

A Framework for Deliberation

This issue guide was developed by the Autry Museum of the American West in collaboration with the Kettering Foundation as part of the Historic Decisions series. It is designed to stimulate deliberation about a complex historical issue by examining the difficult choices Americans faced at the time

The guide is set in 1913 as the U.S. Senate was preparing to vote on the Raker Bill, a legislative

proposal that would grant San Francisco the right to construct a reservoir in California's Hetch Hetchy Valley along with infrastructure to transport the water. The plan sparked a nation-wide debate—the first of its kind—about the costs and benefits of resource development. It also exposed tensions between competing views about environmental stewardship and our relationship to nature—views still deeply held and widely debated today.

The actions presented in the text are based on ideas or proposals actively considered in 1913. But the ideas were generated at a time when many Americans were excluded from public discourse and democratic decision making. For the purposes of dialogue and deliberation, the guide explores a broad cross-section of views—including those less widely heard in 1913 as the nation struggled to decide the fate of Hetch Hetchy.

Forum Ground Rules

We encourage everyone to participate—no one or two individuals should dominate.

We listen to the perspectives and the knowledge of all who are participating.

We learn from one another.

We maintain a supportive atmosphere for the exchange of views and analysis.

We focus on the deliberation question.

How Would You Advise Congress?

It's the fall of 1913. In the wake of a devastating earthquake and fire, the city of San Francisco is in need of reliable sources of fresh water. City leaders have proposed building a dam and creating a municipal reservoir in Hetch Hetchy, in a picturesque valley in the newly created Yosemite National Park about 150 miles away.

But the plan is a controversial one. Opponents say that Hetch Hetchy should remain a wilderness preserve. They feel that the valley's spectacular granite cliffs, clear streams, giant seguoia groves, and rich biodiversity represent a precious national resource, one that—like the nearby Yosemite Valley—should be protected against development.

Still others believe that the water rightfully belongs to those who live and depend on it for their livelihood. This includes local ranchers, business owners, and not least. Native American tribes who have lived in the valley for thousands of years. These people all have a stake and deserve a voice in how the valley's resources are to be managed and developed.

What is the best use of our natural resources?

How do we reconcile the competing claims of diverse populations?

Whose needs should take precedence?

These questions will be debated on the floor of the U.S. Congress as the Senate prepares to vote on the issue. The future of Hetch Hetchy hangs in the balance. What would you recommend to Congress that we should do?





San Francisco suffered a calamitous earthquake in 1906. When the shaking was over, tangles of broken gas and water pipes and overturned kerosene lamps ignited fires that burned for days, claiming thousands of lives and laying waste to much of the city.

The earthquake gave new urgency to a problem that has dogged San Francisco for decades: a chronic fresh-water shortage. Surrounded on three sides by salt water, San Francisco residents get all their fresh water from a private company that holds a monopoly on the city's water supply.

With the emotional weight of the destruction still fresh in the public's mind, city officials have stressed that San Francisco—a fast-growing city of nearly a half-million people—needs a reliable water supply, one that will not fail the city as it did in the recent catastrophe.

Former Mayor James Phelan and his supporters have proposed building a dam in Yosemite National Park's Hetch Hetchy Valley. With its high-walled granite mountains and narrow outlet canyon, the valley is perfectly suited for a dam. A reservoir at the site would provide the city with fresh water and hydroelectric power for years to come.

But the plan is not without its critics. The Sierra Club, led by famed naturalist John Muir, and a host of other opponents regard the Hetch Hetchy Valley as a national treasure, one that should remain under federal protection, not sacrificed to meet the municipal needs of a distant city.

Others make the case that a dam would inundate land that had long been occupied by Native American groups and threaten generations-old traditions, sacred sites, and ways of life. It would be a further loss to communities already suffering from a century of upheaval.

Damming the Tuolumne River in Hetch Hetchy would also interfere with the irrigation of crops in the San Joaquin Valley, destroy local businesses, harm tourism, and deprive the valley and surrounding region of much-needed sources of income.

The dispute over the future of Hetch Hetchy has made headlines across the country and sparked a national conversation—the first of its kind in U.S. history—about the importance of America's public lands and the nature of our relationship to the natural world.

The issue will be brought before the U.S. Senate this fall. If you were to advise Congress, what course of action would you recommend?

What measures can you support? Which trade-offs and consequences are you willing to accept?

This issue guide explores three options for the future of Hetch Hetchy:



Protect the valley against development

This option makes a case for preserving the spectacular scenery and rich biodiversity of Hetch Hetchy by protecting it as a wilderness preserve, one that can provide opportunities for solitude, inspiration, and recreational enjoyment for all Americans.





Direct resources to where they are most needed

This option favors building a dam in the Hetch Hetchy Valley to provide hundreds of thousands of San Francisco residents with water and electricity—basic necessities for health and well-being, as well as urban development and economic growth.





Give control to the local people of Hetch Hetchy

This option insists that the resources of the watershed are best governed and managed locally—by those who live in and around Hetch Hetchy and have a rightful claim to the land—not by officials in faraway cities like San Francisco or Washington D.C.



Each of these options has its strengths, but there is no perfect solution. Every solution comes at a cost.

Here's some historical, geographic, and policy information for you to use in your deliberation.

Water Rights in California

The debate over Hetch Hetchy is complicated by the fact that California has a long history of competing methods for determining who has the legal right to water.

Water rights were allocated according to the doctrine of "prior appropriation." The first miner to stake a claim held the rights to it. Subsequent users could use any remaining water only if it did not impinge on the rights of the first user.

Since appropriation water law is use based, rights could be claimed by diverting and using the water. In 1887, the Wright Act gave small farmers the right to band together to build irrigation works to channel water where it was needed and then tax local residents to pay for it.



The United States also applied Eastern water laws—known as "riparian water laws"—to California. Riparian water rights are based on land ownership. All individuals who own property along a waterway have equal rights to use the water. Under this system, a landowner could use the water on their land so long as that use did not affect another landowner's right to the water.

The Tuolumne River flows 149 miles from the high Sierra Nevada through Central California where it joins the San Joaquin River. The Tuolumne River became a significant source of water for farmers in Turlock, Modesto, and the San Joaquin Valley. In 1887, California's Wright Act gave farmers the right to form quasi-govern-

ne right to form quasi-governmental entities to build common irrigation works.

California recognized both categories of water law until the Water Commission Act of 1913 created a permit process and a new State Water Commission. The commission established that riparian law took precedence over the prior appropriation doctrine. It allowed water use permits only if an individual's use of water was consistent with the greater public interest.



JUNE 30, 1864 President Abraham Lincoln signs the Yosemite Grant Act. establishing a park in the state of California, which includes the Mariposa Big Tree Grove and the Yosemite Valley.



OCTOBER 1, 1890 Congress establishes Yosemite National Park. which is expanded to include the Hetch Hetchy Valley.



MAY 28, 1892 The Sierra Club is founded in San Francisco. Members elect John Muir as the Club's first president.



1901-1903 San Francisco Mayor James Phelan repeatedly applies to the U.S. Department of the Interior for a water storage permit in Hetch Hetchy Valley. The applications are denied.



APRIL 18, 1906 An estimated 7.8 magnitude earthquake strikes San Francisco. Fires burn for four days. Three thousand people die and 28,000 buildings are destroyed.



MAY 7, 1908 San Francisco officials petition to reopen the city's application for the water rights to Hetch Hetchy Valley.



MAY 13-15, 1908 President Theodore Roosevelt convenes the White House Conference on the Conservation of Natural Resources.



1908-1910 Hearings begin in Congress on San Francisco's renewed request for a water permit. A special commission investigates, requiring further studies and data on the city's request.



SUMMER 1913 Representative John E. Raker of California introduces a bill in the U.S. House of Representatives that would grant San Francisco the right to turn Hetch Hetchy into a municipal reservoir.



FALL 1913 U.S. Senate holds hearings on the Raker Bill and receives petitions from citizens and organizations across the country for and against the proposed legislation.

OPTION

Protect the valley against development

This option holds that we should preserve the spectacular scenery and rich biodiversity of Hetch Hetchy, which belongs to all Americans and to which they can venture for solitude, inspiration, and recreational enjoyment.

The case for setting aside Hetch Hetchy as a wilderness preserve began in the 1850s. Many of the early explorers, artists, and naturalists who arrived in the valley at the time were struck by its transcendent beauty. They described it as a cathedral of nature and declared that it should be left intact, protected from exploitation and development.

"A grand landscape garden, one of nature's rarest and most precious mountain mansions."

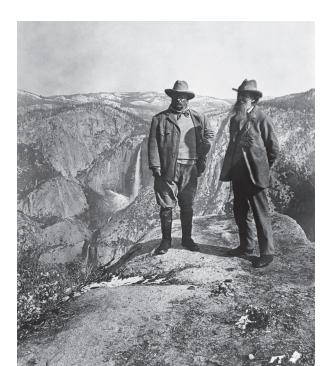
One of those early visitors was famed naturalist and author John Muir who first visited Hetch Hetchy in 1872. He described Hetch Hetchy as "a grand landscape garden, one of nature's rarest and most precious mountain mansions." Other visitors echoed the sentiment. The noted geologist Josiah Whitney—after whom nearby Mt. Whitney is named—called Hetch Hetchy "almost an exact counterpart of the Yosemite

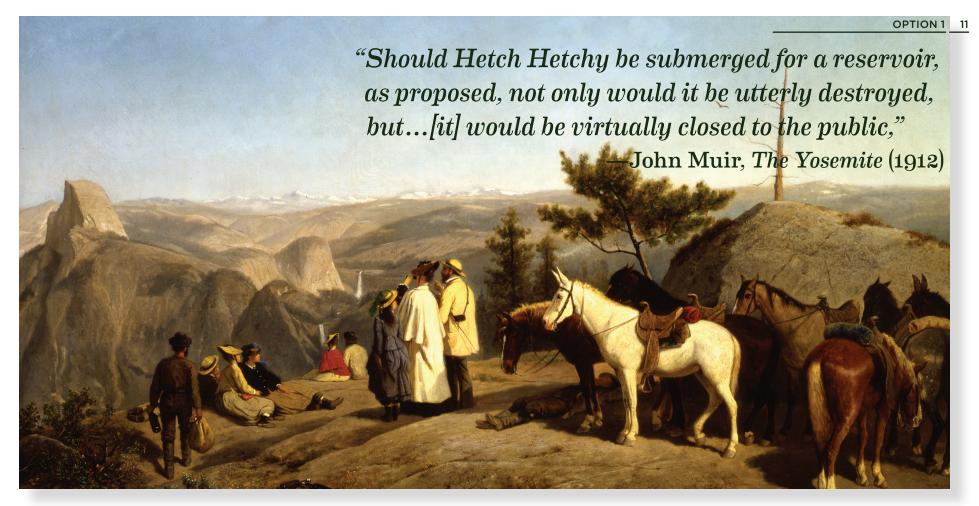
Valley," but on a slightly smaller scale. But if there were no Yosemite, he added, "the Hetch Hetchy would be fairly entitled to a worldwide fame."

Wilderness advocates believed that the wonders of nature belong to everyone, not just the wealthy or privileged. In 1872, the U.S. Congress gave expression to this idea by establishing the first National Park (Yellowstone) "for the benefit and enjoyment of the people." The same principle applied 18 years later to Yosemite, which became a popular tourist destination, offering visitors—many of them from America's fast-growing industrial cities—rich opportunities for solitude, inspiration, and recreational enjoyment.

Although Yosemite was often referred to as a pristine wilderness, the designation turned a blind eye to Native Americans whose ancestors had shaped the landscape and ecology through careful management for thousands of years. But it marked a growing recognition of the intrinsic and immeasurable value of nature.

Yosemite was formally established as a National Park in 1890. The boundaries of the new park included Hetch Hetchy Valley. But no sooner had it been placed under federal protection than the valley became a target for development. Wilderness advocates feared that tourism, lumber mills, sheep ranching, farming, and other activities might, even with careful management, destroy the fragile ecosystem.





In 1903, San Francisco applied for a water storage permit in Hetch Hetchy. City leaders argued that it was the perfect place for a reservoir, one that could serve the city's municipal water needs for decades to come. The fact that Hetch Hetchy lay within the boundaries of Yosemite National Park only added to its attractiveness to city officials. It meant that there were no competing claims to the water rights and the only landowner to deal with was the federal government.

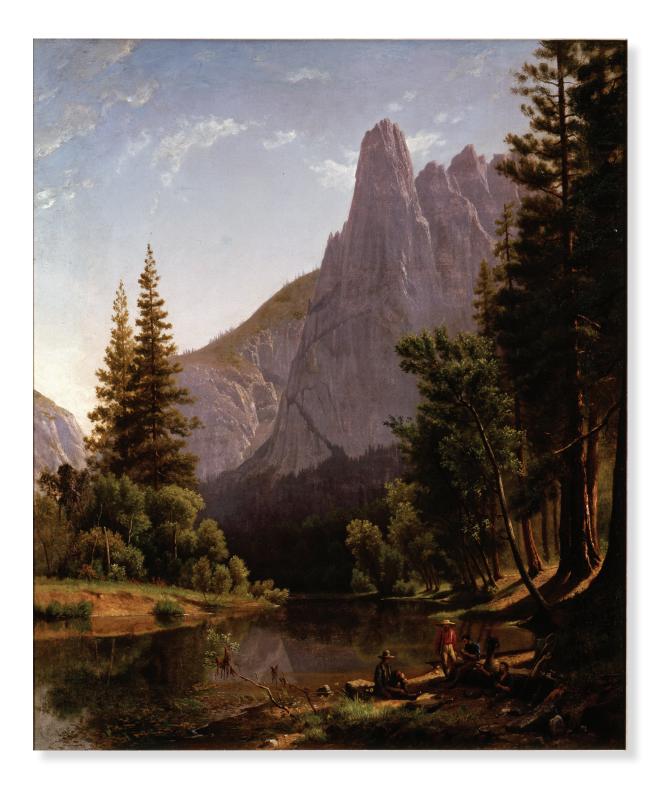
San Francisco's application for rights to store and transport water from the Hetch Hetchy Valley has been rejected several times. But in the wake of the devastating earthquake and fire in 1906, the city has redoubled its efforts to develop Hetch Hetchy. After years of lobbying and debate, the U.S. Senate is now set to decide the issue.

This option advocates for the protection of the valley from development. In the words of the *New York Times* editorial board, "the act creating Yosemite National Park sets forth the importance and duty of reserving these wonders 'in their original state,' and the world has a moral right to demand that this purpose shall be adhered to." "Should Hetch Hetchy be submerged for a reservoir, as proposed, not only would it be utterly destroyed, but...[it] would be virtually closed to the public," writes John Muir. "So far as I have learned, few of all the thousands who have seen the park and seek rest and peace in it are in favor of this outrageous scheme."

We must also protect the Hetch Hetchy watershed and its rich biodiversity by imposing strict limits on other types of development, such as the possible construction of a hydroelectric power plant. Opening National Park lands for the commercial benefit of one city may set a dangerous precedent of placing the profit of a few over the best interests of the people of the nation.

In practical terms, this means finding alternative sources of fresh water for the people of San Francisco. An alternative solution—one of many that have been proposed—would be to construct a reservoir downstream of Hetch Hetchy—outside park boundaries—to meet the city's growing need for fresh water.

But there are trade-offs to this option that must be considered. Choosing a different site for a municipal reservoir might compromise both the quantity and the quality of San Francisco's fresh water, for example. Protecting the valley would also require increased federal oversight and control. This would deprive the people who live in and around Hetch Hetchy—including ranchers, business owners, and Native American communities who have called the place home for countless generations—of local self-determination.





"Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul alike."

—John Muir, The Yosemite (1912)

John Muir was a mountaineer, writer, and tireless advocate for America's natural places. Born in Scotland in 1838, Muir migrated to Wisconsin with his family at the age of eleven. As a young man he worked on his father's farm and in a factory, where an accident nearly cost him his eyesight.

In 1867 he started on his path as a naturalist, walking through the American South and onward to Cuba, Panama, and California. In California, he would fall in love with the Sierra Nevada and Yosemite Valley. But he also saw the threats to wildlife, the devastation of forests, and pollution of waterways caused by a rapidly industrializing country.

Muir soon became a voice for nature. His belief that wilderness was necessary and vital to all Americans was expressed in the hundreds of articles and the ten books he wrote during his lifetime. He used his skills as a writer and

advocate to campaign for the preservation of America's wild places and was personally involved in the creation of Yosemite, Seguoia, Mount Rainier, Petrified Forest, and Grand Canvon National Parks.

In 1892, Muir co-founded the Sierra Club, an organization dedicated to the principle that wilderness should be protected rather than exploited. It would go on to become one of America's largest and most influential environmental organizations. Muir once again entered the public spotlight when he took on the leaders of San Francisco, spearheading a national protest over the city's plan to build a dam in the Hetch Hetchy Valley.

John Muir died in December 1914, leaving behind a legacy as one of America's most influential preservationists and champions of the natural world.



Direct resources to where they are most needed

This option favors constructing a dam in the Hetch Hetchy Valley to provide hundreds of thousands of city residents with much-needed water and electricity—basic necessities for public health, urban development, and economic growth.

San Francisco is the financial, trade, and cultural center of the West with the busiest port on the Pacific Coast. In 1900, just prior to the earthquake, San Francisco was the ninth-largest city in the U.S. with a burgeoning population of almost half a million. Yet the city lacks a reliable source of fresh water. Situated on a dry and sandy peninsula, it is surrounded on three sides by salt water and has to get nearly all its fresh water from outside the city limits.

Other great American cities, including New York, Boston, Philadelphia, and Chicago, have their water systems under municipal ownership. Yet for the past half-century, San Francisco has had to rely on the Spring Valley Water Company—a private firm—to meet all its water needs. Run by land barons and financiers, the company is notorious for its corrupt dealings and favoritism toward moneyed elites. Many accuse the company of over-charging and taking advantage of residents and businesses.

For years, progressive city leaders have searched for a way to bring water rights and delivery under municipal control. As early as the 1880s, city engineers singled out Hetch Hetchy as a possible site for a dam. With its pure snow-fed stream, high granite walls, and narrow outlet canyon, the valley is perfectly suited for a reservoir.

In early 1903, San Francisco Mayor James Phelan filed an application with the U.S. Department of





the Interior for a water storage permit in Hetch Hetchy Valley in Yosemite National Park. Despite its distance, city planners believed that damming and flooding Hetch Hetchy would be cheaper and easier than purchasing alternative private sites because there would be no competing claims to the water. Though the permit was denied, it created political momentum for finding an alternative to the Spring Valley Water Company's monopoly on water rights.

On April 18, 1906, San Francisco was rocked by a violent earthquake. Fires broke out and burned for days, killing thousands and destroying much of the city. Many blamed the widespread destruction on the failure of the water supply. In the aftermath of the tragedy, city officials redoubled their efforts to address the city's water problem. In a 1908 citywide referendum, the people of San Francisco voted in favor of damming the Hetch Hetchy Valley.

This option makes the case that our prosperity as a nation depends on the wise use of our natural resources. Water resources should be put to the use with the greatest public benefit. San Francisco, one of the nation's fastest growing cities and the financial capital of the American West, needs water to meet the basic requirements of urban development and economic growth and security.

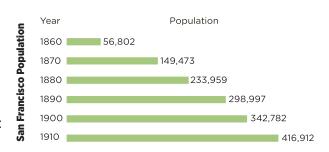
The residents of the city need water and electricity more than they need protected wilderness areas and undisturbed scenery. While city officials acknowledge that the valley lies within

"There is no comparison between the highest use of the water—the domestic supply— and the mere scenic value of the mountains."



the boundaries of Yosemite National Park, they maintain that the needs of the many in this case outweigh the needs of the few who visit this remote area of the park. In Phelan's words, "there is no comparison between the highest use of the water—the domestic supply— and the mere scenic value of the mountains."

For Gifford Pinchot, chief of the U.S. Forest Service and a leading voice on natural resource use, the issue comes down to a simple question: "What is the best use to which this water that flows out of the Sierras can be put?" To Pinchot and other conservationists who support



San Francisco's request, conflicting interests over use of natural resources should always be decided in favor of the greatest good for the greatest number of people in the long run.

This option calls for flooding the Hetch Hetchy Valley by damming the Tuolumne River and constructing a system of agueducts to bring the water to San Francisco. In addition, it could mean developing roads and other infrastructure at the reservoir so it can be used as a site for tourism and recreation.

It also involves building a hydroelectric power plant at the dam site to generate electricity for San Francisco and neighboring counties. Electric power as well as water will be key to the future well-being and growth of San Francisco. A publicly owned power system could further free the city from private monopolies and bring the benefits of electricity to a larger number of people.

But there are potential trade-offs to consider. Damming Hetch Hetchy would displace people who currently depend on the valley's resources and divert water from the farmers who depend on irrigation for their crops. It would change not only the valley but the entire river environment and all the wildlife that live there. It would set a precedent by placing national public lands in the service of the needs of a single group—in this case the residents of San Francisco. Flooding the valley would also destroy the ancestral homes and gathering sites of Native Americans and drive out miners, ranchers, farmers, and others who now benefit from use of the valley's resources for their livelihood.

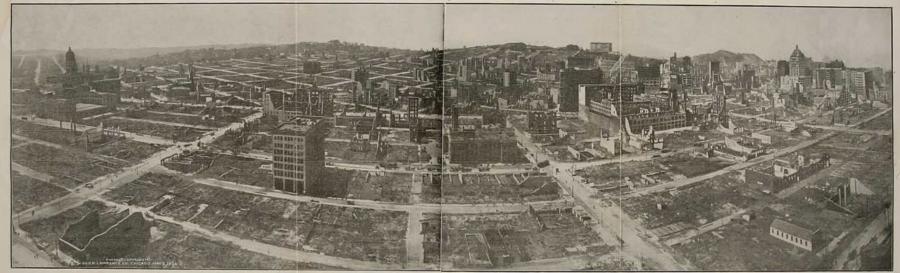
San Francisco in Ruins

"I saw the hillside covered by homeless people. I saw such suffering as I never expect to see again, and I know that a lot of it was caused by reason of [an] insufficient system of water that was being supplied to the people of San Francisco."

> —Senator Key Pittman, Speech on the Senate floor, 1913



SHE WILL RISE FROM HER ASHES



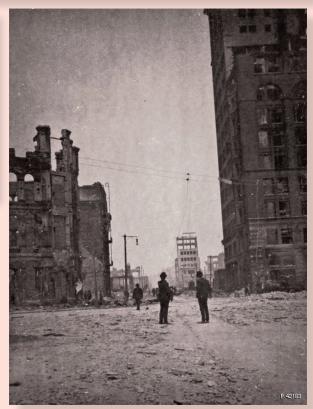
SAN FRANCISCO'S RUINS TAKEN FROM A BALLOON





In the early morning of April 18, 1906, one of the largest earthquakes in U.S. history struck San Francisco. As the city trembled, buildings fell, power and gas lines broke, and water mains ruptured. The quake ignited fires across the city's center that lasted four days. Without adequate water to battle the flames, firefighters stood by helplessly as the city burned. Thousands died in the quake and fires, and more than half of the city's population was left homeless.

The disaster raised national awareness of San Francisco's water needs. In the days following the earthquake, city supervisors authorized a Committee on the Reconstruction of San Francisco that included an investigation of the city's water supply and fire protection. As the financial and commercial center of the West, civic leaders felt the urgent need to rebuild San Francisco.





Give control to the local people of Hetch Hetchy

This option makes the case that the resources of the Hetch Hetchy watershed are best governed and managed by those who live in and around the valley—not officials in distant cities like San Francisco or Washington D.C.

Who owns the rights to the water and other resources of Hetch Hetchy? Who should control and manage those resources? Decision making about a planned, balanced use of water resources needs to include local communities and businesses, many of which have a prior right to the rivers and waters of Hetch Hetchy.

This option says that the Hetch Hetchy belongs to, and should be governed by, those who live in and around the valley, including local ranchers, farmers, business owners, and perhaps especially, Native American communities who have called the valley home for countless generations. Entrusting the job of managing Hetch Hetchy to officials in distant cities would deprive these groups of the right to local self-determination.

As early as 1878, scientist John Wesley Powell argued for a cooperative model of resource management. He said that the best solution to managing scarce water resources in the American West was to give control to residents of the local watershed. Self-reliance and local investment would replace dependence on government funding, while water rights would stay with the people who live in or near the watershed.

Hetch Hetchy is the ancient homeland of nearly a dozen Native Californian communities, including the Miwok and Paiute. For these communities, the land was given to them by the Creator at the beginning of time, and it provides a rich storehouse of acorns, fish, plants, and game. Although many Americans regard the Sierra

[Native Americans] "have been rudely driven from their homes, and expatriated from their sacred grounds where the ashes of their parents, ancestors, and beloved chiefs repose. This is not only inhuman and unlawful, it is bad policy."

-Oliver Wozencraft, U.S. Commissioner of Indian Affairs



landscape as a "pristine" wilderness, the landscape has been altered and adapted by Native American people over many centuries.

Building a dam places further external pressure on the rights of Native people to hunt and harvest plants in the Hetch Hetchy Valley. Tribal communities have long practiced joint ownership of land resources. They have been careful and deliberate in their management of the valley's resources, engaging in methods such as selective harvesting and controlled burning.

When white settlers moved into the Yosemite region in the 1850s, these land management practices were suppressed and prohibited. In an open letter written in 1851, the U.S. Commissioner

of Indian Affairs, Oliver Wozencraft, noted with great dismay that the Native Americans "have been rudely driven from their homes, and expatriated from their sacred grounds where the ashes of their parents, ancestors, and beloved chiefs repose. This is not only inhuman and unlawful, it is bad policy."

Hetch Hetchy, like much of the Yosemite region, had become attractive to Americans who developed farming operations, sheep ranches, and other commercial ventures. Later, as word spread about the scenic beauty of the region, tourists also began to appear in the valley.

Nearby San Joaquin farmers also rely on the Hetch Hetchy watershed and the water flowing

from the Tuolumne River. As early as 1887, California's Wright Act gave farmers the right to form quasi-governmental entities to build common irrigation works and tax local residents to pay for it. Farmers now worry that if control is given to external authorities—such as the city of San Francisco—they will have less water for agricultural use, and this could lead to food shortages and higher costs.

As the U.S. Congress prepares to vote on the future of Hetch Hetchy, many feel that the Hetch Hetchy Valley represents a commons—a resource that is not owned by any one individual but is managed locally for the benefit of all who rely on it. Everybody loses if its resources are depleted. Protecting the commons requires communal management, dedication to the health of the valley, and strict environmental controls. No group is better suited to that task than those who live in its immediate vicinity. They are the rightful custodians of the watershed and should be in charge of how it is managed and developed.

This option makes a case for practical initiatives such as granting custodianship of Hetch Hetchy to a local agency or commission made up of local residents, landholders, tribal members, and others who have a stake in how the valley is used and developed. The group would manage the water and other resources of the watershed as a commons—one that is used by all for the benefit of all but under the strict supervision of the local community.

But there are potential drawbacks to consider. Instead of resources being put to the greatest use by the greatest number, a small number of local residents would control them for their sole benefit. This could harm cities like San Francisco that need access to natural resources to sustain economic growth and urban development. Without state or federal oversight, the resources of Hetch Hetchy, including its water, minerals, flora, and fauna, might also be overused or commercially exploited. Giving control of the valley to the people of valley could forever alter its essential characteristics.





Native Ecological Practice & Yosemite

Native people have lived in the Sierra Nevada for more than 10,000 years. At least seven communities have a traditional, historical relationship with lands within what is now Yosemite National Park, including the Central Sierra Miwok, Southern Miwok, Bridgeport Paiute, Mono Lake Paiute, Owens Valley Paiute, Chukchansi Yokuts, and Western Mono. For these communities. land was understood as having been given to them by the Creator at the dawn of time, and they served as stewards of the land, ensuring that it continued to thrive.

Despite nineteenth-century American beliefs that the Sierra ecosystems were "pristine" and untouched by human hands, the landscape was in reality strongly shaped by Native people's intervention. Tribal communities held joint ownership of land resources. They utilized deliberate and rigorous management strategies of plant and animal resources that included controlled burning, pruning, sowing, and selective harvesting. Long-term experience within environments of limited resources had taught Native communities how to manage water resources in sustainable ways.

These traditional practices were upended in the 1850s when white settlers moved into the area. External pressures, including the creation of Yosemite National Park, reduced tribal access to water and to hunting, fishing, and

plant-gathering sites like Hetch Hetchy. Many Native people were forcibly evicted from their homes, and wilderness advocates such as John Muir saw no place for Native people within the National Parks. For Native Californian communities, water rights issues remain extremely important, and the lakes, streams, rivers, and groundwater are resources that support generations-old traditions, culture, and life ways.

Summary: How Do We Make the Best Use of Our Natural Resources?

It's the fall of 1913. The city of San Francisco is in need of reliable sources of fresh water in the wake of a devastating earthquake and fire. City politicians have proposed building a dam on the Tuolumne River and creating a municipal reservoir in the Hetch Hetchy Valley, a plan they say would have minimal impacts on the land while serving the needs of hundreds of thousands of people.

But the plan is a controversial one.
Opponents say that the valley represents a precious national resource—comparable in significance to nearby Yosemite Valley or Yellowstone
National Park—and that it must be protected against development.

Still others insist that the valley belongs to the people who live in and around it, including Native American communities that have lived off the land for centuries. They deserve a voice in how Hetch Hetchy is managed and how its resources are used.

The future of Hetch Hetchy hangs in the balance.

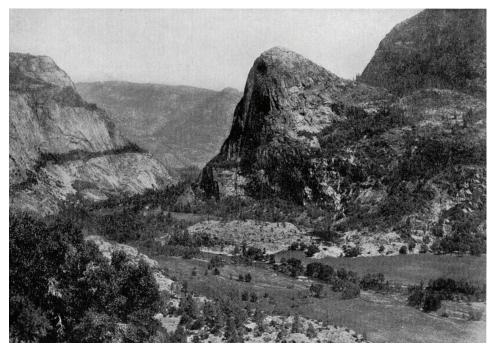
What is the best course of action?

What measures can you support?

Which trade-offs and consequences are you willing to accept?











Protect the valley against development

Examples of What Might Be Done	Some Trade-offs to Consider
Protect the Hetch Hetchy watershed and its biodiversity by imposing strict limits on use and prohibiting the harvesting of natural resources like water and minerals.	Butthis could deprive urban residents of muchneeded resources. It might also take away local control of the watershed and affect the livelihood of people who live in and around the valley.
Construct one or more reservoirs downstream of Hetch Hetchy—outside park boundaries—to meet San Francisco's growing need for water and electricity.	Butchoosing a different site for a municipal reservoir could be costly and time consuming. It might also compromise the quantity and quality of San Francisco's municipal water supply.
Limit the number of visitors to the Hetch Hetchy Valley to protect the wilderness from exploitation and allow for restoration of areas that may have been developed or overused.	Butthis would prevent visitors from enjoying public lands that rightfully belong to all Americans.

OPTION

Direct resources to where they are most needed

Examples of What Might Be Done	Some Trade-offs to Consider
Dam the Tuolumne River and construct a system of aqueducts to deliver water to the people of San Francisco.	Butthis would displace local people and wildlife, changing not only the valley but the entire river environment, including the animals and plants that live there.
Construct a hydroelectric power plant at the dam site to generate electricity for San Francisco.	Butthis could allow private companies to exploit public resources. It would also set a dangerous precedent for the use of protected public lands.
Build roads and other infrastructure at the reservoir so it can be used as a site for tourism and recreation.	Butfurther development of Hetch Hetchy would mar the pristine environment of Yosemite National Park.

OPTION

Give control to the local people of Hetch Hetchy

Examples of What Might Be Done

Some Trade-offs to Consider

Grant custodianship of Hetch Hetchy to a commission composed of local residents, landholders, tribal members, and others who have a stake in how the valley is managed and developed. But...this prioritizes the benefits of a few over the needs of the many. Insular interests could also prevent the best use of the resources.

Manage the water and other resources of the watershed as a commons, one that is used by all for the benefit of all, but under strict supervision by the local community.

But...local management is not always fair and democratic and would not protect the valley from possible mismanagement.

Create incentives for local stakeholders to conserve the valley's resources and invest in their long-term sustainability instead of overexploiting them for short-term gain. But...incentives could create a system where some people are shut out of the system. Without a motive for profit, some individuals might be discouraged from investing locally.



Autry Educational Programs

The Autry Museum of the American West is dedicated to enriching the experience of all visitors through thoughtful, entertaining, and engaging classes, programs, and activities.

Education staff and volunteers connect with more than 400.000 visitors every year. Outreach programs are an important part of education initiatives at the Autry. Our museum

educators work hand-in-hand with teachers and students in local schools, bringing together students, teachers, and museum professionals to learn about history in fun and engaging ways.

We invite you learn more about school tours, outreach programs, and resources for teachers on our website: www.theautry.org.





