

MATILJA DAM STUDIES

Agenda Item IV.

October 26, 2000

Exhibit 2

COASTAL CONSERVANCY

Project Summary
October 26, 2000

MATILIJA DAM STUDIES

File No. 99-099
Project Manager: Neal Fishman

RECOMMENDED ACTION: Authorization to: 1) disburse up to \$1,625,000 for consultant services, including but not limited to services from the United States Bureau of Reclamation and other federal agencies, to study the feasibility of removing the Matilija Dam on Matilija Creek, a tributary of the Ventura River and 2) disburse up to \$125,000 to the Institute for Fisheries Resources, a nonprofit organization, to study the feasibility of, and process for, removing the Matilija Dam.

LOCATION: Ventura County, on the Ventura River at the Matilija Dam on Matilija Creek, a tributary of the river, approximately 16 miles from the river mouth (Exhibits 1 & 2)

PROGRAM CATEGORY: Resource Enhancement

ESTIMATED COST: Matilija Dam Feasibility Studies (current phase)

U.S. Bureau of Reclamation	\$200,000
Army Corps of Engineers	\$150,000
United States Geological Service	\$200,000
County of Ventura (in-kind)	\$35,000
Coastal Conservancy (Salmon Funds)	\$1,000,000
Wetlands Recovery Project	\$750,000

PROJECT SUMMARY: Staff recommends that the Coastal Conservancy authorize disbursement of funds for various studies to determine the feasibility of removing the Matilija Dam on the main stem of Matilija Creek.. This dam is a major blockage to anadromous fish passage in the Ventura River system. It also blocks the flow of sediments in the system. This impacts both upstream and downstream wetland and riparian habitat and the supply of sand to nourish beaches south of the mouth of the Ventura River. The dam has also blocked and inundated fish spawning

and rearing areas upstream. The project is a part of the work plan for the Southern California Wetlands Recovery Project. Additionally, since the dam holds back several million cubic yards of sediment, the project has been discussed by the Coastal Sediments Management Group as a possible source of sand for beach nourishment.

Built in 1947, the Matilija Dam was intended for both water supply and flood control. Since its construction the reservoir behind the dam has filled with sediments. Engineering reports in the 1960s led to the notching of the dam to remove weak concrete sections. These two factors reduced the capacity of the reservoir to only 500 acre feet from its original 7,000 acre feet. This lack of current utility and the above mentioned negative environmental impacts has led to a call for its removal.

Matilija Dam is a relatively large concrete arch dam. It is nearly 200 feet high from bedrock to its highest point. It spans over 600 feet at the top. There has been little or no experience in the United States in removing a dam this large. Moreover, this dam is in a remote area accessible only over a narrow road. If the dam were removed all at once there would be extreme risk that sediments now stored behind it would quickly wash downstream in a major storm. This could destroy existing habitat. It would likely raise floodplain elevations along the Ventura River, putting life and property at risk.

The proposed funding would be used to carry out studies to determine ways to economically remove the dam, probably over time. This is a continuation of various studies which have been recently completed by the Bureau of Reclamation, the U.S. Army Corps of Engineers (Corps), the U.S. Fish and Wildlife Service and the U.S. Geological Service (USGS). It also follows from a study partially funded by the Conservancy through the Southern California Wetlands Recovery Project to remove a small portion of the dam to test and demonstrate deconstruction methodologies and cost.

The studies to be completed under this recommendation would include a complete profile of the sediments behind the dam and characterization of the historic and current channel of the river. It would also include new hydrological analysis. Once completed information from these studies will be used to further refine the potential methodologies for removing the dam and moving the sediment. Environmental studies will then be undertaken which will lead to a decision on a specific projects.

COASTAL CONSERVANCY

Staff Recommendation
October 26, 2000

MATILIJA DAM STUDIES

File No. 99-099
Project Manager: Neal Fishman

STAFF

RECOMMENDATION: Staff recommends that the State Coastal Conservancy adopt the following Resolution pursuant to Sections 31250-31270 of the Public Resources Code:

“The State Coastal Conservancy hereby: (1) authorizes disbursement of an amount not to exceed one million six hundred twenty-five thousand dollars (\$1,625,000) for consultant services, including but not limited to services from the United States Bureau of Reclamation and other federal agencies, to study the feasibility of removing the Matilija Dam on Matilija Creek, a tributary of the Ventura River; and (2) authorizes disbursement of funds not to exceed one hundred twenty-five thousand dollars (\$125,000) to the Institute for Fisheries Resources, a nonprofit organization, to study the feasibility of, and process for, removing the Matilija Dam, subject to the condition that prior to disbursement of funds to the Institute for Fisheries Resources, the Institute shall submit to the Executive Officer of the Conservancy a detailed budget and work program.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorizations are consistent with Public Resources Code Section 31251 of the Public Resources Code which authorizes the Conservancy to award grants to local public agencies and nonprofit organization for the purpose of developing corrective measures to enhance coastal resources;
2. The project is consistent with Public Resource Code Section 31251.2 which authorizes the Conservancy to

award grants to enhance the natural character of coastal resources by enhancing a watershed which is partly inside and partly outside of the coastal zone;

3. The project is consistent with the Interim Project Selection Criteria and Guidelines adopted by the Conservancy on May 27, 1999; and
4. The Institute for Fisheries Resources is a private non-profit organization existing under the provisions of Section 501(c)(3) of the United States Internal Revenue Code and having among its principal charitable purposes the preservation of land for scientific and educational opportunities.”

STAFF DISCUSSION:

Project Description: This project involves various studies to determine the feasibility of removing the Matilija Dam on the main stem of Matilija Creek. This is a continuation of studies which were partially funded by the Conservancy early this year through the Southern California Wetlands Recovery Project on January 27, 2000 (Exhibit 3). This dam is a major blockage to passage of the endangered southern California steelhead (*Oncorhynchus mykiss*) in the Ventura River system. It is estimated that approximately 50 percent of the historic steelhead habitat and production of the Ventura River system is above the Matilija Dam. It also blocks the flow of sediments in the system. This impacts both upstream and downstream wetland and riparian habitat and the supply of sand to nourish beaches south of the mouth of the Ventura River. The dam has also blocked and inundated fish spawning and rearing areas upstream.

Built in 1947, the Matilija Dam was intended for both water supply and flood control. Since its construction the reservoir behind the dam has filled with sediments. Engineering reports in the 1960s led to the notching of the dam to remove weak concrete sections. These two factors reduced the capacity of the reservoir to only 500 acre feet from its original 7,000 acre feet. This lack of current utility and the above mentioned negative environmental impacts has led to a call for its removal.

Matilija Dam is a relatively large concrete arch dam. It is nearly 200 feet high from bedrock to its highest point. It spans over 600 feet at the top. There has been little or no experience in the United States in removing a dam this large. Moreover, this dam is in a remote area accessible only over a narrow road.

If the dam were removed all at once there would be extreme risk that sediments now stored behind it would quickly wash downstream in a major storm. This could destroy existing habitat. It would likely raise floodplain elevations along the Ventura River, putting life and property at risk.

The proposed funding would be used to carry out studies to determine ways to economically remove the dam. This is a continuation of various studies which have been recently completed by the U.S. Army Corps of Engineers, Bureau of Reclamation, the U.S. Fish and Wildlife Service and the U.S. Geological Service (USGS). It also follows from a study partially funded by the Conservancy on January 27, 2000, through the Southern California Wetlands Recovery Project to remove a small portion of the dam to test and demonstrate deconstruction methodologies and cost.

The studies to be completed under this recommendation would include a complete profile of the sediments behind the dam and characterization of the historic and current channel of the river. There would also be new hydrological analysis and continuing biological studies. Once completed, information from these studies will be used to further refine the potential methodologies for removing the dam and moving the sediment. Environmental studies will then be undertaken which will lead to a decision on a specific projects.

The Institute for Fisheries Resources would participate in the design of the various studies and in informing the public about the project. The Institute, which was recently awarded a grant by the Conservancy to study the San Clemente Dam on the Carmel River, would use its experience working on other dam removal studies, most notably the Elwa Dam in Washington State, to ensure both cost control and technical proficiency in the studies to be completed for Matilija. The Institute would also undertake a public information process to ensure that people who might be affected by the removal of the dam would be informed of its benefits and any risks.

Project Financing: The funding for the Matilija studies would be from a combination of federal and State funds. The majority would come from the Conservancy. One million dollars would come from Proposition 12 funds for salmon habitat. Seven hundred fifty thousand dollars would come from the Southern California Wetlands Recovery Project which had previously authorized funding for this project at up to \$1,000,000. The Bureau of Reclamation would provide project management valued at approxi-

mately \$200,000. A similar amount of funding is expected from the U.S. Geological Service and possibly from the U.S. Fish and Wildlife Service. The U.S. Army Corps of Engineers would also provide approximately \$150,000.

Except for a grant to the Institute for Fisheries Resources, all of the Conservancy's funding would be in the form of consulting contracts, not grants or cooperative agreements with the federal agencies. The grant to the Institute will enable it to assist in the development of the project using its considerable experience with similar projects, chief among them being the Elwa Dam complex in Washington state, which has similar sediment problems to the Matilija. It will take a lead role in the development of work programs for the project and public participation, and in the review of all studies and plans.

It is expected that the bulk of the work will be accomplished through an interagency agreement between the Conservancy and the Bureau of Reclamation using their existing scientific and technical team. Unlike similar projects that the Conservancy has undertaken, the costs associated with this project will only include direct study expenses. Project management and indirect costs will not be charged by the federal agencies. This approach is expected to save time and money on the project. However, if the project eventually goes to implementation, there is no guarantee that these initial feasibility costs will be considered by federal agencies as part of a required project match unless this is written into the authorizing legislation for the project.

It is also possible that local contractors may carry out some of the work. If needed, experts in sediment transport, engineering, or other disciplines will be hired as consultants to the process.

Site Description: The Matilija Dam is approximately 16 miles upstream from the mouth of the Ventura River. It stretches across a relatively narrow and steep canyon. Much of the original extent of the reservoir behind the dam has been filled with sediment. A jumble of native and nonnative riparian forest has grown up upstream of the still-existing lake behind the dam. This includes the giant invasive reed *Arundo donax* and other nonnative plants which have been steadily populating California rivers and streams. Future projects will eventually include eradication of these plants and replacement with native species.

Downstream of the dam the Ventura River system is hardly pristine. The Robles Diversion Dam, which takes water from

Matilija Creek, also constitutes a blockage to fish passage, albeit a much smaller one. This dam diverts water to another tributary of the Ventura River where it is stored in Casitas Lake. Any project to remove the dam and reinstate natural sediment flow will have to divert this around the Robles Dam.

Further downstream the river system still provides spawning and rearing habitat for fish. It also contains wetlands of various types. A project to build a fish ladder and related devices on the Robles Diversion is now in the final planning stages. In the next few months, staff expects that it will recommend to the Conservancy that it provide partial construction funding for this project.

Project History: In 1997, the southern California steelhead were listed as endangered under the federal Endangered Species Act. The Ventura River was included in this listing. The Matilija Dam and the Robles Diversion were identified by the California Department of Fish and Game as major impediments to steelhead migration.

The Matilija Dam was constructed in 1947 by the Ventura County Flood Control District for both flood control and water supply. Over the years it served these functions relatively well but filled with sediment, especially after major fires upstream. In 1965 an engineering report showed that the top of the dam was corroding. The report recommended notching it. This was done in two stages. This lowering of the dam by 30 feet along with sedimentation has reduced the dam's capacity from 7,000 acre feet to only about 500 acre feet today.

Interest in removing the dam gained speed in 1999. Through the efforts of Congressman Gallegly, the U.S. Army Corps of Engineers received an appropriation of \$100,000 to develop a reconnaissance study. The Bureau of Reclamation and the USGS also began looking at the removal of the dam as did the County Department of Public Works. The County Board of Supervisors has endorsed removal of the dam.

During 1999 and most of this year, the Bureau of Reclamation completed an extensive appraisal study for removing the dam. This included estimating the full sediment load behind the dam and analyzing surface sediments. The USGS, along with the Fish and Wildlife Service, conducted field studies of plant and animal species above and below the dam and began work on characterizing the channel.

It is now estimated that the reservoir behind the dam holds 6,000,000 cubic yards of sediment. This is expected to include soils, rocks, and boulders of varying sizes. Clearly, the management of this sediment load is one of the key issues for removing the dam. How it is managed will affect the cost of the project, the safety of people and property downstream, and the habitat value of the lower river.

To fully explore ways to manage sediment will require analysis of the material behind the dam, the amount of water which flows through the system in various cycles, and the capacity of the channel. It will also require an analysis of the environmental impacts of various methodologies.

PROJECT SUPPORT: This project is supported by a wide range of public agencies, elected officials and environmental groups and has been given high priority by the Southern California Wetland Recovery Project (Exhibit 4).

**CONSISTENCY WITH
CONSERVANCY'S
ENABLING LEGISLATION:**

The proposed funding authorization is consistent with Section 31251 of the Public Resources Code which authorizes the Conservancy to award grants to local public agencies and nonprofit organizations to enhance coastal resources which have “suffered loss of natural and scenic values” due to the “improper location of improvements” and other “human-induced events”. The Matilija project will enhance the natural character of coastal resources by increasing the supply of sand and the recovery of the endangered southern California steelhead.

The proposed funding authorization is also consistent with Section 31251.2 which authorizes the Conservancy to undertake a project or award grants to enhance watershed resources which are partly inside and partly outside of the coastal zone in order to enhance coastal resources within the coastal zone. The Ventura River system is a watershed resource which is partly inside and partly outside of the coastal zone. The project will enhance this resource by leading to the eventual removal of the Matilija Dam. Anadromous fish, wetlands, and beaches are the resources in the Coastal Zone which will benefit from the project. A resolution requesting Conservancy involvement in both the Matilija and Robles projects has been adopted by the Ventura County Board of Supervisors (Exhibit 5).

CONSISTENCY WITH
CONSERVANCY'S
PROGRAM GUIDELINES:

The proposed project is consistent with the Conservancy's Interim Program Guidelines adopted May 27, 1999, in the following respects:

Required Criteria

Promotion of the Conservancy's statutory programs: As noted above both the Matilija project is consistent with Chapter 6 of Division 21, the Conservancy's resource enhancement program.

Consistency with the proposed funding source: The projects will use funding from Proposition 12, Section 5096.352(e) which may be used "for direct expenditure and for grants to public agencies and nonprofit organizations to protect, restore, acquire, and enhance habitat for salmon." The project will restore or enhance habitat for the southern California steelhead (*Oncorhynchus mykiss*), part of the salmonid family, and which is identified as a salmon by the National Marine Fisheries Service, being anadromous and identified within the same genus as all other salmon species.

The Matilija Dam project also will use part of an appropriation from the State General Fund for the Southern California Wetlands Recovery Project. The governing board of the Recovery Project has placed this project on their high priority list. The removal of the dam and the reestablishment of sand flows down the river will greatly benefit wetlands along the stream and in the Ventura River estuary.

Support: This project is widely supported by local and state political leaders, public agencies, and the environmental community. There have been no opposing voices.

Location: The Matilija Dam is 16 miles from the ocean; however, the benefits of the project directly affect the ocean and coastal resources.

Need: Approximately \$400,000 of federal money is being expended over the next year on the Matilija project. No local money is available. Without Conservancy participation to ensure that the feasibility studies are completed it is likely that this project will not progress. The research from this effort is critical to determining how to proceed.

Additional criteria:

Urgency: These projects are designed to improve habitat for the endangered Southern California steelhead. Measures to protect endangered species are urgent. Additionally, there is a fleeting opportunity for real cooperation between the federal and State governments to deal with the Matilija Dam. It is urgent that the State provide some of the support for this project.

Greater-than-local interest: These projects have the support of state and local politicians and Congressman Gallegly. They are also supported by Secretary for the Interior Babbitt. They are strongly supported by many statewide environmental groups.

Resolution of more than one issue: Removal of the Matilija dam would help to resolve loss of wetland and riparian habitat, the decline of the steelhead, and loss of beaches.

Innovation: The feasibility work on the Matilija dam is designed to determine the best, most cost effective method for removing the dam. Innovation may well be the result of these efforts.

Realization of prior Conservancy goals: The Matilija project will help to further the goals of the Southern California Wetlands Recovery Project, which was created by the Resources Agency and is administered by the Conservancy. The Recovery Project previously funded the demonstration project for the Matilija Dam.

Cooperation: Work on the Matilija Dam will be completed using a consulting team from the USGS, Bureau of Reclamation, and the U.S. Fish and Wildlife Service. The County of Ventura will also assist with coordination and advice on a technical advisory team. This team also includes the Department of Fish and Game and other public agencies. The Institute for Fisheries Resources will also be part of the advisory team and will take a leading role in project development.

**CONSISTENCY WITH
THE COASTAL ACT:**

Although the actual work to be completed under this authorization will be done outside of the coastal zone, and no coastal development permit is required for either project, the end result of this work, the ultimate removal of Matilija Dam, is consistent with the Coastal Act. Section 30231 requires that “biological productivity of coastal waters, streams, wetlands, estuaries . . . be maintained and where feasible, restored. . . .” This

project is intended to lead to the restoration of such coastal biological resources.

CONSISTENCY WITH
LOCAL COASTAL
PROGRAM POLICIES:

The project is consistent with the Ventura County Local Coastal Program policy that requires the county to “work in close cooperation with other agencies and jurisdictions to provide comprehensive and biologically sound management of coastal wetlands.” Both of these projects will have positive impacts on the water quality and biological productivity of the Ventura River system, including its wetland and riparian areas.

COMPLIANCE
WITH CEQA:

The proposed feasibility studies for the Matilija Dam will only involve data collection which will not result in a serious or major disturbance to an environmental resource. Therefore, the project is categorically exempt pursuant to 14 California Code of Regulations Section 15306. Upon approval, staff will file a notice of exemption for this project.

EXHIBIT 3

January 27, 2000 Staff Recommendation

COASTAL CONSERVANCY

Project Summary
January 27, 2000

**MATILIJA DAM DEMONSTRATION/
EVALUATION PROJECT**

File No. 99-099
Project Manager: Neal Fishman

RECOMMENDED ACTION: Authorization to grant funds to the County of Ventura to carry out a demonstration/evaluation project to determine methods for, and impacts of, removing the Matilija Dam on Matilija Creek, a tributary of the Ventura River.

LOCATION: Ventura County, Matilija Creek, approximately 16 miles from the mouth of the Ventura River (Exhibit 1)

PROGRAM CATEGORY: Resource Enhancement

ESTIMATED COST:	Southern California Wetlands Recovery Project:	\$200,000
	Army Corps of Engineers	100,000
	U.S. Bureau of Reclamation and U.S. Geological Service	280,000
	County of Ventura (in-kind) @	<u>35,000</u>
	Total Project Cost:	\$615,000

PROJECT SUMMARY: This project involves various studies to determine the feasibility of removing the Matilija Dam on Matilija Creek, a tributary of the Ventura River (Exhibit 2). The dam is a major blockage to anadromous fish passage in the Ventura River system, especially the endangered steelhead trout. It also blocks the flow of sediments in the system. This impacts both upstream and downstream wetland and riparian habitat and the supply of sand to nourish beaches south of the mouth of the Ventura River. The dam has also blocked and inundated fish spawning and rearing areas upstream.

Built in 1947, the Matilija Dam was intended for both water supply and flood control. Since its construction the reservoir behind the dam has filled with sediments. Engineering reports in the 1960s led to the notching of the dam to remove weak

concrete sections. These two factors reduced the capacity of the reservoir to only 500 acre-feet from its original 7,000 acre-feet. This lack of current utility and the above mentioned negative environmental impacts has led to a call for its removal.

Matilija Dam is a relatively large concrete arch dam. It is nearly 200 feet high from bedrock to its highest point. It spans over 600 feet at the top (Exhibit 3). There has been little or no experience in the United States in removing a dam this large. Moreover, this dam is in a remote area accessible only over a narrow road. If the dam were removed all at once there would be extreme risk that sediments now stored behind it would quickly wash downstream in a major storm. This could destroy existing habitat. It would likely raise floodplain elevations along the Ventura River, putting life and property at risk.

The proposed funding will be used by the County of Ventura to carry out studies to determine ways to economically remove the dam, probably over time. The County will attempt to move construction equipment to the dam site and remove an upper portion of the dam which does not now hold back water (Exhibit 4). They will determine methods and costs for removing these small portions of the dam.

This pilot project will be completed concurrent with studies carried out by the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation and U.S. Geological Survey. These studies will determine potential impacts downstream from various amounts and types of sediment releases. They will also determine the types of sediments behind the dam and the topography of the original channel.

Upon completion of the County's studies, funded by the Conservancy and the various federal studies, a task force will determine whether to go ahead with a full-blown feasibility study to decide on a long term solution.

Due to the impacts of the dam on wetland habitat, both in the river channel and at the mouth, the project has been given a high priority by the Southern California Wetlands Recovery Project (SCWRP). The proposed funding will come from money appropriated for the SCWRP.

COASTAL CONSERVANCY

Staff Recommendation
January 27, 2000

**MATILIJA DAM DEMONSTRATION/
EVALUATION PROJECT**

File No. 99-099
Project Manager: Neal Fishman

STAFF

RECOMMENDATION: Staff recommends that the State Coastal Conservancy adopt the following Resolution pursuant to Sections 31251, 31251.2 and 31252 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes disbursement of an amount not to exceed two hundred thousand dollars (\$200,000) to the County of Ventura for a feasibility study on removing concrete segments of the Matilija Dam, as more specifically discussed in the accompanying staff recommendation, subject to the following conditions:

1. Prior to disbursement of funds the County shall submit for review and approval of the Executive Officer of the Conservancy a work program, including schedule and budget for the activities to be undertaken and the names and qualifications of any subcontractors the County intends to use for the project; and
2. This feasibility project shall not change the flows or water quality of Matilija Creek.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Public Resources Code Section 31251 of the Public Resources Code which authorizes the Conservancy to award grants to local public agencies for the purpose of developing corrective measures to enhance coastal resources;
2. The project is consistent with Public Resource Code Section 31251.2 which authorizes the Conservancy to

award grants to enhance the natural character of coastal resources by enhancing a watershed which is partly inside and partly outside of the coastal zone; and

3. The project is consistent with the interim Project Selection Criteria and Guidelines adopted by the Conservancy on May 27, 1999.”

STAFF DISCUSSION:

Project Description: This project is a first step in enhancing the watershed resources of the Ventura River system, including wetlands, riparian habitat, anadromous fishery, and sand transport, by studying the removal of the Matilija Dam. The Matilija Dam blocks Matilija Creek, the main tributary stream of the Ventura River. This blockage has been a major cause of the decline of the now endangered steelhead trout, whose spawning numbers in the stream system have dropped from several thousand to perhaps 100 or less. The dam blocks fish passage to upstream spawning and rearing habitat. It also blocks passage of sand downstream. Sand is needed downstream to nourish beaches. It is also needed for wetlands and riparian habitat both in the stream and at the mouth of the river. The channel and associated wetlands are being degraded for lack of sediment.

The proposed funding to the County of Ventura will be used to carry out studies designed to determine the most efficient ways of removing portions of the dam. The County will use explosives, corrosives, and mechanical means to remove blocks of concrete from the dam. The blocks to be removed will be from the sides on the dam and well above the current water line.

The County will also use various means to remove these blocks from the dam site. A large crane will be moved to the site to lift blocks. Helicopters will also be used. Some blocks will be transported from the site for processing into construction materials. Some may be processed at the site. Taken as a whole these studies will be critical to determine the feasibility of an overall project to remove the dam.

These studies will be done by the County of Ventura Public Works Department in close consultation with a technical advisory committee and with the Army Corps of Engineers, U.S. Geological Survey (USGS), and Bureau of Reclamation. These Federal agencies will carry out their own independent but coordinated studies of other aspects of the project. The Army Corps will be doing a first stage reconnaissance study of the

stream system. This will include review of existing documentation on the dam and an initial engineering study. The Bureau and USGS will carry out studies of downstream habitat and will characterize the sediment and historic channel behind the dam.

Taken together these studies, including the County's work under this proposed grant, will be the basis for a feasibility study, perhaps jointly carried out by the Corps and Bureau. The Conservancy or the Wetlands Recovery Project may be asked to join in the study or fund a portion of it. This recommendation, if approved, does not constitute a commitment to participate further.

The proposed grant will use funding appropriated for the Southern California Wetlands Recovery Project. The removal of the dam will have positive impacts on the watershed and wetland resources of the Ventura River System. Increased sand movement through the system will help to build up wetlands along the channel and floodplain and at the estuary at the mouth of the river. These have been steadily degrading over past decades. The governing board of the Recovery Project has given this project a high priority for funding.

Project Financing: The experimental concrete removal project will be funded through the Wetlands Recovery Project. The County of Ventura will handle all permitting and management of the activities. This is an in-kind contribution estimated at approximately \$35,000.

The concurrent work of the Army Corps of Engineers, Bureau of Reclamation, and USGS is estimated to cost approximately \$400,000.

Site Description: The Matilija Dam is approximately 16 miles upstream from the mouth of the Ventura River. It stretches across a relatively narrow and steep canyon. Much of the original extent of the reservoir behind the dam has been filled with sediment. A jumble of native and nonnative riparian forest has grown up upstream of the still existing lake behind the dam. This includes the giant invasive reed *Arundo donax* and other nonnative plants which have been steadily populating California rivers and streams. Future projects will eventually include eradication of these plants and replacement with native species.

Downstream of the dam the Ventura River system is hardly pristine. The Robles Diversion Dam, which takes water from

Matilija Creek, also constitutes a blockage to fish passage, albeit a much smaller one. This dam diverts water to another tributary of the Ventura River where it is stored in Casitas Lake. Any project to remove the dam and reinstate natural sediment flow will have to divert this around the Robles Dam. This is thought to be technically feasible and of a lesser order of engineering than the dam removal and initial sediment management.

Further downstream the river system still provides some spawning and rearing habitat for fish. It also contains wetlands of various types.

Project History: The Matilija Dam was constructed in 1947 by the Ventura County Flood Control District for both flood control and water supply. Over the years it served these functions relatively well but filled with sediment, especially after major fires upstream. In 1965 an engineering report showed that the top of the dam was corroding. The report recommended notching it. This was done in two stages. This lowering of the dam by 30 feet along with sedimentation has reduced the dam's capacity from 7,000 acre-feet to only about 500 acre-feet today.

Interest in removing the dam gained speed in 1999. Through the efforts of Congressman Gallegly, the Army Corps received an appropriation of \$100,000 to develop a reconnaissance study. The Bureau of Reclamation and the USGS also began looking at the removal of the dam as did the County Department of Public Works. The County Board of Supervisors has endorsed removal of the dam.

PROJECT SUPPORT: This project is supported by a wide range of public agencies, elected officials and environmental groups and has been given high priority by the Southern California Wetland Recovery Project (see Exhibit 5).

**CONSISTENCY WITH
CONSERVANCY'S
ENABLING LEGISLATION:**

The proposed funding authorization is consistent with Section 31251 of the Public Resources Code which authorizes the Conservancy to award grants to local public agencies to enhance coastal resources which have "suffered loss of natural and scenic values" due to the "improper location of improvements" and other "human-induced events." This project is the first step in enhancing or increasing wetlands, sand supply and anadro-

mous fish and related habitats. All of these are “coastal” resources.

The proposed funding authorization is also consistent with Section 31251.2 which authorizes the Conservancy to award grants to enhance watershed resources which are partly inside and partly outside of the coastal zone in order to enhance coastal resources within the coastal zone. The Ventura River system is a watershed resource which is partly inside and partly outside of the coastal zone. The project will enhance this resource by leading to the eventual removal of the Matilija Dam. Anadromous fish, wetlands, and beaches are the resources in the Coastal Zone which will benefit from the project.

CONSISTENCY WITH
CONSERVANCY'S INTERIM
PROGRAM GUIDELINES:

The proposed project is consistent with the Conservancy's Interim Program Guidelines adopted May 27, 1999, in the following respects:

Required Criteria

Promotion of the Conservancy's statutory programs: As noted above this project is consistent with Chapter 6 of Division 21, the Conservancy's resource enhancement program.

Consistency with the proposed funding source: This project will use an appropriation from the State General Fund for the Southern California Wetlands Recovery Project. The governing board of the Recovery Project has placed this project on their high priority list. The removal of the dam and the reestablishment of sand flows down the river will greatly benefit wetlands along the stream and in the Ventura River estuary.

Support: This project is widely supported by local and state political leaders, public agencies, and the environmental community. There have been no opposing voices.

Location: The Matilija Dam is 16 miles from the ocean; however the benefits of the project directly affect the ocean and coastal resources.

Need: Approximately \$400,000 of Federal money is being expended over the next year on this project. No local money is available. Without Conservancy participation to ensure that the demonstration project can be completed, it is likely that the feasibility studies will be set back. The research from this effort is critical to determining how to proceed.

Additional criteria:

Urgency: This project is designed to improve habitat for the endangered steelhead trout. Measures to protect endangered species are urgent. Additionally, there is a fleeting opportunity for real cooperation between the Federal and State governments to deal with this particular dam. It is urgent that the State provide some of the support for this project.

Greater-than-local interest: This project has the support of state and local politicians and Congressman Gallegly. It is also supported by Secretary for the Interior Babbitt. It is strongly supported by many statewide environmental groups.

Resolution of more than one issue: Removal of the dam will help to resolve loss of wetland and riparian habitat, the decline of the steelhead, and loss of beaches.

Leverage: The Conservancy's \$200,000 is being matched in complementary efforts by Federal agencies totaling approximately \$400,000.

Innovation: This effort is designed to determine the best, most cost effective method for removing the dam. Innovation may well be the result of these efforts.

Readiness: The project will be completed by the end of 2000.

Realization of prior Conservancy goals: This project will help to further the goals of the Southern California Wetlands Recovery Project.

Cooperation: The work will be carried out by the County of Ventura Public Works Department. It will be working with a technical advisory committee including many State and Federal Agencies.

CONSISTENCY WITH
THE COASTAL ACT:

Although the actual work to be completed under this authorization will be done outside the coastal zone, and no coastal development permit is required, the end result of this work, the ultimate removal of Matilija Dam, is consistent with the Coastal Act. Section 30231 requires that "biological productivity of coastal waters, streams, wetlands, estuaries . . . be maintained and where feasible, restored. . . ." This project is intended to lead to the restoration of such coastal biological resources.

CONSISTENCY WITH
LOCAL COASTAL
PROGRAM POLICIES:

The project is consistent with the Ventura County Local Coastal Program policy that requires the county to “work in close cooperation with other agencies and jurisdictions to provide comprehensive and biologically sound management of coastal wetlands.” This project, as evidenced by the support of the Southern California Wetlands Recovery Project, is designed to improve coastal wetlands.

COMPLIANCE
WITH CEQA:

The proposed actions to be carried out by the Ventura County Department of Public Works are categorically exempt from CEQA under 14 California Code of Regulation Section 15301. This section exempts minor alteration of existing facilities when there is negligible or no expansion of use. It specifically exempts minor alterations to existing dams when under the supervision of the Department of Water Resources.

The work to be done on the Matilija Dam will not change its existing use. The portion of the dam to be removed currently serves no function on the structure. The removal will have value as a test of feasibility but will have no impact on the dam or its water supply or flood control purposes. The Department of Water Resources through its Division of Dam Safety will supervise this project through its permitting authority.

Upon approval staff will file a Notice of Exemption for the project.

EXHIBIT 4
Letters of Support