



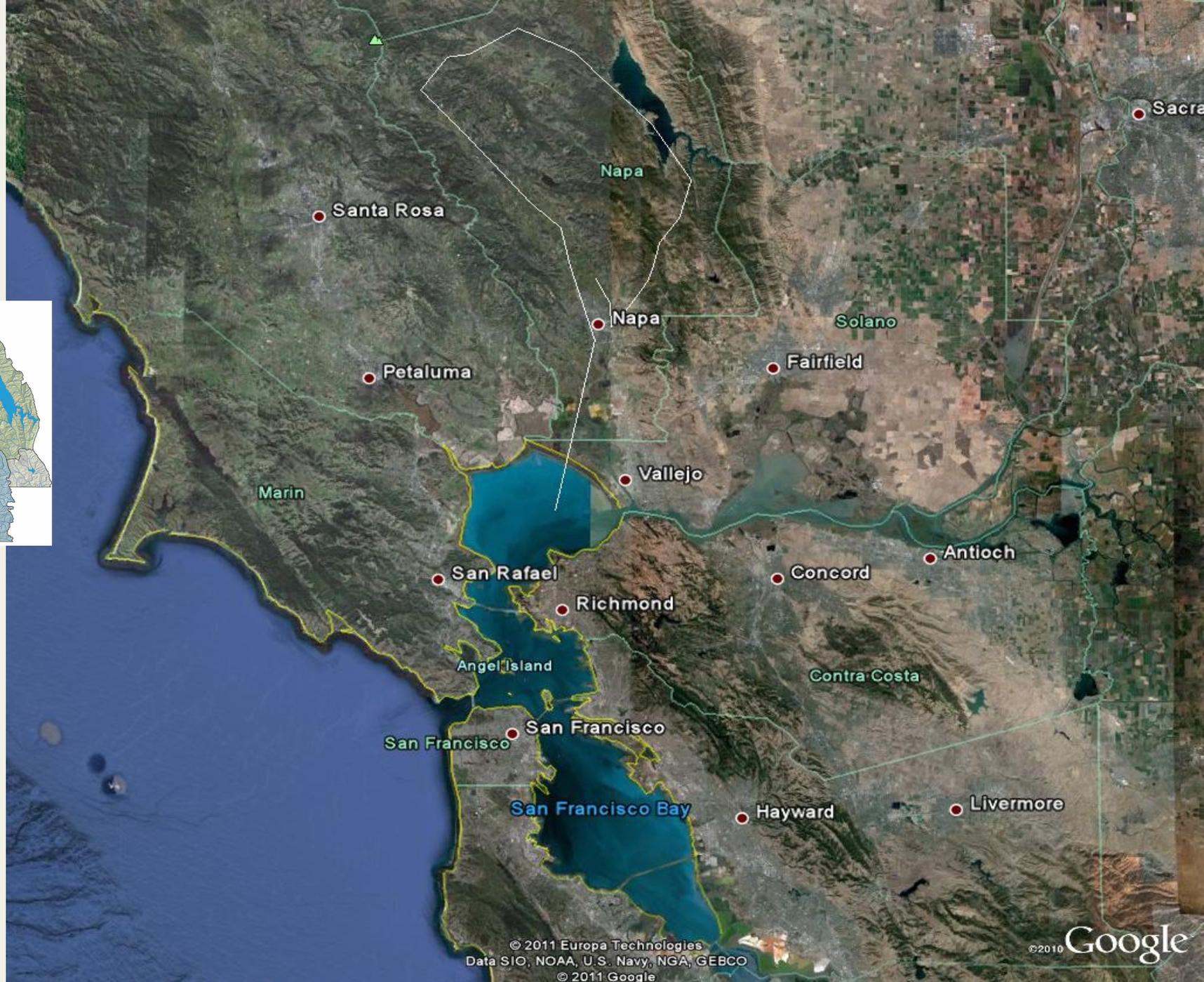
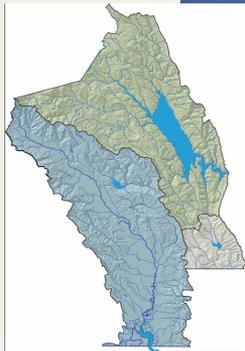
CITY OF NAPA AND NAPA COUNTY



A Tradition of Stewardship
A Commitment to Service

The Story of a Tidal River and Its Connection to the Bay

Presentation by Mayor Jill Techel and
Napa County Supervisor Brad Wagenknecht
July 18, 2013 BCDC Meeting



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Imagery Dates: Oct 2, 2009 - Sep 20, 2010

38°04'36.55" N 122°17'02.05" W elev 25 ft

Eye alt 83.59 mi

What's Next for.....

Napa County Watersheds

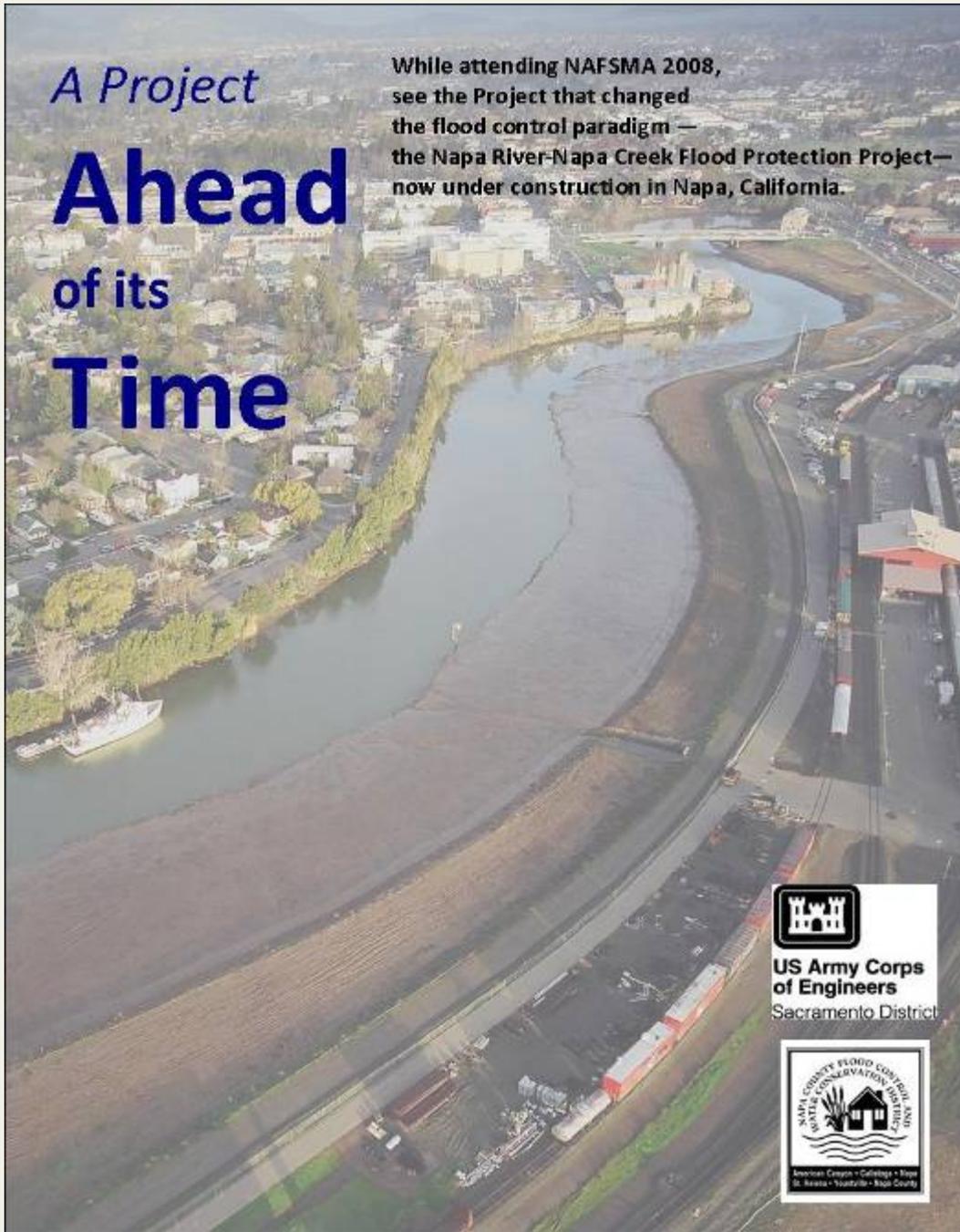


Distribution of Major Restoration Projects within the Napa River Watershed



A Project
Ahead
of its
Time

While attending NAFSMA 2008,
see the Project that changed
the flood control paradigm —
the Napa River-Napa Creek Flood Protection Project—
now under construction in Napa, California.

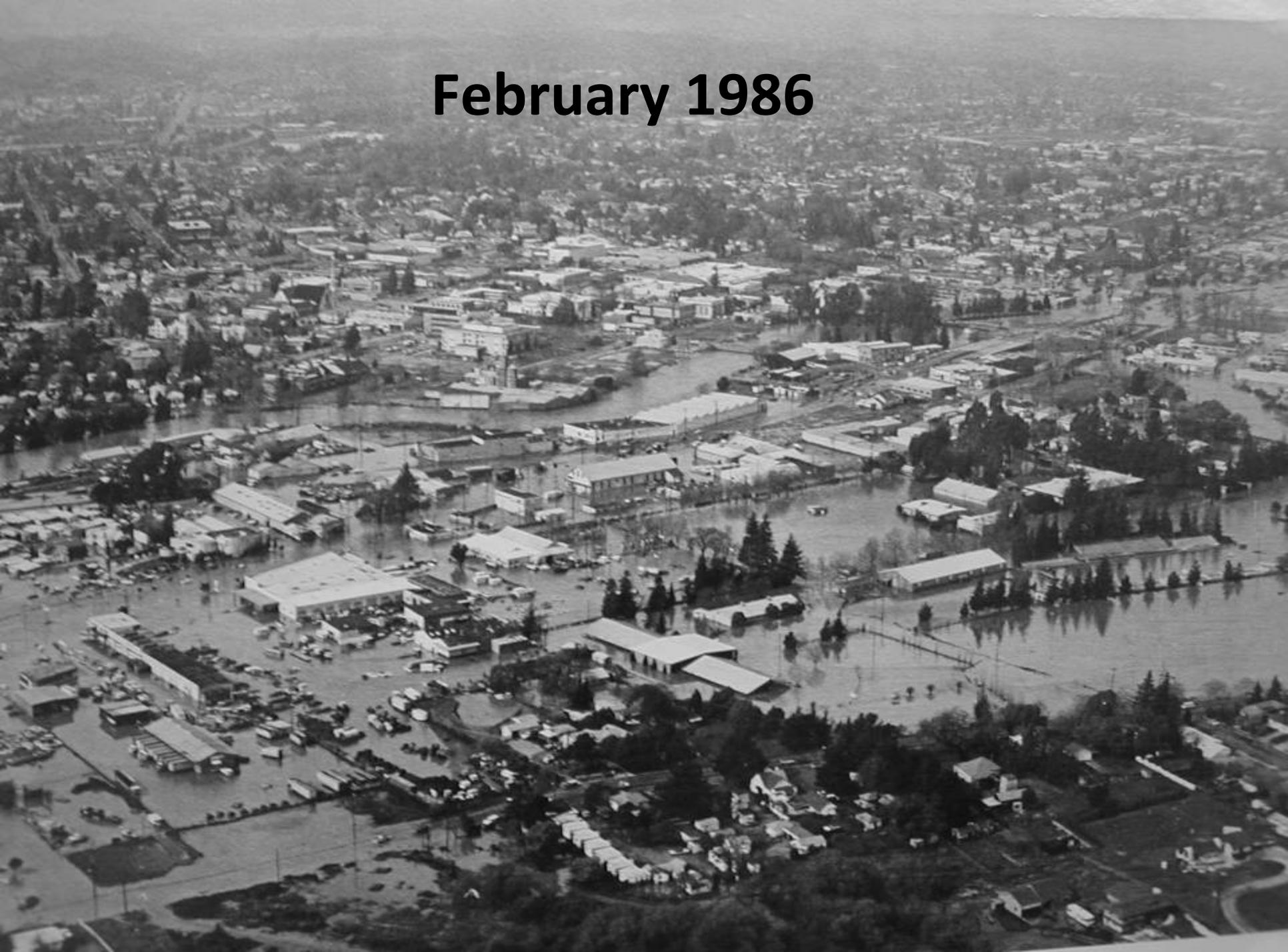


A look at the
Napa River-Napa
Creek **Flood
Protection
Project**
and its impact
on
**Downtown
Napa**

Flood Control Act of 1965 authorizes a Napa River Project

- Designs are standard COE issue:
 - Deepen channel with dredging
 - Straighten channel – eliminate Oxbow
 - Rip rap banks of a trapezoidal channel
 - Levees and flood walls
- Proposals go to the voters in 1976 and 1977 – both are rejected

February 1986



Resource Agency issues:

- Widening and deepening the river would lead to:
 - Excess siltation
 - Decrease in oxygen
 - Loss of wetland habitat
 - Loss of steelhead rearing habitat
- Leaving existing bridges would mean deepening river instead of raising bridges
- Leaving contaminants in place isolated with sheet pile walls would mean continued pollution of the river

A community coalition comes together

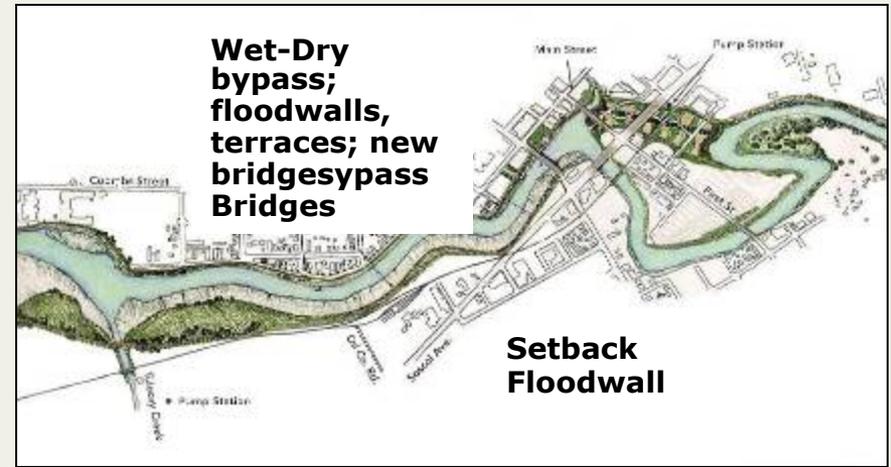
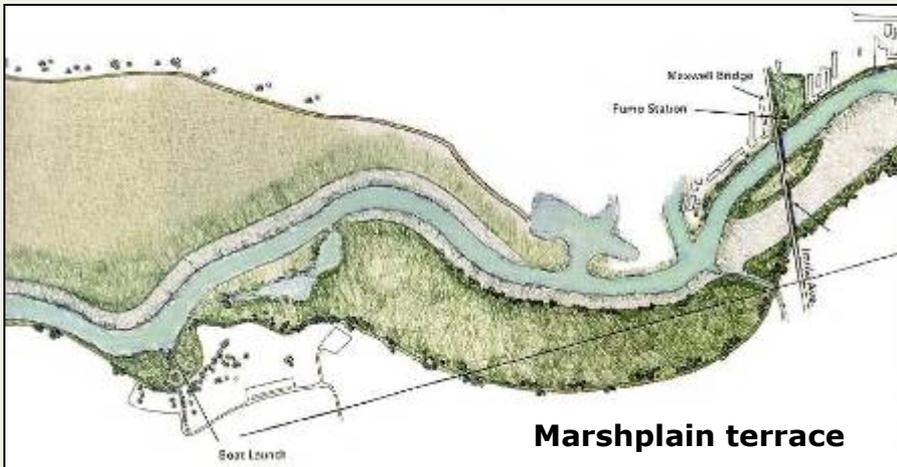
- 40 agencies, 400 people: Chamber of Commerce, Sierra Club, Friends of the River, NV Economic Development Corp., Farm Bureau, Land Trust, Conference and Visitors Bureau...
- A new “living river” design is created
- March 3, 1998: 27,000+ votes cast, Measure A passes by 308 votes.

Achieving a Living River

- 🌀 Maintain the natural slope, width, and width/depth ratio of the river
- 🌀 Maintain or restore the connection of the river to its flood plain
- 🌀 Allow the river to meander as much as possible
- 🌀 Maintain channel features such as mudflats, shallows, sandbars, and a naturally uneven bottom
- 🌀 Maintain a continuous fish and riparian corridor along the river

The Living River Design

A wider, meandering design to improve fish habitat, water quality and minimize sedimentation



South Wetlands Opportunity Area

Before



After





Terracing 2004
Floodwalls Hatt to First
St 2005



Hatt to First floodwall

March 31, 2008

Development Along Napa River



Kyser-Lui-Williams
(Cole's Chop House
Ubuntu, Annalien)

**NV Opera
House Theater**

Opera House Plaza
at Napa Creek

First Street Bridge

Veterans Park

Third Street Bridge

Boat dock (future)

The Riverfront

(Morimoto, Tyler Florence,
Fish Story, Napa River Velo)

Fifth Street Plaza

Napa Mill

(Napa River Inn,
Celadon, Angele,
General Store, Silo's)

Riverbend Plaza

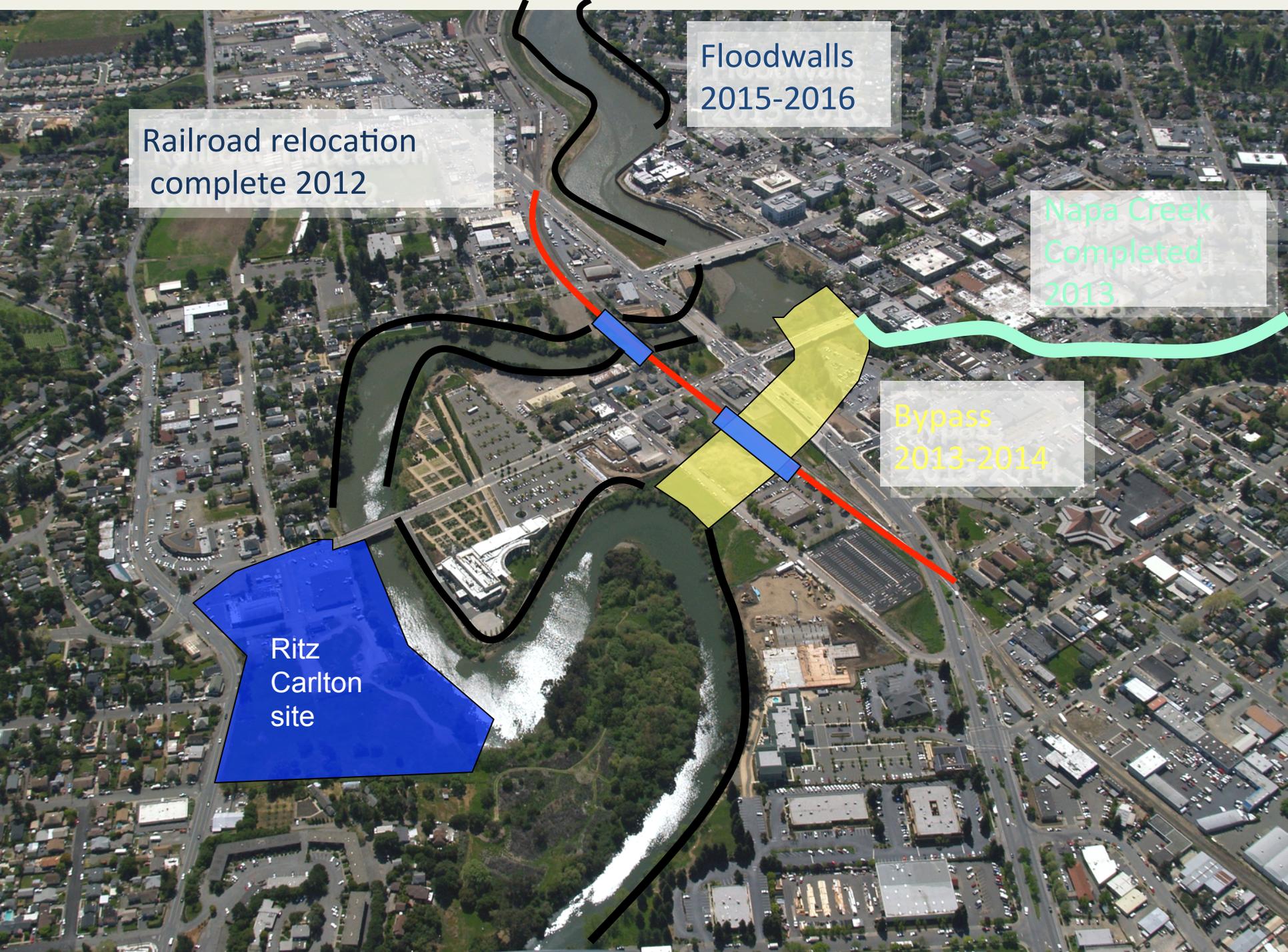
Riverfront Promenade and Floodwalls



Napa Creek

- Channel widened
- Stream bank slopes laid back to 3:1 or greater
- Large woody debris fish habitat structures installed
- 150 linear feet of stream to be “day lighted”
- Invasive plant species removed, native riparian vegetation to be installed
- Native flora and fauna should return by the droves!





Railroad relocation complete 2012

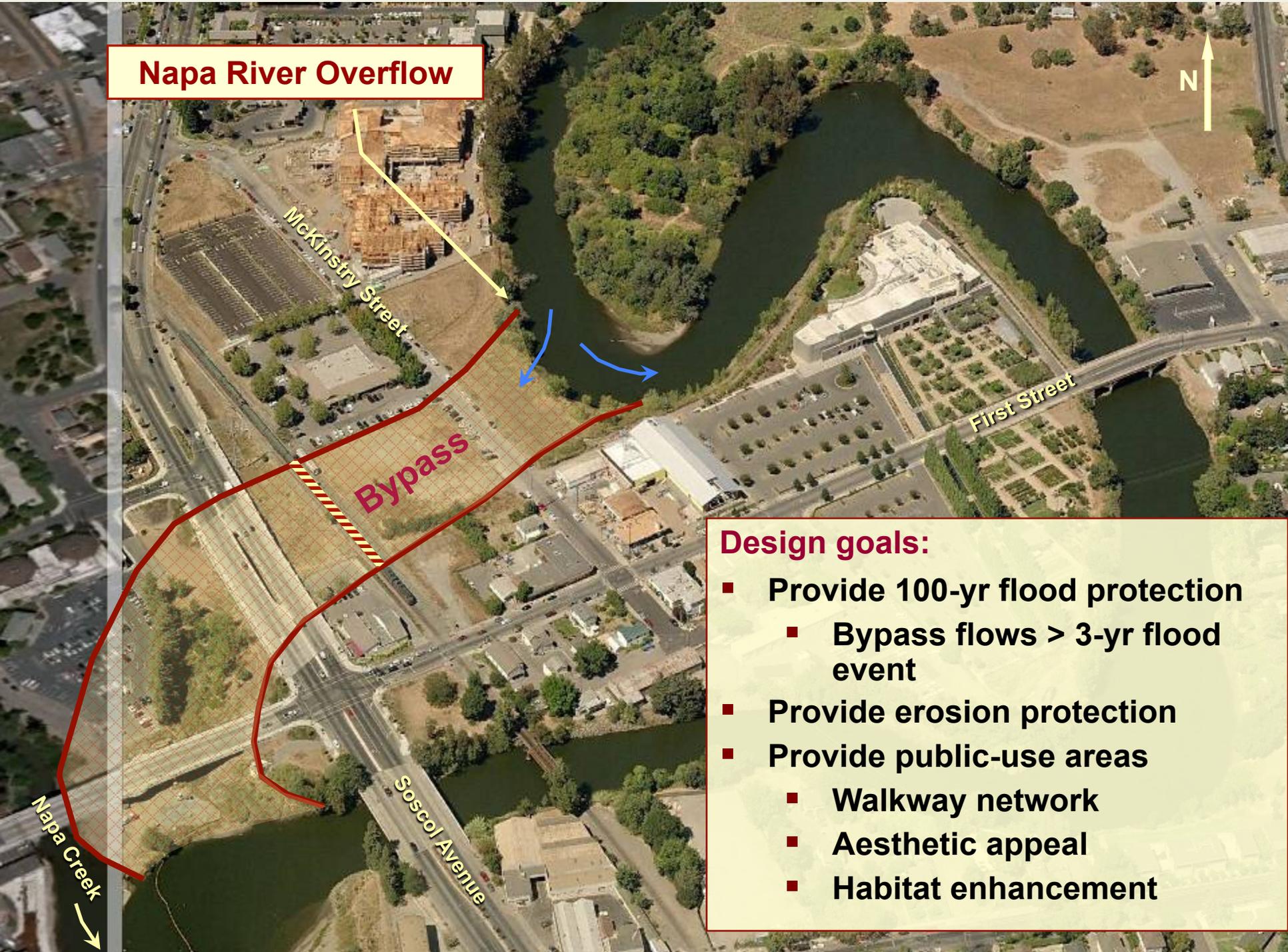
Floodwalls 2015-2016

Napa Creek Completed 2013

Bypass 2013-2014

Ritz Carlton site

Napa River Overflow



Design goals:

- Provide 100-yr flood protection
 - Bypass flows > 3-yr flood event
- Provide erosion protection
- Provide public-use areas
 - Walkway network
 - Aesthetic appeal
 - Habitat enhancement

NAPA RIVER DRY BYPASS – NAPA RIVER FLOOD PROTECTION



Distribution of Major Restoration Projects within the Napa River Watershed



Napa River Restoration Project

Oakville to Oak Knoll Reach

- Conceptual Plan completed and landowner kickoff held early 2011
- Received EPA grant to support Phase 1 design (\$395,000)
- Consultant selected for CEQA Review
- First phase of project will involve *Arundo* removal



Managing invasive non-native and Pierce host plant species, removing trash



Rutherford Reach Restoration Project

(sediment reduction, habitat restoration,
landowner initiated)

From this..



Back to this.

Napa River Restoration Project Rutherford Reach (RDRT)



Erosion to be addressed by project design

Focus on Fisheries

Key indicator of watershed health



- ◆ Stream surveys & habitat assessments
- ◆ Barrier assessment & prioritization
- ◆ Salmon redd & carcass counts
- ◆ DNA testing
- ◆ Out migration monitoring >>>

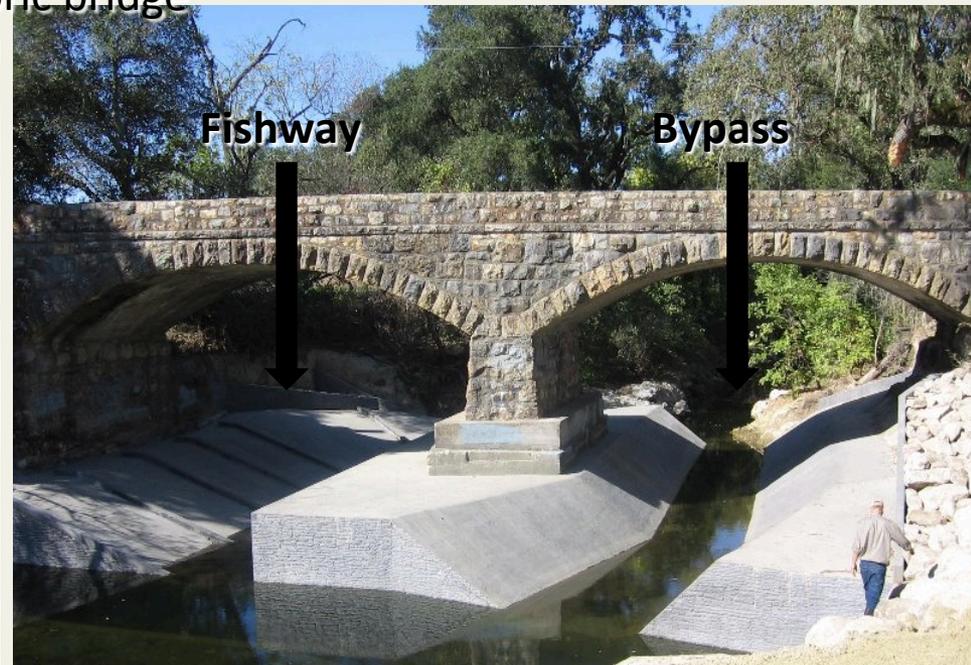


Zinfandel Bridge Fish Passage Improvement Project

- Construction completed October 2011
- Now provides unrestricted access to over 60 miles of upstream mainstem and tributary spawning habitat (Approx.19% of spawning habitat within the Napa River watershed)
- Strengthened abutments/ apron of historic bridge



June 2011



October 2011

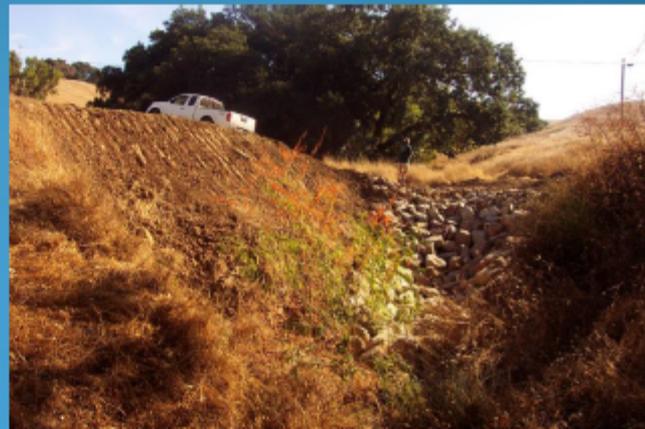


A Tradition of Stewardship
A Commitment to Service



TMDL Implementation: Reducing sediment delivery to Napa River by improving rural roads

- Erosion sources prioritized in Sulphur and Carneros Creek watersheds with Stewardship Groups in 2004
- Priority sites treated in both watersheds between 2009 and 2011
- Episodic and chronic erosion sources addressed
- 11.2 miles of rural roads storm-proofed (half of priority mileage)



Replacing culverts and armoring stream crossings reduces *episodic erosion*

TMDL Implementation: Reducing sediment delivery to Napa River by improving rural roads

- 101 stream crossings upgraded
- 1,200 linear feet of stream restored (3 earthen dams removed, 2 crossings upgraded)
- 16,942 yd³ sediment prevented from entering Napa River (~60% reduction from assessment sources)
- Every \$1 from Measure A matched with \$5.20 from other State, Federal and local sources



Reshaping road lengths to prevent concentration of surface flow reduces *chronic erosion*



○ Russ Island

○ Number Two, Island

American Canyon

American Canyon Rd

Folsden Rd

Broadway St

Mini Dr

37

© 2013 Google

Google earth





○ Bull Island

○ Green Island

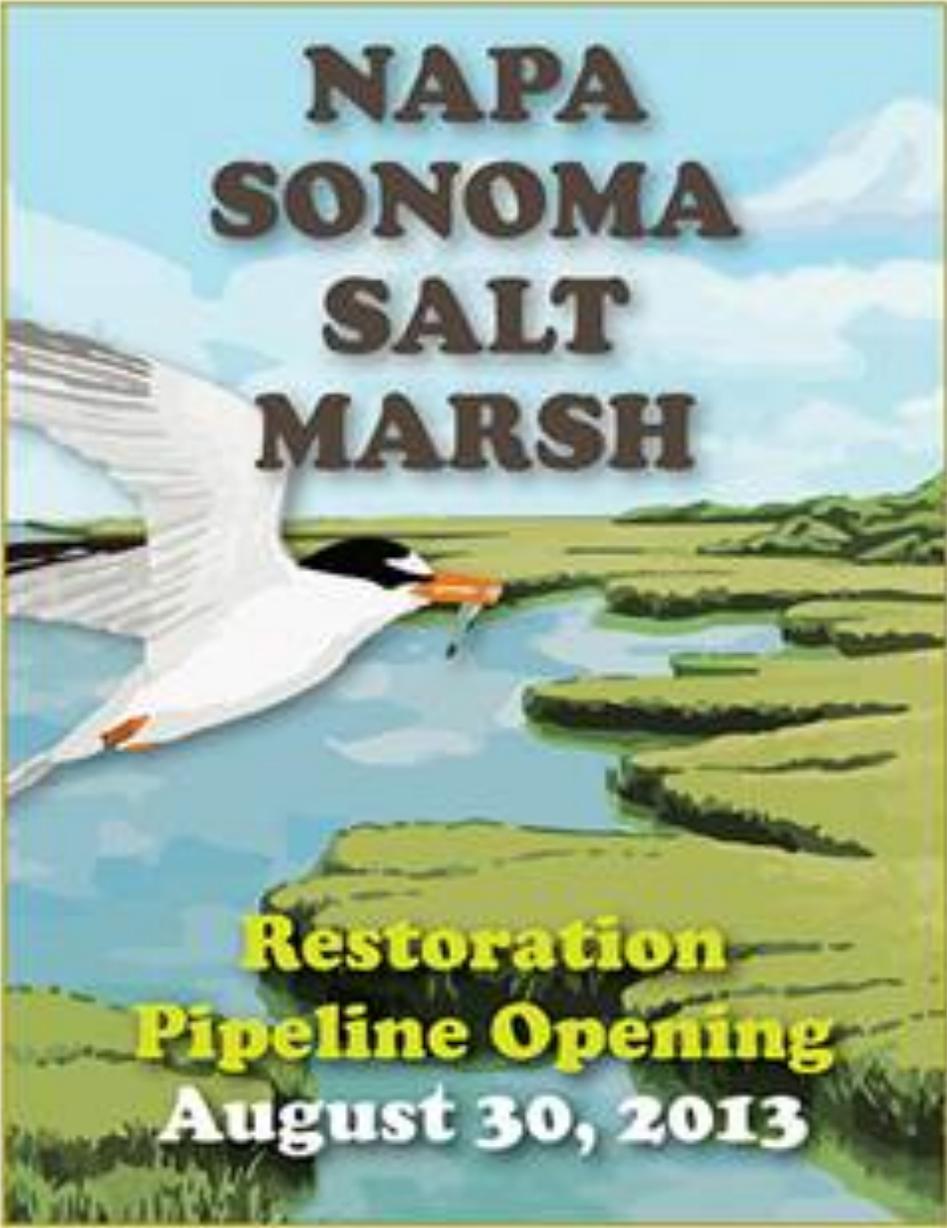
Merley Island

© 2013 Google

Google earth

Imagery Date: 9/1/2012 38°12'51.73" N 122°17'20.06" W elev 3 ft eye alt 11643 ft



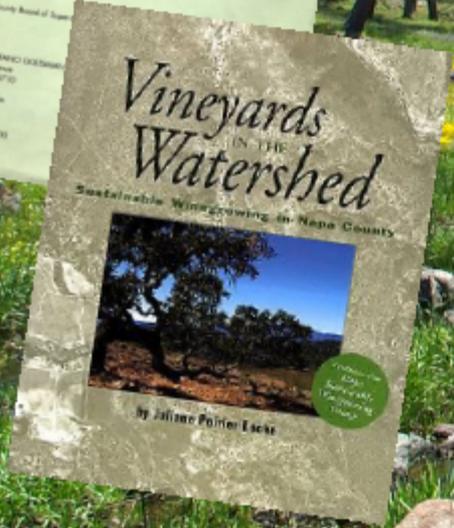
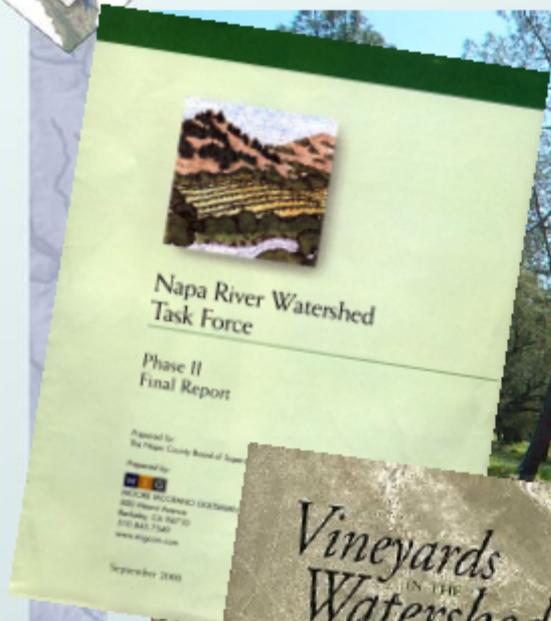
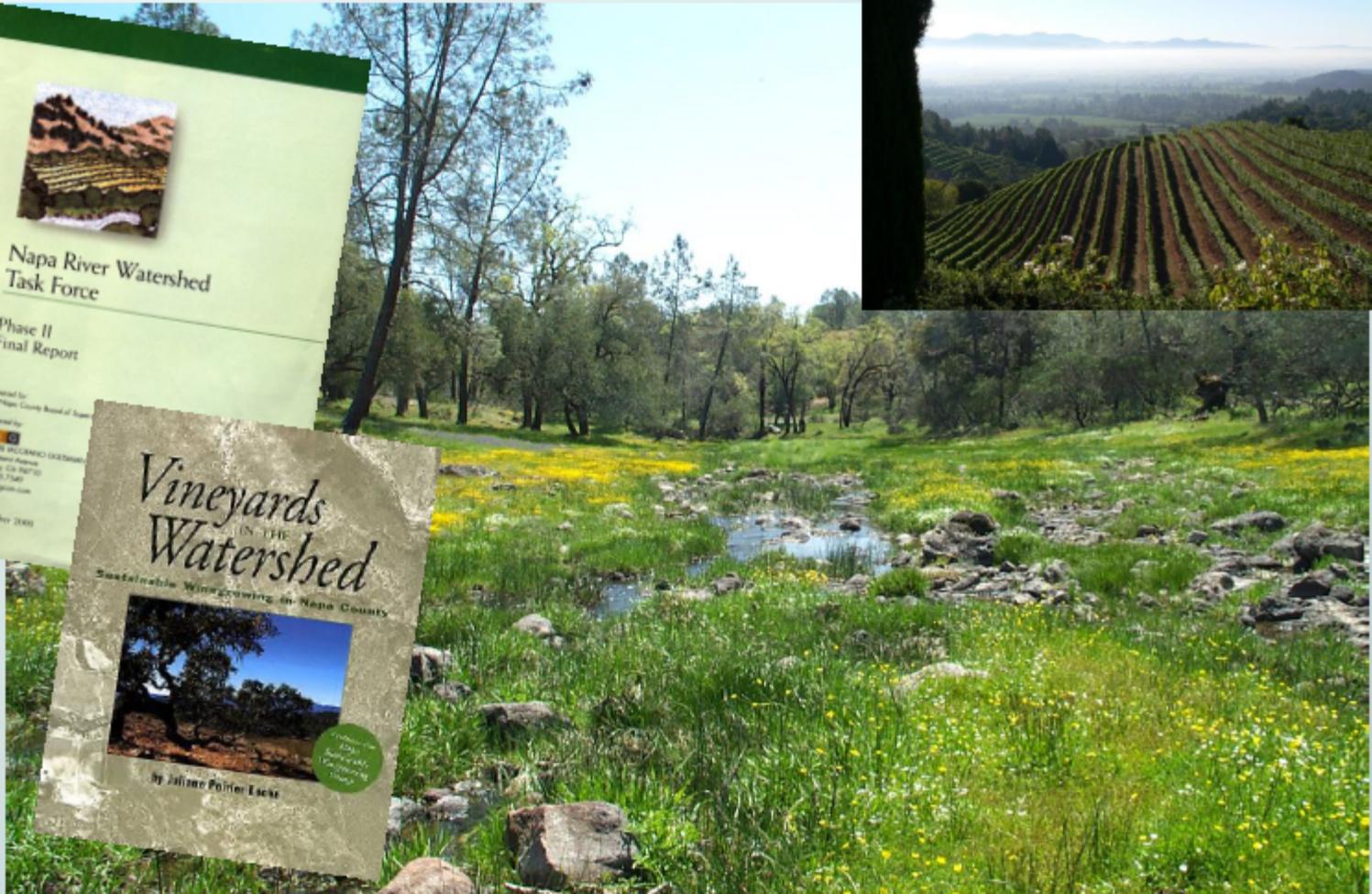


**NAPA
SONOMA
SALT
MARSH**

**Restoration
Pipeline Opening
August 30, 2013**



Vineyards in the Watershed



Watershed Tasting



THANK YOU TO...

- DoNapa - Napa Downtown Association
- Domaine Carneros Winery
- Saintsbury Winery
- Cakebread Cellars
- Honig Winery
- Bouchaine Vineyards