

SECTION

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Los Angeles Times

TUESDAY

JANUARY 26, 1999 VC/CC

Ventura County

Gallegly Calls for Study of Matilija Dam's Removal

■ **Nature:** Congressman says structure may have outlived its usefulness and should come down. Environmentalists welcome support.

By GARY POLAKOVIC
TIMES STAFF WRITER

Backers of a plan to remove Matilija Dam may have found an ally in a Ventura County congressman who believes removing the structure has merit because it could save fish and restore sand flows to the coast.

In an action likely to focus more attention on the controversial proposal, Rep. Elton Gallegly (R-Simi Valley) has called

on federal engineers to begin an investigation on how to remove the dam. It would be a first step toward determining whether the proposal makes environmental or economic sense.

"It appears the dam may have outlived its usefulness and may be causing more problems than it is solving," Gallegly said in a news release issued Monday. "If removing it will solve our beach erosion problem and help steelhead trout to recover from its endangered species status, and if its removal is cost-effective, I could

support its removal. This study will begin to answer those questions."

Gallegly said he discussed the issue during a meeting last week with Col. John P. Carroll at the Army Corps of Engineers office in Los Angeles. The two discussed removal of the dam, flood control on Santa Paula Creek and dredging at county harbors.

Matilija Dam was built in 1948 to prevent floods, and to store water for citrus growers and residents in the Ojai Valley.

Today it is nearly filled to the brim with mud and is widely viewed as obsolete. It holds little water and acts as a 145-foot-tall barrier to endangered

southern steelhead trout trying to reach 20 miles of prime spawning stream in Matilija Creek.

By weighing in on the dam dispute, Gallegly adds an influential and prominent voice to a growing chorus of calls to tear down the dam.

For the most part, environmentalists have attempted to rally additional support for the proposal. Already a majority of the Ventura County Board of Supervisors and the National Marine Fisheries Service have expressed interest in the plan.

"He's on the right track there," Ron Bottorff, chairman of Friends of Santa

Please see DAM, B3

VENTURA COUNTY NEWS

DAM: Gallegly Asks Corps to Study Feasibility, Costs

Continued from B1

Clara River, said of Gallegly's efforts. "You can't just go in there and take the dam down, because it's got all this sediment piled up behind it. It's a complicated problem."

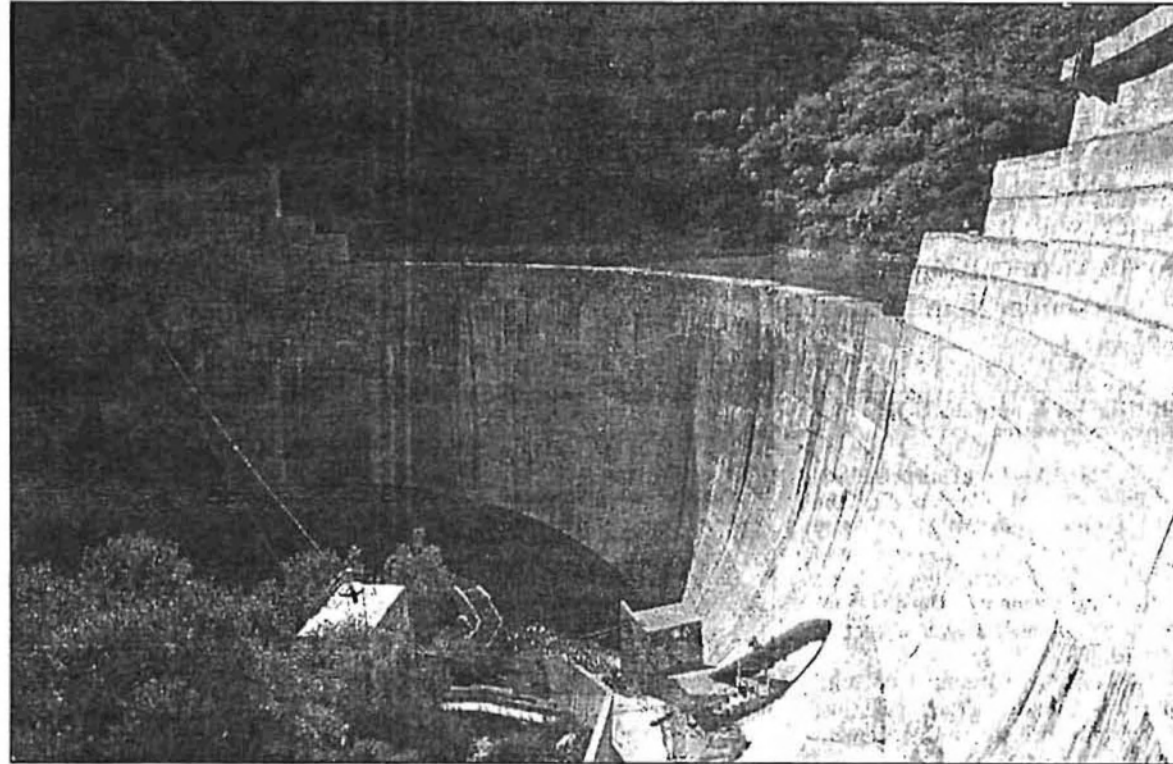
Although Army Corps officials could not be reached Monday, Gallegly spokesman Tom Pfeifer said the agency has not yet decided to proceed with a dam-removal study.

He said approval must come from Washington, and it will take a few weeks before a decision is made.

While several estimates have been prepared, it would probably cost about \$75 million to remove the dam and clear out the tons of sediment trapped behind it.

In other matters, Gallegly urged the corps to complete a Santa Paula Creek flood control project. About 2,000 people were evacuated from their homes during heavy storms last February.

The first phase of the project is completed and \$16 million is needed to finish the work, Gallegly said.



Los Angeles Times

Environmentalists say Matilija Dam contributes to beach erosion and prevents trout from spawning.

Damn Sand Rights: Rindge and Matilija Dams

Mark H. Capelli¹

Two dams built in the 1920's and 1940's within southern California coastal drainages have reached the end of their useful lives, and their decommissioning and removal is being actively considered by the U.S. Army Corps of Engineers and the U.S. Bureau of Reclamation.

Rindge Dam on Malibu Creek (Los Angeles County) was constructed in 1926 by a private interest for a local water supply. The dam is located approximately 2 miles inland from the coast near the City of Malibu. Rindge Dam is currently owned by the California Department of Parks and Recreation and lies within Malibu State Park. The dam consists of a concrete arch structure, approximately 100 feet high, and originally stored approximately 600 acre-feet of water. The reservoir has been completely sedimented in since 1956 and currently stores an estimated 0.8 to 1.6 million cubic yards of sediments. Matilija Dam on Matilija Creek (Ventura County) was constructed in 1946 by the Ventura County Flood Control District for water supply and flood control. The dam is located approximately 18 miles inland from the coast near the City of Ojai. Matilija Dam is currently leased to the Casitas Municipal Water District and lies within the Los Padres National Forest. The dam consists of a concrete arch structure, approximately 200 feet high, and originally stored approximately 7,000 acre-feet of water. Matilija Reservoir is 90% filled with sediments, and currently stores an estimated 5 to 7 million cubic yards of sediments.

The physical removal of the dam structures can be accomplished by using relatively straightforward construction techniques for cutting, decomposing, and removing concrete. However, the removal and disposal of the large amounts of sediments stored behind the dams has slowed the planning for the decommissioning of these structures. The sediments stored behind these structures consist of native sedimentary materials, ranging in size from fine sediments to larger sandstone boulders. Because these materials would have been naturally transported to the coast in the absence of the dams, and therefore contributed to the maintenance of beaches, there is considerable interest in using the stored sediments for beach nourishment.

The sudden release of stored sediments into the downstream channels as a result of removing the dam structures, whether all at once or incrementally, could adversely affect the downstream sensitive habitats, including the estuaries, of the two stream systems. These habitats support a variety of fresh and brackish water species, including a number of federally listed endangered or threatened species of fish and wildlife. Several alternatives have been preliminarily identified for dealing with the transportation and disposition of stored sediments: (1) phased removal of the dam structure, coupled with temporarily stabilizing the sediments stored behind the structure to meter the sediments transported through the system under the influence of seasonal high flows; (2) excavating the sediments and hauling them to receiver sites (including eroded beaches) via trucks; (3) excavating and transporting sediments via a mechanical conveyor system downstream to the mouth of the respective water courses; and (4) conveying sediments through a slurry-pipe downstream to coastal beaches.

The technique(s) best suited to transport and dispose of stored sediments will depend upon a variety of factors including, the distance from the dam site to the receiver site, the feasibility of moving sediments on local and regional roads, the accessibility of the dam site and downstream route to mechanical equipment such as conveyor systems, and the availability of water to supply a slurry pipe. Additionally, a complete characterization of the sediments to be transported and disposed, including, grain size fractions, presence of contaminants, and total volumes of materials suitable for beach nourishment, must be accurately determined before individual options can be evaluated.

Decommissioning and removing non-functioning dams is a relatively new and largely untried endeavor, but with the increasing number of dams approaching the end of their useful lives, removal of dams is becoming an increasingly important option for restoring and maintaining beach sand supplies in coastal areas.

1. Lecturer, Environmental Studies Program, University of California, Santa Barbara.

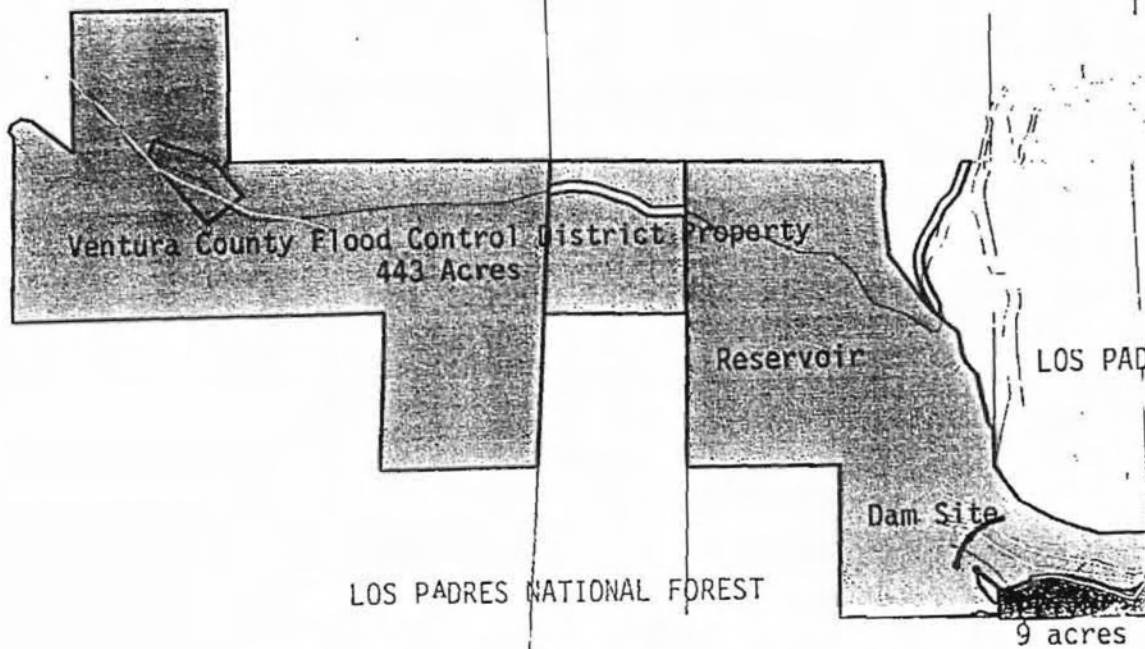
Matilija Dam Statistics

Ventura County, Calif.

1. Owner: Ventura County Flood Control District
2. Type structure: Variable radius concrete arch
3. Design: Donald R. Warren Company
4. Construction: Guy F. Atkinson Company; Bressie and Bevanda Construction Incorporated; and W.E. Kier Construction Company
5. Original height of dam above streambed: to highest crest - 198 feet; to lowest spillway - 185 feet
6. Date completed: 1947
7. First notching: 1965 (center section 30 feet deep and 285 feet wide at bottom)
8. Second notching: 1977 (center section notch widened to 358 feet at bottom)
9. Current height of dam above streambed: to highest crest - 198 feet; to lowest spillway - 168 feet
10. Length of Crest: 620 feet
11. Original thickness of concrete arch: top - 8 feet; bottom - 50 feet
12. Elevation above sea level: to highest spillway - 1138 feet; to lowest spillway - 1095 feet
13. Concrete yardage: 51,000 cubic yards
14. Original reservoir storage capacity: 7,018 acre feet
15. Current reservoir storage capacity: 500 acre feet (estimated, 1999)
16. Original reservoir area at elevation 1125 feet: 126.8 acres
17. Drainage area of Matilija Creek above dam site: 55 square miles
18. Original spillway capacity: 60,000 cubic feet per second at water elevation 1137 feet.

Source: Ventura County Flood Control District

LOS PADRES NATIONAL FOREST



Ventura County Flood Control District Property
443 Acres

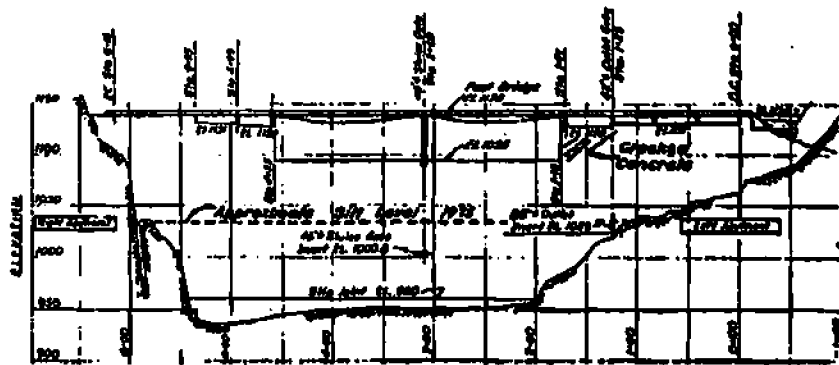
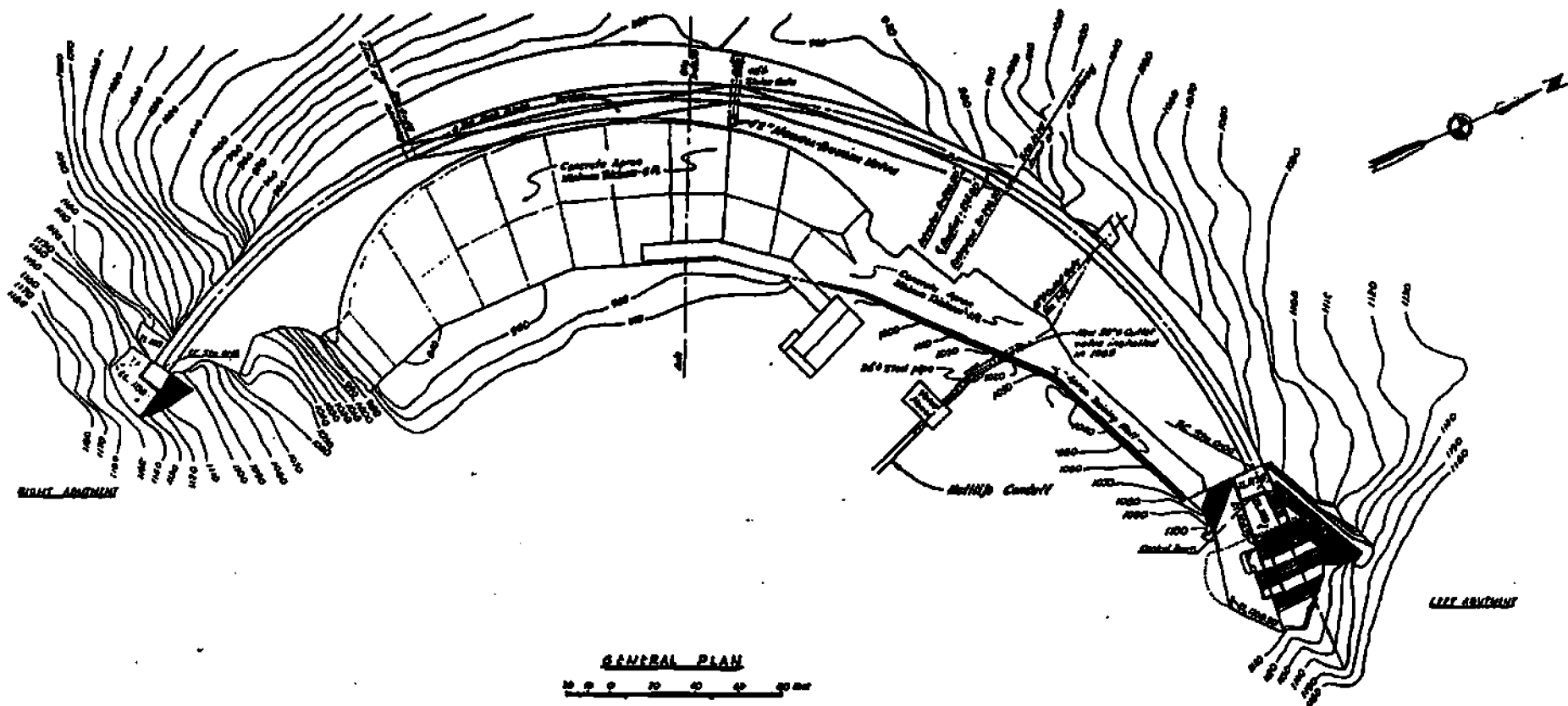
Reservoir

LOS PADRES NATIONAL FOREST

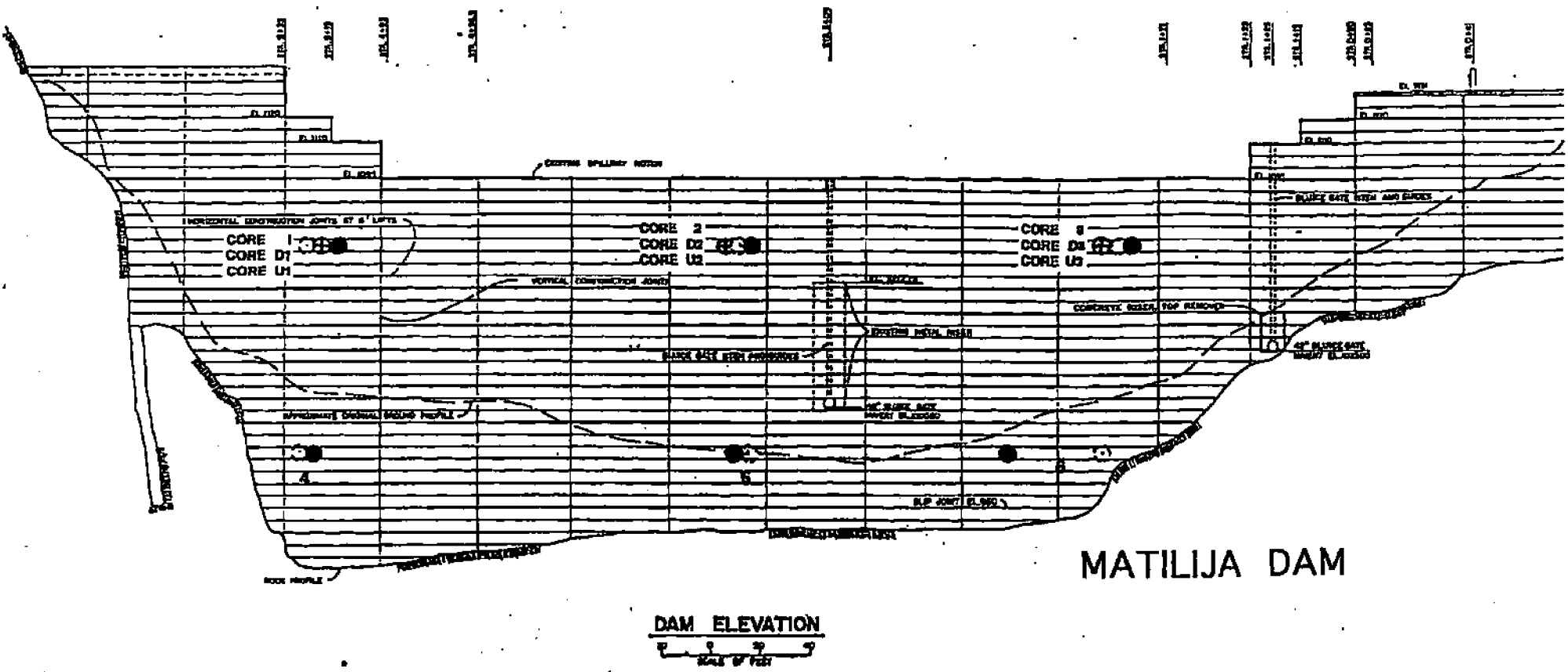
Dam Site

LOS PADRES NATIONAL FOREST

9 acres



PLANS CONTROL DISTANCE
MATLACHA DAM
GENERAL LAYOUT
OPERATION 8 6437 17087



MATILIJA DAM

CORE LOCATIONS

- ⊕ CORE LOCATION 1997 SUPPLEMENT
- CORE LOCATION 1996 EVALUATION
- CORE LOCATION 1976 INVESTIGATION (IECO REPORT)

VENTURA COUNTY FLOOD CONTROL DISTRICT

CURRENT DAM CONFIGURATION

Los Angeles Times

SATURDAY, OCTOBER 9, 1999

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Removing Matilija Dam Top Priority, Babbitt Says

■ **Environment:** Interior secretary believes razing the structure to help endangered fish and replenish beaches would set a key precedent.

By GARY POLAKOVIC
TIMES STAFF WRITER

Interior Secretary Bruce Babbitt said Friday he will make removal of Matilija Dam a top priority to save an imperiled migratory fish and restore sand flows to Ventura County beaches while also striking a blow against the nation's larger dams.

The announcement brings home to Southern California a debate swirling around many of the nation's 75,000 dams, which have been blamed for declining salmon and steelhead runs, coastal erosion and lost economic opportunities for outdoor recreation and commercial and sport-fishing.

"The time has come for dam removal," Babbitt said. "This [Matilija] dam is really an opportunity to demonstrate the benefits of dam removal in a way that's available nowhere else. Based on what I've heard, I support removal of this dam. This one is right at the top of the priority list."

Babbitt's remarks signal that the once-obscure dam tucked into a canyon in the mountains behind Ojai has gained high-level attention at the White House and in Congress. He said he decided the dam should be a priority for dismantling following meetings this week in Washington with California members of Congress and Ventura County officials.

Although Interior Department agencies, including the U.S. Geological Survey and the Bureau of Reclamation, have been studying ways to tear down Matilija Dam



BABBITT

Continued from B1

since summer, Babbitt's comments mark the first time he has announced his plans for the structure.

"He'll help move that project into high gear," said Supervisor John Flynn, who along with Supervisor Kathy Long and Rep. Elton Gallegly, organized the meeting Monday. "To have him behind the project, how could you get anything better? I'm really excited about it."

The 52-year-old dam was built to store drinking and agricultural water for the Ojai Valley and to reduce flood hazards on the Ventura River. Today, however, it is full of mud, provides little water and is crumbling. Though decaying sections have been removed, it still stands 190 feet tall and 620 feet wide.

Environmentalists want it torn down so southern steelhead, an endangered species, can reach high quality spawning habitat upstream in Matilija Creek. Also, about 6.1 million cubic yards of sediment, essential to replenish sand-starved beaches from Ventura to Port Hueneme, are locked behind the dam. Groups pressing for the dam's removal include anglers, surfers, seaside homeowners and business people. California's Democratic Sens. Barbara Boxer and Dianne Feinstein also favor its removal.

"Along the West Coast, Matilija Dam is one of the most important to remove because of the pressing need to recover steelhead. It's emblematic of the broader problem of dams and man-made structures that have outlived their usefulness," said Andrew Fahlund, policy director at nonprofit American Rivers Inc.

In the past two years, Babbitt has toured the nation's rivers and streams, sledgehammer in hand, taking symbolic whacks at small dams marked for removal. At least 122 dams have been breached in the 1990s across the United States.

"He's taken out a whole bunch of dams, but they have all been 3 to 17 feet tall," said Mark Caprelli, executive director of Friends of the Ventura River. "[Matilija] would be the highest dam ever removed in the United States."

Babbitt said he believes that removing Matilija Dam could open a political breach that will make it easier to knock down some of the nation's largest, most environmentally troublesome dams. In Washington state, for example, Congress authorized removal of two other big dams, the Elwha and Glines, but political haggling has delayed those projects.

"This is a big dam, this is the first of a kind for removal. We have an opportunity to use this as a demonstration, a model," Babbitt said. He added that the apparent unanimous support for the dam's removal in Ventura County is key to carrying the project to a conclusion.

But razing the dam won't be easy. Engineers have yet to figure out a way to move all the sand stuck behind Matilija Dam down the river to the ocean without increasing flood risk in west Ventura and Casitas Springs.

And the costs of removal may be extraordinary. Although new estimates are being developed, past studies have estimated the cost at between \$3 million and \$150 million, although most officials say \$80 million is a reasonable estimate. The U.S. Bureau of Reclamation, Geological Survey and Army Corps of Engineers are conducting studies on how to remove the dam.

If those investigations and subsequent environmental studies produce no major surprises, Babbitt said he is confident local, state and federal governments can find the money to remove the dam, perhaps within two years, although he declined to elaborate.

"We need to get the study back to make sure there are no insoluble problems, then work on financing issues," Babbitt said.

Babbitt said he has never seen Matilija Dam, but he plans to visit Ventura County by the end of the year to meet with local officials and tour the structure.

"Now that this is on his radar scope; that is one more ally we have," Gallegly said.



NEWS

U.S. DEPARTMENT OF THE INTERIOR

Office of the Secretary

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October 6, 2000, 10 a.m. PST

Contact: Joan Moody 202/208-6416
Jeffrey S. McCracken 916/978-5100

SECRETARY OF THE INTERIOR BABBITT HOSTS CALIFORNIA DAM REMOVAL EVENTS

Secretary of the Interior Bruce Babbitt, joined by California Secretary of Resources Mary Nichols, today struck the first blow to the 90-year-old Saeltzer Dam on Clear Creek near Redding, California, which is being removed as part of the CALFED agreement. Next Thursday, October 12, Secretary Babbitt will continue his dam-busting tour by sitting in the crane that begins the dismantling of the Matilija Dam in Ventura County, southern California — the largest dam to come down anywhere in the world to date.

The Saeltzer and Matilija Dams are among those structures that are crying out to come down because not only are they no longer needed to supply water, they pose major threats to steelhead and other fish and wildlife, says Babbitt, who has previously participated in the removal of other dams. Destruction of these dams will lead to the creation of newly restored watersheds. Restoration is a very American kind of idea because it expresses our optimism that the future can be better for both people and wildlife. Today we celebrate not only the environmental improvements that will result from removing these dams, but also the public-private partnerships that made it possible.

Removal of the Saeltzer Dam is among the restoration actions included in the CALFED Bay-Delta Program Framework for Action released on June 9, 2000. The Central Valley Project Improvement Act (CVPIA), the authority under which the project was implemented, directed Interior to install a fish ladder on Saeltzer Dam to allow for fish passage into the upper section of Clear Creek below Whiskeytown Dam. While investigating alternatives, it became apparent that removal of the dam would be a more beneficial and cost-effective means of reducing impediments to fish passage.

This project is one more example that when it comes to CALFED, the big winners are both salmon and local communities, said Mary Nichols, California Secretary for Resources. By investing in locally based partnerships, CALFED is able to provide additional water and spawning grounds for fish, new recreation opportunities for the public, and maintain water supplies for local communities.

The Saeltzer Dam has diverted water from the creek into the 7-mile-long Townsend Flat Ditch for 93 years. It is being removed as part of the Saeltzer Dam Fish Passage and Flow

Protection Project intended to improve spring-run salmon and steelhead passage in the middle reach of Clear Creek, protect instream flows, and maintain the water supply to the shareholders of the Townsend Flat Water Ditch Company.

Funding for the project was substantially provided by the Federal Government through the CVPIA and by the State of California through Proposition 204. Additional funding was donated by the Packard Foundation through The Nature Conservancy and by the Metropolitan Water District of Southern California through the California Urban Water Agencies. The project is being implemented in coordination with the Clear Creek Coordinated Resource Management Planning Group. The Western Shasta Resource Conservation District and the Bureau of Land Management have made valuable field assistance contributions to the project.

The David and Lucile Packard Foundation, a philanthropic organization created in 1964, provided a grant of \$1 million to The Nature Conservancy to be used to remove the dam and implement a long-term adaptive management program to restore native fish populations to Clear Creek. The Nature Conservancy, the world's largest private conservation organization, is partnering with CALFED in implementing river restoration projects throughout the Central Valley.

These small tributaries are key to a healthy Sacramento River and a healthy Central Valley, so we're grateful that the CALFED process is focusing energies on them, said Jeanne Sedgwick, Conservation Programs Director at the Packard Foundation. And this agreement shows how effectively and quickly we can move when government agencies and philanthropic interests work together.

The Saeltzer Dam project translates promise into progress, said Leslie Friedman Johnson, Director of The Nature Conservancy's Water Program, now is the time to move from plans to projects and CALFED is demonstrating that it can deliver.

-DOI-

DAMS

California Project Tests Removal Strategies

The 200 ft (60 m) high Matilija Dam, in Ventura County, California, was listed for demolition about two years ago, but efforts to determine the best way to take down the structure may be prolonged. The U.S. Bureau of Reclamation's Mid-Pacific Region, based in Sacramento, California, must contend with more than 6 million cu yd (4.6 million m³) of

Bureau of Reclamation. "Dams are not meant to be there forever. They are not monumental structures."

More tests are slated through the end of the year, including a hydraulic splitting method in which holes are drilled in the dam and high-pressure water jets are used to crack chunks of concrete between the holes. The thickness of the arch ranges from 8 ft (2.4 m) at the crest to 35 ft (10.7 m) at

retention capacity has been eliminated and it no longer provides any protection.

Additionally, an alkali-silica reaction has caused cracks to form in the dam, and in the 1960s and 1970s a 358 ft (110 m) wide, 30 ft (9 m) deep section was removed from the top of the dam to increase the stability of the structure. The notched section now acts as a spillway during high flows.

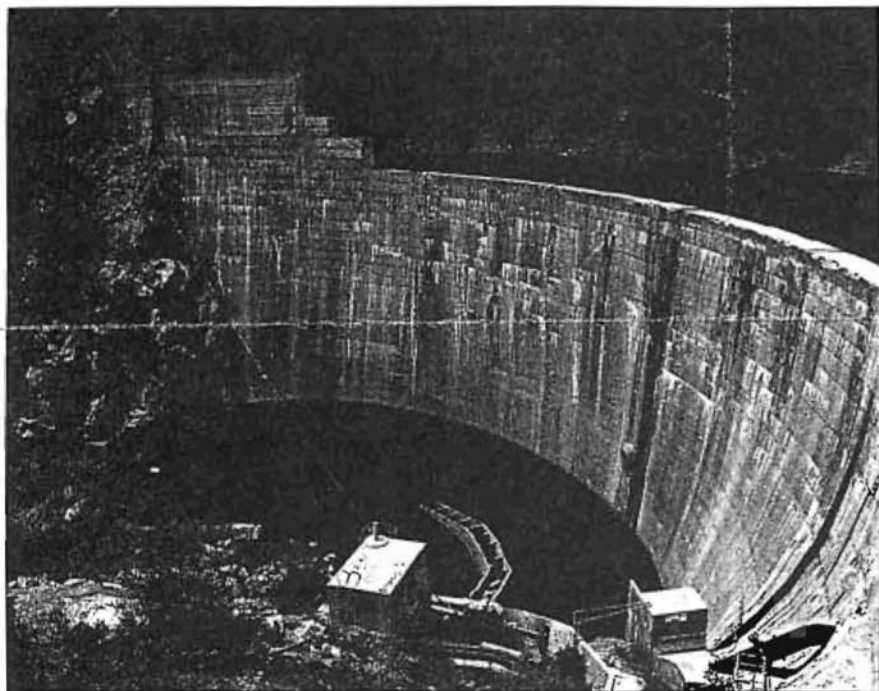
Nearly everyone agrees that the dam should be removed, but few know just how to do it. In contrast to construction projects, there are no established procedures for dam removal, Barajas says. Aside from developing an effective management plan for the massive amount of sediment behind the structure, the bureau must test demolition equipment. The west abutment in particular is very difficult to reach with any type of equipment, according to Barajas.

Alternatives for dealing with the built-up sediment range from gradual concrete removal, possibly over 20 years, which would allow high flows to wash sediment downstream, to a 16 mi (26 km) long slurry pipeline that would remove the sediment from the reservoir and transport it to replenish beaches in Ventura County. Cost estimates range from \$22 million for gradual removal to \$180 million for the slurry pipeline alternative.

The Bureau of Reclamation plans to continue testing methods of concrete removal through the end of 2000 and will then begin characterizing the sediment, which is 120 ft (37 m) deep in places. "We can't make a recommendation for removal of the dam without knowing what's behind it," Barajas says.

All the studies should be completed by September 2001, and then the environmental process will begin. Barajas predicts that the structure will not come down for at least another three years. ▼

—Brian Fortner



THE MATILAJA Dam, near Ventura, California, has already been notched to increase the stability of the structure, but sediment has nearly filled the reservoir and eliminated any flood protection potential.

sediment behind the structure.

The Bureau of Reclamation has been studying the variable-radius concrete arch dam for the past 18 months and in October removed an 8 ft (2.4 m) high by 30 ft (9 m) long chunk of concrete from the dam using a diamond wire-cutting tool. The demonstration project was conducted to test concrete removal methods. "We hope to pioneer a lot of techniques for subsequent removals," says Federico Barajas, the project manager for the

its base. The dam's removal would restore more than 20 mi (32 km) of endangered steelhead habitat to the Ventura River watershed.

The structure, which is owned by the Ventura County Flood Control District, has a crest length of 620 ft (190 m) and is among the largest of the dams in the country scheduled for demolition. It was built in 1948 to control floods, but the reservoir behind it is now so full of sediment that more than 90 percent of its flood



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Dam drains, fish killed

Faulty valve blamed for Matilija Dam water releases

By Jesse Phelps

jesse@ojaivalleynews.com

A hiker wandering through the backcountry behind Matilija Dam last week discovered a disturbing phenomenon. The water in the reservoir behind the dam seemed to be dramatically lower than she remembered. Then, taking her camera out, she found something else. There, next to the structure, floating in the water, were hundreds of dead fish.

The fish, mostly largemouth bass, died when a faulty valve allowed hundreds of acre-feet of water out of the reservoir and down the channel, according to Casitas Municipal Water District fish

biologist Leo Lentsch.

"There was a faulty valve that caused some release of water from the reservoir," Lentsch said in a telephone interview on Monday. "That happened over a period in July. I can't pinpoint a date for you, probably right around the third of July, we had a faulty valve they worked on repairing. After that, we were still having some trouble with it."

He denied reports that human error was the cause of the loss of water and fish, instead blaming old equipment at the dam site.

"It's an old facility so from time to time they have trouble with different components up there,"



Photo submitted

Please see Fish, Page A-3

DEAD LARGEMOUTH bass float at the Matilija Dam outlet.

Page A-3, Ojai Valley News

Fish:

(Continued from Page A-1)

Lentsch said. The result, he said, was that the water "released a little quicker out than the volume that was coming in."

As the volume of water coming in is quite low during the hot Ojai summers, the reservoir has gone down dramatically over the weeks since the valve started leaking.

In fact, said Lentsch, the water levels are so low at this time of year that Casitas won't usually divert from the river at all during the summertime. Nothing has changed that, he said, even the excess water running down the channel due to the leak. "None of the water lost down the creek was diverted to the lake," he said.

The Robles diversion dam in the Ventura River channel — several miles below the dam near Meiners Oaks — is used to pipe river water to Lake Casitas during wetter periods each year.

The resulting effect of the extra runoff, said Lentsch, is that parts of the watershed that are usually dry have recovered some moisture. "I have some temperature gauges out a couple of places. By Willis Canyon, it had dried up but now it's wet again," said Lentsch.

Lentsch said the fish died because of a lack of oxygen. "The water's so warm up there it's dominated by green sunfish and largemouth bass. Probably what

happened is they got crowded together and the large ones, because they consume more oxygen, they perished," he said, adding that the bass are "not native to the drainage and they do impact steelhead because they feed on them."

Until a fish passage is constructed, no steelhead can penetrate the canyon beyond Robles, so, at least for now, the bass are not a concern.

Meanwhile, according to Lentsch, the only fish affected are the ones dying in the reservoir. "I did a survey of the channel and pool down below Matilija and I didn't find any dead fish down there," he said. "Up above the dam there were some large largemouth bass that did perish. I estimate it around 50. There were still a lot of live fish up there as well."

Pictures taken by a hiker would seem to belie Lentsch's estimate but no firmer figure yet exists to tally the loss. "When we are diverting, we monitor everything as best we can. We don't check everything on a daily basis," said Lentsch.

Steve Wickstrom, chief engineer at the district, was putting together a comprehensive report on the water loss for board of directors. Lentsch said he would be able to provide technical details regarding the valve and why it was leaking but Wickstrom could not be reached for comment.

JOHN KRIST

Water District Thwarts Removal Of Marginal Ventura County Dam

Fighting over water is a popular sport in the West, where generations of lawyers have refined the practice until it approaches an art. Often, the quantities at stake are prodigious, the output of entire watersheds. In other instances, however, the volume is so minuscule as to leave outsiders puzzled by all the fuss.

A dispute of the latter sort is threatening to break out in Ventura County, where an unusually broad coalition of interests has united behind one of the largest dam-removal projects in American history. As federal, state and local agencies press forward with environmental review and demolition planning, a handful of opposing voices have strained to make themselves heard. Having failed so far to secure the guarantees they desire, they have begun offering thinly veiled threats of legal action to stop the project or at least delay it — a move that could prove fatal to critical funding.

The dispute is an illustration that, in California, there is no such thing as a trivial amount of water, and that even the most marginal dams have their defenders.

Matilija Dam, completed in 1948 in a rugged canyon 16 miles north of Ventura, was envisioned as a means of providing flood control to a handful of small downstream communities and recharging groundwater supplies used by farmers in the sparsely populated Ojai Valley. With so few potential beneficiaries, the dam had such a dismal cost-benefit ratio that no state or federal agency could be persuaded to build it. Undaunted, the dam's backers persuaded local voters to pass a bond measure to provide funding, and the county flood control district tackled the tasks.

Problems were apparent nearly from the start. Cracks began appearing on the downstream face of the dam almost immediately after completion, and they worsened over time. A 1959 survey revealed that the dam's crest was tilting upstream, probably because a chemical reaction between alkali in the cement and silica in the aggregate used in the concrete was causing it to expand and deteriorate. Concerned about the dam's safety, the county twice had the dam's crest notched to lower it and reduce stress on the foundation. The dam originally was 198 feet tall; subsequent modifications lowered it 30 feet.

Bad concrete was not Matilija Dam's only flaw. The mountains surrounding it are rising rapidly and eroding nearly as rapidly, producing huge amounts of debris. Matilija's 7,000-acre-foot reservoir first filled with water in 1952. But it also had begun filling with sediment — about 79 acre-feet a year, according to a 1954 report by

the U.S. Bureau of Reclamation (BOR). By 1969, the reservoir's storage capacity had been cut in half.

According to the BOR, the dam now traps 6 million cubic yards of sediment, the equivalent of 14 Rose Bowl stadiums full of sand, silt, gravel and cobbles. The reservoir has a storage capacity of about 500 acre-feet and provides no flood control, although it does provide a trickle of water to supplement the supply of the Ojai area's main water provider, the Casitas Municipal Water District (CMWD).

The dam contributes to beach erosion by trapping sand that would otherwise reach the coast, and blocks access to critical spawning grounds for endangered southern steelhead in the Ventura River watershed. Efforts to demolish the dam and restore the ecosystem have been under way since 1998, when local advocates secured federal support for a feasibility study.

Strategies for taking out the dam and dealing with the sediment behind it are detailed in a technical analysis released in June and are examined further in a draft EIR/EIS released in July, opening a public-comment period that closed August 30. Almost simultaneously, local lawmakers announced that \$79 million in federal funding for the \$110 million project had survived committee scrutiny in Congress and

made it into this year's federal Water Resources Development Act.

The Army Corps of Engineers is the lead agency under the National Environmental Policy Act (NEPA). The Ventura County Watershed Protection Agency (former the county flood control district) is the lead agency under the California Environmental Quality Act (CEQA). A final record of decision on the project is expected by the end of the year.

Dealing with the trapped sediment is the most costly aspect of the project. There is too much to haul away, and allowing it to be eroded naturally

by storm flows after the dam is gone would cause the lower river to be buried beneath debris, smothering habitat and increasing the flood risk. Under the preferred alternative, the fine silt would be dredged out, transported downstream in a slurry line and piled up outside the main river channel. The remaining coarse sediments would be stabilized temporarily in the old reservoir site in such a way that extremely high flows would erode them gradually and carry them downstream.

Legislative support reflects the extremely broad coalition of interests united in support of the removal project, including virtually every federal, state and local agency with an interest in the dam or in steelhead, as well as a lengthy roster of environmental groups.



Now: Matilija Dam, located in the rugged mountains near Ojai, holds more silt than water these days.

At a July 28 public hearing on the draft EIR/EIS, however, representatives of CMWD and some small rural water agencies complained that the document fails to address the effect of the dam removal on their water supply. And at least one of those representatives argued that this failure left the document open to challenge under CEQA and NEPA – a hint of litigation to come.

He may have a point: The EIR/EIS acknowledges a potential temporary reduction in supply as a consequence of the project, but vaguely waves off the impact by noting that replacement water could be purchased from the State Water Project or “obtained from other sources” – the kind of “paper water” assurances California judges increasingly seem disinclined to tolerate.

In a state where individual farms consume thousands of acre-feet a year, the amount of water at stake seems trivial. The Casitas district has a lease with the dam's owner, the Ventura County Watershed Protection District, to store water behind the dam. That water is dribbled through the dam's outlet works into the river channel after winter's peak flows have subsided, allowing it to be diverted downstream by CMWD.

According to the BOR, Matilija Dam adds an average of 590 acre-feet a year to the local water supply. Casitas provides conflicting estimates. In a July 20 letter to the editor of the local newspaper, the agency's board president asserted that Matilija reservoir provides “about 600 acre-feet of water.” A July 21 press release from the dis-

trict asserts that removal of the dam could cause the district's customers to lose 2,400 acre-feet. In a more recent press release, the district claims Matilija yields 790 acre-feet of water a year, a figure repeated

in a recent interview with Casitas General Manager John Johnson.

Regardless of which figure is correct, Mother nature has ideas of her own. Continuing sediment deposition, the EIR/EIS warns, will reduce Matilija Reservoir's capacity to 150 acre-feet by 2010 and less than 50 acre-feet by 2020.

Even before sedimentation eliminates the reservoir, the water district will lose access to it. The district's lease with the dam's owner expires on Jan. 1, 2009 – about the same time

the dam would start to come down, if the project moves forward. And it is unlikely the county will be interested in renewing that lease, as it is spearheading the removal process. ■

■ **Contacts:**

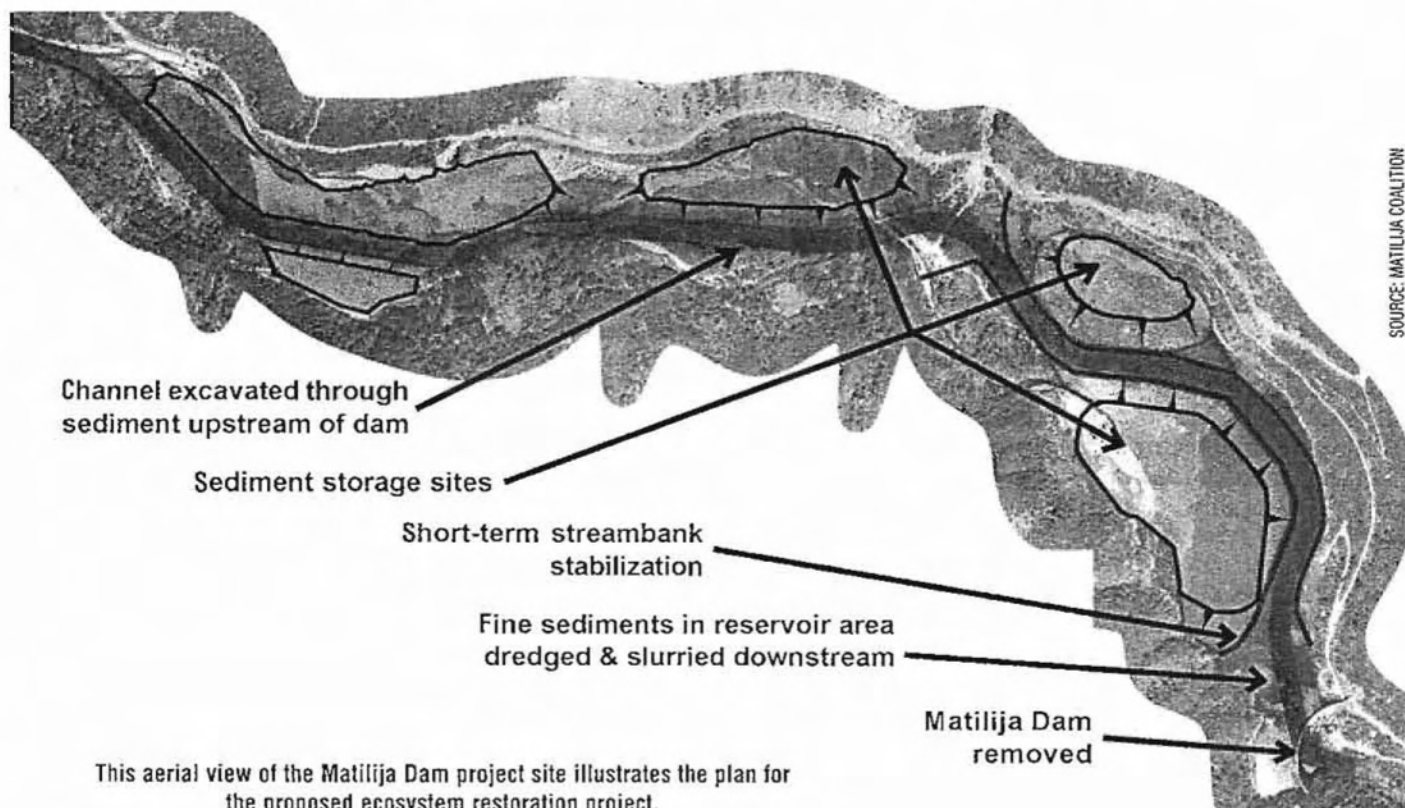
John Johnson, Casitas Municipal Water District, (805)649-2251.

Jeff Pratt, Ventura County Watershed Protection District, (805) 654-2001.

Draft dam removal EIR/EIS, www.matilijadam.org/public-report.htm.



Later: With the dam removed, the Ventura River would once again flow freely to the ocean.



This aerial view of the Matilija Dam project site illustrates the plan for the proposed ecosystem restoration project.

Upon motion of Supervisor MacDonald seconded by Supervisor Laubacher and duly carried, the board hereby approves the following matter:

COURT HOUSE
VENTURA, CALIFORNIA
9300
TELEPHONE 648-6131

LOREN W. ENOCH
COUNTY EXECUTIVE

County of Ventura

State of California

Office of the County Executive

July 1, 1965

Board of Supervisors
Courthouse
Ventura, California

Gentlemen:

Subject: Amendment to Agreement Regarding Matilija Dam.

At the conclusion of the joint meeting of your Board and the Directors of the Ventura River Municipal Water District, on June 9, 1965, this office and the staff of the District were instructed to prepare an amendment to existing agreements regarding Matilija Dam. The conclusions of the June 9 meeting were summarized in a memorandum to members of the Board with copies to the District on June 9, 1965, with the only remaining action to be taken being an amendment to the agreements of May 26, 1954 and April 29, 1958.

The basic provisions of the attached amendment to existing agreements were prepared by the General Manager of Ventura River Municipal Water District, amended by discussions with representatives of the County Executive's Office, and reviewed for legal acceptance by the Office of the District Attorney. The major significance of the proposed provisions of the amendment include:

- - Starting July 15, 1965, the Flood Control District assumes responsibility for Matilija Dam. During the period of modification, it is desirable that one agency be involved rather than attempting to coordinate between the contractor and two agencies.

During this period, the Ventura River Municipal Water District will continue to make payments of principal and interest of outstanding bonds as provided by the agreement of April 29, 1958.

- - Upon completion of the modifications to Matilija Dam and approval of the facility by the State Division of Dam Safety, all provisions of the agreements of May 26, 1954 and April 29, 1958 again become applicable.

Upon completion of modifications, if the facility is not acceptable to the State Division of Dam Safety, removal of the dam becomes a responsibility of the Flood Control District. At the same time, payments on outstanding bonds becomes a responsibility of the Flood Control District.

The Flood District apparently has this responsibility under existing agreements and, therefore, this is not an extension of responsibility over the legal interpretation of existing agreements.

- - If it is found necessary to remove the dam, the Ventura River Municipal Water District retains the right to use the Matilija conduit and related facilities.

These facilities, in the opinion of Public Works, have no value for flood control purposes, and could only be of value to the Ventura River Municipal Water District.

- - The District will participate in the payment of extraordinary premiums for liability insurance coverage up to fifty per cent, or \$41,000 for the first year coverage. If necessary to continue for a second year, the amount of participation by the District is a subject of negotiation.

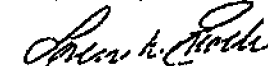
To assist your Board in understanding the subject, attached are the agreements of May, 1954 and April, 1958 in addition to the proposed amendment for the period of modification of Matilija Dam.

With the concurrence of the General Manager of Ventura River Municipal Water District, and the general acceptance of the proposed amendment by the Directors of that District,

IT IS RECOMMENDED:

That the Chairman of the Board of Supervisors of the Flood Control District be authorized to sign the attached agreement.

Very truly yours,



LOREN W. ENOCH
County Executive

LWE:mj

Attachments

I hereby certify that the annexed instrument is a true and correct copy of the document which is on file in this office.

Dated: 7/12/65 ROBERT L. HAMM, County Clerk
and Ex-officio Clerk of the

COPIES TO:
Ventura River Municipal
Water Dist.
DPW (2)
Auditor

THIRD

AMENDMENT TO MATILIJA RENTAL AGREEMENT
DATED MAY 26, 1954, AS AMENDED BY AMENDATORY
AGREEMENT DATED APRIL 29, 1958

(FC-1003/FC-1013)

This amendatory agreement is made this 6th day of July, 1965 by and between Zone 1 of Ventura County Flood Control District, hereinafter called "Flood Control", and Ventura River Municipal Water District, hereinafter called "Water District".

WITNESSETH:

WHEREAS, by agreement between the parties dated May 26, 1954, as amended by an amendatory agreement dated April 29, 1958, hereinafter jointly called the "lease agreement", the Water District was granted exclusive right to the use of Matilija Project facilities for a period of 50 years from January 1, 1959, in consideration of assumption by the Water District of responsibility for the operation and maintenance of said facilities and payment to Flood Control during the initial 20 years of the lease period of annual amounts set forth in a payment schedule based on Flood Control's obligations for bond retirement and interest on the outstanding Matilija Project bonds; and

WHEREAS, tests heretofore conducted at the behest of the State Division of Dam Safety have revealed the existence of deteriorated concrete in the upper 25 feet of Matilija Dam and have indicated the need for additional tests to determine the adequacy of the dam's abutments; and

WHEREAS, the State Division of Dam Safety has issued instructions that the spillway crest of said dam must be lowered prior to the winter of 1965-66 so as to preclude impingement of a water load on the deteriorated portion of the dam; and

WHEREAS, economic studies have indicated that the benefits that would accrue from the operation of Matilija Dam and reservoir with the effective crest lowered to elevation 1095 feet would justify the expenditure required to make such modifications, provided the modified structure then has a remaining useful life of 15 or more years; and

WHEREAS, Flood Control has agreed to undertake necessary modifications and further tests on the dam at its expense provided the Water District continues to make payments pursuant to the established payment schedule during the modification and testing period and shares the cost of extraordinary liability insurance premiums against dam failure during such period; and

WHEREAS, to specifically define the responsibilities of the parties during and subsequent to the modification and test period, it is deemed appropriate to amend the existing lease agreement;

NOW, THEREFORE, IT IS MUTUALLY AGREED by the parties hereto that paragraph 8 is added to the lease agreement to read as follows:

"8 Interim Period.

- a. The provisions of paragraphs 1 through 4 above notwithstanding, commencing July 15, 1965, and continuing thereafter until Matilija Dam is modified in accordance with the requirements of the State Division of Dam Safety, tested, and a final deter-

mination made by said Division of Dam Safety respecting its safety for normal operation at the reduced spillway level, said period of time being referred to hereinafter as the "interim period", Flood Control shall have sole responsibility for Matilija Dam including the use, operation, and maintenance thereof, the performance of structural modifications thereto, and the conduct of tests required by the State Division of Dam Safety to determine the safety of the facility and its abutments. During the interim period the Water District shall be obligated to make annual payments pursuant to paragraph 6 of this agreement.

b. If, upon completion of the required modifications and tests mentioned hereinabove, the State Division of Dam Safety approves the safety of Matilija Dam for continued operation at the modified capacity on an indefinite basis, subject only to such periodic tests as it deems necessary to assure that continued operation of the structure is safe, the interim period shall terminate and all of the provisions of paragraphs 1 through 7 of the lease agreement thereafter shall apply.

c. If, after completion of the structural modification and tests mentioned in subparagraph 8 (a) above, the State Division of Dam Safety fails or refuses to approve the safety of the dam for continued operation on an indefinite basis and orders total or partial removal of

the dam in the interests of public safety, such removal shall be the responsibility of Flood Control, and on the date of issuance of such removal notice, the Water District's obligation to make annual payments pursuant to paragraph 6 of this agreement shall cease and the responsibility of the Water District for operation of Matilija Project insofar as said responsibility pertains to Matilija Dam shall terminate.

d. If the dam is removed pursuant to the conditions outlined in subparagraph 8 (c) above, it is understood and agreed that for the balance of the operating period as defined in paragraph 2 above, the Water District shall retain the right to the use, operation, and maintenance at its expense of all Matilija conduit and related facilities including the right to make such modifications, additions, replacements, and deletions as it deems appropriate.

e. During the test program commencing on or about November 1, 1965, it is expected that the parties hereto will be required to pay extraordinary premiums for \$5,000,000 liability insurance coverage against failure of the dam. The Water District agrees to pay 50 per cent of the first year's premium for such liability insurance, provided that the Water District's contribution toward said first-year insurance premium shall not exceed \$41,000. If the testing program

extends into a second year, the contribution of each
of the parties toward the total required insurance
premium shall be determined by negotiation."

VENTURA COUNTY FLOOD CONTROL DISTRICT

Dated: July 6, 1965

by [Signature]
Chairman, Board of Supervisors

ATTEST:

ROBERT L. HAMM, Clerk of
the Board of Supervisors

By [Signature]
Deputy Clerk

VENTURA RIVER MUNICIPAL WATER DISTRICT

Dated: July 14, 1965

by [Signature]
President, Board of Directors

ATTEST:

[Signature]
Secretary-Treasurer, Ventura
River Municipal Water District

AGREEMENT

THIS AGREEMENT made this 26th day of May, 1954,

1/17/54
amendment
agreement

between the Ventura County Flood Control District, herein called VCFCO, and the Ventura River Municipal Water District, herein called VRMWD, both parties being political subdivisions of the State of California, duly organized, existing and acting pursuant to the laws thereof,

WITNESSETH, THAT:

EXPLANATORY RECITALS

WHEREAS, VCFCO, acting in behalf of Zone 1 thereof has constructed and is operating a water storage and diversion project in Ventura County, California, consisting of Matilija Dam, Matilija conduit to the Ojai Valley, and appurtenances, all of which water development, diversion and appurtenant facilities are collectively referred to herein as the Matilija Project; and

WHEREAS, VRMWD, through arrangements with the United States contemplates the construction and operation of a project in the Ventura River area for the capture, storage, diversion and distribution of water, consisting generally of an earth fill dam on Coyote Creek to create a 250,000 acre foot reservoir, a low rock fill diversion dam on Ventura River north of Mainers Oaks, a 500 cfs diversion conduit from Ventura River to Santa Ana Creek, a tributary of Coyote Creek, and a main conveyance system comprising pipelines, pumping plants and reservoirs as required to convey water to each sub-area in the territory of VRMWD, which project is referred to herein as the Ventura River Project; and

WHEREAS, the combined safe yield and benefits to be derived from the Matilija Project and Ventura River Project will be substantially increased through the integrated operation of said Projects; and

WHEREAS, from its inception the Matilija Project has been considered to be one unit of a multiple unit project to be operated in conjunction with other facilities; and

WHEREAS, it is anticipated that the proposed repayment contract between the United States and VRMWD will provide for operation of Ventura River Project by VRMWD; and

WHEREAS, '1 of the property within Zone 1 of VCFCO which can be benefited by the operation of the Matilija Project lies within the territory of VRMWD; and

WHEREAS, because of the considerable advantage which would accrue from the integrated operation of the two projects the parties have determined that it is in the interests of each of them and in the public interest to enter into the cooperative arrangements provided for below;

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, it is hereby mutually agreed by the parties hereto as follows:

1. Upon completion of the Ventura River Project for operation by VRMWD within a reasonable time VRMWD shall have responsibility for operation and maintenance of the Matilija Project, and in connection therewith shall have exclusive right to possession thereof.

2. Such responsibility for operation of the Matilija Project by VRMWD shall continue for a period of 50 years thereafter, herein called the operating period. 2009 AD

3. In carrying out such responsibility during the operating period VRMWD shall, at its own expense, operate the Matilija Project and maintain the Matilija Project in good operating condition, ordinary depreciation, obsolescence and siltation excepted.

4. During the operating period VRMWD shall have the right in its own name to make disposition of water actually appropriated for or by the Matilija Project, to make contracts for the sale thereof, and to retain any and all revenues received therefrom or on account thereof.

5. During each year of the operating period VRMWD shall make available to residents of Zone 1 of VCFCO not less water than may be required by law and not less water than is fairly attributable to the Matilija Project under integrated operation of the two projects. During the operating period VRMWD shall not grant more favorable rates for the same type, class and condition of service to areas served by it, if any lying outside the territory

of Zone 1 of VCFCD than to the territory served by it within the territory of Zone 1 of VCFCD.

6. At the end of each year during the operating period VRWD shall pay to VCFCD for the use and benefit of Zone 1 thereof an annual rental or charge for such year equal in amount to the amount of principal and interest payable during such year by VCFCD on account of bonds of VCFCD heretofore issued on behalf of Zone 1 thereof.

7. Nothing contained herein shall vest in VRWD any title to the Matilija Project or the features thereof, and at the end of the operating period the possession, control and responsibility for operation thereof shall be returned to VCFCD unless otherwise agreed in writing by the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto affixed their names the day and year hereinabove written.

Attest:

Charles E. Pitt
Secretary, Ventura River
Municipal Water District

VENTURA COUNTY FLOOD CONTROL DISTRICT

By

Chairman, Board of Supervisors

VENTURA RIVER MUNICIPAL WATER DISTRICT

By

George M. Purvis
President, Board of Directors

Attest:

L. E. HALLOWELL, CLERK

BY DEPUTY CLERK

Chairman, Board of Supervisors
Ventura County (California)
Flood Control District

AMENDATORY AGREEMENT

THIS AGREEMENT made this 20th day of April, 1958 between VENTURA COUNTY FLOOD CONTROL DISTRICT, called "VCFCO", and VENTURA RIVER MUNICIPAL WATER DISTRICT, called "VRMWD";

WITNESSETH:

WHEREAS the parties hereto executed a written agreement dated May 26, 1954, covering operation and maintenance of and the exclusive right to water from the Matilija Project by VRMWD and payment by VRMWD of an amount equal to the principal and interest on bonds outstanding on behalf of Zone 1 of VCFCO; and

WHEREAS it is desirable to amend said agreement as provided below to make it more definite and certain;

NOW, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

1. Paragraph 1 of said agreement is hereby amended to read as follows:

"1. On January 1, 1959 VRMWD shall have responsibility for operation and maintenance of the Matilija Project, and in connection therewith shall have exclusive right to possession thereof."

2. Paragraph 6 of said agreement is hereby amended to read as follows:

"6. As payment in full for rental of project facilities for the 50-year operating period, VRMWD shall pay to VCFCO for the use and benefit of Zone 1 thereof in meeting obligations with respect to principal and interest on bonds heretofore issued by VCFCO on behalf of Zone 1 the sum of \$2,388,750 in installments, without interest, as follows:

<u>DATE</u>	<u>AMOUNT</u>	<u>DATE</u>	<u>AMOUNT</u>
6-1-59	\$126,250	6-1-70	\$ 112,500
6-1-60	125,000	6-1-71	111,250
6-1-61	123,750	6-1-72	110,000
6-1-62	122,500	6-1-73	108,750
6-1-63	121,250	6-1-74	107,500
6-1-64	120,000	6-1-75	106,250
6-1-65	118,750	6-1-76	105,000
6-1-66	117,500	6-1-77	103,750
6-1-67	116,250	6-1-78	102,500
6-1-68	115,000	6-1-79	101,250

3. Effective January 1, 1959 VRMWD is authorized and will use its best efforts to collect from third persons amounts payable or becoming payable to VCFCD on account of unpaid meter installation charges contracted prior to January 1, 1959 in connection with sales or contracts for sale of water from the Matilija Project, and VRMWD will pay to VCFCD amounts so collected.

4. In its operation of the Matilija Project, VRMWD agrees:

a. Not to divert or store water in such amounts or at such times as will interfere with vested water rights held by third persons, which are prior or superior to water rights held by either of the parties to this agreement.

b. To continue the following operating procedures of VCFCD until such time as the parties hereto agree that the operation of the Matilija Project and the Ventura River Project as an integrated project furnishes an adequate water supply for those areas of VCFCD Zone I presently served by the Matilija Project:

1. Spread water in the Ojai Spreading Grounds to the full capacity of the existing conduit when Matilija Reservoir is overflowing.
2. When Matilija Reservoir is not overflowing, deliver from water stored behind said dam for either spreading or direct sales 600 acre feet of water per year to the Ojai Area and 1200 acre feet of water per year to the Ventura River Area.

THIS AGREEMENT made this 23rd day of Sept., 1958, between
VENTURA COUNTY FLOOD CONTROL DISTRICT, called "VCFCD", and VENTURA
RIVER MUNICIPAL WATER DISTRICT, called "VRMWD":

WITNESSETH:

WHEREAS, on November 15, 1957, the United States of America, VCFCD
and VRMWD entered into an agreement which provided among other things that upon
request of the United States, VCFCD would grant to the United States a permanent
easement to make certain modifications of the Matilija Chlorination Station of the Matilija
Project Works; and

WHEREAS, at the time said agreement was executed it was expected that the
modification of the existing Matilija Chlorination Station would be performed by the
United States, but the United States and VRMWD have now agreed that such modifica-
tion shall be made by VRMWD; and

WHEREAS, by agreement between VRMWD and VCFCD dated May 26, 1954,
and amendment thereto dated April 29, 1958, control of the Matilija Project will be
transferred to VRMWD effective January 1, 1959; and

WHEREAS, it is desirable that required modification of the existing Matilija
Chlorination Station be completed prior to the transfer date of January 1, 1959;

NOW, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

1. Paragraph 1 of said agreement dated May 26, 1954, as amended, is here-
by further amended to read as follows:

"1. (a) On January 1, 1959, VRMWD shall have responsibility
for operation and maintenance of the Matilija Project, and in connection
therewith shall have exclusive right to possession thereof.

"(b) Effective upon the execution of this amendatory agreement,
VRMWD shall have exclusive possession of the existing Matilija Chlor-
ination Station and shall have authority to make such modifications of
and additions to said station as are deemed necessary by VRMWD to
permit the successful integration of Matilija and Ventura River Project."

IN WITNESS WHEREOF, the parties hereto have hereunto affixed their names

the day and year hereinabove written.

VENTURA COUNTY FLOOD CONTROL DISTRICT

By Edmund L. Lait
Chairman, Board of Supervisors

ATTEST:
L. E. HALKOWELL, CLERK

By William H. Hark
Deputy Clerk

VENTURA RIVER MUNICIPAL WATER DISTRICT

By George M. Purvis
President, Board of Directors

ATTEST:

Charles W. Pettit
Secretary, Ventura River Municipal
Water District

BOARD OF SUPERVISORS, VENTURA COUNTY FLOOD CONTROL DISTRICT

TUESDAY, SEPTEMBER 23, 1958, AT 2:35 O'CLOCK P.M., FIRST
PRESENT: SUPERVISORS EDWIN L. CARTY, CHAIRMAN, PRESIDING
A. C. AX, JOSEPH N. APPLETON, C. H. ANTONIO AND L. A. PRICE
L. E. HALLOWELL, CLERK; ST. CLAUDE JONES, DEPUTY

+ + + AND SUPERVISOR ROBERT C. HALEY + + +

FC-1013
FC-1003.21

AUTHORIZING CHAIRMAN TO SIGN AMENDATORY AGREEMENT
WITH VENTURA RIVER MUNICIPAL WATER DISTRICT RE
TRANSFER OF MATILJA CHLORINATION STATION

An agreement in duplicate counterparts, dated September
23, 1958, by and between Ventura County Flood Control District
and Ventura River Municipal Water District, for transfer of
Matilja Chlorination Station to the Ventura River Municipal
Water District, is presented to the Board, and it appearing
to the Board that said agreement has been approved by the
District Attorney as to form and legality, upon motion of
Supervisor Ax, seconded by Supervisor Haley, and duly car-
ried, it is ordered and directed that said agreement is
hereby approved, that the Chairman of this Board sign said
agreement for and on behalf of the Ventura County Flood Con-
trol District, and the Clerk attest the same and affix thereto
the Seal of the Board.

STATE OF CALIFORNIA }
County of Ventura }

I, L. E. HALLOWELL, County Clerk and ex-officio Clerk of the Board of
Supervisors of the Ventura County Flood Control District, State of California, do
hereby certify the above and foregoing to be a true and correct copy of an ex-
cerpt from the minutes of said Board of Supervisors for the meeting of the date
first above indicated.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of
said Board to be affixed this 3rd day of September 1958

ATTEST: L. E. HALLOWELL, Clerk

By: *[Signature]* Deputy

BOARD OF SUPERVISORS FLOOD CONTROL DISTRICT

RECEIVED COPIES

Public Works (2)
District Attorney (2) (100)
File (2)
Item FC-2
9-23-58