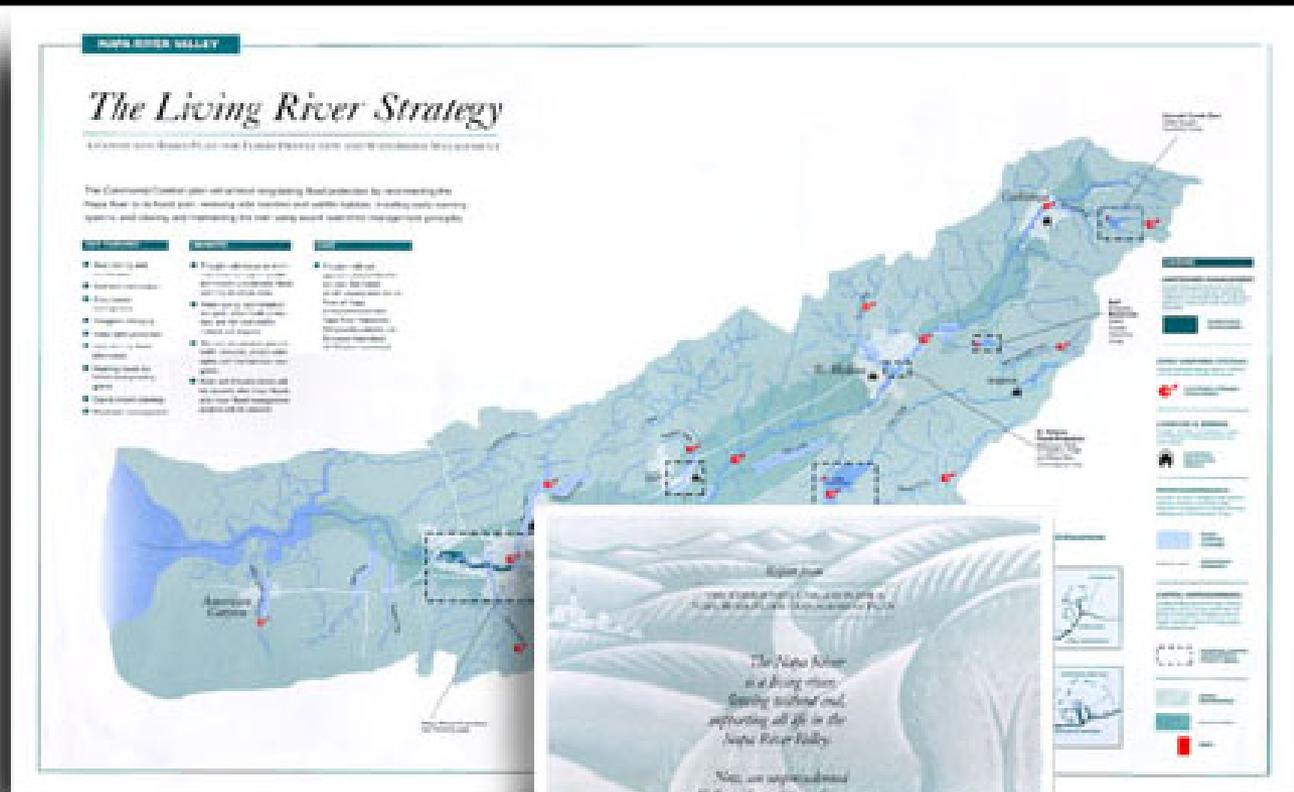


Multi-Objective “Living River” Flood Protection for Napa River Communities: City of St. Helena



Napa "Living River" Project: Flood Protection & Watershed Management Plan



The Living River Strategy
Gazette

County-wide Sales Tax Ballot Measure

On March 3rd, 1998, Napa County held a single ballot measure special election for a 20 Year ½ cent Sales Tax:

Measure A passed with 67% of the vote – a 350 vote margin

Tax Collected (\$240 million over 20 years) “returned to source” to address flood protection, watershed improvement and water reliability in each community of Napa Valley where sales tax is collected.

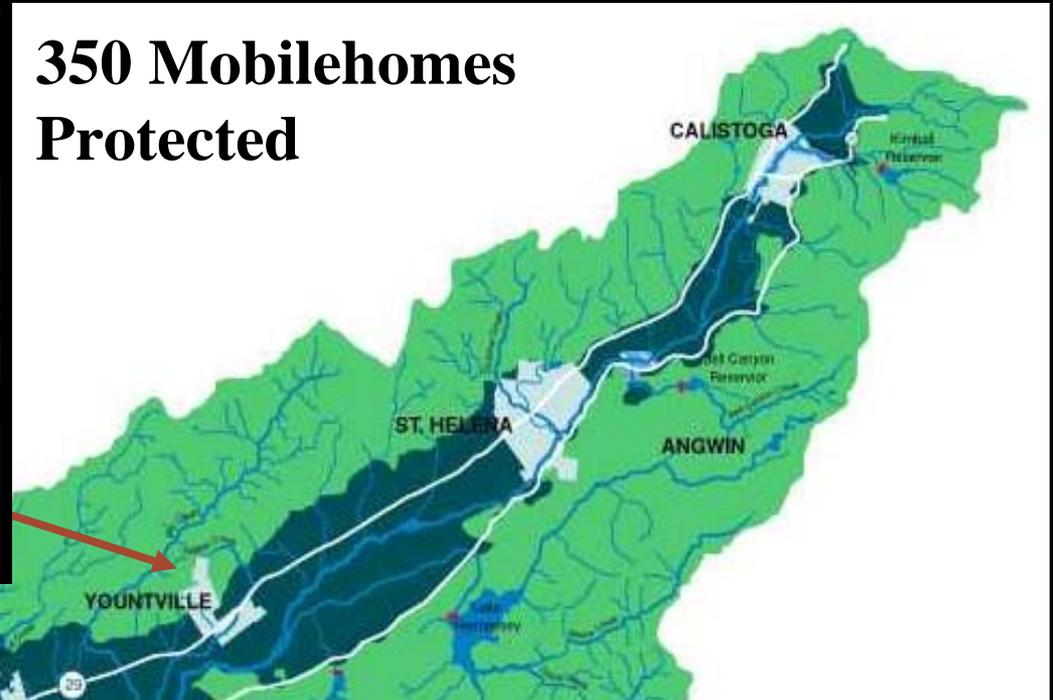
All County projects rely on some State/Federal investment for completion.

(Napa City: 50% Yountville 35 % St. Helena: 10% (to date))

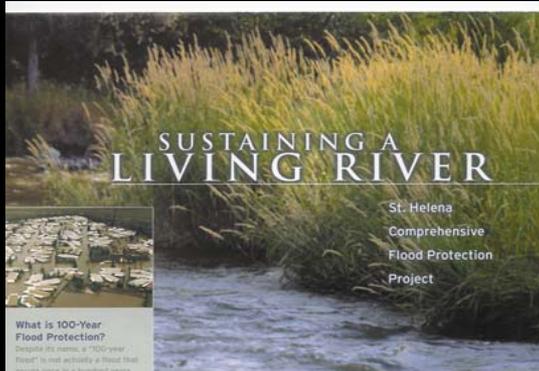
Napa River –Town of Yountville-Flood Barrier



**350 Mobilehomes
Protected**



City of St. Helena – Living River Flood Protection



SUSTAINING A LIVING RIVER

St. Helena
Comprehensive
Flood Protection
Project

What is 100-Year Flood Protection?
A 100-year flood is not actually a flood that occurs once in a hundred years, and it's not the largest flood in the past 100 years. A 100-year flood is an event that has a 1 in 100 chance that it will occur in any given year. For example, the Napa River's average annual water flow is about 1,200 cubic feet of flow per second (cfs). During a 100-year flood, that would rise to about 21,000 cfs in St. Helena. That's a tremendous increase in the amount and speed of water flowing so water will rise over the banks into the river's floodplain.

A 50-year flood is a smaller flood, and is twice as likely to occur as a 100-year flood. However, it would be potentially less damaging because water flow would be less. The 1997 flood is classified as a 100-year flood.

This proposed project is intended to provide adequate flood protection and raise "headroom" for waterfalls.

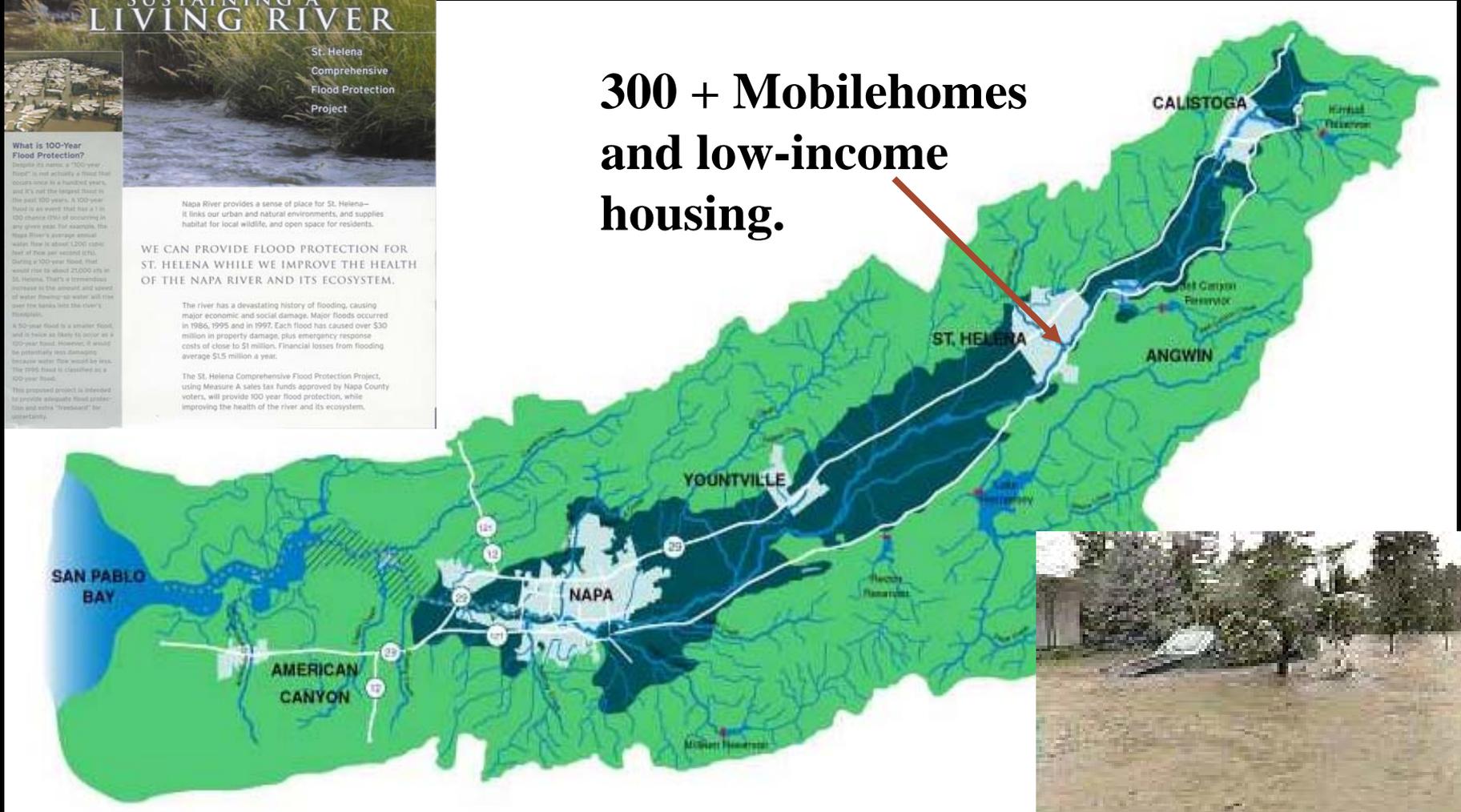
Napa River provides a sense of place for St. Helena—it links our urban and natural environments, and supplies habitat for local wildlife, and open space for residents.

WE CAN PROVIDE FLOOD PROTECTION FOR ST. HELENA WHILE WE IMPROVE THE HEALTH OF THE NAPA RIVER AND ITS ECOSYSTEM.

The river has a devastating history of flooding, causing major economic and social damage. Major floods occurred in 1986, 1995 and in 1997. Each flood has caused over \$30 million in property damage, plus emergency response costs of close to \$1 million. Financial losses from flooding average \$1.5 million a year.

The St. Helena Comprehensive Flood Protection Project, using Measure A sales tax funds approved by Napa County voters, will provide 100 year flood protection, while improving the health of the river and its ecosystem.

300 + Mobilehomes and low-income housing.



City of St. Helena – Project Site Plan



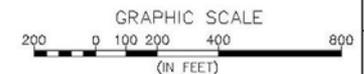
LEGEND

- PARCEL LINE
- HOME TO BE RELOCATED WITHIN EXISTING VINEYARD VALLEY MOBILE HOME PARK (17 HOMES)

NOTES:

A. SOIL EXCAVATED FROM TERRACE B TO BE USED FOR LEVEE CONSTRUCTION AND FILL ON MILLER, HUNTER, AND VICINITY.

FIG 2-2A
2006 PLAN OPTION 1



SH+G
ENGINEERING
1500 SULLY DRIVE, SUITE 202
ST. HELENA, CA 94753

PREPARED FOR
THE CITY OF ST. HELENA

2006 PROJECT
CONCEPTUAL
ALTERNATIVE

ST. HELENA
COMPREHENSIVE FLOOD
PROTECTION PROJECT

DRAWN BY: /
CHECKED BY: /
DATE: 11/1/03
JOB NO.: 03

City of St. Helena – Urgent Health and Safety Issue



**1995
Evacuation**

*** Very High Risk Area with vulnerable senior and low income population.**

*** 3 floods since 1986.**

*** OES/FEMA are invested in this Project and consider it a high priority project.**

City of St. Helena – Flood Corridor



Pre-project

**9 acres of
residentially
zoned land
converted to
nature flood
corridor with
habitat
restoration**



Post-project

Shoreline and In Stream Restoration



Pre-project

17 mobile homes removed.

Set-back levees

6.3 acres of shoreline and riverine restored.

9.3 acres converted to natural flood corridor with habitat restoration

Storm water pre-treatment before entering Napa River



Post-project

Project Ready for Construction, April, 2008

- **CEQA/NEPA certified**
- **100 % Plans and Specifications.**
- **CLOMR issued by FEMA**
- **Federal Coordination Act Report complete and Biological Opinions issued for listed species**
- **Water Quality Permits in place.**
- **Streambed Alteration Permit in place**
- **NPDES permits in place**
- **All funding in-place for \$34 million project, except \$3 million.**
- **City risks losing Water Quality SRF Loan of \$12 million if not constructed by 2009.**