

BAY AREA MONITOR

 A Publication of the League of Women Voters of the Bay Area

June/July 2020 • Volume 45, Number 6

The Road Ahead



Holding Together

Back in April, in the previous edition of the *Monitor*, I gave the alert that this current June/July 2020 edition could be our very last, due to years of declining funding coupled with the economic fallout of the COVID-19 pandemic. Approaching a new budget year starting July 1, League organizers and I have been uncertain whether we can publish Volume 46, which would represent another year of six bimonthly editions commencing in August.

As I write this, the future remains hazy. We have received word from some funders that they intend to keep sponsoring us, but we are still waiting to hear a final decision from other funders.

Absent a complete picture, we have nonetheless decided to forge ahead with Volume 46. Whether we manage to publish all six editions remains uncertain. We'll approach each in turn with the understanding that it could be our final one.

To help make ends meet, I am voluntarily taking a pay cut. The national rate of unemployment stands at its highest since the Great Depression, and I'd rather reduce my income than lose this job altogether. Moreover, I'd like to do what I can to help the *Monitor* continue fulfilling its important role, and thankfully I have a second job to lean on during these difficult times.

We at the League have also discussed the possibility of publishing online only, or decreasing the number of copies we print. We will keep such options in mind moving forward, but they come with thorny problems. To name two: our sponsorships are structured around producing a print product, and we'd lose a significant portion of our readership (libraries in particular) by eliminating said product. And then there is a third that I will get to in a moment.

Our resolve has been bolstered by the many heartening messages of support from our readers — we thank all of you who have written us with your encouragement, compliments, and sympathy. We also thank those readers who have sent monetary donations, including Alice Fredericks, Jody London, Linda Soliven, Holly Austin, Candace Simonen, Douglas Cooper, Rowland Tabor, Abigail Bok, Karen Frost, Leif Wennerberg, Anne Layzer, Elizabeth Rintoul, and Elizabeth Brown.

I'd like to specifically acknowledge the contribution of Elizabeth Brown, who enclosed with her donation check

a brief letter proclaiming hope that we won't stop sending paper copies of the *Monitor*. She noted that her copies get circulated to at least two other nearby households, and that at age 93 she does not view receiving the *Monitor* by email as a viable alternative for her.

This is not the first time Elizabeth has contacted us. Three years ago, she sent us a letter in response to our article "The Art of Supporting Open Space," in which reporter Aleta George quoted painter Arturo Tello as saying "paintings are an embrace that remind you that the world is good, that there is peace, and that it's good to be alive." Elizabeth responded:

4/14/17
 The depth and breadth of the Bay Monitor reporting is something I've always appreciated! But the 3rd paragraph from the end of Aleta Georges' article in the April/May issue prompts this letter.
 As a lover of nature and a long time peace/political activist, in part, I agree with Arturo Tello. Much, but not all, of the world is good, our government's policies have contributed to involvement in perpetual war which too many citizens ignore and I'm grateful that at age 90 my health permits me to contribute to the resistance.
 Feel free to share this.
 Sincerely,
 Mrs. Elizabeth Brown

Following her suggestion, I did attempt to share the letter, which I found inspirational. I tried to post the above scan with my own explanatory note to the *Monitor* Facebook page, and even chipped in a few dollars of my own money to promote the post. Facebook's algorithm blocked it, delivering me an automated message that said my note — which simply provided the necessary context for Elizabeth's letter — contained too many words.

This is how the internet often works, stripping away context

Published by the League of Women Voters of the Bay Area in August, October, December, February, April, and June, the *Bay Area Monitor* appears both in print and online at www.bayareamonitor.org.

Distributed primarily in the nine-county San Francisco Bay Area and Sacramento, the *Monitor's* readership consists mainly of elected and appointed officials, government staff, business and community leaders, nonprofit affiliates, library patrons, engaged residents, and

League members. Subscriptions to the publication are free.

The *Monitor's* primary financial support comes from the Metropolitan Transportation Commission and the Bay Area Air Quality Management District. The publication also receives funding from advertising sponsors and through reader donations.

The *Monitor* is nonpartisan, and operates with editorial autonomy.

in an effort to make content quickly and easily digestible, often as a means to maximizing clicks and other monetizable actions. Disinformation thrives in such an environment, as demonstrated by Facebook's own example of influencing the 2016 presidential election, just one of countless ways that communication can become warped or fractured online. And on top of all that, reading from screens presents numerous distractions and obstacles to comprehension.

By contrast, the *Monitor* strives to provide more thoughtful consideration of the issues we cover — another reason for us to maintain a paper edition. It's simply a better medium for what we're trying to accomplish.

That said, we are continuing to carve out our own rational-minded corner of cyberspace, especially with *Monitor Notes*, our weekly email newsletter. This supplement provides useful news and announcements related to the topics and organizations covered in the *Monitor*, and is something that we expect to be able to keep sending out even if we run out of resources to print the magazine. *Monitor Notes* is produced by transportation reporter Cecily O'Connor, who applies her wealth of skill and experience to filling these email newsletters

with worthwhile information. As always, we encourage you to please sign up at www.bayareamonitor.org/subscribe.

But first, enjoy this last edition of Volume 45. We start with what has lately been a ubiquitous sight — an empty street. Our front cover photo of a nearly carless Interstate 280 approaching San Francisco on March 22 comes from Aclima, which measured significantly lower traffic-related air pollution in the wake of the shelter-in-place order, a phenomenon Leslie Stewart explores in her article below. Cecily follows with further examination of the dip in auto use and how transportation planners are responding, such as with slow streets programs like the one in Emeryville shown in our back cover photo. After that, Aleta keeps her eye on the road with a look at the disruptive hazard it can pose to migrating wildlife. And on the topic of wildlife, Robin Meadows wraps up the edition by explaining how one exiled species could return to the Bay.

We hope to return as well. See you in August?

Alec MacDonald

Editor, *Bay Area Monitor*

(510) 839-1608 • editor@bayareamonitor.org

A Pause in Pollution: Lessons from the Pandemic

By Leslie Stewart

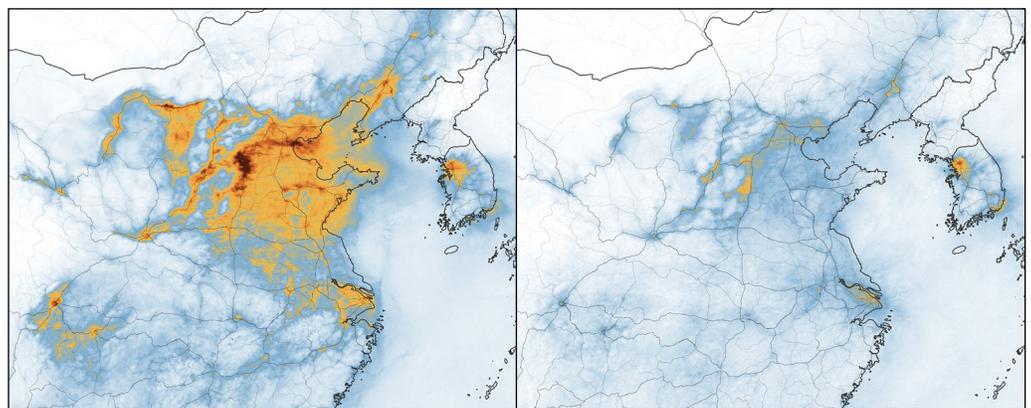
The environmental effects of the massive shutdown in the Bay Area could offer a “teachable moment.” This catchphrase, indicating a positive view of an unexpected and perhaps upsetting event, isn't totally applicable, because there is no designated teacher. However, there are many students, all trying to determine what the lessons may be — so perhaps this is really a “learning moment.”

Lesson One

In many places, from Venice to Delhi to Yosemite, shutting down business and travel made an immediate difference to the environment. Reports and anecdotes popped up worldwide, along with startling and unusual photographs of clear skies in Beijing, clean water in Venice, and emboldened wildlife in Wales. These showed that a world without so much human

activity, particularly industrial and transportation activity, can become almost parklike in a remarkably short period of time.

This is important not just for the global environment, but on a personal level — in India, doctors reported a drop in asthma



These satellite images show concentrations of nitrogen dioxide (a noxious gas emitted by motor vehicles, power plants, and industrial facilities) in China from January 1 to 20 (on the left) and February 10 to 25 (on the right). Evidence suggests the reduction is at least partially due to coronavirus-related quarantine measures and the ensuing economic slowdown.

images courtesy NASA

continued on page 4

A Pause in Pollution: Lessons from the Pandemic (from page 3)

attacks, and recent studies from Harvard and the University of Bologna have demonstrated that long-term exposure to air pollution can create a greater vulnerability to COVID-19.

Lesson Two

Impacts on Bay Area air quality are harder to assess. While similarly striking pictures show improvement in April compared to the same date last year, the Bay Area Air Quality Management District has emphasized that weather plays a role, and April rainstorms helped in 2020.

Although it is too early for solid data on the shutdown impacts, the UC Davis Road Ecology Center estimated a 75 percent drop in traffic statewide from the middle of March to early April, and numbers from the Metropolitan Transportation Commission showed a 50 percent drop in bridge crossings by the end of March. The Air District has estimated that with a 70 percent decrease in traffic, particulates would decrease by 29 percent and very fine particulates by 20 percent. Nitrous oxides would drop by 38 percent and carbon dioxide by 26 percent.

Real-time data gathered by San Francisco-based company Aclima, which does hyperlocal air monitoring at street level, showed “a decided change” in traffic-related pollution, according to Chief Scientist Melissa Lunden. Aclima saw regional decreases for four of five air pollutants compared to the same weeks in 2017, 2018, and 2019. In addition, West Oakland had a significant drop in CO₂ as compared to the region as a whole; this community is normally heavily impacted by transportation due to its location, but the recent levels were close to those experienced in Half Moon Bay.



We'll get you there.

Getting people where they need to go has been the mission of AC Transit for over five decades. With over 150 bus lines serving cities from Richmond to Fremont, chances are, we can get you right where you need to go.

@RideACT    actransit.org 

Lesson Three

In the near future, there will be a “new normal.” Ideally, it will incorporate some changes based on new knowledge. The transition period toward this new normal provides an opportunity to evaluate systems and programs that help maintain patterns of travel and behavior contributing to cleaner air. At the April meeting of the Air District’s Climate Change Committee, Deputy Air Pollution Control Officer Greg Nudd asked, “Are some of these behaviors permanent, or can we make them partially permanent?”

Lunden characterized the shutdown as “an experiment we kind of backed into,” and told the *Monitor* that “it has provided a signal from the data. We’re no longer just modeling. If we can electrify some of the fleet — cars, vans, trucks — we can now see what our pollution levels would be.”

For consumers, choosing electric vehicles and cleaner air will be weighed against less expensive gas-fueled vehicles, cheaper gas, and a surplus of used vehicles due to lease and loan problems. There is also the possibility that some people simply decide to drive less.

In the Bay Area, one indicator that drivers may still be open to moving to electric vehicles is the consistent response to the Air District’s Clean Cars for All incentive program. Rebecca Fisher, the agency’s acting manager for electric vehicle outreach and partnerships, reported that applications for March and April 2020 were keeping pace with the previous rate of more than 100 applications per month. Fisher commented, “Grants for income-qualified residents are even more important now as households grapple with the economic downturn and look for a stable and reliable way to get to work”

Applicants with eligible vehicles who meet income limits can receive up to \$9,500 from Clean Cars for All toward the purchase of a new or used electric vehicle, and up to \$2,000 for home charging equipment. (New non-driving options for Clean Cars for All grants include public transit cards and electric bicycles.) The program is one of a number of electric vehicle incentive programs funded by state and regional agencies and local electric utility districts, some of which can be combined. Fisher observed, “We have seen some people getting into a used electric vehicle with no money down.”

“Getting people into [electric vehicles] is absolutely critical for meeting our climate goals,” Nudd told the Air District committee. He added, “It’s what I call necessary but not sufficient — we also have to do trip reduction. A lot of the particulate emissions from vehicles are from brake and tire wear, and road dust.”

Trip reduction depends heavily on people either not traveling or using transit for their trips. Nudd suggested, “One of the

things we think is particularly attractive is telework, and the Bay Area is particularly well-suited to telework.” The Air District is asking local companies to include telework options as part of the Bay Area Commuter Benefits Program. Santa Clara County is analyzing expanding telework for county employees. It will be working with the Air District, employers, and transit agencies to increase telecommuting in the county and to encourage workers who must commute to utilize transit. The Air District is also expanding remote work options for its own employees, and will begin developing a model remote work policy for public agencies.

Some large employers already plan to delay workers’ return to offices. Depressed employment levels may also reduce commute trips. But if people do travel, will they go back to transit?

An evaluation of transit recoveries from disasters by the Mineta Transportation Institute concluded that how quickly riders return to transit “depends on how much they need it.” For example, “transit riders are frequently low-income women of color who are still traveling to work to provide essential services,” according to a UCLA webinar on women and transit. Ben Fried from TransitCenter, an advocacy group, told CNN that “riders need to feel safe,” specifying adequate cleaning and riders wearing masks.

Transit agencies expect a struggle to serve riders if the pandemic recovery drags out or falters. A loss in revenue could mean equally large cuts to service, limiting the mobility of some riders and pushing others into cars. In the Bay Area, with traffic chokepoints and some transit-dependent communities like San Francisco, this could mean gridlock, according to a recent Vanderbilt University study, which predicts that low

transit ridership could add up to 40 minutes to a commute. This would push pollution levels back up.

Lesson Four

Money may decide how much things change. Transit bailouts and clean car incentives are two components of a cleaner recovery that will need financial support, but budgets at all levels promise to be tight. Part of the increase in delivery services has been using personal vehicles, so clean cars can help, but Clean Cars for All is funded by cap-and-trade revenues, which may be affected by the economic downturn.

Boris Quennehen, an atmospheric scientist, explained in *Forbes* that because trucks aren’t as clean as cars, “a decrease in car traffic as a result of stay-at-home measures can easily be offset by a slight increase in deliveries and truck traffic.” A switch to electric trucks is on the California Air Resources Board agenda; truckers say that now is not the time to impose new requirements, and the state may not be able to afford the incentives either.

Climate scientist Katherine Hayhoe told PBS in mid-April, “We have not achieved those [environmental changes] today through sustainable methods. People have to return to work, children need to return to school, the economy needs to start back up. But if we had that economy powered by clean energy, that is what our skies, our water, and our land would look like.” Bay Area residents have seen it, perhaps briefly, but will they make the effort to sustain it? And who will pay for it? 

Leslie Stewart covers air quality and energy for the Monitor.



BART is working hard to reimagine transit service as the region begins to reopen and riders return.

To welcome riders back and regain confidence in public transit, BART has a 15-step plan to provide reassurance that service is as safe as possible and social distancing is followed.

Visit bart.gov for details.



Curb Your Enthusiasm: Lockdown Shows Why Less Parking Is More

By Cecily O'Connor

In early May, Doug Gordon, co-host of *The War on Cars* podcast, tweeted two street curb pictures and asked his followers, “Who wore it better?” One frame showed a parked BMW. In the other, the car was replaced by an outdoor rug encircled with blue and green chairs, all offset by the protection of an orange pylon border.

The post generated about 500 likes and nearly a dozen comments, one of which showed a transformation in Brussels, Belgium where a family used the single parking space in front of its home to create a community garden.

With the United States and many other countries in the tight grasp of the COVID-19 pandemic, these images are a reminder of how we’re conceiving “new normal” thoughts to improve transportation and quality of life.

In the Bay Area, residents began driving much less and started going for walks, runs, and bike rides to benefit their physical and mental health, as well as to satisfy essential-trip needs. With vacant lots lining many exercise routes, people could see a stark illustration of how much space is allocated to cars. Public health orders to shelter in place also contributed to clear skies and clean air, a taste of what state net-zero emissions goals aim to accomplish.

Bay Area nonprofit planning organization SPUR thinks this rare glimpse is a chance to unpack all the ways parking affects neighborhoods and consider whether cities might be better off with less, according to its April 27 report *Sheltering in Place Reveals How Much Parking Dominates Our Cities*.

“The visual in my head are the lots surrounding Diridon Station,” said Michelle Huttenhoff, report co-author and SPUR’s placemaking and public life policy director. “You can start to imagine the full potential of spaces if they were designed, not for a vehicle, but maximized for residential or open space.”

People often don’t realize the extent to which parking affects their community and local economy — from travel patterns and rental housing costs to the amount of open public space. In one attempt to grapple with these dynamics, the Metropolitan Transportation Commission spearheaded a Value Pricing Pilot project in 2015, supporting development of local and regional parking policies. It was all aimed at smart growth via affordable housing and reduced greenhouse gas emissions. Part of the effort even included creation of a regional database to manage the ebb and flow of local parking



Doug Gordon asked Twitter users which of these two images they preferred.

photos by Doug Gordon

conditions. But it has not been maintained.

More recently, an increasing number of U.S. cities have been reducing or eliminating minimum parking requirements for new developments, as the Minnesota-based nonprofit Strong Towns has illustrated with an online interactive map.

Now, the call to reconsider parking supply and demand is finding new meaning during this challenging time, with a range of adaptations across the Bay Area.

For example, COVID-19 testing sites are housed on lots throughout the Bay Area, from pavement at Cal State East Bay’s campus in Hayward to Stonestown Galleria in San Francisco. In the North Bay, the Corte Madera Town Center shopping mall moved the weekly farmer’s market to the parking lot from the previous storefront locations in order to provide space for safe purchasing. San Francisco’s AirGarage hosted pop-up drive-in movie nights on the parking lot of Berkeley’s Graduate Hotel.

Restaurants, grocery stores, and pharmacies are offering curbside service, appealing to more customers seeking minimal contact to pick up food and other essentials.

While services like Uber Eats already were putting greater demand on the curb before the coronavirus outbreak, current conditions have the potential to permanently change consumers’ shopping habits.

“Depending on how recovery looks, curbside pick-up and drop-off could be a long-term service,” said Terri O’Connor, formerly of the San Francisco-based transportation planning firm Nelson\Nygaard.

Meanwhile, “slow streets” in certain Oakland, San Francisco, and Emeryville neighborhoods were made car-free in response to the pandemic, helping prevent residents from feeling constrained by narrow sidewalks and giving them room to exercise.

Similar spatial thinking is behind a Golden Gate Restaurant Association initiative, according to a May 2 position statement. It is asking city agencies to help make it

possible for restaurants and cafes to safely seat diners in open spaces around their establishments, including nearby parking spaces, street space, alleyways, and commercial corridors.

“Restaurants bring people together and act as anchors to commercial corridors,” the statement read. “We hope the City can expand its thinking on existing zoning and use of space to allow restaurants flexibility as they rethink how to operate after San Francisco’s local health emergency.”

Transportation advocates like SPUR have long argued the emphasis on driving and allocating space for parking has negative impacts. Not only is parking expensive to build, but it also can limit space for community connection and exacerbate car dependence, according to the report.

SPUR has been organizing virtual workshops to inform parking policy changes in conjunction with the City of San Jose. Through the American Cities Climate Challenge, San Jose is working with the Urban Land Institute and Nelson\Nygaard to update its parking requirements. It’s looking at on-street parking pricing and a transportation demand management plan.

Officials there also are considering getting rid of minimum parking requirements for new development. These minimums are local laws that require private business and residential development projects to provide a certain number of off-street spaces.

The proposed changes could go before the city council next summer. If approved, the elimination would boost the sprawling jurisdiction’s walkability and housing affordability.

“This is a bold move for San Jose,” said Michael Brilliot, San Jose’s deputy director of citywide planning. “San Jose is a city built around the automobile and many are still dependent on their car to get around.”

However, there is a growing understanding within San Jose that excess parking encourages more driving, which leads to more traffic, Brilliot added. The ripple effect impacts quality of life, as well as increases greenhouse gas emissions that contribute to climate change.

To the north, San Francisco eliminated minimum parking requirements in 2018. It’s an approach that limits construction of under-utilized parking spaces that are expensive to build – starting at \$30,000 for a surface parking lot space, according to SPUR — and increases the number of homes built onsite instead.

In the City of Walnut Creek, planners were days away

from presenting a draft plan for transportation demand management to the city council when the shelter-in-place order came down in March. Entitled “Rethinking Mobility,” elements of the draft plan include curb management, parking by zone and demand, and parking minimums, all of which are now being considered in the COVID-19 context.

“Those are the things we need to act on sooner rather than later,” said transportation planner Ozzy Arce.

Arce said he and his colleagues are having preliminary conversations with Walnut Creek’s business community, not only to plan for increased curbside models, but also to think creatively about how residents can safely experience destinations like Broadway Plaza beyond a transactional pick-up or drop-off site as the state reopens.

“We have to consider that the use of public space needs to be flexible, now and over time,” Arce said.

Underscoring any city’s planning efforts is the fact that personal transportation choices come with environmental costs, SPUR’s Huttenhoff said. Impervious surfaces of parking lots can inhibit rainwater filtration, while dark pavement can produce a “heat island” effect that raises air temperatures in urban areas and contributes to health problems.

There also are quality-of-life consequences. The biggest one now is whether transportation choices made during shelter-in-place will stick. Or are we just in a sweet spot, with an inevitable return to the safety and convenience of personal vehicles once restrictions lift and office commutes resume?

“Social distancing is going to become significant for riders in their equation about

transit and when they take it,” said Frannie Edwards, deputy director of the National Transportation Safety and Security Center at the Mineta Transportation Institute.

Still, advocates cling to some of the more positive side effects of COVID-19 restrictions like blue sky, quiet streets, and clean air with the hope these outcomes become a permanent part of the post-pandemic picture.

“We shouldn’t assume we want to lose those things and go back to the way it was without talking about it,” said Dave Campbell, advocacy director at Bike East Bay, which worked with the City of Oakland to pioneer the slow streets program. 

Cecily O’Connor covers transportation for the Monitor.



The impact of the shelter-in-place order was clear in this Corte Madera parking lot.
photo by Cecily O’Connor

A Safe Passage for Wildlife

By Aleta George

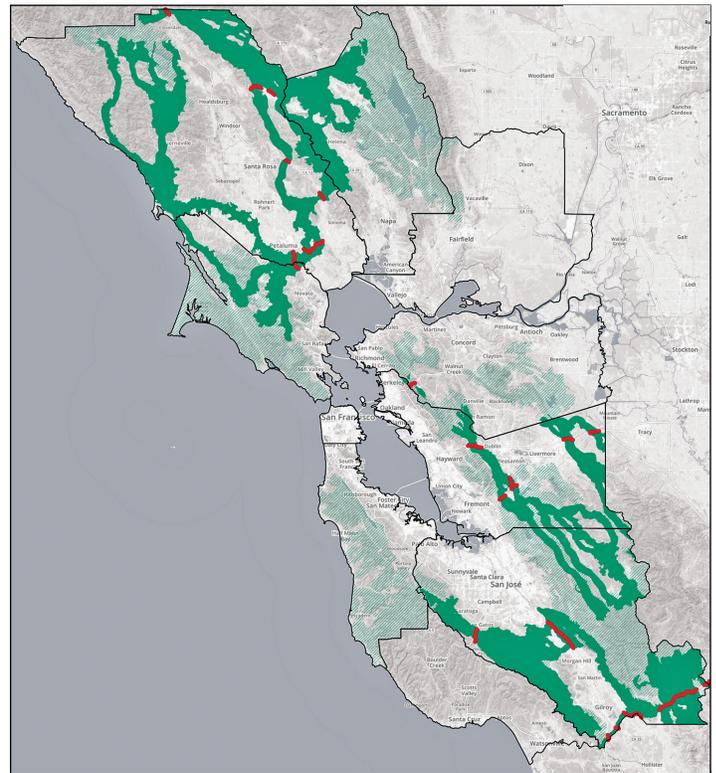
Animals are on the move. Whether we are aware of their movements or not, wildlife migrates by day and by night to hunt, mate, forage, and flee danger. We have a wealth of open space here in the Bay Area, and that helps to provide animals room to roam. But those open spaces are often bisected by our built environments, the deadliest of which is roads. One way to protect the movement — and the very lives — of animals is by protecting and providing safe wildlife corridors.

One of the first steps in planning wildlife corridors is to better understand the migration patterns of animals, and that is not always an easy task. Maps can help us understand, but first the data has to be collected from a collared animal, citizen scientist platform, genetic analysis, or even roadkill. “All these things can be mapped,” said Dan Rademacher, director of GreenInfo Network, a nonprofit that supports public interest groups through information technology and mapmaking. “Maps help us to understand complicated spatial patterns because they distill complexity into a visual picture that can be taken in at a glance. They can also help us see what is special about an animal through a mapped abstraction of their movement over time.”

Consider the mountain lions in the Santa Cruz Mountains, a range and a bioregion that runs from the San Francisco Peninsula to the Central Coast. Biologists estimate that there are from 30 to 60 mountain lions that live and roam in this span. The males cover territories up to about 50 miles, while females tend to keep to smaller areas. According to Julie Andersen, a resource specialist with the Midpeninsula Regional Open Space District, every road that runs east to west over the Santa Cruz mountains creates a deadly obstacle for mountain lions and other animals. About one mountain lion a year is killed on California State Route 17, a four-lane highway that runs from San Jose to Santa Cruz. With its heavy commuter traffic, steep terrain, blind curves, and animals on the move, it is one of the most dangerous highways in the state. It is also a formidable roadblock to animals that would otherwise move across protected lands on both sides of the highway.

An extremely helpful way to see the tracks of a mountain lion's home range is with the Puma Tracker, an interactive map by the Santa Cruz Puma Project. You can click on a mountain lion that was been collared and watch its movement over time. By using this tool you can see how some lions approach SR-17 repeatedly, but turn around as if they have reached a wall. You can also see that several have gotten across. “They are the lucky ones,” said Andersen. “Most of them don't make it.”

Help is on the way for these lions trying to cross the road. The first wildlife corridor ever to be built on SR-17 will break ground in 2021. The Land Trust of Santa Cruz County, the



The Bay Area Critical Linkages map from the Conservation Lands Network shows critical habitat linkages (in solid green) and highway barriers to wildlife movement (in red).
image courtesy BayAreaLands.org

county Regional Transportation Commission, and Caltrans are building a tunnel below the highway at Laurel Curve three miles south of Summit Road. The \$12 million project is slated to be finished by 2022, according to the *Santa Cruz Sentinel*.

Another crossing being planned is south of Los Gatos near the northern tip of the Lexington Reservoir. The Midpeninsula Regional Open Space District's Highway 17 Wildlife and Trail Crossing is entering the environmental review process. When this \$31 to \$40 million project is complete it will include separate crossings for wildlife and people. The wildlife corridor — which will also be used by bobcats, deer, coyotes, and racoons — will tunnel below the roadway, while the pedestrian bridge will cross over in a different location. Both will connect the protected open spaces on either side. Two options for each crossing are being considered during the environmental review process, and when that has been completed in 2022 or early 2023, preferred options will be selected.

Biologists fear that without providing mountain lions with their traditional roaming range, the lions will lose their genetic diversity, and that could lead to the population's collapse. “That's what the lions in Southern California are facing,” said Andersen.

“There’s inbreeding and fighting between males because they have nowhere to disperse that isn’t occupied.” The lions’ plight is serious enough that the California Fish and Game Commission is currently considering a petition to protect mountain lions in some regions under the California Endangered Species Act, including those in the Santa Cruz Mountains.

“None of these crossings alone will solve the problem, but when you start to have more connections in more places, you have widespread connectivity,” said Andersen. “That’s what provides a long-term, sustainable future for the wildlife, while allowing us to have a wide-ranging highway system that connects us without impacting wildlife.”

Corridors that allow the movements of animals come in different shapes and sizes: The East Bay Regional Park District has protected breeding California newts for over 20 years by closing South Park Drive in Tilden Park during the rainy season; the River Otter Ecology Project has worked with the National Park Service to close trail sections at Abbott’s Lagoon in Point Reyes National Seashore to allow otters access to their hunting grounds; and Sonoma Land Trust launched the Sonoma Valley Wildlife Corridor Project through which they protect land and implement other strategies such as monitoring, meeting with private landowners, and capturing movement with remote cameras.

A wildlife corridor of another kind is taking shape in the 17,000-acre Yolo Bypass Wildlife Area. Situated just east of Davis along I-80, this recreational destination lies within the Yolo Bypass, a 59,000-acre floodway that protects the state capitol and other communities when the Sacramento River reaches capacity. The wildlife area is a working landscape with rice and grazing leases, and is home to 200 species of birds and an array of other animals.

The bypass doesn’t have a lot of cover or shelter for the animals, and when the water starts to rise, they need to move. To provide safe passage for them to escape the slow-moving floods, the Yolo County Resource Conservation District is working on a pair of corridors, according to YCRCDC Director Heather Nichols. Shielded with new vegetation, the corridors will serve coyotes, mule deer, foxes, and racoons, and improve habitat for migratory songbirds such as golden-crowned sparrows.

Two separate corridors will provide about five miles of cover.

Staff and community members have already planted native grasses, gum plant, coyote brush, American dogwood, and narrow-leaf milkweed along the corridors. One corridor will be on the ground, and the other will follow the historic Lisbon Trestle, which was once part of a rail system connecting Oakland and Sacramento. The trestle corridor can be likened to New York’s Highline Park, but for wildlife.

Our understanding of wildlife movement has grown with technology and data tracking, and we can use that knowledge to keep wildlife on the move. The more corridors we can protect the better it will be for biodiversity and genetic diversity. And yet, no matter how much we learn about animals and their movements, they will

retain a sense of mystery. “There’s still the unknown right under our noses, with animals moving through our cities and parks and wild spaces in ways that we can never completely understand,” said Rademacher. “There will never be a complete map of every animal movement all the time, and that’s a good thing.”

The goal of corridors is to protect animal populations, but there is also something in it for us. Just thinking about animals moving across the landscape sparks our imagination and adds to the awe of life. 

Aleta George covers open space for the Monitor.



This effort to plant vegetation in the Yolo Bypass Wilderness Area will help establish new wildlife corridors.

photo courtesy Yolo County Resource Conversation District

THE BEST WAY TO CROSS THE BAY.

sanfranciscobayferry.com

 **San Francisco Bay Ferry**
A SERVICE OF WETA

Sea Otters Used to Live in the Bay — Should We Bring Them Back?

By Robin Meadows

When most people think of sea otters, they picture these charismatic creatures wrapped in kelp as they float on their backs in the ocean. But this iconic image is only part of the story. Sea otters also once abounded in the San Francisco Bay and other coastal estuaries. Now, a team of sea otter experts is raising the idea of bringing sea otters back to our bay.

“We’re moving the conservation needle forward,” said Brent Hughes, a Sonoma State University ecologist and lead author on a 2019 *PeerJ* paper that makes the case for reintroducing California sea otters to estuaries. These sheltered habitats form where freshwater from rivers mixes with salty water from the sea, and are bursting with life.

Prized for their luxuriant pelts, sea otters were hunted to the brink of extinction in California in the 1800s. A handful survived near Bixby Creek in Monterey County and today their descendants live as far north as Pigeon Point near Pescadero and as far south as Point Conception near Santa Barbara. After years of growth, however, the population of this endangered species is now stuck at about 3,000. Biologists believe sea otters have reached their limit along the Central Coast.

“For sea otters to have a future, they need to be able to expand their range,” said Lilian Carswell, the lead on sea otter recovery in California for the US Fish and Wildlife Service.

They’re not likely to do that on their own. The otters’ current range is bounded by waters frequented by great white sharks. These predators don’t eat sea otters but they do bite — and kill — them. And constantly being picked off at both ends of their range keeps the otters from spreading further. “They’re really trapped in Central California,” Carswell said.

The idea of sea otters in estuaries is not new. Rather, it’s been recently rediscovered. “The information is old,” Hughes explained. “Some has been forgotten and some was not well known.” Sea otters flourished in the San Francisco Bay two centuries ago, according to Adele Ogden’s 1941 book *The California Sea Otter Trade*. An abundance of sea otters swam in the waters here and hauled up on the shores, Ogden wrote, often congregating near

the mouths of the many creeks that flowed into the bay.

Just as estuaries can be good places for sea otters to live, in turn the otters can boost the health of estuaries. Hughes documented this first-hand while studying the ecology of Elkhorn Slough, a small estuary on Monterey Bay. A few sea otters had settled the slough decades ago, and Hughes’ study

overlapped with a Monterey Bay Aquarium initiative to bolster this small population.

The aquarium rescues orphaned sea otters, first fostering the pups with adults that serve as surrogate mothers and then returning the youngsters to the wild. Between 2002 and 2016, the aquarium released 37 rescued otters in Elkhorn Slough. The population shot up from about 40 to more than 150, with the rescued otters and their pups accounting for much of the increase. Today the slough’s population is self-sustaining. And Hughes discovered that as sea otters rebounded in Elkhorn



Researchers are weighing the idea of reintroducing sea otters into the San Francisco Bay estuary.

photo by Marshal Hedin

Slough, the ecosystem there rebounded too.

Sea otters are already famous for benefitting the kelp forests that teem with life in the ocean. It goes like this. Sea otters are voracious, consuming about one quarter of their body weight daily. And they love sea urchins, which eat kelp. By chowing down on these invertebrates, sea otters keep them from denuding kelp forests.

Similarly, the otters play much the same role in estuaries, except here they benefit the seagrass beds where baby fish hide and older ones forage. Once again it comes down to the otters’ tremendous appetites, this time for crabs. “They love crabs — one sea otter can eat 8,000 a year,” Hughes said. Crabs don’t eat seagrass, but they do eat the smaller invertebrates that graze algae on seagrass. Those invertebrates are “like little lawnmowers,” Hughes explained. “They keep algae from overgrowing and killing seagrass.” By keeping crabs in check, sea otters allowed algae grazers — and so the sea grass beds in Elkhorn Slough — to bounce back.

“It’s a game-changer for how we look at sea otters,” Hughes said. “Managers used to have very limited options for expanding the population and now they have many — there are lots of estuaries along the California coast.”

Michelle Staedler, who manages the Monterey Bay Aquarium's sea otter program, is enthusiastic about exploring these options. "The aquarium has already been thinking about this," she said, adding that likely possibilities include Drake's Estero, an estuary in Point Reyes National Seashore, and the San Francisco Bay, which is California's biggest estuary by far.

The San Francisco Bay has such a wealth of invertebrates, from crabs to clams and mussels, that Hughes and his team estimate it could support about 6,600 sea otters — more than double the central coast population. The team also estimates that it would take about 20 sea otters to jumpstart a population in the bay. Staedler thinks that's doable. While the Monterey Bay Aquarium only has the capacity to rescue and raise a few orphaned sea otter pups each year, she says other institutions are interested in joining the effort.

If sea otters did return to the bay, they would share it with the river otters that have recently returned on their own. Telling the two kinds of otters apart is pretty simple. Sea otters are about twice the weight of their riverine cousins, making them much bigger and bulkier. In addition, sea otters float on their backs and river otters don't, and sea otters are clumsy on land while river otters are agile.

But not every estuary is right for sea otters. Hughes rattles off a list of potential threats to otters in the San Francisco Bay, including oil spills, being hit by ships and ferries, and eating shellfish contaminated with pollutants like heavy metals and methylmercury.

Likewise, while sea otters did wonders for Elkhorn Slough,

they may not be right for every estuary. "They're super cool and anything that can make an ecosystem more like what it was before development is neat," said Dave Haling, who manages the South Bay Salt Pond Restoration effort to reestablish more than 15,000 acres of tidal wetlands. But he also cautions that the San Francisco Bay has changed a lot since sea otters lived in there. "They're essentially an introduced species — who knows what the impact would be?"

Mike Conroy, who directs the Pacific Coast Federation of Fishermen's Associations, isn't concerned that sea otters would affect his members. There are essentially no commercial fisheries left in the San Francisco Bay. But, like Haling, he wonders about their impact. "They've been absent for a long time," Conroy said. "Would they throw off the balance in the bay?"

This is the kind of conversation that Hughes and his team hope to spark within communities near coastal estuaries. Ultimately, whether or not to welcome sea otters back to the San Francisco Bay is something we will have to decide for ourselves. "Without discussion, nothing can happen," Hughes said. "We have all of this new information. What are we going to do with it?" 

Robin Meadows has spotted sea otters bobbing in waves along the Central Coast and floating in the calm waters of Elkhorn Slough. She first wrote about them in the 1980s, when the US Fish and Wildlife Service proposed establishing a sea otter population in the Channel Islands. Her interest in them is a family affair: her mother, Katherine Ralls, is a retired Smithsonian conservation biologist who studied sea otters and other endangered species.



East Bay 
Regional Park District
Healthy Parks Healthy People

Keeping Parks Open During COVID-19

Working with the County Health Officers, the Park District has kept parks open for physical and mental wellbeing. We thank the public for their cooperation and understanding during these stressful times as we balance the public's need for parks, public health, and the health and safety of our employees.

Bay Area Monitor
League of Women Voters of the Bay Area
PO Box 22516
Oakland, CA 94609
(510) 839-1608
bayareamonitor.org
facebook.com/bayareamonitor

NONPROFIT
ORGANIZATION
U.S. POSTAGE
PAID
OAKLAND, CA
PERMIT NO. 2508

