Taking the leap: watershed-wide *Arundo donax* eradication in Santa Barbara County

Santa Ynez River Tamarisk and Arundo Project- SYRTAP

Katrina Olthof- Wildlands Conservation Science
Santa Ynez River

- City of Santa Barbara
- Goleta Water District
- Carpinteria Valley Water District
- Montecito Water District
- Downstream water rights
Initial Project Proponents:
Cachuma Conservation Release Board & Santa Ynez River Water Conservation District
Reasoning:
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- Prevent potential increased flood and fire risk
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• Conserve native plant and wildlife habitat and biodiversity
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- Conserve native plant and wildlife habitat and biodiversity
- Prevent potential loss and degradation of the quality of potable water supply from the river, lakes and underground sources
- Prevent an increase in potential weed management costs and herbicide use
Funding

- Proposition 50 – the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002
- Coastal Impact Assistance Program
- CA Dept. of Food and Agriculture Weed Management Area
- CDFW Fisheries Restoration Grant Program
- County of Santa Barbara
SYRTAP

Objectives:
1. Survey and map infestations of tamarisk and Arundo on the Santa Ynez River, and identify owners of infested sites.
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3. Treat all infestations of tamarisk and Arundo
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3. Treat all infestations of tamarisk and Arundo
4. Monitor treatment efficacy and retreat as necessary.

Treat newly discovered infestations
First Step: The Survey

Conservation Done Efficiently

September 2008
339 populations of *Arundo donax* west of Lake Cachuma
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173 populations of *Tamarix ramosissima* east of Lake Cachuma
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173 populations of Tamarix ramosissima east of Lake Cachuma
Patchy
Permitting

- Mitigated Negative Declaration to satisfy CEQA
- 1600 Lake or Streambed Alteration Agreement
- CalTrans Encroachment Permit
- USACE RGP 41

Mitigations:

- WEAP – Worker Environmental Awareness and Protection Program
Eradication Effort Begins!
4 years later....
The Approach
Santa Ynez River
Giant Reed Eradication
2013 Progress

Legend
Giant Reed Treatment Status
- ▼ Stand Treated in 2013
- ▲ Stand Not Treated Due to High Water
- ★ Stand Not Yet Treated
- † Stand Does Not Exist

Salt Cider Treatment Status
- ▲ Stand Treated in 2013
Tools of the Trade
Our Rides
Year One- 5% Glyphosate
Years Two-Four
1% Imazypr
Years Two-Four

1% Imazypr

But you have to be careful!!
Consistent Slacker Approach
Our Rides
Nice to meet you.
See you next year...
Success!
Every green ring gets a blue one...
The Stats

- 2008 Survey – 339 pops
- 2012 Tx Year 1 – 415 pops
- 2013 Tx Year 2 – 709 pops
- 2014 Tx Year 3 – 742 pops
- 2015 Tx Year 4 – even more...
- 2016 Tx Year 5 – Fingers crossed
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~30 Acres
Here’s the Rub
Six miles to go & 124 stands short of the prize
Protection of California Red-legged Frog from Pesticides

Back to Endangered Species Project

Stipulated Injunction and Order

Background

On October 20, 2006, the U.S. District Court for the Northern District of California imposed no-use buffer zones around California red-legged frog upland and aquatic habitats for certain pesticides. This injunction and order are part of a settlement reached between U.S. EPA, Creel, Life America, American Forest and Paper Association, Western Plant Health Association, Oregonians for Food and Shelter, and Syngenta Corporation as co-defendants, and the Center for Biological Diversity as the plaintiff.

The suit by the Center for Biological Diversity alleged that U.S. Fish & Wildlife Service (FWS) failed to solicit U.S. Fish & Wildlife Service (FWS) formal consultation on the risks of 68 pesticides to California red-legged frog (CRLF).

This injunction and order will remain in effect for each pesticide listed below until FWS goes through formal 7(A)2 consultation with FWS on each of the 66 active ingredients, and FWS issues a Biological Opinion including a “not likely to adversely affect” statement for the pesticide. Each pesticide in turn will be removed from the list, as this occurs.

Pesticide Use Restrictions Now Required

Under the injunction and order, no-use buffer zones of 60 feet for ground applications and 200 feet for aerial applications apply from the edge of the following California red-legged frog habitats as defined by the U.S. Fish & Wildlife Service and the Center for Biological Diversity: Aquatic Feature, Aquatic Breeding, Habitat, Non-breeding Aquatic Habitat, and Upland Habitat (details on these habitats are given in a Powerpoint Presentation following the list of prohibited active ingredients). These CRLF habitats are found in 32 counties of California link to map, PDF (455 kb).

The active ingredients for which the no-use buffer zones apply are the following:

- 2,4-D
- Endosulfan
- Myclobutanil
- Thiocarb
- Acephate
- EPTC
- Naled
- Tribufos (DEF)
- Alachlor
- Esfenvalerate
- Norflurazon
- Triclopyr
- Aldicarb
- Fenamiphos
- Oryzalin
- Trifluralin
- Atrazine
- Glyphosate
- Oxamyl
- Vinclozolin
- Azinphos-methyl
- Hexazinone
- Oxydemeton-methyl
- Ziram
- Bensulide
- Imazapyr
- Oxyfluoron
- Bromacil
- Ipodione
- Paraquat dichloride
- Captan
- Linuron
- Pendimethalin
- Carbaryl
- Malathion
- Permethrin
- Chlorpyriphos
- Mancozeb
- Phorate
- Chlorothalonil
- Maneb
- Phosmet
- Chlordimeform (DCPA)
- Metam sodium
- Prometryn
- Diazinon
- Methidathion
- Propanil
- Dicofol
- Methomyl
- Propyzamide (Pronamide)
- Diflubenzuron
- Methoprene
- Korenzone
- Dimethoate
- Methyl parathion
- Simazine
- Disulfoton
- Metolachlor
- Styrychline
- Difenon
- Molinate
- Toxone (1,3-dichloropropene)
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then I hike three miles back to find out they don't have any more cars?
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Acknowledgements

• David Chang and Stephanie Stark, Santa Barbara County Agricultural Commissioner’s Office
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• California Department of Fish and Wildlife,
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• Morgan Ball and Grant Powell; Wildlands Conservation Science
Questions?