

Carmel River NEWS

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From the Carmel River Watershed Conservancy (CRWC)

In This Issue

[The Bluffs of Scenic Road](#)

[A Watershed Experience](#)

[Changes to the Carmel River Channel](#)

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For more news and watershed updates please check out the Conservancy's [website!](#)

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The eroded bluffs of Scenic Road

Can Scenic Road Bluffs Be Saved?

Article By Lorin Letendre, Executive Director of CRWC

Scenic Road on Carmel Point along Stewart's Cove has been heavily eroded by northerly breaches of the barrier beach as well as high wave action, and since 2005 the bluffs have lost about 30 feet of their width from the road. Two long-standing cypress trees have been undermined and if the larger of the two trees collapses the water and sewer lines under Scenic Road would be threatened.

The County is finalizing an Environmental Impact Report (EIR) on several projects in the lower Carmel River and Lagoon, aimed at improving the lagoon environment and preventing flooding on the north side of the lagoon. A component of that EIR is the Scenic Road Protection Project (SRPP), designed to shore up the bluffs and protect the State

Carmel River Watershed Tours

Available year-round for student and community groups! If interested contact [Lorin Letendre](#).

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Park parking lot and restrooms. The firm of Moffatt & Nichol has completed a 30% engineering draft design that is intended to protect the bluffs from the combined effects of a 100-year flood, extreme high wave action, sea-level rise, and effects caused by the removal of the Sam Clemente Dam and construction of a proposed causeway under Highway 1.

The Conservancy is working with the County Service Area 1 Citizens Advisory Committee to conduct a peer review (similar to a second opinion) of the draft design and plan, and the firm of Schaaf & Wheeler has been retained to conduct this review and make recommendations as to whether the draft design and plan will adequately protect the Scenic Road bluffs and the State Park parking lot. Subsequently this firm will also conduct a peer review of the Draft EIR for the lower Carmel River and Lagoon. We hope that having an "extra set of eyes" on how to solve the problems created by the barrier beach will ensure an optimal solution that accomplishes all the goals that were set for these projects.



Students from the International School of Monterey at Los Padres Dam

A Watershed Experience: Forming Stewards

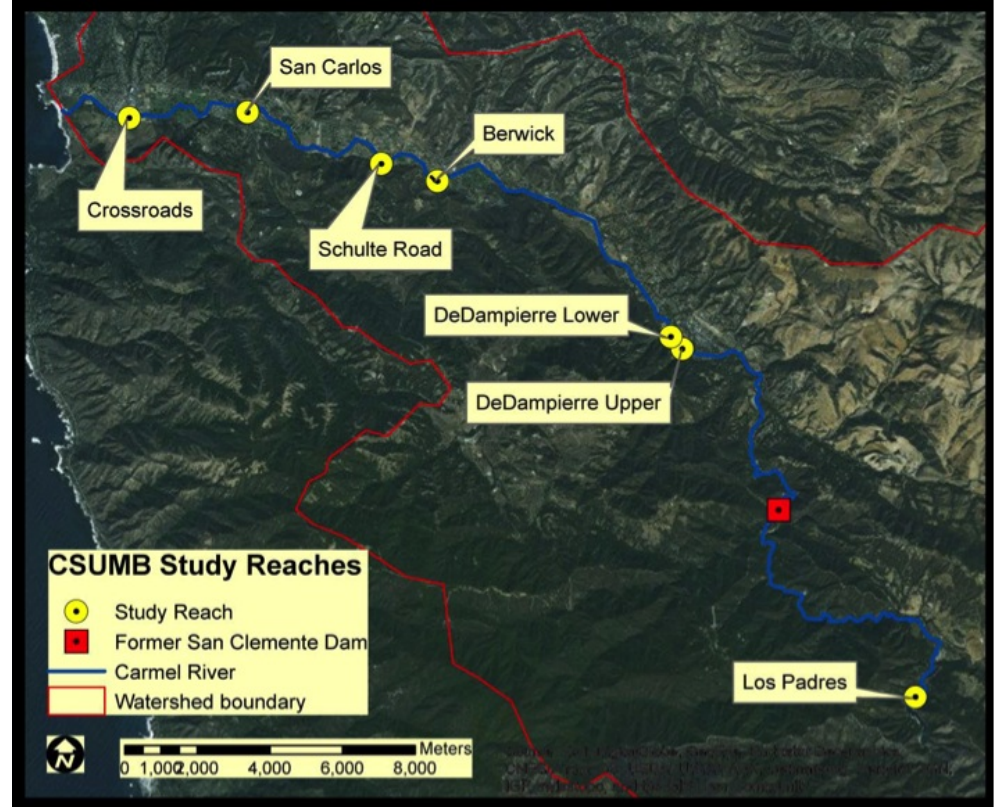
Article by Damien Lazzari, MIIS Intern

The Merriam-Webster Dictionary gives multiple definitions of *watershed* as ***a time when an important change happens***; *a line of hills or mountains from which rivers drain*:

a ridge between two rivers; and/or the area of land that includes a particular river or lake and all the rivers, streams, etc., that flow into it. People in the Monterey Peninsula Area have the opportunity to be a part of the Carmel River watershed and some are capitalizing on the opportunity: our youth.

We must look to and support our youth in using their creativity and innovation to prepare ourselves for the harsh realities of our future. The United Nations reports, "Water use has been growing at more than twice the rate of population increase in the last century. By 2025, 1800 million people will be living in countries or regions with absolute water scarcity, and two-thirds of the world population could be under stress conditions." Today's youth will have to find solutions to these problems, but we can start supporting them now!

Fifty 5th-grade students at the International School of Monterey (ISM) have been studying issues related to climate change. This year, these students have now received presentations from the Carmel River Watershed Conservancy Outreach Coordinator, Marie Butcher, and our Executive Director, Lorin Letendre, in regards to challenges facing our Carmel River, as well as attended one field trip to the Los Padres Dam. Thomas Christensen, the Riparian Projects Coordinator for the Monterey Peninsula Water Management District, also attended and lectured at the Los Padres Dam site visit, and Brian LeNeve from the Carmel Steelhead Association lectured at one of the presentations at ISM. The students are curious, ready to understand and solve the problems of today. This type of collaboration, focused on forming our youth into stewards of our environment, will lead us into a sustainable future.



The Carmel River Channel

CSUMB Monitors Changes to the Carmel River Channel

By Leah Maccarter, M.A. Candidate, CSUMB

Silt and fine sediments had accumulated behind the former San Clemente Dam since it was constructed in 1922. Removal of the dam from the Carmel River is expected to drastically alter transportation of sediment in the Carmel River Watershed. Previously conducted dam removal studies suggest that release of decade's worth of retained particles would negatively impact steelhead spawning habitat and also dramatically alter the shape of the river channel. In an effort to minimize movement of these accumulated fine sediments downstream, California American Water Company completed an extensive reroute project, the first attempt at such a project of this scale.

To monitor changes to channel shape and average pebble and rock size, California State University Monterey Bay's Geology and Hydrology Lab completed a series of surveys. Surveys recorded two factors important to understanding changes to channel shape: (1) the river's profile or side view and (2) the average size of rocks and bed particles within the profile. Surveys were completed at one location above and six locations below the former San Clemente Dam before the first high flow events occurred in the reconnected channel.

CSUMB completed the first baseline assessment at five

locations on the river in 2013. In fall 2015, a resurvey of the same locations, and two new locations, was completed. Completion of two surveys before the first high flow events in the channel helps filter out natural changes unassociated with dam removal impacts. Between 2013 and 2015 there have not been significant changes to the channel shape. However, future surveys should be able to identify minor vertical changes in the channel profile, in the range of 3cm or greater.

In 2013 and 2015 the average pebble or grain size in the stream bed decreased as survey locations moved downstream. However, the number of small rocks and particles located near DeDampierre increased from 2013 to 2015. It will be exciting to see what post dam removal surveys in summer 2016 and beyond uncover about changes to the channel profile. CSUMB's before and after dam removal survey will help reveal the effectiveness of the reroute project to restore natural river processes and document the impacts of dam removal in the lower channel. The full report and results is available from the [Central Coast Watershed Studies](#) website.