

Carmel River NEWS

December 2017 Vol. I

From the Carmel River Watershed Conservancy (CRWC)

San Clemente Dam Removal Update: Much Has Changed

by Mikaela Bogdan

CSUMB Students Examining Changes in the River Channel

Since completion of the San Clemente Dam Removal and Reroute Project in 2015, CSU Monterey Bay Geomorphology and Hydrology students have been conducting field assessments of the restoration site under the guidance of CSUMB professor, Doug Smith, and more recently, graduate student Sarah Schanz. In 2016, Smith's Hydrology class conducted a first-year assessment of the reroute and dam removal, which focused on changes to the original reroute blueprints and the installed structures one year after implementation and after a modest 1.5-year flood that year. What the students discovered was shocking; channel banks and boulders that were used to create the step pools (to aide steelhead migration), and which were expected to withstand a 25- to 50-year flood event, had noticeably altered original reroute designs (Marson et al. 2016).

This year, Smith's Geomorphology class conducted ongoing field assessments of the site between late September and early October, after a 30-year flood event in the winter of 2016. The goals of the study are numerous, but focused primarily on assessing geomorphic changes within the area since 2016. To accomplish the ambitious goals set forth by the team of Geomorphology students, three days of intensive field work were conducted at the former dam site.

Conclusions of the 2017 study are still being developed through individual student reports, but some of the

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Carmel River Task Force Members Making Continued Progress in River

Initially launched back in 2007, the Carmel River Task Force (CRTF) is composed of representatives of the federal, state, and local government agencies and non-profit organizations with an interest in or authority over the Carmel River and its watershed. This includes such organizations as the State Coastal Conservancy, National Marine Fisheries Service (division of NOAA), US Department of Fish and Wildlife, California State Parks and Recreation, County Resource Management Agency, Monterey Peninsula Water Management District, Big Sur Land Trust, Carmel River Steelhead Association, Trout Unlimited, and CRWC. CRTF's purpose is to coordinate and synchronize the plans and activities of all these organizations, and especially to determine collaboratively the priorities for work projects in the river and watershed.

The CRTF reviews quarterly the progress on the Action Plans that were revised in 2016, sets priorities for funding and group focus, and supports member organizations in their projects that further the Action Plans. Recently its members have initiated or made substantial progress on projects including removal of fish passage barriers in Cachagua, San Clemente, and Potrero Creeks, installation of redwood logs for steelhead protection and rearing in the lower Carmel River, conducting eight public tours of the former San Clemente Dam site, assessment of the effects of the large storms in 2017 along the river and at dam sites, acquisition of the former Rancho Canada Golf Course sites for conversion to a riverside park, upgrading the Sleepy Hollow Fish Rearing Facility, removal of non-native striped bass that predate on steelhead, a program to prevent the spread of wildfires, and evaluation of the future of the Los Padres Dam.

The most recent update of the Carmel River Watershed Action Plan may be found on our CRWC

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environmentalists, outdoors

college and possibly pursue careers in science.

Dam Removal Update

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findings currently being analyzed are a bit disconcerting. Scattered boulders and buildup of sediment can be found downstream, creating three shallow channels and a wide wetted area. Widening and shallowing from sediment fill jeopardizes channel stability, resulting in the increased likelihood of channel movement and flooding during high flows.

Furthermore, offsets in elevation within the river channel, known as knickpoints, were discovered near the former dam site just downstream from the mouth of San Clemente Creek. These knickpoints increase incision rates within the river channel, as water falls at a faster rate along an approximate ninety-degree slope. The steep slopes are prone to erosion, causing knickpoint recession over time. Consequently, the river channel could eventually deepen throughout the 1.5-mile extent of the study site and beyond. If this happens, San Clemente Creek will become lower as well, to equilibrate with the lower elevation of the Carmel River, causing more sediment to enter the Carmel than was originally expected in the reroute design.

This section of the Carmel River is dynamic; its future course will likely be dependent on seasonal rains. Future assessments will be necessary in determining patterns in this site's morphology, and will be important in monitoring the possibility of unforeseen sediment loads within the Carmel River. Once again, Mother Nature changed well-laid plans, but at

How Can We Prevent the Spread of Nearby Wildfires?



Above: example of a recent fuel break cut
The 2016 Soberanes Fire consumed over 130,000 acres and burned 38% of the Carmel River Watershed. The fire also destroyed 57 residences and threatened many of our local communities. This led the Conservancy and many partner organizations to form a coalition to encourage the development of an integrated wildfire prevention plan that would be in place before the next nearby wildfire strikes. Such a plan would include maintenance of existing fuel breaks, clearing the areas on either side of firebreak roads, planting of native low-lying and fire-resistant vegetation in fuel breaks that were scraped clear of vegetation (see photo above), identification of community liaison officers who would know the best places to defend against nearby wildfires, and effective coordination among the key fire departments and agencies.

Conservancy Receives Foundation Grants

The Carmel River Watershed Conservancy is the appreciative recipient of grants from the Monterey Peninsula Foundation and Pebble Beach Foundation to support our student watershed education programs focused on students from economically disadvantaged

First Annual California Wildlife Day Celebration!

This March, the California Senate passed Resolution 23 which proclaims the date of the spring equinox annually as California Wildlife Day. The idea for this day came from a recent Carmel resident, and was realized by State Senator Bill Monning's authorship and support. The Conservancy worked closely with both of them to support this concurrent resolution and we were thrilled that it was passed by the Legislature unanimously!

Now we are working to spread the word. We have been communicating with local, statewide, and nationwide wildlife and environmental organizations to garner support and enthusiasm for this day. We are encouraging our partner organizations to plan events throughout California to raise awareness for native and endangered species in our state. In Senator Monning's words, "California is a leader in environmental conservation." As leaders, it is necessary for us to educate Californians and promote the importance of our diverse wildlife.

Local Celebration: Our Monterey Bay event will take place on March 24th at Garland Park, co-hosted by the Monterey Peninsula Regional Park District. Many of our wonderful local organizations will be exhibiting and presenting, and ready to share their knowledge, expertise, and some fun activities! Art and science projects will also be featured. Submissions from local students will be accepted beginning in February and will be displayed at the event. We look forward to bringing our community together for this special day to celebrate our amazing wildlife.

Come Join Us!

Date: March 24th, 2018

Time: 10:00 AM - 2:00 PM

Location: Garland Ranch Regional Park