



MEMORANDUM

Date: August 22, 2011

To: Legislative Committee

From: Carl P. Holm, AICP, Acting Deputy Director of the RMA
Bill Phillips, Deputy General Manager, MCWRA
Yazdan Emrani, Director – RMA-Public Works Department

Subject: Carmel River/Lagoon Management

Cc:

Major Task/Hurdles:

1. *Biological Opinion from National Marine Fisheries Service.* A Biological Opinion (BO) from National Marine Fisheries Service was expected around May 2011 to help better define a solution; however, that timeframe has been pushed back to September 2011.
2. *Potential legislation to swap/acquire land from State Parks.* The Ecosystem Protective Barrier (EPB) and Scenic Road will involve lands owned by State Parks. If State Park land is needed for implementation of these projects, then legislation may be required to transfer ownership to another entity like Monterey County. Alternatively, staff will be assessing the possibility of land that could be traded with State Parks.
3. *Funding for planning components* (environmental review, design, entitlements). Most grant opportunities revolve around construction-ready projects. The EPB and Scenic Road projects require planning work consisting of technical studies, environmental documents, and permits in order to be construction ready. As described below, technical studies and EPB wall specifications are scheduled to be completed by December 2012 with existing funding sources. Consolidated environmental documentation (technical reports) that facilitates all components would be the most efficient, and then the California Coastal Commission would be the permitting authority. This would require additional funding and take 8-12 months to complete.

Setting:

The Carmel River Watershed is approximately 246 square miles and drains into Carmel Bay. The watershed has very large variations in seasonal and yearly discharge rates. The Proposed Project site is located within the Carmel Bay Sub-Watershed of the Carmel River Watershed. The project site is located at the lowest 1.5 miles of the sub-watershed. The project action area generally extends from Rancho Canada Golf Course downstream to the river mouth and includes a portion of Scenic Drive in Carmel adjacent to Carmel Bay. Developed commercial, residential and agricultural areas within the 100 year floodplain suffer from periodic flooding from high river flows and ocean storms, in some areas nearly annually. Recurring emergency actions to avoid flood damage are costly, are considered detrimental to threatened steelhead, and do not contribute to a long-term management solution.

Overview:

Several local, state and federal agencies, together with several non-governmental organizations have been working together since about 2000 to develop a sustainable, long-term management plan for the Lower Carmel River and Carmel Lagoon. A technical advisory committee of public agencies developed a 2005 “Study Plan for Long-Term Adaptive Management of the Carmel River State Beach and Lagoon.” This Plan outlines multiple additional studies necessary to seek permits for a long-term solution. The Lower Carmel River “Project” is a multi-objective, multi-year, multi-organizational effort to reduce flood risk, protect public infrastructure, improve natural floodplain function and improve habitat for threatened and endangered species in the lower Carmel River.

Several agencies and organizations have sought funding for those studies, and for individual construction projects. The most pressing immediate needs for additional funding are probably for repair and armoring of Scenic Drive (temporary and permanent), and for a solution to the recurring sandbar management problem at the river mouth. It is the goal of the Monterey County Resource Management Agency to help coordinate the various projects and agencies in the most economically and operationally efficient manner.

Discussion:

Several initiatives seeking increased flood protection in the Lower Carmel River are in play. These projects/programs are currently being developed for the Carmel River/Lagoon area to address various interests:

- Protect existing homes and a school from flooding
- Maintain public infrastructure with anticipated sea-level rise (e.g. Highway 1, Scenic Road)
- Retain beach area for public enjoyment
- Enhance ecological conditions along the Carmel River and within the Carmel Lagoon, including habitat for certain threatened or endangered species (red-legged frog, steelhead, Western snowy plover, Smith’s blue butterfly)
- Create trails for public access

California State Parks, the Big Sur Land Trust, County Service Area 50, Monterey County Water Resources Agency, the Carmel River Watershed Conservancy, US Fish and Wildlife Services, Monterey County Department of Public Works have obtained funding (e.g.; grants) to begin addressing studies and projects in this area.

In general terms, individual projects for which additional funding is sought include:

- 1) **CSA 50** - flood protection improvements.

STATUS: On the initiative of CSA 50 and the joint recommendation of Public Works and MCWRA, CSA 50 indicated a willingness to recommend allocation of up to \$300,000 for an update of the 2002 Philip Williams and Associates, Ltd “Lower Carmel River Flood Control Project Final Report.” A scope of work for the update is in final preparation for inclusion in an RFP to be issued by Public Works. This study will generate conceptual projects and preliminary cost estimates needing additional state or federal funding.

- 2) **FEMA Pre-Disaster Hazard Mitigation Grants** to assist environmental review, feasibility investigations, design and construction of an Ecosystem Protective Barrier on the north side of Carmel Lagoon.

STATUS: MCWRA has obtained a legislative earmark of \$90,000 originally intended to assist in development of the Ecosystem Protective Barrier. Discussions with the State Office of Emergency Services and FEMA to fit a scope of work to the narrow parameters of the grant program have resulted in applying these funds to updating two flood prevention plans, one each for the County and MCWRA. Updates will improve eligibility of the County and MCWRA for future FEMA and State grants for flood

risk reduction, not just in the Carmel River watershed but countywide. The updates are due to be completed in mid- to late 2012.

- 3) **FEMA Severe Repetitive Loss Grants** – to remove individual properties from the FEMA 100 year floodplain.

STATUS: MCWRA assists individual severe repetitive loss property owners in applying for and obtaining grants to remove their properties from the 100 year floodplain, generally through elevation of their homes. One \$200,000+ such grant is in its final approval stage. These grants are driven by participation of individual property owners.

- 4) **Scenic Drive** – grants to assist protection of Scenic Drive and the State Parks parking lot and restroom facilities.

STATUS: Scenic Drive and the utilities within the right-of-way are at great risk from ocean storms and meandering exit channels of the Carmel River during the winter season. In addition, the State Parks facilities at Carmel River State Beach have been severely damaged this past winter and in previous winters by the meandering exit channel. Additional protection including possible armoring is needed, together with the necessary permits and appurtenant studies. This “project,” together with the Ecosystem Protective Barrier, is related to the emergency sandbar management performed at the Carmel River mouth in many winters, and also to the forthcoming National Marine Fisheries Service Biological Opinion (BO). That BO, expected in mid-summer 2011, will contain so-called Reasonable and Prudent Alternatives (to continued emergency sandbar management). Those Alternatives will likely identify one or more projects deemed by the Service to be feasible, permitting and construction of which will need to be funded.

Until a permanent solution can be designed and necessary permits obtained, a temporary solution will be required. Staff has been in consultation with Coastal Commission staff regarding necessary steps. One step is changing Scenic Road to 1-way traffic in order to reduce traffic impacts on the outer edges of the roadway. The entire stretch of Scenic Road would be restricted to one-way traffic headed southbound, except one portion within the City of Carmel that would remain 2-way traffic. A second step will be an emergency permit for a temporary solution during upcoming winters (e.g. large boulders). Coastal Commission staff has indicated that they would not support a permanent solution/design through an emergency permit.

- 5) **Carmel River Floodplain Restoration and Environmental Enhancement Project** – grants to assist the multi-agency Carmel River Floodplain Restoration and Environmental Enhancement Project led by the Big Sur Land Trust.

STATUS: In 1998, the Coastal Conservancy provided funding to California State Parks, Monterey Peninsula Regional Park District and The Big Sur Land Trust to develop a restoration concept for the floodplain east of the SR 1. The resulting plan generated an initial concept for removing the south bank levee and reconnecting the Odello East floodplain with the Carmel River. Further, the plan identified the need to create a connection under SR 1 between the Odello East property and the Carmel Lagoon to drain flood waters in conjunction with the levee removal.

In 2006, the Big Sur Land Trust continued to plan and analyze development options by completing Hydrologic Engineering Centers River Analysis System (HEC-RAS) modeling of a potential floodplain restoration Project at the Odello East site. Modeling efforts completed in 2006 identified the potential for a floodplain restoration project that could reduce surface water elevation in areas on the north side of the river and reduce flood-related hazards as well as restore native habitats to a portion of the former farm fields at Odello East. Coordination with Monterey County Water Resources Agency, Monterey Peninsula

Water Management District (MPWMD), and County Service Area (CSA) 50 has been on-going throughout the duration of preliminary planning and design.

On April 25, 2011, MCWRA's Board of Directors certified a Mitigated Negative Declaration for this project. A multi-party Memorandum of Understanding (MOU) was developed between Monterey County (Public Works), MCWRA, the Monterey Peninsula Water Management District, California State Parks and the Big Sur Land Trust. The Land Trust has obtained millions of dollars in grants plus other additional funding for this project. Importantly, this project when completed would reduce flood water surface elevations in the CSA 50 area, thus reducing cost for additional protective works for that area. Also importantly, the multi-agency collaboration and a portion of Land Trust funding have tied this project to the updated Carmel River FEMA flood maps commissioned by MCWRA a few years ago. This has initiated consistent analysis of individual flood protection and environmental enhancement projects in the Lower Carmel in conformance with current FEMA standards.

MCWRA has also obtained a federal EPA earmark in the amount of \$485,000 to assist this project and unify it with the Ecosystem Protective Barrier and CSA 50 work. The objective is creation of a set of projects with the coequal objectives of protecting developed properties from the 100-year floodplain while also improving environmental conditions in the Lower Carmel River and lagoon. Such projects would help restore natural floodplain function, improve water quality and supply, and provide improved habitat for special status species. A preliminary work plan will be prepared for review by EPA within the next 90 days. That plan will need to identify a local funding match of nearly \$400,000, for a total potential grant value of \$882,000. MCWRA will seek to identify match from collaborating agencies and complementary state grants.

The purpose of this Agreement is to provide funding for a planning and feasibility study for the proposed Carmel River Lagoon Ecosystem Protective Barrier (EPB), located near the California State Parks Carmel River Wetlands Preserve in Monterey County, using funds allocated under Section 75055(d)(4), Chapter 171 of the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Fund of 2006 (Prop 84) in a manner consistent with the Settlement Agreement between the Department of Fish and Game (DFG), National Oceanic Atmospheric Administration (NOAA), and California American Water (CalAm).

The EPB timeline assumes a Notice to Proceed on October 15, 2011 resulting in completion of the reports and EPB specifications in December 2012. MCWRA is finishing this grant and assisting the Monterey Peninsula Water Management District (MPWMD) to redirect \$54,000 awarded through the Integrated Regional Watershed Management Program (IRWMP) to the Barrier /Scenic tie-in. MCWRA is working on developing a general description for the EPA grant.

- 6) **SR 1 Causeway** – assistance for reconstruction of SR 1 across and south of the Carmel River as a causeway.

STATUS: Preliminary work to evaluate feasibility of a causeway for SR 1 was funded by grants obtained by the Big Sur Land Trust. That work combined updated analysis of Lower Carmel River hydraulic conditions to conform to current FEMA protocols and to tie the proposed Land Trust's Odello floodplain restoration effects to other flood protection efforts in the Lower Carmel—notably work done for CSA 50. The study designs were compiled through a joint effort of the Big Sur Land Trust, Monterey Peninsula Water Management District, MCWRA and Monterey County Department of Public Works.