

## Water Competition

**Arundo Consumes 3 times more water than native plants**

**Horticulture experts estimate:**

1 acre of Arundo consumes 5.62 ac-ft per year

**Madera County estimates:**

+130 acres of Arundo = +730 ac-ft of water per year—enough water to serve more than 700 families of four

**Example of cost analysis:**

1 ac-ft at \$60.00 = \$43,800 per year of water consumed by Arundo in Madera County.



**Berenda Slough, Chowchilla, CA**

**Local Invasion:**

**Approximately 36 miles of Madera County's waterways are invaded with Arundo:**

**Chowchilla River/Ash Slough = 11 miles  
Berenda Creek and Slough = 12 miles  
Cottonwood Creek = 13 miles**

## Get involved! Take action!

In spite of the serious threat that Arundo poses to our streams, it can be controlled. Landowners and small groups can make a big difference in ridding our streams of this noxious weed. There are proven, simple methods for controlling Arundo.

- Learn more about Arundo and how to identify it.
- Report sightings of Arundo to a local conservation group or agency.
- Join local eradication efforts already underway or help to start one.
- If you own land along a stream with an Arundo infestation, request help and provide access for control efforts.

### Chowchilla Red Top Resource Conservation District



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Information provided by:  
Sonoma Ecology Center, with the assistance of Team Arundo del Norte (TAdN); USDA and Natural Resources Conservation Service, Madera Office;

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This watershed project is being funded with a grant from the CA Dept. of Conservation. The statements within this brochure are informative only and are not necessarily those of the DOC or its employees.



**Chowchilla Red Top Resource Conservation District**

**Chowchilla/Fresno River Watershed**

## The Dangers of Arundo Donax



**Ash Slough, Chowchilla, CA**

Arundo donax, also called giant reed or giant cane is an extremely fast growing plant resembling bamboo. It can grow four inches a day and up to 30 feet tall.

Arundo grows in moist places, usually along streams and sloughs. It was introduced into California by Spanish Missionaries and used as building material. In Madera County it was planted as erosion control along the waterways.

**One of the fastest growing plants in the world.**



# Why is Arundo such a threat to Madera County's streams?

**Arundo fuels dangerous wildfires, causes local flooding, consumes more water than native species, and eliminates native plants and wildlife habitat.**



Aerial View of Arundo on Ash Slough

## Arundo destroys fish and wildlife habitat

Our creeks, sloughs, and rivers support an incredibly diverse number of plants and animals. Numerous bird, fish, reptile, and amphibian species that depend on riparian (streamside) areas are declining across the county. Arundo contributes to the loss of habitat by displacing native plants that provide food, shelter, and breeding habitat for fish and wildlife.

## Arundo displaces native plants

Arundo outcompetes other streamside plants because it grows so quickly. Arundo infestations can reduce the rich streamside ecosystem to a wasteland/monoculture of pure Arundo. By this process, Arundo has come to completely dominate some areas on the waterways of Madera County. (This has also occurred in other waterways of California and other states.)

## Arundo and fire make a dangerous combination.

Arundo is highly flammable and burns when green (when burning it pops and sputters like a Christmas Tree). When Arundo carries fire into a waterway, riverside trees or native trees and plants are killed and nearby crops and buildings may be destroyed. After a fire, Arundo grows back rapidly, in most cases in just a few weeks, from its roots, thicker than before, and with little or no competition from other plants. Arundo transforms a naturally fire-resistant buffer of native plants along our creeks and sloughs into a threat to our environment, farmlands, and homes.



Arundo Fire on Ash Slough



Results of Arundo Fire on Ash Slough October 2005

## Arundo creates erosion and flooding problems.



Orchard flooding caused by Arundo blockage in the Berenda Slough—April 2006

Besides the sheer volume of the Arundo stands blocking the stream flow. Its shallow roots are easily undercut by stream flow. The roots then break off from stream banks, taking soil with them. Clumps of Arundo float downstream and clog culverts and channels. The obstructions cause flooding and sometimes wash out bridges, resulting in millions of dollars of damage. Large Arundo infestations can alter stream flows by redirecting the water against stream banks, undercutting them and causing landslides.



Flooding on Berenda Slough