

Aliso Creek Restoration Project Status Update***Background***

As part of the Orange County Transportation Authority (OCTA) Environmental Mitigation Program (EMP) Early Action Plan, approximately \$55 million was estimated to be available for the EMP. This allocation was to be used for property acquisitions, habitat restoration, land management, and support of the program. Support of the program included the preparation of the OCTA Measure M2 (M2) Natural Community Conservation Plan/Habitat Conservation Plan (Conservation Plan) and technical consultant support.

With Board of Directors' (Board) allocation goal of 80 percent of funds for acquisition and 20 percent for restoration over the life of the EMP, approximately \$42 million and \$10.5 million were available for acquisitions and restoration, respectively. The first round of restoration projects resulted in six projects that were approved by the Board in September 2010. In May 2012, the Board approved an additional six restoration projects for funding. In February 2017, the Board approved funding to remove multiple dams within Orange County in partnership with the United States Forest Service. Table 1 below outlines all 12 restoration projects. A graphic depicting the restoration project locations was previously provided as Attachment A.

Table 1. OCTA-Funded Restoration Projects						
Restoration Project	Sponsor	Proposed Cost¹	Approx. Acreage²	Approx. Cost/Acre	Geographic Area	General Habitat Types
City Parcel	San Juan Capistrano	\$1,500,000	53	\$28,300	San Juan Capistrano	Riparian corridor, coastal sage scrub (CSS), oak woodland, and native grassland
Fairview Park	Costa Mesa	\$2,000,000	23	\$87,000	Costa Mesa	Wetlands, native grassland, CSS, willow scrub, oak woodland
Irvine Ranch (Agua Chinon and Bee Flat Canyon)	Irvine Ranch Conservancy	\$1,497,160	90.1	\$16,600	Irvine	Chaparral, CSS, coast live oak/sycamore, oak woodland, native grassland, and riparian
UCI Ecological Reserve	Nature Reserve of OC	\$359,400	8.5	\$42,300	Irvine	Cactus scrub
Big Bend	Laguna Canyon Foundation	\$87,500	3.7	\$23,600	Laguna Beach	CSS and riparian woodland
Aliso Creek	Laguna Canyon Foundation	\$1,207,100	55	\$21,900	Laguna Niguel	Riparian

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Restoration Project	Sponsor	Proposed Cost¹	Approx. Acreage²	Approx. Cost/Acre	Geographic Area	General Habitat Types
Chino Hills State Park ³	Habitat Restoration Sciences Inc.	\$192,750	21	\$9,200	Yorba Linda	Willow riparian, oak-walnut woodland, and cactus scrub
Harriett Weider Regional Park	Bolsa Chica Conservancy	\$475,000	8.2	\$58,000	Huntington Beach	Native grassland, CSS, and riparian
Lower Silverado Canyon	Irvine Ranch Conservancy	\$1,414,435	28.4	\$49,800	County of Orange	Riparian
North Coal Canyon ³	RECON Environmental Inc.	\$247,000	5.5	\$44,900	Yorba Linda	Riversidian Alluvial fan CSS
West Loma	Irvine Ranch Conservancy	\$1,335,280	62.47	\$21,400	County of Orange	Scrub and riparian
Dams Removal	United States Forest Service	\$185,000	Not Applicable	Not Applicable	County of Orange	31 dams removed within San Juan, Trabuco, and Holy Jim Creeks
Total		\$10,500,625				

Note: shaded projects were funded as part of Round 1 (2010), the unshaded projects were part of Round 2 (2017) and the dam removal was funded in 2017.

¹Total for each project includes subsequent amendments or cost changes.

²Proposed acreage is subject to change and may be adjusted slightly once the restoration work is completed.

³Projects were formerly awarded to California Department of Parks and Recreation, who has subsequently withdrawn from implementation. These projects will now be implemented by two separate contractors.

The restoration projects focused on impacts which can be tied back to the 13 M2 freeway projects. Benefits to specific watersheds were also considered to address the mitigation needs of the State Water Resources Control Board (SWRCB) and the United States Army Corps of Engineers (ACOE) in relation to sections 401 and 404 of the Clean Water Act. The ACOE and the SWRCB have and will continue to issue permits, pursuant to the state and federal Clean Water Acts for the construction of the M2 freeway projects. Addressing this additional regulatory layer was a large focus of the decision-making process for Round 2 of the restoration projects. This regulatory permitting process is separate but parallel to the Conservation Plan permitting process. The funded restoration projects are integrated into the Conservation Plan to fulfill mitigation requirements.

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Discussion

The M2-funded restoration projects are being implemented by project sponsors within Orange County. These project sponsors essentially act as contractors performing work on behalf of OCTA. All of these projects have received M2 resources and regulatory agency approvals and are well underway. In addition, the Big Bend and City Parcel restoration projects are now complete and have been approved by the Wildlife Agencies.

OCTA staff was recently contacted by the Laguna Canyon Foundation (LCF) pursuant to the Aliso Creek Restoration Project. In general, the project is comprised of 55 acres of riparian restoration (30 acres of invasive species removal and 55 acres of native plant installation) within Aliso Creek. The project occurs within Aliso and Wood Canyon Wilderness Park owned and operated by the County of Orange. The restoration project is in its fifth year of implementation and is meeting or exceeding the required success criteria. In March 2020, OCTA received a request letter for an increase of \$275,000 to the project budget to compensate for unforeseen costs.

Work within Aliso Creek requires permits from the ACOE, California Department of Fish and Wildlife (CDFW) and SWRCB. The LCF had obtained permits from these entities and was ready to move forward with final coordination to obtain approval on the restoration plan. At that time, the project was covered by an ACOE Regional General Permit 41 for invasive plant removal and had all other required permits. LCF anticipated these permits would be adequate to move forward with the project when preparing the budget for the project.

As this project is providing mitigation for OCTA, the project was/is required to comply with the 2008 Final Compensatory Mitigation Rule, as issued by the United States Environmental Protection Agency (EPA). These requirements have resulted in cost implications from a higher level of effort (not originally anticipated) necessary to meet ACOE restoration plan criteria. The changes in the restoration plan and additional requirements from the ACOE were not originally anticipated and therefore not budgeted for this project. These requirements could not have been foreseen and were the result of many months of coordination with the ACOE to determine how the regulations applied to the different facets of this restoration project. However, as the restoration plan evolved, the ACOE indicated that additional requirements must be met.

Pursuant to the EPA 2008 Mitigation Rule, the ACOE required the following unanticipated changes to the Aliso Creek Restoration Project:

- Increase project timeframe from five to ten years. Doubling the timespan of the project would typically entail a major budget revision due to the significant annual costs of a habitat restoration project (approximately 56 percent of the cost increase).

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- Lengthy review of the restoration plan. Final ACOE approval of the restoration plan took several years and entailed a review process substantially longer than that of CDFW and the USFWS (approximately 18 percent of the cost increase).
- Conflict with the ACOE Aliso Creek Mainstem Project. The ACOE requested substantial modifications to the restoration plan as a result of the ACOE's proposed Aliso Creek Mainstem Project. These modifications entailed extensive additional labor costs (approximately five percent of the cost increase).
- Modified phasing of the project. Due to ongoing discussion with OCTA and the ACOE regarding project components, the ACOE required that the project be initiated in phases. This created additional material, mobilization, and labor costs due to lost economy of scale (approximately 18 percent of the cost increase).
- Additional surveys and avoidance methods. Costly additional archaeological and avoidance methods were required by the ACOE, including laying of an Arundo mat to prevent rubber track disturbance of soils (approximately three percent of the cost increase).

The LCF had anticipated the additional costs could be absorbed by other areas of the project budget. They have not requested budget increases on any of their prior habitat restoration projects, including the successfully completed OCTA-funded Big Bend Habitat Restoration Project. The Aliso Creek Restoration Project continues to meet or exceed the required success criteria and the cost increase will not impact the Conservation Plan.

The unbudgeted costs have depleted other important budgetary line items, such as habitat maintenance and monitoring. Based on the proposed budget modification, the new average cost per acre would increase from approximately \$21,900/acre to approximately \$26,900/acre. It is important to note that the revised cost for the Aliso Creek Restoration Project is still considered reasonable when compared to the cost of other funded restoration projects with the similar habitat type on a per acre basis. Even with the proposed cost increase, the Aliso Creek Restoration Project would remain in the lower half (using cost per acre as a matrix of comparison) of the OCTA-funded projects.

The Aliso Creek Restoration Project has provided valuable mitigation to a number of key M2 freeway projects. To date, the Interstate 405 (I-405 [Project K]) and Interstate 5 (I-5 [Project C]) projects have utilized this project for ACOE Section 404 permit(s) mitigation and Section 401 permits. It is also anticipated that this project will provide mitigation for the following future freeway projects: Project I (State Route 91 improvements), Project B (I-5 between State Route 55 [SR-55] and I-405) and Project L (I-405 between SR-55 and I-5). The Aliso Creek restoration is well underway with agreed upon mitigation ratios. Furthermore, mitigation requirements have been minimized and project level coordination has been reduced with the ACOE, the SWRCB, and the CDFW. Therefore, this project has greatly facilitated with the streamlining of the aforementioned key M2 freeway projects.