Presentation Overview

- Napa River Watershed
- Floods
- Solutions
- The Napa River Flood Protection Project
Napa River Watershed

Napa River - 55 miles from Mt. St. Helena to San Pablo Bay
450 square mile watershed
Population - 120,000, 1/2 in City of Napa, 1/4 in 4 small cities
Napa River - a navigable estuary to the City of Napa

27 Major Floods in last 120 years
Napa River Flood History

- 27 serious floods on the Napa River since 1862
- Flooding caused $542 Million of property damage in Napa during the past 36 years
County Courthouse, Napa - 1896
Brown Street, Napa - 1905
Main Street, Napa - 1940
Third Street, Napa - January 1997
Army Corps of Engineers
The 1995 Plan and Problems

Widening and deepening of the river
(double the width; trapezoidal shape)

- Excess siltation
- Decrease in oxygen
- Loss of wetland habitat
- Loss of steelhead rearing habitat

Leaves existing bridges (deepens river instead of raising bridges)

Leaves contaminants in place - sheet pile walls
Community and Resource Agencies Revolt

- 3 flood plans rejected over the last 20 years - environmentally damaging; financially infeasible

- 1995 Corps of Engineers Plan unacceptable to all State & Federal Resource Agencies
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, **geomorphic channel** design to improve fish habitat, water quality and minimize sedimentation.

Creation of south **wetlands**

Restoration on the **east side** of river, cleanup of toxic sites

**Marshplain terrace**

**Wet-Dry Bypass and Bridges**

**Setback Floodwall**
Geomorphic Channel

Floodplain Terrace
- Allows proper Sediment Transport
- Maintains Existing Salinity Regime

Marshplain Terrace
- Set at Mean Tide Level, 0.67 ft (0.2 m)
- Elevation critical to habitat formation
- Emergent Tidal marsh & Mudflats

Channel defined by tidal flows
A Multi-Purpose Project

- Flood protection
- Benefits to the environment
- Enhanced economic activity
Crisis, Coalition Building & Consensus

Sales Tax Ballot Measure

- A half-percent sales tax increase providing the local funding necessary for countywide flood protection

- A special tax. Thus, tax money can only be used for flood protection and watershed management

On March 3rd, 1998, Napa County held a single ballot measure special election:

Measure A passed with 67% of the vote and a 45% voter turnout
Who Pays for Countywide Flood Protection

- Federal Govt: 37%, $80m
- Residents: 33%, $73m
- Grants: 5%, $12m
- Public Land: 4%, $8m
- Tourists: 21%, $47m

Crisis, Coalition Building & Consensus
For a Flood-Weary Napa Valley, A Vote to Let the River Run Wild

By TIMOTHY EGAN

NAPA, Calif., April 18 — A good 64 inches of rain has pelted this valley of fine wine and pursuers of the sublime since last July. So last month, in the midst of yet another El Niño-driven storm, Napa Valley residents went to the polls and decided to do something about it.

By a two-thirds majority, Napa County voted to raise taxes to pay for ripping out its flood-control system, allowing the near-dead Napa River to return to life and run wild for much of its 55 miles. After suffering 27 floods in just 15 years, with flood controls, the Napa Valley now will get a chance with untamed nature.

In a state where virtually every major river is shackled by a dam, pinched by levees or siphoned for use by distant cities, the vote in Napa amounts to a call for revolution in the nation's war against high water.

By voting to let the river run free, reclaiming much of its own meandering path, Napa residents have also steered the Army Corps of Engineers, an agency that usually acts like the orthodontists of nature, on a new path.

"What we will be doing in Napa is radically different from anything we have ever done before," said Jason Fanselau, a Corps spokesman in Sacramento. "It's going to totally change the way we do business."

Under the Napa measure, parts of the river would be left to keep the water in a straight channel — largely without success — would be lowered or removed. Bridges that block the flow of high water would be bought out and asked to move. About 600 acres of low-lying land would be given back to the river, as wetlands. The river's

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The solution takes shape …
South Wetlands Opportunity Area
Improved habitat

Daily tides returning the land to a more natural state
Marsh Plain Terraces are a Natural Way of Providing Room for Rising Flood Waters

before

after
Riverbank Terracing
Bridge Replacement and Bank Stabilization Provide Flood Protection and Recreational Opportunities

before

after
Third Street Bridge Under Construction
Third Street Bridge – 2002
Oxbow Dry Bypass Allows Safe Flow of Excess Water During Floods

before

after
Soscol Avenue-Oxbow Bypass Bridge, First Street Bridge replacement, and railroad bridge
Soscol Avenue Bridge Under Construction
Maxwell Bridge replacement

Existing 1940s lift span

Existing Maxwell Bridge
viewpoint location: South Coombs, north of Imola
Maxwell Bridge replacement

New bridge to be completed 2005

Proposed Maxwell Bridge
viewpoint location: South Coombs, north of Imola
Ambitious river development to transform downtown

Napa riverfront will gain prominence as flood control project continues

By KEVIN COURTNEY
Register Staff Writer

The i’s have been dotted and the t’s crossed on ambitious plans to make downtown Napa’s riverfront the place to walk, shop and dine by decade’s end.

If it all plays out, the riverfront will be changed from a grungy alleyway notable for its many forms of riffraff to a gracious people magnet, with stylish walkways, public plazas and waterfront commercial buildings.

When the river makeover is complete, downtown Napa may evoke such cities as Reno, San Luis Obispo and, on the right night, in the right light, Paris.

Downtown’s reorientation to the river is a windfall from the $250 million flood control project, which will widen the river and replace most of downtown’s bridges with wider, longer spans.

As the east bank is terraced for wildlife and flood protection, the west bank from the Napa Mill project at Main and Fifth streets to Soscol Avenue will become a pedestrian promenade bordered by restaurants and stores.

“People have always said, ‘Why don’t we have a square like Sonoma?’” said Cassandra Walker, the city’s redevelopment director. “We’ll have something better. We’ll have a whole waterfront.”

The Downtown Riverfront Urban Design Plan was adopted by the City Council last month after three years of public workshops and review by two citizen committees.

“We’re trying to make the river a public open space and orient downtown to it as if it were a big plaza or park,” said Terry Bottomley, the city’s design consult-

“People have always said, ‘Why don’t we have a square like Sonoma?’ We’ll have something better. We’ll have a whole waterfront.”

Cassandra Walker
Napa redevelopment director

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