Watershed Stewardship

GPS Creek Habitat & Bioasssessment Surveys

CCWF
CONTRA COSTA WATERSHED FORUM

Aspen Madrone, Contra Costa County

(925) 335-1315 or amadr@cd.cccounty.us

www.cocowaterweb.org

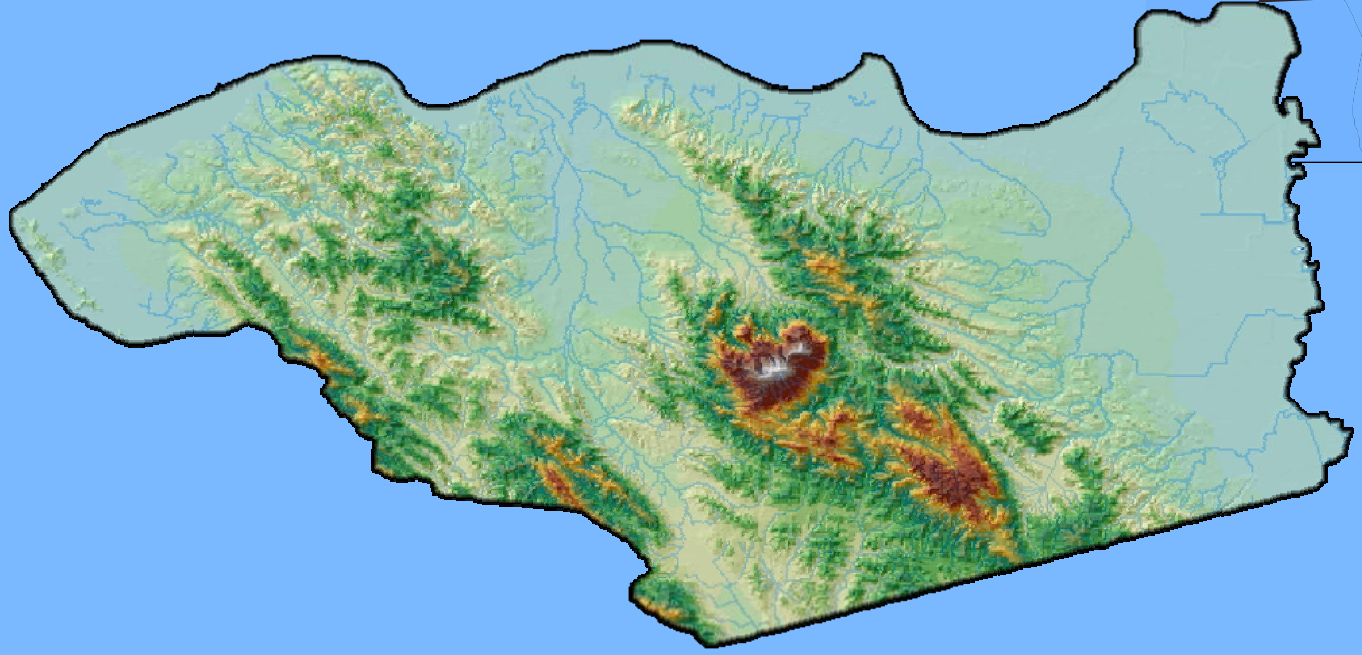
CONTRA COSTA CLEAN WATER PROGRAM

Citizen Monitoring Program

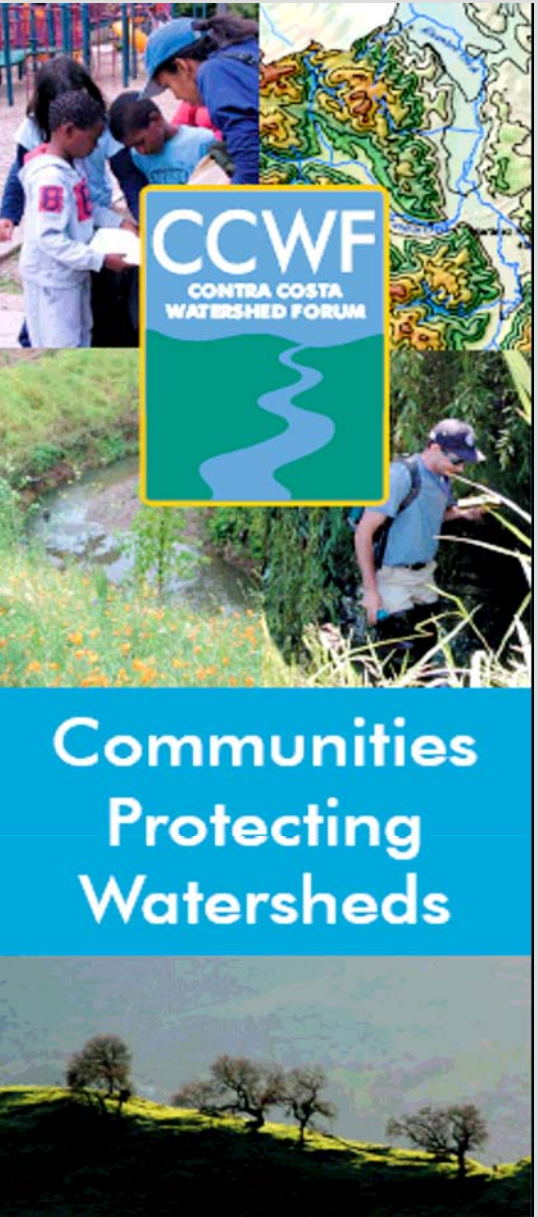
GPS Creek Habitat **Bioasssessment** **Assistance Center**

Contra Costa County

- Open Space = ~ 39%
- Agriculture = ~ 31%
- Urban = ~ 26%
- Industrial = ~ 4%



Contra Costa Watershed Forum



Unites Multiple Groups to Facilitate:

- Education
- Collaboration
- Problem Solving

Citizen Monitoring Program

- Provide tools to volunteers
- Gather baseline WQ data
- Identify impacted areas
- Prioritize restoration efforts

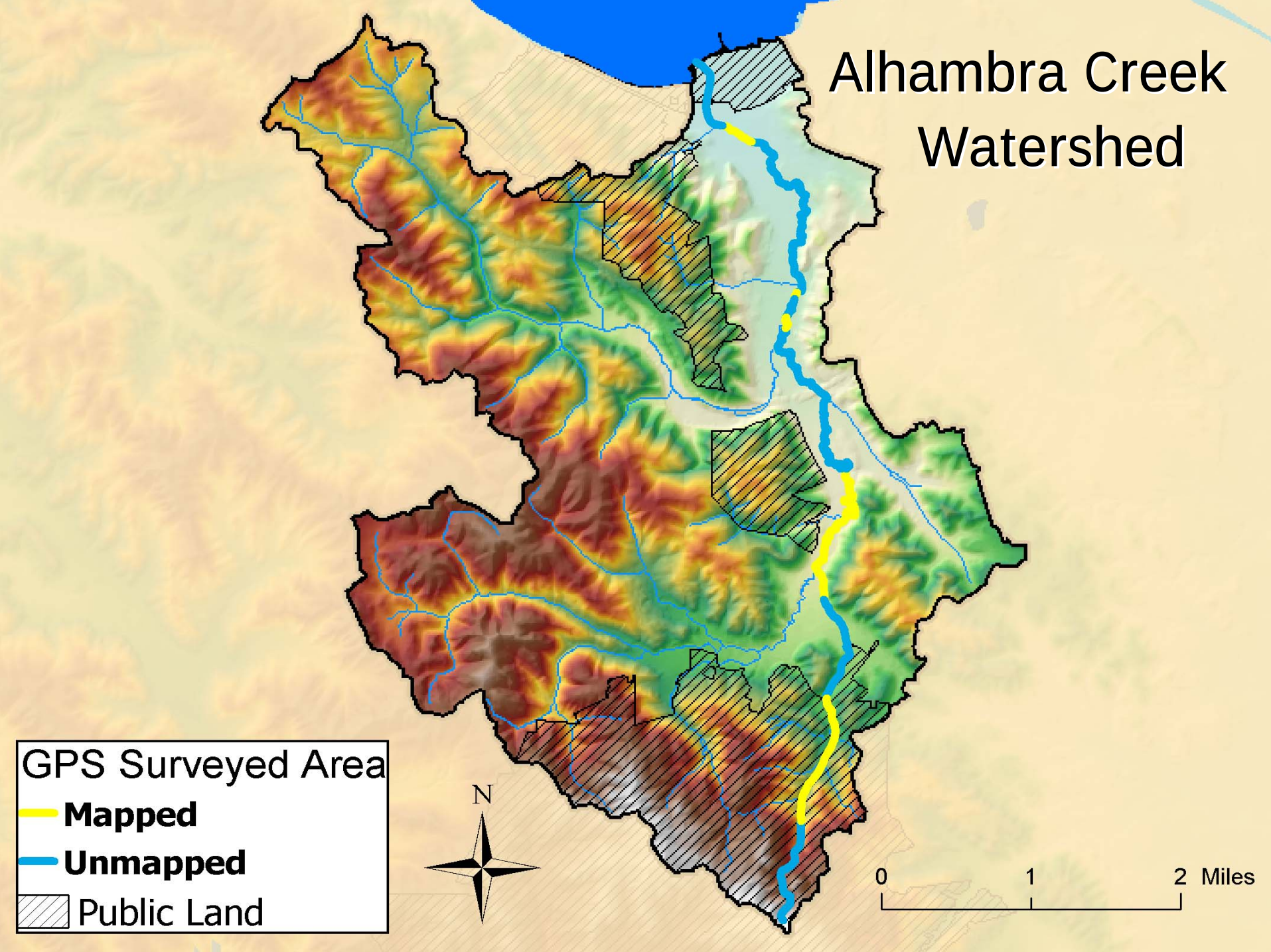
GPS Creek Surveys

Mapping Watersheds

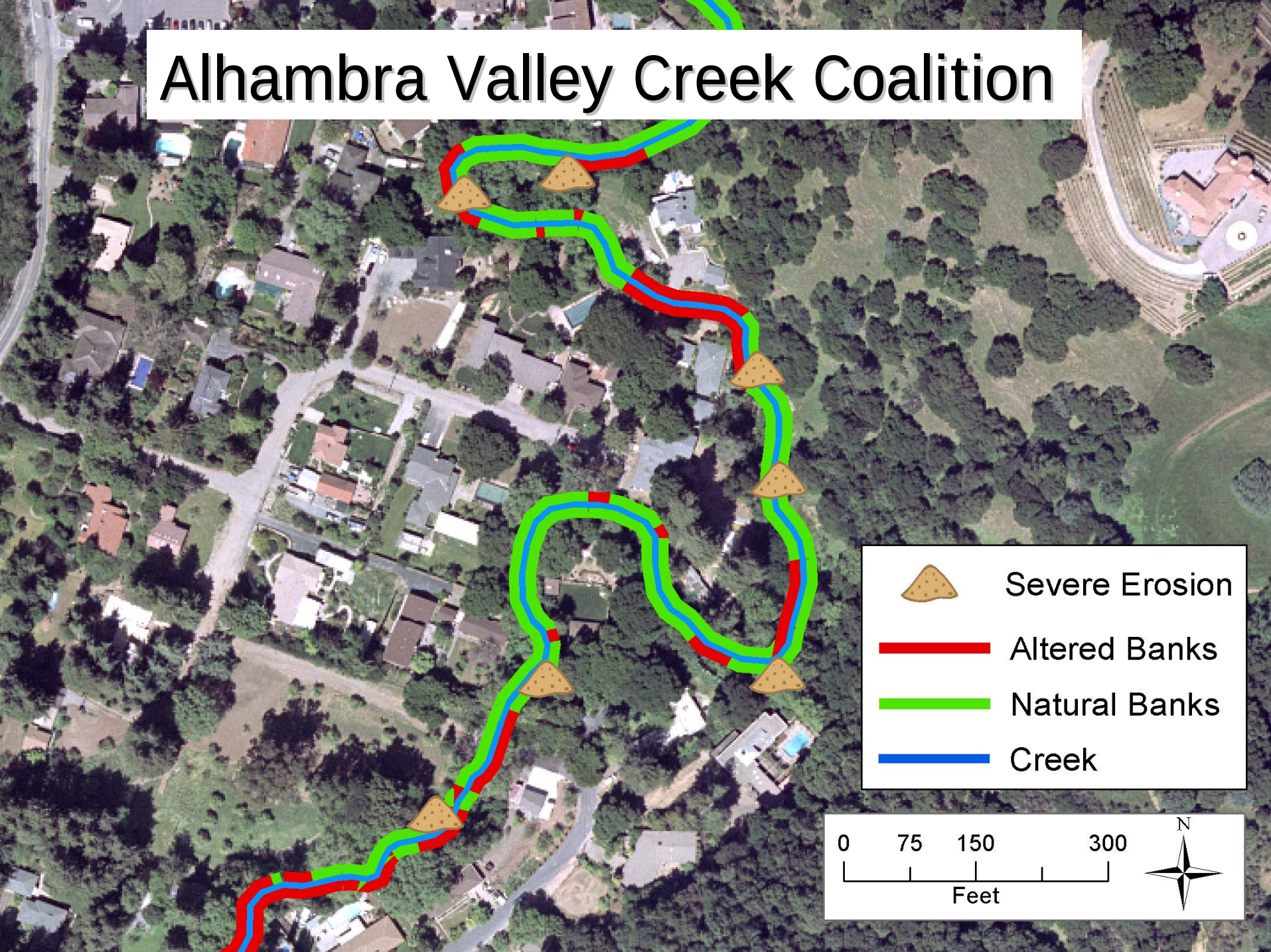
GPS Creek Surveys

After data is collected…

- Process data
- QA/QC
- Edit data
- Report back


Alhambra Creek
Watershed
GPS Surveyed Area
Mapped
Unmapped
Public Land
N
0
1
2 Miles

Alhambra Valley Creek Coalition



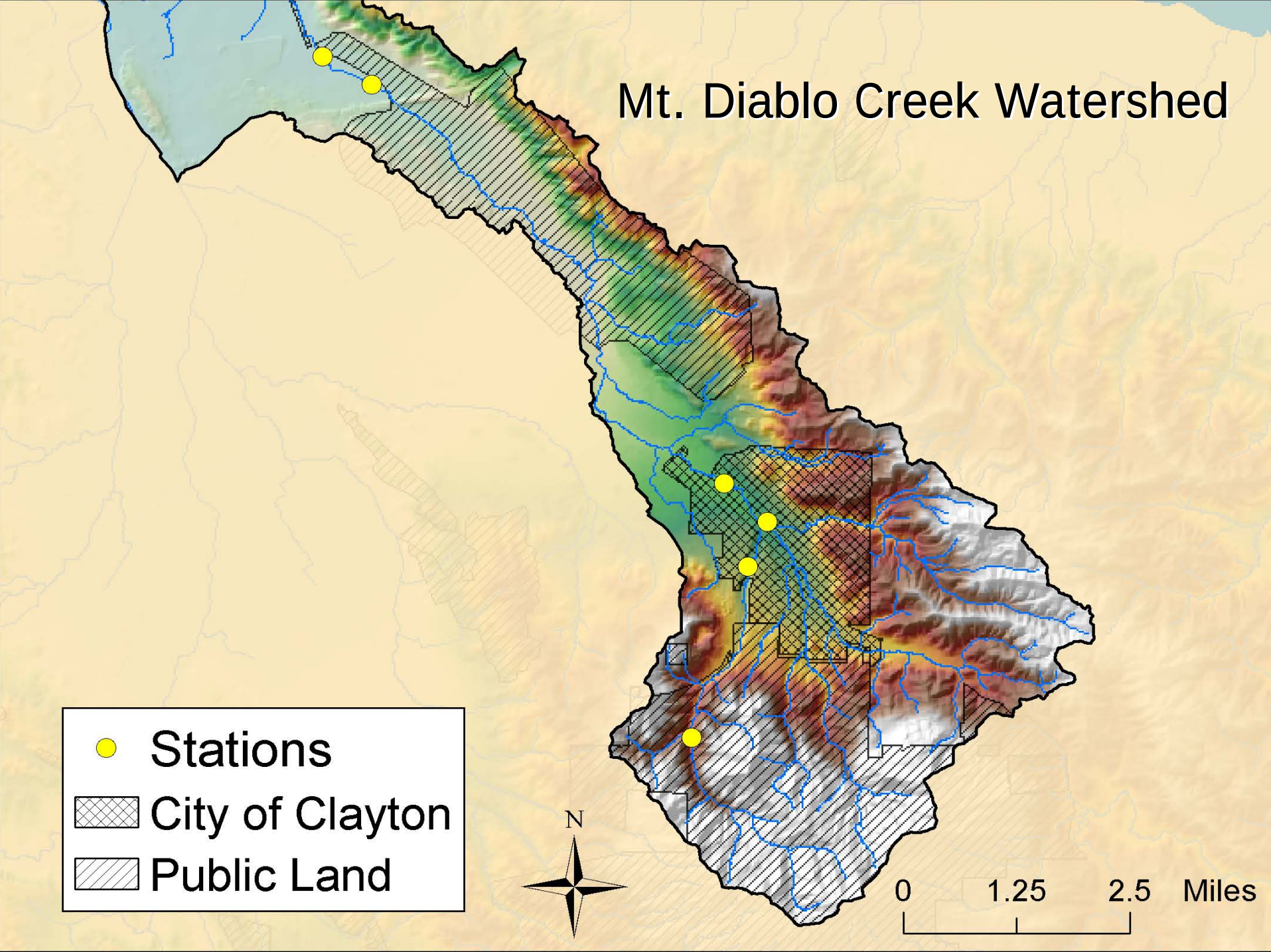
Bioassessment

- Utilizes BUGS as indicators of watershed health
- Determine baseline conditions
- Identify areas for future studies and improvement

Bioassessment

Spring **2005** & **2006**

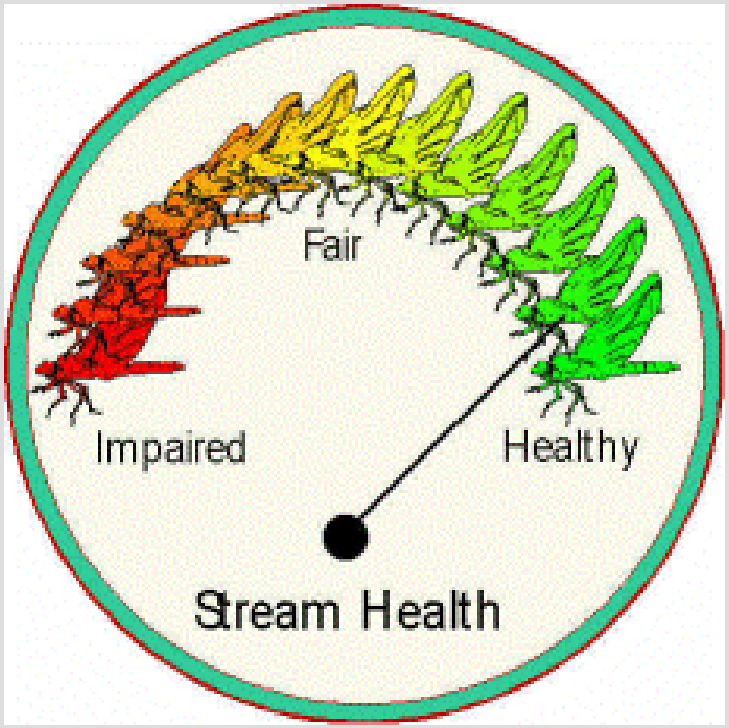
- 1 Day Training
- Use CSBP
- Volunteers conduct survey
- ~6 Sites per watershed
- Professional ID

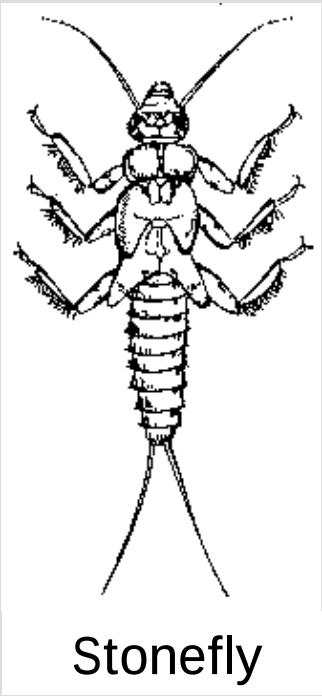

Mt. Diablo Creek Watershed
Stations
City of Clayton
Public Land
N
0
1.25
2.5
Miles

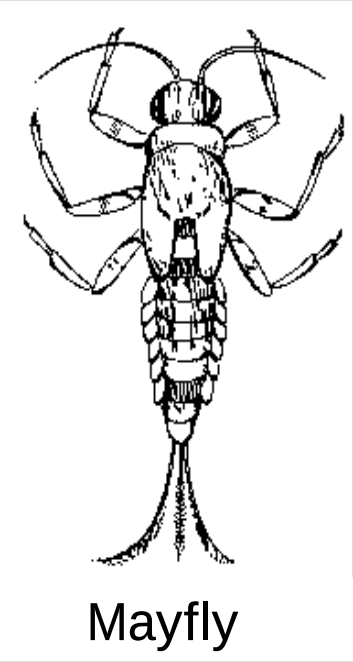
Bioassessment

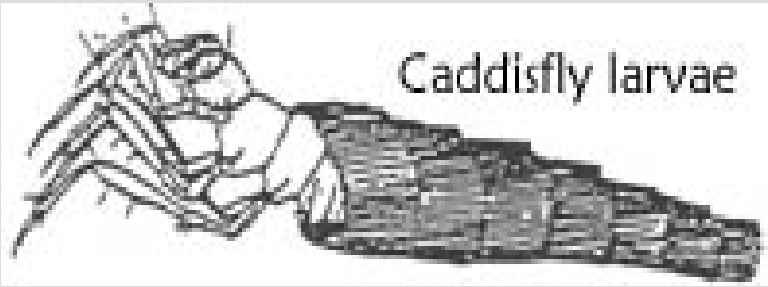
Data Interpretation

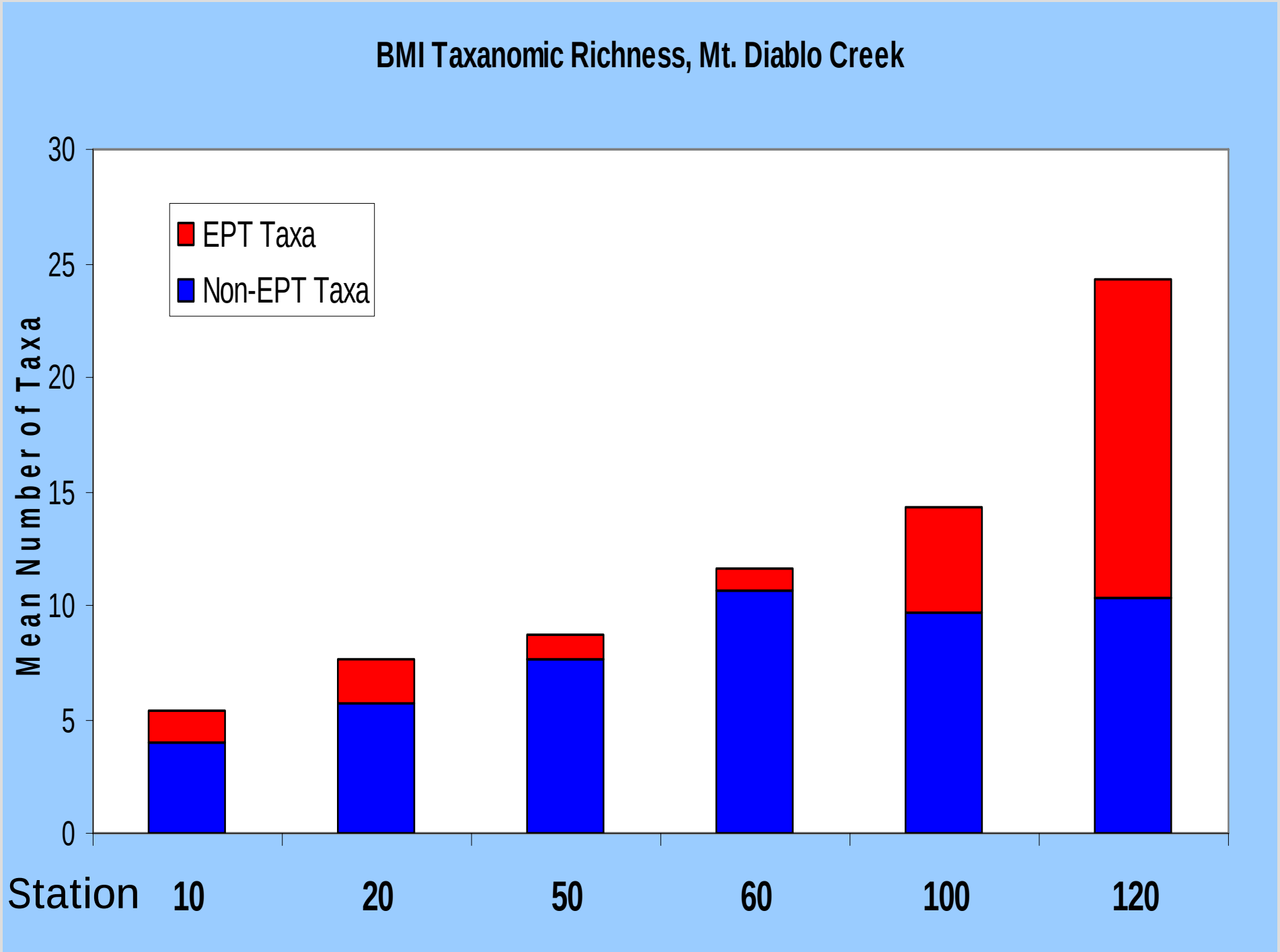
- Multi-metric approach
- EPT, Diversity, % Tolerant



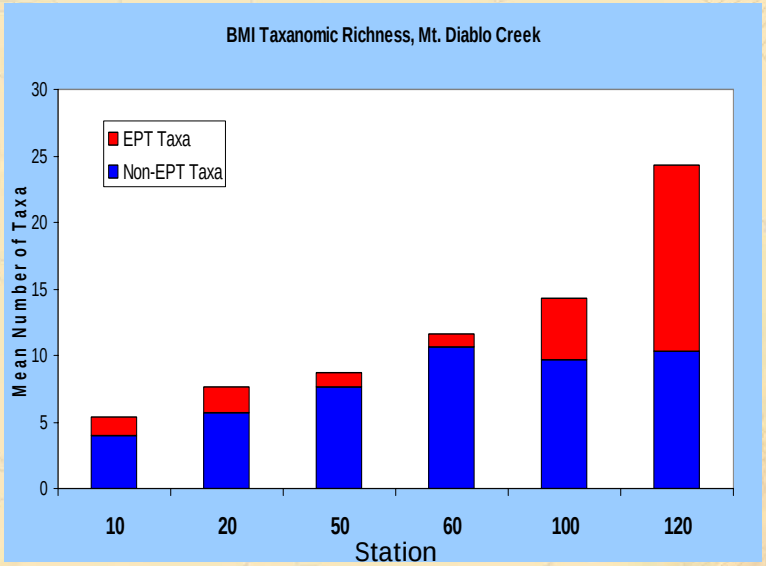







BMI Taxanomic Richness, Mt. Diablo Creek
EPT Taxa
Non-EPT Taxa
Mean Number of Taxa
30
25
20
15
10
5
0
Station
10
20
50
60
100
120

Mt. Diablo Creek Watershed



Stations

City of Clayton

Public Land

N

0 1.25 2.5 Miles

The Spectrum of Usefulness of Volunteer Data

- Directly Compatible **(Statewide Data)**
- Unique Format **(GPS Creek Habitat Data)**
- Observations **(Presence / Absence)**
- Education Based **(Awareness)**

Watershed Stewardship

- Enthusiastic Workers
- Local Knowledge
- Vested Interest
- Frequent Observations
- Increase Awareness

Watershed Stewardship

GPS Creek Habitat

- 5,000 hours
- 2001-2005
- 500 volunteers

Bioasssessment

- 600 hours
- 2005
- 50 volunteers

Watershed Stewardship

Special Thanks Volunteers!

- CA State Water Board
- Friends of Creek Groups
- Contra Costa RCD
- The Watershed Project
- Individual Volunteers

Aspen Madrone, Contra Costa County

(925) 335-1315 or amadr@cd.cccounty.us

www.cocowaterweb.org