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MEMORANDUM

TO: Ocean Protection Council

FROM: Sam Schuchat, Council Secretary
Trish Chapman, SCC Project Manager

DATE: September 10 - 11, 2008

RE: San Clemente Dam Removal Project

ATTACHMENTS:

1. [Project Location and Site Map](#)
2. [San Clemente Dam Removal Project, Project Description](#)

Staff is presenting this memo and the attached exhibits to brief the Ocean Protection Council (OPC) on how it can contribute to the recovery of steelhead trout on the central coast of California by facilitating the removal of San Clemente Dam on the Carmel River in Monterey County. If successful, the project would result in the largest dam removal implemented to date on the west coast of the United States.

The Coastal Conservancy, National Marine Fisheries Service, and several other agencies are currently working with the private dam owner to remove San Clemente Dam. Consistent with the OPC Strategic Plan goal of supporting the restoration of riparian corridors, including “large-scale dam removal and associated watershed restoration projects, such as . . . San Clemente Dam,” the OPC could play an important role in this project by helping to coordinate the work and the public funds. The California Ocean Protection Act provides rare authority to award a grant to a private entity, an action that will be necessary to the success of this project. The OPC is being asked to consider coordinating public funds and providing staff support for this project. Formal authorization of a project would occur at a future meeting. Further details about suggested OPC involvement are provided below.

BACKGROUND:

The Carmel River in Monterey County presents one of the best opportunities for river restoration on the Central Coast. The river has its headwaters in Los Padres National Forest and its 255-square mile watershed drains the north side of the Santa Lucia Mountains. The river provides essential habitat for many important species, including steelhead trout and California red-legged frog, both listed as threatened under the Federal Endangered Species Act.

Since 1921, however, the Carmel River and its wildlife resources have been adversely affected by San Clemente Dam. The dam is an obsolete structure that no longer serves a water supply function and has been declared unsafe by the Department of Water Resources (DWR) Division of the Safety of Dams. California American Water (CalAm), a private investor-owned water utility, owns and operates the dam

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and is responsible for addressing the safety issue identified by DWR. The least expensive option is to simply strengthen the dam in place. However, working with CalAM to remove the dam would have multiple public benefits including:

- Restoring unimpaired access to over 25 miles of spawning and rearing habitat for steelhead trout. The National Marine Fisheries Service (NMFS) has stated that restoration of the Carmel River steelhead population is critical to the overall recovery of steelhead on the central coast.
- Re-establishing sediment supply to the downstream river channel and beach.
- Restoring the river's ecological connectivity for the benefit of multiple aquatic and riparian species
- Permanently solving the public safety issue.

Through the dam removal project, there is also an opportunity to protect and provide recreation on over 900 acres of watershed lands.

For these reasons, the Coastal Conservancy, NMFS, and others have worked with CalAM to develop a cooperative strategy for removing the dam rather than buttressing it. The concept, in its simplest form, is that CalAM will contribute an amount equivalent to what it would cost to buttress the dam (approximately \$50 million), and the Conservancy and NMFS will work together to secure the additional funding needed to remove the dam (up to \$35 million). In this way, CalAM will meet its regulatory responsibilities without undue cost to its ratepayers, and the public will realize the additional benefits of dam removal.

Carmel River Reroute and Dam Removal Project

The conceptual approach to dam removal was evaluated in the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the San Clemente Dam Seismic Safety Project certified by DWR in December 2007, and is referred to as the Carmel River Reroute and Dam Removal project. The Reroute and Removal project is briefly described below and in greater detail in Attachment 2.

San Clemente Dam is located just downstream of the confluence of the Carmel River and San Clemente Creek. Upstream of the dam, the river and creek run parallel for about one-half mile, separated only by a narrow peninsula (see Figure 3 of Attachment 2). Most of the sediment that has accumulated behind the dam is located on the Carmel River side of the reservoir. These conditions offer a unique opportunity to remove the dam while minimizing the volume of accumulated sediment that must be excavated and moved.

To implement the project, a half-mile reach of the Carmel River would be permanently bypassed and used as a sediment disposal area. To bypass the reach, a 450-foot-long channel would be cut through the narrow peninsula thereby connecting the Carmel River to San Clemente Creek, approximately 3,000 feet upstream of the dam. The rock excavated from the bypass channel will be used to construct a dike that will permanently reroute the Carmel River into the San Clemente Creek drainage and seal off the upstream end of the abandoned reservoir. The accumulated sediment in the San Clemente Creek arm of the reservoir will be excavated and relocated to the abandoned reach of the Carmel River, and the sediment in the abandoned Carmel River arm will be stabilized in place. The half-mile reach of San Clemente Creek between the dam and the bypass channel will be restored to its 1921 elevation, and a series of step-pools will be created to aid fish passage. When all project elements are in place, the dam will be removed.

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Implementation Strategy

The Conservancy, CalAm and NMFS, outlined the key elements of the implementation strategy for the Reroute and Removal project in an agreement signed in February 2008. In accordance with the agreement, project implementation will be shared by the three entities as follows:

- The Conservancy will manage project planning and design;
- The Conservancy, with the assistance of NMFS, will coordinate with the regulatory agencies to secure all permits and expeditious approval of the project;
- CalAm will manage the project construction;
- Upon completion of the project, CalAm will transfer the project area lands, approximately 928 acres, to the Monterey Peninsula Regional Park District for watershed conservation and compatible public access.

The Conservancy and CalAm have each committed up to \$3 million to prepare the project designs and secure permits for the project. The Conservancy is contracting with two consulting teams to assist with this work. As part of its role in managing the project planning and design, the Coastal Conservancy is developing a risk management plan for the project. Project risks will be addressed through a multifaceted program which will include: 1) avoiding and reducing risk by using conservative design criteria throughout the project and highly conservative criteria for critical project components; 2) contractual transfer of liability to design and construction contractors to the extent possible; 3) insurance; and 4) reduction of project uncertainties regarding each party's responsibilities through a formal project implementation agreement.

PROPOSED ROLE FOR OPC:

The Ocean Protection Council can serve a unique and critical role with respect to the San Clemente Dam Removal Project, and in so doing would further the objectives of California Ocean Protection Act and the OPC Strategic Plan (see below).

As discussed above, the Coastal Conservancy and NMFS are working together to secure \$35 million from state, federal, and private foundation sources, the "public funds." The public funds will need to be consolidated and managed together. After evaluating feasible implementation strategies, Coastal Conservancy staff determined that some public funds will need to be granted to CalAm, a private entity, to carry out the work on private property. (Alternative project implementation approaches, such as transfer of the damaged dam to a public entity in advance of dam removal, would likely expose the public entity to greater risk or substantially increase project costs.)

The OPC is nearly unique in its authority to award grants to private entities (under Public Resources Code § 35650(c)). Project funds could be best collected, disbursed, and overseen through the Ocean Protection Trust Fund ("Trust Fund") of the OPC, consistent with the purposes of the Trust Fund. No grant funds would be provided until CalAm entered into a formal project agreement with the State. That agreement would, among other things, commit CalAm to provide its share of project funding and to donate the project lands after removal of the dam.

OPC staff would assist in the collection and disbursement of the funds, as well as other interagency coordination that could facilitate the project permitting and implementation.

The State may incur some level of risk in connection with the project; risk management is being investigated and addressed as explained above.

NEXT STEPS AND POSSIBLE FUTURE OPC ACTIONS:

The OPC is not being asked to take any action at this time. Because of the project's size, complexity, and number of entities involved, staff is presenting the issues to the OPC now, and can answer any questions that the members may have. In the following months, Conservancy staff will work with OPC staff to address any identified concerns and develop a detailed plan for OPC involvement in the project. Staff would then expect to return to the OPC sometime in 2009 with recommendations that the Council consider the following actions:

- Authorize acceptance of project funds into the OPTF from state and federal agencies, foundations, and other sources of funds.
- Make findings regarding the dam-removal project under the California Environmental Quality Act, based on DWR's Final EIR/EIS for the San Clemente Dam Seismic Safety Project and any supplemental environmental review documentation that is developed. Staff will provide a summary of the project's environmental impacts and mitigation measures, along with DWR's Final EIR/EIS, at a future meeting.
- Authorize disbursement of project funds to CalAm and others for the implementation of the Carmel River Reroute and San Clemente Dam Removal Project.