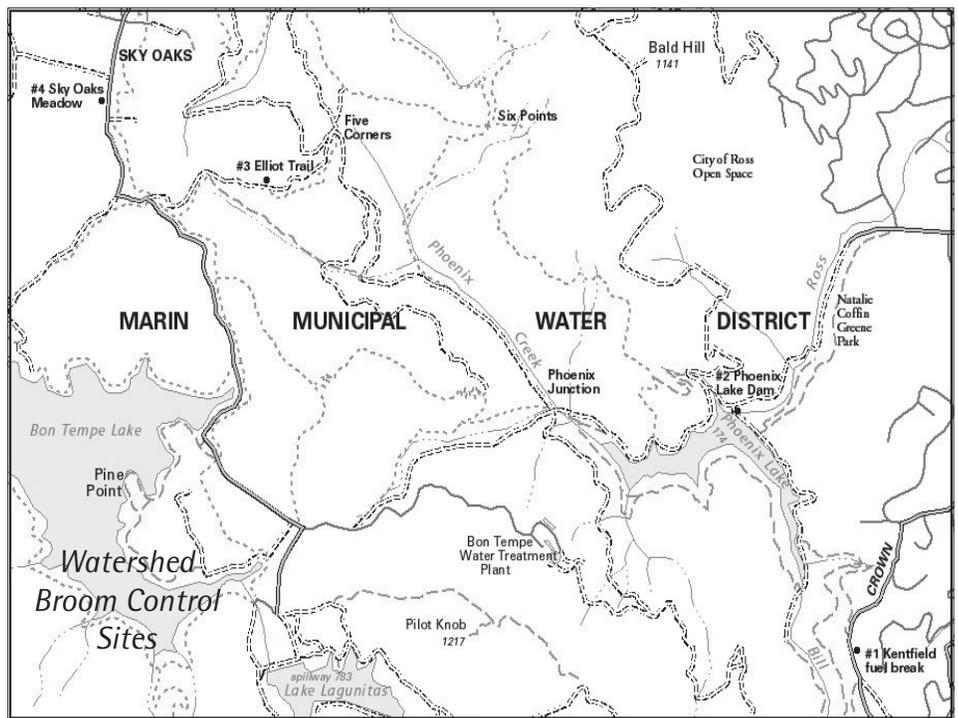
treatment. Options such as cut-stump spot herbicide applications eliminate the adult weed plants and minimize the germination of weed seeds requiring retreatment every few years.

Site 2, Phoenix Lake Dam At Phoenix Lake Road, a shaded, 30-degree slope with a fuel break extends 30 to 100 feet from the roadside. This site has been subjected to over 20 years of periodic prescribed burning, mowing, and hand pulling. Prescribed burning and hand pulling can create massive seed explosion of up to three million seeds per acre, each lentil-sized seed able to travel 12 feet. As broom can create a seed bank which can take 30-80 years to eradicate, it is essential to ensure that a hostile growing environment is maintained, by removing dead broom brush piles, and avoiding soil disturbance. More recently, spot treatment using propane flame torches was applied. This worked successfully on very small seedlings (less than 1 inch) growing in otherwise bare soil. However, torching of broom plants that are larger is ineffective. Other treatments, such as goat-grazing, have had little effect on reducing the broom population - the goats will only eat the tops of the plants and strip bark, therefore only temporarily suppressing plant growth.

As we passed up the Shaver Grade we saw weed suppressing blankets in use on newly bared soil, another effective method used in the war against broom. In areas that are hard to maintain, MMWD employs a Tiger Mower to create a ten-foot cleared strip adjacent to the road.

Site 3, Elliot Trail Here, the understory was California fescue interspersed with healthy broom plants. Although the fescue was as old as the tree canopy, broom was starting to overwhelm the existing vegetation.

Broom contains root nodules that fix nitrogen, creating a very hostile environment for surrounding na-



tive plants.

A two-acre trial site that had taken 2000 hours to clear of broom and replant with native plants was being conspicuously overtaken by new broom seedlings. As part of ongoing testing of new weed control techniques, some of the broom seedlings received hand-sprayer spot treatment using three different contact organic pesticides: 15% vinegar solution; SCYTHE (pelargonic acid) and Matran (clove oil). This contact pesticide works by burning only those parts of plant tissue in which it comes into contact, whereas a systemic herbicide (such as glyphosate Roundup) is absorbed through the plant's transport system and destroys the whole plant. None of the contact pesticides significantly reduced broom plant growth.



Site 4, Sky Oaks Meadow Through the 1990s, this 75-acre meadow/woodland complex had extensive stands of broom. Today, the site is an open savannah fire break with only isolated broom seedlings. The area received repeated treatments of mechanical mow and burning to achieve its current state. Some spot application of systemic herbicide (2% Roundup) had been used before 2005 to selectively destroy the remaining resistant broom plants that are interspersed with poison oak in the tree

drip-line areas. However, now only manual hand-pull is used to remove broom.

While we learned a lot, we were left with some sobering thoughts. As MMWD continues to battle with containing the broom problem, broom continues to spread at up to 30 acres per year across the watershed. The sites we visited are useful examples of various combinations of methods that can be, or have been, used to control broom. However, complete eradication, while essential, is almost impossible to achieve, and our Marin jewel, with its 900 native species (40 rare, threatened, or endangered of which seven are located nowhere else in the world), is under constant threat.

MMWD will plan additional tours such as this one if there is enough public interest. Please contact the MCL office if you would like to be added to a list of future participants.



Meet Your MCL Board Members *Three of the volunteers working to make a difference!*



JOE BUNKER, San Rafael. Bunker & Company LLP, serves not-for-profit organizations throughout the San Francisco Bay Area with attest, tax, and advisory services. With over 20 years of experience in public accounting, Joe has presented in conferences for the California Society of Certified Public Accountants (CalCPA), and he has made presentations for the California Bar Association and for the American Institute of Certified Public Accountants. He has guest lectured in the Masters of Non-Profit Management programs at USF and Golden Gate University. Joe is past president of the San Francisco Chapter of CalCPA, past chair of the Not-for-Profit Committee, and a member of the

CalCPA State Council Nominating Committee. He is also a member of the AICPA and served on the Report Quality Monitoring Committee of the California Board of Accountancy. Joe was appointed to the City of San Rafael Green Ribbon Committee which has prepared a Climate Change Action Plan for the City Council this year.



PERIANN WOOD, Mill Valley. Periann is an Senior Environmental Scientist at the U.S. Environmental Protection Agency where she has been involved with compliance and enforcement actions in Hazardous Waste, TMDL (Total Maximum Daily Load) development for contaminated waters in the Water Division, and is presently manager of community-

based air toxic projects in Arizona and California. She is a 15 year resident of Marin County and served on the Solid Advisory Board and the Hazardous Waste Advisory Board to the County Supervisors. She chaired the Bayfront Committee from 1989-1991 and has been along time MCL member and director. She holds a Ph.D. in Molecular Biology from Wesleyan University.



LARRY SMITH, Nicasio. Larry is a retired banker and longtime Marin resident. Formerly the MCL treasurer, he is now a member of the Finance Committee and is also active in the Planning & Conservation League, California Native Plant Society, People for Open Space, and Save San Francisco Bay Association.

Status Updates

from Page 3

on neighboring residential properties. A hearing before the Board of Supervisors has not yet been scheduled.

"The Commons at Mt. Burdell"

This Novato project, which is still in early planning stages, will constitute a major redevelopment and intensification of use of the Fireman's Fund campus in North Novato. It is being presented as a model "green" and "sustainable" project, with a significant affordable housing element. MCL will be monitoring the proposal as it goes through an EIR process, which is just getting underway.

650 North San Pedro Master Plan

MCL has had major concerns about the proximity of this proposed Santa Venetia residential development to the open space and habitats of China Camp State Park and the recent presence of a heron rookery on the site. About 200 of the existing trees, including many diseased eucalyptus, would have to be removed to make way for 12

proposed residences. At a public hearing on the Draft EIR, MCL voiced concerns about the adequacy of mitigation measures involving adequate replacement of trees. We have recommended clustering homes on a portion of the property.

Easton Point ("The Martha Property")

A Stipulated Court Judgment dating from 1976 would allow up to 43 residential units

on this prime land at the south-east end of Tiburon Peninsula. More than 500 oaks and other trees could be removed, including those removed to create "fire-safe zones," according to the Initial Study. A Draft EIR is in preparation by the County's consultant, following a public "scoping" meeting in February, at which a large crowd voiced concerns about the potential decimation of this stunning property that has defined Tiburon Peninsula ridgeland and open space for many years.



A Lesser Snow Goose Strolls Along Corte Madera Creek

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*Board of Directors meetings are held
the third Tuesday of the month at
7:30 PM at 1623-A Fifth Avenue, San
Rafael, and are open to all.*

Staff

Dru Parker, Operations Manager
Jessica Leah Grace, Operations Admin.

Contact Information

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San Rafael CA 94901
415.485.6257
415.485.6259 FAX
mcl@marinconservationleague.org
www.marinconservationleague.org

**Monthly Committee Meeting
Schedule** (subject to change):

Land Use:
1st Wed. of the month, 8:00 - 10:00 AM
Parks & Open Space:
2nd Thurs. of the month, 3:00 - 5:00 PM
*Transportation; Creeks, Watersheds &
Wetlands; North Marin Unit:*
Call: 415.485.6257 or see our website
for details.
*Meetings (except for NMU) are at
1623-A Fifth Avenue, San Rafael
(corner of 5th and F streets).*

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-
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