

BAY AREA MONITOR



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Climate Action Summit

Transit-Oriented
Development

Hetch Hetchy Debate

Coming to a Screen Near You

The League is kicking off our 44th year of publishing the *Bay Area Monitor* with some exciting news: We've relaunched our bayareamonitor.org website.

The redesigned site is bold, elegant, mobile-friendly, and primed for sharing on social networks — an excellent platform to showcase the efforts of our hard-working writers. The site was built by MIGHTYminnow, a superb local web development company who we were able to hire thanks to a generous grant from Craig Newmark Philanthropies. The League extends deep appreciation to both organizations.

Our new site will feature additional content to bridge the two months between publication of *Monitor* editions. In the Notes section of the site you'll find follow up items from past *Monitor* articles and useful information about regional policy and related concerns. And for your convenience, all this can be delivered straight to your inbox — just sign up to receive email updates when you visit the site.

But before you go check it out, we invite you to enjoy this first edition of publication year 44, starting with an article on carbon farming by Aleta George. To learn more about this



A glimpse at our remodeled digital home.

photo by Alec MacDonald

topic, she interviewed several experts, including scientist Lynette Niebrugge, who is pictured on our cover helping apply compost at Stemple Creek Ranch five years ago as part of the Marin Carbon Project's fight against climate change. Covering this battle from another front, Leslie Stewart comes next with an article on September's Global Climate Action Summit, followed by Cecily O'Connor's reporting on the latest in transit-oriented development. We wrap the edition with an examination of the controversy over Hetch Hetchy by Robin Meadows, whose own photo of the valley's reservoir serves as our back cover.

After perusing these articles, don't forget to return later to bayareamonitor.org for updates — we'll be waiting there for you.

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Carbon Farming: Sequestering Greenhouse Gases in the Soil

By Aleta George

The term “farm” can have more than one meaning these days, especially when it comes to farms fighting climate change. While wind farms are easily recognizable with their giant wind turbines marching across a landscape, a carbon farm is not so easy to spot, given that the fruits of the farm lie in the soil.

A carbon farm is a working landscape, and more. It’s a conservation-based, whole-farm approach that strives to decrease greenhouse gas emissions and increase carbon sequestration while pursuing agricultural production.

Here’s the dirt. Since the Industrial Revolution, the amount of carbon dioxide in the atmosphere has increased by 40 percent, and that is causing record-breaking temperature rises, drought, and dramatic weather events. In response to this global threat, in 2016 California passed Senate Bill 32 (Pavley), setting a 2030 target to reduce greenhouse gas emissions to 40 percent below the 1990 level. The two-fold strategy to meet this target is to reduce the amount of greenhouse gases we put into the air, and to capture some of the carbon dioxide overload that is already there.

Working landscapes can help — if they are managed correctly. Farm practices such as tilling, over-grazing, and applying fertilizers and pesticides can lead to greenhouse gas emissions. On the flipside, if certain strategies are employed, working lands can help to sequester carbon through the process of photosynthesis.

“Agriculture is the art of managing carbon,” said Torri Estrada, executive director of the Carbon Cycle Institute, a Petaluma-based organization that works to stop and reverse climate change. “If every farmer does some work to improve their soil, it gets us closer to shifting agriculture’s contributions to climate change from a problem to a solution.”

While many consider only trees and forests as capturing

carbon, a recent UC Davis study found that grasslands and rangelands will likely be more resilient and reliable carbon sinks than trees in the coming century due to increased wildfire risk. In a stable climate, the report notes, forests and trees sequester carbon at a more reliable and measurable rate, but that carbon is released to the atmosphere during a wildfire. Since grasslands and rangelands store carbon in the soil, these systems are more resilient to climate change, drought, and wildfire. Of course, to capture the carbon we

have put in the atmosphere, we need all lands on deck.

That’s where a carbon farm comes in. The goal of a carbon farm — in addition to its agricultural production — is to work toward fulfilling the property’s potential to capture carbon and store it in the soil. While too much carbon in the air destabilizes the climate, more carbon in the soil improves fertility, production, and water retention.

Calls for the conservation of soil is nothing new. The USDA’s Natural Resources Conservation Service (NRCS) sprouted after much of America’s farmland soils blew away during the Dust Bowl. The agency has worked with landowners to improve their soils ever since. NRCS has developed a list of conservation practices for greenhouse gas emission reduction and carbon sequestration such as no-

till management, riparian forest buffers, waste recycling, anaerobic digesters, and the establishment of hedgerows. The NRCS list of practices also serves as the basis for COMET-Planner, a tool developed by NRCS, Colorado State University, and the Marin Carbon Project.

Organized by a consortium of independent agricultural institutions, the Marin Carbon Project has been advancing the concept of carbon farms for 11 years. Their work began with a multi-year study led by UC Berkeley ecologist



The Marin Carbon Project’s Jeff Creque inspecting compost application at Stemple Creek Ranch five years ago. The impact of this effort will be evaluated this fall. photo courtesy Marin Carbon Project

Carbon Farming (from page 3)

Whendee Silver, which in simple terms applied compost to grassland and measured the results. Researchers found that each acre of a three-acre grassland plot treated with a half inch of compost pulled about 1.5 tons of carbon dioxide out of the air per year. To test the application of compost to increase carbon sequestration on a landscape level, the Marin Carbon Project and the Marin Resource Conservation District (RCD) spread it across several hundred acres on three demonstration farms in Marin County. Later this fall they will test the effectiveness of the application begun five years ago.

In addition to applying the compost, the Marin Carbon Project and Marin RCD developed a carbon farm plan for each property. The plans are designed to consider the needs of the landowner while helping to identify conservation practices that improve the health of the soil, cut down greenhouse gas emissions, and sequester carbon.

Marin RCD has since expanded its program, developing 15 carbon farm plans and helping with their implementation.

Marin County is not the only place where this is happening; there are now 29 RCDs in California doing carbon farm planning. “Every county has an RCD, and every farm has

a portfolio of options,” said Estrada, whose Carbon Cycle Institute has helped fertilize carbon farm plans elsewhere. “In the Bay Area there are 1.5 million acres of rangeland that can be deployed.”

Most RCDs are just getting started. The Alameda County RCD will complete two carbon farm plans with a recent grant from the California Department of Water Resources. “It’s a methodical process,” said Alameda RCD’s Ian Howell. “We will look at practices that improve operations, benefit soil health, and reduce greenhouse gases or sequester carbon. The plan should improve water quality and water retention in the soil, be restorative for the grasslands, and jibe with the economics of the soil.”

Carbon farming is ripe for California’s cap-and-trade market, but there are questions that need answering before the market can take off, said Jasmine Westbrook at Solano Land Trust. In 2016, her nonprofit

conservation organization helped launch a study at its Rush Ranch property to highlight the feasibility of using compost application to enhance carbon sequestration on rangeland.

The study at Rush Ranch includes 17 one-acre test plots that received a half inch of compost. The plots have different soil types and grazing regimes. The project complies with the American Carbon Registry methodology and is a partnership of Solano Land Trust, the Carbon Cycle Institute, University of California Cooperative Extension, the US Geological Survey, and the Natural Estuarine Research Reserves.

The movement to support carbon farming isn’t restricted to our region, our state, or our country. In an article for the World Economic Forum, soil scientist David Burton wrote that global farmland restoration could be the answer to climate change and food security. “Improved soil management is a public good. We need economic tools and short-term incentives that encourage producers to adopt these practices for the good of all,” according to Burton.

In other words, farmers and ranchers can’t do it alone. If we are going to turn to them for food, fiber, and carbon sinks, they need our full support in policy and practice. 



Underserved communities and people of color are often at the front lines of climate change impacts, so the Carbon Cycle Institute partnered with Food First and Silvestri Strategies to produce the 2017 report *Healthy Soils, Healthy Communities*, which aims to expand a conversation among stakeholders in the realms of environmental justice, climate action, and agriculture, and which may be downloaded at carboncycle.org or foodfirst.org.

photo from *Healthy Soils, Healthy Communities*

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Aleta George covers open space for the Monitor.

Rising to the Challenge: Summit Seeks to Spark Action on Climate

By Leslie Stewart

In the wake of the news that California has already achieved its 2020 greenhouse gas emissions-reduction target, San Francisco will host the Global Climate Action Summit from September 12 to 14. By the time the conference wraps up, participants will have shared strategies and successes in addressing climate change, set new goals, and issued challenges to their peers around the world in five key areas: Healthy Energy Systems, Inclusive Economic Growth, Sustainable Communities, Land and Ocean Stewardship, and Transformative Climate Investments.

According to Nick Nuttall, communications director for the event, two years ago the United Nations acknowledged the state's leadership on climate change with a request to hold a Global Climate Action Summit in California; Governor Jerry Brown agreed and San Francisco's late mayor Ed Lee enthusiastically offered his city as a location. The city will be hosting the September 12 kick-off event, "Cities4Climate: The Future Is Us," held by two international coalitions of local governments, the C40 Cities Climate Leadership Group and the Global Covenant of Mayors for Climate and Energy.

Nuttall emphasized that we are on an accelerating timetable to create answers to climate change. The Paris Climate Accord set a clear goal, which Nuttall described as "pollution so low by 2050 that the earth can handle it." This requires decreasing greenhouse gas emissions to limit the global temperature increase to no more than 1.5 degrees Celsius above pre-industrial levels. Nuttall warned, "2020 is on the radar — it's about that date when emissions should peak and begin to decrease if we're to reach the goal — but we're still off-track for that D-Day, Destiny Day."

The summit is envisioned as an opportunity to gather momentum as 2020 approaches. State and regional officials, investors and CEOs, and other influential leaders are expected to partner in new commitments — creating support for national leaders to make changes in their climate plans and set new goals at the next summit, to be convened in New York in September 2019 by the UN Secretary General. "Paris got done because of CEOs, governors, and other interests building the confidence of national governments," Nuttall explained.



CARB Chair Mary Nichols (center) at the kickoff for the Zero Emission Vehicle Challenge on July 10 in New York.

photo courtesy The Climate Group

This bottom-up approach to policy implementation allows local authorities to spark broad action through mutual commitments. For example, the City of San Francisco announced in April that it was joining 25 cities worldwide in a pledge spearheaded by C40 Cities to reach net-zero greenhouse gas emissions by 2050. As Debbie Raphael, director of the San Francisco Department of the Environment, emphasized at the time, "When cities lead, states and nations follow." More details of the plan will be released during the upcoming summit, when San Francisco will also be a key player in the event's official Zero Waste Challenge.

The Zero Emission Vehicle Challenge is another one expected to draw attention at the summit, with the California Air Resources Board having thrown its support behind this push to accelerate the adoption of electric vehicles around the world. "We call on all manufacturers to join us in this historic transformation, to be leaders in the race that will leave old-style, combustion-driven, inefficient, pollution-spewing engines in the dust," said CARB Chair Mary Nichols at the challenge's July 10 kickoff in New York.

Also on the air quality front, the Bay Area Air Quality Management District will hold an event at its San Francisco headquarters on September 12 intended to challenge summit participants to go "diesel-free by '33." And the following evening, the agency will hold a marketplace to showcase

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promising climate technology to potential users.

Although the main summit events and other high-level sessions will be invitation-only for officials and industry leaders, residents of the region can follow much of the proceedings live on YouTube, Facebook, and Twitter. They can also participate in a wide variety of “affiliate events,” many of them free. Local environmental organizations, agencies, and businesses are sponsoring activities, speakers, and workshops, which are listed on the summit’s community participation page, thehumsum.org. This site is also the place where local volunteers can sign up to help out — approximately 500 people are needed, particularly those who speak multiple languages — and where organizations can list needs or resources, such as meeting space.

Affiliate events start before the summit even gets going — for example, San Francisco’s annual Green Film Festival is September 6-13, and the “RISE for Climate, Jobs, and Justice” People’s Climate Movement March will be held on September 8 in San Francisco. And one public event has already begun: “Gravity of Today: Visions of Tomorrow,” an exhibit of digital art examining the impact of climate change on people and the environment, opened on July 14 and runs through October 21 at the San Francisco Library.

Those in the food business can get tickets for “Climate Friendly Cuisine: Food Service Guidance and Best Practices for a Healthy Planet” on September 11 at LinkedIn headquarters. The all-day event is co-sponsored by the Air District, whose spokesperson Lisa Fasano explained, “One of the largest impacts of greenhouse gases is from food production, food waste, and diet.” Attendees will learn about specific, practical steps that businesses and institutions such as restaurants, hospitals, and corporate campuses can take to reduce their carbon footprint, as topics include “plant-forward meal planning,” sustainable sourcing, and minimizing food waste.

Also on September 11, the Women’s Environmental and Climate Action Network International will sponsor the

Women’s Assembly for Climate Justice from 1:00 to 8:30 p.m. at The Green Room on Van Ness Avenue. Speakers include leaders of indigenous groups, scientists, and activists. A list of calls to action from the assembly will be presented the next day to global summit leaders.

Concurrently with the summit, representatives from many organizations in the Bay Area will participate in a free speakers series at the Presidio Officer’s Club. The first session will feature speakers already engaged in climate change response, including representatives of Oakland’s As You Sow, San Francisco-based E2 and 10Power, Santa Rosa’s Pepperwood Preserve, San Francisco restaurant

The Perennial, and ZeroFoodPrint, which includes many local restaurants. Other sessions will feature innovations in design that are in or past the proof of concept stage, with speakers from Sausalito’s Project Drawdown, San Francisco’s Buckminster Fuller Institute and Bioneers, and the Center for Ecoliteracy in Berkeley. Final



The San Francisco Green Film Festival is one of numerous affiliate events linked with the Global Climate Action Summit.

photo by Tommy Lau

discussions will focus on “vision, messaging, and establishing a cohesive narrative.”

At the conclusion of the conference, the United Nations Development Programme, Pathway to Paris, and 350.com will present a public concert at Masonic Auditorium, headlined by Patti Smith and Bob Weir.

All of these events are a small sampling of what the region will be offering to enhance the discussions and amplify the impact of the decisions made by world leaders attending the summit. The region has a rich and diverse network of organizations, businesses, and agencies focused on climate change, and Bay Area environmental leaders, like their counterparts around the world, are already taking crucial steps to bring the vision to reality.

They know that reversing climate change requires more than simply turning the top of Salesforce Tower green and hosting a conference. It means attending to lower-profile grassroots efforts, like ecological nonprofit Matter of Trust

collecting hair from salons and barbershops to make storm drain filters and skimmers for oil spills, or restaurants educating patrons to value carbon-neutral menus. The Global Climate Action Summit will spotlight the global leaders, but

it will also showcase the many ways in which one region is already moving the world in a sustainable direction. 

Leslie Stewart covers air quality and energy for the Monitor.

Agencies Accelerate Efforts to Build Transit-Oriented Development

By Cecily O'Connor

Transit-oriented development (TOD) is not a new idea, but Bay Area bus and rail operators are increasingly pushing the approach because land they own near stations is ripe for creating affordable communities adjacent to job centers.

TODs can incorporate a mix of high-density housing, office, and retail space into a neighborhood that's within a half-mile of a rail station, ferry terminal, or high-frequency bus line. They benefit transit riders and the community, mixing affordable targets into residential developments and offering close proximity to retail and commercial areas so there's less need to drive.

To build TODs, public transit agencies like BART and VTA are turning over former parking lots and making other critical land-use decisions that are consistent with regional goals for building around stations. The effort entails greater collaboration with local jurisdictions and developers well-versed in the nuances of low-income housing tax credits. When agencies increase ridership on multi-modal transit systems, they generate revenue to maintain operating costs.

"BART and VTA have taken a particular leadership role by adopting smart policies for encouraging homes for residents across the income spectrum on lands near their stations," said Matt Vander Sluis, deputy director at Greenbelt Alliance.

The emphasis on improving access to housing, jobs, and transit comes as more residents are considering leaving the region. About 46 percent said they are likely to move out of the Bay Area in the next few years to less expensive locations in states like Texas, Oregon, and Nevada, according to an annual survey by the Bay Area Council, a business-sponsored advocacy organization. That's up from 40 percent mulling departures in 2017 and 36 percent in 2016.

People are contemplating relocation because of the region's housing shortage and affordability crisis, the council's survey found. The rising cost of living is another motivating factor (particularly for low-income families), as well as record traffic congestion that eats up as much as two hours of a worker's weekday.



The Tasman Apartments development in San Jose is one of many examples of TOD along VTA routes.

photo courtesy of VTA

Many factors have motivated BART to become more involved in TOD. But one, in particular, was the opportunity to partner with cities in the wake of Governor Jerry Brown's 2012 decision to eliminate 400 local redevelopment agencies, a move that impeded TOD creation and funding.

"We realized we own some of the most important property and could play a leadership role in helping cities achieve their community investment goals through TOD on BART sites," said Abby Thorne-Lyman, a TOD program manager for the agency.

But in pursuing housing plans, transit agencies can confront challenges that touch everything from financing and parking replacement to the potential to hurt vulnerable populations and change a community's cultural identity.

Anecdotal evidence underscores TOD benefits — most important, that it helps limit car-reliant sprawl and contributes to regional traffic and greenhouse gas emission reduction goals. Consider that people are more likely to hop

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on public transit if they live within half a mile of a centrally located hub. Job sites within a quarter-mile of transit are also often more appealing to workers.

Last summer, the Metropolitan Transportation Commission and the Association of Bay Area Governments adopted Plan Bay Area 2040, which included devising “a strategy for the use of public land proximate to major transit assets to facilitate the development of housing affordable to low- and moderate-income households through conditions and provisions on funding sources.”

“The reality is we need housing in this state,” said Matt Raimi, founder of Raimi + Associates, a planning firm that focuses on healthy, sustainable, and equitable community projects. “We’ve been behind for decades related to our population growth.” While housing production goals were largely met for market-rate units (catering to people earning above moderate income) across the Bay Area between 2007 and 2014, only 28 percent of units allocated for lower income households were issued permits, according to a 2017 study by the Great Communities Collaborative (GCC).

BART’s TOD policy follows U.S. Department of Housing and Urban Development definitions of low and very low income, which can go up to 80 percent of area median income. The transit operator’s portfolio-wide goal is to produce 20,000 residential housing units — 7,000 of which would be affordable — on station-owned property by 2040.

BART has seven “under-construction” projects in its portfolio, one of which will produce 430,000 square feet of office space for Workday World Headquarters at the West

Dublin-Pleasanton Station. Another transit village at the MacArthur BART Station is taking shape on a former parking lot and will yield 877 residential units in Oakland’s Temescal neighborhood when all is said and done by mid-2020. Retail space is planned at MacArthur, along with a parking garage.

The seven sites represent the “most under construction at a single time in BART’s history,” Thorne-Lyman said. “We will double the size of the residential portfolio in a matter of years.”

Two Bay Area lawmakers introduced a bill this year that aims to provide more low-income housing options, but it contains zoning provisions being met with mixed views. Assembly Bill 2923 (Chiu) would require BART to adopt TOD zoning standards on agency-owned plots within a half mile of an existing or planned station. It also instructs cities and counties to update their zoning ordinances so they are consistent with BART within two years. Greater alignment will expedite production, according to Michael Lane, policy director at the Non-Profit Housing Association of Northern California, a co-sponsor of AB 2923. “It’s a powerful way to deliver affordable housing,” he said.

But opponents like the American Planning Association’s California Chapter said the measure strips cities of land-use policy control. In a June 25 position letter the 5,000-member nonprofit contended, “The bill gives every incentive for BART to maximize its land value regardless of the impacts on surrounding properties.”

In late May, Berkeley’s city council voted to oppose the bill due to zoning authority concerns, joining other East Bay municipalities like Lafayette, Concord, and Hayward. The bill is currently still under consideration by the legislature.

In the meantime, BART is finding new ways to help production time and value. The agency has discovered that factory-built housing can cut an estimated 40 percent of construction time. All 200 of the affordable units at the San Leandro BART Station are factory-built, making it the largest such affordable housing project on the West Coast, Thorne-Lyman said.

VTA provided an update on developing land near its stations during a May webinar, projecting its overall development potential at over 5,000 units, with about 40 percent being affordable. The transit operator counts 25 sites in its joint development portfolio, spread as far north as Mountain View and Milpitas, and then down to Gilroy. Most of the sites are VTA light rail station lots, but a handful are Caltrain, too. One of them, Evelyn Light Rail Station, will be “100 percent affordable housing,” said Jessie O’Malley Solis, a VTA senior real estate agent, during the webinar.

“Our goals are to create long-term stable revenues to help



supply revenue for our service and create community assets, including affordable housing,” she said. “We’d like to utilize TOD to enhance transit ridership and infrastructure.”

Additionally, VTA expects to create about 4.3 million square feet of commercial space through TODs, resulting in 13,000 jobs. Caltrain is also getting on board with TOD, and laid out initial aspects of its planning process in early June during a regular board meeting.

Even as agencies lay out plans and begin construction, limited funding and financing for affordable housing production remain challenges to transit-oriented transformations. BART, for example, is short about \$36.5 million annually (beyond existing funding sources) to bring to fruition its high-density housing goals. Some affordable housing allocations will be delivered via additional bridge toll revenue from the recently passed Regional Measure 3. And selected proceeds from the California Air Resources Board’s cap-and-trade program are being directed at TOD projects, including Laurel Grove Family Apartments, which are adjacent to San Jose’s Diridon Station. But overall, the Bay Area lacks regional grants to subsidize affordable housing production, according to the GCC.

Funding woes, coupled with some residents’ tendency to be concerned about TOD creation in their neighborhoods, can make it difficult to understand how transit hubs and communities could eventually come to co-exist.

Oakland’s Fruitvale Transit Village, a predominately Latino neighborhood, is often cited as a model of why TOD works.

Phase I, constructed on a former BART parking lot, opened in 2004 as a mixed-use project with 47 units. Ten of those units are affordable to Bay Area residents whose household income is at or below 50 percent of the area median income.

Fruitvale also is distinct because it successfully incorporated housing and other elements like public art, plazas, and office space for nonprofit organizations into an established, ethnically diverse community without compromising the neighborhood’s context or character, according to Raimi. “When we make changes in lower-income neighborhoods around transit, it could have implications for gentrification, and we want to make sure changes that are happening are not displacing people,” he said.

By some measures, Fruitvale has avoided such outcomes. Researchers from UCLA’s Latino Policy and Politics Initiative said in a March report that between 2000 and 2015 the transit village experienced “substantial increases” in homeownership and household income. More residents graduated from high school and earned bachelor’s degrees. All the while, the transit village’s Latino population remained largely unchanged.

Cities should consider Fruitvale a case study for “positive community transformation,” according to the report. The transit village provides “insight into how TOD, coupled with positive community-based intervention, can improve the economic and social well-being of residents without resulting in displacement.” 

Cecily O’Connor covers transportation for the Monitor.



Fruitvale Transit Village is an often cited example of successful TOD.

photo by Alec MacDonald

The Great Hetch Hetchy Debate

By Robin Meadows

When Spreck Rosekrans visits Hetch Hetchy — the valley in Yosemite National Park that San Francisco turned into a reservoir nearly a century ago — he looks beyond what is. Instead, he envisions what once was and could be again. “I imagine a meadow, dotted with oak, pine, and fir trees, and with the Tuolumne River meandering through it,” said Rosekrans, executive director of Restore Hetch Hetchy, a Berkeley-based nonprofit.

Hetch Hetchy is just 15 miles north of Yosemite Valley and the two are often called twins. Historical photographs show why: like Yosemite Valley, Hetch Hetchy has sheer granite walls that originally rose dramatically from a wide valley floor. Today, however, that valley is under 300 feet of water.

Building a dam on the Tuolumne River at Hetch Hetchy was fiercely debated when it was proposed in the early 1900s, and the reservoir continues to spark controversy today. The latest twist in this long story has just unfolded, and the final chapter is yet to come.

The Sierra Club is one of the original opponents of flooding Hetch Hetchy, calling it “the greatest blemish in our national parks,” and the organization’s former executive director David Brower recommended that Rosekrans lead an effort to restore the valley. Rosekrans had previously worked at the Environmental Defense Fund, a New York-based environmental advocacy nonprofit, where he was lead author of the 2004 report *Paradise Regained: Solutions for Restoring Yosemite’s Hetch Hetchy Valley*.

In 2015, Restore Hetch Hetchy filed a lawsuit against the City and County of San Francisco, seeking a ruling that Hetch Hetchy Reservoir violated California law. “The state constitution says all water use must be ‘reasonable,’” Rosekrans said. “We argued that the reservoir is not reasonable because the value of the restored valley is greater

than the cost of changing the water system.” At the time, they put the recreational value of the restoration at up to \$8.8 billion and the cost of water system changes at \$2 billion, both over 50 years.

The trial court ruled in San Francisco’s favor in 2016, saying that California courts lack jurisdiction over Hetch Hetchy

because the dam there was approved by Congress. So Restore Hetch Hetchy filed an appeal with the Court of Appeals in Fresno, which heard arguments from both sides in May of this year.

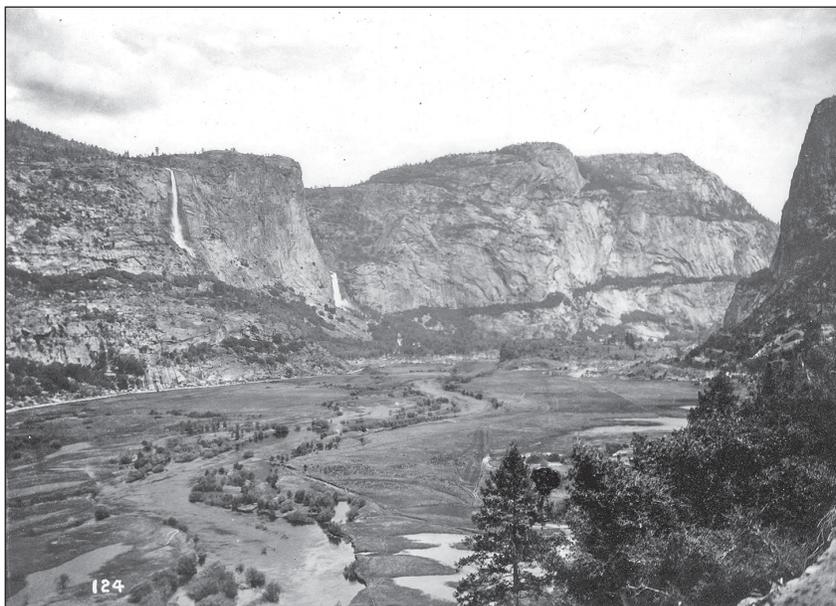
Supporters of the appeal include Barbara Griffin and Robert Binnewies, both former superintendents of Yosemite National Park. In a brief filed with the appellate court, they said, “The trial court did not determine that the continued use of the

dam and reservoir was ‘reasonable’ — rather, it concluded that the question could not be examined at all.” In other words, they say the trial court did not address the substance of Restore Hetch Hetchy’s argument.

Other supporters of the appeal include the State Water Resources Control Board. That said, the board does not support either side in the Hetch Hetchy debate. Rather, in a brief submitted to the appellate court by California Attorney General Xavier Becerra, the board said that the trial court “erred” when it ruled that federal law preempted California water law.

The Fresno appellate court disagreed. In July of this year, the judges affirmed the previous ruling in favor of San Francisco: “The trial court correctly concluded Restore Hetch Hetchy’s claims are preempted under federal law.”

Legal issues aside, is it theoretically possible to change the Hetch Hetchy water system? Jay Lund, director of the UC Davis Center for Watershed Sciences, thinks so. The Hetch Hetchy water system includes other reservoirs, and the one in Hetch Hetchy Valley stores only about a quarter of the water San



This photo from the early 1900s shows Hetch Hetchy Valley from the southwestern end, with the Tuolumne River flowing through the lower portion of the valley prior to damming.

photo by Isaiah West Taber

Francisco gets from the Tuolumne River.

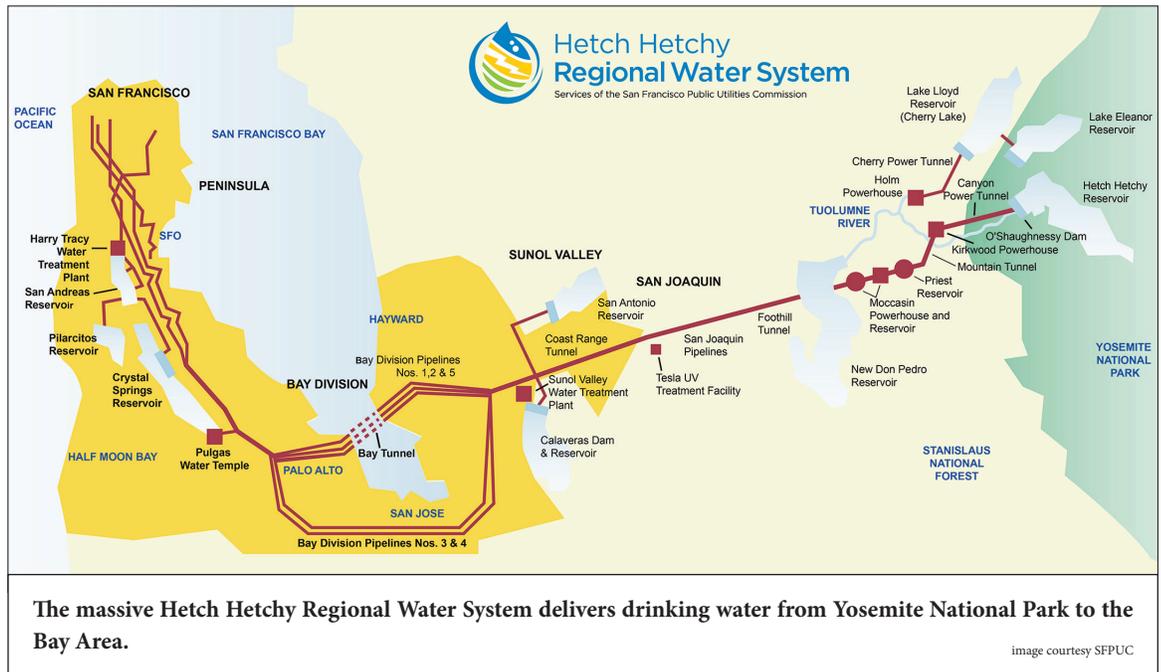
In a 2006 analysis in the *Journal of the American Water Resources Association*, Lund identified additional options for storing the water that is currently in Hetch Hetchy Reservoir. But changing the system would be jaw-droppingly expensive. “Hetch Hetchy would never get built today, but restoring it is something for the long haul,” Lund told the *Monitor*.

Steve Ritchie, a San Francisco Public Utilities Commission (SFPUC) water manager who oversees the Hetch Hetchy system, says storing the water elsewhere would cost billions of dollars. “The notion that we could restore Hetch Hetchy would be very attractive if it didn’t have any other effects — but it does,” Ritchie said, adding that the water goes to about one third of the people in the Bay Area. “It’s not just San Francisco.”

Some of the costs would be operational, recurring year after year. That’s because Hetch Hetchy Reservoir has built-in advantages that save huge amounts of money. For example, thanks to the reservoir’s nearly 4,000-foot elevation in the Sierra Nevada, the water in it is amazingly pure.

“Hetch Hetchy captures snowmelt that runs off granite,” Ritchie said. “It’s very clean; there’s very little sediment.” The water is disinfected with ultraviolet light but, in contrast to almost all other reservoirs in the U.S., filtration is not required. Lund estimates that being able to forego filtration saves the SFPUC \$1 or \$2 billion every year.

Restoring Hetch Hetchy could also come at an environmental cost. “I would never put Hetch Hetchy where it is, but the fix itself would be destructive somewhere else,” said Laura Tam, sustainable development policy director of SPUR, a San Francisco-based nonprofit dedicated to urban planning in the Bay Area. For example, raising a dam on another reservoir in the system could flood another stretch



of the Tuolumne River that, while outside Yosemite National Park, is designated as a national Wild and Scenic River.

For Restore Hetch Hetchy, however, the overriding concern is righting what they see as a historical wrong to an iconic national park. “We are fighting a battle to try our case in the California courts,” Rosekrans said. “Next we’ll ask for a review from the state Supreme Court.” [LWV](#)

Robin Meadows covers water for the Monitor.



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