

## **Voters to decide future of East Contra Costa Fire Protection District fire board**

- [Kyle Szymanski Staff Writer](#)
- Nov 9, 2017

The East Contra Costa Fire Protection District Board finalized a plan this week to ask voters in early 2018 to approve reducing the number of board members from nine to five, using an at-large representation method that allows board members to reside anywhere in the district.

The question is expected to be posed during an all-mail ballot election in March, at an estimated cost of \$225,000 – although the costs could be shared with at least one another community-services district and a city that plans to hold elections on the same day.

A second election, using the at-large format, will be held November 2018 to select either five or nine board members, depending on the voters' decision about the measure.

The board's future was kick-started with the November 2016 passage of Measure N, approving the transition from an appointed nine-member board to an at-large elected board. Board members are currently assigned: four selected by the Brentwood City Council; three by the Oakley City Council; and two by the Contra Costa Board of Supervisors.

The board's 6-2 decision this week to switch to an at-large representation model ends a fierce board debate on whether the district should be broken into wards.

Board members Susan Morgan and Dr. Cheryl Morgan voted in favor of wards, which would have divided the district into five geographic sectors with one representative coming from each area.

Board member Joe Young, who vehemently favored the at-large format, said voters already expressed preference for the at-large format during the Measure N election last year. He also pointed out that the only fire district in the county using the ward system struggles to fill all its seats and that it would likely cost the district more than \$10,000 to have ward maps drawn.

"The public has already voted on this issue," said Young.

Susan, however, expressed concern that the at-large format will intimidate candidates who had an interest in running but don't have the money to run a large-scale campaign.

"The difference between a ward (with roughly 22,000 or 23,000 constituents) versus an entire at-large election (with 114,000 constituents) is five times," she said. "That's five times the cost to

run an election of that scale. My concern is that by not going to divisions, we will eliminate the opportunity for the little guy who doesn't have a lot of money but may be interested in running.”

Cheryl added the optics of the at-large method – likely ending with all board members being from the district's biggest cities of Brentwood and Oakley – would reflect poorly on the organization.

The 249-square-mile district covers the cities of Brentwood and Oakley along with the unincorporated areas of Discovery Bay, Bethel Island, Knightsen, Byron, Marsh Creek and Morgan Territory.

“You have basically written off the outlying areas,” she said, noting that she believes constituents feel better represented when they have a representative in a ward-based system.

Young countered that even if a ward-based system was used, it would be impossible for outlying areas to receive their own wards, because the division boundaries would lump them together with bigger cities like Brentwood and Oakley.

Board President Joel Bryant added that he feels an at-large system will provide the same representation as the ward method, since board members represent the district as a whole, not just the geographic region in which they reside.

“I think anyone who cares enough to run for this board cares for every single person in this district,” he said.

It's expected that ballots will be mailed in February and need to be returned by March 6.

## The Press (Brentwood etc.)

# Knightsen residents outraged over tax increase

- [Kyle Szymanski Staff Writer](#)
- Nov 9, 2017



Photo courtesy of [www.kbrhorse.net](http://www.kbrhorse.net).

As Knightsen property tax bills rolled in during the month of October, many residents' mouths dropped open.

The Knightsen Town Community Services District (KTCSD) recently increased its annual fees for developed parcels by \$150, to \$200 a year, and also upped fees on undeveloped properties by \$108, to \$133.

The board legally approved the hikes in a 3-1 vote during its June meeting, in large part to pay for a variety of small flood-control projects.

But several residents are outraged by the hike and the fact that the board did little to notify them of proposed increases before the vote.

"They should have sent a letter to every parcel owner saying, 'This is what we are doing, this is why we want to raise it; please come to a meeting,'" said Trish Bello-Kunkel, who noted the meeting agenda was posted only on the garden club building's window, and that the agenda item about the increase was ambiguous.

Steve Ohmstede, chair of the agency charged with constructing, operating, maintaining and servicing flood control and water quality improvements, admitted the district could have done a better public-outreach campaign. But he noted that residents have paid little attention to the district since its inception in 2005.

“Nobody has said anything for 12 years,” he said.

The hikes are slated to increase the district’s annual revenue by \$83,800, to \$110,800, with a chunk of the funds used on a variety of small projects to improve persistent flooding concerns, funneling storm-water runoff to the 646-acre former Nunn property on Byron Highway between Delta and Eagle Lane – the site of a future East Bay Regional Park District wetland restoration and flood protection project

Residents have expressed a variety of concerns about the board’s decision, including the steep increase in fees, whether flood control is even needed, concerns that the taxes will continue to rise, and whether there are bigger issues in town, such as inadequate fire service.

At least two residents, Jan Brown and Al Bello, indicated that board members had previously said the assessment wouldn’t rise.

Local resident Ken Smith said studies have already been done to explore how to fix the flooding issues permanently, and the results proved the work would be cost-prohibitive.

“Back in 1988, the Army Core of Engineers came and did a study – a survey – out here. In order to solve the flooding 100 percent, it would cost \$21 million dollars,” Smith said. “Keep in mind that was in 1988 dollars. What it would be today, I have no idea.”

Ohmstede indicated that the assessment should have probably been raised gradually over time, but past boards decided against increases. He said the fixes are needed to address persistent flooding concerns, which came to fruition last year and in 1997, when the town was under 2 feet of water.

He estimates much of the town’s infrastructure that needs repair could be 100 years old.

The district plans to seek grants for as many projects as possible, but even that strategy requires the organization find matching funds.

The assessment increase and ensuing projects are the district’s first major moves since its inception 12 years ago.

The district’s formation, approved by 73 percent of Knightsen voters in 2005, was brought forward largely to create boundaries that prevent the nearby cities of Brentwood and Oakley from annexing Knightsen land.

The agency is authorized only to provide and spend money on flood control and water quality (drainage services) and has spent the last 10 years or so seeking a suitor for its storm-water runoff project.

During that time, the district had an agreement with Ron Nunn to dump water on his former 646-acres, now owned by the East Bay Regional Park District (EBRPD). Under that agreement, Nunn

pumped water off the land into the nearby river, free of charge to the district, as a way of giving back to the town of Knightsen, Ohmstede said.

“For the first 10 years, we knew we had to do a (flood-control) project, but we had no place to put the water. We do now,” he said, alluding to the future EBRPD restoration and flood protection project.

Aside from flood control, the work is important, because it proves the district is an active agency, which keeps the district boundary lines in place and Brentwood and Oakley from encroaching on Knightsen land, Ohmstede said.

For the agency to continue its planned work, however, additional funds must be garnered—hence the need for the increase, Ohmstede said.

For the last 11 years, while the Nunn agreement was in place and fees were \$50 a year for each developed parcel and \$25 for each undeveloped parcel, the district took in only \$27,000 a year, most of which was used on district overhead costs, such as legal fees, annual audits and training and travel expenses. The district’s only employee is a part-time board clerk.

“At the end of last year, after being in existence for 11 years, we only had \$185,000 in our account,” Ohmstede said. “You can’t do anything with \$185,000.”

Some Knightsen residents, however, are getting ready for a fight.

Bello-Kunkel and a host of other residents said they are exploring their options, which includes trying to abolish the board or recalling those board members who voted for the increase.

“If you have a water issue, you handle it yourself,” she said. “We don’t need to put water in this East Bay Regional Park.”

## Comments

[Lori Johns Abreu](#)

[Broker/Owner at Delta Ranches & Homes](#)

This is extremely embarrassing, clearly the reporter didn't talk to anyone but Trish Bello (who moved here 3 years ago and pays \$1280 a year in property tax to support our community, her father, and 1 other person. The majority in Knightsen do not have a problem with the increased \$150, what is that \$16 a month, tax to the community services district. Shame on the reporter for not taking the time to discuss with other residents before he claims the headline, Knightsen Residents. Knightsen is a great place to live and most people in our community are giving, hard working, pay it forward and don't waste time on petty things

[Carolyn Garner](#) ·

[Knightsen, California](#)

Well said Lori. My property flooded last winter. My chicken coop was under water! I fully support a tax to help pump water off our properties. We are bracing for more flooding this year

and knowing that something is being done to help eases our minds. It's too bad the writer of this story didn't interview other residents.

[Rich Garner](#) ·  
[Freedom High](#)

\*Knightsen Resident Outraged Over Tax Increase.

You don't speak for us Trish Bello. God forbid our community take a proactive approach to prepare for catastrophic damage to our wells and drainage systems. If you can't afford \$16/month, you surely can't afford to "Handle it yourself."

[Kristen Rowland Crithfield](#) ·  
[Knightsen, California](#)

If you have a water problem you handle it yourself... Are you kidding me?!? In no way does this represent the community of Knightsen. Oh the town of Knightsen is outraged, and it has nothing to do with the tax and everything to do with this article.

[Marialaina Batoog](#)

As a Knightsen resident, let it be known that I fully support and am willing to pay this tax.

## East Bay Times

# Martinez, Concord latest cities told to change elections or face lawsuits

By [Sam Richards](#) | [srichards@bayareanewsgroup.com](mailto:srichards@bayareanewsgroup.com) | Bay Area News Group

PUBLISHED: **November 20, 2017** at 6:19 am | UPDATED: November 21, 2017 at 3:09 am

MARTINEZ — City officials here have received a certified letter from a Malibu attorney demanding a change in how local elections are carried out. Very similar letters, varying mostly in local details, have gone to several Bay Area cities and school districts this year, and more are on their way.

Martinez Assistant City Manager Anne Cardwell said Thursday she doesn't know yet how the city will respond to the letter that was received in late October. But most cities that get the Shenkman & Hughes law firm letter have done what attorney Kevin Shenkman wants them to do — they move to change from “at-large” local elections, in which all voters in a city or district vote for the same candidates, to a “district-based” system in which the city establishes districts, whose resident voters choose candidates for city council, school board or other elected body from those smaller districts.

The letters, Shenkman said, will keep coming.

“As a general rule, I believe that district elections are far better, not just for fairness but for good government, cheaper election campaigns,” he said. “It makes it easier for candidates to walk their districts, not depend so much on TV ads to get their messages out. That’s the kind of campaign we want to see.”

Shenkman said his chief aim is to help enable “protected classes” — for him, usually Latinos — to get elected, and to get cities and districts to conform to the California Voting Rights Act of 2001 (CVRA). This bill contends local at-large voting systems are discriminatory if they “impair the ability of a protected class ... to elect candidates of its choice or otherwise influence the outcome of an election.”

“At-large” voting, Shenkman said, usually dilutes a community’s Latino or other demographic vote, especially when such groups cluster in a geographical area.

Shenkman also works with the nonpartisan Southwest Voter Registration Education Project. He said his office has sent 70 to 80 demand letters since 2011, mostly in Southern California.

The movement is drifting northward. In the past year, Fremont, Menlo Park and Martinez have been implored to change how they elect council or board members. Concord received a similar demand letter Friday.

Fremont got its letter in February threatening a suit, and in March started the transition to elect its City Council members from geographic districts.

The Dublin Unified School District board got a letter from Shenkman in June. As of November, tentative district maps, drawn to give Latinos and Asians a measure of power, await approval by Alameda County and by the state. The district's November 2018 election will be its first under district-based voting.

Dublin district spokeswoman Michelle McDonald said school officials think the changes were "foisted upon" them, but they didn't want to go through the promised legal battle, especially one they would probably lose. "The law is pretty clear, so we're moving forward," she said.

Only two cities have thus far fought Shenkman in court, and both lost; Palmdale, in Los Angeles County, paid \$4.5 million to Shenkman & Hughes in a 2015 settlement after unsuccessfully trying to defend its at-large voting system.

Shenkman hasn't been the only one to sue governments over at-large voting. In 2011, San Mateo County became the last county in the state to move to district elections, settling a suit filed by Asian American and Latino voters challenging countywide elections as discriminatory. Other groups, including the American Civil Liberties Union and the Mexican American Legal Defense and Educational Fund, have filed similar suits.

The League of California Cities has worked with those and other groups on CVRA-related issues but criticized Shenkman's approach as needlessly costly.

"He is certainly exploiting the intent of the CVRA for his own financial gain," said Dane Hutchings, a legislative representative for the league. (Shenkman said most of his fees, up to \$30,000 per city, go to reimbursing out-of-pocket costs for these cases).

In September 2016, Gov. Jerry Brown signed a package of bills designed to stop the practices of "serial litigants," as Hutchings calls Shenkman, and allow for more time and public outreach before such suits can be filed. "Our efforts thus far have done little to slow (Shenkman) down," Hutchings said.

Concord City Councilman Edi Birsan said he would welcome district elections in his city, but not necessarily to give Hispanics — like those concentrated in the Monument Boulevard corridor — a stronger voice.

"Elected officials are supposed to represent everybody," he said. "We have a city of 128,000 people, and you have to raise a lot of money to get your message out by mail, or mount an effective ground campaign." That, he said, eliminates some hopefuls.

The Martinez Unified School District heard from Shenkman in late October, too. That letter mentions a 2015 comment by a district trustee that a heavily Latino elementary school could do without air conditioning more readily than a mostly white one. Such discourse, Shenkman said, is one reason Latino voters need a greater voice in that district.



But district Superintendent CJ Cammack noted that the district board ultimately voted to bring air conditioning to both schools in question. He doesn't know whether a district system or the current at-large system is better for his district, and would rather Martinez locals, and not a Malibu attorney, make that call.

“Jumping right to the threat of litigation, without engaging in dialogue, makes it difficult to arrive at solutions that truly address the core issues of concern,” Cammack said.

## MoneyWatch

# Can the private sector save America's aging water systems?

By Rachel Layne

November 20, 2017, 5:15 AM

Who owns the water pipes beneath your street?

Increasingly, it is a private company, a shift from the mostly public ownership of the systems used to provide drinking water and remove waste that has prevailed in the U.S. since the early 1900s.

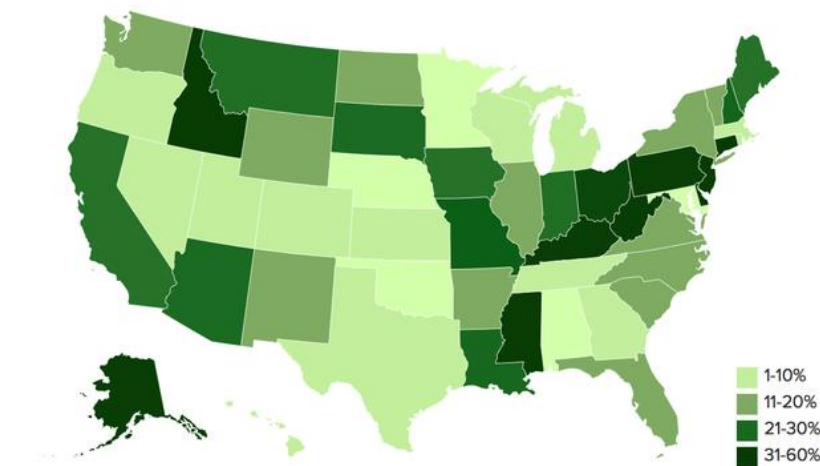
In the first half of 2017, companies spent, or planned to spend, about \$2 billion in a total of 53 deals involving water and wastewater utilities. The biggest, energy giant Eversource's recent \$1.7 billion acquisition of water company Aquarion in New England, is still pending, according to [Bluefield Research](#). And the Boston-based consulting and research firm expects that trend only to accelerate in the years ahead.

The reason: Many cash-strapped towns, cities and counties around the country can no longer afford to provide water to residents, overwhelmed by the challenge of repairing aging infrastructure and a decades-long decline in federal funding.

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## Who owns your water system?

Private ownership of water systems, by state



Source: Bluefield Research

While the money spent to privatize water facilities may seem relatively modest, given the US has roughly 78,000 community water and wastewater systems, it's noticeable, according to Bluefield president Reese Tisdale. In part, that's because of the enormous opportunity for private investment in water, which Bluefield pegs at \$728 billion.

"There seems to be no shortage of interest, and capital for that matter," he said. "Rather, the challenge for new market entrants, particularly for those looking to secure a platform from which to grow, is scale. Big deals are difficult to find."

Most Americans today are served by publicly owned water and wastewater systems, with small percentages direct wells or cooperatives. Bluefield estimates about 15 percent are owned by private players. An estimated 268 million people relied on public-supply water for their household use in 2010, or about 86 percent of the total population, according to the [U.S. Geological Survey](#).

That wasn't always the case. As cities were growing in the 1800s, many relied on nearby rivers, surface water and local wells, often on private property and sometimes contaminated. Then, led by New York in 1842, major cities began to fund water sources from outside their own limits and began running their own systems.

Still, until it was discovered that [untreated water carried disease](#) in the 1850s, most water went untreated. By the turn of the century, demand for safe water was increasing. Cities like Los Angeles began building large pipelines to supply otherwise arid areas. The federal government didn't get involved in funding infrastructure until the [Federal Water Pollution Control Act of 1948](#). Later, when President Richard Nixon established the Environmental Protection Agency in 1970, water quality standards began to be enforced at the federal level.

Beyond repairing old pipes and other infrastructure, a number of factors have municipalities looking for ways to fund, or even replace, their systems.

Perhaps most important, millions of consumers face sharply higher water rates, putting pressure on public officials to respond. The combined water and wastewater bill for a typical U.S. household is up 18.5 percent since 2012, or 4.4 percent per year on average, according to Bluefield. And a recent Michigan State University [study](#) found the percentage of U.S. households who will find water bills unaffordable could triple, from 11.9 percent to 35.6 percent, in the next five years.

Another factor: Many systems are falling apart. If water main breaks now seem commonplace, that's because they are. An estimated 240,000 occur every year in the US, according to the 2017 Infrastructure Report Card from the American Society of Civil Engineers (ASCE) released earlier this year.

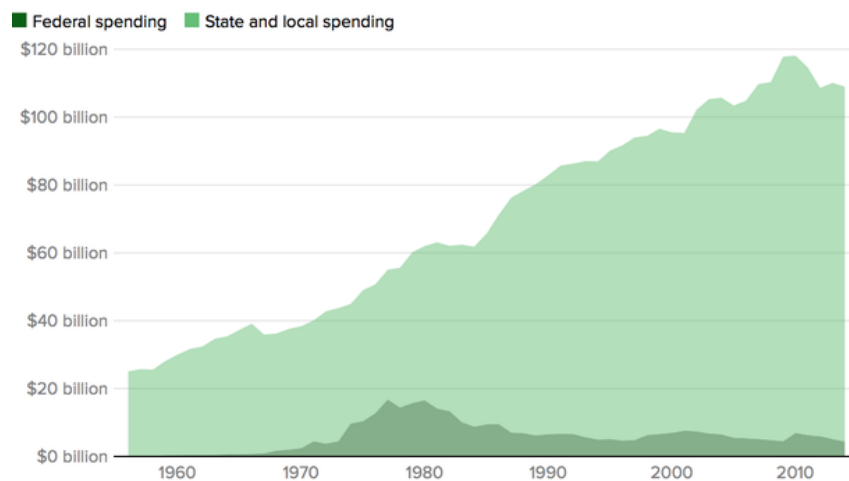
In recent months, breaks in [Brooklyn](#), [Detroit](#), [Chicago](#), [Boston](#), [San Diego](#) and [Lincoln, Nebraska](#), have all made headlines. That's because many of the country's nearly 1 million miles of pipes were laid in the early to mid-20th century, with such infrastructure having a typical lifespan of 75 to 100 years. The ASCE gives the drinking water infrastructure a D grade.

Despite the urgency of making these fixes, the federal government is now less likely to help with the cost. U.S. funding for water utilities peaked in 1976 at \$16.9 billion and has since dropped to \$4.3 billion in 2014, according to Bluefield. Meanwhile, public water systems also are [facing more environmental pressures](#), with 5,300 in the U.S. listed with serious system violations.

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## States, you're on your own

Public spending on water infrastructure, 1956-2014 (in 2014 dollars)



Source: Congressional Budget Office

For revenue-starved local governments, then, selling a water system to a private company, either to own or operate, can present a way to solve a debt problem and pay for repairs. It can also eliminate a cost that competes with fire, police and schools.

Since 2013, Missouri, Illinois, New Jersey, Indiana, Pennsylvania have joined California to make it easier for private companies to consider investing in water facilities with legislation that puts a "fair market value" on systems.

"There are more dollars going into the utility network than there used to be," Tisdale said.

States in the mid-Atlantic region have the greatest rate of private water system ownership. Texas and Pennsylvania are also hot spots for acquisitions, with 90 pending and completed deals in 2017, according to the Bluefield report.

Yet buying a system often isn't easy, even for a large, established company. Another obstacle often comes in the form of community opposition, with residents bristling at the idea of a private company owning what's largely seen as public service. That can make purchases long and contentious.

Just this month, New Jersey towns Long Hill and High Bridge [rejected a plan](#) to turn their water system over to New Jersey American Water, the state's largest utility, according to Food and Water Watch, a public advocacy group that opposes private ownership.

Privatizing a system can result in higher rates and loss of public control, Food and Water Watch argued.

"Instead of rubber stamping a buyout, town leaders should now begin a thorough and transparent process to explore all the available options for properly investing in the system while maintaining public ownership and control," the group [said](#) on its website.

But others strike a deal its residents see as palatable. In West Milford, New Jersey, voters earlier this month [approved a sale](#) of the township's Municipal Utilities Authority to Suez Water New Jersey for \$12.5 million, according to the Milford Messenger. Funds will go to pay off the township's debt.

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## East Bay Times

# Guest commentary: Brentwood addresses public safety funding



BANG FILE PHOTO

East Contra Costa County fire faces financial challenges. FILE

By [Bryan Scott](#) |

PUBLISHED: **November 21, 2017** at 10:01 am | UPDATED: November 21, 2017 at 10:03 am

The Brentwood City Council unanimously agreed to move forward with four public safety measures at their Strategic Planning Workshop/Special Council meeting held Nov. 16 and 17. The safety of area residents will be enhanced, assuming the Council follows through on the measures.

Most significant was the Council's agreement to explore funding of a two-person "Squad/Rescue Vehicle" for the East Contra Costa Fire Protection District and to build a new fire station on city-owned property along Shady Willow Lane, in northwestern Brentwood.

The cost of this project was estimated at between \$1.8 million and \$2.5 million in annual operating expenses, as well as \$5 to \$6 million in capital funds to construct the fire station.

This action was taken in response to ECCFPD's continual failure to provide adequate fire and emergency medical services to Brentwood. While national industry standards suggest response times in the 4- to 5-minute range, and Brentwood's General Plan calls for 3- to 5-minute response times for all emergency calls, the city receives response times around the 10-minute mark.

Joel Bryant, speaking as Brentwood's vice mayor while he also serving as president of the ECCFPD Board, thinks the two-person squad/rescue vehicle approach is one that will be endorsed residents.

"This gets us to where the community and voters have said they want to go, and it does it without having to raise additional taxes," Bryant said.

The ECCFPD is suffering from structural underfunding, which has caused the fire district to reduce staff and close fire stations even though East County is experiencing significant residential and commercial growth.

ECCFPD is routinely unable to respond to emergency calls for extended periods of time, and is unable to comply with County EMS Division contractual service commitments.

According to a Local Agency Formation Commission study, funding for East County fire and emergency medical services are at \$94 a person while Central County residents receive services funded at \$449 and \$370 per person.

Council Member Karen Rarey, a member of the Council's Fire Services Ad Hoc Advisory Committee, supported the plan even though it was not a total solution to the funding problem.

"This gives us the opportunity to start opening up stations, and makes it easier for that firefighter to come on, when and if the fire district gets additional funding," Rarey said.

During the Public Safety Focus Area discussions, the Council heard from City Manager Gus Vina that future tax revenues may need to be designated for public safety purposes, especially to achieve a three-person fire station for Brentwood and ECCFPD.

"The PA-1 (Planning Area 1, an undeveloped 373-acre area in Northwest Brentwood, near the Shady Willow fire station site), as it develops ... we may need a "Fire-first Initiative" as revenues start to come into PA-1 to in-fact get to a fully staffed station," Vina said.

"(With) the new property tax, sales tax, we need to do some math there, but there may be a need for the Council to make a commitment to fund that, to get to that (three-person station) level," he said.

Other Public Safety actions the Council endorsed were to purchase mobile traffic barriers for use during large gatherings such as the Farmer's Markets and Concerts in the Park, the enhancement of traffic light technology at four of the city's busiest intersections, and the implementation of "Self Help" strategies including a Naloxone opioid overdose program, the purchase/distribution of 750 fire alarms, and equipping police cars with improved fire extinguishers.

While public attendance throughout the two-day workshop was varied and sparse, six of the ten people watching when the workshop began were supporters of increased public safety funding.

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*East County Voters for Equal Protection is a nonpartisan, grass roots, citizens' action committee formed to address the issue of unequal funding of fire and emergency medical services existing in 249 square miles of Eastern Contra Costa County. About 110,000 residents, as well as those who work and play in Eastern Contra Costa, have services funded at a level one-fourth to one-third of those levels in other parts of Contra Costa County. For more information, contact committee Co-Chairs Hal Bray at [hal.bray@pacbell.net](mailto:hal.bray@pacbell.net) or Bryan Scott [scott.bryan@comcast.net](mailto:scott.bryan@comcast.net). The group's Facebook page is <https://www.facebook.com/EastCountyVoters/>*

## East Bay Times

# Fire district to let East County voters decide the size of its board

## Ballot will ask residents whether they want to reduce the number of directors



Susan Tripp Pollard/Archives

East Contra Costa Fire District Chief Brian Helmick might have fewer bosses to answer to depending on whether voters decide next spring to reduce the agency's nine-person board of directors to five members.

By [Rowena Coetsee](#) | [rcoetsee@bayareanewsgroup.com](mailto:rcoetsee@bayareanewsgroup.com) | Bay Area News Group

PUBLISHED: **November 22, 2017** at 2:05 pm | UPDATED: November 24, 2017 at 7:56 am

BRENTWOOD — Come spring, far East County residents will decide whether to downsize their fire district's governing board.

And a year from now, they will be the ones — not elected officials — to determine who will run East Contra Costa Fire District.

The board of directors voted this month to hold an election early next year in which district residents will weigh in on whether they want to retain a nine-person board or reduce it to five members.

Ballots will be mailed in early February and the results will be released March 6.

The election would cost the financially troubled district about \$225,000 if it weren't for one at least one other government agency in the county that will share a small portion of the price tag because it's putting its own ballot measure to voters the same day.



Following the March vote, residents for the first time can start campaigning for a seat on the board in November 2018, when the terms of all its current members will expire.

Until now, East Contra Costa Fire's directors have been appointed by elected officials of the communities they represent: Brentwood's city council chooses four, Oakley council members select three, and the county Board of Supervisors designates two.

But that process changed in November 2016, when just over 62 percent of voters decided they wanted to choose the fire board directly and do it in an at-large election.

During their October and November meetings a couple of directors revisited the issue, however, sparking a debate on whether to ask voters a second time in the spring if they wanted to reaffirm their previous decision — thereby allowing all constituents to choose every representative — or divide the district into wards.

Among those who ultimately nixed the idea was Director Joe Young, who argued that it would be expensive hiring a consultant and doing census studies to decide the boundaries of each ward — lines that unhappy voters might challenge in court.

Nor would carving up the district give sparsely populated communities like Byron and the Marsh Creek area a significantly larger voting bloc, he said.

As for allowing voters the chance to change the structure of the board, Young is hoping they will opt to have five directors.

“Nine is less efficient,” he said, noting that every other fire district in the county has a five-member board.

“The fire chief has to meet with nine people, prepare materials for nine people — it takes much more of his time.”

**East Bay Times**

# Editorial: East Contra Costa fiddles as fire service shrinks

By [East Bay Times editorial board](#) |

PUBLISHED: **November 28, 2017** at 6:01 am | UPDATED: November 28, 2017 at 6:09 am

Talk about fiddling while Rome burns — or, in this case, East Contra Costa.

The fire district serving 249 square miles there once had eight operating stations but is now down to three. The substandard protection for Oakley and Brentwood, and unincorporated communities stretching from Morgan Territory to Bethel Island and Discovery Bay, is potentially deadly.

But instead of solving the problem, the East Contra Costa Fire Protection District will waste money in March on a special election having nothing to do with improving service.

Meanwhile, some residents spin their wheels on plans that have little chance for success and, as we've previously noted, Assemblyman Jim Frazier, D-Oakley, proposed [a ludicrous idea](#) to essentially steal \$10.5 million annually from the East Bay Regional Park District.

Come on folks, get real. This problem is solvable if voters engage, and the district demonstrates it can responsibly manage money it has and budget for the future.

Unfortunately, the district has done the opposite. In 2012, it asked voters to pass a 10-year parcel tax. But the proposal [lacked a viable financial plan](#). Voters wisely said no.

In 2014, the district proposed a legally questionable and complex [assessment district levy](#), which voters also rejected.

And, in 2016, the Oakley and Brentwood councils asked their voters to approve [utility tax increases](#) to help fund the fire district. But there were no legal restrictions on the money's use. Those measures failed too.

It's time to go back to basics and consider another parcel tax. This time, however, the district needs to produce a viable long-term financial plan using the new money. And, because of a quirk in state law, residents must lead the campaign.

If the district puts a tax increase on the ballot, it requires two-thirds voter approval. But, as the state Supreme Court [recently clarified](#), if residents qualify an initiative through a signature-gathering drive, that measure would require only a simple majority.

That's the easiest and cleanest solution. But it would require residents to perform heavy political lifting, and the fire district to provide the financial plan.

Instead, the district board is fixated on how many members it should have. Last year, at the board's urging, voters approved a measure making the nine-member board elected rather than appointed. The first election is scheduled for November 2018.

But now the current appointed board [plans to ask voters](#) in a special March election, costing an estimated \$225,000, to reduce the size of the elected board to five members.

What a waste.

Reducing the board size could have been done in last year's measure. Or it could be addressed in the upcoming June general election, when voters are going to the polls anyhow, at half the cost of a special election.

It's a distraction that undermines public confidence in the district. It's time to focus on the real issue. The North Bay fires this fall should have been a wake-up call to what's at stake.



Published November 29th, 2017

## MOFD 2017 financial report shows mixed results

By Nick Marnell

The Moraga-Orinda Fire District presented its 2017 audited financial report to the board Nov. 15, and though the numbers show the district general fund in its best position in MOFD history, the district still reports a \$42 million deficit in its net position.

Thanks to higher than expected property tax revenue and an increase in ambulance fees, the district general fund revenue increased 6.9 percent for the year ending June 30, increasing the general fund balance by \$1.6 million to \$4.9 million. The general fund balance sits at 23 percent of revenue, higher than the 17 percent minimum required by district policy.

Because of strong investment returns delivered by its pension manager, the district net pension liability fell to \$32.5 million, technically measured as of Dec. 31; the same figure from the previous year was \$39.7 million. Combined with the outstanding balance of its pension obligation bond, MOFD recognizes \$49 million in pension obligation. The district reported a net liability of \$15.3 million for other post employment benefits, nearly identical with the previous year.

The district board continues to push for financial sustainability, and in the 2017 fiscal year took steps to reduce its negative net position by adopting a balanced budget, committing to significant contributions to its pension stabilization fund and OPEB trust account and increasing the minimum percentage of general fund balance to revenue. In the current fiscal year the district raised the contributions to its OPEB trust account and its pension stabilization fund and cut \$400,000 in expenses from its operating budget.

"We're still in a hole," said director John Jex, speaking of the district's negative net position. "That's still a big liability that we have to focus on."

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## **Bloomberg**

# **Moody's Warns Cities to Address Climate Risks or Face Downgrades**

*By*

*Christopher Flavelle*

November 29, 2017, 1:00 AM PST

- Communities in Texas, Florida, other coastal states at risk
- Credit rating agency says it's adding climate to credit risks

### How to Hit the Brakes on Climate Change

Coastal communities from Maine to California have been put on notice from one of the top credit rating agencies: Start preparing for climate change or risk losing access to cheap credit.

In a report to its clients Tuesday, [Moody's Investors Service Inc.](#) explained how it incorporates climate change into its credit ratings for state and local bonds. If cities and states don't deal with risks from surging seas or intense storms, they are at greater risk of default.

"What we want people to realize is: If you're exposed, we know that. We're going to ask questions about what you're doing to mitigate that exposure," Lenny Jones, a managing director at Moody's, said in a phone interview. "That's taken into your credit ratings."

In its report, Moody's lists six indicators it uses "to assess the exposure and overall susceptibility of U.S. states to the physical effects of climate change." They include the share of economic activity that comes from coastal areas, hurricane and extreme-weather damage as a share of the economy, and the share of homes in a flood plain.

Based on those overall risks, Texas, Florida, Georgia and Mississippi are among the states most at risk from climate change. Moody's didn't identify which cities or municipalities were most exposed.

Bond rating agencies such as Moody's are important both for bond issuers and buyers, as they assign ratings that are used to judge the risk of default. The greater the risk, the higher the interest rate municipalities pay.

Bloomberg News reported in May that towns and counties were able to secure AAA ratings despite their risks of flooding and other destruction from storms, which are likely to be more frequent and intense because of climate change. If repeated storms and floods are likely to send property values -- and tax revenue -- sinking while spending on sea walls, storm drains or flood-resistant buildings goes up, investors say bond buyers should be warned.

Jones said Tuesday that the company had been pressured by investors to be more transparent about how it incorporates climate change into the ratings process. Some praised the move, while also urging it to go further.

## **Think Harder**

"This kind of publication shoots for municipalities to think harder about disclosure," Adam Stern, a senior vice president at Breckinridge Capital Advisors in Boston, said in an interview. "The action would start to happen when and if you start seeing downgrades."

Jones, the Moody's managing director, said he couldn't recall any examples of the company downgrading a city or state because it failed to address climate risk.

Eric Glass, a fixed-income portfolio manager at Alliance Bernstein, said real transparency required having a separate category or score for climate risk, rather than mixing it in with other factors like economic diversity and fiscal strength.

Still, the new analysis is "certainly a step in the right direction," Glass said by email.

Others worried that Moody's is being too optimistic about cities' desire to adapt to the risks associated with climate change.

Shalini Vajjhala, a former Obama administration official who consults with cities on preparing for climate change, says that won't happen on a large scale until cities start facing consequences for failing to act -- in this case, a ratings downgrade.

"Investors and governments alike are looking for clear market signals to pursue, and perhaps even more importantly, to defend investments in major adaptation and resilience projects to their constituents and taxpayers," Vajjhala, who now runs Re:Focus Partners, said in an email. "Outside of the rating agencies, it is not obvious who else could send a meaningful market-wide signal."

Rob Moore, a senior policy analyst at the Natural Resources Defense Council, said increased attention from rating agencies could push cities to reconsider where they build.

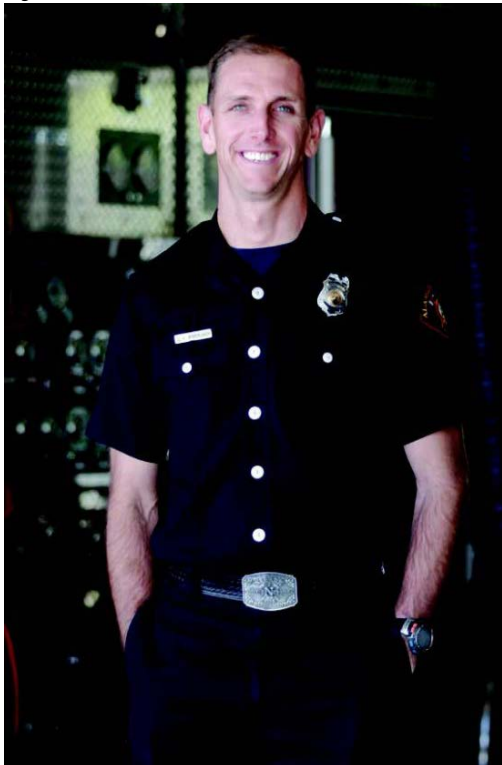
"If I was a city official, I'd be asking a whole lot of questions about what vulnerabilities their community has, and how each new proposed development adds to that vulnerability," Moore said in an email. "Because at some point, your creditors certainly will."

— *With assistance by Tiffany Kary*

Published November 29th, 2017

## MOFD chooses 'leader for the new generation' as fire chief

By Nick Marnell



Dave Winnacker Photo provided

The Moraga-Orinda Fire District board selected Dave Winnacker as the sixth fire chief in the history of the district. Winnacker, who was chosen unanimously Nov. 20 by the board members, joins the district from the Alameda County Fire Department, where he was Division Chief of Special Operations.

"I am thrilled to come to work in a community that takes pride in their fire district, and I look forward to engaging with the people," Winnacker said. "And I am very happy to be working for an exceptional organization with very talented members."

Winnacker takes over a fire district that has struggled financially for much of the decade, and even with recently improved economics, still faces hard decisions on its financial sustainability. "I have a good idea of what I'm getting into," said Winnacker, who managed budgets in his role with Alameda County Fire. "It is imperative that MOFD remains capable of responding to all emergencies and is able to provide the service levels the community expects, while operating as a lean organization that is fiscally sustainable."

A large majority of MOFD calls are medical, and the new chief comes from a fire department that relied on an outside contractor to handle its ambulance calls. "Everyone can always learn. I will reach out to those who have been doing it - both internally and externally," the new chief said, adding that he appreciates the flexibility of local control of the district ambulance service.

Winnacker leaves a fire department where he reported to a chief and comes to a fire district where he will report to a governing board - a board that has been demanding of its fire chiefs. "I am very excited about the opportunity and look forward to establishing collaborative working relationships with all stakeholders to ensure the best possible outcomes for the citizens of the district," said Winnacker, a 23-year Marine Corps veteran and a reservist since 2001.

The board did not use a recruiting firm to screen candidates, but relied on industry advertising and referrals plus feedback from residents at a public forum. In addition to the board members, a panel including Interim Fire Chief Jerry Lee and two captains interviewed the final candidates. "We believe we have found a real leader for the new generation," board president Kathleen Famulener said.

Winnacker, 42, has worked in the fire service for 13 years, including positions with Fresno City Fire and Newark Fire before joining Alameda County Fire in 2010. Born in Tokyo, Winnacker was raised in Berkeley and graduated from UC Santa Barbara. He lives in Albany and is married with two young daughters.

Winnacker's appointment is subject to a background check and the negotiation of his contract, which Lee expects to be wrapped up by the end of the year.

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## East Bay Times

# Kensington will proceed with study of police service alternatives



(Jane Tyska/Bay Area News Group)

The Public Safety Building is seen in the unincorporated community of Kensington, Calif., on Monday, June 26, 2017. Kensington is having a public meeting on Saturday about plans to build a new public safety building. (Jane Tyska/Bay Area News Group)

By [Rick Radin](#) | Correspondent  
**December 1, 2017** at 9:46 am

**KENSINGTON** — The town’s community services board will pursue a \$74,000 fact-finding survey to compare, among other things, keeping and improving its current independent department or contracting out services to another city or agency.

The issue has been heated in Kensington for many years, with critics of the department demanding change and loyalists insisting that contracting out would give residents less control over services and costs.

The “evaluation of options” will be done by Matrix Consulting Group, whose president, Jim Brady, said will include an analysis of the current department, including employment, personnel and retirement information, and levels of police services provided.



Matrix will also consider the same criteria for departments of surrounding areas, such as El Cerrito, Albany and UC Berkeley, along with firm contract proposals from those agencies, to provide comparisons in its final report.

“There are agencies that look at this as an amazing opportunity,” Brady said.

Kensington, with about 5,000 residents, now has a nine-officer police force while neighboring communities have larger forces with greater economies of scale, he said.

“(On the other hand) larger agencies are more complicated with their cost structure and management structure,” Brady said. “With outside agencies you have no control over labor costs and with your own department” you’re doing your own collective bargaining.

The choice should not rest on cost savings alone, but on cost compared with quality and quantity of service, he said.

“Saving money (alone) is the wrong way of doing it,” Brady said.

Residents at the Nov. 29 meeting spoke up for both sides of the issue.

“We have a perfectly good police force,” said former board member Linda Lipscomb, who added that a previous survey on the same issue in 2009 referred to contracting out as a “cumbersome and costly process.”

“We might need an ordinance requiring a vote of the people,” she said.

Board President Rachelle Sherris-Watt countered by saying that the Matrix study was “a fact-finding process.”

“We’re in quite a different world today than we were in eight years ago,” she said.

On the other side, resident Celia Concus referred to “numerous complaints about the police department,” implying that contracting out would automatically provide essential reforms.

As the 18-week process moves forward, the district will be holding town-hall meetings and soliciting input via online surveys to determine resident sentiment.

The board is also considering forming a steering committee made up of board and community members to help shepherd all the information gathering along.

**East Bay Times**

# City of Martinez set to begin transition to district-based elections

By [Sam Richards](#) | [srichards@bayareanewsgroup.com](mailto:srichards@bayareanewsgroup.com) | Bay Area News Group

PUBLISHED: December 4, 2017 at 12:49 pm | UPDATED: December 4, 2017 at 2:55 pm

MARTINEZ — The City Council is poised to change local council elections from at-large to district-based, citing the threat of a lawsuit if the current system of all council members being chosen by voters from all parts of the city isn't scrapped.

Wednesday night, the council is set to declare its intent to move to the new system, including a rough schedule for a transition. The city also plans to hire a demographer, National Demographics Corporation, to create proposed maps outlining the districts.

As part of this process, the city then will hold public hearings both before and after the maps are created, with the goal of council members being chosen from districts in the November 2018 election. The city plans to spend \$105,000 on this first phase of the changeover.

This is all happening in response to a letter from Malibu-based attorney Kevin Shenkman, who has been threatening cities, school districts, community college districts and other special districts all over the state with lawsuits if they don't conform to the California Voting Rights Act of 2001 (CVRA). This bill contends local at-large voting systems are discriminatory if they "impair the ability of a protected class ... to elect candidates of its choice or otherwise influence the outcome of an election."

Shenkman has told this newspaper his main goal in his statewide campaign is to help "protected classes," primarily Latinos in his case, get elected to local offices. It is all in the service, Shenkman said, of making cities and districts conform to the Voting Rights Act. He said it is easier for candidates representing smaller "districts" of a city to campaign and be elected, assuming there are concentrations of where Latinos (or any protected class) live within that city.

Martinez, and many other cities around California, including Fremont and Concord, have received similar letters from Shenkman's office telling them that they must start the move to district-based elections or else face legal action. Only a small handful of cities have challenged Shenkman completely or in part, and all either lost in court or agreed to seven-figure settlements.

The Dublin Unified School District is already changing its election system, after being threatened by Shenkman; the Martinez Unified School District board is having the same discussion, too.

The local group Reform Martinez — District Elections Now — has been in contact with Shenkman, and some communications between group affiliates and others suggest it was this

group, which included former City Councilwoman Anamarie Avila Farias, that reached out to Shenkman to ask for his involvement.

A group spokesman said in November that Reform Martinez has “been in contact with” Shenkman; former Councilwoman Avila Farias, who has been affiliated with this group, denied personally asking Shenkman’s office to get involved.

The public portion of the council meeting begins at 7 p.m. at Martinez City Hall, at 525 Henrietta St.

**East Bay Times**

# Is West County sewer district leader's travel excessive? Six paid trips in first eight months on the job

By [Tom Lochner](#) | [tlochner@bayareanewsgroup.com](mailto:tlochner@bayareanewsgroup.com) | Bay Area News Group

PUBLISHED: **December 5, 2017** at 6:00 am | UPDATED: December 5, 2017 at 3:28 pm

RICHMOND — In less than eight months on the job, the interim general manager of the West County Wastewater District has gotten a raise and attended six out-of-town events at district expense, including one in the Czech Republic, records show.

Now Ed McCormick could become the permanent GM when the board takes up the question whether to appoint him or proceed with the national recruitment it said it would do when it hired him as interim in April.

“It is anticipated that locating a general manager through a national recruitment will take several months before a successful candidate is actually on the job,” board attorney Alfred “Mick” Cabral said in a report accompanying the item on Wednesday’s district agenda. “It is also believed that Mr. McCormick’s availability to continue serving on an interim basis until a recruitment would be completed is uncertain and may be jeopardized by professional commitments or long-term opportunities available to him.”

The board will meet at 6:30 p.m. Wednesday in the Alfred M. Granzella Board Room at the district office, 2910 Hilltop Drive, Richmond. The district serves some 93,000 people in San Pablo, parts of Richmond and Pinole, as well as several unincorporated areas of West Contra Costa.

According to his LinkedIn profile, McCormick is president of McCormick Strategic Water Management LLC of Oakland, formed in early 2016. In his most recent public agency job, McCormick was deputy general manager of the Union Sanitary District in Union City for eight months, from July 2013 to February 2014.

Before that, he spent 30 years with the East Bay Municipal Utility District, where he was manager of wastewater engineering at the time he left in 2013.

The WCWD general manager position became open in February, when the board dismissed longtime General Manager E.J. Shalaby, noting that the organization was “moving in a different direction,” as board President Leonard McNeil put it at the time. During Shalaby’s 13-year tenure, the district received numerous awards for pollution control, financial excellence, planning, plant operation, solar energy use and public education; a list of awards is available [here](#).

In April, the board unanimously appointed McCormick as interim GM at an annual salary of \$229,058, or \$6,500 more than Shalaby’s when he left. On Nov. 16, the board unanimously approved an amended interim GM contract with McCormick, at a raise of almost \$22,000, to \$250,950 a year.

McNeil, in a news release after McCormick was hired, said the district was fortunate to have an executive of his caliber, adding, “His consummate experience speaks volumes. His formal education and unique blend of expertise in capital program management, engineering, labor-management relations, environmental stewardship, construction, collaborative leadership, wastewater systems and community outreach add tremendous value.”

But some have criticized the interim hiring of McCormick, and what they say appears to be a done deal to hire him permanently.

“The district board seems hell-bent on the coronation of the worst manager who has ever been in charge of the district,” district inspector Michael Allendorfer said, addressing the board during public comment at the Nov. 1 board meeting.

Allendorfer also criticized the board’s recent decision to create a new manager of communications position and several others, and also took issue with McCormick’s pay package and travels at district expense, in particular to a strategic planning meeting in September of the International Water Association in Prague, Czech Republic.

McCormick billed the district \$2,883 for that trip, including \$1,687 for air travel and \$519 for three days’ lodging at the Corinthia Hotel Prague, according to records provided to this newspaper pursuant to a public records request.

The [IWA](#) is a London-based international nonprofit organization with the vision of “a world in which water is wisely managed to satisfy the needs of human activities and ecosystems in an equitable and sustainable way.” McCormick is on the organization’s strategic council list as “Specialist Groups Representative, McCormick Strategic Water Management, USA.”

The list of trips that McCormick took at district expense this year, and their cost, is as follows:

- June 4-6: New England Water Environment Association (NEWEA) Spring meeting, North Falmouth, Massachusetts, \$742.58
- July 23-26: National Association of Clean Water Agencies (NACWA) conference, St. Louis, \$1,688.02
- Aug. 5-9: International Resource Recovery Conference, New York, \$2,340.79
- Aug. 22-24: California Association of Sanitation Agencies (CASA) Annual Conference, San Diego, \$1,504.14
- Sept. 20-23: IWA Strategic Council meeting, Prague, \$2,883.58
- Sept. 29 – Oct. 4: Water Environment Federation Technical Exhibition & Conference, Chicago, \$2,523.17

The total of billed costs is \$11,682. They include airfare (except NEWEA, for which none was billed); registration fees where applicable; lodging; and miscellaneous charges.

McCormick said he would respond later in the week to questions about how the travel and conferences relate to and benefit the WCWD and its rate- and taxpayers.

# Pioneering Practice Could Help California Reverse Groundwater Depletion

On-farm groundwater recharge could greatly help decrease aquifer overdraft, but recent efforts show that some significant obstacles will need to be overcome.

Written by [Michelaina Johnson](#) Published on Dec. 6, 2017 Read time Approx. 6 minutes



A groundwater demonstration project in Lodi, California. Farmer Al Costa's vineyard was flooded with 145 acre-feet of Mokelumne River water to help rejuvenate an overdrafted aquifer. *Sustainable Conservation*

Groundwater overdraft in the San Joaquin Valley – producer of half the state's agricultural output – has averaged roughly 1.8 million acre-feet annually since the mid-1980s. Even before the start of the most recent drought in 2011, a few San Joaquin farmers recognized the dire need for sustainable water management and started individually pioneering a groundwater recharge practice that has since gained statewide traction.

On-farm groundwater recharge involves intentionally diverting surface or stormwater to agricultural fields for percolation into the aquifer during times of excess. The practice holds tremendous potential for increasing water storage and offsetting groundwater overdraft, but to scale efforts, some serious obstacles will need to be overcome.

Lodi wine-grape grower Al Costa, in partnership with [North San Joaquin Water Conservation District](#) and the nonprofit [Sustainable Conservation](#), this year launched a groundwater demonstration project on a 13.7-acre parcel of old-Zinfandel grapes to study the benefits of flooding agricultural fields with surface water to refill the aquifer below. Thus far, 145 acre-feet

of Mokelumne River water has inundated the field and percolated into the subsurface, rejuvenating a small fraction of the estimated 100,000 acre-feet of water overdrafted from the aquifer each year. And all this happened with no damage to the grape vines, Costa said.

His project is just one of many projects implemented throughout the San Joaquin Valley that helped capture a share of the past winter's near record rainfall. A recent [survey](#) found that about three-quarters of the 81 San Joaquin water districts surveyed were actively recharging this year. The majority of districts were engaging in some type of on-farm recharge, including extra irrigation on active cropland, inundation of fallowed land or substituting surface water instead of groundwater for irrigation (a method known as in-lieu recharge), said [Ellen Hanak](#), director of the Public Policy Institute of California's Water Policy Center, which conducted the survey.

Despite an increasing number of districts and growers adopting this practice, its full potential has yet to be realized, as policymakers create frameworks for this emerging method and researchers quantify its value.

"There is not a lot of on-farm recharge being done today, but it's growing and will continue to grow," said [Joe Choperena](#), Sustainable Conservation's senior project manager.

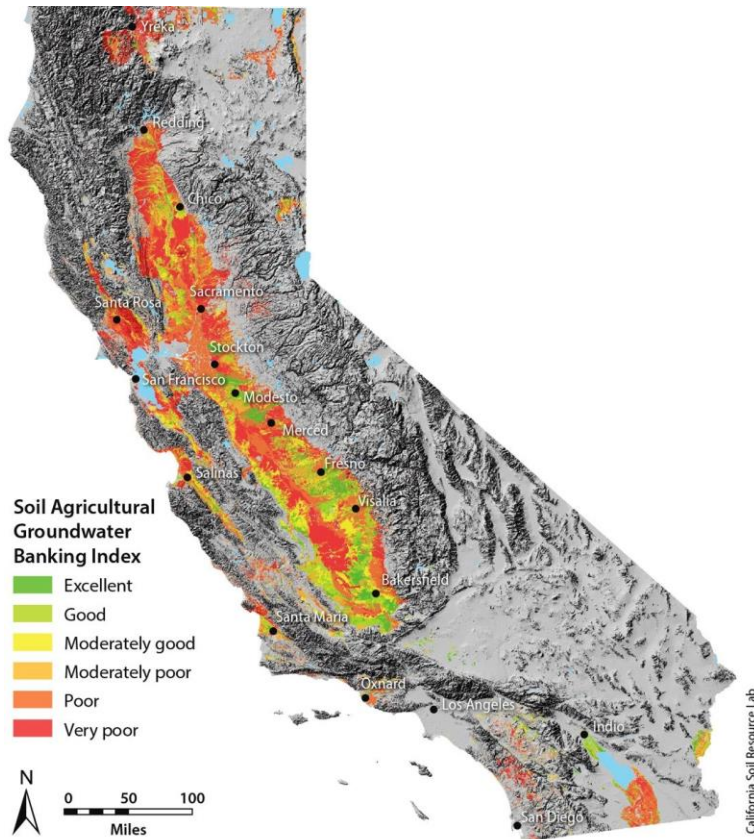
## Understanding an Emerging Method

At first glance, this technique seems to have no drawbacks. On average, it's cheaper than surface water storage, like using reservoirs, and has a huge capacity for replenishing water supplies. Plus, there's plenty of farmland available for recharge.

A 2015 University of California [study](#) identified 3.6 million acres of farmland where water can safely percolate deep into the underlying aquifer with low risk of crop damage or groundwater contamination, and a preliminary calculation showed that this farmland could soak in as much as 1.2 million acre-feet of water per day. Groundwater recharge projects could provide about six times more storage capacity than surface water storage for the same price, [reported](#) Stanford University's Water in the West in 2014. A 2016 [study](#) estimated the price of on-farm recharge at \$36 per acre-foot for a site in the Kings River Basin, which is significantly cheaper than surface water storage and dedicated recharge basins.

With that amount of land and relatively inexpensive recharge potential, why hasn't this practice been more widely adopted?

## Expensive Barriers



A map of soil suitability for groundwater recharge from a report. (The Regents of the University of California)

Several obstacles, notably infrastructure and surface water availability, have limited the widespread implementation of on-farm groundwater recharge.

Water agencies in the San Joaquin Valley considered infrastructure issues to be the most significant barrier to recharge this year, according to the recent PPIC survey. On-farm groundwater recharge often requires flood irrigation infrastructure, which many farmers replaced with more efficient systems like drip irrigation during past dry spells to save water.

A report for Sustainable Conservation estimated the cost of installing a flood-irrigation system on a 160-acre farm to be \$850,000. While this may sound like a sizable expense for farmers, the organization’s marketing and communications director Alex Karolyi pointed out that, when amortized over 20 years, it equates to storing water for future use at a cost of \$98 per acre-foot, which is a lot cheaper than the \$200–\$2,000 per acre-foot that farmers ended up paying for imported surface water during the last drought.

“I think it is safe to say that if infrastructure were in place we could begin to replenish what is typically pumped from groundwater in most years if floodwaters are available,” said [Anthony](#)



[\(Toby\) O’Geen](#), soil resource specialist at Cooperative Extension at the University of California, Davis, and lead author on the 2015 U.C. study.

The availability of surface water, whether in a river or a canal, is another issue. Some of the regions with the worst groundwater overdraft and best suitability for on-farm recharge, like the Tulare Basin, have no access to surface water, according to U.C. Davis hydrologist [Helen Dahlke](#), whose research pioneers the study of this technique.

Crop tolerance for excess levels of saturation also determines site suitability. Dahlke and her team currently have five experimental sites across the state testing the impacts of on-farm recharge on various crops, including alfalfa, almonds and pistachios. “So far, it has looked pretty good [for] alfalfa,” said Dahlke, but the research is ongoing with other crops.

Between 2014 and 2017, her team applied 4–26ft of water to alfalfa fields on two farms in Northern California for an average of six to eight weeks between January and April with no negative impacts on crop yield.

These results show farmers that on-farm groundwater recharge will not damage their crops while also indicating to water districts and environmental organizations like Sustainable Conservation the types of agriculture they should target.

Sustainable Conservation is studying how 11 crops, including grapes, pistachios and walnuts, can handle flooding in spring and early summer when large releases from reservoirs offer water for recharge. During wet and above-normal precipitation years, the most optimal times for on-farm recharge in California are from December to May, when farmers can capitalize on flood pulses or on reservoir releases.

A [2017 study](#) looked at the availability of high magnitude streamflow – flows above the 90th percentile that exceed environmental flow requirements and current surface water allocations under California water rights – in the Sacramento, San Joaquin and Tulare basins. The researchers found “that there is sufficient unmanaged surface water physically available to mitigate long-term groundwater overdraft in the Central Valley.”

## **Financing the Future**

But the cost of capturing that excess water can be prohibitive. Even though on-farm recharge’s mean price is cheaper than other water storage options, Dahlke cautioned that comparing the cost of on-farm recharge projects with other forms of water storage is limited because the actual price of any given project can vary and is contingent on the state of the infrastructure not only on the farm but also the canal or pipeline delivering the surface water.

The cost of water obtained from managed aquifer recharge projects – of which on-farm recharge is a type – in California could range [from \\$80–\\$960 per acre-foot per year](#), wrote [Bea Gordon](#) of Stanford’s Water in the West. Several factors influence the price, including land cost, lack of available data and changes to the cost of environmental compliance.

“The fact of the matter is, with cost, it’s more complicated than just [an] amount,” said Hanak of PPIC. “You need to factor in the bigger costs for the value of expanding capacity.”

Even with sufficient infrastructure, the on-farm recharge project on Lodi grower Costa’s property was hampered by the cost of electricity. The project had \$5,000 set aside for paying for electricity to pump water from the Mokelumne River to the site, and the funds were eaten up after running the pump all day for 12 days, said Sustainable Conservation’s Choperena.

Even in that small amount of time, though, John Podesta, manager of North San Joaquin Water Conservation District, was amazed at how much water Costa was able to put in the ground on a small section of his vineyard.

“There is so much potential on this property and there [are] a lot of long-term plans ... to make this site a long-term recharge site,” he added.

Since the passage of the 2014 Sustainable Groundwater Management Act (SGMA), water districts, growers and the state government have invested more in groundwater recharge to halt overdraft and balance out aquifer levels. Recent water bonds – namely [Proposition 1](#) – and other government funding mechanisms have allocated billions of dollars for improving water storage infrastructure, including groundwater recharge projects, but the competition for the funds is high and permitting of groundwater recharge projects remains complex and time-consuming.

Dahlke said that many of the challenges associated with on-farm recharge will resolve as water agencies comply with SGMA by working to manage groundwater more sustainably and more research sheds lights on the benefits of this emerging technique.

With the Sierra Nevada snowpack projected to substantially decrease by the end of the century because of climate impacts, California’s current water infrastructure will need to adapt. The key to future water storage is groundwater, contends U.C. Davis hydrogeologist [Graham Fogg](#).

“We used to have more snow,” said Fogg. “We need to find another storage mechanism. Groundwater is a great place for that.”