

PROJECT D1: Management of Riparian Planting and Invasive Plant Removal

PRIORITY D Restore wildlife habitat and provide open space.



About the project

Project D1 supports Valley Water management of at least 300 acres of existing riparian planting projects and 200 acres of invasive plant removal projects throughout the five watersheds. The project also funds maintenance of future riparian planting and invasive plant removal sites, which are anticipated as part of upcoming environmental mitigation requirements. Funding for this project ensures all required riparian planting and invasive plant removal projects are maintained as functional habitat that can support wildlife. In addition, this project includes targeted control of especially damaging non-native, invasive plant species such as Arundo throughout the county.

Key performance indicators

- Maintain a minimum of 300 acres of riparian planting projects annually to meet regulatory requirements and conditions.
- Maintain a minimum of 200 acres of invasive plant management projects annually to meet regulatory requirements and conditions.
- Remove 25 acres of Arundo donax throughout the county over a 15-year period.







Invasive Plant Management Program

The Invasive Plant Management Program (IPMP) seeks to restore riparian and upland habitats by removing invasive plants that displace native flora and threaten wildlife in Santa Clara County.

These species spread aggressively, outcompete native species, degrade soil stability and habitat, and reduce ecological diversity. They can also exacerbate flooding and fire risk, and block access to roads and trails.

Targeted invasive plant species

IPMP targets over 600 acres of riparian habitat and currently includes 40+ invasive species. New plants are added once they are identified as threats in the county. Species include well-known noxious weeds as well as high-alert early detection species. They range from large trees such as tree of heaven to vines like Himalayan blackberry and herbs such as yellow starthistle.

Invasive plant management sites & activities

Project sites are chosen based on feasibility of control, accessibility for maintenance, fire and flood risk, and site wildlife and fishery value. Following a large initial removal effort, sites are monitored and maintained for five years with follow up to remove persistent species, prevent new infestations, and exhaust the seedbank. To track natural recruitment of native plants, natives are mapped at each site in years three and five.

Invasive plant management strategies include carefully timed manual and mechanical removal techniques such as hand-pulling and mowing. Crews may use power tools such as chainsaws, weed eaters, pole saws, and hedge trimmers.

For species that require chemical treatment for control, Valley Water applies low toxicity herbicides in accordance with Integrated Pest Management principles. Crews may apply herbicide directly to foliage or to freshly cut stumps. Licensed applicators carefully evaluate each work site to minimize herbicide drift and impacts to non-target species.





Crews removing Arundo donax along Covote Creek.

Countywide Arundo Eradication Program

In conjunction with the IPMP, Valley Water also operates the Countywide Arundo Eradication Program. Arundo (*Arundo donax*) is a robust, bamboo-like plant classified as high impact by the California Invasive Plant Council due to its fast growth, tendency to form dense thickets, ability to regenerate from fragments, and outsized effects on riparian habitats. This species is one of Valley Water's highest priority invasive plant targets. Arundo is bad news for both creeks and creekside neighbors for several reasons:



Biology: Arundo can grow up to 25 feet tall and spread 1-2 feet laterally per year. Arundo reproduces effectively by breaking off and resprouting downstream.



Flooding: Arundo's rapid growth and high biomass mean reduced flow conveyance and capacity for creeks. Furthermore, Arundo traps debris and sediment. In a high flow event, large sections can dislodge and exacerbate flood risk.



Fire: Despite Arundo's thirsty habits and evergreen foliage, it is highly flammable—far more so than the native vegetation it crowds out. Growing up to 25 feet tall, it can carry fire to nearby trees and buildings. Fire does not kill this plant; it resprouts from the roots after a burn.



Erosion: Arundo has shallow, fibrous roots that do not hold on to soil well. When undercut by water, root masses break free and float downstream, causing bank erosion and the start of new infestations. Stream beds can be altered when water flows around the Arundo.

Controlling Arundo

Research is currently being done to ascertain the most effective methods to control this persistent and resilient plant. If you have concerns about Arundo on your property, please submit a customer request via Access Valley Water *valleywater.org* or contact Claire Mallen at *cmallen@valleywater.org*.



A crew member planting native species.

Riparian Planting Program

The third component of the project is the Riparian Planting Program. Native plant communities provide habitat for wildlife, prevent erosion, and enhance the aesthetic appeal of riparian areas.

This program was developed to enhance Valley Water lands that currently contain little native vegetation. Project sites are cleared of invasive species and revegetated with native plants that promote ecological diversity and soil stability. Local wildlife, including sensitive species such as the salt marsh harvest mouse and

San Francisco dusky-footed woodrat, rely on native plants for shelter and food. By preventing erosion and improving soil health, native plants also provide water quality benefits to aquatic species.

Revegetation sites also benefit human neighbors. Established native plant communities resist invasion by weeds, tolerate drought, and produce less fuel for fires.

By 2025, Valley Water will have planted over 500 acres of native vegetation in Santa Clara County.

Native plant selection and site maintenance

Native plants chosen for revegetation sites include ecologically important trees such as coast live oak, elderberry, and California buckeye. Shrubs such as coyote brush and toyon plus herbs like California blackberry and goldenrod fill out the understory. The program's native plant palette includes over 70 native species.

Revegetation sites are selected based on habitat value, available planting space, suitable soil and water conditions, and accessibility for site maintenance. Sites vary in size and existing vegetation, but typically include both riparian and upland areas. Each watershed is home to several revegetation sites. In addition, sites treated under the IPMP can become revegetation sites after invasive plants have been eradicated.

Planting occurs in winter through mid-spring to take advantage of water availability. Once planted, revegetation sites are regularly weeded and watered by Valley Water crews to ensure plant establishment. Unsuccessful plantings are replaced during the first year, and sites are formally monitored for species composition, percent survival, and percent cover every year for five years. At the end of this period, plants have established and no longer need supplemental irrigation.

For assistance

Access Valley Water Hotline:



Valleywater.org



408-630-3863

A full list of projects in the **Safe, Clean Water and Natural Flood Protection Program** can be found at https://www.valleywater.org/safe-clean-water-and-natural-flood-protection-program.

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