



Calleguas Creek Arundo/Tamarisk Removal Program (CCARP)

Fact Sheet

The Calleguas Creek Arundo/Tamarisk Removal Program (CCARP) will provide guidance to **Calleguas Creek Watershed** stakeholders for removal of invasive plants within the watershed, under the leadership of the **Ventura County Resource Conservation District (VCRCD)**. In particular, it will facilitate the removal of species such as arundo (*Arundo donax*) and tamarisk (*Tamarix* spp.) through the inception of a programmatic review and permitting process on a watershed-wide basis. The plan will also provide a set of methods for removal, disposal, and revegetation. Best management practices will also be developed to reduce erosion and other impacts to the environment.

There are numerous negative effects associated with the establishment of arundo and tamarisk including:

- **Water Quality:** Reduction in the shading of surface water, thereby resulting in reduction of bank-edge river habitats, higher water temperature, lower dissolved-oxygen content, raised pH, and conversion of ammonia to toxic unionized ammonia.
- **Water Supply:** Loss of surface and groundwater through heavy consumption and rapid transpiration.
- **Flooding:** Obstruction of flood flows with associated damage to public facilities including bridges and culverts, and to private property such as important farmland.
- **Erosion:** Increased erosion of streambanks, associated damage to habitats and farmlands due to channel obstructions, and decreased bank stability associated with shallow-rooted arundo.
- **Fire Hazards:** Substantially increased danger of wildfire occurrences, intensity, and frequency, and a decrease in the role riparian areas infested with arundo play as firebreaks or buffers.
- **Native Habitats:** Displacement of critical riparian habitat through monopolization of soil moisture by dense monocultures of arundo and tamarisk.
- **Native Wildlife:** Reduction in diversity and abundance of riparian-dependent wildlife due to decreased habitat quality, loss of food and cover, and increased water temperatures.
- **Threatened and Endangered Species:** Substantial reductions in suitable habitat available for state and federally listed species such as the least Bell's vireo.

Several agencies have jurisdiction on Calleguas Creek. Each agency has a separate permitting process with different timelines and fee structures. The financial burden and coordination time of producing individual large-scale CEQA/NEPA documents and obtaining permits can make implementation projects prohibitive or reduce the amount of removal work performed. Primary examples of the benefits offered by programmatic review and permitting include:

- All public agencies, environmental groups and other interested parties have ample opportunity to voice concerns about the potential removal methods.
- The overall cost of environmental review is reduced.
- Funding for removal projects becomes more easily available because environmental review and permitting are completed prior to application for funds.
- Builds a level of trust with the regulatory agencies regarding the types of projects being promoted by the VCRC.
- Increases the amount of on-the-ground work that can be performed for the same cost as individually permitted projects.

The permits currently required to remove invasive species such as arundo and tamarisk from stream channel areas include:

- U.S. Army Corps of Engineers 404 Permit
- Los Angeles Regional Water Quality Control Board 401 Certification
- U.S. Fish and Wildlife Service and National Marine Fisheries Section 7 Consultation
- California Department of Fish and Game Master Streambed Alteration Agreement
- California Department of Fish and Game California Endangered Species Act - State Incidental Take Permit 2081(b) or 2080.1 Consistency Determination
- Ventura County Public Works Department Watercourse/Encroachment and Grading Permit

Without the CCARP, arundo and tamarisk will continue to increase their establishment in the watershed and will continue to negatively impact the Calleguas Creek Watershed. Individual project planning and permitting to remove non-natives will remain an obstruction to a collaborative watershed wide removal effort.

Funding for this project has been provided in full or in part through an agreement with the State Water Resources Control Board.