



Ranching and resources on Point Reyes National Seashore and Golden Gate National Recreation Area: Moving Forward

by Nona Dennis and Terri Thomas

How will the dairies and cattle ranches operate on Point Reyes National Seashore (PRNS) and the northern district of Golden Gate National Recreation Area (GGNRA) in the future? More to the point, how can the ranch operations be compatible with preserving ecological functions, coastal ecosystems, water and air quality conditions, endangered and threatened species and other native species, and have continuous respect for the indigenous peoples that represent more than 5,000 years of human habitation? The public is asking these questions to ensure that natural and cultural values of Point Reyes will be preserved. The more recent 150-year history of dairy and cattle ranching, evident in

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Can cutting "green tape" accelerate pace and scale of ecological restoration in California?

by Nona Dennis and Mike Swezy



Photo: Kate Porvaz

With sea level rise, flooding is increasing in frequency and duration on the Mill Valley-Sausalito Multi-Use Path (Bay Trail), as well as throughout the Bothin Marsh Open Space Preserve. SB 155 will likely benefit a restoration project that protects both this ecologically rich open space and its recreational access.

On September 23, 2021, Governor Newsom signed Senate Public Resources trailer bill SB 155, that many cheered and a few questioned. Amidst the legal clutter that typifies a trailer bill, was Section 23, which would exempt from CEQA until January 1, 2025, "a project to conserve, restore, protect, or enhance, and assist in the recovery of California native fish and wildlife, and habitat upon which they depend [or] a project to restore or provide habitat for California native fish and wildlife."

The immediate outcome of the bill was to add a new statutory exemption to the California Environmental Quality Act (CEQA) [Public Resources Code, Div. 13 Environmental Quality, Chapter 2.6, Section 21080.56], including also the following words, "An eligible project may have incidental public benefits, such as public access and recreation. ... This section does not apply to a project that includes construction activities, except for construction activities solely related to habitat restoration."

The approval was greeted with great enthusiasm by agencies, nonprofits and their consultants who engage in large-scale habitat enhancement and restoration projects and have complained for years about having to wade through a regulatory quagmire to do so. With mounting losses of species and whole ecosystems due to habitat conversions and current and foreseeable catastrophic events like wildfire and floods exacerbated by climate change, supporters agree that we need to move with haste and at increasingly larger scales to restore and enhance natural systems in California.

The Governor's Executive Order N-82-20 (EO) establishing 30x30 land and water conservation goals, signed in October 2020, simply added to the urgency. California's Natural Resources Agency Director, Wade Crowfoot, had already made habitat and ecosystem restoration a top priority of the agency. To expedite

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Water—and lack of water—is top of mind these days

Hooray for the recent big rain event!

Climate change means more extreme weather like this, especially episodic deluges amongst increasingly extended, heat-worsened droughts. As one of the few California counties that depend mostly on local, and partly on regional, water supplies, Marin is especially vulnerable to water shortages during droughts.

To develop the best possible Marin water supply policy solutions, Marin Conservation League (MCL) Land Use, Transportation and Water Committee (LUTW) members have closely followed Marin Municipal Water District (MMWD or Marin Water) and North Marin Water issues for years, participating in meetings, reviewing documents, volunteering for Advisory Committees, and engaging with decision makers and staff.

Based on their extensive work, MCL's Board approved six water supply advocacy positions, recently presented to Marin Water's board. Together they constitute a portfolio of solutions. There are no silver bullets!

By far the best solution is conservation. At May's LUTW Committee meeting Ben Horenstein, Marin Water's General Manager, called for "... landscaping consistent with the area's

climate. ... That's the key and that's the future ... our water consumption doubles in the summer, and it's all driven by irrigation." While this summer's moderate cutback in summer water use has helped, living in sync with our new climate—where higher temperatures promote drought even with normal rainfall—means converting all unsustainable water-hungry gardens into climate-compatible landscapes.

Instituting **caps on water use plus penalizing excessive use** and providing **near real-time feedback on water use** are essential and complementary policies.

A **water pipeline** across the Richmond San Rafael bridge is the other quickest way to meaningfully increase water supply. And at the September LUTW Committee meeting, a speaker explored possibilities for **increasing wastewater recycling**.

Upcoming MCL Issue Committee speakers and discussions will examine:

- **Temporary water releases into Lagunitas Creek.** MCL reluctantly supports a Temporary Urgency Change Petition permitting reduced seasonal releases into Lagunitas Creek on a one-time-only basis, as the Creek provides essential habitat for endangered and threatened salmon and other native species.

- **Desalination.** For a 2009 referendum, MCL concluded that desalination was expensive with strong ecological downsides ... but should continue to be considered as part of the portfolio approach.
- **Long term regional planning.** After many years, MCL continues to oppose seeking more water diverted from the Russian River watershed due to complex ecological impacts. This source currently provides Marin Water and North Marin Water with 25% and 66% of their water, respectively.

BTW: Besides water supply, upcoming MCL Issue Committee meetings will feature other important water-related environmental issues, with speakers and discussions on planning for sea level rise, Marin's proposed Stream Conservation Area Ordinance for San Geronimo Valley, revamping State Route 37 (which cuts through swaths of ecologically valuable baylands), and more.

We need your help in developing and advocating for best possible water policies. Look for our website and e-News for Issue Committee meeting agendas and schedules or call or email us.

Robert Miller

Ranching and Resources at PRNS and GGNRA *cont. from p. 1*

the parks' historic landscape, is an integral part of that human continuum. The National Park Service (NPS) must manage for the ranchers to remain viable and also ensure the conservation of these values.

Record of Decision as roadmap for future management

The Record of Decision (ROD), issued by the National Park Service (NPS) on September 13, 2021, concludes a process that began in 2012 with a directive from then-Secretary of the Interior, Ken Salazar, to pursue extending leases on ranches managed by Point Reyes National Seashore for up to 20 years. The process

included completing a new Point Reyes General Management Plan Amendment (GMPA) and Final Environmental Impact Statement (FEIS) for a planning area that encompasses roughly 25 percent of the PRNS and 12 percent, i.e., the northern district, of GGNRA.

The ROD is essential reading for anyone who wants to understand the complexities facing NPS park managers and the ranchers as they begin to implement the FEIS "preferred alternative." At its most basic level, the ROD gives explicit direction for future management of the "Ranchland" planning area. The ROD directives point to a ranching culture that can be compatible with the park's rich and unique geological, ecological, and cultural features that

attract 2.2 million visitors every year. It begins by summarizing the legislative and subsequent policy bases that, taken together, support continued ranching in this context.

Actions since the FEIS was published

A year ago, September 2020, the FEIS was published and public comment was closed. In fact, public communication didn't stop. Numerous actions in the intervening year have had a significant influence in revising the preferred project described in the FEIS. The ROD summarizes these actions. They include responses to public comments on the FEIS, and

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Ranching and Resources at PRNS and GGNRA *cont. from p. 2*

outcomes from consultations and coordination with agencies and other entities that were finalized after the FEIS concluded. The latter include, among others, the California Coastal Commission, the Federated Indians of Graton Rancheria, U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), and the San Francisco Regional Water Quality Control Board (RWQCB). Coordination with California Department of Fish and Wildlife (CDFW), the agency responsible for elk management throughout California, has been ongoing since 1978, when elk were first introduced to the park. This coordination with NPS continued throughout preparation of the GMPA and EIS and is ongoing.

At the outset, the ROD responded to public comments by incorporating many of them in the revised preferred alternative (ROD, Attachment C). Many thoughtful and detailed comments pointed to ineffective or careless ranching practices and expressed concerns over opening the park “door” to new, possibly environmentally damaging diversified activities. The revised preferred alternative in the ROD is responsive to these concerns.

The NPS applied to the California Coastal Commission (CCC) for a Determination of Consistency (of the preferred alternative) with the California Coastal Act. At the hearing last April, the Commission placed conditions that

require adjustments to the preferred alternative to further reduce impacts from ranching operations, particularly to water quality. The condition requires NPS to develop a Water Quality Strategy and assess the effect of best management practices on water quality by testing and evaluating water quality data, and prioritizing management strategies to address any continuing issues of concern. The condition also calls for reporting results back to the CCC. These conditions are included in the revised preferred alternative.

The NPS consulted with the federally recognized Federated Indians of Graton Rancheria (FIGR) throughout the EIS process. On August 9, 2021, they reached an agreement in which the NPS will collaborate fully with the FIGR as the park service implements the GMPA, to ensure that FIGR views and traditional ecological knowledge (TEK) are part of the management of park lands and resources, including plant and animal communities as well as ranching leases. The NPS will continue to collaborate and partner with the FIGR on management of the tule elk, a species of cultural significance.

Throughout the EIS process, the NPS consulted with USFWS and NMFS as they prepared Biological Opinions. Mitigation measures to assure the continued protection of endangered and threatened species throughout the planning area are spelled out in appendices to the

FEIS and summarized in the ROD. The USFWS Biological Opinion (USFWS BO), dated June 4, 2021, concludes that, when the mitigation measures are included in ranch management practices:

“... the general changes to ranching in Point Reyes National Seashore and the north district of Golden Gate National Recreation Area will not have noticeable negative effects on the populations of California red-legged frog, western snowy plover, Myrtle’s silverspot butterfly, beach layia, Sonoma alopecurus and Sonoma spineflower, and in some cases may actually improve conditions. This is supported by the general positive trends since USFWS 2002 biological opinion on Ranching Activities in Point Reyes was issued.”

The USFWS BO goes on to say that grazing, with mitigation measures implemented, is not only compatible with the resource conditions in this (ranching) zone; it also helps support populations of some federally listed plant species. On a similar note, the FEIS noted that grazing regimes also prevent further encroachment by shrub land, and that protecting the park’s grasslands is consistent with the Seashore’s legislative history, which cited the contribution of large expanses of pastureland to the scenic beauty of the area as a factor supporting Point Reyes as a unit of the national park system.

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Watershed Recreation Plan: YOUR VOICE IS IMPORTANT!

Marin Water’s (MMWD) primary purpose is to sustainably manage natural resources and provide its customers with “reliable, high-quality water.” The agency is also entrusted with managing its lands for passive outdoor recreation. Over recent decades, recreational use has grown to 1.8 million visitors annually, putting huge pressures on roads and trails, visitor support facilities, and ranger resources, and increasing damage to native vegetation and wildlife. The agency has never had

a plan that specifically addresses recreation on the watershed.

To address the many needs associated with high visitation, a Watershed Recreation Planning process was initiated more than a year ago, beginning with scoping and other public meetings. The intent is to develop a holistic visitor management framework to guide watershed operations to support the wide array of visitor activities while maintaining the agency’s primary responsibilities to protect water quality and biodiversity.



MCL will advocate for a plan that allows a variety of passive activities that are not harmful to natural resources and that can ensure safe and pleasurable experiences for all visitors. We will not support a plan that attempts to transform the road and trail system to satisfy the demands of single-purpose advocates. MCL has been a guardian of

Mt. Tam since its founding and will continue to serve its needs.

The Plan development will begin in January 2022, to be completed in mid 2023. There will be abundant opportunities for public input. MCL will be tracking progress closely.

Cutting "green tape" from p. 1

the 30x30 EO, he created a special deputy position to focus on meeting the goal. Supported by wide agreement over burdensome regulatory processes, the position's responsibility for 30x30 was expanded to include "how to get it done more efficiently." Certainly, the new CEQA exemption contained in SB 155 will advance efforts toward those ends!

Why the pushback?

Not everyone was enthusiastic about the new exemption, however. The nature of trailer bills often is to move potentially difficult bills through the legislative process with minimal exposure to the public or those who might be affected by its provisions. Proposed language of the Public Resources trailer bill was disclosed only to a few habitat restoration groups and legislative leadership. The bill was published five days prior to close of the legislature, ensuring no review by the policy committee and no time to amend the language.

Lacking any details on size or scope of potential projects that could be exempted from CEQA, the exemption was viewed as leaving the door open to massive projects with no limits on construction and no assurance of collaboration with those most affected by the project. The non-profit Restore the Delta, guardian of the Sacramento-San Joaquin Delta, and officials from the five counties that compose the Delta, were among those who voiced concern, viewing it as a blatant opportunity for the state to push construction of the Delta "Tunnel" project. (They were reassured by Secretary Crowfoot that this would not be permitted under the bill.)

Working with CEQA

Anyone who has tracked CEQA over its 50 years knows that it has grown into a monster that strikes fear in even the most intrepid project proponent, including public agencies and conservancies pursuing environmentally benign and habitat-restoring project proposals. Too often CEQA approvals have been delayed to promote individual economic agendas, appease labor unions, or indulge narrow interests. Every year brings legal challenges and legislative threats to gut the act, countered, however, by ardent supporters who challenge any attempt to weaken it.

On balance, CEQA continues to fulfill a vital and unique public role in protecting California's



environment. The three key provisions of CEQA are to ensure that (1) public state and local agencies evaluate and disclose, and avoid or reduce, any potentially adverse environmental consequences of their actions; (2) consider and respond to public and other agencies' comments on environmental issues; and (3) are held accountable for disclosing and mitigating any adverse impacts and conceding any unavoidable adverse impacts that an action might have on the environment after mitigation.

Of these three, the second – namely, ensuring opportunity for public and agency comment and response – is the sine qua non of CEQA, at least for the interested public. The new exemption, for example, could effectively foreclose public comments and eliminate constructive collaboration with other interests potentially affected by a project, despite its obvious benefits to native flora and fauna.

Over the years, various attempts to make CEQA more efficient have had some positive results. Program EIRs designed to cover the generic impacts of many small projects similar in nature and/or implemented over time have become increasingly popular and useful for reducing redundancies and multiple documents. Agencies also make use of categorical exemptions to reduce or eliminate environmental documentation without circumventing CEQA fundamentals. The most commonly used exemption for small-scale habitat restoration (five acres or less) is contained in CEQA Guidelines, Section 15333, Class 33 for projects that "assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife", subject to certain provisions and exceptions.

The new statutory exemption of large-scale habitat and related restoration projects will, among other advantages, overcome the five-acre limitation. The need to work at larger scales to address habitat corridors and other connections across boundaries is now widely recognized within the conservation and stewardship community. The new exemption enables that opportunity.

Cutting (other) green tape

CEQA is not the only regulatory process that currently encumbers restoration work. Laws and regulations with beneficial intent to protect native species, environmental quality, and public health are carried out by different government agencies with different legal targets and procedures that can devolve into detailed rules and paperwork. After completing CEQA review, projects that impinge on aquatic resources, such as restoring riparian habitat or repairing eroding creek banks, must meet rigorous permitting requirements, often yielding duplicative mitigation measures. Public land managers are not spared: improving a trail stream crossing, installing a new bridge, repairing a culvert or streambank can entail essentially the same procedures with multiple agencies. For dedicated conservationists, this is viewed as a form of environmental "fail-safe"; for applicants it can be costly and burdensome.

Like the familiar term "red tape," cutting "green tape" means improving regulatory processes and policies so that habitat-related work can occur more quickly, simply, and cost-effectively. This is not a new idea. In Marin, local efforts to coordinate agencies' permit reviews have proved helpful to applicants. At the state level, *Removing Barriers to Restoration: Report of the Task Force to the Secretary for Resources* in 2002 laid the groundwork for easing regulatory obstacles, at least for small-scale habitat restoration. Improvements included the CEQA Class 33 exemption, discussed above. AB 2193 Habitat Restoration and Enhancement Act in 2014 introduced a suite of efficiencies for small-scale projects through the California Fish and Wildlife Department. The Order for Clean Water Act Section 401 General Water Quality Certification for Small Habitat Restoration Projects (SHRP) and its Program Environmental Impact Report now eliminate the need for every individual project impacting "waters of the United States" (essentially every creek that runs even intermittently) to be certified that it meets the state's water quality standards. Recently, to enable more efficient permitting of large shoreline restoration projects funded by the San Francisco Bay Restoration Authority Measure AA, numerous permitting agencies joined forces to create the San Francisco Bay Restoration Regulatory Integration Team (BRRIT), whose mandate is to facilitate multi-benefit habitat restoration projects and associated

Cutting “green tape”



Sharon Farrell is Executive Vice President of Projects, Stewardship & Science at the Golden Gate National Parks Conservancy. She played a crucial role in facilitating the California Landscape Stewardship Network's Cutting Green Tape report and on its resulting impact on policy.

flood management and public access in San Francisco Bay – i.e., projects that the Authority oversees and funds.

A comprehensive proposal for reducing duplicative and conflicting regulatory processes can now be found in *Cutting Green Tape: Regulatory Efficiencies for a Resilient California*, published in November 2020. The report is the product of collaboration between the California Landscape Stewardship Network (CLSN), a consortium of public land managers and conservancies, and the California Natural Resources Agency. Beginning in 2019, the CLSN convened a series of roundtables involving some 150 regulatory agency staff, local governments, NGOs, public and private landowners, tribes, and a range of other stakeholders to make recommendations for increasing permitting efficiencies and effectiveness, expedite project review and approval, and improve cross-jurisdictional collaboration.

Moving ahead

As California continues to repair and renew and anticipate future needs to protect native flora and fauna and make them more resilient – at the scale and pace of work now needed – the new exemption in CEQA for large-scale habitat restoration has the potential to move the dial considerably. At the same time, we need to ensure, as the exemption rolls out, that all interested stakeholders continue to have an active role fulfilling CEQA's most valued attribute, which is public involvement. 🌿

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Consultation with NMFS was also memorialized in a Biological Opinion (NMFS BO), published on March 18, 2021, which concluded that the proposed action, with mitigations implemented, was not likely to jeopardize the continued existence of the federally endangered Central California Coast Coho salmon, or the threatened Central California Coast steelhead and California Coastal Chinook salmon.

Water quality has been cited most often by critics of ranching as needing the greatest attention. Throughout the EIS process, the NPS consulted with the RWQCB, which is delegated to implement Section 401 of the Clean Water Act. A range of activities, including dairy operations and grazing, fall under their purview, and the RWQCB works directly with beef and dairy ranch operators to administer water quality protection permits for grazing operations and confined animal facilities. Significant gaps in testing water quality in coastal streams, however, have been cited by critics. The ROD states that the RWQCB will continue to work with NPS, with the intent to initiate programmatic permitting for the management activities, including practice standards and mitigation measures identified in Appendix F of the FEIS.

Changes to the FEIS preferred alternative

Attachment C in the ROD presents the full list of revisions to the preferred alternative that have been prompted by public comments and agency consultations. Among many are the following examples:

- Reduction from six dairies to five.
- Specific requirements and commitments to timelines for implementing management activities such as riparian fencing and compliance with a pending Raven Management Plan, to be incorporated into the Ranch Operating Agreements.
- Additional environmental review before diversification of poultry or row crop is allowed.
- A Succession process that includes evaluation of future alternative land use and consultation with FIGR (See Succession Policy in ROD Attachment D).

- The removal of livestock from Allotment 4 (D Ranch) and allocation of this 580 acres to the Scenic Landscape Zone for Drake's Elk Herd use.
- Increase the Scenic Zone area to benefit elk.
- Transition of Allotment 19 (Martinelli Ranch) to seasonal grazing.
- Increase of Drake's elk herd to 140 animals.
- Contingencies for establishing new elk herds coming from either the Drake's or Limantour Herd

Now the hard work begins

This is a tall order ... but possible if directives contained in the Record of Decision are diligently incorporated into Ranchland zoning and Ranch Operating Agreements by NPS, working with the ranchers in a collaborative and timely manner and consulting with FIGR along the way. It will take patience and persistence to carry out the work ahead.

Marin Conservation League intends to support and track efforts and success at every step. The following activities are of specific interest:

- Ensuring the mitigation measures are diligently applied.
- Supporting strong funding for ranch plans, best management practices (BMPs) and monitoring to ensure compliance with all the recommended mitigations.
- Insuring the inclusion of FIGR in management decisions.

And going beyond the immediate tasks in the GMPA, MCL encourages:

- Identifying water supply management in light of drought issues and the need for funding of a long-term solution.
- Using land removed from ranching as an opportunity to research how to rewild a Point Reyes pasture and supporting the funding of such adaptive management. 🌿

CHINA CAMP STATE PARK

SEPT 25, 2021

China Camp State Park contains one of San Francisco Bay's few remaining historic marshes and intact watersheds stretching from hill-top to Bay shore. Its fresh to brackish gradient supports diverse native plant species and is host to a number of listed endangered animal species.



MCL Board member and Walks architect, Nona Dennis, catches up with longtime MCL member, Mardi Leland.

Louise Lipsey Kanter displays her "China Camp Peninsula". The group solicited conservationists, including MCL's Bob, who successfully opposed Gulf Oil Company for 30,000 on the China Camp site. Jerry Brown signed a bill establishing

Turtle Back Trail, considered the "heart" of China Camp, offers scenic views of tidal marshes and a stroll through an oak woodland forest.



Every parkland and open space in Marin that has been acquired for public enjoyment, and for the protection of the plants and wildlife that inhabit them, came into public hands through the collaboration and effort of many dedicated and persistent citizens and by raising funds from many different sources for acquisition.

To commemorate its 75th Anniversary in 2009, MCL initiated a series of "Walks into Conservation History". Each walk introduces the local ecology and history of an area and conveys the stories of the ordinary citizens and visionaries who recognized that Marin's significant natural lands, waters and cultural heritage would not survive for future generations unless they were permanently protected from development. Since its founding, MCL, working with many other organizations and thousands of individuals, has played a significant role in many of these stories.

On September 25th, MCL held a Walk at China Camp State Park which is managed and largely funded by the Friends of China Camp and its many volunteers.

WALKS INTO CONSERVATION HISTORY



Arlin Weinberger, Board Chair of Friends of China Camp (FOCC), explains China Camp's special operator agreement with State Parks. State Parks provides standards, rules, and technical support. FOCC manages and provides all necessary funds for park operations under the leadership of Executive Director Martin Lowenstein and the support of many, many volunteers.

her call to action. In 1972, ed "Save the San Pedro d help from neighbors and Young. Together, they suc- y's plans to develop a city Four years later, Governor g China Camp State Park.



Friends of China Camp will receive Prop 68 funding from the California Department of Parks and Recreation to replace 20-30 timber pilings beneath the historic pier and the museum in China Camp Village.

Anatomy of a Trail

by Kate Powers

We often take trails for granted. As a trail leads us through the beauty of a natural and often spectacular landscape, we tend to take in what's above us, on either side, or off in the distance — focused on the environment that surrounds us rather than on the trail itself.

Yet, every trail has a story. Some began as wildlife paths. Some were parts of early trail networks traversed by Native Americans. Many in Marin were originally built as logging or ranch roads. In the late 1800's, entire trail systems began to be established with newly created state and national parks. By the 1920s and 30s, the National Park Service had developed rigorous trail design and construction standards that employed naturalistic 19th century design principles, blending curvilinear alignments with a park's setting and making use of native materials. Straight lines and right angles were strictly taboo. Wood, stone, clay, and rustic building techniques were used to create bridges, culverts, and retaining walls so they appeared to be an integral part of the landscape. The aesthetics, along with strict standards, created trails that were both beautiful and durable. Similar standards continue today.

Marin's open space preserves reflect Marin's living legacy of land conservation. The County Open Space District (MCOSD) was created in 1972, with MCL as an early promoter. Since

then, 34 preserves have been acquired. Ranging in size from 4 to 1,627 acres, they include some of the most ecologically sensitive resources and habitats in the Bay Area. They also contain about 250 miles of unpaved roads and trails that are managed for both natural resource protection and visitor enjoyment. The preserves receive millions of visits each year, mostly from Marin residents. As the number of park visitors continues to rise, what follows is increased impact.

In 2012, Marin voters approved Measure A, the quarter cent sales tax that, in part, provides for the maintenance needed to safeguard and increase the effective carrying capacity of Marin's trail infrastructure.

In 2015, the MCOSD began a public process to formally plan the trail systems throughout the County preserves. The goals of the Road and Trail Management Plan (RTMP) are to establish and maintain a sustainable network of roads and trails that meet consistent standards; reduce environmental impacts and protect sensitive resources, including habitats, and native and special-status plant and animal species; and improve visitor experience and safety for all users. A designation process grouped the 34 preserves into six regions and has been progressing on a region-by-region basis over the last several years. Region 6, which includes Ring Mountain preserve, is the one region left to complete that process.

The wisdom beneath our feet

The trail designation process can be detailed and lengthy. It begins with the development of a base map that identifies existing use patterns -- the quantity and location of all the trails within a region, including neighboring trails and social or informal trails. (Social trails are often the shortest distance, or most easily navigated, path between two points and are born out of erosion due to frequent foot and bike traffic.) Around the same time, biological assessments are conducted to identify Marin endemic species of plants, and animal burrows and nests. The collected data identifies sensitive areas that should be left undisturbed and unfragmented to provide plant and wildlife sanctuary within the preserves. Complete avoidance is not always possible. Biologists also design monitoring programs to deter the spread of invasive weeds after new construction, or in restoration of trails slated for decommissioning.

Existing conditions of identified trails and associated sites and structures are inventoried and assessed against standards. Deficiencies are noted. Tread condition, drainage, grade of slope, and impacts from erosion are evaluated. Signs of problems would include standing water, ruts and gullies or other trail degradation, and sedimentation.

Anatomy of a Trail, cont. next column



Ring Mountain Open Space Preserve

Marin County Open Space District

**"REGION 6"
COMMUNITY WORKSHOP
AND TRAIL PLANNING MEETING
November 17, 2021, 5:30 – 7 pm**

Link to Zoom: bit.ly/TrailPlanning

**Learn about the planning process
for the trail network on Ring Mountain
and Old Saint Hilary's Preserves.**



One of several site meetings with community members and user groups on Memorial Trail. Principal Natural Resources Planner, Jon Campo, is in lower right.

Base map of Memorial Trail in Terra Linda / Sleepy Hollow Preserves showing existing trails and areas of biological sensitivity and erosion concern. MCP is currently developing CEQA documents and applying for permits. Memorial Trail improvements are still a couple of years from construction.

Stakeholder engagement meetings follow. Ideas and preferences of residents and user groups are solicited. Perspectives on environmental resource protection are discussed at Marin County Parks (MCP) Environmental Roundtable meetings. (MCL is a regular attendee.) Information on historic and cultural values; community access points and destinations; preferred routes of the various types of recreational users including those requiring ADA accessibility is gathered. Concerns and conflicts with adjacent landowners are also noted. Through a continuous loop of public outreach and feedback, County planners and resource coordinators work to find a balance between resource protection and public access, and to build community support for final plans and projects.

Finally, decisions on siting new or altered trail corridors are made, balancing competing interests and with the hopes of decreasing or preventing user conflicts. Improving, realigning,

or decommissioning existing trails, including social trails, is planned, and trail improvement projects are prioritized -- all in the name of creating a sustainable system that strives for a variety of trails for a variety of users, and when possible, minimizes the human footprint.

“Managing people and managing water, it turns out, are the twin challenges of designing a sustainable trail.”

– Robert Moor, *On Trails: An Exploration*

If you've ever attended a MCL Parks and Open Space meeting, you're likely familiar with this process, because Principal Natural Resource Planner, Jon Campo, and his staff regularly provide detailed updates on RTMP implementation. Or maybe you participated in the designation process in your region. What is less visible, perhaps, is how projects are implemented as they near construction. The steps can be just as detailed and lengthy, but are

eminently important in achieving a well-built, sustainable trail system.

As projects are prioritized, they are designed; project descriptions are created; and environmental review and permitting begins. Trail layout and design require engineering, and knowledge of construction techniques and watershed processes. As much art as they are science, trails integrate points of interest, scenery and aesthetic experiences, in addition to a comfortable tread.

Trail design begins with reconnaissance—on-site visits to explore a corridor through which a trail is to be routed. Once a specific alignment is flagged, the route is cleared of vegetation, except for trees marked for preservation. MCP's standard is a fifteen-foot box to create an open feeling with good sight lines for all users.

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Water and grade are the most influential factors in creating the design and layout of trail alignments. Various construction techniques are employed to optimize the trail function and experience. Care is taken to not disrupt or alter the hydrology of the landform. Following the contour of the land helps keep the trail alignment perpendicular to natural drainage patterns and is key to building sustainable trails. Runoff is not diverted where natural water courses do not exist. Trails are mostly outsloped so water drains off as non-erosive sheet flow, or laminar flow, as soon as possible. When water accumulates on the trail so does the power of its concentrated flow, which magnifies its erosive impacts.

MCP crews use trail dozers and other mechanized equipment to perform rough trail excavations. Some trails are hand built. In-house crews cut trail tread, build retaining walls or bridges, and improve stream crossings. They perform all final shaping and compaction of a trail before the surface is cured or hardened. Special construction, like large bridges, is outsourced. Proper layout and construction result in a trail that requires only cyclical maintenance, even when subjected to severe weather and heavy use.

Finally, trails identified as redundant or unsustainable are decommissioned. They are returned to a natural state and monitored. Natural drainage is re-established and vegetation is restored with seed and native mulch, such as needles and leaves. Nonnative materials are held to a minimum with the exception of erosion control blankets and weed-free rice straw on occasion.

A well-designed, constructed, and maintained trail is more than a route to a desired destination.

Whether you are captured by the underpinnings of the path beneath you or not, the beauty of a nearby open space is yours to enjoy.

So, "off your seats and on your feet."
(George Masa) A Marin County trail awaits.



Thank you to Jason Hoorn, MCP Natural Resource Coordinator, and Jon Campo, MCP Principal Natural Resource Planner, for providing inspiration and information for this article.

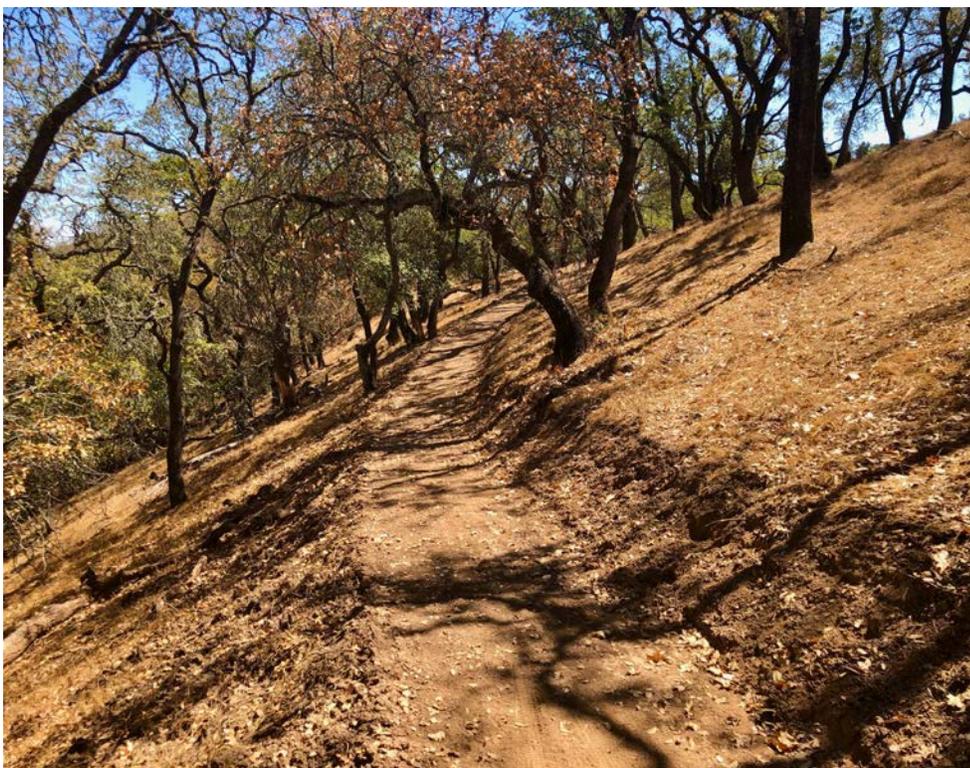
REALIGNING BLUE OAK TRAIL FOR MULTIUSE



MCP crew members work with mini excavator and water line to construct the Blue Oak Trail bench cut at Rush Creek Preserve.



MCP crew member walks behind and remotely operates a vibratory compactor to harden the Blue Oak Trail tread.



Construction of both the Blue Oak and Lucky Aces trails in Rush Creek Preserve is complete. Both trails will be closed to bikes and horses for hardening during the winter months and will open for all users in the spring. All photos courtesy Marin County Parks.

THE COUNTY OF MARIN INVITES YOU

Shape the future of housing and plan for climate change in your community

Join the County of Marin for an interactive online, solution-oriented, community meeting to discuss the upcoming Housing and Safety Elements updates for the upcoming 2023-2031 cycle. This will be the second in a series of community workshops that will be scheduled throughout the planning process.

Topics for discussion include:

- > Housing needs and conditions, especially for low and moderate-income housing
- > Climate change adaptation measures, including wildfire, sea level rise, and flooding concerns

The meeting will take place on Zoom.

Monday, November 15, 6 – 8pm

There will be live Spanish translation.

REGISTER HERE:

tinyurl.com/MarinHousingandSafetyRSVP2

Visit and subscribe to receive the latest developments:

MarinCounty.org/HousingSafetyElements

MCL AFTER HOURS

NEW STATE HOUSING LAWS: IMPACTS ON MARIN

Join us for an evening presentation on recent State housing laws and how they affect the review and development of housing at a local level in Marin County.

California is in a housing crisis. Progressively over the past four or five years, new State legislation was passed to promote development that would increase housing supply. All jurisdictions are required to comply, though new laws can override or dramatically impact local ordinances and regulations. Our presenter, Barbara Kautz will walk us through the complicated, often confusing new legislation.



**WEDNESDAY
JAN. 12, 2022
7 – 8:30 pm**

**Register:
bit.ly/MCLafterhours**



Barbara Kautz is a Partner at the law firm of Goldfarb & Lipman and is well-known throughout the Bay Area for her knowledge of affordable housing and land use law. Her practice includes CEQA compliance, real estate, economic development, and fair housing.

Before becoming an attorney, Ms. Kautz worked for 30 years as a planner, community development director and assistant city manager, concluding her planning career as Community Development Director and Assistant City Manager for the City of San Mateo. She is author of "In Defense of Inclusionary Zoning: Successfully Creating Affordable Housing." Barbara has been a Marin County resident for over forty years.



TIME TO RENEW YOUR MCL MEMBERSHIP!

Dues are tax deductible and ensure the preservation, protection, and enhancement of Marin's natural assets for generations to come.

www.marinconservationleague.org

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

Land Use and Transportation:
1st Wed. of the month, 10:00 AM—12:00 PM

Parks and Open Space:
2nd Thurs. of the month, 3:00 PM—5:00 PM

Fire and Environment Working Group:
2nd Mon. of the month, 3:00 PM—5:00 PM

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

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

North Marin Unit: Check website for times

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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All of us at
Marin Conservation
League wish you bright
and joyful holidays and
a better year ahead.

MARIN CONSERVATION LEAGUE

