

# Shasta County Project

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# Shasta County Project

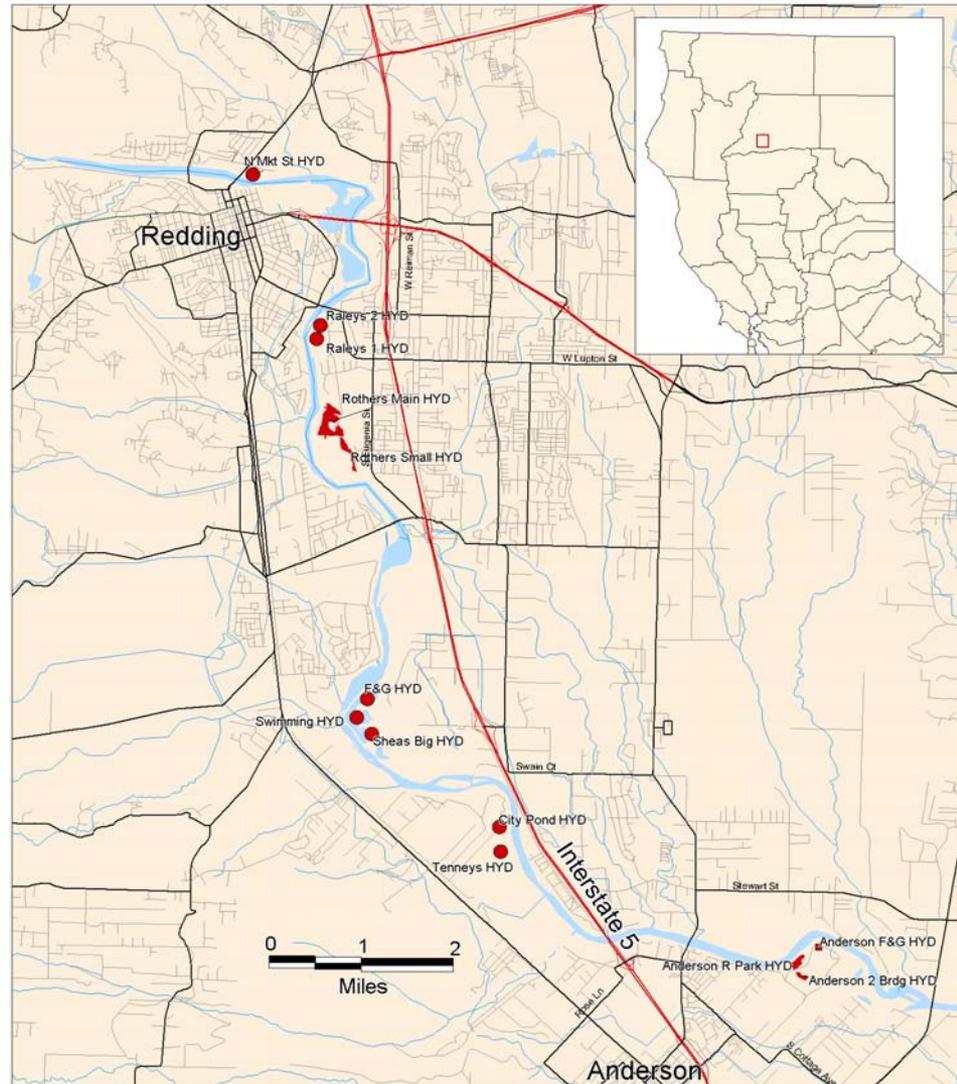
- Short History
  - 1985, dioecious hydrilla found in seven ponds near Sac river
  - “Proclamation of Emergency”
  - 1986, four additional ponds
  - Four ponds filled in
  - Eradicated from other 7 ponds
  - 1994, Anderson River Park
  - 1996, Redding Golf Course



**Plate 2**  
Active and Historic Hydrilla Sites in the Redding Area, Shasta County

Active sites mapped by 3 m GPS; historic sites digitized by hand from previous maps

● = Hydrilla site, active or inactive



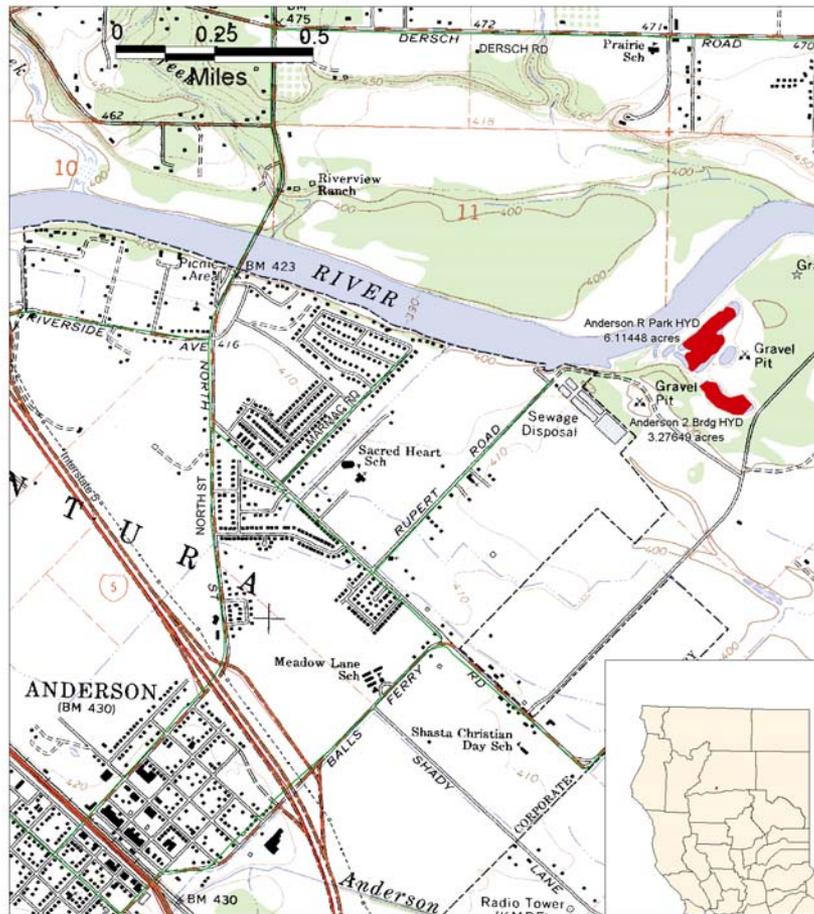
Map by CDFA, Integrated Pest Control Branch, Noxious Weed Information Project, 22 May 2001



### PLATE 3

Anderson River Park Hydrilla Eradication Project, Anderson  
3 meter GPS Data

■ = Infested Ponds



Anderson River Park  
Discovered 1994  
3 acre pond  
10 acre pond

### Survey

Visual

Grappling hook

Sediment

Divers (1999,  
2002)

### Treatment

Sonar SRP (2000,  
2001)

# Anderson Ponds



Site	Pond size (acres)	Level of Infestation				
		1996	1999	2000	2001	2002
Anderson 3 acre pond	3	-	0 plants	0 plants	0 plants	0 plants
Anderson Big Pond	10	-	6 plants	0 plants	0 plants	0 plants

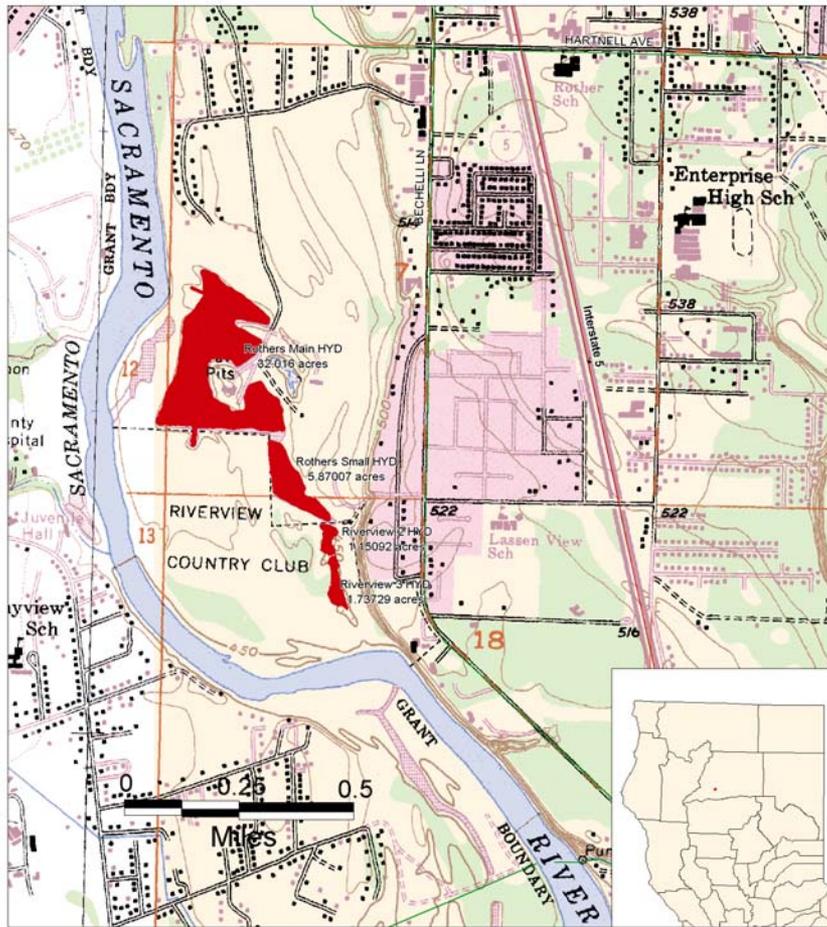
When can we declare eradication ?



#### PLATE 4

Riverview Golf Course Hydrilla Eradication Project, Redding  
3 meter GPS Data

■ = Infested Ponds



Redding Golf Course  
Discovered 1996  
30 acre pond  
6 acre pond  
1 acre pond  
2 acre pond

Survey  
Visual  
Grappling hook

Treatment  
Dredging (2002)  
Sonar AS  
Sonar SRP

# Redding Small Pond



# Redding Golf Course Ponds

Site	Pond size (acres)	Level of Infestation				
		1996	1999	2000	2001	2002
Rother's Pond	30	15/30 scattered	0 plants	1 plant	9 plants	10/30 scattered
Golf Course 1	6	Mod. to heavy	scattered	10 plants	13 plants	10 plants
Golf Course 2	1	Heavy	Scattered	7 plants	0 plants	0 plants
Golf Course 3	2	Heavy	10% cover	5% cover	18 plants	0 plants, 75 tubers

# Redding Ponds-Water Sampling Stations

Green arrow indicates treated pond.

Sonar SRP 30 ppb application dates

06/10/2002

07/15/2002

08/19/2002

Sampling times

1 hour before each app

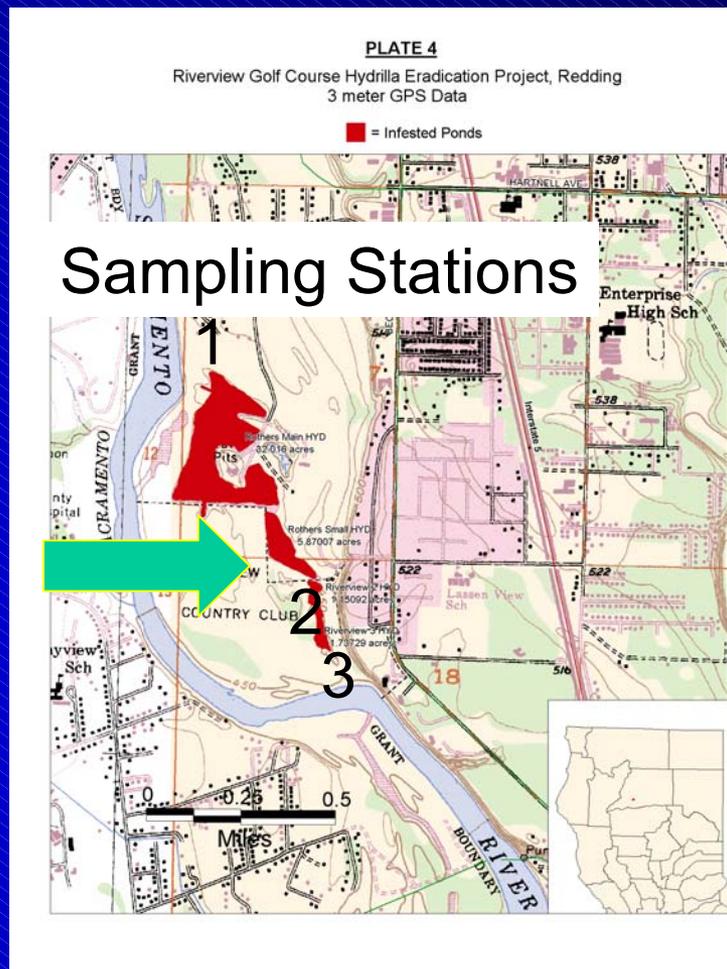
4 days after each app

7 days after each app

14 days after final app

30 days after final app

60 days after final app



# Redding Ponds-Water Sampling Results

Beneficial Use Protective Water Quality Limit (BUPWQL) for fluridone defined as 5 ppb, based on irrigation restrictions on Sonar SRP label.

Analyses performed by the CDFA Center for Analytical Chemistry

Method	Samples	Reporting Level	% Recovery	Spike levels	Minimum Detect Level
<b>ELISA</b> (quantitative)	<b>All</b>	<b>5 ppb</b>	<b>87-114%</b>	<b>0.5-20 ppb</b>	<b>0.1 ppb</b>
<b>GC/MS</b> (structure confirmation)	<b>~10%</b>	<b>7 ppb</b>	<b>113-125%</b>	<b>20 ppb</b>	<b>5 ppb</b>

# Redding Ponds-Water Sampling Stations



## Sample Station 1

All samples non-detect

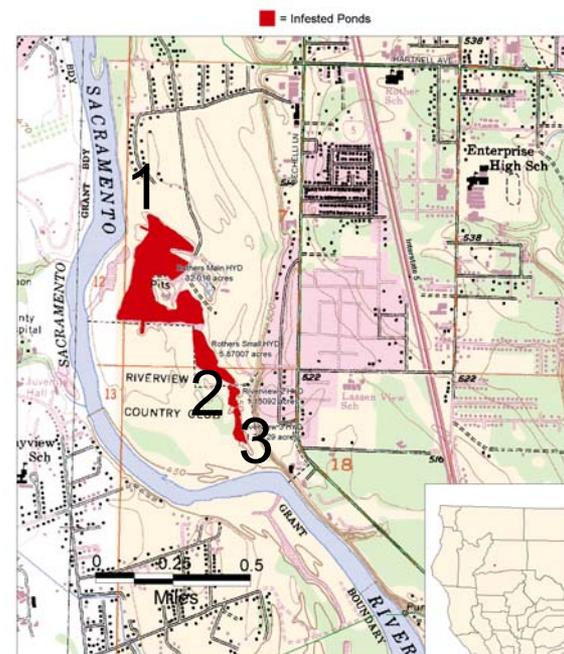
## Sample Station 2

All samples < BUPWQL

## Sample Station 3

All samples < BUPWQL

PLATE 4  
Riverview Golf Course Hydrilla Eradication Project, Redding  
3 meter GPS Data



GC/MS confirmation on 7 of 7 samples

# Shasta County Project

- Surveys
  - Inside Eradication Zone
    - Sacramento River from Redding to Red Bluff
    - 19 ponds, 7 creeks
  - Outside Eradication Zone
- Outreach and Education