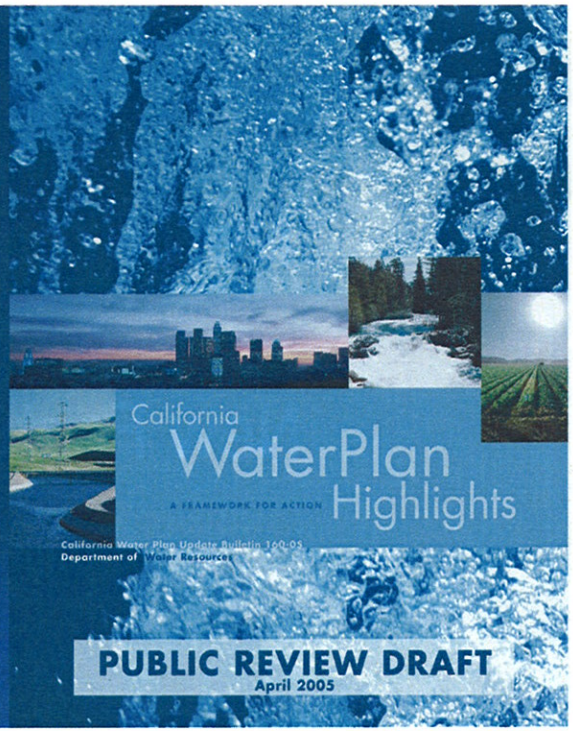
Appendix D

July 7, 2005 Public Meeting / Public Notice and Presentation Slides

California Water Plan
Update 2005

Robert Weil
July 7, 2005



Topics

- Background
- New Process & New Features
- Strategic Plan (A Framework for Action)
- Preparing for the Future (Scenarios)
- Key Points for American Canyon

Background

The California Water Plan

- First published in 1957 as Bulletin 3
- Updated 7 times (Bulletin 160); last one in 1998
- Previous Updates identified a supply-demand gap and ways to "fill the gap"
- Growing interest by Legislature and stakeholders in update process and more comprehensive content

Key Purposes of Water Plan

- **Framework for California Water Policy**
- **Resource for Water Community**
  - Current supplies and water uses
  - Future scenarios and potential water demands
  - Information on management strategies for developing local plans and implementing solutions
- **Important Footnotes**
  - No mandates; No spending authorizations
  - Not project or site specific; No CEQA

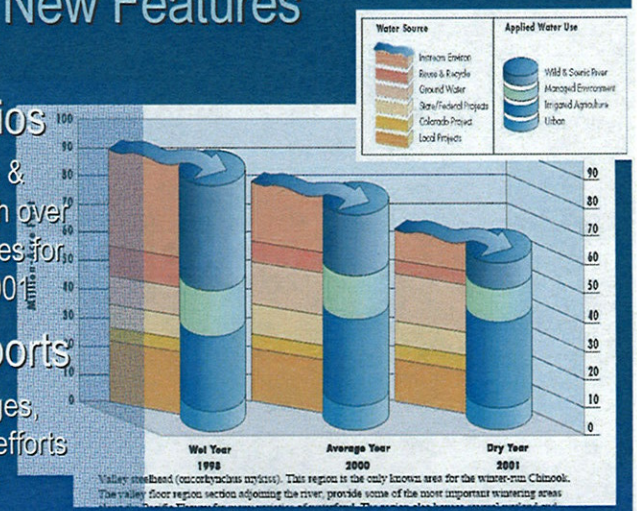
New Process & New Features

New Process

- **Have open & transparent public process**
  - Website, meetings, share interim products
- **Seek collaborative recommendations**
  - 65-person Advisory Committee & 350-person Extended Review Forum
- **Prepare a strategic plan**
  - Strategic planning guidelines

New Features

- Water Portfolios
  - Hydrologic cycle & water quality with over 80 data categories for 1998, 2000 & 2001
- Regional Reports
  - Setting, challenges, goals, planning efforts & water portfolio



New Features

- Multiple Future Scenarios
  - Plausible yet different base conditions to plan for uncertainties & risks
- 25 Resource Management Strategies
  - Tools for water managers & resource planners to …

- ✓Reduce Water Demand
- ✓Improve Operational Efficiency & Transfers
- ✓Increase Water Supply
- ✓Improve Water Quality
- ✓Practice Resource Stewardship

Strategic Plan

A Framework for Action

Framework for Action
Sustainable & Reliable Water in 2030

Vision

Vital Economy
Healthy Environment
High Standard of Living

2 Initiatives Ensure Reliable Water Supply

Implement Integrated Regional Water Management

Improve Statewide Water Management Systems

3 Foundational Actions Ensure Sustainable Water Use

Use Water Efficiently

Protect Water Quality

Support Environmental Stewardship

Foundational Action
Use Water Efficiently

- Increase urban and agricultural water use efficiency
- Increase recycling & reuse
- Reoperate facilities to improve efficiencies
- Facilitate transfers to avoid regional shortages
- Eliminate groundwater overdraft

Foundational Action
Protect Water Quality

- Protect supply sources from contamination
- Explore new treatment technologies
- Match water quality to use
- Improve runoff management
- Improve watershed management

Foundational Action
Support Environmental Stewardship

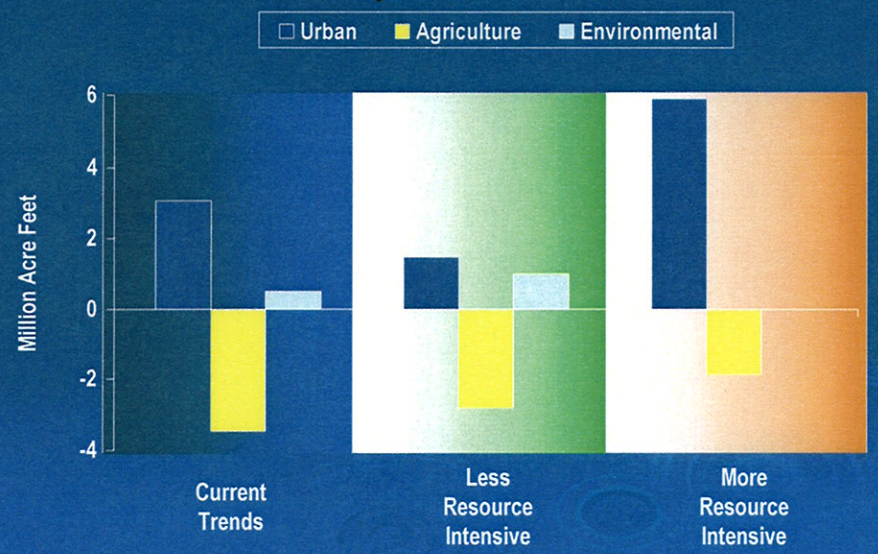
- Integrate ecosystem restoration with water & land use planning
- Restore aquatic ecosystems
- Minimize alteration of ecosystems
- Protect public trust resources
- Integrate flood management with supply management

Preparing for the Future

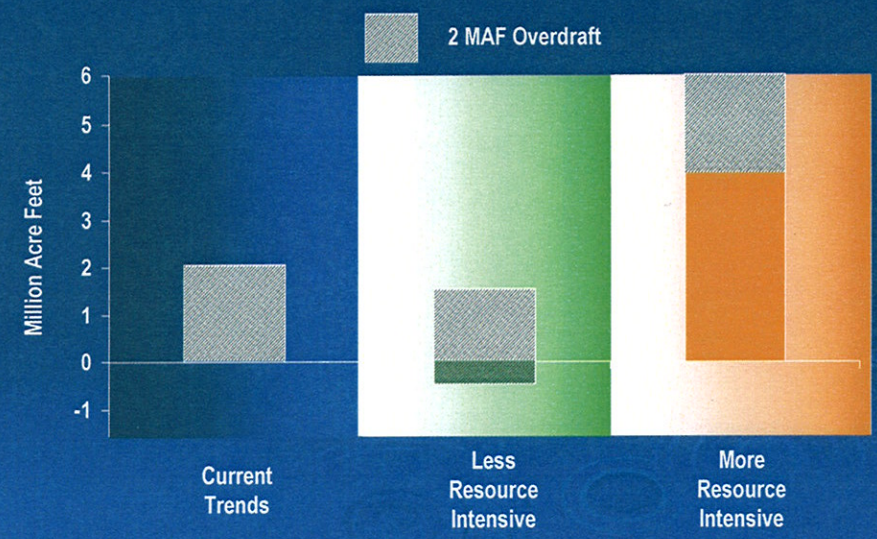
3 Scenarios for 2030
Plausible Yet Different Baseline Futures

- **Current Trends**
  - ✓ Recent trends continue into the future
- **Less Resource Intensive**
  - ✓ Higher agric. & industrial production
  - ✓ More water for the environment
  - ✓ More background water conservation
- **More Resource Intensive**
  - ✓ Higher population growth
  - ✓ Higher agric. & industrial production
  - ✓ Hold Environ. water at 2000 level
  - ✓ Less background water conservation

Statewide Scenario Demand Changes by Sector



Statewide Scenario Demand Changes Plus Groundwater Overdraft



Key Points for American Canyon

- **Emphasis on Recycling and Conservation**
  - Meets water supply
  - Ensures vital economy
  - Protects Environment
  - American Canyon's Investments in Wastewater/Recycled Water will pay dividends
- **Integration of Agriculture, Municipal and Environmental Water Uses**
  - Prevent Groundwater Overdraft
    - Key Issue in Napa 2050 Water Study
  - Water Transfers Encouraged

Special Presentation to City Council on Water Conservation

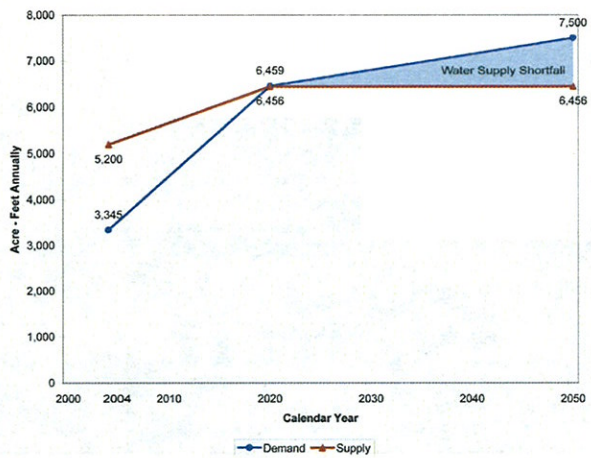
July 7, 2005

J:/05/02536 American Canyon

Presentation Topics

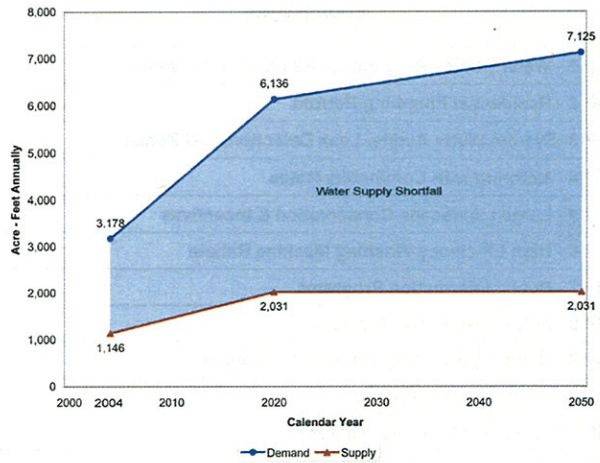
1. American Canyon water supply shortfall
2. Cost effectiveness of water conservation
3. California Urban Water Conservation Council
4. Water use breakdown by sector
5. Residential and commercial water use and potential savings
6. Conclusions
7. Questions and Answers

Projected Water Demand and Supply



Sources:
2050 Napa Valley Water Resources Study, West Yost and Associates

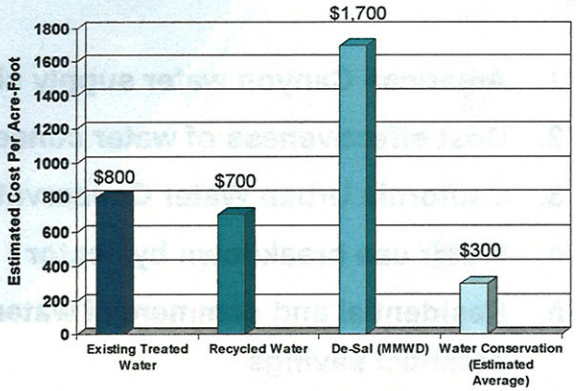
Projected Water Demand and Supply for Single Dry Year Scenario



Note: Demand figures assume 5% mandatory emergency Water Conservation

Sources:
2050 Napa Valley Water Resources Study, West Yost and Associates

Water Supply Cost Comparison



Added Benefit

- Implementation of water conservation allows opportunities for Proposition 50 and other state and federal grants

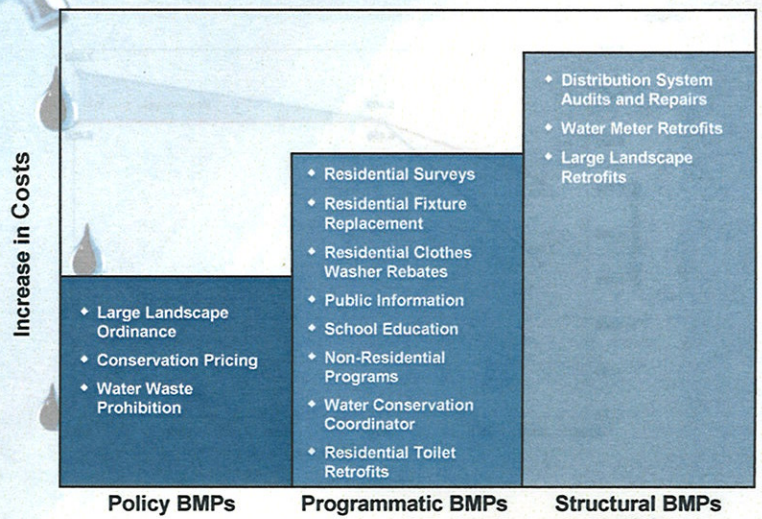
California Urban Water Conservation Council

- MOU signed 5/7/1998
- Signatories pledge "good faith effort" to implement BMPs that are cost-effective within 10 years
- CUWCC provides guidelines and standard BMPs and support in implementation

Water Conservation Best Management Practices

CUWCC BMPs
BMP 1 - Water Survey Program for Residential Customers
BMP 2 - Residential Plumbing Retrofit
BMP 3- System Water Audits, Leak Detection, and Repair
BMP 4 - Metering with Commodity Rates
BMP 5 - Large Landscape Conservation & Incentives
BMP 6 - High Efficiency Washing Machine Rebate
BMP 7 - Public Information Programs
BMP 8 - School Education Program
BMP 9 - Conservation Program for CII Accounts
BMP 11 - Conservation Pricing
BMP 12 - Conservation Coordinator
BMP 13 - Water Waste Prohibition
BMP 14 - Residential Toilet Replacement Program

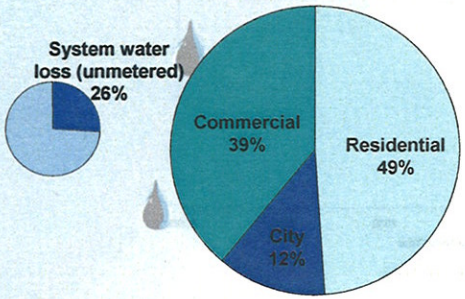
The BMPs Emphasize Continued Progress Towards Conservation



Water Demand by Sector and Water Loss

Total Water Consumption in 2002:
754 million gallons (2,315 Acre-Feet)

American Canyon Metered Water Consumption by Category

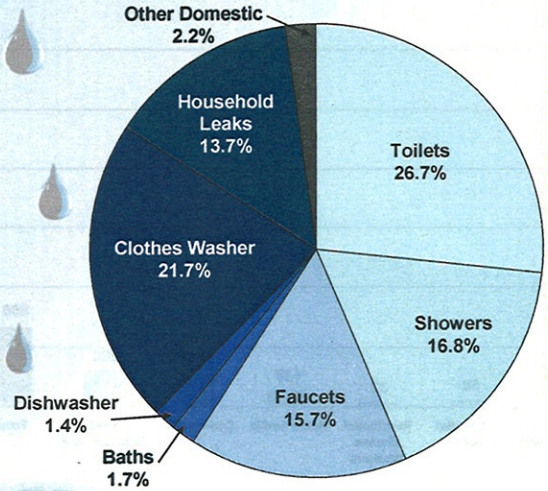


Notes:

1. Total Water Demand is Equal to 220 gallons per capita per day. (Source: City Records)
2. For the residential sector, water demand is approximately 89 gallons per capita per day.
3. State average is 196 gallons per capita per day.

Indoor Residential Water Use

National Average Indoor Use in a Non - Conserving Home



A Significant Potential for Water Savings in Homes

Three Residential Water Conservation Examples:

1. Ultra Low - Flow Toilet replacement 50% of Pre – 1992 homes ≈ 50 AFA
2. High-Efficiency residential clothes washer replacements in 50% of all households ≈ 30 AFA
3. Residential Water audits with fixture installation in 50% of households ≈ 130 AFA

Total = 210 AFA

Potential Water Savings from Commercial Water Conservation

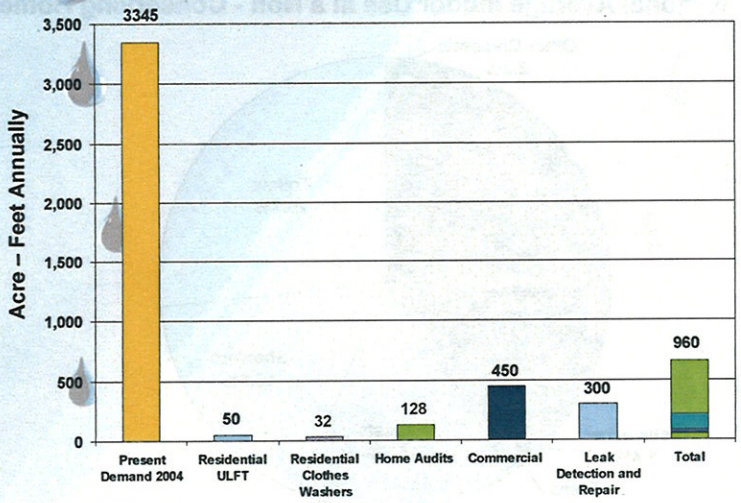
One Commercial Water Conservation Program Example:

- Water use audit
- Toilet retrofit
- Upgrade to efficient appliances
- Increased landscape irrigation system efficiency

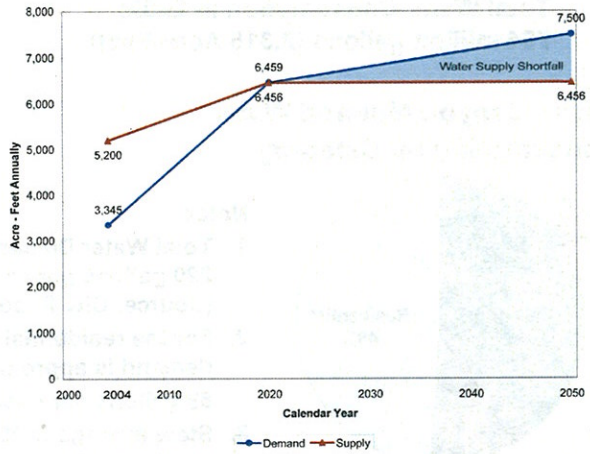
15% - 30% Water Savings

For American Canyon this could save approximately 400 – 625 AFA

Potential Water Savings from Selected Water Conservation Programs Compared to Current Demand

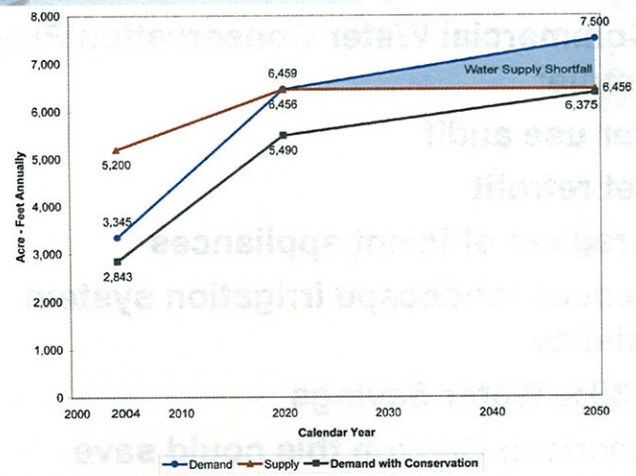


Supply and Demand Projections without Water Conservation



Sources:
2050 Napa Valley Water Resources Study, West Yost and Associates

Supply and Demand with Future Potential Savings in Water Conservation



NOTE: Estimated 15% savings with Water Conservation

Sources:
2050 Napa Valley Water Resources Study, West Yost and Associates

Conclusions

- With projected population growth, American Canyon faces a water supply shortfall in less than 20 years.
- In the event of a drought, American Canyon faces a water supply shortfall now.
- Water conservation would reduce water supply shortfall.
- Water conservation is cost-effective.
- Implementing water conservation BMPs enhances grant funding opportunities.

Comments and Questions

NOTICE OF PUBLIC MEETING
FOR INFORMATION PERTAINING TO
THE CITY OF AMERICAN CANYON
WATER CONSERVATION PROGRAM

NOTICE IS HEREBY GIVEN that the Public Works Department of the City of American Canyon will conduct a special presentation on the City's Water Conservation Program on July 7, 2005, at 7:30 P.M. in the Council Chambers at the Recreation Center at 2185 Elliott Drive, American Canyon, to provide an opportunity for the City Council and the general public to provide input regarding the City's Water Conservation Program. The purpose of the presentation is to educate the public on the various water conservation measures available and to update the Council on the City's progress on the implementation of the program.

For any questions regarding the meeting, contact Robert Weil, Public Works Director, at (707) 647-4550.