

# BAY AREA MONITOR

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

February/March 2018

Volume 43, Number 4

## Drain Adoption

Vision Zero  
Conservation Easements  
Green-Energy Storage

Plus: Bay Area League Day Special Insert



## Keeping You in the Know

The shelves and cabinets in the League of Women Voters of the Bay Area's office are full of historic documents. One slim volume, published by the League in 1974 and entitled *Know Your Bay Area*, lists various population and employment statistics before delving into descriptions of various government agencies and their singular roles in serving residents. The booklet concludes by proposing that the Bay Area's needs might be more effectively met by a "multi-purpose regional government," and then urges the reader: "Now is the time to think of yourself as a regional citizen. You should take part in planning for the future of YOUR BAY AREA."

This is the implicit message of LWVBA's annual Bay Area League Day forum, which every year compels attendees to consider topics that relate to regional policies — especially this year, when we address regional government itself. You've probably missed the 2018 League Day (unless you received this copy of the *Monitor* at the February 3 event), but fear not. In this edition we have included a special insert to catch you up to speed. And we've even graced the back cover with the humble *Know Your Bay Area*, arranged with two other documents off our shelves and out of yesteryear: a 1970 plan from the Association of Bay Area Governments and a 1975 report from the Metropolitan Transportation Commission. These two agencies are prominently featured in the insert as well.

As for our front cover, it illustrates how residents can take an active role in their communities — a good reminder that participating in the crafting of public policy is not the only way to help improve the quality of our lives.

The photo shows Peter Crigger on his rounds as a volunteer

### Thank You for Your Support

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in Oakland's "Adopt a Drain" program. To understand the impact of this work, see the photo on the next page, taken just moments before the one on the cover, and note the large puddle of water in which he stands. Just a few jabs of his metal pole cleared the storm drain, preventing that puddle from growing into a nuisance or safety hazard.

Robin Meadows' accompanying article describes the program and how it models important values for us all. Further into this edition, Cecily O'Connor examines how a movement to eliminate fatalities and injuries on city streets has been gaining momentum across the Bay Area. Then Aleta George explains how conservation easements function as a key tool for protecting open space, and finally Leslie Stewart previews the possible greener future of our electrical grid.

As usual, we think this edition offers a great way to know your Bay Area — with emphasis on the YOUR. Now get out there and help improve it!

Madeline Kronenberg, LWVBA President

Alec MacDonald, Editor

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

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# The Environmental and Personal Benefits of Adopting Storm Drains

By Robin Meadows

Oakland resident Peter Crigger knows that the street where he has lived for decades is prone to flooding during a big rain. "Water comes down the hillside so hard that it clogs the storm drains with dirt, rocks, and branches — then all this water comes shooting down the street and, since the drains are full, it floods," he said.

Instead of just complaining, Crigger decided to do something about it: a couple of years ago, he formally adopted six storm drains in his neighborhood through Oakland's "Adopt a Drain" program. The city provides guidelines and gear for basic drain maintenance, and sends storm alerts via email. Crigger checks his adoptees every time he drives by, shoveling and sandbagging as needed. "Even with heavy rains I gear up, go to the drains and unclog them, and replace or repair the sand bags," said Crigger, a retired UC San Francisco administrator whose responsibilities included emergency operations.

Keeping storm drains clear has other benefits as well. Flooding during storms can overwhelm sewer systems, making sewage leak into streets and houses. And most Bay Area storm drains feed directly into waterways, dumping trash into streams, the San Francisco Bay, and the ocean. The exception is San Francisco, where the storm drain and sewer systems are combined and all the water is treated.

In addition to the six close to his home, Crigger has adopted two storm drains near Oakland's Short Line Pocket Park and checks them monthly. He had already adopted the park as a member of the Hillside Gardeners of Montclair and, along with his wife Joey Hansell, is a member of the League of Women Voters of Oakland.

While Crigger is something of a super volunteer, he's in good company when it comes to adopting storm drains. By late 2017, more than 900 volunteers had adopted 1,200 storm drains in Oakland. Established in 2003 as part of the city's Adopt a Spot program — which also includes parks, creeks, and shorelines — the Adopt a Drain program got a boost in 2013 from OpenOakland, a nonprofit that connects computer programmers with city staff. OpenOakland volunteers launched a website with a map of storm drains that have been adopted and that are available for adoption.

"It made it easy for people to see and adopt drains — the program went from a handful to hundreds of volunteers," said Mike Perlmutter, environmental stewardship team supervisor in the Oakland public works department. With more than 10,000 storm drains and only 17 employees to maintain them (along with the hundreds of miles of underground pipes they feed into), the department appreciates the help. "It's a big benefit to the city, especially during a big storm," Perlmutter



**Adopt a Drain volunteer Peter Crigger unclogs a storm drain in his Oakland neighborhood.**

photo by Alec MacDonald

said, adding, "Being able to mobilize hundreds of people can prevent a lot of flooding."

The success of Oakland's program served as a model for San Francisco's Adopt a Drain program, which was established in 2016. San Francisco has 25,000 storm drains and more than 2,000 have been adopted. Other Bay Area cities with formal drain adoption programs include Berkeley, Fairfield, Pittsburg, San Leandro, Santa Clara, and South San Francisco.

Perlmutter hopes to spread the word more widely. "Our dream is to build it out throughout the Bay," he said. Recent water quality regulations could help provide the extra push needed. "The Water Board is requiring all cities on the Bay to reduce trash in waterways to essentially zero," he explained, referring to a 2009 San Francisco Bay Regional Water Quality Control Board regulation that gives cities until 2022 to comply. (For more on this regulation, see "Keeping Waterways Trash-Free" in the April/May 2016 edition of the Monitor.)

The key is finding a way to quantify how much trash Adopt a Drain volunteers remove. "That will make the program more appealing to cities because they can get credit with the Water Board for the trash reduction," Perlmutter said. He envisions an Adopt a Drain app for volunteers to report how much trash they remove. The cumulative impact of all those individual contributions can be huge. Oakland has reduced

continued on page 4

## Adopting Storm Drains (from page 3)

trash in waterways by 70 percent, and volunteers accounted for 10 percent of that reduction. "Volunteers at events like Earth Day and Coastal Cleanup Day divert thousands and thousands of gallons of trash," Perlmutter said.

The best approach is keeping trash from going down storm drains in the first place. Trash is "so much easier to stop at the drain than to pull out a creek," said Kimra McAfee, executive director of Friends of Sausal Creek, which organizes quarterly cleanups. Bay Area-wide, more than 130 creeks drain into the Sacramento-San Joaquin River Delta, San Francisco Bay, or ocean.

Fed by springs in the Oakland hills, Sausal Creek flows year-round to the tidal canal between Oakland and Alameda, and from there to the Bay. And even though the creek system is only five or six miles long, it has nearly 300 storm drain outlets. And, noted McAfee, "one outlet can have many, many inlets." For Sausal Creek, those storm drain inlets include the six that Peter Crigger maintains in his neighborhood via the Adopt a Drain program.

McAfee is a big fan of the program. "It's something you can do if you're not a joiner — you can do it on your own, in your own neighborhood," she said. The opportunity to volunteer as an individual rather than during a group cleanup removes

one potential barrier to environmentally-friendly behavior. But there are many other barriers.

Notably, even people who want to help can be intimidated by the unfamiliar. That means it may not be enough for cities to simply explain environmental volunteer programs on their websites. "That's a tough way to learn — most people learn socially, so you can't conflate information with education," said Nicole Ardoin, a Stanford University researcher who studies environmental education and behavior. She recommends holding community engagement days where people show others how to, for example, clean storm drains.

She's also found that people who adopt environmentally-friendly behaviors do more than help the world. They also help themselves. "They feel more connected to their communities and the broader natural world around them," Ardoin said.

Since Crigger adopted the storm drains in his neighborhood, none of the 13 houses nearby have flooded. "I have great neighbors and am happy to help them," he said. He also finds joy in it: "I get to play in the water like a big puddle — it's fun to jump in." 

*Robin Meadows covers water for the Monitor.*



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For more information on the YES Conference, visit: [sparetheyairyouth.org](http://sparetheyairyouth.org)

## In Sight: Vision Zero Aims to Prevent Traffic Deaths

By Cecily O'Connor

Do you live near an intersection where cars often run red lights, or where signals don't give pedestrians enough time to cross?

These conditions are red flags to safety advocates who have been determinedly spreading the word about Vision Zero. A strategy pioneered in Sweden during the 1990s, Vision Zero is a commitment to make local streets, sidewalks, and bike lanes safer by eliminating car-related fatalities and injuries.

Vision Zero takes the so-called "Complete Streets" concept — planning roadways with all users in mind — a step further, emphasizing design measures to slow traffic speeds, enforcement to deter

violations, and education to increase awareness. Goals to end traffic deaths are being set by several Bay Area cities, sending a message that the loss of life is unnecessary, advocates said.

"We've come to allow deaths to be acceptable, one of those growing pains cities have to accept in order to modernize," said Kathleen Ferrier, policy and communications director at the Vision Zero Network, a California-based group that advises cities across the U.S. on creating Vision Zero goals. "This is not true. Vision Zero pushes back on that and says, 'These deaths and injuries are preventable.'"

From a policy standpoint, life-saving improvements are as much a transportation priority as they are a public health issue, city officials said. As the Bay Area's population continues to age, long-term transportation plans increasingly emphasize street networks that do more than just move cars. Roadways are considered in terms of how they benefit residents with safe access to transit and amenities, as well as how they serve the local economy and its ongoing development. To fund safety upgrades, cities are generally relying on a combination of federal, state, and local funding streams, in addition to other sources such as loans.

In 2014, San Francisco was among the first U.S. cities to adopt a Vision Zero policy, and wants to eliminate fatalities caused by car crashes by 2024. The City of Fremont's goal is 2020. San Jose is pursuing goals "as soon as possible" without a target date, according to the city's website.

The Bay Area's Metropolitan Transportation Commission (MTC), responsible for regional transportation funding, is supporting the state's "Toward Zero Deaths" goal of 2030



**Safety advocates have identified the intersection of Fifth and Market streets as one of the most dangerous in San Francisco.**

photo by Alec MacDonald

laid out by Caltrans. Its decision is consistent with other metropolitan planning organizations in cities such as Los Angeles, Sacramento, and San Diego, said Dave Vautin, principal planner and analyst at MTC.

MTC will review how it sets these goals annually, in compliance with 2012's Moving Ahead for Progress in the 21st Century Act. This federal legislation required the U.S. Department of Transportation to develop rules for metropolitan planning organizations to report on transportation performance targets, including number and rate of fatalities.

Improvements are necessary because the number of fatal car, bike, and pedestrian collisions in the Bay Area have increased from 2010 to 2016, according to MTC, which tracks transportation data and trends via its Vital Signs website. There were 455 fatalities and 2,089 injuries from crashes involving automobiles on public roads and local highways across the Bay Area's nine counties in 2016. That's an increase of 43 percent and 25 percent from 2010, respectively. The data takes into account deaths and injuries that occur when people are walking, biking, riding a motorcycle, or driving a car, for example.

The number of fatalities and injuries grew faster than vehicle miles traveled and population growth in the six-year period MTC studied. Vehicle safety advances like airbags help reduce fatalities among car passengers, but bicyclists and pedestrians have experienced higher fatality levels than in decades past.

Youth, seniors, and residents in low-income communities

*continued on page 6*

## Vision Zero (from page 5)

are also disproportionately affected by car crashes and related injuries, safety advocates said. Some residents, including San Francisco seniors, report that they don't feel safe walking on certain streets, said Cathy DeLuca, policy and program director in charge of Walk San Francisco's Vision Zero advocacy.

"The number-one thing we hear is [seniors] feel like they don't have enough time to cross the street," DeLuca said.

In general, the majority of fatalities and accidents occur on a small percentage of streets in a given city's network. For example, 13 percent of streets in San Francisco make up the city's "high-injury network" and account for 75 percent of severe and fatal traffic collisions, across all modes of travel, according to the San Francisco Municipal Transportation Agency (SFMTA).

Human error is partly to blame when motorists drive at unsafe speeds, make improper turns, or operate a car while under the influence, said Stephanie Mak, a transportation planner and analyst at MTC. The region's accelerating economy is another culprit, contributing to more congestion on streets where residents walk and bike.

Fewer people were killed in traffic crashes in San Francisco last year, showing hopeful signs of progress, based on preliminary totals from Vision Zero SF dated January 2. There were 20 people killed while walking, biking, or riding a motorcycle on the city's streets, compared to 30 the previous year.

In Fremont, before-and-after Vision Zero comparisons also show big reductions, according to Hans Larsen, the city's public works director. There was a total of 51 major crashes involving cars in 2017 and 2016, 14 of which resulted in fatalities. That's down 27 percent from a total of 70 major crashes reported in 2015 and 2014 when Vision Zero changes were not yet in place. When drilling down further, the comparisons point to significantly fewer collisions involving

pedestrians, children, and seniors.

Larsen said he has individual meetings with the mayor and four councilmembers planned in February to discuss performance data thus far and the 2018 Vision Zero work plan. Fremont's mobility task force, which meets monthly, provides input on the city's traffic safety plans throughout the year.

"Our goal is zero — so anything higher than that, and we need to keep working at it," said Larsen.

Fremont also will continue to focus on strategies that work. LED-street lighting retrofits helped reduce a high

percentage of pedestrian injury and fatal crashes that had been occurring in the dark, dropping to two in 2017 from 10 in 2015. The net cost (after rebates) for the lighting project is \$5.8 million, according to Larsen. The city took out a 10-year loan to foot the bill; however, subsequent



**These before-and-after photos show how the City of Fremont installed LED lights to increase visibility on its streets, making them safer for everyone.**

photos courtesy of the City of Fremont



maintenance and energy savings will help offset annual loan payments.

"Better lighting was probably one of our most successful countermeasures," Larsen said.

"A lot of improvements align with mode-shift goals of trying to walk and bike around the community, and people won't do it if they don't feel safe," he added.

In that vein, San Francisco has made a host of street safety renovations on miles of roadways over the last few years. It has adjusted signal timing to make pedestrian crossings safer, incorporated painted safety zones, and added flexible posts to provide more protection to bike lanes.

With these smaller fixes implemented, major work is now underway on other thoroughfares like Second Street. It's getting more space for bicycles, infill trees, expanded crosswalks, and refuge islands where pedestrians can wait before crossing the second half of the street.

"There can be trade-offs to traffic flow or parking when the

city installs safety improvements, so we work with neighbors to understand the context and how the streets are being used," said Luis Montoya, an SFMTA planner who manages the agency's Livable Streets division.

Funding for San Francisco's Vision Zero improvements come from state grants and local funds, including bond measures and local sales tax dollars. The SFMTA's Capital Improvement Program for 2017-2021 invested approximately \$190 million into a wide range of safety projects in support of Vision Zero, according to the agency's data.

Outside of San Francisco, more conversations are occurring in cities about speed enforcement and ways to ensure improvements are equitable in 2018 and beyond. The City of Sunnyvale is working on a Vision Zero policy and expects final approval this summer, said Shahid Abbas, transportation and traffic manager.

Berkeley's City Council is considering a Vision Zero traffic safety policy, but "formal direction has yet been given to proceed," wrote Farid Javandel, transportation manager for Berkeley's public works department, in an email.

"We have interest, but would need funding and dedicated staff capacity," he added.

Nearby in Oakland, a Vision Zero policy is being developed

because, on average, someone is severely injured or killed in a traffic crash every other day on Oakland's streets, according to Nicole Ferrara, who leads the city's pedestrian safety efforts. This crash data, shared in a pedestrian plan this summer, also pointed to disparities that will inform Oakland's Vision Zero effort when it's ready for implementation.

"Asian Oaklanders are nearly four times more likely to be victims of a pedestrian crash than White Oaklanders, and Black and Latino Oaklanders are two times more likely," Ferrara explained in an email.

Ferrara's work now involves meeting with agency partners and community groups to understand Oakland's street network problems. The information she's gathering should help the city design improvements for the needs of seniors and people with disabilities, while also addressing resident displacement and other issues.

"As we build solutions, we want to make sure they are not only transformative in terms of safety outcomes on our highest crash streets," Ferrara said. "We also want to look beyond the stripes and signs to the broader social environment on our streets." 

*Cecily O'Connor covers transportation for the Monitor.*

## Expanding Public Ferry Service

- WETA began passenger ferry operations in 2011
- WETA has invested \$465 million to support ferry service expansion
- Since 2012 ridership has increased 74%; up 29% since 2015
- 2.7 million ferry riders annually from nine terminals

**WETA's Long Range Strategic Plan: 44 Vessels and 16 Terminals by 2035**



### Fleet Expansion

- Seven new vessels by 2019 bringing the WETA fleet to 16

### Route and Terminal Expansion

- Richmond ferry service in September 2018
- SF Ferry Terminal expansion in 2019
- Treasure Island Ferry, Mission Bay, Redwood City, Berkeley and more

### Operations and Maintenance Expansion

- North Bay Operations and Maintenance Facility – Opened 2016
- Central Bay Operations and Maintenance Facility – Opens 2018

### Emergency Response Preparedness

- Coordinate water transportation response
- Support evacuation and first responder transportation
- Provide emergency water transit service and expertise

## Bay Area League Day 2018 Primer: Regional Government

People who talk about making the San Francisco Bay Area a better place often focus on regionalism, regional planning, and regional governance. This emphasis comes from a recognition that so many issues transcend local boundaries, and that so many entities exist to handle these issues. The Bay Area, with its nine counties and 101 cities, has a proliferation of inter-jurisdictional agencies, single-purpose districts, and nonprofits committed to solving regional problems, whether addressing land use, water issues, air quality, climate change, natural resources, resilience in the face of adversity, housing, transportation, and more.

One of the groups involved in these efforts has been the League of Women Voters of the Bay Area, which has prioritized regionalism since the organization's inception in 1959 (*for more on this history, see page 10*). In keeping with this longstanding tradition, LWVBA has dedicated the 2018 installment of its annual Bay Area League Day forum to this topic. Exploration of regional governance seems a timely and

pertinent focus for League Day, given the merger negotiations of the past few years regarding the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), leading up to the consolidation of the staffs of those agencies in July 2017. During this process, many stakeholders engaged in widespread discussions about creating a new multi-purpose agency to implement comprehensive and integrated regional planning (*for a sense of these discussions, see the box below*).

Entitled "Winds of Change: Regional Government's Impact on Local Government and Community," the LWVBA forum is on the calendar for February 3, just a couple of days after this edition of the *Bay Area Monitor* is scheduled to come out in print. For anyone who does not attend the event at Laney College in Oakland, these few extra pages in the *Monitor* serve as a glimpse at LWVBA's efforts on this front, and as a reminder that much more information from the forum will be available online at [lwvbayarea.org](http://lwvbayarea.org) in the ensuing weeks.

### What Kind of Regional Planning Agency Does the Bay Area Need? Guiding Principles for a New Regional Agency

*(The following excerpt comes from a January 7, 2016 letter submitted to MTC and ABAG by a coalition of 15 nongovernmental organizations, including LWVBA, during merger talks between the two agencies)*

The Bay Area needs a transformative regional planning agency that fosters a more sustainable, equitable, and economically-prosperous region. To achieve this goal, the creation of a new agency should be based on the following guiding principles:

- 1) **MISSION:** The mission of the new agency should be to address the interrelated regional issues of housing, transportation, conservation of natural and agricultural landscapes, social equity, economic development that creates middle-wage jobs, and climate change in a truly integrated and holistic fashion. In particular, the new agency should be charged with:
  - A) Forging a broadly inclusive consensus across all sectors of the region and be structured to be capable of doing so.
  - B) Fostering a sustainable and equitable region of shared economic prosperity, with the authority and resources commensurate to the task.
  - C) Integrating social equity throughout its activities to meet the needs of the Bay Area's most underserved communities and populations, reduce segregation, displacement, extreme inequality and suburban poverty, and ensure broadly shared access to opportunity.

The new agency should explicitly focus on roles that promote regional well-being and the well-being of local communities, and that cannot be solved through local government action alone.

- 2) **GOVERNANCE:** The governing board of the new agency should fairly represent each resident of the region. The members of the board of the new agency should be well-informed and able to form independent judgment about complex issues.
- 3) **RELATIONSHIP TO THE PUBLIC:** The new agency should be accountable for achieving its mission, inclusive of all voices and perspectives, especially those of low-income communities and people of color, and should measure the impact of its activities based on meaningful performance criteria. It should be highly transparent in its operations, finances, and decision making.

Of all that information to be discussed at League Day and shared online, LWVBA would like to highlight two key reports in this special *Monitor* insert.

*Raising the Bar on Regional Resilience* describes the Bay Area's vulnerabilities to threats from flooding, sea level rise, earthquakes, and a changing climate, while outlining six steps for government to take in addressing these hazards: 1) Develop a regional governance strategy for climate adaptation projects; 2) Provide stronger policy leadership on resilient housing and infrastructure; 3) Create new funding sources for adaptation and resilience; 4) Establish and provide a resilience technical services team; 5) Expand the region's network of natural infrastructure; and 6) Establish a regional advance mitigation program.

The report was developed by the Bay Area Regional Collaborative (or BARC, formerly the Joint Policy Committee). BARC serves to coordinate activity between four member agencies: MTC, ABAG, the San Francisco Bay Conservation and Development Commission, and the Bay Area Air Quality Management District. In addition to efforts by member agencies, *Raising the Bar on Regional Resilience* also owes its creation to the State Coastal Conservancy and the San Francisco Estuary Partnership. All of these agencies will have a role to play in implementing the six steps above.

Released in draft form on December 14, 2017, the nearly 100-page report was open to public comment through January 15. On February 16, the report will go up for final approval from the BARC governing board (a body of sixteen voting members that contains four representatives from each partner agency, with all nine Bay Area counties represented across the whole board). BARC will print out copies for distribution and will also post a digital version online at [bayarearegionalcollaborative.org](http://bayarearegionalcollaborative.org).

According to BARC Executive Director Allison Brooks, the intended readership for *Raising the Bar on Regional Resilience* consists of elected officials and staff from a range of jurisdictions (cities, counties, regional agencies, state and federal agencies, transit agencies, and special districts such as flood management agencies) along with stakeholders from scientific and academic institutions, the philanthropic world, and nonprofit or community-based organizations focused on the environment, community development, and the needs of low-income and disadvantaged communities living at the frontlines of risk to climate impacts. She added that the report may also be of use to banks, insurers, and those in the business community (many of whom have their corporate headquarters in vulnerable locations).

The other report LWVBA would like to highlight is SPUR's *Agenda for Change*, a shorter offering from 2016 that lays out the nonprofit's strategies for planning the region's future. In broad strokes, these strategies are: 1) Concentrate growth inside existing cities; 2) Build great neighborhoods; 3) Make it affordable to live here; 4) Give people better ways to get where they need to go; 5) Lay the foundations of economic prosperity — for everyone; 6) Reduce our ecological footprint and make our cities resilient; and 7) Support local government.

A digital version of the report is posted online at [spur.org/reports](http://spur.org/reports) for anyone to read. Those who do will encounter a quote that nicely sums up the spirit of the 2018 Bay Area League Day: "While life is lived at the neighborhood level and government is organized at the city level, we believe that our neighborhoods and

cities will function better and provide a higher quality of life if they are part of a region that works. Regional planning helps individual cities make decisions that, when aggregated together, add up to a better place for all of us." 



Design teams tour shoreline sites that may drown under rising sea levels on a smoky day during the October 2017 North Bay wildfires. As part of the year-long Resilient by Design Bay Area Challenge, these teams of landscape architects, engineers, designers and other experts are working alongside community members and local government on exciting new approaches to shoreline resilience. Photo by Karl Nielson.

***Raising the Bar on Regional Resilience* (page sample above) and SPUR's *Agenda for Change* (cover below) are two reports showcased as part of Bay Area League Day 2018.**



## Dedicated to Regionalism: A Brief League History

The League of Women Voters of the Bay Area, first organized in 1959, is one of the oldest organizations in the San Francisco Bay Area dedicated to the concept of regional solutions to inter-jurisdictional challenges.

In the 1940s, concern about the overlapping problems between city and county services resulted in the formation of League county councils. In 1953, as urban dwellers moved to the ever-expanding suburbs, the League of Women Voters of the United States issued *A Guide to a Metropolitan Area Study*, calling attention to the new political and social problems related to economic regions, rather than to existing governmental jurisdictions.

The first steps toward a regional League in the San Francisco Bay Area came in 1956 and 1957. Enough interest was generated among local League members that eight local Leagues adopted a study of Bay Area problems and possible governmental solutions in 1959. In 1960, 10 Leagues adopted a follow-up study, evaluating proposals relating to metropolitan government in the Bay Area. In addition to a steering committee, which had formed to guide the studies, an executive committee was created to carry out administrative duties.

April 1961 saw the formal establishment of a permanent Bay Area "Inter-League Organization," or ILO, the official title given to such a group of Leagues organized to address inter-jurisdictional challenges. In May 1970, at an annual meeting, delegates adopted new bylaws, formally establishing the League of Women Voters of the Bay Area.

From the beginning, LWVBA defined criteria for evaluating regional agencies, deciding it was not sufficient for these agencies to plan only, but should also have power to implement their plans. LWVBA supported a multi-purpose regional government, including directly elected representatives. Also in 1961, Save the Bay was formed by citizens concerned about land-use decisions affecting the Bay. During the late '60s and '70s, a number of studies of regional problems and possible solutions were authorized by the state legislature. Both single-purpose and multi-purpose agencies were proposed, but only the San Francisco Bay Conservation and Development Commission (BCDC) and the Metropolitan Transportation Commission (MTC) actually came into existence.

LWVBA participated in developing state legislation to create a multi-purpose regional agency and supported several Assembly bills — AB 2310 in 1970, AB 1057 in 1971, AB 2040 in 1973, and AB 625 in 1975. Usually these bills were killed in the Senate.

### Reinventing Regional Governance

*(an excerpt from a 1993 LWVBA report)*

Local officials can preserve the uniqueness and character of their cities and counties, but they can't do it by themselves. Each city and county shares with the entire Bay Area the need to ensure: economic vitality; agriculture and natural resource protection and conservation; orderly urban development; housing supply and affordability; regional mobility; and public facilities, services, and infrastructure that are available in a timely, orderly, and cost-effective manner.

Local governments, individually and cooperatively at a countywide or subregional level, can and do address the local and subregional aspects of these issues. This is as it should be. However, the problems of increasing traffic congestion, long commutes between home and job, shortage of affordable housing, loss of valued open space and agricultural lands to urban sprawl, predictable air pollution, and deterioration of our economic base go beyond individual and subregional jurisdictions and their powers to deal with them.

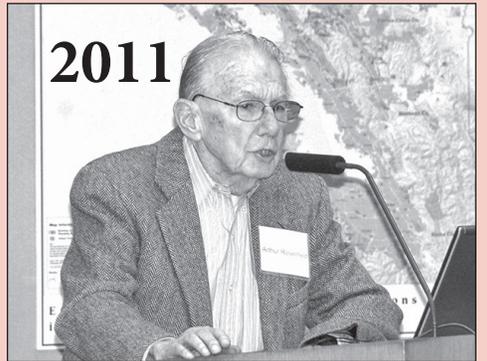
Success in solving the Bay Area's problems will only come when we have coordinated planning and implementation that moves concurrently from the bottom up and from the top down. The need for mandated, not voluntary, coordination at the regional level underlies the LWVBA's long-standing position on regional governance that calls for consolidation of regional agencies. This is why we support legislation on regional consolidation, providing that one-third of the interim governing body be public voting members appointed by local officials, to make the commission better representative of the diverse demographic, geographic, and special interests that have a stake in our region's future. We see it as a first step toward a governing body accountable to the region as a whole — an important component of the League's position which is the result of Bay Area-wide studies over the last 30 years (1960s-1990s).

Thus, LWVBA emerged not as a directive from state and national Leagues, but at the instigation of local Leagues and their members, seeking to form a level of League structure to manage studies of regional problems and to take action at the regional level of government to attain the goals of League programming, adopted through traditional procedures. 

# A Decade of Bay Area League Day in Pictures



The League of Women Voters of the Bay Area holds its annual Bay Area League Day forum at the beginning of the calendar year, usually convening 10 expert speakers to address a topic of regional significance from different perspectives. Here is a look back at the past 10 years of the event, minus 2009 (photos have gone missing, but the topic that year was water).



Captions by year (Speaker, Affiliation; League Day Topic): 2017 (Landon Williams, The San Francisco Foundation; Housing); 2016 (Alix Bockelman, MTC; Transportation); 2015 (Stuart Cohen, TransForm; Climate Change); 2014 (Sam Schuchat, California State Coastal Conservancy; Open Space); 2013 (Steve Ritchie, SFPUC, and Felicia Marcus, SWRCB; Water); 2012 (Duane Bay, San Mateo County, and Miriam Chion, ABAG; Housing); 2011 (Art Rosenfeld, California Energy Commission; Conservation); 2010 (La Ronda Bowen, CARB; Climate Change); 2008 (Therese McMillan, MTC; Transportation) all photos by Alec MacDonald

## Not So Easy: The Complex Mechanisms of Conservation Easements



**This swath of Contra Costa goldfields thrived under the protection of a conservation easement.**

photo courtesy of John Muir Land Trust

By Aleta George

What do thousands of blooming Contra Costa goldfields and a wedge of blue cheese have in common? Both can be linked to a conservation easement, a tool used by nonprofit land trusts and public agencies to conserve land, support agriculture, and protect natural resources.

A conservation easement is a legal agreement that a land trust or public agency can make with a landowner. Under these agreements, an owner willingly relinquishes the right to develop their land and agrees to use the land in ways that align with specific conservation goals. In exchange, the owner usually receives tax benefits, and in some instances, gets paid for forfeiting their development rights in perpetuity. The land trust or public agency assumes responsibility for monitoring the land and enforcing the terms of the conservation easement. Of the nearly 1.2 million acres of permanently protected land in the San Francisco Bay Area, 20 percent is privately owned and protected by voluntary conservation agreements, according to the Bay Area Protected Areas Database compiled by the Bay Area Open Space Council and the GreenInfo Network.

There are different kinds of conservation easements, from those that protect working agricultural and forest landscapes, to others that provide added protection to land owned by a

public agency, or still others that allow for public trail access on the edge of a coastal farm. Every conservation easement is unique, which makes them a handy, and often complex, tool. "We don't put a conservation easement on a piece of property just to extinguish development," said Linus Eukel, executive director of the John Muir Land Trust. "We protect land for affirmative reasons, such as having high-value habitat, or the potential for public trails or recreation."

The protection of a stand of Contra Costa goldfields in its namesake county took seed when the California Department of Transportation set out to widen a bursting commuter corridor on State Route 4. Their work encroached upon habitat for the federally-endangered goldfields, a species of wildflower which has almost completely disappeared due to development and non-native grasses. As mitigation, Caltrans granted John Muir Land Trust a conservation easement in 2002 on a 30-acre preserve near Hercules where about 20 of the diminutive goldfields still bloomed. After years of well-managed grazing practices, the annual blooms number around 50,000.

The cheese in West Marin has a different story — and a different land trust. Formed in 1980, the Marin Agricultural Land Trust (MALT) is the first purely agricultural land trust

in America. Since 2001, MALT has required "mandatory agricultural use" for every new conservation easement. The organization also encourages landowners with older easements to update those agreements to affirmative easements with mandatory agricultural use. The origin story for the cheese began in 2005, when MALT purchased a 714-acre conservation easement from the Giacomini Ranch, a traditional dairy farm in Point Reyes Station since 1959. The Giacomini family used the cash inflow from the sale of the easement — coupled with innovative ideas from the family's next generation — to evolve from a traditional dairy farm to an award-winning cheese purveyor.

MALT has protected nearly 50,000 acres of land in partnership with 81 families. The organization's aim is to protect 100,000 acres by 2040, a \$250-300 million goal. "It's ambitious, but we think it can be done," said Jeff Stamp, MALT's director of conservation.

There are 1,363 land trusts in the United States and over 20 in the Bay Area; each one utilizes conservation easements in ways that make sense for them. "An easement is an important tool in the conservation toolkit," said Noelle Thurlow, director of land programs and transactions for the Peninsula Open Space Trust (POST). In the last 40 years, POST has protected 75,000 acres of open space, farms, and parkland. The organization primarily acquires private land and turns it over to a public agency such as the county or the Midpeninsula Regional Open Space District.

Sometimes a conservation easement can be used creatively. For example, a few years ago POST purchased the 353-acre Alpine Ranch in La Honda adjacent to Sam McDonald County Park. To add a layer of protection to the property's natural resources that includes an abundance of redwood trees, the Midpeninsula Regional Open Space District bought a conservation easement from POST. POST will use the funds to protect more redwoods on another property, and eventually donate the land to the county, which will add it to the park. The District will retain the conservation easement and enforce its terms.

POST also holds conservation easements, which range in size from a few acres to 2,000 acres. "The commitment that land trusts make to a conservation easement is significant," said Thurlow. A conservation easement is detailed in a legal document that is attached to the deed of the land. The language is different in each case because every property is different, but all easements protect land in perpetuity, even if the land changes hands. That's why land trusts have some version of "forever" in their mission statements.

"Perpetuity is a long time, and it's a challenge to find the right balance between protection and flexibility," said Thurlow, who explained that each document needs to provide flexibility for the landowner, while ensuring that the restrictions are strong enough for protection and conservation of the land and its resources.

A conservation easement can be a highly collaborative partnership, and most land trusts invest in the land to help the owner stay in compliance. For example, a land trust might work with a landowner to improve water distribution on the property, or assist them in securing a grant or partnering with a local resource conservation district. A land trust can help address resource concerns by incentivizing a landowner to improve operations. For example, MALT is part of a larger community effort to enhance carbon farming and study its potential as a solution to climate change.

The Conservation Lands Network, a regional association of funders, planners, and conservation organizations, has set a year 2025 goal to protect 20 million acres of land vital to the biodiversity of the Bay Area through a variety of methods including conservation easements. We're a little over halfway there, but pressure is mounting. The land is expected to provide a kaleidoscope of uses, such as housing, resiliency to climate change, clean air and water, and outdoor recreation for health and well-being. "If we want to protect the heritage and resources of the Bay Area, this is one of the tools we need to be successful," said Thurlow. 

*Aleta George covers open space for the Monitor.*



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## Green-Energy Storage: Big Batteries Keep Renewables at the Ready

By Leslie Stewart

Janice Lin has a favorite metaphor for how large-scale energy storage can change the future of California. "Humans store their energy as fat, all over their bodies, so they can function without eating all the time," explained Lin, CEO at Strategen Consulting and a co-founder of the California Energy Storage Alliance. "But our electrical grid was built with the assumption that we can't store energy, like a hummingbird that has to eat all the time. With the grid, supply has to equal demand, so we overbuilt everything — sized it to meet the highest level of demand, with lots of infrastructure."

Some of that infrastructure was "peaker plants," designed to meet heavy demand by kicking in extra power for brief periods of time, like a snack to keep the hummingbird going. A typical peaker plant is the Dynegy plant right beside Jack London Square in Oakland. It's 40 years old, relatively small (168 megawatts) for a power plant, and gets used maybe 35 days a year.

It's one of 27 peaker plants in the state, and one of three left in the Bay Area after the closure of the Potrero Power Plant units in San Francisco. Like Potrero, but unlike the Calpine peaker plants at Gilroy and San Jose, it burns jet fuel instead of natural gas. Its six turbine engines have the potential to emit 11 tons a year of small particle pollution, even running so few hours. The Potrero plants were closed in part because they were adjacent to Bayview-Hunters Point, a disadvantaged community. The Dynegy plant is next door to West Oakland, which has its own environmental problems.

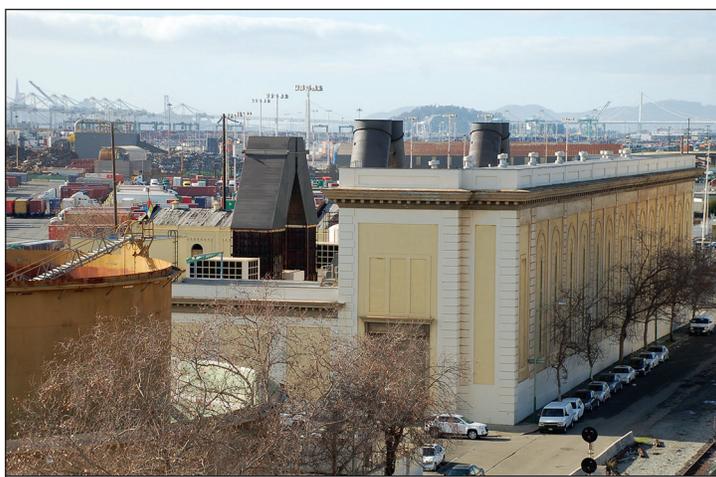
When peaker plants run, it's because they're really needed to prevent some type of outage in the overall electrical grid. Going without that energy is not an option, but storage may help to replace the dirty power with clean power, in Oakland as well as elsewhere. The problem has been that two of the fastest-growing sources of renewable energy, solar panels and wind turbines, are constrained by the laws of nature, making them intermittent and sometimes unpredictable, and creating excess supply at times. Utilities might need to turn away clean energy early on a hot summer day, and then use dirtier peaker plants to meet air-conditioning needs in

late afternoon. "When you introduce storage, energy can be supplied when needed, not just when it's produced," said Lin.

Lin and many others credit Assembly Bill 2514 (Skinner), passed in 2010, for kick-starting the storage solution. Crafted as a strategy to help California achieve its environmental goals, AB 2514 directed the California Public Utilities Commission (CPUC) to look at requiring utilities to purchase storage, and then set a mandate if storage was determined to be feasible. After several years of study, the CPUC determined that some forms of storage could be cost-effective; in June 2013 it issued a mandate to utilities to purchase 1.3 gigawatts of storage by 2020. As Lin put it, their conclusion was, "This stuff is pretty useful."

The three major utilities in California have been working to meet the mandate, and are finding that new technologies can

help them do that. As one example of new flexibility, Lin cited the rapid deployment of storage projects to meet the energy need created by the leak at Southern California Gas Company's Aliso Canyon natural gas storage facility. She also pointed to an October 2017 California Energy Commission rejection of an NRG Energy replacement facility at its Puente Power Plant in Oxnard, based on a finding that storage plus drawing directly on available



This 40-year-old peaker plant is a source of air pollution near Jack London Square and the Port of Oakland.

photo by Alec MacDonald

"preferred sources" such as solar and wind could fill the need. "Now we have so many different types of storage, we can use them in many different ways," she said.

Paul Doherty, a PG&E spokesperson, says the utility is "technology-agnostic — we are evaluating the roles of the various technologies in California's energy future." PG&E has selected companies using lithium-ion batteries, zinc-air batteries, and flywheel kinetic energy storage, an emerging technique for multi-hour storage. In 2016, PG&E conducted its EPIC project using sodium-sulfur batteries at its 2-megawatt Vaca-Dixon large-grid solar farm and its 4-megawatt Yerba Buena facility to prove that it could store power and serve it back to the grid, supporting greater integration of intermittent sources like solar and wind.

PG&E installed 22 Tesla Powerpack batteries at its Browns Valley facility in early 2017, its first lithium-ion battery units. They can store half a megawatt, enough to power almost 400 homes at

a time, and provide power for four hours. Doherty noted, "This is the first system to address 'summer peaks' with people coming home on summer evenings needing energy" that was generated during the earlier part of the day. In December, PG&E announced agreements for six new lithium-ion storage projects totaling 165 megawatts which will begin to come online by the end of 2020, adding to 79 megawatts purchased since 2015.

In Oakland, PG&E plans to use a combination of storage and "distributed energy resources" — renewables, upgraded infrastructure, and techniques such as demand management with smart thermostats — to replace the Dynegy plant's occasional but critical contribution to the grid. Storage will be provided by a 10-megawatt battery system, able to provide power for up to four hours. The remaining 20 to 40 megawatts of capacity will be provided by the other resources. "We are balancing energy supply and demand, as we move from a one-way grid to the new dynamic of a distributed energy system and a two-way grid," Doherty said.

PG&E developed a proposal for an Oakland clean energy initiative with input from environmental and community stakeholders. Participant Jamie Fine, a senior economist with the Environmental Defense Fund, noted that PG&E presented the proposal as an opportunity to avoid a large transmission facility to provide power if the plant closed. "Both options are assets that add value for shareholders. The current proposal increases the cost to consumers even if it's a greener solution," he cautioned.

However, he believes that the initiative is a harbinger of progress to come: "It's the process we are demonstrating and we can go on from here." Because the aging plant is essential to the grid's reliability, the proposal must be approved by the California Independent System Operator, probably in March 2018, before going to the CPUC for other approvals. If it clears these hurdles, the project should be functional by 2022.

The Oakland project will test the feasibility of using storage plus distributed energy to both meet the state's energy needs at peak periods and also utilize the full production from intermittent renewable energy sources. PG&E has also been authorized by the CPUC to look for options, including storage, to replace power from three Calpine plants, including the 580-megawatt Metcalf plant near San Jose. In its resolution E-4909, the CPUC stated, "Energy storage and preferred energy resources can be fast-responding, reliable, and constructed in a short timeframe. Energy storage and preferred energy resources are procured at increasing levels to meet local reliability requirements including capacity shortfalls, in lieu of conventional generation."

New legislation signed in 2017, Senate Bill 338 (Skinner), requires utilities to develop carbon-free alternatives to gas



PG&E's Vaca-Dixon sodium-sulfur battery energy storage system charges batteries when demand is low and then sends reserved power to the grid when demand grows.

photo by Paul Doherty, PG&E

generation — shifting demand, energy efficiency, and storage — for meeting peak demand, as part of their integrated resource plans. Lin feels that legislation like SB 338 is helpful, but no longer crucial to increasing the role of storage. "The original legislation, AB 2514, was the focus we needed, but now ... the driver is really the need for storage. Storage is an awesome tool in the toolkit to meet our needs," she concluded.

Fine feels that grid-level storage is only a start. He would like to see increased use of homes, businesses, and vehicles for storage and generation. "We haven't planned out our grids with the community's needs first," he said. "The future of the grid needs to be approached differently." 

*Leslie Stewart covers air quality and energy for the Monitor.*



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Bay Area Monitor  
League of Women Voters of the Bay Area  
436 14th Street #1213  
Oakland, CA 94612  
(510) 839-1608  
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