bay restoration commission

STEWARDS OF SANTA MONICA BAY

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May 19, 2011 Agenda Item #6d

To: Executive Committee

Fr: Shelley Luce, Executive Director

Re: Arroyo Sequit Crossing Replacement

Action Requested of the Executive Committee:

- Review and recommend Governing Board funding of Arroyo Sequit crossing replacement project

Background

The Arroyo Sequit is a perennial stream in the Santa Monica Mountains that flows into Santa Monica Bay at Leo Carillo State Beach. Endangered Southern California steelhead trout have little or no access to high-quality habitat in the Arroyo Sequit because of three in-stream barriers that block fish migration during all but the highest flow events. The removal of these barriers is Milestone 7.3c in the Bay Restoration Plan and contributes to our objectives to remove fish barriers and open 20 miles of stream habitat to steelhead trout. Barrier removal will provide immediate access to 4.5 miles of "moderate to good quality" habitat (identified as "Core 2" habitat by the NMFS in the 2009 Draft Recovery Plan) along Arroyo Sequit Creek. Removing the barriers will also reduce stream channel downcutting and sediment loading caused by the barriers, improving water and substrate quality for steelhead trout.

In August, 2005, the Santa Monica Bay Restoration Commission (SMBRC) approved a Prop 50 grant award for $2,608,998 to Heal the Bay for the removal of the structures noted above and other restoration activities. Time constraints of the grant agreement and issues associated with State Parks contracting rules caused the project to stall and the agreement was terminated in December of 2007 without any of the funds being spent.

Project Description

SMBRC and California Department of Parks and Recreation (CDPR) staffs have been developing a new scope for this project that meets the environmental goals of both agencies and is economically feasible. CDPR requests that the Santa Monica Bay Restoration Foundation (Foundation) lead the planning and design phase of the proposed project, due to CDPR's budget and staffing constraints, and the Foundation's experience with similar projects. CDPR will implement the construction phase of the project upon completion and approval of final plans, and once all necessary permits have been

secured.

The proposed project will replace two in-stream crossings with free span bridges designed for a 100-year storm event, and will remove one check dam. The specifics at each barrier are as follows:

1) Lower Campground Crossing - This Arizona crossing is located 0.10 miles from the ocean and is considered the keystone fish migration barrier for the Arroyo Sequit watershed. The 70'Lx20'Wx5'H concrete barrier is the primary cause of channel scour immediately downstream and is a substantial impediment to the migration of steelhead trout under most flow conditions. The crossing will be replaced by a prefabricated arch-type freespan bridge with a span of 60-70 feet.

2) Upper Group Campground Crossing – The upper group campground Arizona crossing is located approximately 0.75 miles upstream of the ocean on Arroyo Sequit. This 120'Lx20'Wx4'H concrete crossing causes substantial downstream channel erosion. The project will move the crossing approximately 15 feet upstream of the existing alignment. The new crossing will be a single span concrete arch style bridge with a span of approximately 120 feet.

3) Check Dam – A 2.5' high check dam constructed of native stream cobble and concrete is located 1.0 mile upstream from the ocean. It prevents upstream migration of juvenile fish during low flow conditions. Larger fish can pass the dam during most flows. The dam will be removed to provide access to all size and age classes of steelhead.

Additional project benefits include improved water quality due to reduced channel erosion, improved public safety, improved access to recreational facilities (an estimated 1 million visitors visit Leo Carrillo State Park annually) and the associated increase in revenues, and decreased maintenance costs. The two raised bridges proposed for installation will reduce channel scour and impacts to downstream water quality. The bridges will also provide safer year-round pedestrian and vehicle access between the Leo Carrillo State Park campgrounds and public access to the adjacent beach areas. Long-term maintenance costs associated with soil movement and impacts to utility lines located along the crossings are also anticipated to decrease.

Budget

Total Estimated Budget including match: $1,880,000
Total Grant Funds Requested: $1,600,000

Grant to the Santa Monica Bay Restoration Foundation - $300,000 Planning and Design

With $ 50,000 Match

Major Tasks:
Site Review and Data Collection
Geotechnical Investigation
Hydrology, Hydraulics, and Scour Analysis
Preliminary Grading and Structure Design
Draft Construction Documents
Final Construction Documents
Permitting
Permitting Management & Oversight

Grant California Department of Parks and Recreation - $1,300,000 Construction
With $ 230,000 Match

Major Tasks:
Demolish two crossings and one check dam
Install two bridges and associated abutments
Utilities relocation
Slope contouring and bolder placement
Plant material and replanting site
Pre- and post-implementation monitoring
Equipment rental
Haul off and disposal fees

Preliminary Schedule:

Grant Execution – August 2011
Planning and Design – September 2011 – July 2012
Permitting / Endangered Species Consultation – September 2011 – July 2012
Construction – August 2012 – October 2012