

# The Sacramento Bee

## FORUM

Section

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### WATER: Bring Back Hetch Hetchy?

By Tom Philp – Bee Staff Writer

Wander out of the political box of today, back in time. Wander to the late 19th century when a naturalist named John Muir was busy memorizing the walls of a Yosemite valley -- not the Yosemite Valley, but the place that Muir considered its smaller twin, Hetch Hetchy.

His writings dared visitors (there had been perhaps 7,000 by then) to come to Hetch Hetchy and compare the two. "They would see rocks and waterfalls, meadows and groves, of Yosemite size and kind, and grouped in Yosemite style. Amid so vast an assemblage of sublime mountain forms, only the more calm and careful observers would be able to fix upon special differences."

There is no mistaking the two today. Yosemite Valley is still scenic, the breathtaking destination of more than 3 million park lovers every year. Hetch Hetchy is submerged under 117 billion gallons of water. In one of the great political contradictions of all time, Congress decided in 1890 to protect Yosemite as a national park, only to decide in 1913 to drown Hetch Hetchy to supply water for San Francisco.

"Dam Hetch Hetchy! As well dam for water-tanks the people's cathedrals and churches, for no holier temple," Muir would later write, "has ever been consecrated by the heart of man."

Efforts have come and gone ever since to right this wrong, to restore Yosemite that actually has two grand valleys, not just one. But the idea has never captured the imagination of someone with the economic or political power to restore Hetch Hetchy.

In generations past, this was understandable. Dams were for building, not tearing down. There was one way to do things, how they had been done in the past. Another water supply for San Francisco never seemed obvious or achievable.

Today, the idea of restoring the Hetch Hetchy Valley doesn't feel so wacky. It conceivably fits into a new era of water plumbing and water policy. It may be feasible to replace the water for the Bay Area -- even make the supply more reliable -- by connecting some plumbing that already

exists with some new projects that are already within the comfort zone of California's contentious water politics.

"It's a question of whether it's something that people want to pay for," said Spreck Rosekrans, a mathematician who works as a modeler of water alternatives for Environmental Defense.

The real Everest here isn't the plumbing. It's the politics. The official mindset within San Francisco about water doesn't seem to have changed much since that opening ceremony for O'Shaughnessy Dam in the Hetch Hetchy Valley in 1923. When it comes to water, San Francisco's reputation as a progressive, open-minded, harmonious place is all wet.

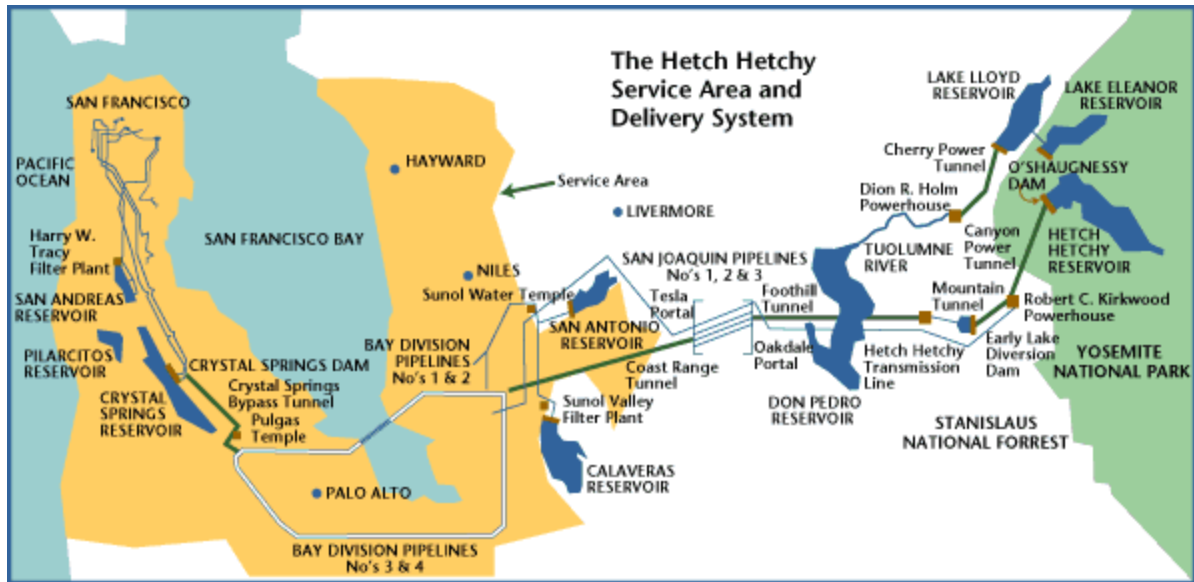


"The political cooperation is fairly low compared to other regions," said Lester Snow, a private water consultant who made his name bridging political divides in various government water jobs (San Diego County, Arizona, California and the federal Bureau of Reclamation).

Yet San Francisco now finds itself in a situation where it must cooperate. Having neglected for decades to maintain adequately its water system stretching from the Sierra to the Financial District, the city must work with the larger region to spend billions to modernize its plumbing. The question is, just how modern will it be when the spending is done?

"I will not criticize outside-the-box thinking," said Art Jensen. He used to help manage the Hetch Hetchy system. Now he represents the bulk of the system's customers, the 1.6 million Bay Area residents outside of San Francisco who are served by Hetch Hetchy.

Ask him about the idea of restoring the valley and he doesn't wince. It is "intriguing to me," Jensen said. "I'm not turned off by it."



## The plumbing

For the moment (Muir, please excuse us), think of Hetch Hetchy as a water bowl that needs replacing. That means finding a place to store the equivalent of Hetch Hetchy, and preferably more.

Hetch Hetchy contains 360,000 acre-feet of water (each acre of water one foot deep, or a total of 325,000 gallons). As California reservoirs go, this is somewhere in the mid-size range. Folsom Reservoir, by comparison, is a million acre-feet; Shasta is 4 million.

The system known as Hetch Hetchy isn't just this one reservoir, but 11 in all. Above Hetch Hetchy, there are two other reservoirs (Cherry and Eleanor) that capture water. They spill down one fork of the Tuolumne River into Don Pedro Reservoir below (run by the Modesto and Turlock irrigation districts). A southern fork of the Tuolumne carries the flow from Hetch Hetchy.

The water heads west across the Central Valley via three giant tubes. In the Bay Area, the tubes fill reservoirs along the spine of the San Francisco Peninsula. Other reservoirs, such as Calaveras Reservoir in the hills northeast of San Jose, capture runoff from rain to supplement the Sierra flows.

Almost a century ago the San Francisco Public Utilities Commission (its current general manager did not respond to a request for an interview) coveted the Calaveras Valley as a water solution. But a private company bought it up, prompting the city to look to Yosemite. San Francisco eventually bought out the company. In a delicious repeat of history, Calaveras Reservoir once again looms large in a scenario that restores Hetch Hetchy.

The reservoir now holds 97,000 acre-feet of water. But in its new capital improvement program, San Francisco plans to enlarge Calaveras to nearly double the capacity of Hetch Hetchy, so it can hold 670,000 acre-feet of water, and fill it with Sierra snowmelt in wet years.

The result, according to the plan, would be a potential supply that is "surplus to the needs of SFPUC customers." Translation: all the water the Bay Area could possibly drink.

And then some.

Take away the dam at Hetch Hetchy (named after Michael M. O'Shaughnessy, the San Francisco engineer who helped build it), and it obviously becomes harder to capture and move water from the Sierra to fill a bigger Calaveras. But dreamers like Rosekrans of Environmental Defense have cranked the numbers through some serious water modeling software and suggest there are at least three other perfectly plausible ways to help fill Calaveras.

One would be to divert some water below Hetch Hetchy via pumps. Another alternative would divert some water via Don Pedro Reservoir, sucking more water in wet years by building a fourth tube (another project on San Francisco's drawing boards).

Then there's the option of using another set of pipes that are within striking distance of Calaveras. These move water from the Sacramento-San Joaquin Delta to the southern Bay Area.

## **Water: Dreamers seek to end John Muir's nightmare**

All these alternatives exist or are in the planning stages.

An enlarged Calaveras filled by Sierra water is just one potential replacement for Hetch Hetchy. There are others.

The state-federal water initiative known as Cal-Fed is looking to expand Los Vaqueros Reservoir in Contra Costa County. The reservoir is currently 100,000 acre-feet (each acre-foot is enough for two environmentally correct Bay Area families for a year). A Cal-Fed proposal would expand it to 500,000 acre-feet, filling it with a blend of Delta and Sierra sources.

There's even a third reservoir that could play a role here. New Melones (capacity 2.4 million acre-feet) is a big reservoir on a not-so-big river, the Stanislaus, which flows out of the Sierra just to the north of the Tuolumne. Figure out a way to fill up New Melones and -- presto! -- there's a new water supply without the cost of building or expanding a new dam.

How? By a sort of water juggling. Move some "surplus" flows from the bigger Tuolumne into the smaller Stanislaus. All it would take is a canal, perhaps as short as three miles, with the water flowing by the cost-free force of gravity. By feeding the lower Stanislaus with excess Tuolumne flows, more water that would otherwise flow all the way down the Stanislaus could be held behind New Melones. The result -- a fuller New Melones.

That makes perfect sense to a key water player on the Tuolumne River, Allen Short of the Modesto Irrigation District. "We've raised the issue, put the project on a number of people's radar screens. There's been little or no interest," said Short. "It's baffling to me." (Short is quick to add that he's not looking to do anything that would ever harm his region's own senior water rights on this system. "That would be something that we'd be very, very aggressive on retaining.")

## **The problem**

The big obstacle, of course, is politics.

San Francisco not only has a grip on Yosemite, it also has a stranglehold on water politics and water policies throughout the Bay Area. Thirty-one cities and water districts and one stand-alone water company (for Stanford University) rely on Hetch Hetchy water. Yet only San Francisco has a say in how the system is run.

"That is absolutely unique in California," said Jensen of the Bay Area Water Users Association, who represents the disenfranchised 30 customers. His job is consumed by dealing with both this disparity and the physical disrepair of the system.

The inequity doesn't end with water. There's also electrical power. As it races downward from the Sierra to the Valley floor, the water from Hetch Hetchy produces electricity, which yields tens of millions in revenues a year.

Where does it go? Not to those 31 water users. Not even to maintain the water system. It all goes to San Francisco, where it is spent on Muni transit, homeless programs, police and all the various services that run the city.

The tab for all the needed repairs and upgrades to the Hetch Hetchy water system approaches \$3 billion. This problem dominates water policy in the Bay Area, and sends ripples into the state Capitol. The Legislature is considering bills to force San Francisco to embark on these repairs, or allow a new regional agency (something that the city opposes) to help finance them.

Hetch Hetchy, a San Francisco mayor named Dianne Feinstein once said, is the city's "birthright." Getting rid of the dam, she said, would be "dumb, dumb, dumb."

That's not exactly the kind of mindset it would take to restore Hetch Hetchy and find a regional water solution for the Bay Area. "It would require cooperation among water agencies," said Barry Nelson, who follows California water policy issues for the Natural Resources Defense Council. "Lots of water agencies have a long history of not cooperating."

Not then. And with legislative wars raging in Sacramento, not now.

At least not yet.

## **The window**

Restoring Hetch Hetchy would take quite a realigning of the planets. It would take a water crisis that forces change, a group that gives legitimacy to the project, outside funding, both from government and private foundations, and perhaps most of all, a respected champion inside politics.

There's no shortage in the crisis department. Years of deferred maintenance on the system have created the need to spend \$2.9 billion on the regional system, and another billion-plus in repairs

within San Francisco. "The price is so large," said Nelson of NRDC, "those cities are demanding a voice before they get the bill."

Since this modernization process involves the selling of bonds, San Francisco voters would first have to bless it. This puts a unique population of voters, with a traditional bent toward environmental thinking, into a key position on the future of Hetch Hetchy. They, not the water bureaucrats, could start the ball rolling.

Don't look for the city to put restoration on the ballot, but there are all kinds of environmentalists in the city (the Sierra Club, NRDC and the Wilderness Society) that could gather enough signatures during their lunch breaks. All they have to do is decide that they'd truly prefer to start restoring Hetch Hetchy and stop drinking from it.

Unlike in generations past, there are today huge financial rewards for regions that begin to act like regions. Cal-Fed has a 30-year, \$9 billion dream of reducing water conflicts throughout the state, largely through regional solutions. If the locals can find ways to cooperate, they get some outside financial support that they otherwise couldn't tap.

"If there's something there (to life without Hetch Hetchy), now's the time," said Snow, former chief of Cal-Fed.

Meanwhile, the grass-roots effort to restore Hetch Hetchy has quietly begun. The group, formed just over two years ago, is called Restore Hetch Hetchy, and it includes the likes of Rosekrans, the mathematician/water wonk from Environmental Defense.

"If there are parochial, narrow interests in the Bay Area that don't want this issue raised, we will make sure it is raised in the rest of the country," said Ron Good, Restore Hetch Hetchy's full-time executive director. "We can get people all over the U.S. interested in restoring this beautiful place."

What's missing is the politician who will lead the charge. Yet back in Washington, there's a U.S. senator named Feinstein who deserves a legacy for all her hard work in the field of water.

She will have a place in the history books for her work in the Mojave Desert, where she helped preserve millions of acres, and on the North Coast, where she got a conservative-leaning Congress to spend a quarter billion dollars to preserve the ancient redwood forest known as the Headwaters.

In her own back yard, however, she is a captive of history -- her city's and her own.

A leader like a Feinstein wouldn't have to change her mind, or even believe at first that this is possible. For now, the dreamers who want to end John Muir's nightmare are simply asking for a study -- a real study by independent, respected experts, not a knee-jerk, can't-be-done response from San Francisco.

Snow, for one, sees the idea of restoring Hetch Hetchy as serious enough for a hard look. "A first level of analysis would be warranted. Why not?"

## **How the dirty deed was done**

San Francisco's quest for the waters of the Yosemite began more than a century ago. In 1901 an agent for the city, Joseph B. Lippincott, filed an application with the state for water rights on the Tuolumne River.

This is the same Joseph B. Lippincott who was in on the most infamous water grab of California history, on the eastern side of the Sierra, in the Owens Valley. There, Lippincott and others acting on behalf of the city of Los Angeles secretly bought up the farmland along the Owens River so it could be sent south.

San Francisco was even more dependent than Los Angeles on water imports. With no river and no significant groundwater beneath it, San Francisco could survive only with some other region's water. A private company had outfoxed the city in securing some of the best supplies within the Bay Area. So San Francisco decided to make a leap, both in terms of geography and politics, by venturing into a national park for water.

The city, according to noted water chronicler Norris Hundley in his book "The Great Thirst," faced three primary obstacles.

There were the naturalists like John Muir, who vowed to keep protest letters flying to Washington "as thick as snowflakes." There was the local private water company that wanted San Francisco to buy water from it. And there were farmers in Modesto and Turlock who were using the Tuolumne River and were fearful of the powerful city.

The political battle raged back and forth for a dozen years. The San Francisco Chronicle called the environmentalists who defended Hetch Hetchy, among other things, "short-haired women and long-haired men."

Muir, on the other hand, told Congress that the valley was "one of God's best gifts and ought to be faithfully guarded."

In the end, defenders of the Yosemite Valley could not persuade Congress that San Francisco had a feasible alternative. A Northern California congressman named John Raker finally broke the political gridlock in favor of San Francisco. With legislation that has become known as the Raker Act, he found the votes in 1913 to build the dam, in large part by securing the water rights of the Modesto and Turlock farmers.

The deed was done. A decade later, the dam was built, and Hetch Hetchy was under water.