

A speech to remember as we launch into 2025 –

On 2024's World Earth Day, the UN Secretary-General issued a rallying call for ambitious National Climate Plans and bans on fossil fuel advertising.

by Ken Strong

On June 5, 2024, UN Secretary-General Antonio Guterres gave a speech at the American Museum of Natural History urging ambitious action to address climate change now on all fronts. He called for maximum ambition, maximum acceleration and maximum cooperation by all governments and actors leading up to COP 30 in Brazil in November 2025. "We are now in a moment of truth with no time to lose... We are close to several tipping points.¹ "We need an exit ramp off the highway to climate hell."

As the world was preparing to meet for climate talks in the second half of 2024, the Secretary General stated, "The truth is... the battle for 1.5 degrees will be won or lost in the 2020s– under the watch of leaders today. All depends on the decisions those leaders take—or fail to take—especially in the next eighteen months."

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Expanding Soulajule Reservoir, one of Marin Water's longer-term supply options, may inundate Hick's Valley multi-generational ranches and agricultural land.

Marin Water's roadmap to water resilience: a path forward

by Larry Minikes

As the Marin Municipal Water District (Marin Water or MW or district) faces the dual challenges of ensuring a reliable water supply at reasonable cost and safeguarding against natural disasters, a comprehensive roadmap to resilience is taking shape. The following are highlights of MW's current initiatives and future plans, focusing on water supply security, watershed management, and the financial and environmental complexities of these efforts.

additional dry-year supply and ensure resilience against future uncertainties. The roadmap encompasses a variety of projects at different stages of development.

Near-Term Water Supply Strategies: (1-5 years)

In addition to seeking ongoing conservation and water use efficiencies, Marin Water's near-term strategies include a Soulajule Pump Station Electrification Plan and a Phoenix to Bon Tempe Connection. The Soulajule Pump Station Electrification project is intended to upgrade PG&E electrical systems and a District pump station to move raw water from Soulajule Reservoir to Nicasio Reservoir without renting generators, giving the district greater operational flexibility. The project, currently in preliminary design, could potentially add up to 1,000 acre-feet of water to the system within 18-24 months.

Similarly, a possible Phoenix Lake-Bon Tempe Connection project would improve

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Musing on MCL's history, our mission, and the future

Minutes of a Marin Garden Club meeting mark November 6, 1934, as the "official" birthdate of Marin Conservation League.

At that meeting, Caroline Livermore volunteered to form a new committee to beautify Marin. She was joined by Sepha Evers, Helen Van Pelt, and Portia Forbes. By the end of the year, they had set the stage for a decades-long campaign during which they would enable the acquisition of thousands of acres of scenic lands as public parks and open spaces. The fledgling MCL in 1936 adopted as its mission: "To preserve, protect, and enhance the natural assets of Marin."

Others would continue to fill out the many pieces of public land—ridges and valleys and baylands—that collectively make up more than half the county. Look in any direction and public lands are there to enjoy. My own favorite piece is Mt. Tam: the view from my kitchen window for 65 years.

As MCL transitions into its next decade after 90 years of "preserving, protecting, and enhancing Marin's natural assets . . ." it is an important time to look both at history and ahead. I was honored to return as President-for-a-year last April, following a brief respite from the Board. Among other pleasures, it was an opportunity for me to look back and appreciate how MCL, since its inception, has remained constant to the purpose embedded in its basic mission, throughout ever-shifting environmental demands and priorities.

It is also gratifying to look back and realize how much MCL has learned over roughly three generations of environmental advocacy. What MCL's "first generation" sought to save primarily for their scenic beauty, the next generation, with growing ecological knowledge, would discover as a

world of priceless biodiversity to be "preserved, protected, and enhanced . . ." And as divergent environmental threats emerged throughout the 1960s, '70s, '80s and beyond, the "second generation" of MCL advocates would confront each new crisis, spend countless hours studying how to avoid environmental damage and make positive change. Along the way, they found it was essential to study environmental issues across disciplines – and from the different perspectives of our committees.

“It is also gratifying to look back and realize how much MCL has learned over roughly three generations of environmental advocacy.”

In recent years, the present "third generation" of MCL advocates is being confronted by the multiple effects of a warming climate, massive species losses, and a vast array of threats to land, waters, and air affecting all species, native and human, and more. To acknowledge the urgency of our times, MCL added ". . . in a changing environment" to the end of the "preserve, protect, and enhance" mission statement.

Like most long-lived non-profits, MCL has weathered political turbulences over the years, none, perhaps, more earth-threatening than the recent election, which, coincidentally, took place on MCL's 90-year Anniversary date. As we begin to consider strategies to confront the political headwinds that are already on their way, my own thoughts go first to those whose lives are being forever shattered by the effects of climate change, as in the catastrophic Los Angeles wildfires. As for MCL in its 91st year, the organization will stay focused and the mission will remain a constant, as will the need for continued learning and educating "in a changing environment." The upheaval in Washington will not distract MCL from its purpose, although it will require all of us to be vigilant, to be positive at the same time, and to renew energy and commitment to keep our shared vision alive.

Nona
Nona Dennis

Ninety Years of Protecting & Preserving Marin County

There's still time to renew!

Thank you for your steadfast support of MCL. We invite you to renew your membership for the upcoming year. New to MCL? Please join us. Send a check or join online at marinconservationleague.org

A rallying call to action cont. from page 1

Guterres said we need to act on every front. He spoke of an Adaptation Accelerator Hub, announced by the G7 in April, that would help underdeveloped countries address impacts and he called for a doubling of adaptation financing by all developed countries to \$40 billion per year by 2025. Secretary-General Guterres talked about September's [Summit of the Future](#) as an opportunity to reform international finance to reduce the cost of building renewable energy projects in the developing world.

Call for Actions Against the Fossil Fuel Industry

Most dramatically, Secretary-General Guterres spoke of the need to reduce the grip of fossil fuels. He called for an effective price on carbon and a windfall profits tax on oil and gas to help finance the transition. "The fossil fuel industry should use its massive profits to lead the energy transition." In addition, he called for a reallocation of the trillions of dollars spent on fossil fuel subsidies to be used instead to support renewables, storage, grid modernization, and to provide for vulnerable communities.

He urged financial institutions to "stop bankrolling fossil fuel destruction and start investing in a global renewables revolution", by presenting "public, credible and detailed plans to transition funding from fossil fuels to clean energy with clear targets for 2025 and 2030", and by disclosing climate risks to shareholders and regulators.

Further, he said advertising and PR firms should stop taking on new fossil fuel clients and set out plans to drop existing ones as "fossil fuels are toxic for your brand." Finally, he called on every country to ban advertising from fossil fuel companies, just as many countries have done with other products that harm health, like tobacco.

Unfortunately, this important speech received very little press coverage. It was not covered on network TV news, nor by the *Wall Street Journal*. The *NY Times* and *Washington Post* each had a hard-to-find short article that did not appear in their digital newsfeed. *Current Affairs* [attributed the lack of reporting](#) to the

fact that all of these news sources received significant ad revenue from fossil fuel companies.

Despite the urgency of the Secretary General's message, top leaders of the thirteen largest CO₂-producing countries, the group responsible for more than 70% of the GHG emissions that produce global warming, were not in attendance at COP 29 last November.

“Like the meteor that wiped out the dinosaurs we are having an outsized impact. In the case of climate change we are not the dinosaurs; we are the meteor. We are not only in danger; we are the danger. But we are also the solution.”

– UN Secretary-General Guterres

Though support for the Adaptation Accelerator Hub to advance energy access and climate resilience in vulnerable countries was reaffirmed, and developed nations reached a new finance goal of \$300 billion a year for adaptation in developing countries by 2035, some developing countries were disappointed with the compromise, hoping for over \$1 trillion a year.


NASA Report Confirms 2024 was the Hottest Year on Record

On January 10, 2025 NASA issued a report confirming that 2024 was the hottest year on record. The new record comes after 15 consecutive months of monthly temperature records. For more than half of the year, average temperatures were more than 1.5 degrees Celsius above the baseline. "To put that in perspective, temperatures during the warm periods on Earth three million years ago, when sea levels were dozens of feet higher than today, were only around 3 degrees Celsius warmer than pre-industrial levels" said Gavin Schmidt, director of NASA's Goddard Institute. "We are halfway to Pliocene-level warmth in 150 years."

In response to this news, Secretary-General [Guterres said](#): "Blazing temperatures in 2024 require trailblazing climate action in 2025. There is still time to avoid the worst of climate catastrophe. But leaders must act. Now."

National Climate Action Plans (aka Nationally Determined Contributions) are due at COP 30 in Brazil in November 2025 and the Secretary-General said they must include absolute emission reduction targets for 2030 and 2035 covering the whole economy, including verifiable plans cutting production and consumption of fossil fuels by 30% by 2030.² "We have the technologies we need to slash emissions. Renewables are booming as costs plummet and governments realize the benefits of cleaner air, good jobs, energy security, and increased access to power. Renewables already make up thirty percent of the world's electricity supply. And clean energy investments reached a record high last year."

As for the US, despite the outcome of the election, clean energy is now a staple of the American economy and the push for its progress transcends any one administration in Washington. The gains made over the last four years must be solidified and the transition must continue to move forward faster. As exemplified by the devastation of the Los Angeles wildfires, and by Hurricane Helene before them, impacts due to the climate crisis are worsening and accelerating.

Sustainability and the climate crisis must be front and center as political decisions are made this decade. Already, past decisions are leading to a future that will transform the planet. As the Secretary General has outlined, we cannot further delay taking bold action. 

1. *Tippling points are events that if they occur will accelerate the heating of the planet. He cited 1) melting of the Greenland ice sheet, 2) melting of the Western Antarctica ice sheet, 3) bleaching of coral reefs, 4) melting of permafrost and 5) overturning of the North Atlantic Labrador ocean current.*

² On December 19, 2024, the [US submitted](#) its NDC 2035 GHG emissions targets.

MCL's Climate Action Working Group (CAWG) meets [monthly](#) both in-person and on Zoom, third Wednesdays, 10 am to noon. Your participation is encouraged! Please [contact MCL](#) to receive CAWG notifications.

≡ MCL's 2024 ENVIRONMENTAL ACHIEVEMENT AWARDEES ≡

... and their words of wisdom

Last April, MCL honored seven deserving awardees for their environmental achievements. Identified below are the award recognitions, and snippets from awardee acceptance speeches. We hope you enjoy this recap and that you will **join us this April to honor MCL's 2025 Awardees.**



The **PETER BEHR LIFE-TIME ACHIEVEMENT AWARD** was given to **PAUL Da SILVA** for his lifelong passion and commitment to environmental stewardship and civic engagement, both as a scientist and

educator in the biological sciences and natural history of Marin, and as a Trustee of the College of Marin. Paul has inspired students and colleagues of all ages. He was also awarded for his continuing service as a long-serving board member of the Marin Chapter of the California Native Plant Society and as founder of the Marin Biodiversity Corridor Initiative.

During his acceptance, Paul spoke of the award as both an honor and a challenge, which he accepted, to continue Behr's legacy. He said "I will continue to work with all who know the true value of the Wild and Scenic Rivers Act, the Endangered Species Act, the California Environmental Quality Acts, and of course of our irreplaceable protected lands while at the same time I push the envelope a bit by advancing new concepts such as 30 + 70, socio-biodiversity, One Health, Recreational Ecology, global ceasefires, Making Peace With Nature, and that of the California Condor bird louse."



The **MARIN GREEN AWARD FOR ENVIRONMENTAL LEADERSHIP** was awarded to **ED NUTE** for his many years of thoughtful leadership, sharing his expertise and his focus on tasks-at-hand, and his

commitment to several groups in Marin's environmental community. They include the Tomales Bay Foundation which recently

received \$800,000 for wetlands restoration at Chicken Ranch Beach, the Marin Audubon Society, the Marin Monarch Working Group, and the Chileno Valley Newt Brigade about which he quipped, "Sally Gale has organized this fantastic group of volunteers to go out there on rainy nights and take the newts from one side of the road to the other. Hopefully it's the side that they wanted to go to."

Ed was also honored for the wildlife-friendly design of the Las Gallinas Wastewater Treatment Pond, while head of Nute Engineering. The Pond has provided habitat for multiple species of migrating and resident birds, to the delight of many for over 40 years. Ed remarked he has always been interested in nature and in his retirement he remains very active.



The **TED WELLMAN WATER AWARD** was presented to long-time MCL member, **ED UEBER**, for his life's work protecting oceans and marine ecosystems, emphasizing their critical role in climate and planetary

well-being. Ed worked for decades as Manager of the Greater Farallones, Cordell Banks, and portions of the Monterey Bay National Marine Sanctuaries. He later created the Greater Farallones Association nonprofit, and the successful shoreline monitoring "Beach Watch" program.

In accepting his award Ed spoke of 'Planet Water'— "Water encompasses everything we do, all life, including our own." He spoke about the rare productivity of the Gulf of the Farallones, the richness and abundance of species that have depended on it, and on the San Francisco Bay estuary and its watersheds prior to water diversions. He warned, "We cannot change the things that affect the ocean environment with impunity. We have to

maintain the ecosystem that was developed over 20,000 years, not the one that's been developed since 1940." He closed with, "We need to think about how we, the very fortunate we, are and what our paradigm is. What was my grandfather's and great grandfather's paradigm? 'If you've got the money and you can afford it, go and get it.' We have to change that paradigm to 'If you've got the money and it's good for the Earth and good for Planet Water, that's what you consider—not whether it's good for you.'"



The **YOUTH AWARD FOR ENVIRONMENTAL LEADERSHIP** was awarded to Marin Academy senior, **FINN DOES**, for his climate justice activism and community organizing, his leadership of the Bay Area

Youth Climate Summit and Marin Academy's Climate Action Club, and for using his communication and storytelling skills to frame the climate crisis in terms of taking action, reasons for hope, and examples of resilience and transformation.

In accepting the award, Finn thanked his community of fellow youth climate activists, his teachers, and MCL, stating "I think that it's so important that MCL has taken the initiative to honor youth because I think that it's vital that youth are in the room, and in the decision-making spaces with the intergenerations; because if the seventh generation isn't there, then what is the point of doing all of this work?" Finn finished with, "We really need the generations all to come together to solve the issues of our time. And I think that the path forward is in trying to stand more in solidarity with each other ... it's within our collective diversity that lie the greatest solutions to the climate crisis."

MCL's 2024 Environmental Achievement Awardees (L-R) Ed Ueber, Finn Does, Mia Monroe, Charlotte Torgovitsky, Paul da Silva, Bob Miller, Ed Nute



This year's **JOHN M. MCPHAIL, JR. GREEN BUSINESS AWARD** was presented to **CHARLOTTE TORGOVITSKY** for founding the habitat garden and native plant nursery, and educational non-profit, *Home Ground*

Habitat, in Novato. The award is in recognition of Charlotte's generous contributions of time and resources benefitting the biodiversity of native species throughout Marin County.

In accepting the award, Charlotte said, "I've been very fortunate in my life to be able to follow my passions. What I'm doing now is taking my love of nature with my love and skills in gardening and I'm bridging the two worlds of gardening and ecology, promoting a whole new paradigm in both home landscaping and larger landscaping, in terms of creating habitat and corridors between open spaces. There's nothing more beautiful than a landscape that provides lots of biodiversity. We all know that to save a species you must first save their habitat. Working locally, creating community and habitat, little by little, makes a great deal of difference—people working in their own gardens and spreading the word that way. I feel if I influence one person positively every day, I've done a great deal of good for the world and for our local environment."



This year's **MCL VOLUNTEER OF THE YEAR AWARD** recognized **ROBERT MILLER**. Bob served for three years as MCL president, strengthening the organization, and leading MCL through a multi-year strategic

planning process that, among other things, revised MCL's "preserve and protect" mission to include "in a changing climate". He continues to work diligently to grow MCL's membership and to inspire MCL's advocacy as Co-Chair of the Climate Action Working Group and Chair of the Clean Energy Groups.

In accepting the award, Bob said there must be several secret sauces for a volunteer organization to persist for 90 years [referring to MCL]. He emphasized that for policy development and advocacy, MCL's culture requires participants to dig deep, do research, have discussions, and broaden mutual understanding to come up with policies for the environment and, only then, advocate. He said, "My thinking is that change can be a tough row to hoe sometimes. Some people know that. But it's also very worthwhile." He added, "I'm happy to advocate for the best policies possible to reduce greenhouse gas emissions that are so damaging to the environment here in Marin and around the world."



MIA MONROE received **MCL's SPECIAL AWARD FOR ENVIRONMENTAL LEADERSHIP**, in honor of her life-long commitment to fostering relationship with nature. The award recognizes her support in the establishment of

the Golden Gate National Recreation Area and the many contributions of her life-long career there. She was also honored for her leadership in co-founding the Xerces Society's "Western Monarch Count" and the Marin Monarch Working Group.

In accepting her award, Mia recounted her recent participation in a program at Stinson Beach that brought together a variety of community members and included flying kites, talking about sea level rise, making friends, and a quote contest. Mia relayed her quote, "I offered mine by Annie Dillard, 'How one spends one's days is, of course, how we spend our lives.'" and then she thanked the National Park Service for giving her each day "in the amazing public lands of Marin," to work with stakeholders, and to meet with visitors and "offer our public lands for them to enjoy, steward, and take care of." Mia ended her acceptance comments similar to how she ended her programs at Muir Woods, emphasizing the power of awe. She said, "Of course it's obvious when you're in an old growth Redwood forest or watching the surf at Stinson beach or the sunset at the Golden Gate Bridge, but awe also comes when you're around people who stand up and offer to be stewards, dedicate their life to important campaigns, work hard for the important things; that also fills us with awe."

Congratulations to all of MCL's 2024 Environmental Achievement Awardees!

Thank you for your commitment and your good works.





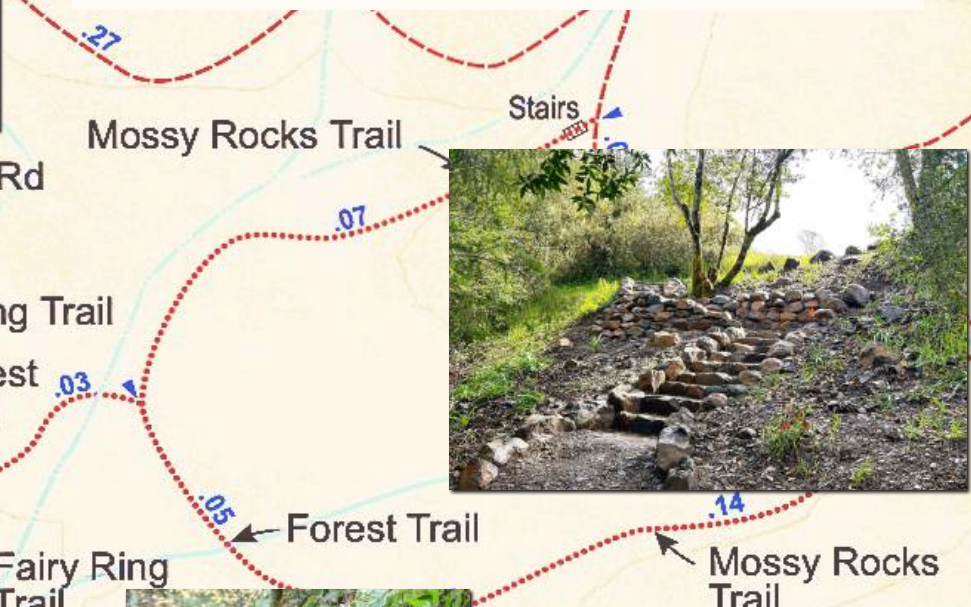
Roy's Redwoods Restoration



REUSE: Over 130 redwood logs were retrieved from Kent Lake and salvaged from PG&E project sites. They've been repurposed—spread out across incised areas of Roy's floodplain to slow, spread, and sink winter rains across the forest floor; and to improve public access with boardwalks, "scrambles," and footbridges that will keep hikers off the ground in low lying areas. No trees from Roy's Preserve were used in the project.



Construction began in August of 2023. It included volunteers building new trails; skilled contractors compacting trails and constructing new bridges and boardwalks; and MCOSD staff building rock stairs and salvaging and storing [Western sword ferns](#) (every one) until ready for replanting in the restoration.



A Pacific giant salamander eating a banana slug. Banana slugs play an important role in the forest, breaking down dead material into nutrient-rich fertilizer.



ROY'S REDWOODS OPEN SPACE PRESERVE

...home to some of the largest old growth redwoods in Marin, was protected through the efforts of the San Geronimo community. The Preserve was purchased by Marin County Open Space District (MCOSD) in 1978 and is home to several sensitive plant and animal species including the endangered Northern spotted owl.

One Tam partners—including Marin County Parks and the Golden Gate National Parks Conservancy—have neared completion of a beautiful renovation of the Preserve, enhancing the ecological health and resiliency of the forest while improving visitor experience and accessibility in the park. The project is an implementation of MCOSD's Road and Trail Management Plan for Region 2. **Trails are now open to the public.**

After almost 50 years of public use and enjoyment, the forest's understory had become trampled and the soil compacted. Ephemeral creek channels on the valley floor, that had been used as informal hiking trails during the dry season, eroded causing winter rains to flash through and incise them. Over time, this prevented rainwater from naturally spreading out and soaking into the Preserve's alluvial plain.

The project relocated some hiking trails and restored channel connections to the floodplain improving hydrology and water quality and helping retain sediment onsite. The restoration's intent is to reestablish a diverse understory habitat and boost the forest's ability to recover from and adapt to the effects of climate change. See the updated [Preserve map](#).

Monitoring of the native plant restoration and of resident northern spotted owls (adding to the 20 years of data to date) will continue for years to come.

Many thanks to **JON CAMPO**, Marin County Parks Principal Natural Resource Planner, for contributing text and images.

Photo of Northern spotted owl: courtesy of **CARLOS PORRATA**

All other photos: courtesy of **MARIN COUNTY PARKS**.

Roadmap to water resilience *cont. from page 1*

water distribution efficiency with improvements at the Phoenix Transfer Pump Station, and installation of a new pump station and pipe to allow for pumping of water from Phoenix Lake into Bon Tempe Reservoir, ensuring that stored water is more readily available during critical periods. Although preliminary design is ongoing, as of Marin Water’s December 2024 update, funds have been reallocated to a Nicasio Spillway Modification project so the Phoenix Lake-Bon Tempe Connection project’s future progress is uncertain.

Spillway Modifications and Dam Safety

Ensuring the safety and functionality of the district’s dams and spillways is another critical aspect of MW’s resilience strategy. Following the 2017 Oroville Dam incident, MW undertook a comprehensive assessment of its spillways. Phase I of this assessment involved non-structural repairs and initial condition evaluations. Phase II, currently underway, includes more

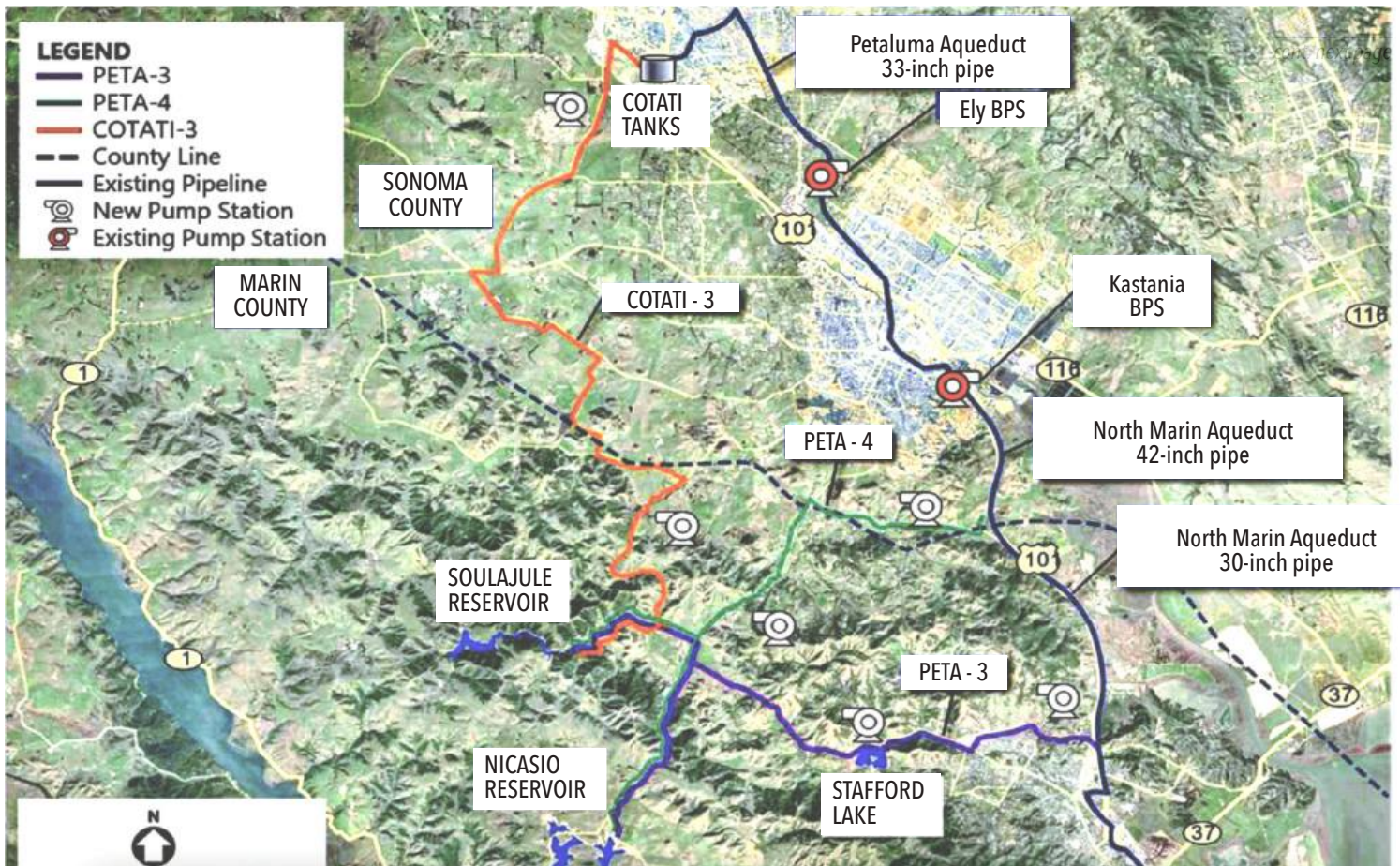
intensive investigations with ground-penetrating radar and concrete coring—essential for understanding and mitigating potential weaknesses.

The district is also exploring adding flood-gates to up to three of its spillways to enhance storage capacity and to handle extreme weather events, which are becoming more frequent with climate change. Spillways provide controlled release of water downstream. Nicasio Dam spillway modifications, already in early phase design, aim to increase the reservoir’s capacity by approximately 3,000 acre-feet, directly contributing to the district’s water resilience. The Nicasio modifications are less complicated as the dam was originally designed for an eventual installation of spillway gates. Marin Water’s board recently approved \$1.9 million to evaluate the environmental impacts of the plan. Design began in Summer 2024, with an estimated in-development time of 16-24 months and a cost estimate of \$5 million.

As the oldest water district in California, efforts to modernize the district’s aging infrastructure are critical. By investing in state-of-the-art technologies and engineering solutions, MW is positioning itself to better manage water resources in an era of increasing climatic variability, ensuring that it can continue to deliver reliable water services under increasingly challenging conditions.

Longer-Term Water Supply Options: (5-15+ years)

More complex initiatives, such as increasing the capacity of Marin Water’s seven existing reservoirs or constructing a new reservoir, are also being explored. These projects, which could go beyond 15 years or more to materialize, are anticipated to provide significant long-term benefits. For instance, raising the dam and **expanding the reservoir at SoulaJule or adding an**



Three alternative pipeline routes for conveying winter water from Sonoma’s Cotati tanks for storage in SoulaJule Reservoir. Map: Marin Municipal Water District

Roadmap to water resilience

additional dam at Nicasio Reservoir could add up to 20,000 acre-feet of storage, creating a substantial buffer against prolonged drought conditions. However, substantial environmental and financial considerations, including the cost of importing thousands of truckloads of fill material and purchasing private land, residences and ranch buildings that would be lost to inundation, set an exceptionally high barrier for such projects.

A critical component of the Roadmap is a plan to construct a **pipeline from Sonoma Water's Cotati tanks to Soula Reservoir**. The pipeline would capture and convey excess winter water from the Russian River's million-acre watershed to bolster Marin's local water supplies. It would help to ensure long-term resilience. The project is currently in advanced planning stages. Three alternatives are under detailed review, with costs including environmental challenges, easements, and construction. Marin Water is working to finalize the pipeline's route and design, while also addressing potential environmental impacts. The pipeline's dedicated conveyance would combine MW local storage enhancements with regional water transfers.

The District is also actively working to **expand its "purple pipe" system, used for distributing recycled water for non-potable purposes like irrigation** for parks, schools, large landscaped areas and industrial uses. Cost analyses for various recycled water projects (e.g., MMWD-SASM, San Quentin, Peacock Gap) have been conducted, with dry-year output and capital costs detailed. While expensive to implement, the expansion of this system is part of MW's broader strategy to increase water conservation and reduce the demand for treated drinking water. By extending the reach of purple pipes in an economically feasible manner, the district aims to maximize the use of its already available recycled water.

Marin Water is monitoring advances in desalination technology as it continues to investigate the feasibility of a brackish desal plant in the Petaluma River with the City of Petaluma. The District also recently completed an updated cost analysis of both **desalination and recycled**



The Cape Horn dam on the Eel River is one of two slated for removal during the decommissioning of PG&E's Potter Valley Project. The mighty Eel supports one of the largest wild salmon and steelhead runs in the state. Photo: Kate Powers

water as possible new sources of water supply. Cost analyses for desalination plants of varying capacities (5-MGD, 10-MGD, 15-MGD) have been updated to 2024 figures, detailing dry-year output, capital costs, and operational expenses.

Water Efficiency Master Plan

Water conservation remains a cornerstone of Marin Water's strategy to ensure long-term sustainability. Its recent Water Efficiency Master Plan (WEMP) includes ongoing programs like turf conversion rebates as well as innovative initiatives such as the deployment of Advanced Metering Infrastructure (AMI), which in coming years will empower customers to monitor their water usage in real-time, providing immediate feedback to reduce waste and promote efficiency. Additionally, the system enables quicker leak detection, preventing significant water losses that might go unnoticed with traditional metering systems.

Ongoing water efficiency programs are expected to yield 150–200 acre-feet annually,

with a cost estimate of \$2.3 million. Incentive programs targeting both residential and commercial customers, as well as educational initiatives to raise awareness about water conservation, include rebates for water-efficient appliances, conducting workshops on water-saving techniques, providing resources for landscape conversion to drought-tolerant, pollinator-friendly plants while also limiting lawns in new development and commercial sites. By involving local residents and businesses in conservation efforts, MW aims to build a culture of sustainability that goes beyond regulatory compliance.

Impact of Eel River Dam Removal

Another factor affecting MW's water strategy is possible impacts from Eel River dam removal projects to the north. PG&E's hydropower plant, the Potter Valley Project, has historically diverted water from the Eel River to the Russian River. The plant is planned for decommissioning, and the associated removal of dams could lead to reduced water flows into the Russian River,

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Roadmap to water resilience *cont. from page 9*

especially during dry seasons. This would potentially impact the water supply for multiple Sonoma Water contractors, including MW. MW relies on importing 25% of its water from Sonoma Water and is last in line when it comes to water allocations during dry seasons. This poses a challenge.

Marin Water is closely monitoring the situation and considering how to adjust its water supply plans accordingly which could involve increased reliance on proposed local reservoir expansions to mitigate potential reduction of imported water during droughts.

MW is exploring ways to secure its water future by strengthening partnerships with regional water agencies, North Marin Water and Sonoma Water. Currently, it's working on a potential plan to purchase storage rights in Lake Sonoma. By securing dedicated storage capacity, MW would gain a more reliable supply of water even during drought conditions. This move would shift toward a more integrated regional approach. Mutual benefits could be achieved through MW's direct financial contribution to Sonoma Water's infrastructure. The deeper collaboration would not only provide MW with greater water security but would also support broader regional resilience that could ensure the sustainability of the Russian River watershed as well.

Renewable Energy Initiatives

In tandem with securing water supply, MW is also exploring renewable energy opportunities

to support its operations and reduce its carbon footprint. As the largest user of energy in the county, powering operations is a significant portion of the district's budget.

One promising project is the installation of solar panels at the San Geronimo Treatment Plant, which could offset a portion of the plant's energy use. Solar installations at strategic locations within the district could help reduce energy costs. While direct energy generation projects may not be economically feasible at present, integrating renewable energy considerations into future infrastructure projects could provide both environmental and economic benefits. Additionally, MW is exploring opportunities to partner with other regional agencies on renewable energy projects, which could spread the costs and benefits across a larger base.

SAFEGUARDING THE WATERSHED: Resilience Against Fire and Natural Disasters

Wildfire Pathway Modeling and Mitigation

With the increasing threat of wildfires due to climate change and previous management practices throughout the west to suppress fire in fire-dependent ecosystems, MW is taking proactive steps to protect its watershed, reservoirs, and its extensive distribution infrastructure. A key initiative involves the use of advanced wildfire pathway modeling known under the acronym SPLAT (Strategically Placed Areas of

Treatment), which identifies the most likely routes that wind-driven wildfires could take through the landscape. By identifying these pathways, MW can strategically manage vegetation and fuel reduction treatments to slow the spread of fires and buy valuable time for firefighting efforts.

The management focus is on creating networks of treatment areas that work together to slow fire growth, particularly in zones identified as high-risk. These efforts are complemented by fuel reduction work along the Wildland/Urban Interface (WUI), targeted grazing, pile burning, and prescribed burns to reduce the accumulation of dry, combustible vegetation. The goal is to protect and restore both the natural environment and nearby communities by reducing the likelihood of large-scale, destructive wildfires.

By integrating fire risk reduction with ongoing conservation efforts, MW aims to create a more robust and sustainable ecosystem that can better withstand the impacts of climate change.

Climate Change Impacts on Water Management

Climate change is increasingly influencing water management strategies. Warming and aridification trends are accelerating atmospheric water demand. As temperatures rise, the atmosphere's ability to hold moisture increases, leading to more evaporation from soils and water bodies—a phenomenon known as increased soil water depletion.

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SAVE the DATE: MCL 2025 Annual Meeting & Dinner, Friday, April 25.
Invitations will be mailed in March. We hope you will attend!

Roadmap

Heightened atmospheric water demand also contributes to more intense storms. When the accumulated moisture is eventually released, it adds another layer of complexity to water resource management. This shift has significant implications for water availability and management. Not only does it reduce the amount of water available for capture and storage, but it also intensifies the need for more robust infrastructure to manage increasingly unpredictable water supplies. MW's ongoing projects, such as expanding reservoir capacity and developing new pipeline systems, are crucial steps in adapting to these changes.

LOOKING AHEAD

Marin Water's roadmap is a multifaceted approach that addresses both immediate and long-term challenges. By investing in water supply resiliency, exploring renewable energy options, and strengthening the watershed against natural disasters, the district is laying the groundwork for a more resilient future.

However, this groundwork requires significant financial upfront investment and meeting ongoing operational costs, even during non-drought years. The district must carefully balance the costs and benefits of projects, ensuring they provide sufficient water supply while remaining economically feasible. MW is currently evaluating its longer-term water supply projects based on recently proposed criteria in an effort to select a preferred alternative that it will advance to design and environmental review.

As the district continues to refine and implement strategies, community engagement and collaboration with regional partners will be crucial. A majority of district customers are already contributing through ongoing water conservation.

MW's initiatives, taken together, will ensure greater security in water supply and a safer, more resilient watershed, sustainably managed for generations to come. 🌿

Join MCL's [Land Use, Transportation, and Water Committee](#) meeting on Feb. 5 for a presentation by Marin Water.

Read MCL's recently updated [Water Supply and Distribution Policy Position](#).

Marin CNPS 50 Acts of Caring Challenge

by Laura Lovett

Nearly 95% of the Earth's surface shows some form of human modification. People still think of land as a resource for human use, not as a home for thousands of other living beings. We hog the land and its resources.

Can we be more generous? Can we make room for lichens, lacewings, bunchgrasses and bluebirds? Can we share Earth's finite water and soil to support all living things, not just people? Of course we can!

As part the **Marin Chapter of the California Native Plant Society's 50th year celebration**, we requested that you to think about the wider effects of choices made on your landscapes and about your property. It doesn't require sacrifice, only awareness. It isn't difficult or expensive.

You can still join Marin CNPS in the **50 Acts of Caring Challenge** by completing as many or as few actions as you like and by sharing what you are doing with friends. Each action contributes to making our neighborhoods healthier and more biodiverse a little at a time—for us and for the other creatures that live here.

The challenge is posted on Instagram at [instagram.com/marincnps](https://www.instagram.com/marincnps).

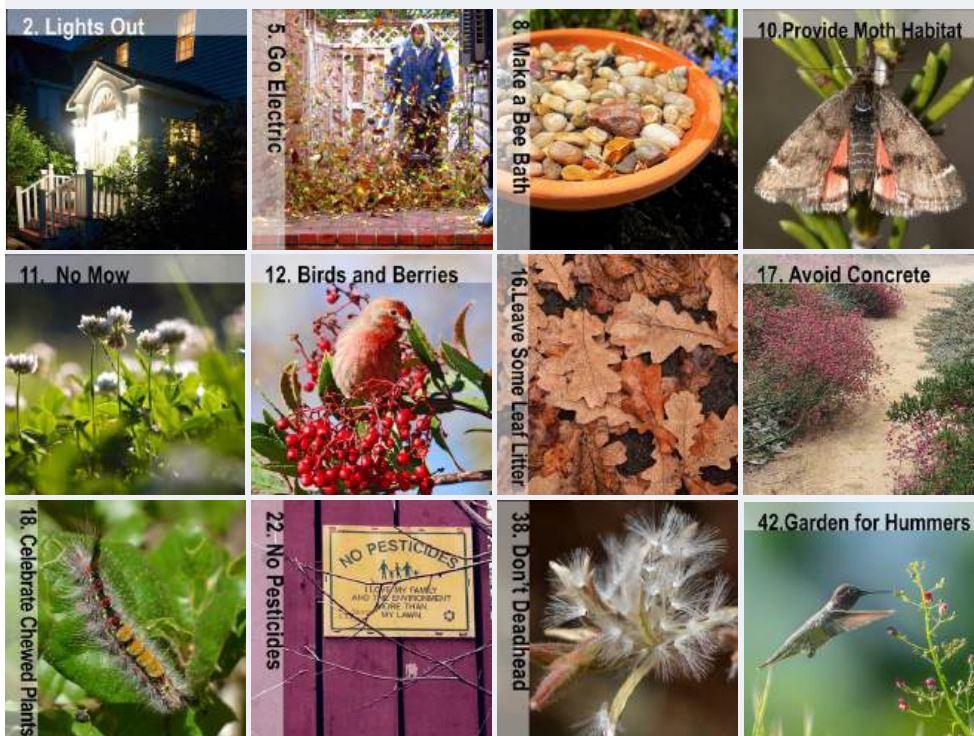
To take part:

1. Agree to take on a challenge by adding a comment.
2. Post progress to social media using the specific hashtag for that challenge and #marincnps.
3. Follow the account to get notifications of new postings.
4. Check the account regularly to see updates.

(You be able to look at the challenges without an Instagram account but you'll need an account to participate.)

Editor's note:

Take a look at Marin CNPS's beautifully assembled 50 Acts of Caring on Instagram for ways to not only contribute to ongoing water conservation, but also to make a difference for the natural world.



Photos: From Marin CNPS 50 Acts of Caring Instagram

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ISSUE COMMITTEE MEETING SCHEDULE

(subject to change—check website)

Land Use, Transportation and Water

1st Wed. of the month, 10 am–12 noon

Parks and Open Space

2nd Thurs. of the month, 3–5 pm

Climate Action Working Group

3rd Wed. of the month, 10 am–12 noon

Staff

Martha Richter Smith, San Anselmo
Office Administrator

Editor: Kate Powers

Design & Production: Kiki La Porta

Contact Information

175 N. Redwood Dr., Ste. 135
San Rafael CA 94903 | 415.485.6257
marinconservationleague.org
mcl@marinconservationleague.org

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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As we give to the *New Year* the best we can offer,
with good intentions and focused presence —
let's press *forward* together.



Photo courtesy Larry Scheibel