

# Arundo Control and Restoration Program

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SACRAMENTO - SAN JOAQUIN  
**DELTA CONSERVANCY**  
*A California State Agency*







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- **Increases fire severity.**



















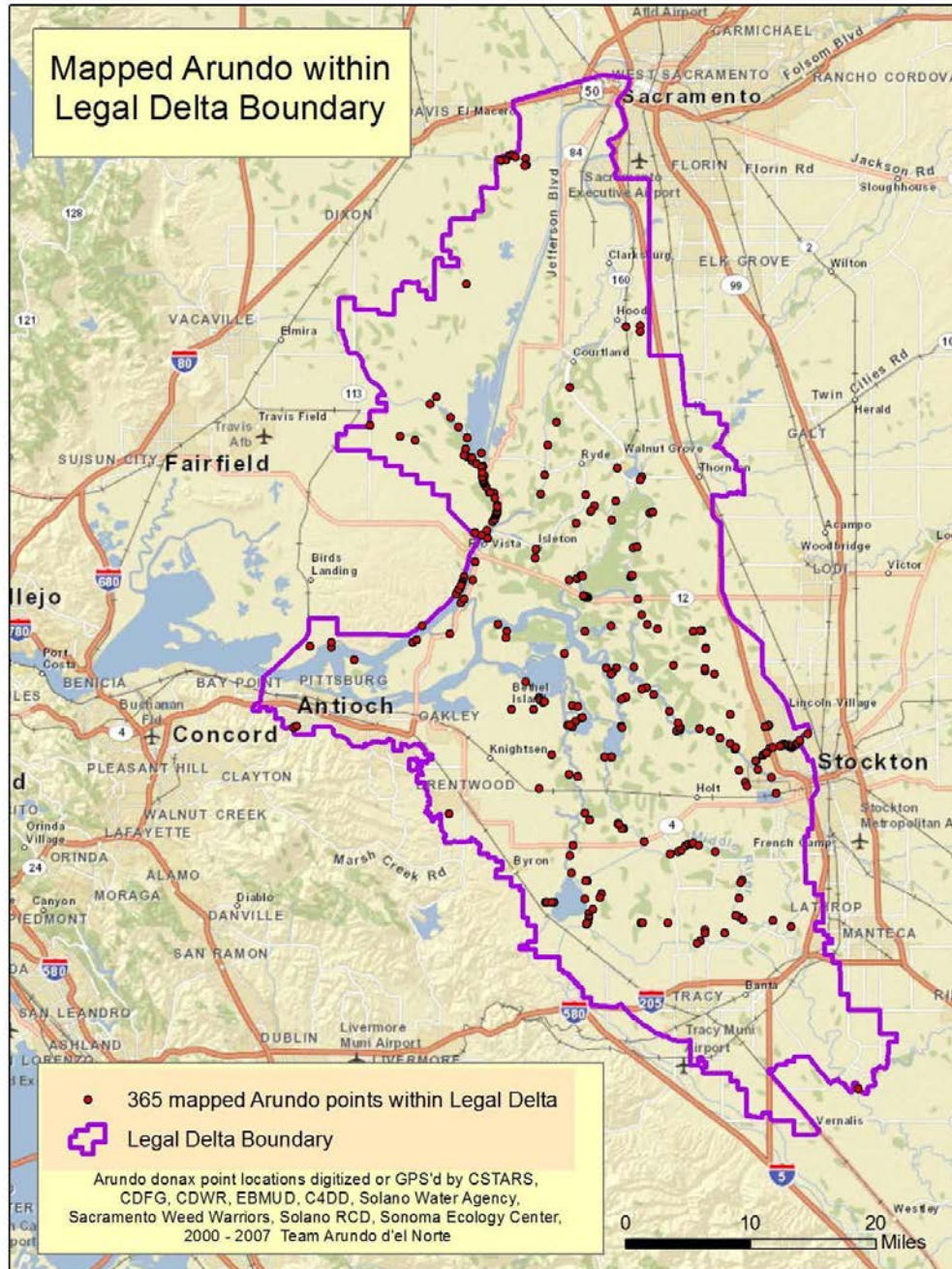
# Hard to Kill – Need Persistence

Need a long-term program, NOT a project





Mapped Arundo within  
Legal Delta Boundary













# DWR, Solano Resource Conservation District and RD 2068 (Yolano)

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Entered agreement in 2011 using Prop 84  
funds to:

- Control *Arundo* along drainage ditch adjacent to Hastings Cut (4,300 ft).
- Revegetate ditch and surrounding area with appropriate native vegetation.
- Map *arundo* infestations in the Cache Slough Complex.





9/1/2012



Google earth











# Spraying Arundo

- October 2012
- Habitat (3% Imazapyr)
- Aquamaster (3% Glyphosate)





# Arundo Treatment Areas

HABITAT (3% IMAZAPYR)

Note pre-emergent soil properties



AQUAMASTER (3% GLYPHOSATE)

Note extensive regrowth





# Arundo Regrowth

September 2013

Imazapyr

Glyphosate









# Soil Prep and Seeding

- Purple needlegrass (*Stipus pulchra*)
- Blue wildrye (*Elymus glaucus*)
- Slender wheatgrass (*E. trachycaulus*)
- Creeping wildrye (*Leymus triticoides*)
- Meadow barley (*Horaceum brachyantherum*)





# Planting

- SRCD staff and CCC crews
- Cuttings of Willow, Cottonwood and Mulefat
- Installed 4,000 Creeping wildrye plugs
- Installed 450 native trees and shrubs
- Installed 13,000' of  $\frac{3}{4}$ ' drip irrigation





# The Western Slope





Shallow well drilled to  
provide alternate  
water source for cattle







## WATER TROUGHS FOR CATTLE

- Keeps cattle away from waterway
- Less bank erosion
- Allows riparian vegetation to establish

## BENEFITS TO LANDOWNER

- Less sediment buildup in ditch
- Improved water quality
- Healthier cattle











# More Arundo

## LANDOWNER WILLINGNESS

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- Previously wanted to keep Arundo.
- Kept pheasants in hunter area
- Saw replanting efforts across the Cut
- Now wants to participate in the project
- Neighbor effect

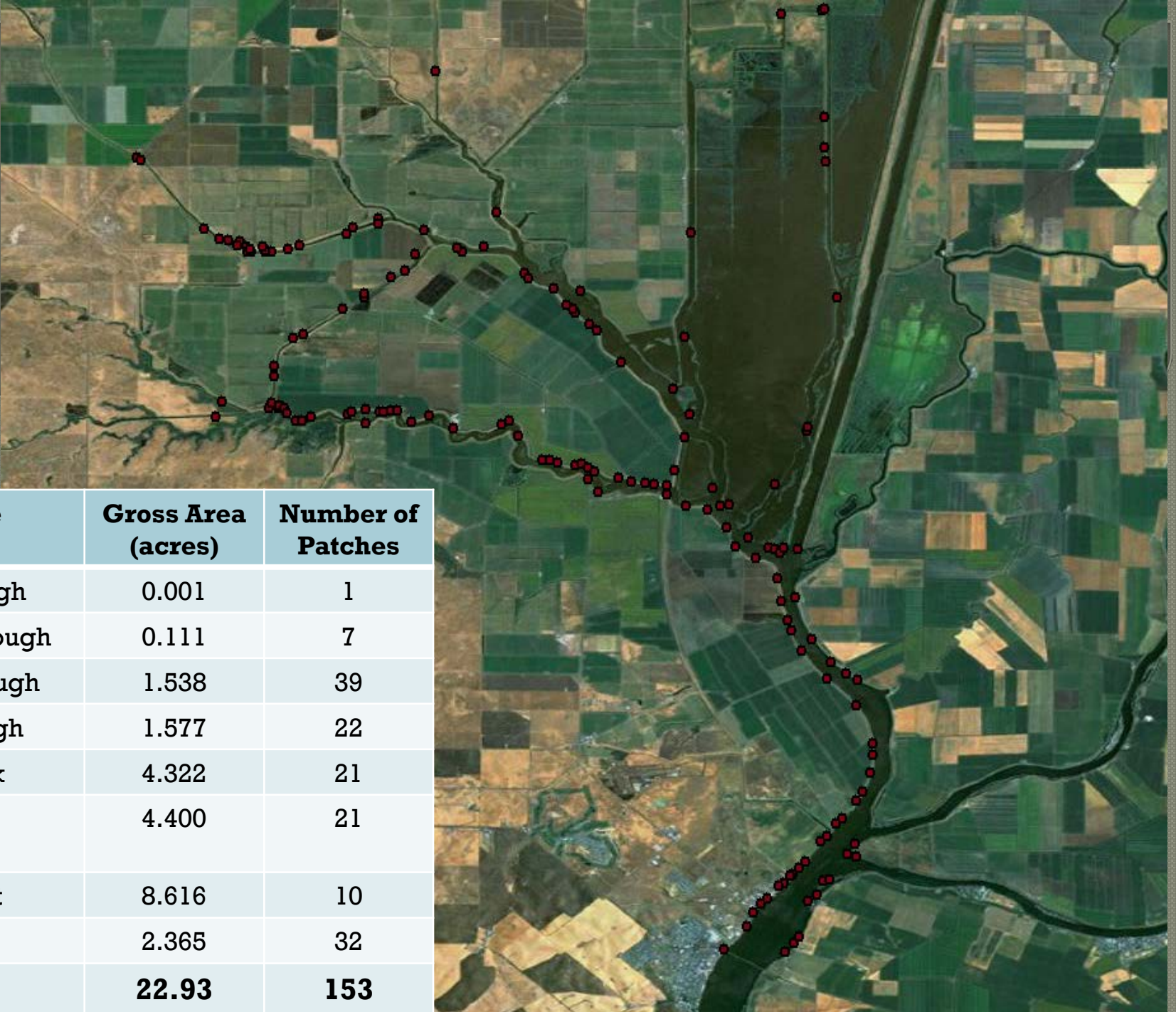


# Advantages of partnering with SRCD



- Boots on the ground
- Established and developing relationships with landowners.
- Expertise and equipment
- Cooperative relationship with other local entities (ie. NRCS)
- Access to alternate funding (EQIP)





Name	Gross Area (acres)	Number of Patches
Barker Slough	0.001	1
Prospect Slough	0.111	7
Lindsey Slough	1.538	39
Cache Slough	1.577	22
Ulatis Creek	4.322	21
Deep Water Channel	4.400	21
Hastings cut	8.616	10
Others	2.365	32
<b>TOTALS</b>	<b>22.93</b>	<b>153</b>







# The Delta Conservancy

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- Approached DWR to fund Delta-wide Arundo control effort
- Unclear of effort needed or cost involved
- Need to develop a program rather than a project
- DWR funding is from bonds and have time limit
- Suggested an Arundo control pilot project in Cache Slough Complex



# CSC Pilot Project

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- CSC primary area for restoration
- Builds upon what is being learned under Yolano contract
- Continues landowner and RD contacts
- Establishes trust for future endeavors
- Neighbor effect – build upon success
- Opens possibilities for future projects
- Additional funding available through NRCS
- Delta Conservancy moving to larger role in weed abatement



# Arundo Removal and Restoration Project

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- Six year project
- Map Arundo infestations throughout the legal Delta
- Develop a prioritization model for future work in the Delta
- Initiate a pilot project to remove Arundo in CSC





# Arundo Pilot Project in Cache Slough Complex

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- Control Arundo on 90,000 linear feet of levee and channel margin in CSC
- Revegetate 50 acres of levees and adjacent areas with native vegetation
- Project will inform SSJDC of requirements, resources, expenditures and techniques needed to control Arundo
- Assist SSJDC in developing, funding and successfully implementing a long-term Arundo control program



# The End

(of the beginning)

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