



Date: May 22, 2015
To: State Coastal Conservancy
From: Trish Chapman
Re: Update on the San Clemente Dam Removal Project

1. Summary

A tremendous amount of work has been completed on the San Clemente Dam Removal project, and the site has been completely transformed by the excavation and construction activities completed last year. The Carmel River is now running through the Reroute Channel and into the Combined Flow Reach (which is now pooled up as part of the dam's reservoir).

The 2015 construction season for the San Clemente Dam Removal project is beginning to ramp up. Once again, we have a tremendous amount of work planned and a very tight schedule. Key activities planned for this season include: dewatering the site, completing the stabilized sediment slope, constructing the step pools and restoring the channel reaches, dam removal, and habitat restoration throughout the project site.

Overall, progress remains such that the project is expected to finish on time (substantial completion by the end of 2015) and within budget. However, there are several risk factors that could still affect the schedule and/or the budget and these are discussed below. The attached photos show before and after photos of the site to illustrate the work accomplished in 2014.

2. Key Project Components

Project implementation involves the following key steps:

Activity	Status
Final Design	Ongoing. Much of the design is complete. Efforts this past winter have focused on completing design for the channel restoration and habitat restoration. Both design packages are in final review stages.
Road Improvements	Complete. All of the road improvements were completed by November 2014.

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Activity	Status
Geotechnical Site Investigations	Complete. Geotechnical site investigations were completed in October 2013. These included drilling rock cores to provide the geotechnical data necessary to finalize the design of the key engineered project features.
Site Preparation,	Complete.
Construct Engineered Features, including reroute channel, diversion dike, and stabilized sediment slope	Ongoing. The Reroute Channel and Diversion Dike were completed in 2014, although minor cleanup activities and habitat restoration will occur in 2015. The foundation of the Stabilized Sediment Slope (SSS) was completed in 2014, but the rest of the structure will need to be completed in 2015.
Excavate Sediment	Complete. Excavation of the Combined Flow Reach was completed in 2014. This will facilitate an earlier start on the channel restoration activities in 2015.
Restore Combined Flow Reach	Scheduled for 2015
Habitat Restoration	Small amounts of habitat restoration occurred along the THR.
Remove San Clemente Dam	Scheduled for August 2015.
Remove Old Carmel River Dam	Scheduled for 2015 or 2016.
Community Outreach	Ongoing. Granite Construction and CAW continue regular community outreach efforts including meeting with neighboring property owners and County staff, and providing information and construction updates via the project website. In April and May, the project team has scheduled 12 tours over 4 days for members of the public. In total about 250 people will have the opportunity to visit the site this spring.

3. Financial Report

The total estimated cost of the project is \$82.8 million. Please see the attached financial reports for information on project costs through the end of 2014 and contributions by each funder to date.

Please note that the project financial reports include an additional \$1.4 million for the construction of a bridge to replace the Sleepy Hollow Ford Bridge. For efficiency, this project is being undertaken in conjunction with the San Clemente Dam Removal Project, but it is being separately funded through settlement funds managed by the Coastal Conservancy. For this reason the financial reports show the total project cost as \$84.2 million, rather than \$82.8 million.

The project budget includes a \$6 million contingency budget. Approximately \$3.8 million has already been spent for agreed upon cost increases and there are several significant cost items still to be negotiated. On the cost savings side, the project budget includes an allowance of \$1.5 million for erosion protection measures to protect against major landslides along the reroute channel and combined flow reach. Prior to excavation of these areas, the potential for major landslides was a substantial unknown risk. Excavation of these areas has not revealed any areas that might be vulnerable to a major landslide; therefore, it is likely that most of this allowance can be rebudgeted to the project contingency. The outcome of these and additional issues that may arise in 2015 will

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determine if the project can be completed within the intended budget. All project partners continue to work to contain any further cost increases to ensure that the project comes in on budget (that is, increased costs do not exceed the contingency budget).

4. Summary of 2015 Activities

Key activities in this construction season include:

- Complete the channel restoration and habitat restoration design packages.
- Securing approval from the Division of Safety of Dams for the dam removal approach. Note that Granite has determined that the risks involved in removing the dam by explosives cannot be adequately mitigated and therefore the dam will be mechanically knocked it down.
- Dewater the site.
- Complete the stabilized sediment slope
- Construct the step pools and other channel features to restore the combined flow reach.
- Remove San Clemente Dam.
- Remove Old Carmel River Dam
- Seed and plant the entire site to restore to native habitats

5. Potential Issues

Below is a summary of the key issues and risks for the project. Additional information is available on request.

- Outstanding Cost Issues – As mentioned above, there are a number of outstanding cost issues that still need to be negotiated between Granite and CAW. In total, these could far exceed the available funds; however, it is expected that the final amount of several items will be significantly less than initially presented. The uncertainty of these costs is a large remaining risk for the project.
- Site Dewatering – Dewatering the project site proved to be a significant challenge during the 2014 season and was the primary reason that Granite was not able to complete the SSS in 2014. Dewatering will be a challenge again in 2015, although it is not likely to affect the work as significantly in 2015.
- Schedule Risk – The construction schedule for the 2015 season has very little flexibility. Any unforeseen delays or decreased production rates could result in key elements of the project not being completed in 2015. The CAW and Granite will work together throughout the season to proactively avoid this happening.
- Unidentified Site Conditions – This risk has been largely addressed with the excavation of the Reroute Channel and the Combined Flow Reach.

6. Photos showing progress in 2014 construction season.

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Project site prior to start of 2014 construction season.



Project site in November 2014

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Project Site in November 2014. Sediment in stockpile is sorted by size for use in completing SSS in 2015.



Area behind dam where SSS will be, July 2014.

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Excavation at bottom of CFR and dam.



Construction of Stabilized Sediment Slope, November 2014. Looking upstream from dam.

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Diversion Dike, December 2014.



Reroute channel, October 2014

San Clemente Dam Removal Project

Budget Report

Construction Costs

Task	Budgeted	Earned	Paid	Retention	Balance
1.01 Site Investigations	\$600,000	\$475,000	\$427,500	\$47,500	\$125,000
1.02 Final Design	\$3,750,000	\$3,341,250	\$3,007,125	\$334,125	\$408,750
2.01 Mobilization	\$2,415,827	\$1,721,079	\$1,548,971	\$172,108	\$694,748
2.02 Diversion of Carmel River & San Clemente	\$3,717,000	\$2,577,000	\$2,319,300	\$257,700	\$1,140,000
2.03 Site Preparation	\$4,000,000	\$3,291,350	\$2,962,215	\$329,135	\$708,650
2.04 Reroute Channel	\$8,203,000	\$2,812,061	\$2,530,855	\$281,206	\$5,390,939
2.05 Diversion Dike	\$1,858,000	\$1,258,000	\$1,132,500	\$125,500	\$600,000
2.06 Removal of Sediment	\$7,000,000	\$2,868,484	\$2,581,636	\$286,848	\$4,131,516
2.07 Stabilized Sediment Slope	\$5,193,000	\$580,060	\$522,054	\$58,006	\$4,612,940
2.08 San Clemente Dam Removal	\$1,500,000	\$0	\$0	\$0	\$1,500,000
2.09 Instrumentation	\$500,000	\$0	\$0	\$0	\$500,000
2.10 Channel Restoration	\$4,411,000	\$0	\$0	\$0	\$4,411,000
2.11 Habitat Restoration	\$3,500,000	\$238,000	\$214,200	\$23,800	\$3,262,000
2.12 Regulatory Activities During Construction	\$5,763,616	\$2,917,500	\$2,625,750	\$291,750	\$2,846,116
2.13 Tularcitos-High Road Construction Access	\$2,663,000	\$1,765,200	\$1,588,680	\$176,520	\$897,800
3.01 Post Construction Work	\$1,740,000	\$0	\$0	\$0	\$1,740,000
4.01 Old Carmel River Dam Modifications	\$700,000	\$0	\$0	\$0	\$700,000
4.02 Demolition of Residence and Garage at SC	\$35,000	\$0	\$0	\$0	\$35,000
4.03 Sleepy Hollow Ford Bridge	\$1,400,000	\$59,400	\$53,460	\$5,940	\$1,340,600
5.01 Allowance for Purchase/Transport of Bould	\$280,000	\$0	\$0	\$0	\$280,000
5.02 Allowance for Erosion Protection of Rerout	\$1,500,000	\$0	\$0	\$0	\$1,500,000
5.03 Allowance for Road Maintenance	\$36,384	\$36,384	\$32,746	\$3,638	\$0
5.04 Allowance for Alternate Long Term Mainte	\$300,000	\$0	\$0	\$0	\$300,000
	\$61,065,827	\$23,940,768	\$21,546,991	\$2,393,777	\$37,125,059

Contingency Costs

Task	Budgeted	Earned	Paid	Retention	Balance
6.01 Construction Contingency	\$6,000,000	\$3,648,118	\$3,283,306	\$364,812	\$2,351,882
	\$6,000,000	\$3,648,118	\$3,283,306	\$364,812	\$2,351,882

Design, Permitting & Management Costs

Task	Budgeted	Earned	Paid	Retention	Balance
7.01 Preliminary Design	\$6,386,596	\$6,386,596	\$6,386,596	\$0	\$0
7.02 Environmental Permitting	\$2,181,956	\$2,181,956	\$2,168,731	\$13,225	\$0
7.03 Construction Management	\$4,302,764	\$4,302,764	\$4,302,764	\$0	\$0
7.04 Environmental Compliance	\$0	\$0	\$0	\$0	\$0
7.05 Owner Administration and Legal	\$4,285,659	\$833,283	\$833,283	\$0	\$3,452,376
	\$17,156,975	\$13,704,598	\$13,691,373	\$13,225	\$3,452,377
GRAND TOTAL	\$84,222,802	\$41,293,484	\$38,521,670	\$2,771,814	\$42,929,318

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**San Clemente Dam Removal Project
Project Funding Status Report**

Funder	Budgeted	Approved	Paid	Withheld	Balance
California American Water, 12-083	\$49,000,000	\$21,430,695	\$20,282,691	\$1,148,003	\$27,569,305
Wildlife Conservation Board, WC-1083PP	\$7,000,000	\$4,635,250	\$4,171,725	\$463,525	\$2,364,750
California Department of Fish and Wildlife, Fisheries Restoration Grant Program,	\$7,000,000	\$4,314,284	\$3,813,551	\$500,733	\$2,685,716
California Natural Resources Agency, River Parkway Program, 40716-08-01	\$3,000,000	\$2,796,000	\$2,533,175	\$262,825	\$204,000
California Natural Resources Agency, River Parkway Program, R54103-0	\$1,000,000	\$380,000	\$342,000	\$38,000	\$620,000
California Natural Resources Agency, Coastal Impact Assistance Program,	\$754,636	\$529,636	\$476,672	\$52,964	\$225,000
NOAA Restoration Center, Community-based Restoration Partnership, NA10NMF4630082	\$1,096,044	\$1,096,044	\$1,096,044	\$0	\$0
State Coastal Conservancy	\$7,000,000	\$5,202,811	\$4,922,987	\$279,824	\$1,797,189
The Nature Conservancy, TNC-SCC	\$1,000,000	\$0	\$0	\$0	\$1,000,000
Resources Legacy Fund, 2014-0225	\$433,756	\$200,000	\$180,000	\$20,000	\$233,756
State Coastal Conservancy, NOAA-CAW Settlement Funds	\$3,100,000	\$59,400	\$53,460	\$5,940	\$3,040,600
NOAA Restoration Center, Open Rivers Initiative, NA10NMF4630186	\$500,000	\$500,000	\$500,000	\$0	\$0
California Natural Resources Agency, Coastal Impact Assistance Program,	\$149,364	\$149,364	\$149,364	\$0	\$0
To Be Determined	\$3,189,002	\$0	\$0	\$0	\$3,189,002
SUBTOTAL NON-CAW FUNDS	\$35,222,802	\$19,862,789	\$18,238,979	\$1,623,810	\$15,360,013
GRAND TOTAL	\$84,222,802	\$41,293,484	\$38,521,670	\$2,771,814	\$42,929,318

Last updated 4/30/2015