The Art of Supporting Open Space

By Aleta George

Artist Tom Killion grew up above the Old Mill School in Mill Valley, where a short walk through the neighborhood delivered him to the trails of Mount Tamalpais. As a kid, teen, and adult, Killion explored them all, and his history and personal relationship with the land infuse his work with spirit and memory. “People tell me that they see the world through my prints,” said Killion.

He also watched as his “normal, middle-class town changed,” he said, explaining, “The suburban, wildlife interface was disappearing. A lot of people witnessed it, and out of that, the environmental movement was born. This had a big effect on my art.”

Killion has donated his work to countless campaigns to protect land, and is just one professional artist among many in the Bay Area who support land conservation in this way. On the flip side, many Bay Area organizations use art to raise money and connect supporters to the land they protect. For example, the nonprofit Save Mount Diablo auctions off the donated work of authors, photographers, and painters at its Moonlight on the Mountain fundraising dinner. Similarly, artists inspired by the open space and agricultural land in Solano County launched Seeing Solano, a project that helped raise funds for the Solano Land Trust. And every year, the BayWood Artists collective chooses a place to paint, and an organization to benefit from the sales of their paintings; for 2017, the group will contribute proceeds to the Tamalpais Lands Collaborative’s One Tam initiative.

The first land protection organization in the Bay Area to create an annual art show to inspire and raise money was the Marin Agricultural Land Trust (MALT). The nonprofit protects working farms in Marin County, and is always looking for ways to create or strengthen the bond between the land and those who want to help conserve it, said MALT’s Denise Rocco-Zilber. “One of the ways we do that is through art,” she said.

On May 20 and 21, MALT’s Ranches & Rolling Hills landscape art show and sale will celebrate its 20th anniversary. It features a core group of artists who have participated since the beginning, including Arturo Tello, who founded the show with the late California painter Ray Strong. Tello and Strong also founded the Oak Group in 1985, one of the

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country's first groups of artists to apply the plein air approach — carting their canvases and palates outside — in service of protecting endangered landscapes. “I see the role of the painter not as a dreamer, but as a defender of the land,” said Tello, adding, “Just as the farmer provides sustenance for the body, the landscape painter gathers food for the soul.”

Art is one way for an organization to make money, but it’s not necessarily an easy way. Since its start 20 years ago, Ranches & Rolling Hills has made $1 million for land conservation, but that gross sum doesn’t reflect staff or artists’ time. “It’s a heavy lift,” said Rocco-Zilber, who credits the artists with much of the lifting. She said they paint all year at the ranches, help to promote the event, and hang the show. The artists donate 50 percent of their sales to MALT.

The payoff beyond art sales is significant. First, there’s the relationship that develops between the artist, the landowner, and the land. Artists see changes on the property, learn about ranchers’ challenges, and gain an intimate feel for the land.

“That intimacy and respect show in the paintings,” said Rocco-Zilber, explaining. “They’re not just paintings of rolling hills; they embody a unique relationship between the artist, the landowners, and the work we do to protect these lands.”

Outreach to members is another big reason to invest in the show. Nearly a decade ago, a local man, who will remain anonymous at MALT’s request, attended a few shows and bought a painting. But he wasn’t even on MALT’s radar when he died several years later and left his entire estate to the organization. His legacy gift included over $6 million, a home in Mill Valley, and a truck that MALT still uses today as a work vehicle. The gift was the largest that they had ever received.

Perhaps the highest profile art that represents parks in our region is the array of graphic images that portray the Golden Gate National Parks. Today these images are iconic and earn money for the parks, but that wasn’t the goal when they were first created.

About 20 years ago, President and CEO of the Golden Gate National Parks Conservancy Greg Moore and his team sought to brand the National Parks of the Golden Gate into one family. “He wanted pictures that could be used in powerful and strategic ways, while still evoking the natural romance of these beautiful places,” said Michael Schwab, the graphic artist hired to create the images.

The campaign was a success, and the artwork so popular that people took posters from bus stops and streetlight poles. Moore realized that the images had greater potential and hired Robert Lieber, who had managed the museum store at the San Francisco Museum of Modern Art, among others, to explore that potential.

The job of the conservancy is to preserve and interpret the parks, and to generate income to support them. “It’s wonderful when it works both ways,” said Lieber, who has developed, designed, and published 900 different items, many of which utilize Schwab’s 18 images of the parks. “We
Care for Landscapes and Lungs: Addressing Equipment Emissions

By Leslie Stewart

Aaahhh, the refreshing smell of newly-mown grass! Whether it’s from the neighboring park or their own front yards, Bay Area residents are again getting that chlorophyll-laden breeze announcing the season of mowing, planting, and weeding. Unfortunately, all too often the breeze is also loaded with gasoline fumes from lawn and garden equipment.

Along with golf carts and some commercial utility equipment, the California Air Resources Board classifies gas-powered lawnmowers, trimmers, and leaf blowers within the category of “small off-road engines.” Small but dirty, these engines not only produce reactive organic gases and nitrogen oxides (both of which contribute to smog), but also emit particulate matter, which is a major health hazard. Michael Benjamin, chief of the Air Resources Board’s Monitoring and Laboratory Division, has said that by about 2020, small off-road engines will be generating more ozone-contributing pollutants than passenger cars.

The Air Resources Board plans to replace federal regulations on this equipment with more stringent state regulations. The effect of these new requirements will be gradual; the regulations will not take full effect until 2020, and even as cleaner models come on the market, it could be politically challenging to mandate that every owner or user must upgrade. It’s also a fact that cleaner gasoline-powered equipment still produces pollution, just not as much; a more effective way to cut emissions is to move to electric power.

Some agencies have already been tackling the problem by funding rebate or replacement programs to swap out gasoline-powered equipment. Beginning in 1999, the Bay Area Air Quality Management District offered cash incentives to residents to purchase electric or manual replacements for gasoline-powered lawnmowers. Approximately 8,000 lawnmowers with two- and four-stroke engines were replaced under these programs, creating an estimated reduction of 5.3 tons of pollutants in the region. However, according to the Air District’s draft Clean Air Plan, approximately 310,000 of the lawnmowers and leaf blowers in the Bay Area are still powered by the more highly-polluting two-stroke gas engines.

Since late 2014, the Air District has also been administering a program to replace commercial lawn and garden equipment in Alameda and Contra Costa counties, using $935,770 from pollution settlements. Priority has been given to school districts, with some funding going to other local jurisdictions. Joe Steinberger, an environmental planner for the agency, explained, “Our reasoning was that this equipment is heavy-duty and it’s operated much more frequently than residential equipment, so replacing it will have more impact on air quality. And school districts are ‘sensitive receptors’ because of the children, and they need the most protection from air pollution.” The funds have been used to replace internal combustion equipment — ranging from sit-down mowers to leaf blowers — with the equivalent in zero-emission and low-emission equipment. Batteries and chargers are included with new electric equipment.

Some early rebate and swap programs were hampered by the limited power or running time of the electric-powered...
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replacements. Steinberger cited an Air Resources Board pilot program in the San Joaquin Valley and South Coast air districts, noting that “battery technology improved significantly between the Air Resources Board pilot and our program.” He reported that a survey showed Air District program participants were quite satisfied with the new equipment, with any limitations being offset by lower maintenance and less noise pollution.

Contra Costa County Ombudsman Michael Kent, who coordinates the replacement program for the Contra Costa County Public Health Department, also commented, “In survey feedback, we’ve heard that a big plus is the lack of vibration — workers using the gas-powered leaf blowers really get shaken up by that equipment.”

Despite its success, Steinberger cautioned that once the settlement funds are expended, there is no dedicated source of funding to continue the Air District’s program. This budgetary obstacle is also noted in the draft Clean Air Plan, which reports on the potential positive impact of these programs, and suggests expanding them to cover other equipment such as shredders and stump grinders.

According to the agency’s Air Quality Planning Manager Dave Vintze, “Small-engine lawn equipment has a lot of potential for emissions reductions, and it’s also important because this equipment is a local source of emissions right at ground level, at breathing level.” He confirmed that to be most effective, the agency would need to identify a multi-year funding stream. “It would be a concerted, long-term effort taking five to ten years to replace all the equipment,” he said, “but we believe it would prove to be cost-effective.”

Based on results of the commercial lawn and garden equipment exchange program, Steinberger predicted “there will be a continued move in this direction.” But how readily — and quickly — will residents and businesses make the switch? And how important is it to have a little help in the form of rebates or other programs?

Lacking a source of agency funding, reducing regional pollution from gas-powered lawn and garden equipment may come down to local businesses and residents making changes literally in their own backyards. They have some good reasons to do this, including health, noise pollution, and concern for the overall environment — and for those who love to be first with the newest gadget, there are some shiny new toys available, including a robotic mower that runs on lithium-ion batteries.

Robotic mowers aren’t in the budget for the small landscape maintenance firms that do a sizeable part of the mowing, trimming, and leaf-blowing across the region. These are the businesses where lower-emissions equipment could make a significant impact. Without rebates or similar programs, the replacement rate may lag, but owners and operators are beginning to weigh the advantages of switching. In addition to reducing vibration, noise level, and exposure to gasoline fumes — major considerations for workers using the equipment many hours a day — electric equipment may save on operating costs as gas prices rise.

Reducing the use of gasoline in small engines like these isn’t just about decreasing fumes and noise, it’s also about protecting the environment by moving away from fossil fuels. This is a goal for Clean Air Lawn Care, a nationwide company that uses solar and wind power to recharge most of its equipment, while relying on biodiesel as a replacement for standard diesel in large engines. Mill Nash, who has run a Clean Air Lawn Care franchise in Mill Valley for about 10 years, said going electric means that he doesn’t come home smelling of gasoline, and needn’t worry about wasting fuel. “There’s a lot of spillage as people fill up these engines,” he noted about gas-powered equipment.

Sonoma County is home to another Clean Air Lawn Care franchise, and Nash believes that there are opportunities in the Bay Area for more to launch. Despite that sort of optimism, though, residents will have to wait and see if the region moves to the cutting edge of this issue.

Leslie Stewart covers air quality and energy for the Monitor.

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Creosote Cleanup: The San Francisco Bay’s Piling Problem

By Robin Meadows

Pick just about any spot on the edge of the San Francisco Bay and you’ll probably see wood pilings poking out of the water. Driven deep into the Bay floor to support piers and other waterfront structures between the Gold Rush and the 1970s, the pilings are a reminder of our history. Today, birds pose on them picturesquely and, on a sunny day, the contrast of the dark wood against the blue water and sky is beautiful.

But the pilings also have a downside. “Creosote was slathered onto wood pilings to preserve them in the aquatic environment,” said Marilyn Latta, a project manager at the State Coastal Conservancy. Derived from coal tar, creosote contains polycyclic aromatic hydrocarbons and other chemicals that are toxic to marine life. Creosote-treated wood is now banned in new structures in the Bay.

Some creosote pilings are still in use but many were abandoned long ago. “These things are just falling apart — they’re degrading and falling into the Bay,” she added. They’re also still toxic. In a 2000 study, Bodega Marine Laboratory researchers showed that even 40-year-old pilings affected Pacific herring embryos in the laboratory. “The baby fish either don’t hatch or don’t thrive,” Latta explained.

Prized for their roe, herring are the only native fish that are currently harvested commercially in the Bay. These small, silvery fish spend most of the year in the ocean but migrate into the Bay during the winter to spawn, laying their eggs on hard surfaces. “They spawn out sticky eggs that attach to pilings,” Latta said. Natural sites for herring spawning include eelgrass beds; however, there isn’t much eelgrass left in the Bay today.

The conservancy is in the middle of the Bay’s first project to remove old pilings and restore herring habitat, funded by a $2 million grant from the National Fish and Wildlife Foundation. Piling demolition was completed last fall and habitat restoration will start this spring or summer. The final phase will include monitoring eelgrass growth and herring spawning to see how well it works.

The first step was choosing a project site, and the conservancy asked the San Francisco Estuary Institute (SFEI) to help. Jennifer Hunt, a project manager at SFEI, was intrigued: “We were curious to learn more about pilings — I grew up on the coast and remember the smell of creosote on hot days.” SFEI also supported the mission. “Restoring the Bay to a more natural condition is always a positive thing,” Hunt said.

In 2010, SFEI mapped pilings and historical herring spawning grounds. “We wanted to identify as many pilings as we could, so we did it at low tide,” Hunt said. They found that more than 30,000 pilings — roughly half of those in the Bay — are derelict. Hot spots for dilapidated pilings include the San Francisco waterfront and Point Richmond, which are also places where herring spawn or once spawned.

The conservancy chose a 3.5-acre site on Point San Pablo in the City of Richmond, which was a hot spot for derelict pilings as well as a former herring spawning ground, making it a good candidate for eelgrass restoration.

Next the conservancy needed permits and approval from...
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the Richmond City Council. “The Bay is a huge patchwork of public and private landowners on land and under water; the project required 10 or more permits from local, state, and federal agencies,” Latta said.

Craig Murray, a City of Richmond staffer, helped shepherd the project through the approval process. “The people of Richmond benefitted because the submerged lands had been identified as blighted, but there was no source of funds for cleanup,” he said, adding that the project could ultimately increase local shoreline access and extend the San Francisco Bay Trail.

The Richmond City Council approved the pilot project in May 2016. However, to avoid disrupting the seasons for salmon migration and bird nesting, the conservancy had to wait until fall for demolition. Pilings were seated as deep as 30 feet underground, and removal was well-orchestrated. “It seemed to take just minutes to set up and remove a piling — the backhoe plunged underwater to snip off a piling and then swung over to place it in a metal box,” Murray recalled, adding, “It was amazing to see the skill and dexterity of the crew working with all this equipment on the free-floating waters of San Pablo Bay.”

Ducks Unlimited, a nonprofit dedicated to conserving waterfowl habitat, helped handle the demolition, removing roughly 450 creosote pilings as well as concrete, metal, and other debris for an approximate total of 445 tons. The creosote debris was then shipped to the Potrero Hills Landfill, which is in Solano County on the edge of the Suisun Marsh.

Since removing the pilings, the conservancy has had to wait again for the next step: restoration is scheduled for spring or summer to coincide with the eelgrass growing season. Subtidal restoration is a challenge because the water in the Bay is chilly and murky. “People wearing wetsuits will slog through the mud at low tide to plant eelgrass,” Latta said.

The restoration will also include artificial oyster reefs, and the hope is that a “living shoreline” of eelgrass and oysters will ease the impact of sea level rise. The hard surfaces — from pilings to seawalls — that dominate much of the Bay shoreline were intended to stabilize it. However, the new thinking is that they may actually worsen coastal erosion by increasing the scouring action of waves. In contrast, Latta said, “Living shorelines buffer wave energy, increasing climate change adaptation.”

State Seeks Safer Streets

By Cecily O’Connor

Are there areas in your community where you don’t feel safe biking, or can’t bike at all?

An effort is underway to address these roadblocks and make the Bay Area safer for residents who depend on biking for their transportation needs. These residents can shape the effort by sharing their thoughts about a new bicycle plan from Caltrans District 4, the section of the state’s transportation department representing the nine-county region. Additional districts around the state will be moving forward with their own plans as well.

District 4 officials are conducting an online survey, holding focus groups, and preparing for community workshops in May, which happens to overlap with National Bike Month. A technical advisory committee, bicycle advocates, and community-based organizations are also contributing to identify bike network needs.

Accommodating the Bay Area’s mix of urban and suburban communities — while improving bike safety and mobility across the state highway system — is the big challenge District 4 officials face. They oversee more than 700 miles of freeways and expressways and 1,500 miles of “non-freeway” highways, and hope their plan will address barriers to bicycling on and across these thoroughfares.

Dedicated bikeways and traffic-easing measures that lower auto speeds are strategies under consideration by District 4 officials. An emphasis on first- and last-mile connections to transit and better linkages to networks with crossings and intersections could also help local bicyclists.

San Rafael is a “great example” of a city that will benefit

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from the District 4 bike plan, said Bjorn Grieenberg, policy and planning director at the Marin County Bicycle Coalition, a group advocating safe biking for transportation and recreation. San Rafael is cut in half by Highway 101, while the eastern part of the city is divided by Interstate 580. Not only is it difficult to get across the freeways, but it also can be dangerous to navigate surface streets via bike, he said.

The district-level work builds on goals and objectives in Caltrans’ first-ever state bicycle and pedestrian plan, Toward an Active California. Set for finalization in April, the plan outlines proposed changes and improvements to safety, mobility, preservation, and social equity, according to a draft.

“The statewide plan is more of a policy-level plan, filled with strategies and actions that Caltrans and the state can take to improve walking and biking,” said Sergio Ruiz, District 4 bike coordinator, “whereas the district plans get into the physical transportation network and look at specific projects.”

The work by District 4 and others will eventually pave the way toward Caltrans’ vision that by 2040, “people in California of all ages, abilities, and incomes can safely, conveniently, and comfortably walk and bicycle for their transportation needs.”

“That [vision] means we have designed streets where people are the priority,” said Nicole Ferrara, executive director of Walk SF, an advocacy group that promotes walking and lobbies for safe pedestrian access in San Francisco. “Parents with a three-year-old feel comfortable walking across the street, or hopping on a bike with the child. And an 85-year-old feels comfortable walking to the bus,” she explained.

Caltrans’ vision also merges with other pressing concerns, including improving public health and supporting an active lifestyle; creating connections for biking to work, school, or transit; and reducing traffic congestion and greenhouse gas emissions.

The Toward an Active California draft highlights street design approaches that boost bike connectivity and comfort. These include green, buffered bike lanes on Alpine Road across the Interstate 280 ramps in San Mateo County, and green bike boxes that create space between cars and the crosswalk at the Blackfield Drive and Greenwood Cove Drive approaches to State Route 131 in Tiburon.

“The statewide plan illustrates the type of projects [Caltrans] is interested in seeing more,” explained Scott McDonald, senior transportation planner at the Transportation Authority of Marin, which is among the agencies participating in the District 4 bike plan technical advisory committee.

As the District 4 plan and others evolve, officials will feed bicycle and pedestrian data about existing infrastructure and use into a central database. Many of California’s 58 counties and 482 cities have completed active transportation plans, but there isn’t a central data collection point.

Overall, transportation advocates said they’re pleased to see Caltrans lead an effort to improve biking and walking conditions, but they feel there is some room for improvement. Walk SF’s Ferrara said her organization would like to see more specifics in the state plan about using technology to engineer safe streets and prevent fatal injury.

She noted that legislation introduced in February offers one enforcement idea. Assembly Bill 342 (Chiu) calls for an automated camera pilot program in San Francisco and San Jose to identify and ticket drivers traveling 10 miles per hour over the posted limit.

“We spend in San Francisco $35 million a year treating traffic injuries; half of that is paid through public dollars like Medicare and Medicaid,” Ferrara said.

Beyond safety issues, advocates also expressed concern about lack of funding. “To some degree, the state will have to put the money where its mouth is when you adopt a plan like this,” Grieenberg said about Toward an Active California, adding, “The plan acknowledged it won’t be possible without increased investment.”

Toward an Active California assesses the preliminary financial commitment required to tackle critical needs. The plan lays out several investments that are intended to continue on page 8.
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describe “high-level needs and to start a conversation on funding active transportation,” according to the draft.

For example, at least $4 billion in infrastructure investments will be needed to triple bicycle commute mode share. The draft does not contain cost estimates for specific district projects, which could be difficult to pay for at a time when state transportation demands outweigh the supply of funds.

Governor Jerry Brown included in his 2017-18 state budget a proposal to increase annual funding by $100 million for the Active Transportation Program, which supports walking, biking, and Safe Routes to School projects. But that will fall short of local-level demand for investments, totaling more than $1 billion in annual requests, according to a California Bicycle Coalition news release.

In terms of the Bay Area’s bike plan, District 4’s Ruiz said he and his team will begin gauging funding needs and recommendations this spring after evaluation of survey results and workshop input. They will then pinpoint demand for regional projects and weigh implementation. Going forward, there could be opportunities to partner with local agencies that want to fund and sponsor bike projects, he said.

“We want to prioritize projects that can lead to higher rates of biking as well,” Ruiz said.

A draft of the District 4 bike plan is expected this fall. The final plan is due next winter.

Cecily O’Connor covers transportation for the Monitor.