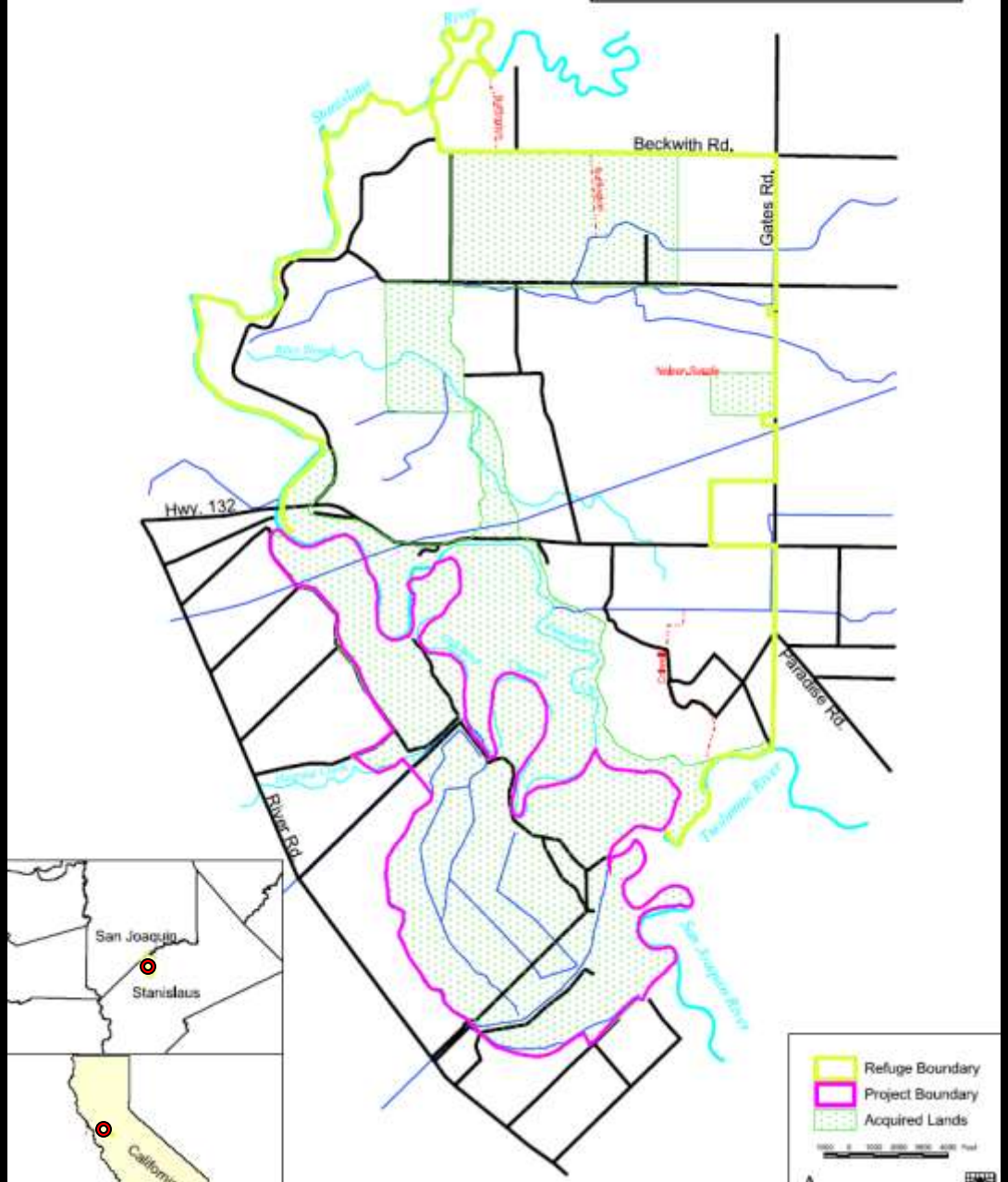
Suppressing Exotic Weeds on Restoration Projects Using an Aggressive Herbaceous Understory

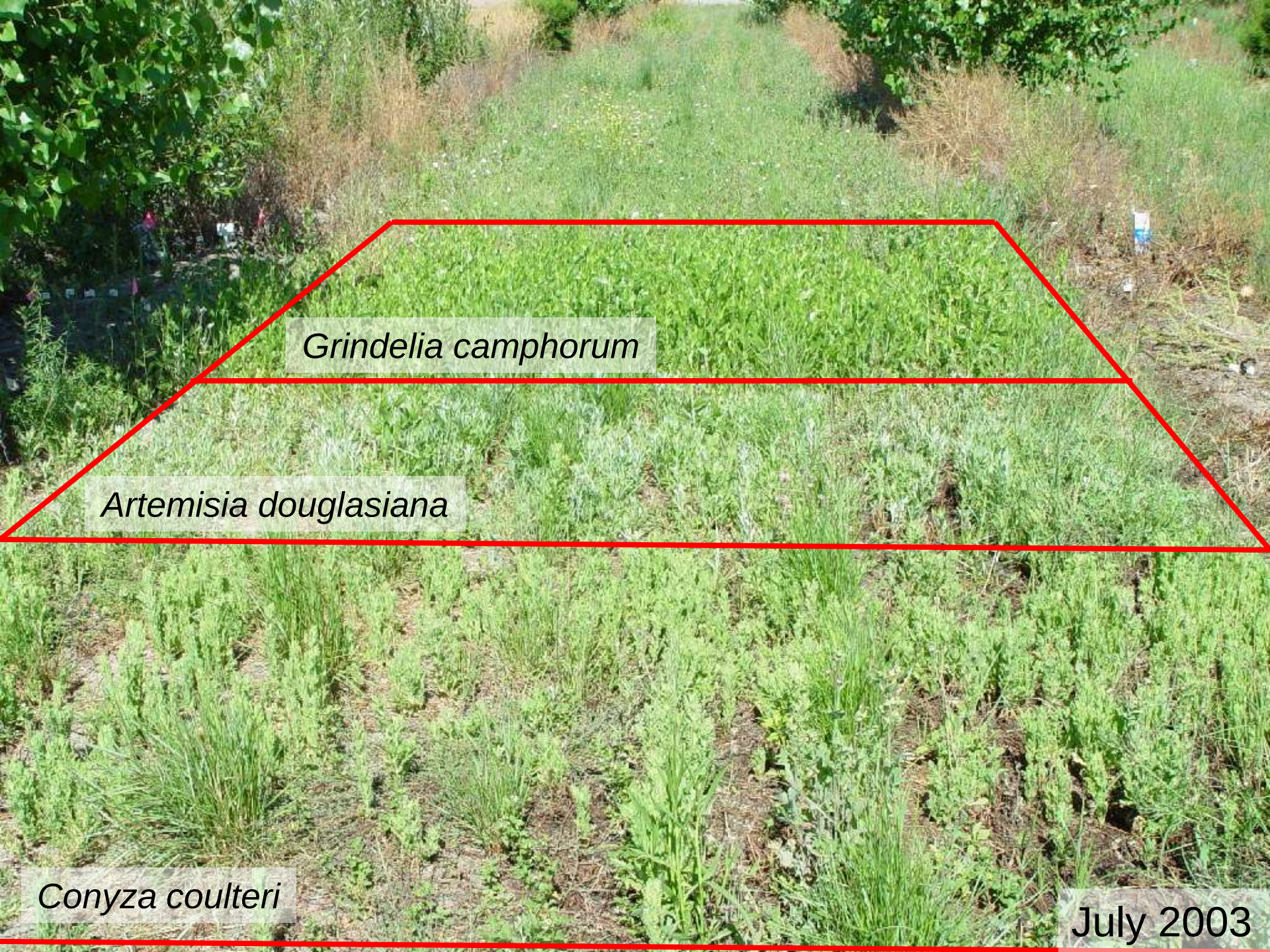
Tamara Sperber and F. Thomas Griggs
River Partners

San Joaquin River NWR
West Units




J.S. Peterson @ USDA-NRCS PLANTS Database


1) Can we get them to germinate and grow?
2) Will they tolerate our maintenance activities?
January 2003


Grindelia camphorum
Artemisia douglasiana
Conyza coulteri
July 2003

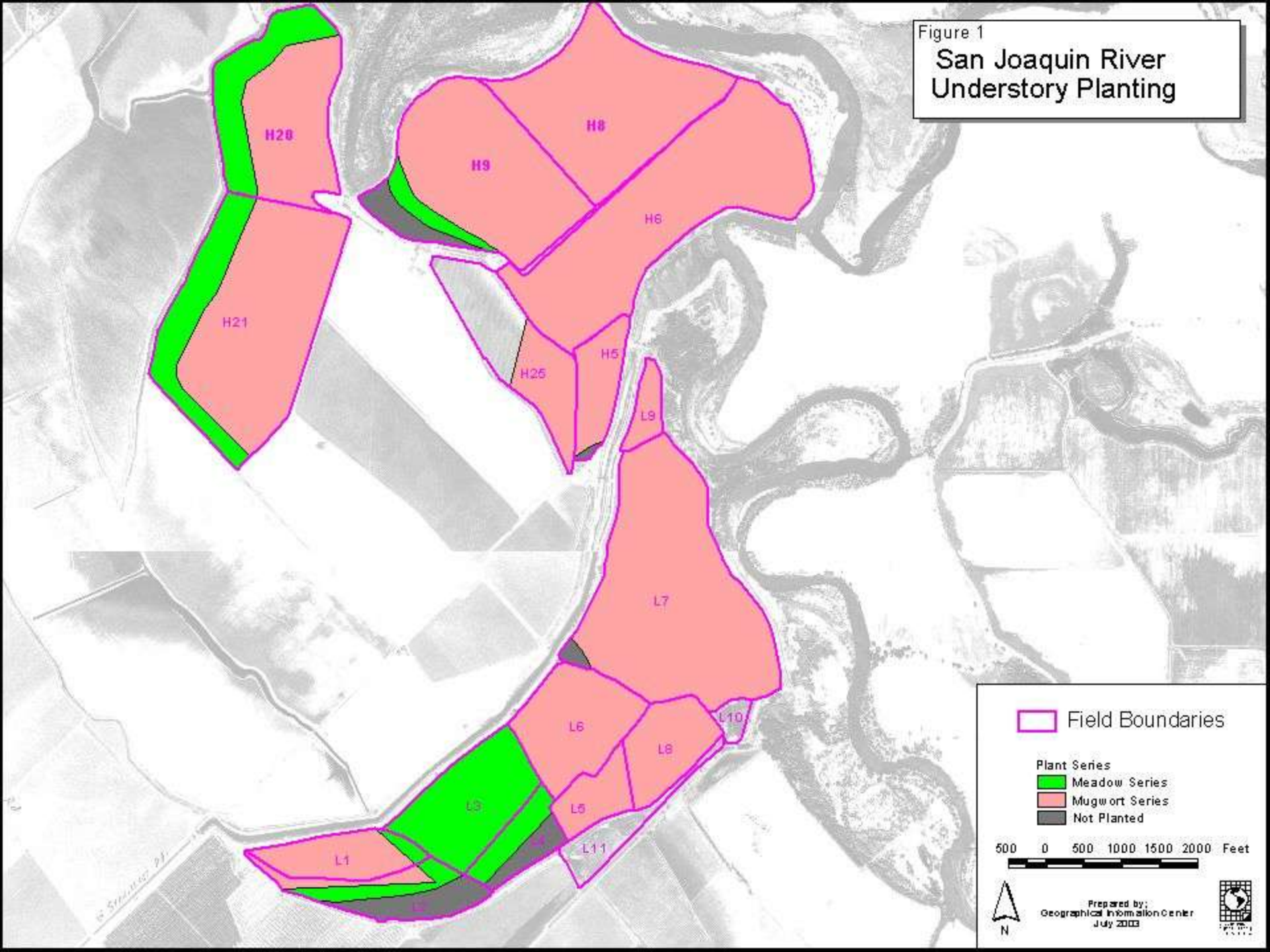
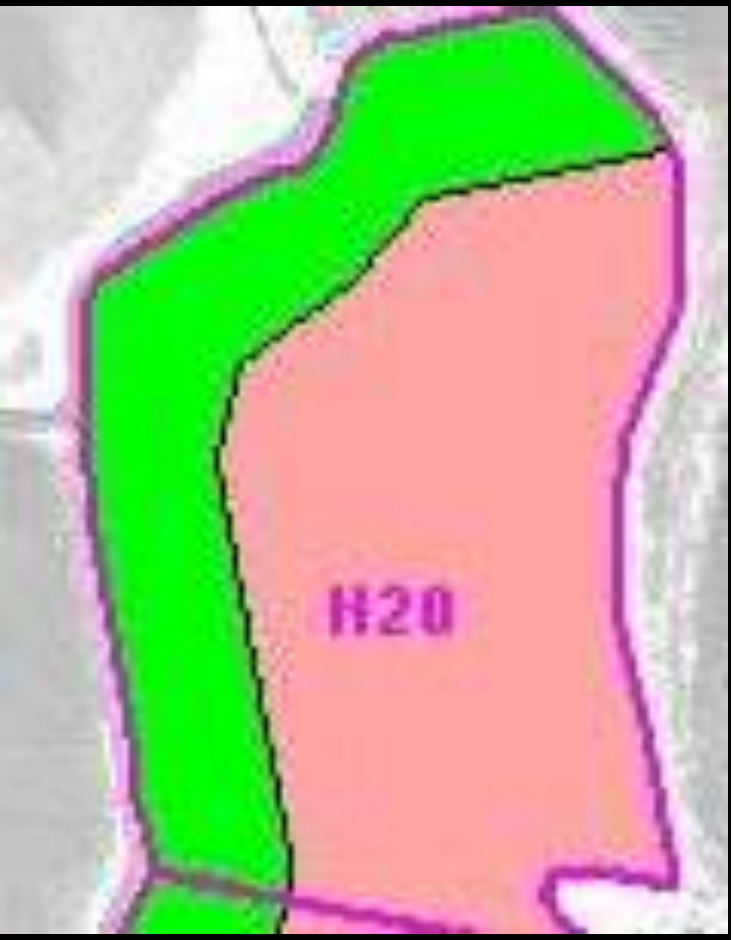
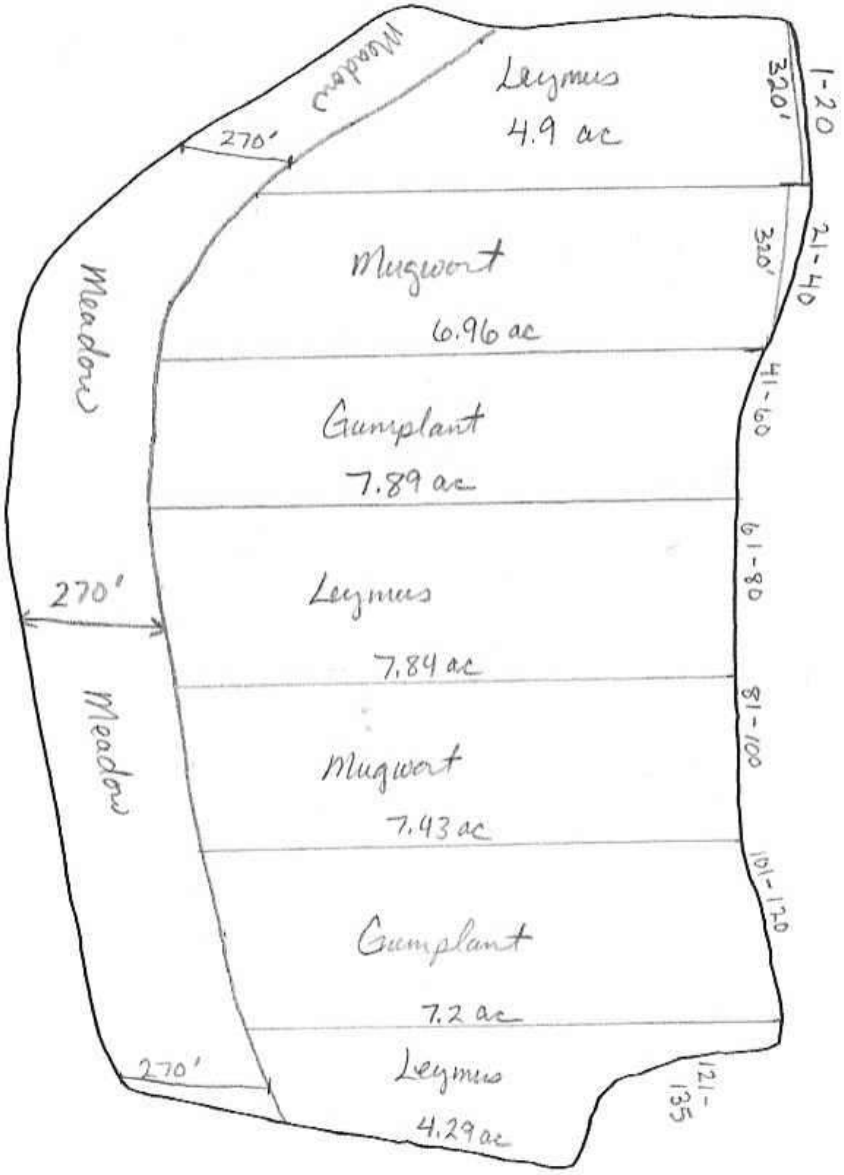


Figure 1
San Joaquin River
Understory Planting
H20
H8
H9
H6
H21
H25
H5
L9
L7
L6
L8
L10
L3
L5
L1
L11
Field Boundaries
Plant Series
Meadow Series
Mugwort Series
Not Planted
500 0 500 1000 1500 2000 Feet
N
Prepared by:
Geographical Information Center
July 2003


H20

Row


Meadow
270'
Leymus
4.9 ac
1-20
320'
21-40
320'
Mugwort
6.96 ac
Meadow
41-60
Gumplant
7.89 ac
270'
61-80
Leymus
7.84 ac
Meadow
81-100
Mugwort
7.43 ac
101-120
Gumplant
7.2 ac
270'
Leymus
4.29 ac
121-135


October 2003


BRUTE


September 2004


2 3 4 5 6 7 8 9 10


MM 2 3 4 5 6 7 8


1 MM 2 3 4 5


MM 2 3 4 5 6


Herd
SURE-FEED
BROADCASTER

March 2004

April 2004


August 2004

August 2004

August 2005

August 2004

August 2005


June 2004


September 2004


September 2005


May 2004

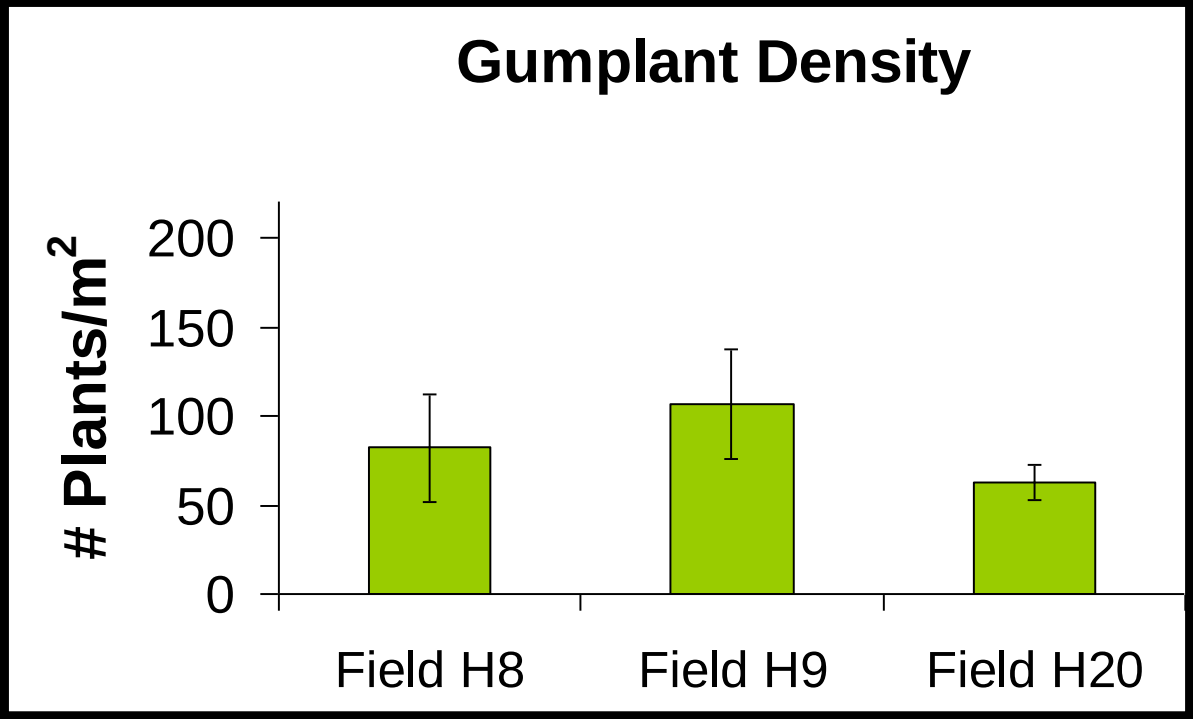

September 2004

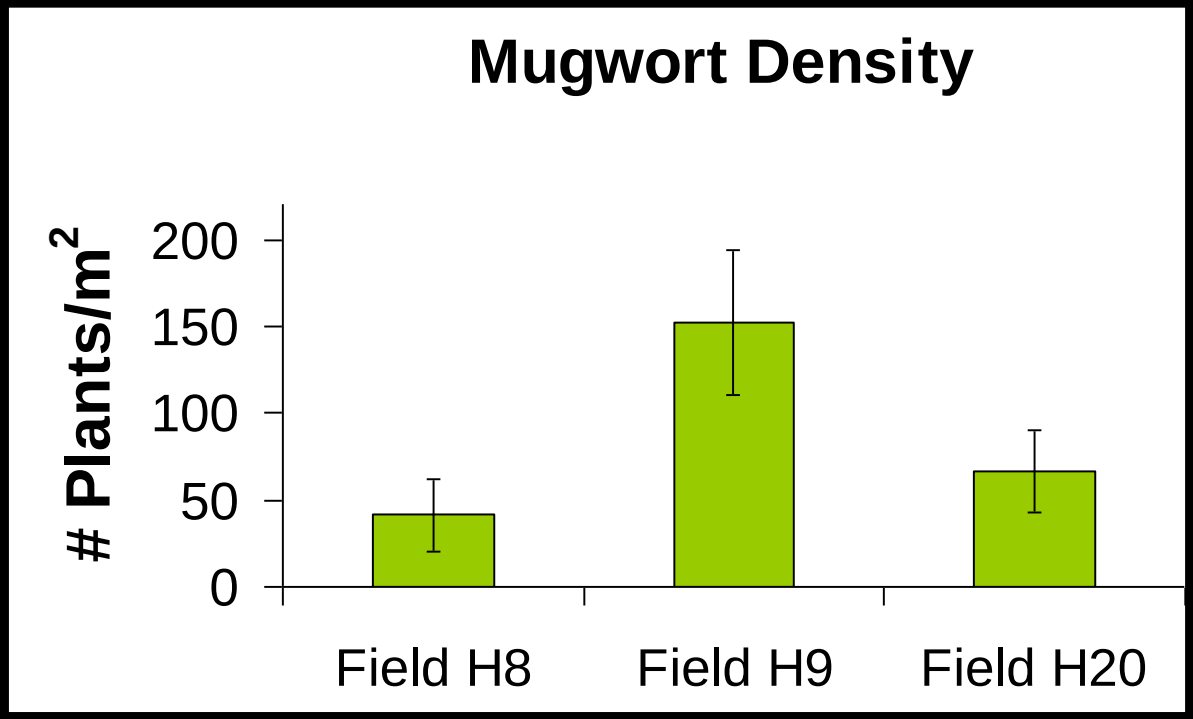

September 2005

Parting the

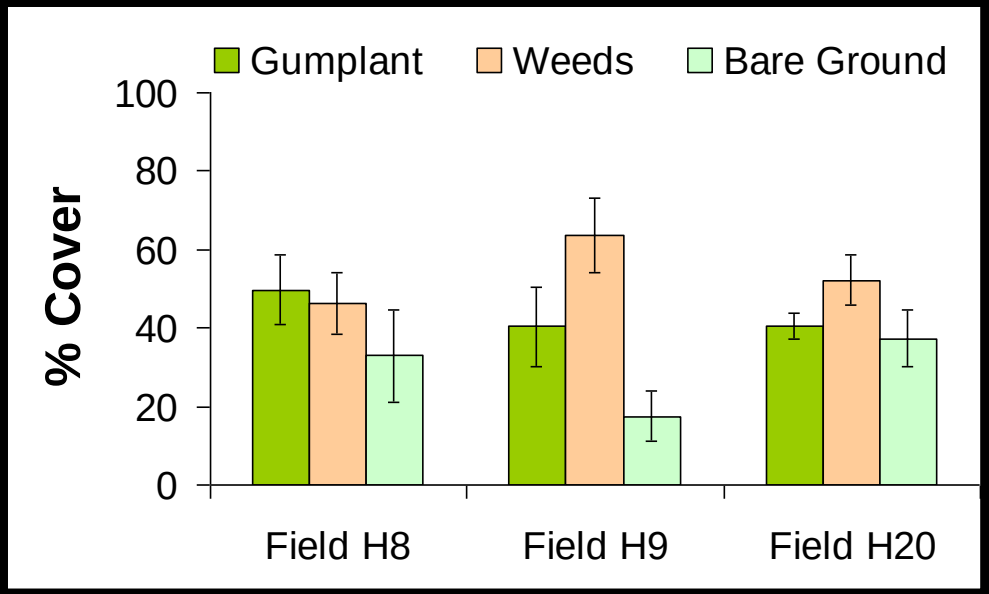
Mugwort Sea…

August 2005

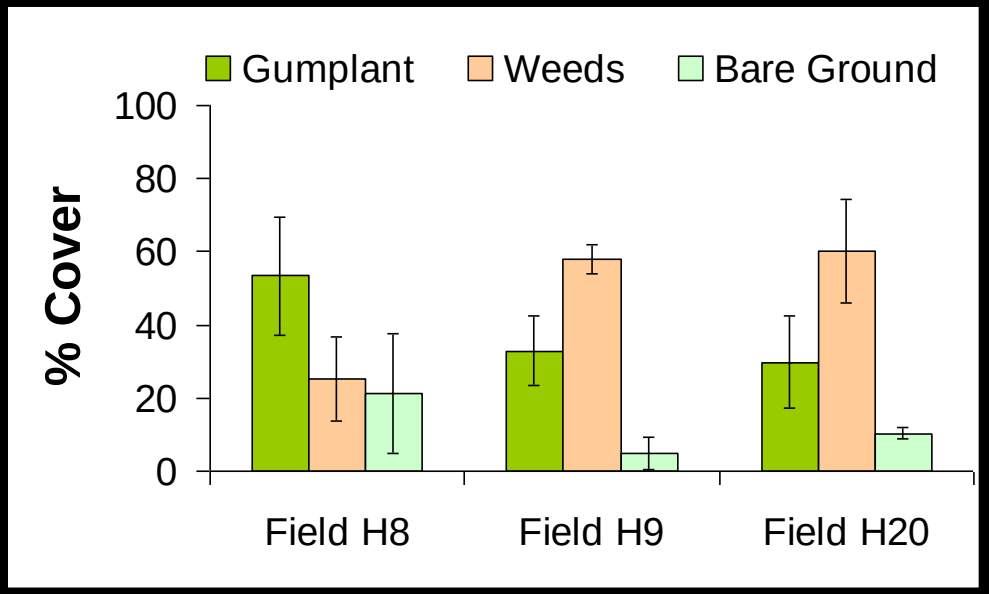

Gumplant Density
Plants/m2
200
150
100
50
0
Field H8
Field H9
Field H20


Mugwort Density
Plants/m2
200
150
100
50
0
Field H8
Field H9
Field H20

Aug 2004



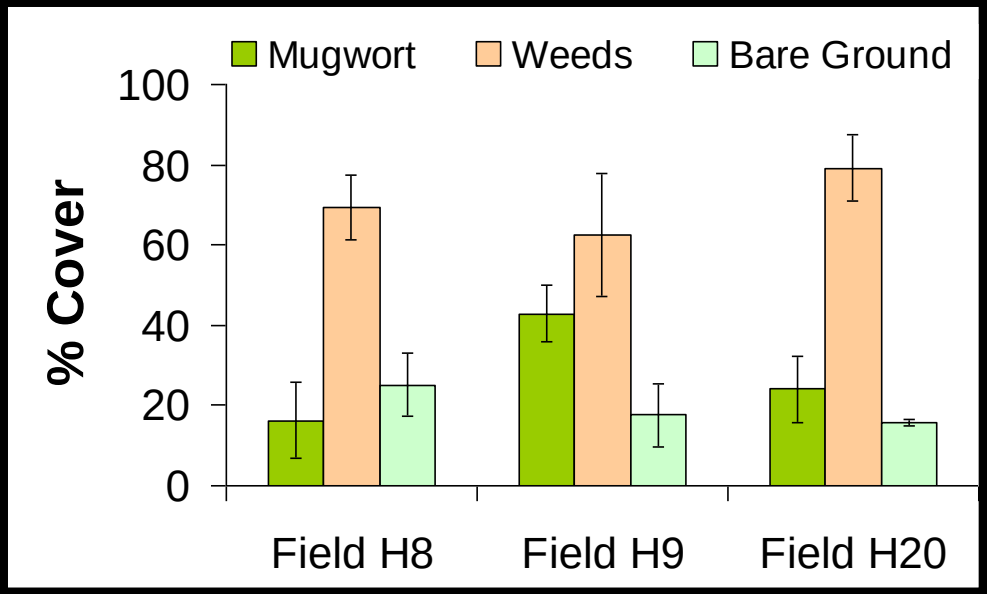
Mar 2005



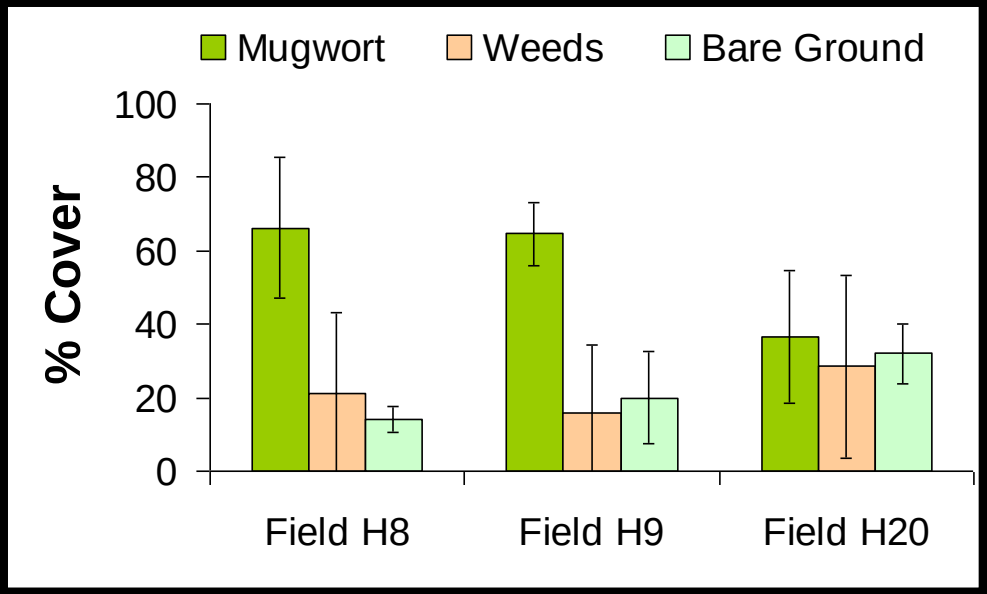
Aug 2005

100% Cover

Aug 2004



Mar 2005



Aug 2005

98% Cover

FISKARS
Flexible Stainless Steel


March 2003


November 2003


March 2005






CONCLUSIONS

1. Rapid-growing native herbaceous species can be **managed** to replace invasive exotics.

2. Future monitoring for the next 3 to 5 years will describe the long-term effectiveness of these plantings.