

San Diego Association of Governments

**Riparian Restoration and Arundo Removal
Final Report**

Project Period: January 2017 to June 2018

SANDAG Contract Number: 5004948

Executive Summary

This project had two basic goals:

Goal 1) Remove huge lines of arundo debris that had washed down Los Coches Creek into the San Diego River on property owned by Lakeside's River Park Conservancy.

Goal 2) To do invasive management and control in the same area of the San Diego River on property owned by Lakeside's River Park Conservancy.

Both of these goals were achieved. The debris lines and trash associated with the flood events in the spring of 2016 were removed in a massive effort. The trash and debris discharged from Los Coches Creek is more easily found and removed with the debris lines removed and the river flow more freely with better sediment transport since their removal.

Additionally, the invasive species found in this section of the river including arundo has been diligently prosecuted. Although there is a diminution of arundo and other invasives currently, because the area is a receiving water, with each rain, more corms, seeds and spouts arrive and constant vigilance is required. This will be accomplished with LRPC funds and the use of CalFire teams.

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Project Background

This grant requests \$50,000 in funds to remove arundo donax and other non native plants located in an 11 acre in an ‘old growth’ riparian forest in the channel of the San Diego River. This area, received a great deal of arundo corms and stakes during the first El Nino storm series of 2016. They arundo stakes formed dikes and debris lines several feet high. Although the area has been cleared of arundo for several years, this flooding brought an inordinate amount of arundo stakes and corms into the riparian forest. They are all sprouting and we need funds to clear them out and get this infestation under control while it is small enough to be controlled with limited effort. This project would work under the auspices of the San Diego River Conservancy’s watershed wide invasives permit.

Objectives 1) To hire a small cut and spray team to go into the area and remove and treat arundo and other invasive species. 2) Use labor crews to haul out the arundo dikes and debris lines

Outcomes and benefits : The outcome would be 1) Maintaining the restoration of the 11 acre riparian area in the San Diego River in a very cost effective manner of \$4545 per acre. The cost for removing a heavily infested area is well over \$20,000 per acre. 2) The site contains nesting territories for least Bell’s vireo and other neotropical migrants. This habitat would be greatly enhanced by this effort.

Project Goals

Goals 1) To hire a small cut and spray team to go into the area and remove and treat arundo and other invasive species.

Goal 2) Use labor crews to haul out the arundo dikes and debris lines

Outcomes and benefits:

The outcome were be 1) Maintaining the restoration of the 11 acre riparian area in the San Diego River in a very cost effective manner of \$4545 per acre. The cost for removing a heavily infested area is well over \$20,000 per acre. 2) The site contains nesting territories for least Bell’s vireo and other neo-tropical migrants. This habitat would be greatly enhanced by this effort.

Task #	Task Name	Task Description	Quantifiable Results/ Deliverables	Goals Achieved
1	Project Management	Project Management, Quarterly Reports, Final Report	Quarterly reports and payment requests Final Report will address funding for future maintenance for the site.	Monthly reports were aggregated into quarterly reports to ensure that you received timely information.
2	Biomass Removal	Coordination with land owners/the preparation of an arundo and invasive removal a plan will be developed with property owners. Invoices showing the use of dumpsters and labor crews	Maps and estimated volumes and acreages treated	This portion of the project was completed with CalFire Crews and volunteers. The volunteers were need to remove any sort of liquor bottle or other paraphernalia before the Fire crews could be deployed. With that job completed, up to three 14 man fire crew were use at any one time, hauling the debris lines out of the river bed and into dumpsters using tarps.

3	Herbicide	Photo documentation Estimate of gallons of herbicide used and mix of herbicides and application methods	Invoices showing herbicide used and photo documentation	We employed staff to control the arundo and other invasives that are discharged from Los Coches Creek into the San Diego River Channel.
4	Coordination	Develop a plan to coordinate with adjacent landowners for the source of arundo to control the reinfestation of arundo into the site.	Plan	We have been using funding from another grant from the San Diego River Conservancy to help control arundo re-infestation from the 200+ property owners enrolled in our Los Coches up stream effort.

Work Performed by Task

TASK 1		Budget
Project Management		\$9734
	Match	0
	Spent	\$9696
TASK 2		
Biomass Removal		\$10,950
	Match	0
	Spent	10923
TASK 3		
Herbicide Application		\$21,790
	Match	0
	Spent	20558
TASK 4		
Coordination		\$0
	Match	
	Spent	\$0.
TASK 5		
Indirect Costs 21%		\$6,371
	Match	
	Spent	\$6,371

Conclusions

The project achieved both of its goals. It removed the tremendous amount of debris lines from the 2016 flooding, opening up the riverbed to new habitat growth. It also worked to control invasive species such as arundo which are discharged into the riverbed via Los Coches Creek.

Appendices:

Images from the project.

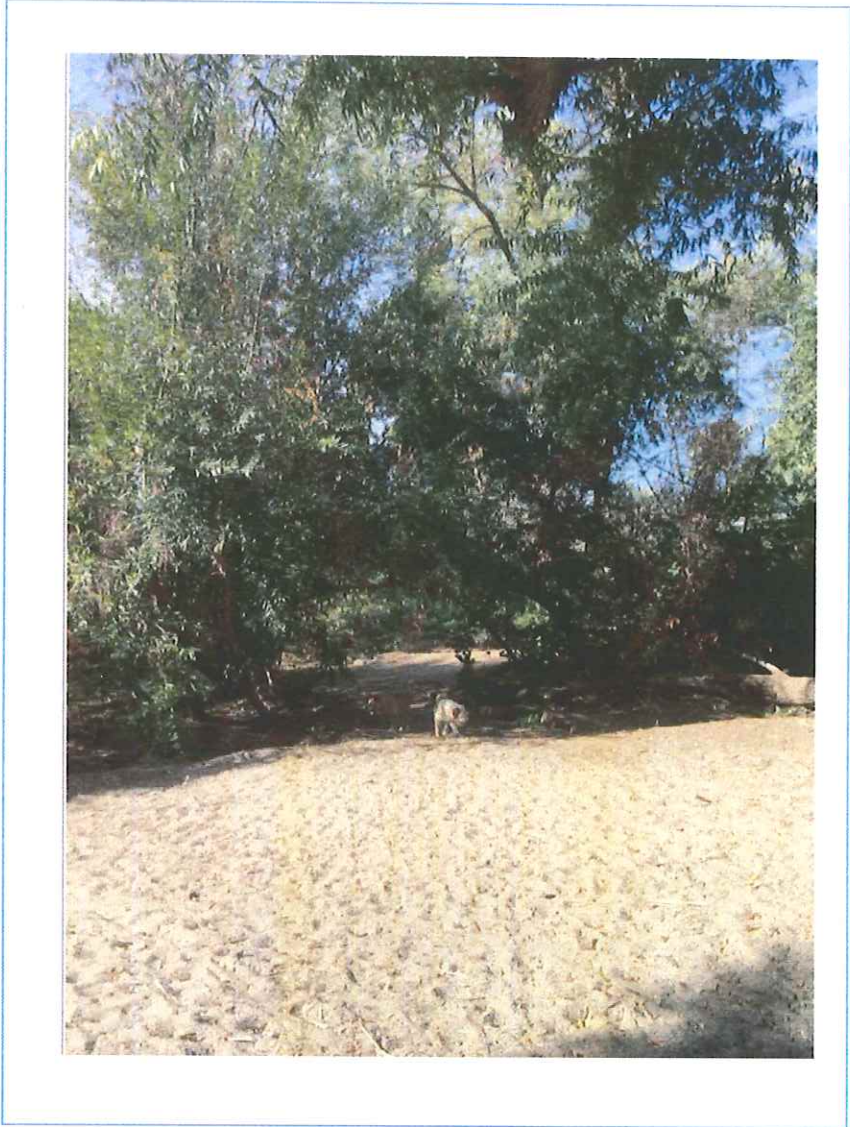
Before



Before



After



Before Invasive Removal: Caster primarily



After Removal

Before: Arundo Removal



After: Arundo Removal

