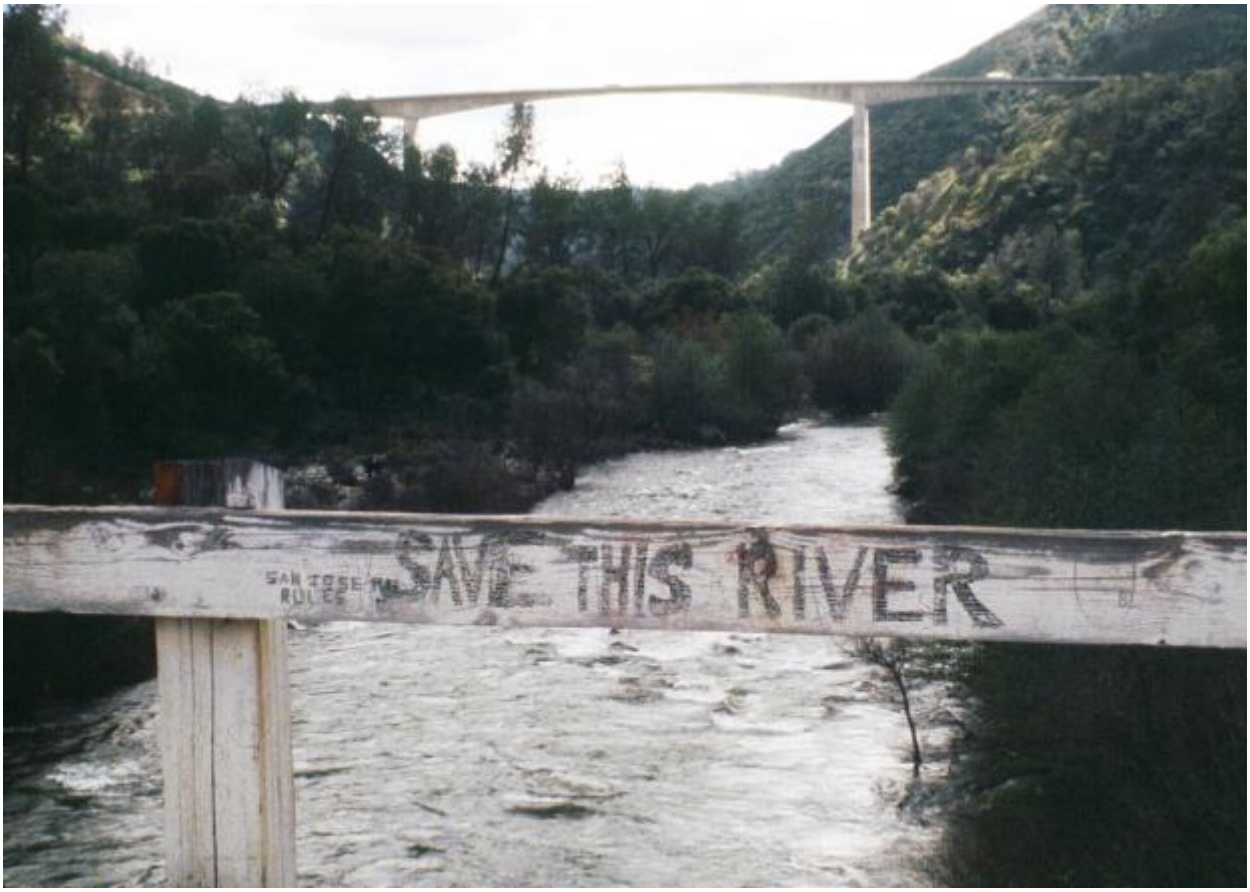
The Personification of Natural Waterscapes: A Brief History of Friends of the River **(1970-1992)**

By Dakota Goodman



Advisor: Kerwin Klein

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Abstract

[1]It is not just about preserving natural beauty, it is about protecting the sacred places. In the mid to late 20th century, river guides and enthusiasts altered the dialogue surrounding natural landscapes. Through innovative rhetoric, these places became personified and viewed as entities to fall in love with. The death of landscape is a call to action. Friends of the River[2] activists personified western waterscapes, unique from any other organization, and because of that, the founding of the organization delineates a turning point in the modern environmental movement. Friends of the River changed the rhetoric around fighting for rivers and river canyons in the modern environmental era. Setting precedent for peaceful protest and grassroots organization, Friends of the River's presence brought a history of fighting for the Western landscape into the spotlight and the importance of water back into political legislation. Their motto, 'California has a water management problem, not a water resource problem' is a driving force behind a larger fight, the battle to protect our livelihood. Water is life.

I am a riverrat. My home is the river and this thesis is dedicated to all those who came before me spearheading a movement to protect rivers.

Key words

rivers, wilderness, national parks, dams, martyrdom, environmentalism, water

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[1] Image on title page: Tennant, Roy. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/1226.

[2] "Who is Friends of the River? … Friends of the river is the only state-wide group dedicated to the preservation of wild rivers…. Most national wild and scenic rivers are regulated by upstream dams."
Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

Note to the reader

The thesis below is a skeleton of a larger project to come. It will eventually be expanded into a book and each subsection will be expanded into chapters. The appendix you see at the end has material that will be incorporated into the text in the appropriate places. There is also a great deal more research that was collected in terms of archives and interviews that has not yet been processed for this stage of the project.

Table of Contents

Abbreviations

FOR – Friends of the River
Stan – Stanislaus River
BOR – Bureau of Reclamation
SWRCB – State Water Resources Control Board
Corps – Army Corps of Engineers
OARS – Outdoor Adventure River Specialists
D 1422 – Decision 1422
ETC – Environmental Traveling Companions
AR – American Rivers
TRT – Tuolumne River Trust
CVP – Central Valley Project
SWP – State Water Project
T – Tuolumne

Introduction

In 1973 FOR was founded from the momentum of the Stanislaus campaign, a fight to save a river in the foothills of the Sierra Nevada, and one of the three main tributaries of the San Joaquin (see images 1-4). This environmental organization plays a role of key importance in the turning point of the modern environmental movement. FOR pushed and developed successful grassroots campaigning techniques, environmental lobbying, activism based river trips, use of media, and expert research including geology, ecology, fish biology, archeology, history and economics. FOR fought to save the Stanislaus, then quickly widened their focus to fight for all rivers in California. They provided a network of friends for Senator Peter Behr to further push his Wild and Scenic agenda. Additionally, FOR inspired and paved the way for other important environmental organizations.

How did FOR push the changing rhetoric around the perspectives of landscape in capitalist[3] driven society from the evolving mindset around domination of nature to the personification[4] of landscape and the love affair with a river? This perspective that the members of the organization embraced had roots in three preceding battles, which also established that the Stanislaus would be the last river lost after the failed campaign, setting the stage for a successful future.

This paper will briefly look at the foundational battles over landscape then look more closely at FOR campaigns including the Stanislaus campaign, the impacts of personification of waterscape and actions that followed. To conclude, the paper will look at modern day actions by FOR and discourse concerning dams in California and the West.

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[3] See Appendix B for more information.
[4] The idea of personification will be further analyzed in a future eco-philosophy paper on the martyrdom of natural waterscapes.

Remapping a Western Waterscape[5]

> "Water, water, water.... There is no shortage of water in the desert but exactly the right amount, a perfect ratio of water to rock, water to sand, insuring that wide free open, generous spacing among plants and animals, homes and towns and cities, which makes the arid West so different from any other part of the nation. There is no lack of water here unless you try to establish a city where no city should be."[6]

The twentieth century saw an era of big dam building projects for water storage and hydropower across the West. In California, the waterscape was remapped to make arid regions more livable (see image 5). The New Deal era launched the boom of dam building and served as the core of the Hydraulic era of the twentieth century.[7] "The age of dams reached its apogee in the 1950s and 1960s, when hundreds of them were thrown up, forever altering the face of the continent."[8] As more water infrastructure was established throughout California and the West, some of key battles to preserve sacred natural places arose in Hetch Hetchy, Dinosaur National Park and Glen Canyon. These fights paved the way for a battle that would change the way the modern environmental movement thought about rivers. The Hydraulic Era ended with the launch of the modern environmental movement. Since then there have been huge steps taken to deconstruct unnecessary dams throughout the United States. The Stanislaus campaign headed by Friends of the River highlighted the change in rhetoric concerning natural waterscapes.

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[5] See Appendix D for more information.

[6] Abbey, Edward. "Desert Solitaire: A Season in the Wilderness." *New York* (1968).

[7] "The twentieth century has been called the 'hydraulic era' in the American West. In fact, it took less than a century for water engineers, obsessed with providing enough water for an ever-growing population, to harness nearly every drop of naturally flowing water in California. Once sporadic and untamed, the water resources not only of the state but also throughout the American West were rapidly controlled, and the natural hydrology was re-engineered through massive public works including dams and aqueducts."
Ingram, B. Lynn, and Frances Malamud-Roam. *The West Without Water*. Pg 175.

[8] Reisner, Marc. *Cadillac Desert: The American West and its Disappearing Water*. Penguin, 1993. Pg 159.

> "Though the environmentalists failed to defeat New Melones Dam, the long struggle encouraged their efforts in the contemporaneous fight against the Peripheral Canal and steeled them in their determination to prevent similar losses elsewhere. Since preservationists nationally had joined the campaign, the Stanislaus emerged as a new rallying cry and source of inspiration across the United States."[9]

FOR continued the fight for California rivers after the initial loss of the Stanislaus campaign. Instead of absorbing defeat, the founders saw a challenge that lay ahead and set goals to protect the rivers themselves, not just the river canyons. Rhetoric about saving the landscape of a canyon evolved into a discussion of waterscape and the rivers themselves. Instead of landscape being thought of as separate from urban society, waterscape began to be thought of as a treasure that needed to be protected for both future generation and current residents who depended on its resources.

Foundational Fights: Hetch Hetchy, Dinosaur and Glen Canyon

Is it possible to join forces behind the loss of a natural landscape? When a cement wall was put into the river system in Yosemite, Hetch Hetchy Valley was lost. John Muir fought long and hard to prevent this waterscape from being negatively transformed for human consumption. "I was partly responsible for its needless death. So were you. Neither you nor I, nor anyone else, knew it well enough to insist that at all costs it should endure.' Never again, Brower vowed, was he going to compromise over such a dam."[10] This was a reflection on Brower's compromise of Glen Canyon in his fight for Echo Park. David Brower followed in Muir's footsteps, then Mark Dubois continued their paths with the Stanislaus campaign. All of these campaigns were centered

[9] Hundley Jr, Norris. *The Great Thirst: Californians and Water—A History*. Univ of California Press, 2001. Pg 373.
[10] Reisner, Marc. *Cadillac Desert: The American West and its Disappearing Water*. Penguin, 1993. Pg 285.

around preserving natural landscape instead of encouraging the myth of man's dominance over nature.

"Dam Hetch Hetchy! As well dam for water-tanks the people's cathedrals and churches, for no holier temple has ever been consecrated by the heart of man."[11]

One of the first of many big dam projects that transformed California's rivers was the establishment of O'Shaughnessy Dam in Yosemite National Park. John Muir and the Sierra Club fought a battle with Gifford Pinchot and SF city from 1902-1913 for the water rights to the Tuolumne and the future of Hetch Hetchy Valley. Despite the long battle, Muir lost one of his sacred places. After a lifetime of advocating for preservation of natural landscapes, Muir's final battle was not one of triumph. This battle encouraged future activism. The movement to protect natural landscape grew stronger after Hetch Hetchy was lost and remains an origin point for the West's ability to join forces to preserve a natural landscape rather than allow further resource extraction and exploitation. The flooding of Hetch Hetchy valley was seen as the death of the old natural landscape. Rooted in a core moment of growth for the Sierra Club, future leaders of this organization and organizations that would be born from it, were unable to forget the legacy of the loss of national park land to human greed.

> "The challenge to authority swept across the full spectrum of America life and included the questioning of long-held values about the environment, nature and wildlife… John Muir had waged a holy war in a futile attempt to preserve Hetch Hetchy, and Aldo Leopold not too many years thereafter had insisted that 'ethics... be extend to land'; that the morality of an action be determined by whether 'it tends to preserve the integrity, stability, and beauty of the biotic community'"[12]

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[11] Muir, John. "Hetch Hetchy: Time to Redeem a History Mistake". *Sierra Club.* http://vault.sierraclub.org/ca/hetchhetchy/.

[12] Hundley Jr, Norris. *The Great Thirst: Californians and Water—A History*. Univ of California Press, 2001. Pg 308.

This personification of land became a theme throughout the battle against the dam movement in the later part of the twentieth century.

Flooding the Sistine Chapel

Throughout Western history, land and nature have been seen as something that need to be conquered instead of viewing them as powerful places that needed to be treated with respect. The domination of nature by mankind continued to be common rhetoric throughout the Hydraulic era. However, there were a few environmental revolutionaries that did not agree with the status quo way of thinking about nature. "By his late twenties, Brower had become… someone who puts unspoiled nature above the material aspirations of mankind… by the time he became the first paid executive director of the Sierra Club in 1952, Brower had decided that no work of man violated nature as completely, as irrevocably as a dam."[13] The next big wilderness battle after Hetch Hetchy was over Echo Park in Dinosaur National Monument. Brower led the battle to defeat the dam proposal that was part of the Colorado River Storage project and keep the park untouched. Brower and the Sierra Club argued that there was not as much acre feet of storage as claimed, building the dam would not add to the water supply, and a coal fired power plant would produce more power for less money. The Sierra Club began using the tactics of bringing legislators and other powerful decision makers down river so that they could be exposed to these places they were blindly killing.[14] The rhetoric of the death of natural landscape was beginning to be used during this battle.

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[13] Reisner, Marc. *Cadillac Desert: The American West and its Disappearing Water*. Penguin, 1993. Pg. 283.

[14] "I am enclosing letters to Assistant Secretaries Aandahl and Lewis inviting them to visit this site (Echo Park and Split Mountain) with officials of the Sierra Club and other friends of the National Park Service in the very near future."

> "Today a congressional committee in Washington begins two weeks of deliberations to determine whether Dinosaur National Monument shall die with Echo Park dam as its gravestone - or shall live to take its place as one of America's great national parks…" [15]

This dam proposal was part of the Colorado River Storage (CPS) project that would later propose other dams in the Grand Canyon. To defeat this dam building project, Brower compromised another piece of landscape to be flooded out instead, not knowing at the time the consequences it would have. Letters were written to members of Congress stating, "The Sierra Club would not oppose a sound Upper Colorado storage project, provided it does not encroach upon lands dedicated in perpetuity to other purposes. We do oppose the impairment of our finest national monument and resultant jeopardy to our overburdened National Park system".[16] Brower's compromise was the biggest defeat of the western water lobby at that point in time. However, later when Glen Canyon was about to be dammed, he felt like the compromise was his biggest defeat and vowed never to sacrifice another piece of nature again.

> "I'm prepared to say, here and now, that we should touch nothing more in the lower forty-eight," Brower comments. "Whether it's an island, a river, a mountain wilderness – nothing more. What has been left alone until now should be left alone permanently. It's an extreme, statement, but should be said."[17]

As Glen Canyon Dam was under construction, David Brower was able to see the place he compromised Echo Park for. Seeing the magical canyons from the view of a dory on the water, surrounded by the canyon, connected Brower to the special place making him regret the sacrifice he had made. "Glen Canyon was a stretch of quiet water drifting sinuously between smooth,

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Dinosaur National Monument (Utah) 1953, Carton 87, Folder 33. Martin Litton, Sierra Club Papers. Bancroft Library, University of California Berkeley.

[15] Dinosaur National Monument (Utah) 1953, Carton 87, Folder 33.

[16] Dinosaur National Monument (Utah) 1953, Carton 87, Folder 33.

[17] Dinosaur National Monument (Utah) 1953, Carton 87, Folder 33.

rainbow-colored cliffs. Labyrinthine and cool, some of the canyons were as lush as a tropical forest, utterly incongruous in the desert."[18]

From the loss of Glen Canyon stemmed another era of the environmental movement. Martin Litton, the founder of Grand Canyon Dories worked alongside Brower to prevent further damming of the river he called home. In a letter to the Utah Water and Power Board in October of 1965, Litton argued that: "in terms of water economics, reservoirs in the Grand Canyon are wasteful, and there is no way that power revenues can ever make up for loss of water in the west. But more important, there is no need for either water or power that can justify the proposed desecration of the most celebrated natural wonder on earth".[19] Martin Litton's company, Grand Canyon Dories would eventually merge with OARS when Litton passed down his legacy to his young mentee, George Wendt. OARS remains a leader in the white-water rafting industry advocating for the protection and restoration of rivers throughout the West and internationally.

River Warriors

> "Almost everyone who sets out to enjoy the beauty and wonder of the natural world these days is — or soon becomes — aware of the accelerating rate at which environmental quality is being lost for all foreseeable time. We witness tragic decline not only in the ability of the earth to support the burgeoning flood of human consumers but also the open, unexploited wild places that the world need in order to be whole and what we need for inspiration and renewal."[20]

Recreation Finds a Voice: Commercial White Water Rafting and Activism (1960's-early 70's)

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[18] Reisner, Marc. *Cadillac Desert: The American West and its Disappearing Water*. Penguin, 1993. Pg 246.
[19] Grand Canyon National Park (Ariz.) 1960-65, CTN 87, Folder 49. Martin Litton, Sierra Club Papers. Bancroft Library, University of California Berkeley.
[20] Environmental Education 1969-71, CTN 87, Folder 37. Martin Litton, Sierra Club Papers. Bancroft Library, University of California Berkeley.

The strong momentum coming out of the Glen Canyon fight continued to unite river guides as environmental advocates into the early 1970's. By this time environmental groups, in addition to the Sierra Club, including The Wilderness Society, The National Parks Association, Friends of the Earth and the Nature Conservancy were adding to the changing rhetoric and transition into a more modern environmental era. These groups were gaining name recognition around the same time California senator Peter Behr was putting the National and State Wild and Scenic laws on the books. In 1965, companies such as OARS, ARTA, and Zephyr had trips running out of the major white water destinations, including the nine mile stretch on the North Fork of the Stanislaus, between Camp Nine and Parrot's Ferry. By 1972, ETC was founded by some of the original Friends of the River members. ETC was oriented around bringing disabled and inner city youth down the river. The Stanislaus was a very accessible river for most Californian's, including disabled individuals. Due to the magnitude of the white water, it was safe and extremely beneficial to bring higher risk, inner city, or disabled youth on the river.[21]

Spending time working on rivers reignited the connection lost from living in a capitalist world, between the individual and their landscape. The most effective way to fight for something is by falling in love with it and sharing that love with others. A group of river guide activists who wanted to fight to protect their home, emerged from the mid-century environmental battles and continued the work of protecting waterscape. From 1970-71, Mark Dubois and other river guides were provided postcards from Jerry Meral and David Kay. These postcards were meant for the guests to sign to show their support of the efforts to protect the Stanislaus river from the New Melones Dam. David Kay, a guide for ARTA,[22] worked with Lou Elliot the founder of the

[21] See Appendix C for more information.
[22] Wesselman, Eric. "Remembering David Kay." *Headwaters.* March 2017.
"David Kay quickly rose through the ranks and helped ARTA become a special outfitter…they

company and an old Sierra Club member. Elliot had seen the effectiveness of ballot campaigns, letter writing and postcard signing, in earlier fights under Brower. Until FOR was founded in 1973, the only other group fighting for rivers was the Sierra Club Committee on Water. By 1973, Meral and Kay joined with Rob Caughlan and David Oke, to form Friends of the River and advocate for the passing of Prop 17. Mark Dubois who was recruited as the Sacramento organizer, fell so deeply in love with the river that he invested everything in the battle to protect it. Dubois helped co-found the organization we know today.

"Nothing better illustrates the relationship between dramatic alteration of the waterscape and piecemeal reform than the struggle to preserve an awesomely beautiful and rugged stretch of the Stanislaus River."[23] This battle paved the way for future battles to come. Most of the dams that have been deconstructed in the twentieth century were taken down after the 1980's with the momentum Friends of the River provided for the modern movement. Similar to Muir and Brower, the leaders of this campaign wanted to preserve the natural landscape and fought in memory of the lost land of the past. Mark Dubois was a leader many joined behind. They halted the filling of New Melones reservoir for a decade, arguing that the dam would destroy the river system, archeological site, old Native petroglyphs and another wilderness area. It was also one of the most trafficked white water rafting spots in the West. Due to the number of people connected

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became special adventures into nature that connected people to rivers—the kind of experiences that stay with a person and change lives…. It wasn't long before David met Jerry Meral and many others who were building a movement for rivers in California. These friendships and collaborations helped David leverage his gift for communicating to inspire activism on behalf of rivers. In 1973, the campaign to save the Stanislaus River from New Melones Dam was growing into a statewide effort. That fall, David and Jerry met with Rob Caughlan and David Oke--two legendary rough and tumble organizers--to start organizing a statewide initiative campaign to save the river. Of course they needed an organization to run it and Friends of the River was born."

[23] Hundley Jr, Norris. *The Great Thirst: Californians and Water—A History*. Univ of California Press, 2001. Pg 366.

to the river, the battle to save it was not an immediate defeat. However, despite the final result of the reservoir being filled and the activists being unable to stop it, the old dam era was at an end. The birth of Friends of the River started a new age of water activism and awareness of the earth. Mobilizing people to fight for the important places was and continues to be rooted in remembering the loss of old landscape. Reisner pointed out that "another river that had flowed wild for hundreds of thousands of years was a memory."[24] This memory served as constant inspiration for generations of activists to come.

Spawning a New Age of Environmental Activism

> "The earlier battles over Hetch Hetchy, Echo Park, and Grand Canyon had been less over the river's than over the canyons that would be flooded. Now the public had been dramatically told - and many had come to fervently believe - that rivers could be as sacred as the wilderness areas through which they flowed."[25]

1973: The Founding of Friends of the River and the fight to save the Stanislaus (1973-1983)

Timeline of the Stanislaus Campaign:
SWRCB Water Rights Decision 1422: 1972-1979
Founding and Prop 17: 1973
Prop 17 loses and FOR continues to grow: 1974
FOR as membership based organization: 1975
Jerry Brown letter writing campaign, rally in Sacramento at the capital (original California Rivers Day), legislator river trips start: 1975
Senate Bill 1482: 1974-1976
Start working for all rivers: 1976
Lobbying in Washington DC for the Stan: 1978
House of Representatives Bill 4223: 1979-1980
Mark Dubois chained himself to a rock: 1979
HR 4223 fails: 1980
Prop 13 statewide initiative defeated in the polls: 1982
High water year: 1982-83
Canyon fully flooded: 1983

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[24] Reisner, Marc. *Cadillac desert: The American West and its disappearing water*. Penguin, 1993. Pg 205.
[25] Hundley Jr, Norris. *The great thirst: Californians and water—A history*. Univ of California Press, 2001. Pg 373.

D 1422

In 1972, the water rights case for the Stanislaus was brought to the State Water Resources Control Board. The Board hired Dr. Phillip Williams a hydrology consultant for the case. Additionally, Frank Goodson provided documents for alternative management of New Melones. From the experts research the SWRCB decided that "additional filling for irrigation supply (was) not covered under "prior rights," (and that) … filling for power generation is forbidden at this time."[26] In 1973 the Board ruled that the reservoir should not be filled over half of the 2.4-million-foot capacity, because the BOR had not proven a need for the full reservoir storage. Around 1.1 million acre feet of storage, would suffice in terms of the demands for more water from the Oakdale and South San Joaquin Irrigation districts.[27] This amount of filling would also be better for the commercial and recreational industries operating on the stretch of river above the reservoir, in addition to protecting the environment. This decision imposed twenty-five conditions of the operation of New Melones. The SWRCB approved of impoundment behind the dam but not to provide water for new consumption or to generate more power. The board approved impoundment to replace the Old Melones Reservoir and control floods and downstream flow releases. The impoundment that they approved of would flood out nineteen miles of the South Fork behind the reservoir.[28]

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[26] Water Rights Decision 1422, 1972-1979, Box 1, Folder 5. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[27] Judge Hears Dispute Over State Curbs on Melones Dam by Max Miller, 1974. Miscellaneous, 1969 – 1975, Box 1, Folder 2. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[28] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

D 1422 was brought to court in 1974, and in 1975 Judge MacBride sided with the BOR, saying that the SWRCB "could not place any conditions of a water permit which was granted to the BOR." MacBride ruled that the "state could only determine if unappropriated waters are or are not available."[29] Despite D 1422 being ruled as partially invalid it still provided the arguments for a moderate reservoir. In 1978, this decision was brought to the Supreme Court in another subsequent suit. This time the Supreme Court

> "ruled that the Bureau should 'follow state law in all respects not directly inconsistent" with "congressional directives" for the dam, and remanded the suit to a Federal District Court for determination of the consistency of partial impoundment and "congressional directives". The determination will probably not be made until the end of 1980."[30]

This debate was used throughout the decade long campaign as Friends of the River fought to save the Stan. In 1981, in a letter from Mark Dubois to the new President of the United States, Ronald Reagan, Dubois argued that the New Melones dam should be operated in compliance with D 1422.[31] The Carter administration was supportive of the Stanislaus campaign and Carter even issued a statement saying: "I believe in the wild river concept and I think the Stanislaus River is one of the most beautiful rivers on Earth."[32] FOR corresponded with the executive branch through the Carter and Reagan presidential terms to gain support for saving the Stan.

Wild and Scenic

> "Our societies values towards our precious land and water is changing. The Stanislaus has become the second most popular white water river in the nation. City dwellers are finding a growing need to get away and touch the natural world

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[29] Miscellaneous, 1969 – 1975, Box 1, Folder 2. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[30] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[31] New Melones Correspondence (1979-1981), CTN 1, Folder 31. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[32] House of Representatives Bill 4223, 1979-1980, Box 1, Folder 8. Friends of the River Collection. Water Resources Archive, University of California Riverside.

> and rivers are becoming an ever-popular way to do that. But they touch far more in the Stanislaus Canyon: over 700 native American and gold rush sites revive contact with our heritage, the only significant limestone canyon on the West Coast, honey comber with unique caves and their fascinating features, thousands of acres of Wildlife habitats and plant communities that have evolved for the past 9 million years, the magic of this canyon… and much more."[33]

Prop 17 (1973-1974)

In 1973, the environmental movement was permanently altered as the fight to save the Stan grew into a state-wide battle over a ballot initiative that would have designated the stretch of threatened river as Wild and Scenic.[34]

> *"Proposition Summary - INITIATIVE. Amends Public Resources Code to designate specified portions of the main stem of the Stanislaus River as components of the California Wild and Scenic Rivers System. Prohibits construction or operation of flood control structure which would substantially diminish the public use or enjoyment of the specified portions of the river. Does not prohibit structural or nonstructural measures necessary for flood protection provided that such measures would adversely affect those designated portions of the river only for necessary temporary flood storage. Allows Legislature to amend measure by two-thirds vote. Financial impact: Minor cost to state."*[35]

In addition to designating the Stan as Wild and Scenic, Prop 17 allowed a small New Melones Dam. Friends of the River was able to organize commercial river companies support and local

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[33] Talks – Notes 1979- 1981, CTN 1, Folder 43. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

[34] "It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dams and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes."
"About the WSR Act." *National Wild and Scenic Rivers System*. <https://www.rivers.gov/wsr-act.php.>

[35] "Wild and Scenic Rivers Initiative." *UC Hastings*. http://repository.uchastings.edu/ca_ballot_props/803/.

community support around the state. The campaign created more public involvement than any other campaign to preserve a river in California history (as of 1980). The state-wide ballot initiative campaign was the start to developing a strong grassroots movement that FOR is based in to this day. They wrote letters, passed around fact sheets, made banners, and got news reporters to spread the story. FOR had support from Senator Peter Behr through the entire campaign. Senator Pete Behr was a champion for the Stan campaign and other conservation efforts when he was in office. In letter written by Behr in 1973, to a concerned constituent, he articulates his desire to protect the river. "I went down the 14 mile stretch last summer with my family. It is, indeed, unique, and the New Melones Dam is an outrageous grab by farmers to obtain more cheap water over which they have no right, at the expense of the rest of us."[36] Behr, like many others, was fighting for the preservation of natural waterscape for his generation and future generations.

A month before the November election, the SF Chronicle released an article titled, "Brown Opposes Melones Dam."[37] This article written by George Murphy explained Governor Brown's perspective that the dam did not need to come into debate for another fifteen years and it would only provide temporary jobs. It was the first time Brown publicly opposed the dam. In addition to the media coverage around Brown, there were many reports on the campaign tactics of both the proponents and opponents of the dam. In a letter to the editor from Stanford Civil Engineering the author details the issues with New Melones dam in the context of Proposition 17. The Stanford author argues that most conversations around Prop 17 were ignoring the issue

[36] Correspondence, 1972-1976, Box 1, Folder 4. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[37] Save the River – General, 1974-75, Box 1, Folder 14, Document 2. Friends of the River Collection. Water Resources Archive, University of California Riverside.

of water use. The new reservoir they estimated would be two and a half times as large as Folsom Lake, a huge overestimate of realistic water storage. They also point out that the original plans for New Melones were connected to water supply for the proposed East Side Canal which was in economic and ecological questioning of even being built. In the original plans for New Melones, there was not a valid argument for additional water supply needs unless the canal was built and without the canal the dam would create a surplus of 2.7 million acre-feet of water for the present contracts and 4.5 million acre-feet for the actual deliveries. This 1974 letter also details some of the first arguments against the Corps estimated recreation benefits. They point out that the recreation benefits of four million recreation days did not factor in the other twelve reservoirs that were within a fifty-mile radius of the dam site.[38]

Prop 17 lost on a 52% to 48% margin.[39] After the loss of Prop 17, a study by Corey, Canapary and Galanis research and counsel, a marketing firm in San Francisco, put together a statistical analysis of reasons behind the loss. Corey, Canapary and Galanis firm was working with FOR during the campaign to provide a statistical hypothesis of how the election would pan out. Prior to the election they were certain that the proposition would pass by a 'healthy margin' because of the 'present political climate'. Their only counter claim was if something 'very dramatic' happened between 'now and the election.' After the election, they conducted a statewide survey which included a sample size of 515 register voters.[40] This survey was conducted to bring light to what happened in the voting period and why Prop 17 lost. The

[38] Save the River – Senate Bill 1482, 1974-1976, Box 2, Folder 6. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[39] Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[40] Save the River – General, 1974-75, Box 1, Folder 14. Friends of the River Collection. Water Resources Archive, University of California Riverside.

statistics that FOR used to bring people back into the fight came from the firm's December 14th report. In the follow up investigations of Prop 17, it was discovered that the New Melones Dam proponents spent half a million dollars on their 'vote no' campaign.

> "…what many political observers call the most distorted, sleazy media campaign in California initiative history. Newspaper ads all over the state showed houses floating down rivers. Billboards screamed about a "Wild River Hoax," and implored voters to "Stop Pollution on the River." Radio spots featured sincere little old ladies and slick announcers who condemned the "Rafters' Rip-Off," and talked about "slow polluted death" for the Stanislaus. And television ads, which saturated the Los Angeles area, showed overhead shots of the infamous PG and E pipeline which "creates" the whitewater stretch, and black and white photos of dead fish piled high."[41]

Prop 17 was based on the popular vote and ended up being highly manipulated by the dam proponents who were backed with corporate funding. The language in the Prop 17 campaign confused citizens to vote for the dam instead of against it. FOR pushed "vote yes" on Prop 17 to save the Stanislaus. Whereas, the Friends of the Dam twisted the language, pushing "vote no" on Prop 17 to save the river. The no vote confused people into thinking they were voting against the dam. A poll done after the election showed that sixty percent of the voters thought they were voting for the Stan and against the dam when they voted for the dam. After a full year of campaigning and grassroots organizing, the first part of the election results looked promising for the Stanislaus. When the votes from Southern California came in, the votes from people less connected to the river, the tides turned and the proposition lost.

The original postcard signatures wranglers, Jerry Meral and Dave Kay, decided not to continue Friends of the River after Prop 17 lost. However, Mark Dubois could not move on. "I realized that by saying yes to Jerry (when he was asked to organize Sacramento for the ballot

[41] Miscellaneous 1976-1980, Box 1, Folder 3. Friends of the River Collection. Water Resources Archive, University of California Riverside.

initiative) was like entering the tongue of a rapid on the river,"[42] there was no turning back. When you enter the tongue of a rapid, the current is swiftly moving you downstream into the white water. It is the boatman's task to safely navigate the rapid by finding the "through- line".[43] According to Alexander Gaguine, Mark was the glue for the organization until it started expanding beyond the Stanislaus campaign. "Any time between the loss of Prop 17 to '74 then '74 to the Congressional Bill in '80, if Mark had pulled out, the organization would have collapsed – not necessarily the chief strategist or the most articulate spokesperson, but he was the one that was insistent that this would not go down without opposition and a possibility that we could turn it around."[44]

A Transition

Soon after the loss of Prop 17, the cost-benefit analysis of the New Melones Dam was released by two Berkeley scholars, Thomas Parry and Richard Norgaard. "Wasting a River" was an economic analysis and critique of the Corps' previous cost-benefit analysis. Parry and Norgaard worked to incorporate the 1970 National Environmental Policy Act's environmental loss impact framework into their conclusions. The environmental economics were not incorporated into the 1961 analysis by the Corps which concluded that the benefit to cost ratio would be 2.5:1. The NEPA impact report was required in the Corps' second report from 1973 but still did not portray an accurate benefit to cost analysis, concluding 1.7:1 ratio. The benefits analyzed included flood control, irrigation, power generation, general recreation, fish and wildlife, water quality and area redevelopment. The costs included interest and amortization,

[42] Mark Dubois interview. March 22, 2017.
[43] Dubois, Mark. "Lessons from the River." Spring 2017.
[44] Alexander Gaguine interview. Spring 2017.

forgone taxes, operation and maintenance, and free-flowing river recreation lost. Parry and Norgaard concluded that at a low estimate the benefit to cost ration would be 0.31:1 and a high estimate would be 0.58:1 (see image 8). The Corps largely overestimated the benefits of the Dam in their manipulation of numbers from specialty crop cost, power generation benefits, recreation costs, fish and wildlife benefits and water quality control. The Corps also did not quantify environmental costs. Parry and Norgaard concluded that the "construction of the New Melones Dam should be forestalled until a re-evaluated of the benefit-cost analysis has taken place."[45]

Despite the initial loss, the passionate friends decided to continue both the campaign to 'save the Stan' and the newly established organization that had picked up so much support in a very short amount of time. In 1975, Jennifer Jennings and Mark Dubois worked to transform FOR into a membership based organization, pulling support from environmental activists throughout the state and nationally. During the transition period between 1974-1976, after Prop 17 was defeated and before Senate Bill 1482 was introduced, FOR started their Jerry Brown letter writing campaign in tandem with the VIP legislator river trips. They got representatives from all over the state to come on river trips and experience what they would be losing if New Melones was filled. In addition to legislators, the FOR team brought influential environmentalists and social leaders on river trips as well.

The technique of bringing legislators on river trips was adopted from previous environmental campaigns to save rivers. Friends of the River, used this technique and the strategy of advocating to the regular customers during the river trips, in the Stanislaus campaign and into the future. This technique the became precedent for the modern environmental

[45] Save the River – General, 1974-75, Box 1, Folder 14, Document 5. Friends of the River Collection. Water Resources Archive, University of California Riverside.

movement and is used to this day. In addition to advocating for a cause on the trips, FOR also used the trips as a fundraising technique. In 1982, the Water Conservation and Efficiency initiative was a rallying call for guides to be concerned with the modern-day water politics issues. FOR partnered with the commercial outfitters operating companies on the rivers of concern. This helped educate more guides who made their living off of running the rivers and had a deep connection with the river canyons. The program grew enough so that workshops for the guide organizers were held to help make sure everyone was on the same page. A Friends of the River rafting chapter was established and the funds raised went to campaign efforts to save rivers as well as for water conservation and other ecological degradation concerns.[46,47,48]

1975 was a year of establishing connections with the people who could make a difference on the legislative floor. The original California Rivers Day in the state capitol was organized to gather the momentum from the letter writing campaign on these river trips. Senator Peter Behr played an important role in gathering the resources for this event.[49] In addition to his participation in the first California Rivers Day Behr was in correspondence with Ronald B Robbie, the first consultant to the Assembly Committee on Water and at that time the director of the SWRCB. In the Spring of 1975, Robbie and Governor Brown gave the okay to build New Melones and allocate 58 million dollars to the project if its construction followed D 1422. In the

[46] Fundraising with River Outfitters/River trips 1982-1983, CTN 1, Folder 30. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[47] River Trips 1982, 1983, CTN 1, Folder 37. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[48] River Trips 1989, CTN 1, Folder 38. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[49] Save the River – General, 1974-75, Box 1, Folder 14, Document 11. Friends of the River Collection. Water Resources Archive, University of California Riverside.

Fall of 1975, Congress rejected the appropriations bill.[50] Despite the rejection, FOR continued to push the campaign. During the earlier part of the year, Robbie also wrote a letter to the chairman of the California Water Commission taking a stance on the New Melones project. Robbie stated that,

> "I support appropriations for continuation of work already underway. Undersigned water contracts require otherwise, this support is conditioned upon the Bureau of Reclamation storing only enough water to provide flood control, protect vested rights, and improve and enhance water quality and downstream fishing. Additionally, limited water storage will protect the whitewater and upstream recreation as long as possible. Congress should have incorporated this condition through appropriate language in the budget."[51]

After the spring correspondence addressing the appropriations bill, Behr further pressured Robbie to release information on the project for the "concerned citizens of Calaveras county". Behr wrote a letter in August of 1975 to confirm that the project was being sponsored under the Department of Water Resources permits 15103-15024.

Senate Bill 1482

SB 1482 was introduced by Senators Behr, Alquist, Beilenson, Dunlap, Gregorio, Marks, Nejedly, Petris, Rains, Roberti, Smith and Stevens on January 26, 1976 as an act to amend section 5093.54 of, and to add sections 5093.67 and 5093.68 to the Public Resources Code, relating to Wild and Scenic rivers. The bill would have included the nine mile stretch FOR was fighting to protect and the 100 yard stretch of the Stanislaus river between Godwin Dam and the confluence with the San Joaquin. The amendments were to "preclude anything in the California Wild and Scenic Rivers Act from being construed to prohibit any flood protection measures

[50] Save the River – General (Oct 1975 – 1976?), Box 2, Folder 2. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[51] Save the River – General, 1974-75, Box 1, Folder 14. Friends of the River Collection. Water Resources Archive, University of California Riverside.

necessary for protection of lives and property along the Stanislaus River." This amendment was proposed as another compromise from the full Wild and Scenic protection, to address the need for flood control. The compromise was allowing for the possibility of a moderate dam to be built in the infrastructure site while still protecting the whitewater stretch of river.[52]

California SB 1482 was first proposed by Senator Peter Behr in 1975 in further attempt to protect the Stan under the Wild and Scenic Act. In an open letter written in 1976, to who Behr addresses as the Friends of the Stanislaus,

> "Dear River-Friends,
> I hope I can convince you how terribly critical the next seven months will be to the future of the Stanislaus River.
> On January 26, 1976, I introduced Senate Bill 1482 into the State Legislature … If we succeed, we will stop New Melones Dam and preserve the river for future generations of Californians. IF we fail, the Stanislaus will be doomed.
> People have asked me, "how can you expect to win, when proposition 17 lost as the polls in 1974?" I expect to win because this time, the issue is in the legislature, and big corporate contributors won't be able to buy ads that deliberately confuse the electorate. I expect to win because since 1974, the construction of New Melones Dam has become an alarming State's-Rights issue, with ramifications that will affect the future management of all water resources in California. Furthermore, I expect to win because the Stanislaus has so many friends who care for her. And only her friends can bring the river the votes she needs in the legislature.
> …. The magnificent lady of the Motherlode can survive….
> Ringo Starr said it well in song: We get by with a little help from our friends. The Stanislaus is no different – she needs our support. Act today – for the River, and for every Californian who detests tax-gobbling Federal projects, which needlessly despoil our precious natural legacy."[53]

In this letter, Behr is able to tap into the emotions of those who are still grieving, those in doubt, those who are ready for the fight to continue and those who are just entering the fight. His brilliant explanation of the power of friends shows the underlying power of Friends of the River.

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[52] Save the River – Senate Bill 1482, 1974-1976, Box 2, Folder 6. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[53] Correspondence, 1972-1976, Box 1, Folder 4. Friends of the River Collection. Water Resources Archive, University of California Riverside.

As an organization, FOR was and is rooted in a deep love of the places they are fighting for. They have personified the river in a way to become her friend and fight behind a friend's cause.

To regain momentum in the fight, Alexander Gaguine, the public relations director sent out letters to the Sierra Club and the Audubon Society presidents asking for their support of SB 1482 and to gain support from their members through signing petitions.[54] In addition to asking for support from specific partner organizations, FOR sent around flyers highlighting the renewal of the Stanislaus fight and the bill sponsored by Behr. These flyers explained the fight was continuing to include the Stanislaus in the Wild and Scenic Rivers Act. The SB 1482 flyers detailed the quick facts on the construction timeline, Prop 17 and letter writing topic ideas. There was still time to prevent further construction and encourage people to mobilize around a historic turning point. The FOR flyers argued that Prop 17 made grassroots history and displayed the power of the people. If the people continued to sign petitions and write letters about protecting the limestone canyon, the benefits of a smaller dam for flood control and water quality, the temporary employment (the misinformation around the Corps argument on providing future employment), and the possible loss of whitewater recreation on the North Fork, there would be a possibility of convincing the government to protect the Stanislaus.[55] In addition to continual outreach, FOR had support from the California Committee of Two Million and the Department of Fish and Game.

SB 1482 had to be passed by the end of the 1975-1976 legislative session for New Melones to be stopped and the Stan to be protected under the state's Wild and Scenic designation. In April of 1976 the senate bill went to the Wildlife and Resources committee for a

[54] Petitions, 1971-1977, Box 1, Folder 10. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[55] Petitions, 1971-1977, Box 1, Folder 10.

second time and once again did not pass. AB 4460 was introduced later in April as the same bill with a slight change in language that no longer supported the low dam. By April, the sponsors of the bill were pushing for State's rights and upper river preservation.[56] By the end of session, Behr was only able to get one third of the state legislators to endorse this bill.[57]

1976: Construction at New Melones and a start towards working for all rivers

New Melones Dam had been authorized in 1944 under the CVP (Central Valley Project) and further continued in the 1966 construction process of clearing the area for a foundation. Despite the efforts of FOR to stop construction in the early 1970s, by 1976 Army Corps construction started again. From 1976-1978, the main embankment of the dam was built. Although the construction being underway, FOR continued to fight to save the Stan. In June of 1977, Alexander Gaguine and Mark Dubois issued a letter to all members of Friends of the Stanislaus River about their concern over the destruction of the upper part of the canyon during dam construction. The Camp Nine bridge and road was being relocated prematurely and construction was harming the ecosystem. Gaguine and Dubois argued in support of the State's position with D 1422 and the non-necessity of a full reservoir, to further dispute the new road's necessity. Additionally, the Army Corps of Engineers did not file an EIS prior to construction and the SWRCB asked the Corps to stop the construction for the new road. The State did not have the power to fully stop the Corps due to the court's ruling on D 1422, determining the Federal rights over the New Melones project. In the letter, Dubois and Gaguine went on to notify readers that Governor Brown and the assistant secretary of the BOI, Guy Martin, asked the

[56] Petitions, 1971-1977, Box 1, Folder 10.
[57] New Melones – Research 1974-1981, CTN 1, Folder 32. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

secretary of the Army, Clifford Alexander, to stop construction. The authors' call to action is a letter writing campaign to local representatives to show support to the State, Department of the Interior and White House, all political entities that were in cooperation with FOR in an attempt to stop the Corps.[58]

In 1976 Friends of the River launched campaigns to begin advocating for rivers throughout California while continuing the Stanislaus campaign. By 1978, once the seven-year drought was over, the commercial companies began to see a lot of new guide interest and support for the Stan campaign picked up. Roy Tennant explained that "river companies were staffing up – that was when all these people, myself included, got involved." FOR and the Friends of the Stanislaus entered the last stages of the campaign with new momentum and enthusiasm. In 1978, they took their lobbying efforts beyond the state to the federal level in Washington DC. This set the stage for HR 4223 to be introduced the following year.

Parrot's Ferry is the Limit

HR 4223, Edwards, Stark, McCloskey Bill (1979-1980)

The effort to designate the Stanislaus as Wild and Scenic, between Camp Nine and Parrot's Ferry, continued even after the dam was fully constructed in 1978. Backed by many

[58] Miscellaneous 1976-1980, Box 1, Folder 3. Friends of the River Collection. Water Resources Archive, University of California Riverside.

political entities[59] and organizations,[60] HR 4223 was introduced in 1979, as one last attempt to designate the upper stretch of the Stanislaus as Wild and Scenic. "HR 4223 has two purposes: preservation of the upper 9.5 miles of the Stanislaus Canyon, by inclusion in the National Wild and Scenic River system; and operation of New Melones Dam to provide the greatest benefit to the greatest number of people."[61] The Congressional, compromise bill also supported a moderate reservoir so that the area they were trying to protect would not be flooded out by a full reservoir. The 1973, Decision 1422 by the SWRCB supported HR 4223. 'Parrot's Ferry is the Limit' became the main battle cry from the point of final construction through the failure of HR 4223 at the end of 1980 legislative year, and lasted until the campaign was lost in 1982.

HR 4223 was introduced in the House of Representatives on May 24, 1979 by senators Edwards, Stark, McCloskey, Beilenson, Dellumb, Van Deerlin and Miller.[62] After the bill was introduced it was referred to the Committee on Interior and Insular Affairs. In May of 1979, Mark Dubois decided to chain himself to bedrock in the flooding river canyon as a form of

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[59] March 27, 1979, Letter to Jerry Brown: "The state department of rehabilitation would like to add its voice to a growing group of concerned Californians in urging you to meet with us to bring into perspective the great disservice which will be done to California's citizens if the New Melones dam project is allowed to spoil one of this State's most precious natural areas, the Stanislaus River."
House of Representatives Bill 4223, 1979-1980, Box 1, Folder 8, Document 1. Friends of the River Collection. Water Resources Archive, University of California Riverside.

[60] "Perhaps most importantly, Friends of the River's statements about New Melones Dam have withstood public scrutiny and have generated tremendous public support. Literally hundreds of groups – including every major environmental group; the League of Women Voters; educational groups; sporting groups; commercial salmon fishermen, such as the Salmon Trollers Marketing Association of Fort Bragg; other businesses, such as the American Solar Institute or Nordskog Aerospace Industries – endorse passage of HR 4223."
Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

[61] Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41.

[62] Stanislaus River 1977-1982, CTN 1, Folder 40. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

protest to get the Army Corps to realize what they were doing. He believed that if they were going to take the life of the Stan, that they could take another life with it. This protest made national headlines in the coming months.

On July 10, 1979 Dubois released an article in the Ecology Action Institute Magazine on HR 4223. As he was wrapping up his argument Dubois asked, "can California afford to add more band aids onto a bleeding system?" Thus, posing the question of who is responsible and providing solutions to what each California resident could do to preserve water in drought years. The fourteenth dam on the Stanislaus was not the solution to providing more water in times of drought. To this day, even in the wettest of years, New Melones does not reach full capacity.[63] The first dams built on the Stanislaus captured most of the available water yield. Dubois argued that the New Melones dam would only produce a tiny amount of irrigation water and hydro energy compared to overall costs. By supporting the moderate dam proposal, it would still provide three times more storage room than the Old Melones reservoir, in addition to acknowledging environmental and commercial business concerns. The moderate dam would have been better for water quality, fisheries, prior rights of [irrigators, and commercial white water rafting companies.[64] Additionally, the moderate reservoir would have still provided new flatwater recreation. When the dam proponents or skeptics of the campaign asked why the nine-mile stretch was so important to commercial companies and why they could not just switch to another stretch of river the explanation included issues of accessibility, class ranking, distance, safety, and issues of development along some river canyons. All of the other accessible white

[63] Rosenfield, Jon. Water Activism and Water as a Human Right guest lecture. UC Berkeley. Spring 2017.
[64] Talks – Notes 1979- 1981, CTN 1, Folder 43. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

water was already overcrowded and other rivers in the area were more dangerous to bring customers down, especially the disabled trips. Additionally, the experience from a river trip is not the same if you are rafting alongside a road and not in a true remote, wilderness setting. 'The Department of Interior has concluded that "its combination of recreation resource values are of such quality and uniqueness that they are considered irreplaceable."'[65,66] The Stan was the second most popular and trafficked river in the Nation. At the time, it was the most used river West of the Mississippi.

The question about why preserve the specific stretch of white water was one of many thrown at FOR. Farmers had concerns about the debate over the moderate versus full reservoir and whether this would have a long-term impact on their industry. FOR stood on the platform that farming would benefit more from a moderate reservoir because it would be better for water quality in the Delta and still provide water for irrigation. However, the moderate reservoir would not have provided new water for irrigation, whereas the massive reservoir was expected to add about 200,000 acre feet of available water supply for the Oakdale and South San Joaquin irrigation districts. Westlands water district was also a possible recipient of the water supply if HR 4223 were to fail.[67] The Central Valley Project historically had been helping bring more land into production instead of providing surface water purely as a replacement for the over drafted

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[65] Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

[66] American Rivers Conservation Council document from July 20, 1979: Letter to Secretary of the Interior Cecil Andrus: "Transfer of New Melones Dam project to the dept. of the interior – argue that it allows him to put new water policy directives into action. Urge purchase and protection of the land downstream – 4000 acres of wildlife mitigation lands."
Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

[67] House of Representatives Bill 4223, 1979-1980, Box 1, Folder 8. Friends of the River Collection. Water Resources Archive, University of California Riverside.

groundwater tables in California. FOR highlighted the fact that the more farmland that gets put into production equates with increased water supply insecurity during drought years. They also pointed out that the energy produced would be less than the energy used for recreation and pumping, resulting in hydro power not being an efficient source of energy. The estimated electricity production from the massive reservoir was around 430 kwh per year, whereas the moderate reservoir would have produced around 150 kwh per year. The electricity from the moderate reservoir would not have gone to pumping water but was tagged for residential and industrial energy supply. Arguments by the dam proponents included the need for flood control. Ironically, the moderate reservoir would have provided better flood control than the massive reservoir.

The ecological implications tied to the massive reservoir in comparison to the moderate reservoir were drastically different. During the time of the battle, fish biologists were finding that there was a significant decline in the Chinook salmon fishery population in the lower Stanislaus basin.[68] The moderate reservoir would have improved downstream water quality and enlarged the fishery. During the drier seasons, the lower Stanislaus was dealing with a salinity issue that was damaging water quality for the wildlife and industries that depended on it. In some areas, the salinity was so high that is was damaging crops, industrial equipment, and causing health problems.[69] In addition to increased salinity there was also pollution from fertilizers, herbicides and pesticides entering the system through a 'return flow' from upstream irrigation. The moderate reservoir would have aided in water quality, keeping more water flowing through the watershed and increasing the concentration of dissolved oxygen which would have decreased

[68] The CVP is one of the key causes of fishery decline in the San Joaquin, Sacramento and Trinity rivers.
[69] See Appendix A for more information.

salinity levels. Whereas the massive reservoir cut off more downstream flow. This water quality issue was not just a concern for the Stanislaus but the larger San Joaquin system to which it flowed into. The massive reservoir also flooded out the deepest limestone canyon on the West Coast, a location that was eligible for landmark status. The flooding of the canyon put a blanket of water over potential geologic research ground, archeological sites, and Native American history.[70]

The social and historical losses that resulted from the flooding of the upper Stanislaus were also laid on the table during the push for HR 4223. The Stan was thought of as a 'living classroom' where guides could teach the customers about wildlife, geology and botany. It was also considered a 'roadless wilderness for the disabled'. In the ongoing battle since 1973, the Corps had ignored the possible seismic implications, provided false information about the reality of cost benefit ratios, they violated historic and archeologic preservation laws, along with not securing environmental impact statements prior to the project. There were also political implications that FOR pointed to in their arguments for a moderate reservoir. The BOR was in support of creating more water storage whereas the BLM was in support of protecting the canyon for recreation and filling the moderate reservoir for further flatwater recreation. The massive reservoir was in violation of the water conservation programs established under President Carter. These programs supported better pricing and enforcement of environmental laws.[71]

The Chaining

[70] Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[71] Stanislaus River 1977-1982, CTN 1, Folder 40. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

In May of 1979, as a reaction to HR 4223's progress, Mark Dubois decided he would chain himself to a rock somewhere in the vicinity of the rising reservoir (see image 9). He stayed hidden in the canyon for seven days before he was convinced to emerge. This single action resulted in FOR, and Friends of the Stanislaus, to gain national media coverage and broader support to save the Stan. Dubois did not want to commit suicide, he wanted the Army Corps and the BOR to recognize what they doing, drowning 9 million years of evolution. Dubois delivered personal letters prior to going into the canyon. As he was leaving Jerry Brown's office, after dropping off a letter describing his intentions, he saw the tree that was planted with Senator Behr after the Wild and Scenic state act has passed. At this moment, he realized he was not afraid to die. The simple reminder of the tree in combination with past events experienced on the river, allowed him to move forward in the campaign, and into the future, with a freer mindset.[72] Mark was acting out of pure love. When asked why he was willing to give up so much, he responded that he was not "giving" he was "acting in alignment with falling in love." James Houston in an article for *The Californian* explained how "with a kind of religious clarity he saw that whether he lived or died didn't make that much of a difference."[73] The Army Corps disagreed and temporarily stopped the filling of the reservoir to ensure that they were not directly responsible for the death of a civilian.[74] In a later report it was said that the Corps denied the impact of the Dubois chaining act in their decision to stop the filling of the reservoir in 1979.

> "the corps has consistently maintained that Mark Dubois' chaining himself at the 808-elevation had little impact on their decision-making process. They have stated they planned to keep the water at this level due to the legal requirements of the historic preservation program and the state of California's Water Resources Control Board directives. The Corps has not mentioned any "unplanned" water

[72] Dubois, Mark. Lessons from the river talk. Spring 2017.
[73] Tennant, Roy. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2926.
[74] Tennant, Roy. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2664.

> releases nor by the Corps figures did water releases ever exceed the authorized levels of 8000 CFS…"[75]

In 1972 or 1973, the early years of guiding on the Stanislaus, Dubois experienced his first true test with the forces of nature and the concept of life. On a multi-day commercial river trip, Dubois decided to cross the river after setting up camp to explore a trail across from the crew's home for the night. They were in the deepest part of the limestone canyon. As he explored the trail, he made it to an end point but decided to try to keep going up. Telling this story, Dubois remembers how climbers say to never trust limestone. He decided to push on anyway and the rock broke. He fell, but instead of falling to his death, he fell into a brittle, buckeye tree. As he lay caught in the arms of a brittle, fragile tree, he realized that he in fact was not invincible and that life is too short.

Seven years after the brittle, buckeye tree event, Mark ventured into a canyon to chain his ankle to bedrock. If they were going to flood out 9 million years of evolution, they could take one more life with it. Dubois actions were in alignment with an Edward Abbey saying that "the fear of death follows from the fear of life. A man who lives fully is prepared to die at any time." This way of living and peacefully protesting, inspired others to follow suit. As the fight for HR 4223 continued, there were more chaining demonstrations as well as 'human water marker' demonstrations. Friends of the Stanislaus would stand in the water as the reservoir was rising, risking their health and their bodies for the place they loved. The act of putting one's body on the line to make a protest statement put life into nature and landscape in a way that was different from past Western rhetoric and thought. Western capital society developed the notion of a domination of nature rather than an understanding of the importance of living with the natural

[75] Stanislaus River 1977-1982, CTN 1, Folder 40. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

cycles of Mother Earth. The idea of living with nature is historically linked to indigenous practices. This concept was adopted by environmentalists in the twentieth century.[76] FOR and the Friends of the Stanislaus cemented this idea into the modern environmental movement and put the personification of nature into national media through their 'love affairs'. Protestors and civil rights activists of the time put their bodies on the line for what they believed in. The Freedom Riders[77] put their bodies and lives on the line when driving north to south. The idea of putting a human body at risk for a natural resource, or what was beginning to be seen as just nature or the Earth, instead of a commodity or resource, was a new technique that woke people up to FOR's cause. The foundational fights of the twentieth century paved the way for rhetoric around the love affair with a river canyon to enter the politics of second half of the twentieth century. One of the more well-known organizations that would go on to further this legacy was Earth First.

Militant Environmental Protest Legacy – Peaceful Protest

The emphasis on peaceful protest altered the previously established playing field. At the time of Friends of the River's founding and expansion the only other organization successfully fighting for waterways was the Sierra Club Committee on Water. American River's had been founded but not yet gained momentum; this would start after FOR put rivers on the political map. Sierra Club had a history of militant protest[78] which received criticism from the outside

[76] This concept will be added to in a later version of this project
[77] Freedom riders were a group of 1960's Civil Rights Activists.
[78] Environmental Education 1969-71, CTN 87, Folder 37. Martin Litton, Sierra Club Papers. Bancroft Library, University of California Berkeley.

world. The tactics of peaceful protest made a huge different in getting FOR's voice heard on a national level.

The acts of peaceful protest by putting one's body at risk occurred until the end of the campaign. The peaceful protest techniques were based off of the concept of Satyagraha. This technique founded by Gandhi, encouraged the Friends of the Stanislaus[79] to further talk to the ranch owners who would benefit from the increase in water storage.

> "Another realization is that we have done an excellent job of making decision makers, eco-activists, and other motivated folks aware of the positive value of the canyon, and that is unlikely that further organizing or dwelling on this element of our argument against filling will win us new support. Instead, the act of linking to the canyon is expected to galvanize the support we have and energize these people to help push a bill through congress."[80]

In the Fall of 1981, a protest that took place at Parrott's Ferry bridge was planned at the Greenpeace office in Sacramento (see image 12). The weekend protest, would provide an opportunity for supporters of the campaign to 'link' themselves to the canyon.[81]

> "These folks will be prepared for arrest. The action will ceremoniously begin Saturday and end Sunday. While representing a commitment to the canyon by risking arrest and retaining the focus on the life of the canyon, this action does not represent either a death threat or coercive effect (kill us or find us or stop the filling) that prolonged action involving disappearing in the canyon would. Our primary goal is to draw public attention to the fact that the canyon is alive and threatened still, and to negotiate holding off the water until congress can act after the first of the year. ……. Disappearing into the canyon is the only way we can stop the water absolutely, and while some may resort to this on their own this year, it is beyond our knowledge and may be tactically imprudent without a large show of support..."[82]

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[79] When FOR expanded to fight for all rivers in 1976, a specific chapter was established for the Stanislaus campaign that was run in conjunction but also separately from the FOR foundation
[80] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[81] The FOR board was weary of the image and symbol of chains in nonviolent protest.
[82] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

One of the goals of this protest was to build action and encourage smaller group protest after the large organized demonstration, for the last leg of the campaign. The smaller protests would continue to draw media attention and grow support to stop the filling of the reservoir. In a press release from March 8th, 1982 descriptions of chainings were released. The activists were "linking" themselves to the canyon upstream of the buried Parrott's Ferry bridge (see images 10-11, 13) Linda Cloud was recorded as stating that:

> "I am chaining myself to this tree, and linking my life to its threatened life, to protest the further killing of this place of special beauty which can continue to give so much joy to so many people. I have never done anything like this before, but I'm being forced to defend this canyon, my home. it's not just those of us here today that feel frustrated and angered."[83]

By 1982 the Friends of the Stanislaus were still fighting to prevent the last four miles of the Stan from being flooded. The symbolic Parrot's Ferry bridge had already been lost but in the spring of 1982, Rose Creek was at risk of being flooded.

1980-1983

HR 4223 was part of the final push to save the Stan. "The ultimate fate of New Melones Dam will be significantly affected, but not sealed, by passage of HR 4223."[84] Once HR 4223 lost in 1980, it was clear that they had lost the battle against the New Melones Dam proponents. Negotiations between BOR and the irrigation districts had already begun the year prior. Oakdale and South San Joaquin Irrigation Districts were the major players in determining the dam operation.[85] The reservoir was slowly being filled in compliance with D 1422 to show how the

[83] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42.
[84] Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[85] Miscellaneous 1976-1980, Box 1, Folder 3. Friends of the River Collection. Water Resources Archive, University of California Riverside.

moderate dam would operate, after HR 4223 failed and during the time of the last statewide initiative being pushed. From 1982-1983 a series of heavy El Nino rain storms hit California resulting in high water years and the filling of the New Melones reservoir ahead of the incremented schedule. In combination with the high-water year, the Stan campaign officially ended in 1982 when the statewide initiative to prevent the full filling of the reservoir was defeated in the polls. A year later the reservoir was filled, flooding out the 9-mile stretch that had been fought for so lovingly, for over a decade.

In 1980, the Corps was in correspondence with FOR's Betty Andrews concerning their agreement with the BOR on protecting riparian habitat, which included both flow and channel maintenance, and fish and wildlife habitat preservation and propagation. The corps at this time was acquiring 2743 acres of land and 54 acres of riparian habitat to protect a total of 2797 acres of land from real estate development.[86] They were recognizing the importance of maintaining riverine health for the Stanislaus and San Joaquin, the larger river that the Stan flows into. The San Joaquin provides a significant amount of the water supply for Southern California. Even as the battle was winding down and parts of it seemed to be a lost cause, there was still media attention. An LA Times report from the summer of 1980, titled, "A Dam Good Stall," discusses the reality of the situation, which was that either the farmers or the environmentalists would win but one side was going to lose. "Now the dam is finished and the government must choose. The farmers in the valley below New Melones want their water and power. Environmentalists want their unspoiled river and canyon floor."[87]

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[86] Scope and Content, Box 1, Folder 1. Friends of the River Collection. Water Resources Archive, University of California Riverside.

[87] "A Dam Good Stall," LA Times Article, Miscellaneous 1976-1980, Box 1, Folder 3. Friends of the River Collection. Water Resources Archive, University of California Riverside.

The following year brought D 1422 back to the table for conversation. The state opposed reservoir clearing upstream of Parrott's Ferry bridge.[88] This opposition was in support of maintaining a moderate reservoir and preventing the nine-mile stretch from being flooded. Once again statistics were released in support of the moderate reservoir stating that the full-size reservoir would only produce .07% of total energy capacity of the state. Additionally, there were no officially signed water contracts for irrigation districts and New Melones water supply, the fish would need the same flow standards with either reservoir, recreation for white water and flat water sports would be encouraged by a moderate reservoir, and flood control would be easier to maintain with a moderate reservoir needing fewer releases.[89] In addition to the arguments from D 1422 being brought back in 1981, there was a smaller letter writing efforts to prevent the parking lot from being fully constructed. This parking lot was being placed on the wetlands of the Stanislaus watershed for the flat-water recreation area that was to be named the Buttonbush Recreation Area.[90]

In 1982 a FOR fact sheet written by Betty Andrews was released on the benefits of a moderate reservoir for the salmon fishery. The Department of Fish and Game and the U.S. Fish and Wildlife service provided more scientific data for this last-ditch effort in the campaign. Andrews highlights how 30% of the salmon population was projected to die if the reservoir was fully filled.[91] Fish are critical for the health of a river system. Since Salmon are at the top of the

[88] New Melones Correspondence (1979-1981), CTN 1, Folder 31. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[89] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[90] Water Issues (1981), CTN 1, Folder 46. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[91] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

food chain, if they can survive it is a sign of a healthy system. The large reservoir was not only going to kill a stretch of beloved river, it harms the health of the environment. Environmental health degradation is a concern for the immediate impact area as well as the larger watershed and regionalized area. The water quality implications of the Stanislaus directly impacted the San Joaquin and the Delta systems. (maps)

The last-ditch effort to save the Stan came with the second statewide ballot initiative in 1982. This statewide ballot again lost in the general election in November 65% to 35%. It was a proposal to make changes concerning water conservation, instream water uses, restriction on storage of water at New Melones reservoir and groundwater management, to the California Water Code. Provisions of interbasin water transfers, instream appropriations, water use and storage of the Stanislaus, and prohibiting extractions from groundwater overdraft areas, would have been implemented.[92] The restriction on storage was to prevent the filling of New Melones dam to full capacity so that the parts of the canyon that were not already flooded could be saved.

A Legacy of Personification

The burial of the Stanislaus in 1983 served as a rallying point (see picture). This river had been killed but the loss of the Stan allowed for many others to be saved. The Stanislaus was termed the 'last river lost' and has maintained this title. The campaign marked the end of the major dam building movement, a fight inspired by the emotional ties to landscape, and the birth of an organization that played a role beyond the campaign.[93] The activists and river guides who worked so hard to save the nine-mile stretch on the Stanislaus developed deep emotional ties

[92] "Proposition 13, Changes to California's Water Code (1982)." https://ballotpedia.org/Proposition_13,_Changes_to_California%27s_Water_Code_(1982).
[93] Larry Orman interview. Spring 2017.

with the place. Pendola Ranch, Parrott's Ferry Bridge and Rose Creek were all special places for different people involved in the campaign. The flooded places in the river canyon, that they had established love affairs with, provided symbolic significance as rallying calls later on. In addition to these specific places being drown out the histories of the indigenous peoples and the Old Melones mining town were lost in the flood. To honor the loss of their friend and river love, the Friends of the Stanislaus members created a timepiece that would be buried along with the other sacred places. "The timepiece was created as a connection to previous and future generations, who have, and will someday again, enjoy, honor, and remember the once and forever Stanislaus Canyon."[94] This symbolic sculpture was created by Richard Close as an archeological time capsule dedicated to the Stanislaus.

Uniting Behind the Death of a Sacred River Canyon

Grassroots campaigning

Many grassroots campaigning techniques were learned from the battle for the Stanislaus. Friends of the River pulled in specialists within the fields of geology, ecology, fish biology, hydrology, archeology, and history to provide data and research that would add to the campaign arguments. Additionally, FOR was able to gain a huge media presence in local, state and national newspapers. Along with the expert information and media coverage, they were also able to spread information through newsletters, flyers and essays. FOR learned how to conduct ballot initiative campaigns through letter writing and post card signatures. The letter writing campaign was especially successful on college campuses statewide college and through community

[94] Blake, Martin. *The Stanislaus River Museum.* Sonora, California.

organizing in addition to the river trips. Fundraising to bring people down the river and expose them to the beauty and magic of the place that was in danger of being flooded out, brought more people into the fight. The idea of bringing people down the river and allowing them to fall in love with the place strengthened the campaign. If people are fighting for something or someone that they love so deeply and it is lost, that fight never fully goes away, they will continue fighting for the larger cause. In the case of the Stan, the general cause was to ensure that California's rivers were better managed, protected and restored. Another river was not going to be lost behind a wall of cement infrastructure if the people in love with rivers had anything to say about it.

Friends of the River brought together a group of archeologists, historians, politicians, lawyers, economists, ecologists, fish biologists, hydrologists, land surveyors, and geologists. These specialists provided scholarly, scientific material for the campaign and some served as expert witnesses. For example, Dick Norgaard, a Berkeley professor and ARTA river guide, worked on the cost benefit analysis for Prop 17, Tim Palmer did the Wild and Scenic survey study for HR 4223 and Alexander Gaguine worked on compiling the information gathered into reports for the public. The Stanislaus studies were conducted through the end of the campaign in a continuous effort to bring credibility to the arguments to save the river. In 1975, California Geology released a report on the study of Sierra Nevada geology on the Stanislaus River. Then, in 1979 the California State Historic Preservation officer released a statement that concluded adverse effects to the historic district would result if the river was flooded. The nine-mile stretch was eligible for inclusion on the national historic register. In the report an outline of the data recovery project was provided to explain how they would try to preserve the history if the proponents were to win the battle for New Melones.[95] The research component of the campaign

[95] New Melones Correspondence (1979-1981), CTN 1, Folder 31. Mark Dubois Papers. Bancroft

was crucial in the strength of the arguments being pushed in different levels of the state and federal legislature. To this day, the campaigns to protect and restore rivers utilize this technique.

Media coverage and playing to the drama of the media was another campaign tool that FOR used. Through an extensive network of reporters, journalists, and other writers, FOR was able to get their story heard nationwide. The more dramatic acts that occurred later in the campaign boosted their media presence from a local and state level to a national level. Some of the news sources that covered the campaign included the Modesto Bee, Union Democrat, Fresno Bee, Santa Ana Register, Mercury News, SF Chronicle, LA Times, SF Examiner, Stockton Record, San Diego Union, The Washington Post, Times Magazine and more.[96] The campaign was covered both in print and live news reports. In addition to the more established media sources, FOR began their own newsletter titled, "Headwaters," to keep their supporters updated on the Stanislaus campaign information and other campaigns that were launched after 1976.

The media presence was one of the many avenues of spreading campaign facts and statistics. Campus and community organizing was another strategy that was used. Members of FOR handed out flyers, made banners, asked people to sign letters and petitions, lectured on college campuses, talked to their customers on river trips, and overall worked to mobilize on the grassroots level. The talks included discussions of the Stanislaus as a symbol in water history of the West, as well as New Melones not reflecting the present-day realities. Mark Dubois documented detailed outlines for a good portion of the talks he gave throughout the campaign years. In some of his talks he would begin with the importance of the Glen Canyon fight and how they could not let the Stanislaus be lost. He also covered the issues of the dam proponents

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Library, University of California Berkeley.

[96] Analysis of the media coverage is a topic that will be expanded on in a later stage of the project.

not wanting to admit that there were more efficient techniques for water storage, electricity and flood control than the old technique of trying to build more and more dams. Beyond the economic and technological arguments, the argument around environmental degradation was of importance as well. By the 1979-1981 talks, Dubois began articulating Parrott's Ferry as the compromise with a moderate reservoir and reminding people that with the large reservoir there would be a loss of power and water. Overall, the talks would end by reminding listeners that the Stanislaus was a unique asset and that they could not afford to lose it.[97] These talks took place throughout the state, including places such as Modesto, Arcata, Oakland, Santa Cruz and Chico.

The establishment of river trips as means to connect power brokers to the river and to the fight, is a technique still used today. FOR did not pioneer this technique, it was rooted in Brower's Sierra Club efforts in the battles of Dinosaur and Glen Canyon. The ARTA river guides brought this technique with them to the table with the Stanislaus campaign. Both ARTA and OARS river guides played key roles in developing river trip campaigning techniques. George Wendt, the founder of OARS and mentee of Martin Litton, the Grand Canyon Dories activist who worked alongside Brower, was very enthusiastic about these efforts. FOR took the Sierra Club technique and further developed it, creating a network of commercial companies and guides involved in the legislative trips. They were able to take leaders such as Harvey Milk, Jerry and Pat Brown, Peter Behr, David Brower, and Green Peace members down the Stanislaus. The more people that could connect with this unique place the harder the blow would be if it was lost, and the stronger the momentum coming out of the campaign to save other rivers. There were different types of river trips for fundraising, political based trips and volunteer trips.[98] In addition

[97] Talks – Notes 1979- 1981, CTN 1, Folder 43. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[98] River Trips – VIPS 1980-1981, CTN 1, Folder 39. Mark Dubois Papers. Bancroft Library,

to the FOR trips, all of the river guides were given letter writing material in ammo cans to bring out during lunch after talking about the campaign to their customers.[99] A New York Times reporter, Wayne King, wrote about one of the legislative river trips in 1980.

> "The great deluge from the spring runoff has abated on the Stanislaus River, but more than enough surging white water remains to send frothing cataracts cascading over the sleek black boulders, hurling rafts and kayaks into the boiling rapids that have discomforting names…
> There are dozens of boats on the nine miles of turbulent water – big rubber rafts that scuttle like cockroaches as their oars beat the water in furious time…
>
> The river alternately whispers and thunders as it courses between sheer canyon walls 800 feet high, past cool limestone caves and great granite rocks pocked with mortar holes where the Central Miwok Indians ground acorn into flour six centuries ago, past redbud, alder, ash and buckeye, past a giant fig tree scenting the air with fruit. It tumbles nearly nine miles before it softly spends itself in the great lake that backs up 16 miles behind the 60 story New Melones Dam.
>
> 'how deep will it be, how much water?' Asks a handsome man with silvering hair and wearing a life jacket.
> 'we've just got to stop it'
>
> 'two hundred fifty feet here,' answers a boatman… 'this whole canyon will be buried under 250 feet of water.'
>
> The questioner, Representative Don Edwards, sighs and says, "Well, we've just go to stop it. I think we can, but there isn't much time."
>
> The Congressman is the sponsor of a bill that would preserve the white-water section of the Stanislaus from further flooding behind the dam by putting these nine miles into the National Wild and Scenic Rivers System. With him on the trip down the river is Representative Fortney H. Stark, a fellow California Democrat and one of about 30 supporters of the bill and Huey Johnson secretary of the State Resources Agency, who rails against "continued wholesale damming of California's rivers."
>
> In another raft is Ed Roberts, head of California's Department of Rehabilitation. He is a quadriplegic, held upright in the craft by a makeshift wooden support. Rowing is Mark Dubois, who last year chained himself to a rock on the river, forcing the Army Corps of Engineers to stop filling the reservoir.
> ….
>
> Mr. Dubois, head of a 3000-member group called Friends of the River, says 40,000 people a year experience the white water on commercial and private trips down the Stanislaus, making it the second most popular white-water river in America, behind Pennsylvania's Youghiogheny. Thousands more hike, fish or explore its valley.

University of California Berkeley.

[99] Spring 2017 interviews.

> To Mr. Johnson, the resources director, the dam is an issue of public policy, one that has set California and Gov. Edmund G. Brown JR. against the Federal Government.
> New Melones, he says, is a "ripoff" of the public to provide subsidies to farms and utilities, "a symbolic point to hold everything up to daylight."
>
> Set against the loss of the white water, the limestone caves, the Miwok mortars and petroglyphs, against the alternation of its wildlife habitat and the grandeur of its valley and cliffs, is new recreation for a vast new number of fishers, swimmers, power-boaters and water-skiers, and a bigger supply of water as a workhorse to generate electric power, to grow walnuts and fruit, and to water cattle downstream.
>
> 'Fill'er Up,' Say Partisans
>
> Another group of friends, these call themselves Friends of New Melones, represent farmers, ranchers and several growth-conscious small towns in the valley. Partisans of the dam sport "Fill'er Up" T shirts and some have symbolically dumped buckets of water in the reservoir. A few have parked pickup trucks across the road to the raft-launching point, causing tense confrontations.
>
> The issue is not the dam itself, but how far to fill the reservoir behind the $341 million project, completed in 1978. Friends of the River, the State Resources Agency and environmental groups now oppose filling the reservoir beyond the present 16 miles. They favor preserving the nine miles of white water, providing to new irrigation and cutting power generation to one-third or one-quarter of what is now planned. In 1974, partisans of the dam defeated a ballot proposal that would have put the white water under the state's wild rivers system."[100]

Broad Support

FOR was able to gather a large network of support from politicians and legislators, academics, and environmentalists. Aside from the individual support there was organizational support as well as inspiration drawn from the FOR campaign to establish new momentum for other organizations. In June 1974, Governor Ronald Reagan made a statement in a letter to the BOR saying that "I want you (BOR) to know that I agree with the Board's decision which reflects California's desire for a balance between real water needs and environmental concerns."[101] Regan was addressing Decision 1422. Supportive statements of the campaign were

[100] "A Dam Good Stall," LA Times Article, Miscellaneous 1976-1980, Box 1, Folder 3. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[101] Stanislaus River 1977-1982, CTN 1, Folder 40. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

made throughout the decade long battle. A year after the reservoir was filled, the U.S. District Court Judge, Edward Dean Price, was quoted in the Sacramento Bee: "I'm convinced it was probably a mistake to build this dam … adding that not enough water can be produced to run the facility's power plant at full capacity on a year-round basis."[102] These are two of the many examples of reactions to the Stanislaus campaign and the river's eventual death. Aside from the politicians some of the organizations that supported FOR included American Rivers, Washington representative of FOR Patricia Schifferle, Friends of the Earth, League of Conservation Voters, Natural Resources Defense Council, Environmental Defense Fund, Environmental Policy Center, Washington Office Sierra Club, Conservation Director of the Wilderness Society, National Parks and Conservation Association, and the National Audubon Society.[103]

Opposition - Dam Proponents

In discussing a major turning point campaign, it is important to bring light to the opposition. The Friends of New Melones, fought for the full reservoir through their own campaign techniques. In the biggest battle of the ten-year campaign, the power of corporate money and language manipulation was shown to be effective when Prop 17 lost. Many of the voters who ended up voting against the proposition thought they were voting against the dam due to the confusing language in the campaign rhetoric. The proponents continued to push their message in the media even after Prop 17. In a pro-New Melones dam newsletter issued around 1974-75, it is stated across the bottom of the page that: "over 300,000 citizens desperately need

[102] Stanislaus River 1977-1982, CTN 1, Folder 40.
[103] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

the protection of the authorized New Melones dam!"[104] From 1979-1981, the friends of the dam continued to send letters to farmers about the compromise, urging them to side with the effort to fill the dam all the way and provided a list of key talking points on this matter. They argued that the opponents of the dam were negatively targeting farmers.[105] The proponents continued to push their agenda to the farmers because not all of them were pro dam. The players in the agricultural industry who stood to benefit were the larger agro-corporations (see images 17-19).

California's Water Management Problem

> "It's not a matter of not having enough in storage, mismanagement of our existing supplies is our problem."[106]

Friends of the River Continues despite the loss of Prop 17: Wild and Scenic, Tuolumne and Clavey, LA River, Auburn Dam and the American River (1974-1989)

Timeline of FOR Campaigns:
Prop 17 loses but Mark and others keep the organization going; fight against Auburn started: 1974
Feather river protected from mining: 1981
Dam defeated on the South Fork of the American and Peripheral Canal defeated: 1982
T added to wild and scenic: 1984
Auburn dam in the books again after flooding: 1986
Legislation for environmental protection when federal dam projects are licensed: 1986
New dams prohibited on the McCloud: 1989
Re-authorization of Auburn dam defeated in Congress / FOR lobby's in DC: 1992
Central Valley Project Improvement Act passed: 1992
Colorado river protected: 1992
Hydroelectric proposals stopped for North Fork of Stan and South Yuba: 1993
Lobbying to restore Colorado and change Glen Canyon dam operation requirements: 1994
Deer and Mill Creek dam prevention: 1995
Auburn dam bill defeated in congress again: 1996
Clavey and North Fork Mokelumne saved from dam proposals: 1996
River quest started: 1996

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[104] Miscellaneous, 1969 – 1975, Box 1, Folder 2. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[105] Friends of Dams 1979-1981, CTN 1, Folder 28. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[106] Talks – Notes 1979- 1981, CTN 1, Folder 43. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

Relicensing for hydro stopped on North Fork Kings, North Fork Feather, Santa Ana and San Joaquin:1997
PG&E hydro relicensing agreements for flow/fish/ecologic standards: 2000
Starts to advocate against the relicensing of the PacifiCorp's Klamath river dams: 2000
Dam on Clear Creek removed: 2000
Prevention of Auburn dam funding bill from being introduced in congress: 2001

Organizations & Movements born from FOR inspiration

Friends of the River set new precedent as they developed foundations for peaceful grassroots environmental campaigns and changed the rhetoric around the commodification of water. They also inspired and helped many organizations form and grow. Cal Trout was established in 1971 but this organization did not gain momentum until after the Stanislaus campaign. They became a very important voice in later precedent setting battles such as the Mono Lake Public Trust doctrine decision. In 1972, Environmental Traveling Companions (ETC) was born on the Stanislaus and was led by people involved in both organizations.[107] Additionally, American Rivers (AR) was founded in 1973. Now known as a national organization with international sway, AR did not pick up speed until Friends of the River put the fight for Wild and Scenic on the map. In addition to these well-known organizations, smaller community chapters and committees associated with Friends of the River sprung up all over California and the regional West, as the organization continued to grow after 1974. These FOR organizations included: FOR of the LA River, FOR of the Eel River, FOR of Trinity River, the South Yuba River Citizens League, the Merced Canyon Committee, the Kings Canyon Committee, the Kern River Committee, and the Tuolumne River Preservation Trust.[108] During the fight to save the Stanislaus from 1973-1983, many university campus chapters were

[107] See Appendix C for more information.
[108] Kevin Wolf Interview. Spring 2017.

organized to support the campaign as well. The Tuolumne River Preservation Trust was founded in 1981 by FOR to save the Tuolumne from further damming. TRT led a successful campaign after the defeat of the Stanislaus. This campaign rallied more people behind the cause to make sure no more rivers would die behind cement infrastructure. Friends of the River supported these local organizations by continuing to organize the larger river community throughout the state. A couple years after the Stanislaus campaign, in 1985, Mark Dubois started International Rivers Organization.

In 1977, the Creeks committee for Friends of the River was established. The FOR board of directors was divided into two councils, one for "River Friends" and the other for "Creek Friends." The goals of FOR concentrating on all waterways included the legal protection, advocating for base flows, healthy geomorphology and ecology, prevention of erosion, protection of wildlife and habitat, water quality, and restoration. They also concentrated on educating the guides to advocate for their homes and promoted public access to the rivers and creeks of California.[109]

In 1979, a coalition meeting was organized and all of the organizations born from and in support of Friends of the River were invited.[110] Some of the more prominent of these

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[109] Creeks 1977-78, CTN 1, Folder 25. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

[110] Coalition 1979, CTN 1, Folder 19. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

Organizations: Clear Creek Committee, South Fork Trinity Watershed Association, Redwood Creek Committee, Northcoast Friends of the River, Matthole Watershed, Beginnings Incorporated Redwood Creek Renewal, Richard Gienger on the Sinkyone Council, Red Mountain Association, Citizens Committee to save Our Public Lands, Friends of the Big River, Mendocino Environmental Education Institute, Save the Smith, Santa Rosa Creek Committee, Warm Springs Guardian, Warm Springs Task Force, Creek People Council, Fryer Creekside Park Committee, Save our Sonoma Valley Creeks, Pinole Creek Restoration, The mono Lake Committee, Bay Area Friends of the River, Friends of the River Foundation, River Touring Section, United New Conservationists - Guadalupe river, Upper San Lorenzo watershed, Save

organizations in correspondence with FOR within the next decade included the Amigos Bravos, Friends of the Wild Rivers, the Wildlife Conservancy, The Bay Institute, and the Urban Creeks Council. The previously listed organizations are some but not all of the organizations FOR had relationships with at that time. The Bay Delta Institute was in communication with Mark Dubois about how to gather a constituency for projects they were working on, which included the Public Trust suit for Mono Lake and the issues within the agricultural industry with selenium pollution.[111]

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the San Lorenzo River Association, Sacramento River Headwaters to Shasta, Cottonwood Creek Committee, Citizens Opposed to Marysville Dam, Friends of the River, Riverlands Council, Pollock Pines Miners Canal , American River Canyon Association (South Fork American Cabin owners), concerned citizens for rural resources (south fork American river), North Fork Stanislaus Committee, Concerned Citizens of Calaveras County, Citizens to Preserve the Tuolumne River, Tuolumne River Task Force, Committee to Save the King's River, South Fork Watershed Association, Friends of the Ventura River, Friends of the Santa Monica Mountain Parks and Seashore, Medea Creek Committee, Tri-County Conservation League … And independent names

Anglers groups: American federation of fly fishermen, Cal trout/ committee of two million, Northern California Council of Fly Fishing Clubs, American League of Anglers

Other environmental/water policy orgs: American Rivers Conservation Council, Planning and Conservation League, California Agrarian Action Project, Friends of the Earth, Tom Graff – Environmental Defense Fund

Member groups of the California wilderness coalition: American alpine club, California native plant society, California wilderness coalition, citizens for Mojave national park, citizens to save our public lands, Desert Protective Council, Ecology Center of Southern Ca, Friends of the Earth, Granite Chief Task Force, Greenpeace, Ishi Task Force Northstate, Island Foundation, Lake Tahoe Audubon Society, Mendocino Environmental Center, Loma Prieta Chapter Sierra Club, Mt. Shasta Area Audubon Society, Mount Shasta Resource Council, Northern California Regional Conservation Council, Northcoast Environmental center, place county conservation, red mountain association, San Joaquin institute for environmental Action, SCRCC – Sierra Club, Sierra Club – Bay Chapter, Sierra County Conservation Club, Simi Valley Sierra Club, Sinkyone Council, Siskiyou Mountains Resource Council, Sonoma County ecology center South fork watershed association, students for environmental action (UC Davis), The wilderness Society, Trinity Alps Group, Mono Lake Committee

[111] Water Organizations – California 1985-1993 aka. Other Calif Water, CTN 14, Folder 37. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

Wild and Scenic

Friends of the River paved the way for the Wild and Scenic designation, on both the state and federal levels, of California's rivers. From 1972-1979, Friends of the River reported on the possible mitigation of the South Fork of the American River, the Tuolumne River, the Mokelumne River, the Bear River, the Yuba River, the North Fork Feather River and Cache Creek.[112]

Wild and Scenic Timeline:
North Fork of the American to national system: 1979
North Coast Rivers: Smith, Klamath, Scott, Salmon, Trinity, Eel, Van Duzen, Lower American to national system: 1981
Tuolumne added to national system: 1984
3 rivers campaign: parts of the Merced, Kings and Kern rivers to national system: 1987
East Carson and West Walker rivers to state system: 1989
Lower Merced, Big Sur, Sisquoc rivers and Sespe creek to national system: 1992
Upper Klamath to national system: 1994
South Yuba added to state system: 1999
First state wide inventory of potential Wild and Scenic rivers: 2001
[113]

Beyond Promoting Wild and Scenic: relicensing of dams, water quality, wildlife protection

> "Friends of the River was founded in 1973 during the struggle to save the Stanislaus River from New Melones Dam. Following that effort, the organization grew to become California's statewide river conservation group. Today, Friends of the River protects and restores California's rivers, streams, and their watershed through public education, grassroots organizing, and public policy advocacy. It specialized in flood management, hydropower reform, water policy and wild and scenic river protection."[114]

Friends of the River worked to protect California's rivers under the Wild and Scenic system in addition to advocating against the relicensing of dams, addressing water quality issues

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[112] Miscellaneous reports, 1972 – 1979, Box 1, Folder 11. Friends of the River Collection. Water Resources Archive, University of California Riverside.
[113] Each campaign listed in the timeline will become the subject of a chapter in the later project.
[114] Friends of the River 2000-2001 – Headwaters, CTN 13, Folder 36. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

and promoting wildlife protection.[115] FOR has been especially conscious of base flows for fish downstream of dams. The establishment of base flows for fish to survive is crucial for the health of the watershed. The over-development of California's waterscape resulted in severely endangered fish populations, some include Salmon and Steelhead trout and the Delta Smelt. California's inland Delta is the meeting point of two main stem river systems, the Sacramento and San Joaquin. This watershed provides a significant portion of the water for California. There were proposals to further disrupt this already fragile system that was no longer receiving natural flows due to the upstream dams, by building a canal. From 1977-1982, FOR advocated to stop the peripheral canal.[116] After the defeat of the canal proposal, the project now known as the twin tunnels or the California Water Fix program resulted.

In 1979, as part of FOR's water conservation program, they advocated for changes to the Water Code under Senate Bill 200. SB 200 proposed three new sections to the Water Code which included water conservation, fisheries protection, and water management. This was an important step in FOR establishing themselves as the organization that stood behind the slogan of: 'California has a water management problem, not a water resource problem'. The sub-elements of SB 200 included pricing, interbasin appropriations of water and financing the SWP under water conservation. Requiring a notice of intent to build a dam, requiring a water right to build a dam, establishing water flow standards for fisheries, better mitigation for fishery damages, creating flushing flows for SF Bay, and readdressing acquisition of water rights for instream purposes, were some of the topics covered. Under the water conservation sub-element,

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[115] Report to the legislature on waterways management planning, Dept. of Fish and Game. Dec 1, 1975, Box 3, Folder 1. Friends of the River Collection. Water Resources Archive, University of California Riverside.

[116] Stanislaus River 1977-1982, CTN 1, Folder 40. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

the pricing proposal put the economic burden on the water users instead of the taxpayers. It would have "require(ed) districts which collect revenue from water rates based on volume, on and after January 1, 1984, to collect a minimum amount of revenue from such rates which will cover the costs allocated to the water actually delivered."[117] The fisheries protection sub-element on the notice of intent to build a dam set a five-year pre-warning time for the SWRCB to be notified about the intent to fill a reservoir. This sub-element also highlighted the importance of the need to establish a water right to the area where a large dam would be built before construction is started. SB 200 put the water appropriators, in charge of mitigating fishery damages that would occur as a result of the dam. The sub-element on flushing flows for SF Bay issued the need for the Department of Fish and Game's flow studies to be completed in 1986 prior to the review of issuing water rights to increase the size of Shasta Dam and the Glenn Complex of Lake Barryessa. There was also concern for flows on the Wild and Scenic, Lower American River. Part of SB 200 included halting the construction of the Auburn-Folsom canal. The South Fork of the American River was also brought to attention in the Bill due to the issue of CVP facilities exporting water from the Delta. The "state (is) prohibited from supporting federal project facilities exporting water from the Delta unless all federal projects have been required by congress to meet the Delta water quality standards set by the SWRCB."[118]

Tuolumne ("T")

The loss of the Stanislaus did not terminate Friends of the River's fight, instead it lit a fire under the environmentalist's feet. As the Stan campaign was coming to an end, the Tuolumne

[117] Water Conservation (1979), CTN 1, Folder 45. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[118] Water Conservation (1979), CTN 1, Folder 45.

battle was starting. The Tuolumne River Trust, born from the FOR effort to protect the Tuolumne is an organization that is still working to protect and restore the Tuolumne to this day.

The Tuolumne river is one of the three main tributaries of the San Joaquin, along with the Stanislaus and the Merced. Friends of the River worked to protect all of these river systems. The Tuolumne was in danger of being flooded out by yet another dam in the late 1970's. In 1984, the T was successfully added to the National Wild and Scenic Rivers system. The T was the next key battle after the Stanislaus campaign. The lessons from grassroots organizing and engaging media were carried over from the Stan campaign. FOR learned to start early with the battle, prior to the dam infrastructure already being built, and worked to further engage the impacted communities. The Tuolumne campaign showed a great deal of progress and reflection within the organization. The major dam building movement in the West had been halted. Even though there was a large international battle looming, the river runners, the policy makers, and the general population in the West were in a new understanding of how to view natural waterscape, not as something to be dominated, but as something to be restored.

Leading up to the 1984 decision, FOR generated over 5000 letters to be sent to Senator Pete Wilson in support of protecting the T. The legislative river trips and river trip education techniques continued to be utilized. In a 1975 outline for a pre-trip talk on the Tuolumne, drafted by Dubois, the importance of connecting the participants to the river was a clear goal. The talk included education on the natural plants, geology and human history, as well as the delicate balances of nature and how the modern man fits into the system.[119] A couple of years later in the early 1980's FOR supported the studies to determine if the T could qualify for Wild and Scenic

[119] Tuolumne River 1975, CTN 16, Folder 20. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

status under the national act. They began organizing people from the river trips as well as local community members and California residents dependent on the Tuolumne river water supply. A lot of organizing took place in San Francisco, a direct recipient of the Tuolumne River supply.[120] This fight also reminded people of John Muir's fight to save Hetch Hetchy, bringing the rhetoric full circle. The loss of river canyons from flooded landscape was rallying point, a source of historic mourning, and established a present desire to protect the places that river guides were reconnecting the public to.

American River and the ongoing Auburn Dam Controversy

Another key fight that FOR led as they expanded the organization to protect other rivers was the North Fork of the American River at the proposed Auburn dam site. The fight to prevent Auburn dam from being built started a year after Friends of the River's founding and was the first outreach battle beyond the Stanislaus. In 1974, FOR began to campaign to preserve the river canyon on the argument that the infrastructure site was unstable due to being on a fault line. The same year, PARC emerged as an organization to educate the public about the truth of Auburn dam and protect the American river canyons. Their goal was to force a re-evaluation of the project.[121] The Auburn dam controversy did not come to the table again until 1986 during the high-water years and flooding of Sacramento. As the decade was coming to an end, there was talk surrounding the efforts to restore the Stanislaus that was starting to re-emerge.

> "After 9 years of failed promises, the re-emerging Stanislaus has great potential for drawing attention to the inequities of the same federal water policies that originally caused its demise. While restoring the Stanislaus may involve a long

[120] Stanislaus River and Decision 1422 (1981), CTN 1, Folder 42. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[121] American River 1974, CTN 16, Folder 13. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

> process, there is undoubtedly an immediate opportunity to make hay over the inequities of water policy and lay some groundwork for some significant change."

There were some worries within the organization that this new discussion around the Stanislaus would take away the focus on defeating Auburn.[122] Then in 1992, FOR went to D.C. again, this time they were not lobbying for HR 4223, but against the re-authorization of Auburn dam. This was a successful portion of the campaign as the re-authorization was defeated 2 to 1. Four years later Congress once again voted against the Auburn dam. FOR has continued to work to prevent the dam from being built and will continue the fight into the future.

Other Significant River Campaigns: Salmon River & Van Duzen River

Friends of the River concentrated on the protection of watersheds throughout California. Their main battles were with the Stanislaus, the Tuolumne and the American rivers. Additionally, they worked to put the now protected rivers on the state designated Wild and Scenic list. One of these rivers is the largely controversial Merced River, the third main tributary to the San Joaquin, which in modern times has been under threat of de-designation. Other largely documented battles included the protection of the northern California rivers, the Salmon and the Van Duzen rivers, which were protected in 1981. The archival documentation includes policy material from the campaign efforts and maps documenting the river miles under consideration.

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[122] "The return of the Stan is a beautiful dream, even a possible one. But so is Auburn, and it is more within immediate grasp. Would a "save the Stan" campaign split energies and resources? Will opponents seek ways to bring about some destructive competition? Can a reborn Stan campaign strengthen Auburn? How?"
Stanislaus River Council 1990-1991, CTN 14, Folder 24. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

The efforts from FOR to protect the Salmon river were also supported by the Sierra Club and Cal Trout.

Continued efforts (1981-1992)

In 1981, Friends of the River continued their efforts to protect the northern California rivers. The Smith river was under threat of pollution from a proposed mining project on Gasquet Mountain. The project also included a dam for the mining operation that would strip 2300 acres of laterite soil over the course of 20 years. The Smith river was the last undammed river in California. The same year there were discussions by the Environmental Defense Fund, on the idea of using the Colorado river as the future source of water for Southern California. It safe to draw conclusions that this was because of the Mono Lake controversy and insufficient supply from the Owens basin. At the municipal buyers conference in San Diego the sources of the Southern California water supply came into question. 1981 was a big year of water controversy, the mini peripheral canal proposal came onto the books as a major threat to the lower American river and Delta watershed. FOR worked to send out information to California residents and urged a call to action by writing letters, calling supervisors, attending public hearings, and circulating and returning petitions.[123]

By 1990, FOR was preparing for the turn of the century and was working to support in international efforts. There is a great deal of documentation of the US/USSR river exchange from 1990.[124] The River Network program and daughter organization of FOR, emerged to help

[123] Water Issues (1981), CTN 1, Folder 46. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[124] US/USSR River Exchange 1990, CTN 14, Folder 34. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
See Appendix C for more information.

local people save rivers. They were working to promote an idea called DORIS, the directory of river information specialists.[125]

"WATER 2000 is a project of Friends of the River, for 18 years the leading voice for the preservation of western rivers and for water policy reform."[126] 1990 was also when the Water Agenda, aka Water 2000, was brought into discussion. Friends of the River's concerns for the following century were dealing with the California rivers running dry, despite the advanced and complex water system, as well as the mass production of water for the urban population's needs.

> "Here in California, we are surrounded by what is likely the most developed plumbing system in the world. Within the state are more than 1400 dams, along with several thousand miles of levees, channels and canals that move water from where it falls to where it is desired."[127]

The issues of drought and inefficient use of the supplied water was a focus of the campaign. FOR's slogan is that California has a water management problem, not a water resource problem. Part of Water 2000's campaign argument that was dealing with the water supply problem would be crucial for determining the future of the environment and economy. FOR's goals were to "raise funds from the private sector to ensure that water policies will be adopted which allow California to enter the next century with secure water supplies while protecting fish and wildlife and the wild flowing waters they depend on."[128] The draft grant proposal for the new water agenda that the FOR foundation was pushing involved public education and policy reform. In the grant proposal, they outlined the importance of the stored water being made available, organizing

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[125] River Network 1990-1992, CTN 14, Folder 19. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[126] Water Agenda (1990), CTN 1, Folder 44. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[127] Friends of the River 2000-2001, CTN 13, Folder 36. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[128] Water Agenda (1990), CTN 1, Folder 44. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

a summit meeting for water policy experts, starting a newspaper publication on the water agenda items, and preparing for a water policy reform. By July of 1990, FOR was including the 100 Rivers Campaign in the new water agenda. This was a campaign to extend the efforts from the latter half of the twentieth century against dam building. The fights they were concerned with included the Clavey river, the Yuba river, the Lower Kern, and the dams up for FERC relicensing.[129]

The hydropower licenses that expired between 1993-2000 were on the Klamath, McCloud, San Joaquin, Stanislaus, American and Kern rivers. FOR was focused on continuing to add rivers under Wild and Scenic protection. Sticking to the argument that dams harm rivers. This argument had been added to further over the couple of decades since FOR's founding and the restoration research that had been taking place. Once again, the same ecological implications that had been addressed in the Stan campaign and it the others following, were brought to the attention of policy makers. Dams modify natural flows, alter water temperature and quality, kill fish, and impact recreational values. For the past fifteen years FOR had been compiling a list of rivers and stretches of river that they wanted to propose for protection. This list included 326 river and stream segments totaling 3992 riverine miles in California.[130] Eventually, the water agenda planning for 1990 wrapped up in October with the meeting of the committee of 200, which had developed from the summit meeting proposal.[131]

"By saving rivers we are saving ourselves"[132]

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[129] Water Agenda (1990), CTN 1, Folder 44, Document 2-3.
[130] Friends of the River 2000-2001, CTN 13, Folder 36. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[131] Committee of 200 1990, CTN 1, Folder 20. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
[132] Mark Dubois interview. March 22, 2017.

Friends of the River in Modern Context (1992-2017)

Friends of the River continued their efforts with the Water 2000 agenda through the turn of the century. In 1998 River Magic was founded as a network to fundraise for conservation through river trips.

> "River magic is an exciting collaborative effort between watershed preservation groups. We have come together to assist each other in our fundraising efforts and in building a community of citizens committed to protecting the precious veins of our planet, understanding that by working together we strengthen our own work as well as the whole movement."[133]

In addition to River Magic, FOR continued to foster a network of organizations that had grown from their campaign, or were inspired by the original campaigns. Mark Dubois went on to help found International Rivers Network and the continuing awareness of saving rivers has been promoted by American Rivers, DamNation, the Sierra Club and the commercial river companies, especially OARS and ARTA. FOR has changed the rhetoric around viewing nature from a domination paradigm to a love affair through a personification of a river canyons. In 2016, under the leadership of Eric Wesselman as the executive director, the RATS program was started. The River Advocacy Training School is the next effort to continue to foster community networks throughout the California waterscape.

Memories from the Veterans

The memories of original founders and old members of FOR are integrated into the text of this thesis. More specific material from interviews held with Mark Dubois, Jennifer Jennings, Gina Cuclis, Roy Tennant, Kevin Wolf, Graciella Rossi, Richard Roos-Collins, Christian Kallen,

[133] Friends of the River 2000-2001, CTN 13, Folder 36. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

Larry Orman, Richard Norgaard, Tim Palmer, Alexander Gaguine, and Martin Blake will come in a later version of this project. All of these amazing and high powered individuals remembered the Stanislaus campaign with deep emotional ties to the river and the people. The Stanislaus forever changed their lives, and the lives of those they have interacted with.

Conclusion

The historic events of the Hydraulic Era of the American West display how vulnerable water is to overuse. The entire region's waterscape was remapped to suit the needs of those who still had a mindset of dominating nature. Coming from the east coast, they did not understand the differences in water use and water rights that would need to be altered for sustainable survival. Lynn Ingram recommends that in "going forward… a long term sustainable policy that incorporates water scarcity into water planning and management"[134] is what will be needed. Dams cut off the natural cycles for rivers and streams. The negative impact of cement in a system has been connected to the more severe climate realities of the present and what is predicted for the future. We should be entering an era of ice age and instead we are entering an era of more severe drought. The early anti-dam environmental activists fought for the preservation of natural landscapes because of their emotional connection to place. It is no longer just the emotional ties to place that can be used in campaigns to prevent dams from being built and encouraging them to be removed, it is scientific evidence as well. Uniting around a lost landscape as inspiration to save current landscapes is a technique that has been embodied by

[134] Ingram, B. Lynn, and Frances Malamud-Roam. *The West Without Water: What Past Floods, Droughts, and Other Climatic Clues Tell us About Tomorrow.* Univ of California Press, 2013. Pg 220.

Friends of the River. The concept of the personification of natural waterscapes has been, and will continue to be, a uniting point.

Afterward

I began realize the significance of the Stanislaus campaign legacy during my second summer as a commercial river guide. I went into the season with the perspective from my first summer and just having written my human rights thesis on Environmental Justice Promotion through Experiential Outdoor Education on the River.[135] All summer I studied the impacts that falling in love with the river had on the customers. The connection to place is what creates the will to fight for nature. The activists discussed in the pages of this text fought to preserve, protect and restore the places that were in danger. However, none of these places are permanently safe and the fight must continue.[136] Watersheds are dying throughout the West and allocations are approximately five times the amount of water that can be expected in a typical water year.[137] In the case of the Stanislaus, the reservoir has not reached full capacity in the last decade. Even in the wettest water year on record, when all the other river systems surrounding it are flooding, the New Melones reservoir area on the Stanislaus River still shows signs of past drought.

[135] See Appendix C for more information.
[136] David Brower, 1967-1969, Carton 87, Folder 7. Martin Litton, Sierra Club Papers. Bancroft Library, University of California Berkeley.
[137] Klein, Kerwin. Special Topics in the History of the United States. UC Berkeley. Fall 2016.

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Roy Tennant
Kevin Wolf
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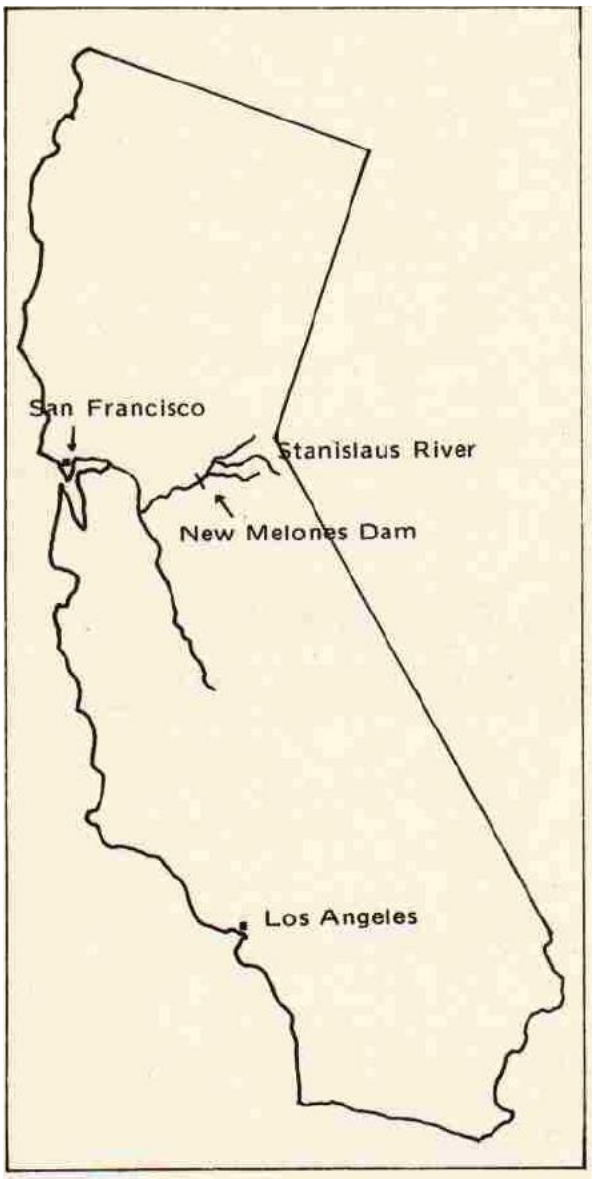

FIGURE 1

Map of California shows approximate location of the New Melones Dam, below the junction of the three forks of the Stanislaus River.

Image 1. Cost Benefit Analysis Stanislaus Map from: Save the River – General, 1974-75, Box 1, Folder 14, Document 5. Friends of the River Collection. Water Resources Archive, University of California Riverside.

Image 2. California Rivers. http://geology.com/state-map/maps/california-rivers-map.gif.

Image 3. Stanislaus Watershed.
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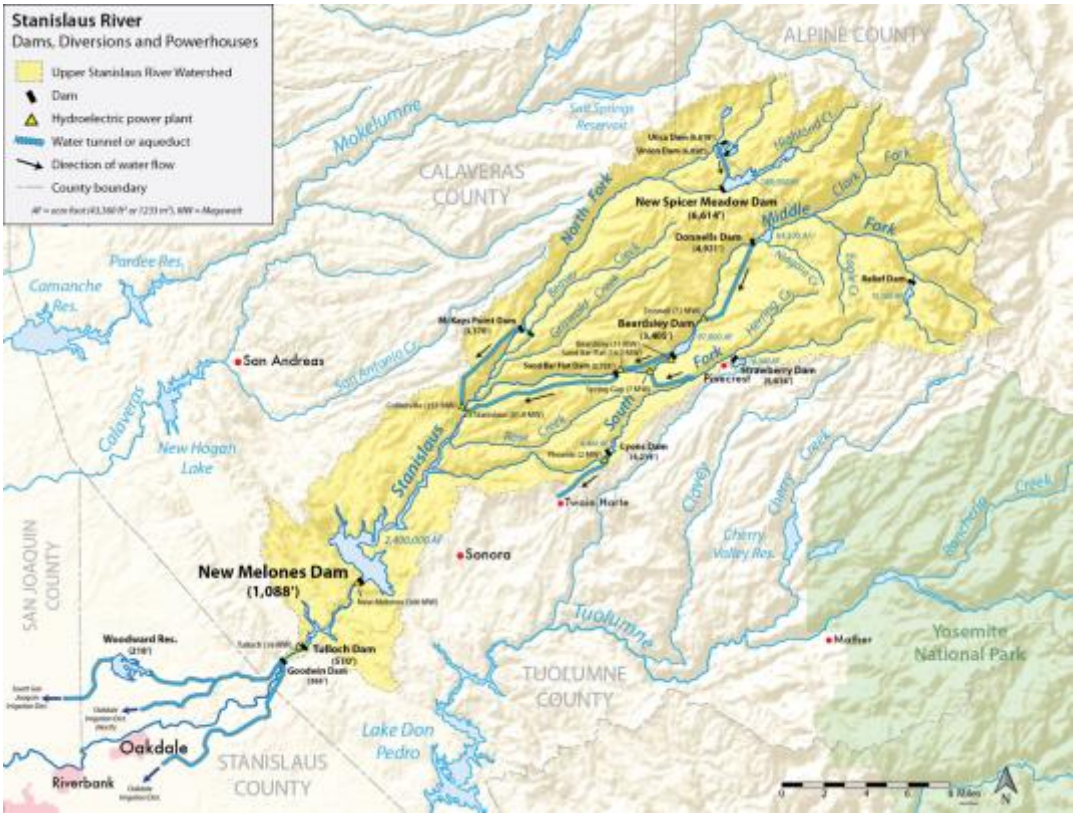


Image 4. Camp Nine to Parrott's Ferry.
https://en.wikipedia.org/wiki/Stanislaus_River#/media/File:Upper_Stanislaus_Watershed.png.

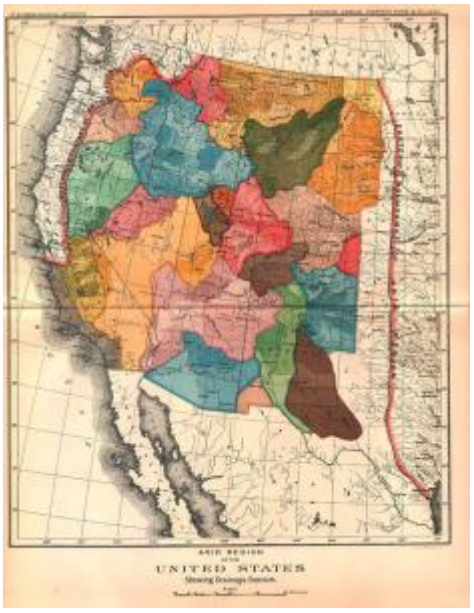


Image 5. Powell, Wesley. "Arid Lands of the West." http://payload158.cargocollective.com/1/7/236146/5476001/powell%20map%20640.jpg.

Image 6. Wild River Status Now. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/1282.

Image 7. Prop 17. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/3005.

TABLE 1

NEW MELONES DAM: BENEFITS AND COSTS (in dollars)

	Estimate of Army Corps of Engineers	Estimate of Authors Low	Estimate of Authors High
Benefits:			
Flood control	1,940,000	700,000	1,300,000
Irrigation	3,610,000	0	0
Power generation	5,570,000	3,900,000	7,240,000
General recreation	910,000	0	0
Fish and wildlife	640,000	270,000	494,000
Water quality	180,000	0	0
Area redevelopment	635,000	0	0
TOTAL	**13,485,000**	**4,870,000**	**9,034,000**
Costs:			
Interest and amortization	5,972,000 (3-5/8 percent)	13,500,000 (6-7/8 percent)	
Taxes foregone	935,000	935,000	
Operation and maintenance	934,000	934,000	
Free-flowing river recreation lost	0	200,000	
TOTAL	**7,841,000**	**15,569,000**	
Benefit-cost ratio	1.7-to-1	0.31-to-1	0.58-to-1

Sources: The Army Corps of Engineers estimates are taken from the U.S. Dept. of the Army, Corps of Engineers, **Environmental Impact Statement, New Melones Lake, Stanislaus River, California**, Sacramento, 1972. The authors' high and low estimates are plus and minus 30 percent, respectively, of estimates given in text.

Image 8. Stanislaus Cost Benefit analysis chart from: Save the River – General, 1974-75, Box 1, Folder 14, Document 5. Friends of the River Collection. Water Resources Archive, University of California Riverside.

Image 9. Mark Dubois Chained to the rock. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2924.

Image 10. More Acts of Chaining. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/1367.

Image 11. More Acts of Chaining (2). *Stanislaus Online Archive*. http://stanislausriver.org/items/show/1320.

Image 12. Protest at Parrot's Ferry Bridge. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2948.

Image 13. "Human Water Markers." *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2965.

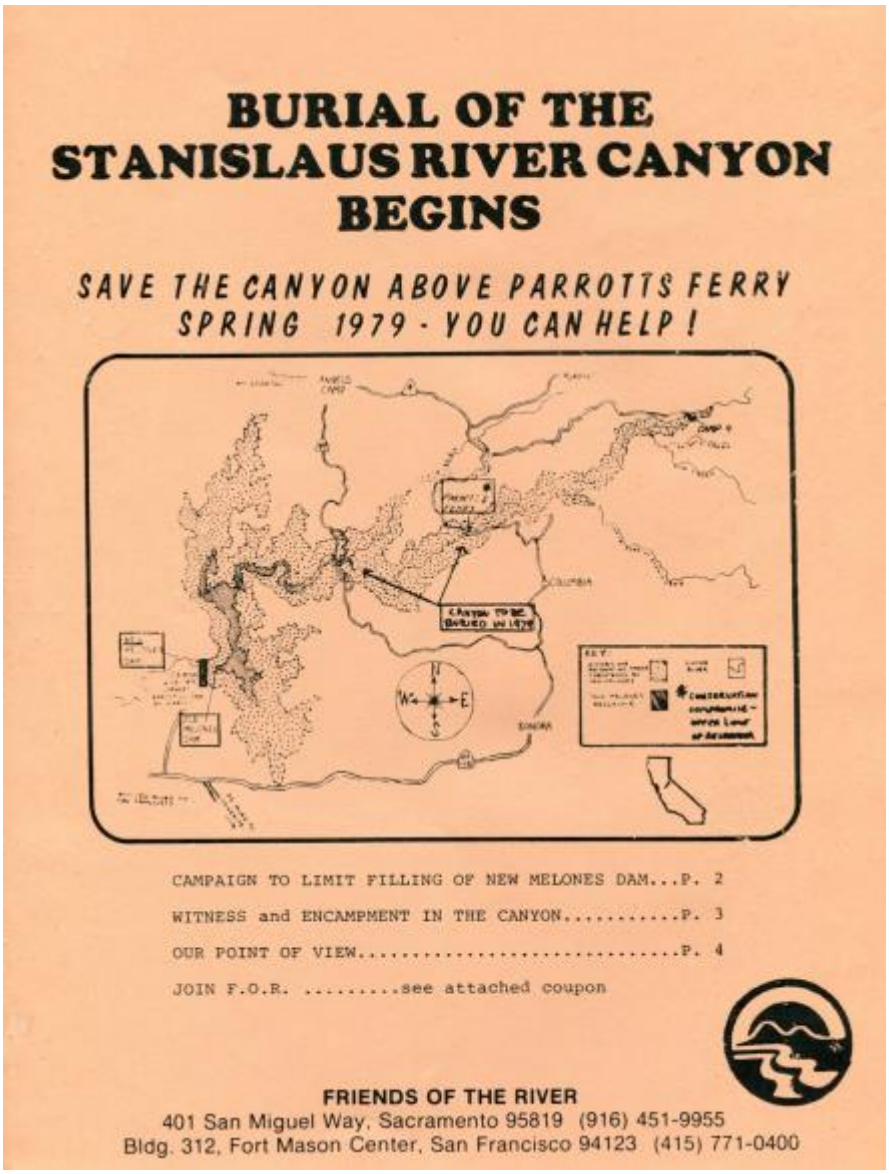
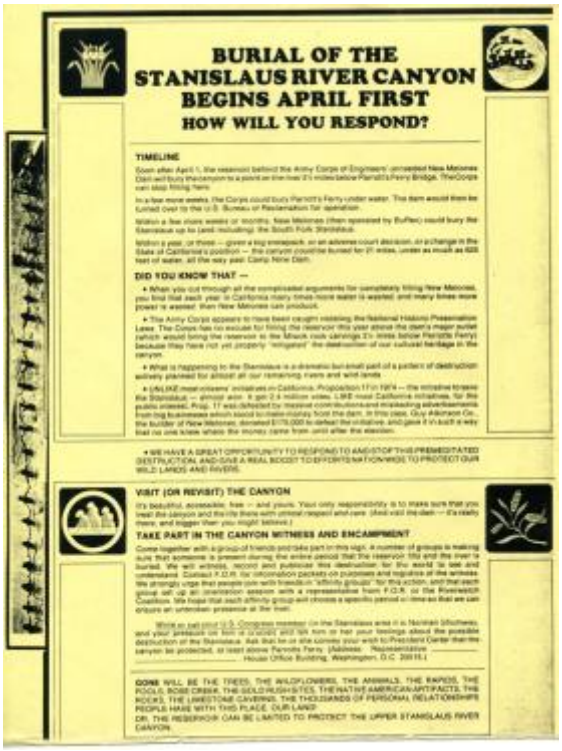


Image 14. Burial of the Stanislaus. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2862.



BURIAL OF THE STANISLAUS RIVER CANYON BEGINS APRIL FIRST

HOW WILL YOU RESPOND?

TIMELINE

Soon after April 1, the reservoir behind the Army Corps of Engineers' unneeded New Melones Dam will bury the canyon to a point on the river 2½ miles below Parrott's Ferry Bridge. The Corps can stop filling here.

In a few more weeks, the Corps could bury Parrott's Ferry under water. This dam would then be turned over to the U.S. Bureau of Reclamation for operation.

Within a few more weeks or months, New Melones (then operated by Buffalo) could bury the Stanislaus up to (and including) the South Fork Stanislaus.

Within a year, or three — given a big snowpack, or an adverse court decision, or a change in the State of California's position — the canyon could be buried for 21 miles, under as much as 625 feet of water, all the way past Camp Nine Dam.

DID YOU KNOW THAT —

• When you cut through all the complicated arguments for completely filling New Melones, you find that each year in California many times more water is wasted, and many times more power is wasted, than New Melones can produce.

• The Army Corps appears to have been caught violating the National Historic Preservation Laws. The Corps has no excuse for filling the reservoir this year above the dam's major outlet (which would bring the reservoir to the Mlwok rock carvings 2½ miles below Parrotts Ferry) because they have not yet properly "mitigated" the destruction of our cultural heritage in the canyon.

• What is happening to the Stanislaus is a dramatic but small part of a pattern of destruction actively planned for almost all our remaining rivers and wild lands.

• UNLIKE most citizens' initiatives in California, Proposition 17 in 1974 — the initiative to save the Stanislaus — almost won. It got 2.4 million votes. Like most California initiatives, for the public interest, Prop. 17 was defeated by massive contributions and misleading advertisements from big businesses which stood to make money from the dam. In this case, Guy Atkinson Co., the builder of New Melones, donated $175,000 to defeat the initiative, and gave it in such a way that no one knew where the money came from until after the election.

• WE HAVE A GREAT OPPORTUNITY TO RESPOND TO AND STOP THIS PREMEDITATED DESTRUCTION, AND GIVE A REAL BOOST TO EFFORTS NATIONWIDE TO PROTECT OUR WILD LANDS AND RIVERS.

VISIT (OR REVISIT) THE CANYON

It's beautiful, accessible, free — and yours. Your only responsibility is to make sure that you treat the canyon and the city there with utmost respect and care. (And visit the dam — it's really there, and bigger than you might believe.)

TAKE PART IN THE CANYON WITNESS AND ENCAMPMENT

Come together with a group of friends and take part in this vigil. A number of groups is making sure that someone is present during the entire period that the reservoir fills and the river is buried. We will witness, record and publicize this destruction, for the world to see and understand. Contact F.O.R. for information packets on purposes and regulations of the witness. We strongly urge that people join with friends in "affinity groups" for this action, and that each group set up an orientation session with a representative from F.O.R. or the Riverwatch Coalition. We hope that each affinity group will choose a specific period of time so that we can ensure an unbroken presence at the river.

Write or call your U.S. Congress member (in the Stanislaus area it is Norman Shumway) and your pressure on him or a visit and tell him or her your feelings about the possible destruction of the Stanislaus. Ask that he or she convey your wish to President Carter that the canyon be protected, at least above Parrotts Ferry. (Address: "Representative _____, House Office Building, Washington, D.C. 20515.)

GONE WILL BE THE TREES, THE WILDFLOWERS, THE ANIMALS, THE RAPIDS, THE POOLS, ROSE CREEK, THE GOLD RUSH SITES, THE NATIVE AMERICAN ARTIFACTS, THE ROCKS, THE LIMESTONE CAVERNS, THE THOUSANDS OF PERSONAL RELATIONSHIPS PEOPLE HAVE WITH THIS PLACE. OUR LAND.

OR, THE RESERVOIR CAN BE LIMITED TO PROTECT THE UPPER STANISLAUS RIVER CANYON.

Image 15. Burial of the Stanislaus (2). *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2876.

Image 16. Scenic Drowning Sign. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2938.

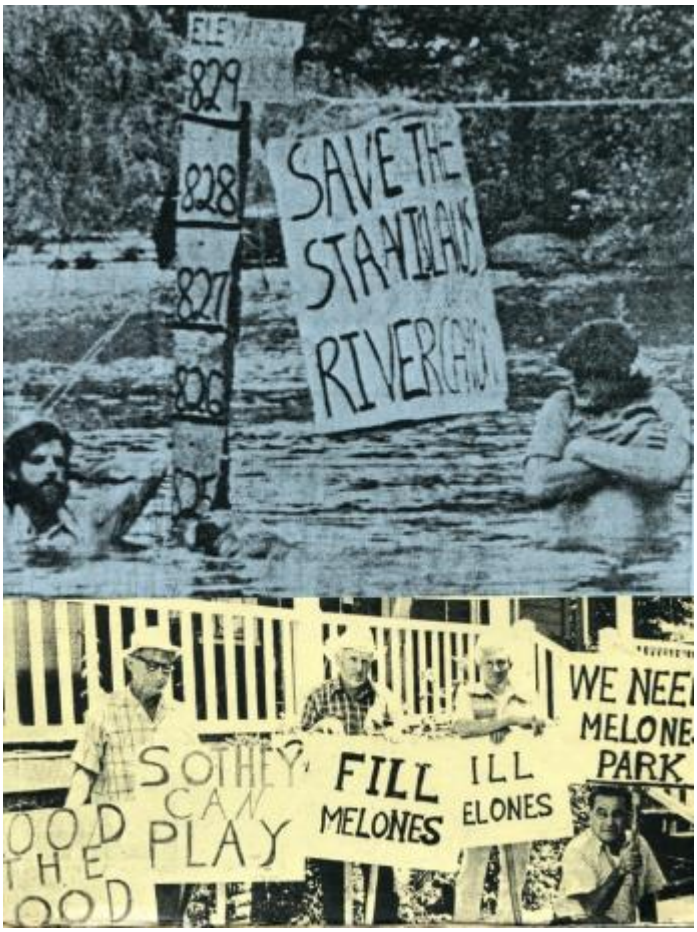


Image 17. Opponents vs. Proponents of New Melones. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2966.

Image 18. Opponents of the Stanislaus Campaign. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2951.

Image 19. Opponents of the Stanislaus Campaign (2). *Stanislaus Online Archive*. http://stanislausriver.org/items/show/1856.

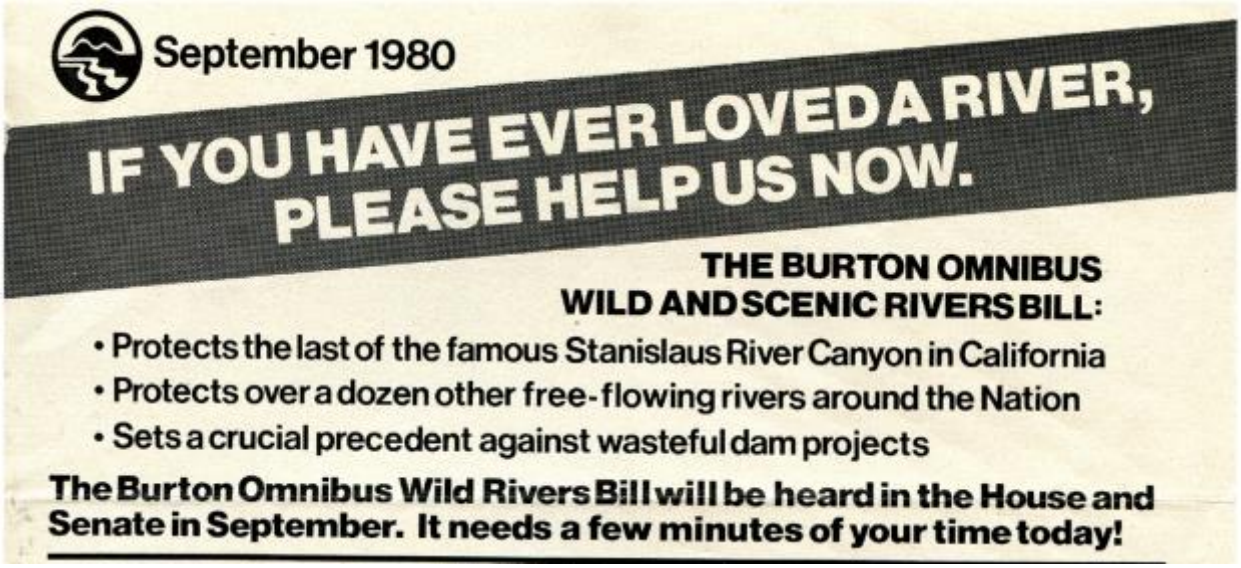


Image 20. Headwaters 1980. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/2991

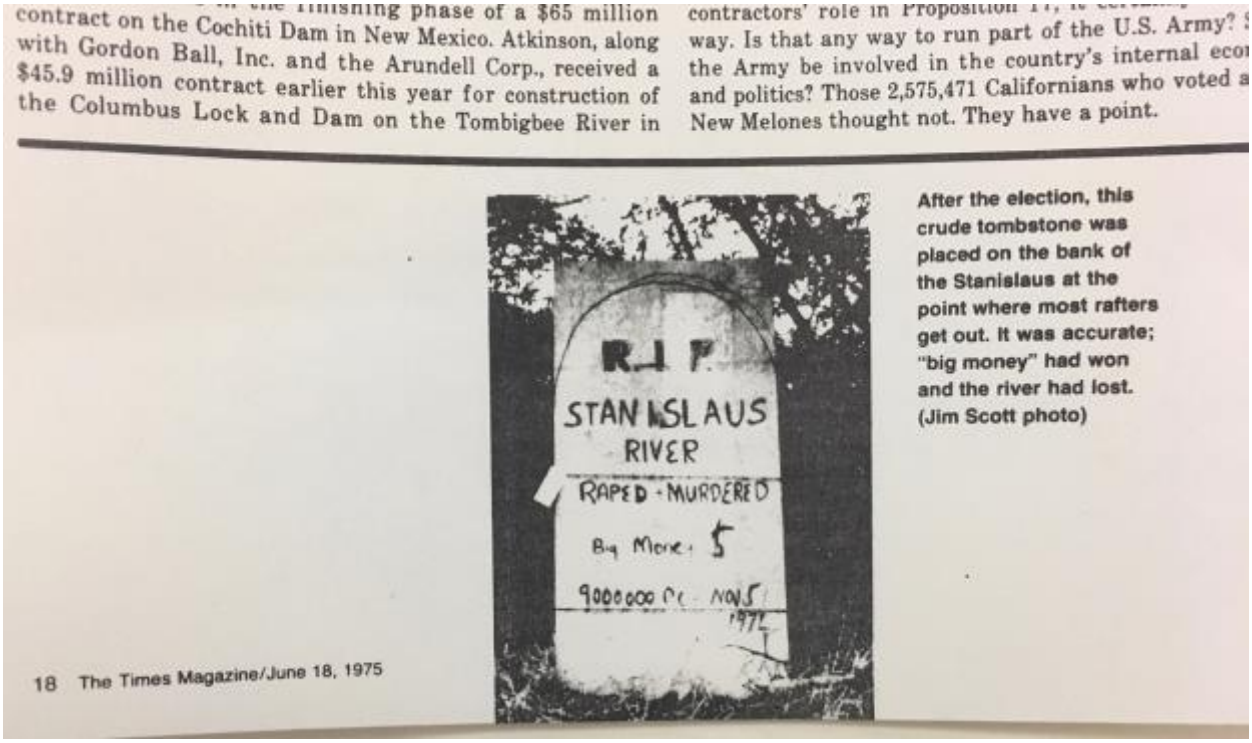


Image 21. Stanislaus Tombstone. Save the River – General, 1974-75, Box 1, Folder 14. Friends of the River Collection. Water Resources Archive, University of California Riverside.

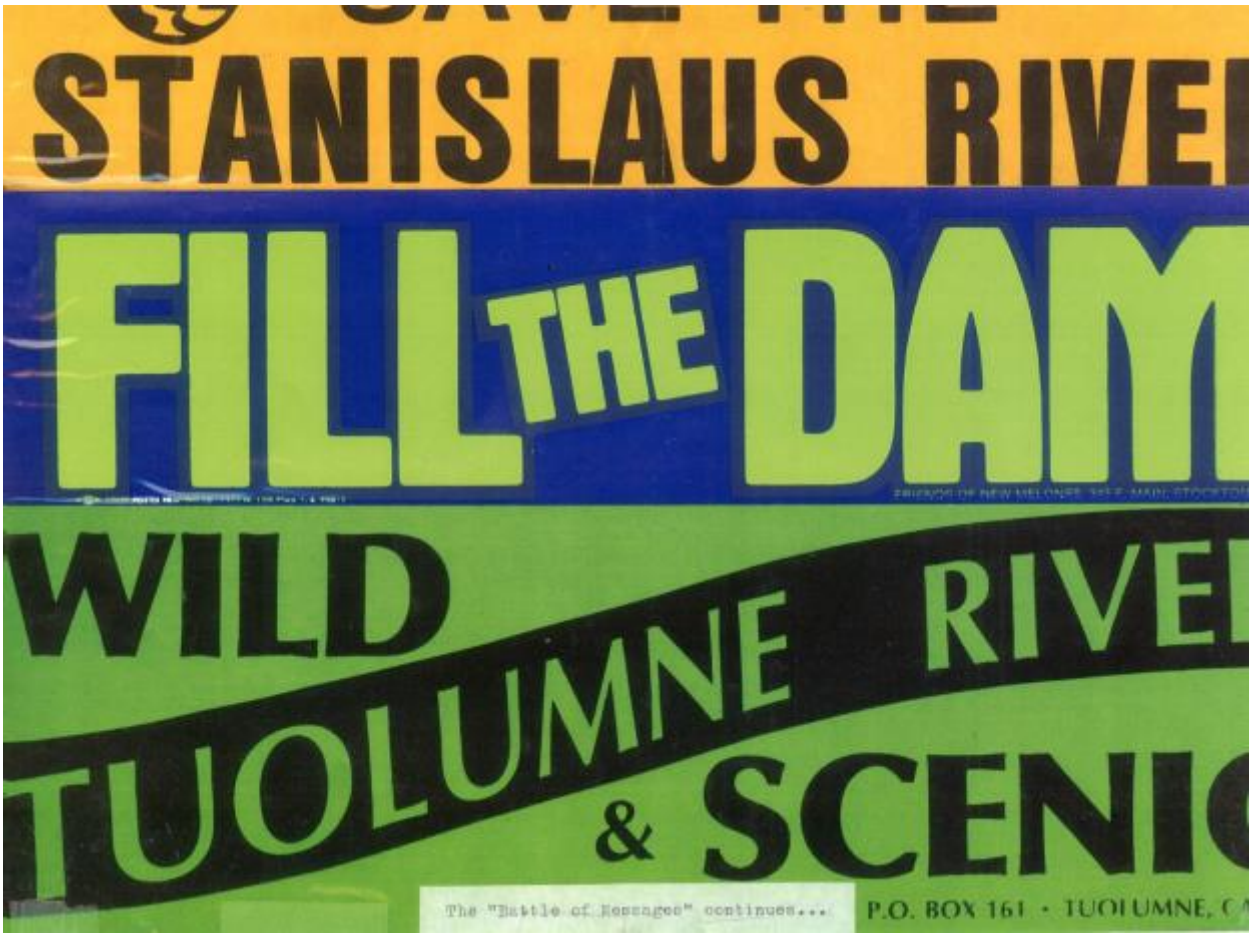


Image 22. Continued Fights. *Stanislaus Online Archive*. http://stanislausriver.org/items/show/3069.

Appendices

Appendix A: The Anthropocene's Manipulation of Rivers and 'DamNation's' Impacts on Human Health - Policy Brief Part 1: Scientific Analysis
UC Berkeley, ESPM 167, 23 March 2017

1. Introduction

Dams act as representational tomb stones by taking away the landscape of awe after the flooding of a river canyon. Vast landscapes evoke awe within the human psyche, leading to positive health impacts for the individuals mental and physical state of being.[138] Dams, commonly known to disrupt the health of Mother Earth, also severely impact public health.

There are over 1400 dams in California and over 80,000 dams in the United States. We live in a 'DamNation'. These concrete structures provide water storage and electricity. However, many reservoirs, both on and off site,[139] do not fill to full capacity and/or are contaminated by natural and non-natural toxins and chemicals. Additionally, hydropower is not clean energy. Dams release Methane and CO_2 into the atmosphere, and often times use more energy than they produce. Beyond these initial implications, dams have negative health impacts for the environment and the communities surrounding them. Dams have led to the contamination of fresh water sources and loss of fresh water flow into estuarine systems by increasing salinity levels, and toxic algal blooms. Additionally, they are finite infrastructure projects. Many dams are already old and facing possible infrastructure failure. These fragile systems increase the risk of possible un-natural disasters in the future.

1.1 DamNation

[138] The larger project that this research will be added to is oriented around the concept of environmental justice promotion through experiential outdoor education on the river. This non-profit proposal will aim to teach human rights to participants on river trips.
[139] Reservoirs can be both on site and off site. When they are termed on site, it is because the water being held is behind a dam. Off-site reservoirs occur when the river water is diverted to another location. Each are harmful to the ecosystem and human health.

The inherent desire of the industrial age to dominate nature rather than live among the cycles has resulted in humanities separation from wilderness. The harnessing of mother nature's hydropower in the 20th century has also led to what Matt Stoecker has termed a DamNation.[140] The United States has more than 80,000, six feet or taller, dams and many more smaller ones. In the next three years, around seventy percent of the large dams in our nation will be 50 years old or more. These massive infrastructure projects were not built to last indefinitely. They also cause major damage for environmental and human health. Most of the large dams were built during the boom rooted in the New Deal and World War Two. The foundation for building these massive projects was laid out decades to centuries prior, depending on the location. The forty-niners Gold Rush brought with it the development of damming for hydraulic mining purposes. As the Western landscape became developed and a series of irrigation networks were laid down, more infrastructure projects were proposed and developed to support an ever-growing population in arid territory and the new dominant economy, agriculture. The rescaping of the Western water scape is fairly recent in comparison to the development in the East. Dams were built in the original territory during the eighteenth century as cities began to develop and power mills were needed. These mills were used for flood control, transportation, irrigation and hydroelectricity. Despite mankind's desire to harness the power of water, the cement infrastructure projects can only last so long before the rivers and streams re-route themselves or the natural processes of sediment build up and erosion cause the dam to collapse. As the West was ramping up their big irrigation projects in California with the Central Valley Project and the State Water Project, and in the Colorado River Basin with the Colorado Compact, dams were already being dismantled.

140 DamNation. http://damnationfilm.com/.

1300 dams have been taken down since 1912 according to *Dam Removal Case Studies*,[141] and in 2015, sixty-two of those dams were removed. Despite the awareness of the negative ecological and health implications from dams, there are still dam's proponents nationally and internationally. The next section of this paper will discuss the results of studies being done around the negative impacts to provide a platform for future policy recommendations.

2. Dam's Impacts on Ecological and Human Health:

2.1 Environmental Psychology and the Awe Factor:

Social psychology research has led scientists to believe that we seek experiences that will lead to awe invoking experiences because evolutionarily we seek the results awe provides for our mental and physical state as well as our social interactions. The Berkeley Social Interaction lab under Dacher Keltner has joined together with the Sierra Club to establish the Great Outdoors Lab. This lab is focused on examining the psychological impacts of nature on the psyche and overall human health. They have found that awe has a significant impact on reducing levels of cytokines and correlated these findings to a hypothesis that "some of the pernicious effects of poverty are due to awe deprivation".[142] Often times the centers of poverty in our society are

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[141] Dam Removal Case Studies. Headwaters Economics. October 2016. https://headwaterseconomics.org/economic-development/local-studies/dam-removal-case-studies/.

[142] Keltner, Dacher. "Why Do We Feel Awe?" The Greater Good Science Center. May 2016. http://greatergood.berkeley.edu/article/item/why_do_we_feel_awe.
"Cytokines are chemical messengers that are often produced by cells in damaged tissue. Many cytokines elicit an inflammatory response, which is important for killing pathogens and healing wounds. Psychology is discovering that a hyperactive cytokine response, however, renders an individual chronically sick and vulnerable to disease, a process that may be involved in how poverty shortens lives…. (One of their studies looked at) the relationship between the cytokine system and various positive emotions … (finding that) only awe predicted reduced levels of cytokines to a statistically significant degree."

located in urban centers where lower income and minority communities do not have equal access to nature. This accessibility problem directly impacts their psyche.

How does lack of accessibility to nature and the impact on the human psyche and health, connect to the issue of dams on rivers and streams? The Great Outdoor's Lab has been conducting studies of how river trips directly impact awe. There is a significant amount of additional data that needs to be collected and synthesized in the future, however, it is possible to conclude that being on the river has an even deeper impact on the psyche that just simply being exposed to an image of nature or a park.[143] Stacey Bare, the director of Sierra Club Outdoors, discussed the trips in a recent interview. "Over the past two summers we have successfully initiated a program of research to begin to test our own hypotheses that 1) outdoors experience improves physical, mental, and social well-being and 2) the emotion of awe is an important mechanism driving these effects." To further support the data collected on the trips with the Great Outdoor's Lab, Dacher Keltner and Kristophe Green recently reported on "What Happens When We Reconnect with Nature".[144]

The disconnect with natural places in modern society is unnatural. Richard Louv has termed the disconnect "nature deficit disorder". We seek out nature because of the physical health benefits and resulting positive social interactions. Being immersed in nature after the

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[143] Bare, Stacy. "100 Hours Outside?" The Huffington Post. February 2017. http://www.huffingtonpost.com/entry/58b03c25e4b02f3f81e44643.
"Cortisol measured at the end of the white-water rafting trip is *positively* related to the positive emotions that people report experiencing during the trip. Our interpretation of this finding, given that white-water rafting is an intense, physically demanding activity, is that positive emotions are associated with a more adaptive hormone profile associated with mobilizing energy in the body. Cortisol levels after the rafting trip are in turn associated with increases in happiness levels measured at follow-up."

[144] Green, Kristophe, Keltner, Dacher. "What Happens When We Reconnect with Nature." The Greater Good Science Center. March 2017. http://greatergood.berkeley.edu/article/item/what_happens_when_we_reconnect_with_nature.

stressful daily routines that are directed by busy societal standards, is extremely healing. Keltner and Green found that individuals feeling awe in nature had lower levels of biomarker (IL-6) which correlates with the decreased chance that an individual will deal with cardiovascular disease, depression, and autoimmune disease in the future.

The positive results from access to nature, especially river's is an important public health tool leading into the future of an ever increasingly busy society. This tool will not be as useful however, if the natural places where awe is found to be so impactful, have been flooded out by reservoirs. The negative ecological and health impacts that will be discussed below are not the only factors to consider in examining the proposals for new dams and fight to remove old ones. The positive health impacts from nature and rivers are of vital importance and often not factored into the discussion of dams.

2.2 Ecological Impacts from Dams:

> "No system of dams can capture and hold the Colorado River for long. How could we think that the dams we built a half-century ago were anything but temporary? The Bureau of Reclamation tour guide in 1973 seemed so confident about how long Glen Canyon Dam would endure, but I recall a scrawl of graffiti on a sandstone wall near a Lake Powell turnoff. It read: 'NATURE BATS LAST'".[145]

Once a cement structure has been introduced into a river system it immediately disrupts the natural cycles of the river between fish, other aquatic organisms and wildlife, sediment and nutrient flow, geomorphology, and riparian habitat and ecology. A river or creek system is the heart of a watershed. The freshwater sources are foundations of life. The quoted paragraph above introduces the misunderstanding of the natural element. During the age of development, and even still to this day, it is thought that water can be harnessed. Water, is one of the most dynamic

[145] Tarlton, Steve. "The fading grandeur of glen canyon." High Country News. October 2016. http://www.hcn.org/issues/48.18/the-fading-promise-of-glen-canyon-dam.

and powerful elements. Even if our society cannot agree to remove dams, eventually rivers will find ways around what we have built.

In 1973, the environmental movement was at a turning point in history. No longer were dams widely accepted by society, instead, they were being fought against on state and federal levels. By the end of the hydraulic era, environmentalists were beginning to gather scientific data on the negative ecological implications resulting from damming of rivers and streams.

> "It's not really official, but nearly two-thirds of the capacity of Lake Mead has been lost due to inordinately high siltation rates. This upstream dam will intercept the silt and minimize the capacity loss at Lake Mead, prolonging its useful life."

This was a report from the "Fading Grandeur of Glen Canyon". This report like many others show the issues of sediment build up behind dams resulting in "hungry water" systems.[146] The sediment build up is an issue for the storage capacity, in addition to the downstream impact on river systems. Without proper sediment flow, there is more incision of river banks leading to less spawning habitat and native plant terrain. As a result of the recent Oroville Dam crisis, further incision of river banks occurred causing banks to collapse and further disruption of already endangered fish habitat. In dealing with the spillway failure, once the situation was under control the state officials cut off flow to deal with the debris from the incident. This decision was highly disruptive of fish who had been living in flood waters and suddenly were trapped in summer flows.[147] This goes to show that not only operation of dams but the decisions made around containing possible failure, are highly disruptive of natural ecosystems.

Despite high levels of precipitation after years of drought, this year is projected to be the worst salmon season in eight years for California. The system of dams and levees on almost

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[146] Kondolf, Matt. Landscape Architecture 227. UC Berkeley. Fall 2016.
[147] Sablow, Ryan, Kasler, Dale. "Oroville Dam: Farmers blame sudden spillway shutoff for eroded riverbanks." The Sac Bee. March 2017. http://www.sacbee.com/news/state/california/water-and-drought/article136708638.html.

every river in California has significantly impacted the native and non-native fisheries. Once a place where you could 'walk on the backs of salmon' during spawning season, is now a place where state officials are finally recognizing that there needs to be base flows for fish downstream of dams. Salmon and Steelhead Trout, among other fish in California rivers are vital to the river ecosystem.

Water flow standards are not the only concern resulting from the scientific studies done by fish biologists and sediment build up is not the only issue in the reservoirs behind dams. Water quality implications have risen as a result of algal blooms. In Mary Power's report on the "Seasonal Reassembly of a River Food Web" from 2008, there were conclusions made that "hydrologic regimes influence algal blooms and the impacts of fish on algae, cyanobacteria, invertebrates and small vertebrates".[148] This study was done on the South Fork of the Eel River in northern California. Another study on an impounded, northern California river, the Klamath, was conducted in 2014 concluding that, "reservoirs, algal blooms and tributaries affect temporal and spatial patterns in nitrogen and phosphorus". The study found that "the spatiotemporal influence of reservoirs and tributaries on nutrient flux and nutrient ratios may have significant implications for aquatic communities and ecosystem health. Nutrient objectives should be considered when designing restoration, management, and monitoring objectives for projects involving habitat suitability for anadromous fish and potential dam removal".[149] Algal blooms

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[148] Power, Mary E., Michael S. Parker, and William E. Dietrich. "Seasonal reassembly of a river food web: floods, droughts, and impacts of fish." *Ecological Monographs* 78, no. 2 (2008): 263-282.

[149] Oliver, Allison A., Randy A. Dahlgren, and Michael L. Deas. "The upside-down river: Reservoirs, algal blooms, and tributaries affect temporal and spatial patterns in nitrogen and phosphorus in the Klamath River, USA." *Journal of Hydrology* 519 (2014): 164-176.

and water quality implications are some of the many issues that have resulted from riverine manipulation.

The EPA national rivers and streams assessment from 2009 summarizes the overall conditions of rivers and streams throughout the nation. The report found that 46% of the nation's rivers and streams do not support healthy aquatic communities and are in poor biological condition. Nutrient pollution, riparian vegetation and disturbance, and sediments are the 'leading' problems of health in these freshwater systems. "Too much of the nutrients phosphorus or nitrogen can result in algal blooms, low levels of oxygen, and harm to aquatic life".[150] Consumption of fish from rivers and streams is now a human health concern due to increasing levels of enterococci bacteria and mercury levels in certain systems. Additionally, about 25% of rivers and streams are impacted by unhealthy riparian vegetation from disturbance. Sediment load also causes problems for the health of these systems, whether the sediment is held behind a dam and/or there is sediment debris from off-site construction. Unnatural sediment loads disrupt spawning habitat for fish. One of the water quality issues that is not discussed in the EPA report is the increasing levels of salinity in freshwater systems, especially estuarine systems. Due to over pumping of ground water and increasing sea levels, California's Central Valley is sinking

[150]National Rivers and Streams Assessment. EPA. https://www.epa.gov/national-aquatic-resource-surveys/nrsa.
Bacteria: Enterococci exceed thresholds protective of human health in nearly 1 out of every 4 river and stream miles. Enterococci are indicators are of the possible presence of disease-causing bacteria, viruses and protozoa. Exposure to enterococci above protective levels increases the likelihood of gastrointestinal illness.
Mercury in Fish Tissue: Over 13,000 miles of rivers are found to have mercury in fish tissue at levels that exceed thresholds protective of human health. Most human exposure to mercury is through eating fish. Human health effects related to mercury can include damage to the immune and nervous systems.

significantly, up to a foot in some locations, while salt water is infiltrating more inland areas.[151] These changes in the land are putting stress on the current infrastructure, bridges and roadways in place. These issues are directly connected to the over development of California's watersheds. Conclusions from studies on these systems show that dams are connected to increasing levels of Green House Gas pollution and other climate change implications in addition to the water quality problems.

The health of riverine ecosystems directly impacts water quality. Rivers and streams are the largest source of freshwater for human consumption. The manipulation of these ecosystems has led to a decrease in clean water supply due to the ecological implications that have resulted.

2.3 Water Quality

Despite the release of data on the poor quality of the nation's rivers and streams, the EPA has dropped "the ball on cleaning up polluted runoff". A report from American Rivers in 2016 pointed to the pollution from commercial sites, including unnatural sediment loads, and how the EPA has not been as diligent as needed with the cleanup of water pollution. Beyond sediment load issues, when rivers and streams are polluted from commercial sites, often times these pollutants are from urban runoff. "The most common pollutants that run off from these sites are sediment, nitrogen, phosphorous, zinc, and copper. These can damage the water quality for local rivers and streams".[152]

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[151] To read more about the issues of water quality with the San Francisco Bay estuary and California Delta look to reports from the Bay Delta Institute and Lynn Ingram's book, "The West Without Water," in addition to the satellite imagery of the Central Valley.

[152] Boian, Meghan. "EPA Drops the Ball on Cleaning Up Polluted Runoff." American Rivers. October 2016. https://www.americanrivers.org/2016/10/epa-drops-the-ball-on-cleaning-polluted-runoff/?utm_campaign=coschedule&utm_source=facebook_page&utm_medium=American%20Rivers&utm_content=EPA%20drops%20the%20ball%20on%20cleaning%20up%20polluted%20runoff.

Urban runoff is just one source of water pollution that impacts river systems. When overly developed river systems are polluted there are impacts both on the natural environment and the quality of drinking water supply. Additionally, water pollution impacts the agricultural industry. The increasing salinity levels have been negatively impacting crop yields in the Delta.[153] The increasing levels of organic carbon from peat soils in the Delta water is also a source of concern for water quality. Natural contaminants are common. Algal blooms[154] and contamination of water from naturally occurring chemicals is a huge concern in reservoirs globally. One of the key arguments Friends of the River has been using against the propose Site's reservoir involves natural and non-natural contamination of water.

> "DWR claims that Sites could be used to improve water quality in the Delta. But the reservoir is located in a region that naturally produces selenium and high amounts of metals and other potential pollutants. There also could be abandoned mercury mines in the reservoir footprint. The shallow reservoir could concentrate these pollutant in its warm waters and release them downstream into the Sacramento River".[155]

California cannot afford for further pollution of its drinking water. The Central Valley has been facing major water quality issues that are so extreme they have been classified as human rights violations. Carolina Balazs has been working to promote the human right to water, especially in

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[153] Lund, J. R. "California's Agricultural and Urban Water Supply Reliability and the Sacramento–San Joaquin Delta". *San Francisco Estuary and Watershed Science*, *14*(3), Pg. 10. 2016.

[154]Wockner, Gary. "From Oroville to Hoover Dam – Seven Reasons Why Climate Change Will Undermine Dams and Reservoirs as a Source of Water and Electricity." Water Keeper Alliance. February 2017. http://waterkeeper.org/the-dam-truth/.
"Reservoirs absorb heat and therefore fuel toxic algae blooms and lethal conditions in the reservoirs and rivers upstream and downstream. As one of many examples, endangered species like Columbia and Snake River salmon are further imperiled and are often put in trucks and barges to be driven around these stagnant "dead pools" in reservoirs and rivers."

[155] Evans, Steve. "Sites Offstream Storage Reservoir Fact Sheet". Friends of the River. August 2013.

low income rural towns in the Central Valley that do not have access to clean drinking water.[156] In the 2017 the State Water Resource's Control Board, reported that around 700,000 people do not have safe drinking water. The Community Water Center estimated that the number is closer to a million-people due to not taking into account levels of Chromium-6 or 1-2-3-TCP. The communities being most highly impacted by polluted water from nitrate and dairy farm waste runoff in addition to arsenic and uranium contamination, are Tulare, Madera and Stanislaus Counties in the Central Valley. Some of these contaminants are carcinogens and others (nitrates) can cause death if too much is ingested.[157]

The origins of the Central Valley's water problem is in the mismanagement of development in the West and the belief that we could build cities where there was no water. As a result of the massive irrigation network supported by dams and levees, the Central Valley is now sinking due to too much groundwater extraction without regulation. Issues around dams are interconnected not only with environmental issues and human health issues but human rights violations as well. If rivers are left untampered with they provide healthy ecosystems with an abundance of resources, but once they have been tampered with, they systems can no longer combat issues such as pollution with equal strength.

The watersheds that are directly impacted by the dams are not the only places where these infrastructure projects are causing problems. Recent studies have found that dams are a substantial factor in climate change and Green House Gas emissions.

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[156] Balazs C and Ray. "Drinking Water Disparities Framework: On the Origins and Persistence of Inequities in Exposures". American Journal of Public Health 104 (2014): 603–611.

[157] Stock, Stephen, Bott, Michael, Escamilla, Felipe. "'A Tragedy': Hundreds of Thousands of California Residents Exposed to Contaminated Water." NBC Bay Area. http://www.nbcbayarea.com/investigations/A-Tragedy-Hundreds-of-Thousands-of-California-Residents-Exposed-to-Contaminated-Water-415136393.html.

2.4 Dam's ties to Climate Change and Human Health Implications:

Public health scientists have found that the general health impacts from climate change include temperature related illness and death, extreme weather related health effects, water and food borne illness, and more. One of the many concerns with climate change for public health is the impact of un-natural disasters such as Hurricane Katrina, or the recent close call with the Oroville Dam crisis. Additionally, according to a lecture given by Rachel Morello-Frosch, the main source of GHG emissions is still from energy production. Hydropower falls under this category, even though it is widely believed to be a clean energy source, studies have shown that it is not.[158]

Hydropower dams release methane into the atmosphere. This GHG is about thirty-four more times as potent a carbon dioxide, which has also been found to be released from reservoir sites.[159] GHG are released from reservoir sites when algal blooms occur. Organic matter is produced and then decomposed from flooded areas that are a result of a dam. The organic matter provides nutrients for algal growth to occur in the low oxygen conditions of a stagnant body of water. The amount of chlorophyll A correlates to the amount of emissions a reservoir is releasing. It serves as an indicator of the amount of algal growth. Dam's reservoirs have been found to be producing around 1.3 percent of GHG which is comparable to rice cultivation's

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[158] Morello-Frosch, Rachel. Environmental Health and Development. UC Berkeley. March 16, 2017.

[159] Scherer, Laura, and Stephan Pfister. "Hydropower's Biogenic Carbon Footprint." *PloS one* 11, no. 9 (2016): e0161947.

"Here we show that the carbon footprint of hydropower is far higher than previously assumed, with a global average of 173 kg CO_2 and 2.95 kg CH_4 emitted per MWh of electricity produced. This results in a combined average carbon footprint of 273 kg CO_{2e}/MWh when using the global warming potential over a time horizon of 100 years (GWP100)."

methane emissions.[160] It was approximated that "each square meter of reservoir surface exhaled 25% more methane into the atmosphere that previously thought… the higher methane per unit area mean that the impact of future dams (on climate change) could be larger than expected".[161] Despite these findings there are still 3700 proposed hydroelectric projects in the global community.[162]

Two of the proposed reservoirs on the books are located in California. Friends of the River estimated that for the proposed Sites reservoir, "the net electricity used to fill Sites, and (the) rotting vegetation and nutrients from the reservoir, will annually produce CO2 emissions equal to the amount of GHG produced by all passenger cars commuting in the LA basin for two days."[163] Additionally, the proposed Shasta dam raise would result in additional air pollution implications. "The Bureau admits that the dam raise/reservoir expansion will increase the short-term emission of carbon dioxide (a greenhouse gas) by 30% but fails to recognize that the existing reservoir already pumps 224 tons of carbon dioxide into the atmosphere on a daily basis (equal to 14,500 automobiles driving 40 miles a day)."[164] These are just two examples of the proposed sites around the world that will not only have an impact on climate change but environmental and human health.

Another study on the issue of climate change and the future reality of dams was released

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[160] Weiser, Matt. "Study: Reservoirs a 'Significant' Contributor to Climate Change." Water Deeply. 25 October 2016. https://www.newsdeeply.com/water/community/2016/10/25/study-reservoirs-a-significant-contributor-to-climate-change.

[161] Cornwall, Warren. "Hundreds of new dams could mean trouble for our climate." Science Magazine. 28 September 2016. http://www.sciencemag.org/news/2016/09/hundreds-new-dams-could-mean-trouble-our-climate?utm_campaign=coschedule&utm_source=facebook_page&utm_medium=American%20Rivers.

[162] Weiser, Matt. "Study: Reservoirs a 'Significant' Contributor to Climate Change."

[163] Evans, Steve. "Sites Offstream Storage Reservoir Fact Sheet".

[164] Evans, Steve. "Shasta Dam Raise Fact Sheet." Friends of the River. July 2015.

in February 2017 in reaction to the Oroville Dam crisis. Gary Wockner points to seven issues with climate change and the failing infrastructure issues surrounding dams. These issues can be correlated with public health concerns from climate change. The concerns included extreme weather variability, methane emissions, evaporation, blocked sediment, submerged landscapes blocking carbon sequestration, increased flood risk and water quality. Wockner pointed to the fact that, "many dams and reservoirs have been built to "100-year flood and drought" standards. If 500-year or 1,000-year floods and droughts become commonplace, Oroville-like disasters will too." Additionally, the GHG emission statistics in combination with the flooding of old carbon sequestering land, are hard facts to ignore on top of the issue that huge amounts of water evaporate from the tops of reservoirs. According to a United Nations report the global evaporation rate of water from surface storage is higher than the consumption rate. Wockner addresses the environmental harms that result from algal blooms, and sediment upload and hungry water systems, including incision of river banks and more severe flooding.[165] Overall, his report was in reaction to the issue of infrastructure failure in the future.

3. **Health Impacts from Infrastructure Failure:**

Dams are releasing air pollutants as well as GHG emissions into the atmosphere. The recent Oroville Dam crisis, with the near collapse of the concrete spillway that resulted in the evacuation of around 200,000 people during the initial work to prevent a 30-foot wave of water from flooding out the surrounding area, also resulted in the release of naturally-occurring asbestos into the air. A few weeks after the crisis this carcinogen was found in the rock formations and air. It is a common mineral found in forty-two of the fifty-eight counties in

[165] Wockner, Gary. "From Oroville to Hoover Dam – Seven Reasons Why Climate Change Will Undermine Dams and Reservoirs as a Source of Water and Electricity."

California and is not a health concern unless crushed.[166] As a result of this finding, a dust control plan has been implemented and increased monitoring is being considered.[167] Air pollution is not the only concern of infrastructure failure as we head into the future.

3.1 Dams as "Loaded Weapons"

The ultimate negative health consequence from a dam would be infrastructure failure that results in the death of community members surrounding the disaster site. In 2005, Jacques Leslie stated that, "large dams are loaded weapons aimed down rivers, pointed at ourselves; they're proof of the gambling nature of the societies that build them".[168] As has been previously stated, dams cause negative health implications both for the environment and public health. These health concerns have continued to grow as more pressures are put on our environment, and more cement is built into watersheds. Dams pose problems of danger for the health of the planet and the future stability of civilizations in close proximity. Taking into account that there are over 80,000 large dams in the United States and over 1,400 in California, there is cause for concern. The next portion of this paper will be a call to action for implementing policy oriented around recognition of finite infrastructure, public health concerns, economic disagreements and environmental justice violations.

Appendix B: Political Ecology Analysis of the Stanislaus Campaign
UC Berkeley, ESPM 168, 24 March 2017

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[166] Scharaga, Ashiah. "Oroville Dam: Asbestos found in spillway rock; dust controls increased". The Mercury News. March 2017. http://www.mercurynews.com/2017/03/17/oroville-dam-asbestos-found-in-spillway-rock-dust-controls-increased/.

[167] Serna, Joseph. "Workers at troubled Oroville Dam need dust-control plan after cancer-causing asbestos detected." LA Times. March 2017. http://www.latimes.com/local/lanow/la-me-ln-oroville-asbestos-20170316-story.html.

[168] Leslie, Jacques. "Dams are like loaded weapons. Oroville could be the first disaster of many to come." LA Times. January 2017. http://www.latimes.com/opinion/op-ed/la-oe-leslie-oroville-dam-crisis-will-be-repeated-20170215-story.html.

> "It was as though the American water empire had created, against its will, a dissidence precisely commensurate with its unparalleled technological success. And now found itself embattled, losing, unable to hold on to its credibility. It was caught in a dialectic that Karl Marx had never predicted, one pitting not merely rival classes pursing their competing self-interest but rival ways of valuing nature".[169]

Donald Worster is referring to the turning point in the modern environmental movement when the public no longer blindly supported the mass building of dams throughout the West. As the West was settled a massive network of irrigation infrastructure was established to support growing populations in arid regions. The layered system of water rights included historic ties from the Pueblo water rights and indigenous water rights, in addition to the eastern riparian law that was adopted from English practice, and the Western addition of prior appropriation. A mix of these rights is what set the precedent for California water rights. As the dominant industry evolved from mining to agriculture, different pressures were put on the rivers of California and more water was diverted. Then came the additional pressure of big hydroelectric projects being built from the legacies of the New Deal and World War II. Throughout the Hydraulic Era, there were a couple of battles against proposed dams in the West including Hetch Hetchy and Dinosaur National Park. However, the fights waged against the 'water empire' were not influential enough to change the political and social rhetoric until the Stanislaus campaign, lead by Friends of the River (FOR) in 1973.

FOR has been a leader in the modern environmental movement's push to protect rivers and advocate for river restoration ever since its founding in 1973. The organization's founding was rooted in the Stanislaus campaign. The "Stan" is a California river that flows out of the

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[169] Worster, Donald. "Rivers of Empire: Water, Aridity, and the Growth of the American West." (1985). Page 325.

Sierra Nevada range and is one of three main tributaries to the San Joaquin River. This political ecology paper will look at the fight between the proponents and opponents of the New Melones Dam that resulted in the flooding out of nine miles of the Stanislaus. The fight came in two stages: first an effort to stop the complete construction of the Dam, then the fight to prevent the full filling of the reservoir. The fight to "save the Stan" delineates a history of the commodification and enclosure of river canyons, accumulation by degradation, conflicts in terms of who has access, and the implementation of territorialization. To further understand the political economy analysis of this campaign, the stage will be set with the historical and socioeconomic context.

The resource conflict in 1973 was over a nine mile stretch of river on the Stanislaus. This part of the river contained some of most traveled white water in the country, along with geologic wonders, historical artifacts and ecological treasures. The Stanislaus between Camp Nine and Parrot's Ferry Bridge contained one of the deepest limestone canyons in the United States and was the site of native petroglyphs and other cultural artifacts. The actors involved, river lovers and other environmentalists, were fighting for their home[170] against the Corps of Engineers, the Bureau of Reclamation and big agriculture. They did not give up until the canyon was flooded in 1983.

This modern environmental fight served as a major turning point in how rivers were thought of in terms of commodification and transformation for human consumption. Friends of

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[170] Mark Dubois Papers, 1970-2002. Bancroft Library, UC Berkeley. BANC MSS 2003/314. Linda Cloud, one of the organizers: "I am chaining myself to this tree, and linking my life to its threatened life, to protest the further killing of this place of special beauty which can continue to give so much joy to so many people. I have never done anything like this before, but I'm being forced to defend this canyon, my home. it's not just those of us here today that feel frustrated and angered."

the River fought to keep the New Melones reservoir from being completely filled so they could save one of the most trafficked white water stretches of river in the United States, in addition to preserving ecological and historical treasures. The dam proponents, including big agriculture, wanted more water storage despite the data that was released showing that the reservoir would not be able to reach capacity even in wet years. This grassroots fight changed the language in the water wars game of the 20th century. Instead of the public being in support of large dams, people began speaking out against the further destruction and commodification of natural places in an attempt to preserve them.

The commodification of rivers has been occurring ever since the ideals of capitalism were intertwined in the desire to conquer nature. This spearheaded the movement to harness hydropower and store water. The storage of fresh water in reservoirs provides a 'security' for access to water for urban uses as well as industrial uses, including agriculture. The desire to control water for power generation and consumption drove the construction of the Western dam projects, including New Melones. This commodification of rivers resulted in the enclosure of once public lands into a system of water rights. The Native Americans were the first peoples to be displaced by a desire to gain access to rights to land along rivers. Overtime, river guides found themselves fighting against the future possibility of enclosure of the land where they worked, due to the flooding of the river canyon. The reservoir being filled would mean the full enclosure of the flooded stretch of river by Reclamation. In the case of the Stanislaus campaign, the threat of the New Melones dam, was a form of primitive accumulation enclosure, privatizing of the commons. The once publicly accessible stretch of river for commercial white water companies was being closed off by the federal infrastructure project, supported by agricultural irrigation districts. The New Melones dam also displays the issues surrounding accumulation by

dispossession and degradation. The ecological implications of dams were known by the mid twentieth century, yet were still being proposed and built. Overall, the commodification of water led to the degradation of river canyons and the battles that were born to save a dying landscape.

Additionally, the comparison of access versus property can be applied to this analysis. Property as a right to benefit versus access as the ability to extract value from a natural resource, are two competing lens that are both applicable to the Stanislaus campaign. Rivers vary in terms of property rights from public to private due to the complicated water rights laws of the West and the distribution of public lands in "wilderness" or "nature" areas. Access differentiates the private and public property rights of land along rivers. The individuals who have the ability to extract water and defend their water rights, hold the land as property owners. Whereas, in the stretches of river canyon that are open to public recreation, individuals are still extracting value from the location via being able to recreate, but do not directly own the land. The publics ability to extract value from the river was significantly changed and in some ways ended when territorialization was established.

Territorialization analysis combined the interests of both political (state power) and economic (market power) enclosure methods. In the Stanislaus campaign the state power was coming from both state and federal government entities in terms of government organizations and legislators. Whereas the market power was driven by the conflict between agriculture and commercial river rafting. The industrial agriculture territorialization would not have been possible without the backing from the Army Corps of Engineers.

In a battle over a natural resource there are two sides to the issue concerning the resulting benefits. In regard to the Stanislaus campaign the perceived benefits spanned from access to outdoor recreation for present and future generations, and healthy ecosystems, to water for

agriculture and storage. In the case of preventing the reservoir from being filled the environmentalists, local residents, commercial river guides, historians, geologists, and ecologists would have benefited. However, the big water barons were the ones who ended up with the territorial power.[171]

The Stanislaus campaign is a less well-known and studied battle. However, there was nation-wide media coverage of the ground-breaking protest when a young man chained himself to a rock to protect the river gorge.[172] Despite this campaign being a less circulated story in modern history, several scholars have looked at the fight to save the Stanislaus through a political ecology lens. Robert Fletcher points out the importance of the commercial white water rafting community as the main opponents of dam building in the 20th century. This momentum gave rise to the techniques and processes widely used in the modern environmental era.[173]

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[171] Kahn, Matthew E., and John G. Matsusaka. "Demand for Environmental Goods: Evidence from Voting Patterns on California Initiatives 1." *The Journal of Law and Economics* 40, no. 1 (1997): 168.
"November 1974: Proposition 17—Stanislaus River Protection This measure called for a halt in construction of the New Melones Dam on the Stanislaus River near Yosemite Park. The purpose of the dam was to store irrigation water and produce electricity. Because the dam was a federal project, the initiative was advisory, but it was expected that the project would be canceled if a majority voted yes. The most visible supporters were a collection of conservation groups that wanted to preserve the river for whitewater recreation; opponents included the Army Corps of Engineers."

[172] Worster, Donald. "Rivers of Empire: Water, Aridity, and the Growth of the American West." (1985). Page 325.
"By the 1970s impassioned friends of the western river past could be found, to the conservation of the empire, in all parts of the region and across the country… In one dramatic instance, a young man named Mark Dubois chained himself to a rock in the middle of California's Stanislaus River, protesting the flooding of its wildness behind New Melones Dam."

[173] Fletcher, Robert. "When Environmental Issues Collide: Climate Change and the Shifting Political Ecology of Hydroelectric Power." *Peace and Conflict Review* 5, no. 1 (2010): 14-30.
"Whitewater paddlers have long been at the forefront of anti-dam struggles in various parts of the world. In California, for instance, paddlers in the 1970s fought (unsuccessfully) to stop the

Despite their best efforts, up until the mid 1970's environmentalists were fighting losing battles against the 'American water empire.' James Caton in his article on "Rent Seeking and Institutional Evolution Within the California Water Game," states that: "we still must consider a second means of influence in a system of entangled political economy … that is not necessarily independent from the first: litigation".[174] He weaves this argument into the Stanislaus campaign analysis when discussing the issues of the water districts trumping all other water rights players, even if they did not have the senior rights status. Their power came from the support of the government organizations, specifically the Army Corps of Engineers. Caton goes on to make the argument that through the Stanislaus campaign, "it is clear that state water policy – as controlled by the Water Resources Control Board – Isn't about addressing all needs and sharing the pain equally while acknowledging and upholding water rights law".[175] These analyses point out the unfair advantages of government backed dam proponents that ended up winning the battles until FOR changed the public rhetoric and discourse around dams.

William Devall, in his analysis on "Ecological Consciousness and Ecological Resisting," discusses the peaceful protests that result from ecological resisting. "Empirical studies of specific political campaigns of ecological resisting could determine which norms are followed by resisters. While non-violent campaigns have been studied by some social scientists… few have

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major New Melones dam on the Stanislaus River in California, then the most popular commercial whitewater run in the United States, an action that led to the formation of the Sacramento-based NGO, Friends of the River, which campaigns against dam construction throughout the state."

[174] Caton, James, and Richard E. Wagner. "Rent Seeking and Institutional Evolution within the California Water Game." (2016). Page 19.

[175] Caton, James, and Richard E. Wagner. "Rent Seeking and Institutional Evolution within the California Water Game." (2016). Page 19.

applied these theories to the ecology movements".[176] Devall explains that Mark Dubois' protest theory was oriented around the practices of Gandhi and non-violence. He takes the conversation about the Stan campaign from the realm of political economy to the next layer of analysis of history in political ecology, and looking at peaceful versus violent protest. After the initial Stanislaus battle, FOR continued to lead the fight for protection of free-flowing rivers and continued to do so in a peaceful manner.

Appendix C: Water Watchers-Education Advocacy Adventure! - Environmental Justice Promotion through Experiential Outdoor Education on the River
UC Berkeley, Human Rights Interdisciplinary Thesis, Spring 2016

3. History of Environmental Activism and Present Day Activism

What has been done and what is being done in the realm of outdoor experiential education, and where did these programs grow from? Which key aspects of the modern environmental movement serve as a foundation for combining social justice and the environment? To answer these questions, I will first discuss the history of the modern environmental movement as it pertains to this issue of environmental justice, then delve into the current day programs.

3a. River Activism in the Modern Environmental Movement

The modern environmental movement for the protection and restoration of rivers, saw the start of organizations such as Friends of the River[177] and International Rivers, in addition to

[176] Devall, William. "Ecological Consciousness and Ecological Resisting: Guidelines for comprehension and research." *Humboldt Journal of Social Relations* (1982): 186.
[177] Friends of the River, a grassroots organization that is devoted to fighting for California rivers. The FOR motto spread throughout the Northwest and internationally as Dubois worked to start International Rivers Network. Not only was the Stanislaus a life changing moment for Dubois

rafting companies oriented around protecting rivers, such as OARS and ARTA. Then came the concept of Project RAFT and using the river to promote social justice. The following information was collected from interviews with individuals who started or were involved in these major projects. Each one of them brings their own story to the table but their conclusions about the river follow parallel arguments. The river is a place that activates an individuals mind and overall aids in the growth of anyone who can open up and allow nature to have a transformative impact on them.

The throughline concept, is a theory that Mark Dubois has articulated to explain the lessons he learned from reading white water, then being able to find the safest way through the chaos. Dubois is an extremely accomplished and inspiring character. He helped co-found Friends of the River, International Rivers and was on the board for International Earth Day. On reflecting upon one of the moments when he felt like giving up, Dubois explained how the river and feeling the life of the river, woke him up and he realized he needed to keep on fighting. This realization initiated from spending time on or near a river is not unique to Dubois.[178] The fight to save the Stanislaus helped Dubois understand the human habit of living in fear and how living in fear holds people back from pursuing what they feel is important. We live in a society where it is easiest to remain neutral about hard problems but we need more people that will fight for change. The river taught Dubois how to not be neutral. He learned to "keep looking for the throughline –

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but for many others, from this campaign sprouted ETC and many other leaders in the Environmental Activism world.

[178] The fight to save the Stanislaus river from being dammed brought together many activists and was the origin of the organization known as Friends of the River. As Dubois made the decision to put his life on the line by chaining himself to a rock during the Stanislaus campaign, he realized that by "not being afraid to die, I could speak with my whole life" because "realizing there is nothing to fear and speaking for all the life and magic of that place" was the only chance to save it. This sense of urgency and a mission to fight for something originated from time spent on the river.

you have to see all the obstacles before you see that line on the river". This line is analogous for navigating life, it is the line that all leaders must see to be successful at changing what needs to be changed.

Another member of the river community that helped set a foundation for river activism and activism inspired by the river is Bill Center, a Stanislaus activist, politician, and river guide. The river is what drew his love and attention away from the urban center and towards a more natural world. Center worked as the California operations manager of ARTA[179], a white water rafting company that had "roots with the sierra club and conservation". ARTA was very supportive of the campaign to save the Stanislaus and "created a platform that made it possible to create a larger association … to protect a river system". The campaign and emergence of Friends of the River as a nationally known organization, "created a community that stayed despite laws, politicians, governments that come and go; strong community is less vulnerable to being corrupted or changed that anything else". Center's explanation of the community that developed around fighting for a common cause is one of the many benefits of the change in individual mindset that occurs from fighting for environmental justice.[180] We protect the important places so that we can enjoy and utilize them, then show the next generation how special these places are. The work of Mark Dubois, Bill Center and the other founders of Friends of the River and the campaign to save the Stanislaus, set the stage for a community that fought for these places

[179] ARTA hired both male and female guides, something more controversial at the time, but it quickly became "apparent that women were usually better guides because they were much more sensitive" to their surroundings. Center first worked as a guide before managing the operation. Working as a guide he met Mark Dubois in 1972.

[180] "Government doesn't work well because so isolated and compartmentalized. You were talking about team work and [we – the world] need it. Compartmentalization needs to be broken down. Putting people from different places together and spinning the spider web [through experiential outdoor education will establish a] pretty strong fabric if can be created".

because of the transformative experience they provided for people. From this foundation emerged an organization called Project RAFT.

Targeting social justice issues by using the river as a safe place to bring together conflicting ideas and people, is a concept that was first established at the end of the Cold War. Jib Ellison and Mike Grant co-founded Project RAFT, an organization created to bring Americans and Russians down river together. Mike Grant, as a student at the University of California Berkeley, was inspired by an environmental education class he took with John Hearst in which they learned what environmental education was, how to work in a democratic process, how to deal with disagreements in the community and the overall process of change. This class "transformed [his] way of viewing the world … when I see something I want to change it doesn't do any good to observe it, but [one] need's to engage" in it. With this change in thinking and Grant's river background, when Jib Ellison starting talking about the "magic of what happens to people of a river trip" things fell into place.[181] The two young guides witnessed how a "two-day trip on the Kern [could] change the perspectives of southern California people from all walks of life. By the end of the trip everyone almost feels like family". There was "something about the journey going down the river, feeling like their lives are at risk, paddling together, surviving, eating together around a campfire, facing everything nature provides, experiencing the spiritual

[181] When Jib Ellison brought up the idea of bringing Americans and Russians down river to Mike Grant, he had already hashed out this idea while in school. As a Philosophy major, Ellison took a thesis class with an advisor whose specialty was in nuclear deterrence theory, which is all about game theory. In this class they discussed the Cold War issues that terrified Ellison. As a twenty-one-year-old college student he began thinking about what he could do to make a difference and thinking all he had really ever done was be outdoors. Eventually, one of his classmates mentioned the idea of taking Russians down river that sparked the idea of taking Russians and Americans down river together. "In the case of Project Raft it was Russians and Americans, same boat, raging river. They all needed to paddle together to survive in a nuclear world." Ellison took the thesis class the winter of 1984-1985 and by the summer of 1986 the first trip in the Soviet Union was underway.

aspect" that could not be ignored. The "longer river trips and its transformational [aspect], changes people's view of the world and their connection to other people". The two cofounders stared to discuss the "incredible dynamic, [and] what if we could use that to get Gorbachev and Regan in the same boat? Everything would change, Cold War would be over… that's our mission. It was a joke that we knew to be true. Get political leaders at each others throats [on the river and] everything would change". Ellison started making phone calls and eventually connected with the Soviet Union sports committee. Once permission to go to Russia was granted and enough money was raised, the two young men "built a team and headed off, fell in love with a bunch of Russians and started seven years of amazing unpredictable miracles that was Project RAFT. When we got to the river it was just a remarkable exchange of culture". Eventually they "built a plan for doing youth exchanges once a connection was built. [This lead to them taking] groups of Americans to the Soviet Union and vise versa. Youth who met the year before in Russian would go on the Grand Canyon [the next year] together". Grant stressed that the work should be continued in our modern day, but after the Cold War was over and funding was drying up, Project RAFT came to an end.[182]

Project RAFT displayed proof that river trips act as transformative experiences that allow individuals to open up their minds. During the Cold War era, to put a Russian and an American on a raft together was a taboo idea. Despite the cultural stereotypes and war time politics

[182] After the Project RAFT work with the Cold War, international diplomacy efforts remained in play for a short amount of time. International Rivers Network invited them to the first international river rafting competition in 1989, also encouraging them to invite friends. The first race in Russia led to several other competitions throughout the world that unified the international community drawn to using and protecting the rivers. Project RAFT, FOR and International Rivers used white water world championships to serve as fun competition and a river conservation project aimed to "shift collective consciousness about the ecological and economical importance of free flowing rivers."

working against them, the founders of Project RAFT were successful in implementing a program to promote the mutual understanding of people across boarders as fellow human beings and friends, instead of as political and cultural enemies.[183] It is very important to emphasize "that there is not true difference, only perceived difference".[184] The river is a very powerful force that ties many of the previously mentioned leaders work and ideas together because they truly believe in the transformative effect the river can have on others. This commonly shared belief is drawn from their individual experience and their experience watching others.

River guides, while watching out for their clients are simultaneously collecting data on how their clients are interacting with their surroundings and the people around them. The connection a guide has to the river is the reason why most of them want to share their sacred places with others. By sharing the river with clients, it is possible to get them to fall in love with the place and the people around them. This idea has been in play since the origins of the modern-day sport. George Wendt, the owner of OARS, has played a key role in keeping Martin Litton and David Brower's environmental protection legacies alive.[185] Martin Litton founded Grand Canyon Dories and fought hard to protect the rivers his company operated on. When the

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[183] Both Jib Ellison and Mike Grant were supportive of my proposal for the NGO> Ellison stated that "the experiential learning idea in nature that you have applied to bringing different people together then expanding [on that education] is a good [idea] that hasn't really been explored". Additionally, Mike Grant stated that, "looking at all the other conflicts going on in the world, there is more work to be done in this regard. I believe in it and I know it works. I don't know of any NGO out there right now that is doing this work, [but it is] super important".

[184] Bill Center Interview

[185] For Dubois the "river became every relationship I knew in humanity" and by fighting for the river he was "protecting another miracle". This is a similar mindset that has been described of David Brower. After the loss of Glen Canyon, Brower promised himself he would no longer compromise the natural wonders of our planet because it was not his to give away. The devotion to nature was the spark that kept him fighting for the important places. Brower is an individual Dubois drew upon in the interview as inspiration and a fellow environmentalist.

company was passed onto George Wendt[186], he focused more on running a business but the legacies of environmental activism and environmental education were not forgotten. Northwest Dories was purchased by OARS, shortly after Litton sold Grand Canyon Dories to Wendt. During this transition, Curt Chang continued to work as the operations manager in Idaho. Chang developed a training program for Idaho guides that includes white water training as well as environmental education. OARS encourages the incorporation of environmental education in the experience of taking passengers down river. Additionally, OARS supports trips for veterans and youth. George Wendt acknowledges the transformative, therapeutic impact of a river trip and encourages the use of the river for further progress. These present day efforts are pursued by both commercial rafting companies and non-profits.

3b. Experiential Education Programs

Experiential Outdoor Education programs, built to target contemporary issues, have been utilized since the start of the modern environmental movement. The more well-known and successful experiential outdoor education programs that are currently operating are Environmental Traveling Companions[187], based out of the Bay Area and Outward Bound[188],

[186] Wendt also had a role in the Stanislaus campaign. OARS was one of the main supporters of FOR during the start of the organization. Wendt's introduction into activism was during the fight to save Glen Canyon which was the place he fell in love with. After the loss of Glen Canyon, he fought hard for the Stanislaus River as well. Wendt wrote personal notes to hundreds of his passengers, encouraging them to attend meetings and congressional sessions to pressure the politicians into changing their mind about damming the Stanislaus. He also supported the fight to pass legislation making the Tuolumne a Wild and Scenic river.

[187] "ETC – About," *Environmental Traveling Companions,* http://www.etctrips.org/about.

[188] "Outward Bound – Our Mission," *Outward Bound,* 2016, http://www.outwardbound.org/about-outward-bound/outward-bound today/.

based out of Colorado, but programs are spread nationally in eleven different locations.

Environmental Traveling Companions (ETC)

> "was the first organization in the country to offer adaptive rafting programs for people with a wide range of disabilities. In 1975, ETC incorporated as a 501(C)(3) non-profit…ETC is a national pioneer in the field of accessible outdoor adventures and is respected as the largest and oldest organization of its kind in California".

ETC is an organization centered around outdoor education for youth. Diane Poslosky, explained the goals of ETC's summer program, centered around leadership education and river conservation, are to promote respect, dignity, equality and diversity. From years of experience, Poslosky argued that using the outdoors to promote change is most effective with multi day trips. It takes some time to break down biases then work from there to teach the curriculum. ETC started with three commercial ARTA guides and their idea to take inner city kids down the river for almost free in 1972. As ETC grew they added trips for visually impaired kids and disabled kids. The river rafting community was in support of the program and would donate old gear for the program.[189] ETC was and still is oriented around outdoor experiential education for youth.

Another successful technique in the field of outdoor experiential education is targeting people of all ages.

> "We offer Classic Outward Bound wilderness expeditionary courses for middle-school, high school, college age and adults. We have also developed a range of specialized courses and programs… Outward Bound also has programs for 'intact groups' and team-building/performance improvement programs for professionals."

[189] When Diane Poslosky joined the team ETC was operating out of Angels' Camp with the support of George Wendt, OARS and Bill Center, ARTA. Soon after they were able to transfer to Fort Mason in San Francisco and operate their organization out of the city. ETC went through hardship the same time the fight to save the Stanislaus campaign was being defeated. Poslosky took over the organization at this point and added several more aspects of the outdoor education program including kayaking and the youth leadership program.

Outward Bound is oriented by the goal of changing "lives through challenge and discovery" with "an emphasis on high achievement through active learning, character development and teamwork". In addition to the main educational approach Outward Bound has taken since its founding in the 1930's-1940's. Outward Bound also established a Center for Peacebuilding[190], as global branch of their program. The Center for Peacebuilding is oriented around experiential learning. Their mission statement is as follows: "We challenge and inspire emerging leaders in divided societies to work together to build peace". The values this programs seeks to instill in its participants are excellence, compassion, respect, do no harm, learning and service.

> "Outward Bound Peacebuilding pursues two strategies to build relationships across divided communities and contribute to lasting peace. First, we base our methodology on experiential learning – learning by doing. Second, we invest in local leaders who are best positioned to understand and solve the conflicts in their communities."

These established programs practice and prove outdoor experiential learning is a successful technique. Additionally, there has been educational research proving the effectiveness of these programs. "Being outdoors can give children extensive opportunities for positive holistic development and the development of democratic values through participation with adults and children in their chosen activities".[191]

Most research has been done in the realm of youth programs to test the effectiveness of outdoor education. There are several different age groups within the typical sector of society in structured educational programs. These stages include K-12, college and master's/law degrees.

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[190] "History of Outward Bound," *Outward Bound Peacekeeping*, 2014, http://outwardboundpeace.org/about/history-of-outward-bound/.

[191] Aasen, Wenche, Liv Torunn Grindheim, and Jane Waters. "The outdoor environment as a site for children's participation, meaning-making and democratic learning: examples from Norwegian kindergartens." *Education 3–13* 37, no. 1 (2009): 5-13.

In experiential education it is important to target these groups as well as groups of people no longer in a structured school system.[192]

Appendix D: Water Rights in the West (1800's-early 1900's)

California faced instant statehood after the population boom from the 1949 Gold Rush. Due to the melting pot of eastern settlers, Mexican-Americans, Native Americans and Asian Americans, water rights of the state were also melted together. California's water rights is a mix of riparian rights, prior appropriation and pueblo water rights. This melting pot led to the Lux vs. Haggin court case and the establishment of the California Doctrine. As the California economy transformed from mining to agriculture, water rights and allocations evolved as well. The state and country entered the modern era of history and as industrialized capitalistic society continued to grow, water development projects began to unfold. The State Water Project and the Central Valley Project dominated the rescaping of California watersheds. These projects represented the origins of the big dam building movement that would explode in the middle of the twentieth century as a result of the New Deal and emphasis on hydropower during WW2. This movement allowed for unsustainable population growth in arid regions that now depend on finite and unsustainable slabs of concrete infrastructure engineered and built into the middle of river canyons. The desire to continue building dams everywhere grew out of control and the individuals who built their lives around these places started to understand the historic struggle of indigenous displacement.

[192] There is currently research being done in the realm of experiential outdoor education and environmental psychology for veterans in nature and more specifically on the river. This data will be released in the next couple of years.

The fight for landscape protection and the first fight over a river canyon was headed by John Muir as the SWP and CVP were coming into the political playground. The collaboration of conservationists and river guides began with Muir's mentee, David Brower and Grand Canyon Dories founder, Martin Litton. The momentum of river guides working as activists and conservationists continued to be spearheaded by George Wendt, Litton's mentee and Mark Dubois, co-founder and first executive director of Friends of the River.

As California saw the growth of the SWP and CVP the once unlivable, swampy Central Valley and arid south regions became habitable through a system of dams and levees. However, the social protest movement era emerged in full force with the Civil Rights movement and anti-Vietnam war protests, environmentalists were beginning to radicalize as well.[193] In 1962 Rachel Carson published the book *Silent* Spring, that historians claim is responsible for the launch of the modern environmental movement. That same year senator Peter Behr pushed the Federal Wild and Scenic Rivers bill through congress. He would continue to act as a river champion throughout the fledgling years of FOR as an organization. The Environmental Protection Act was also passed into law during this era. This act along with the river's bill would create a new platform for environmental change to take place.

[193] "Like Rosa Parks climbing defiantly aboard her segregated bus, he [Mark Dubois] started something that couldn't be quelled. Millions of people who had never seen the Stanislaus River found themselves feeling upset, if not infuriated, over its loss. …. Among environmentalists, 'Remember the Stanislaus" …. Meanwhile, river recreation boomed all through the eighties. Having a captive audience helps: A couple of days spent floating a beautiful, threatened river can turn whole families into environmental radicals where the fate of that river is concerned." Reisner, Marc. *Cadillac Desert: The American West and its Disappearing Water*. Penguin, 1993. Pg 510.

In 1973, the organization American Rivers was founded. However, this now prominent organization, did not become fully effective as a national organization/power until after the FOR campaigns that put rivers on the political map in California and in Washington D.C.

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