

Appendix B

Appendix B
January 2006 Public Meeting, Public Notice
and UWMP Presentation Slides



City Council Presentation

Draft Urban Water Management Plan

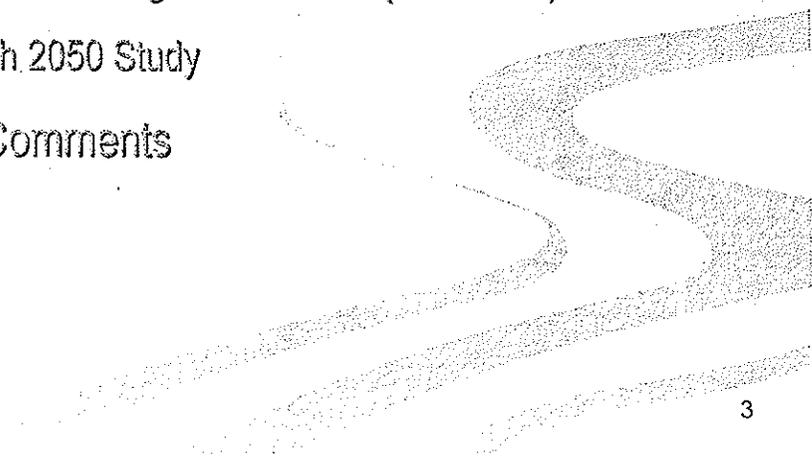
January 5, 2006

Agenda

1. State Water Project/North Bay Aqueduct System ("SWP/NBA")
2. 2005 Urban Water Management Plan ("UWMP")
 - o Comparison with 2050 Study
3. Questions and Comments

Agenda

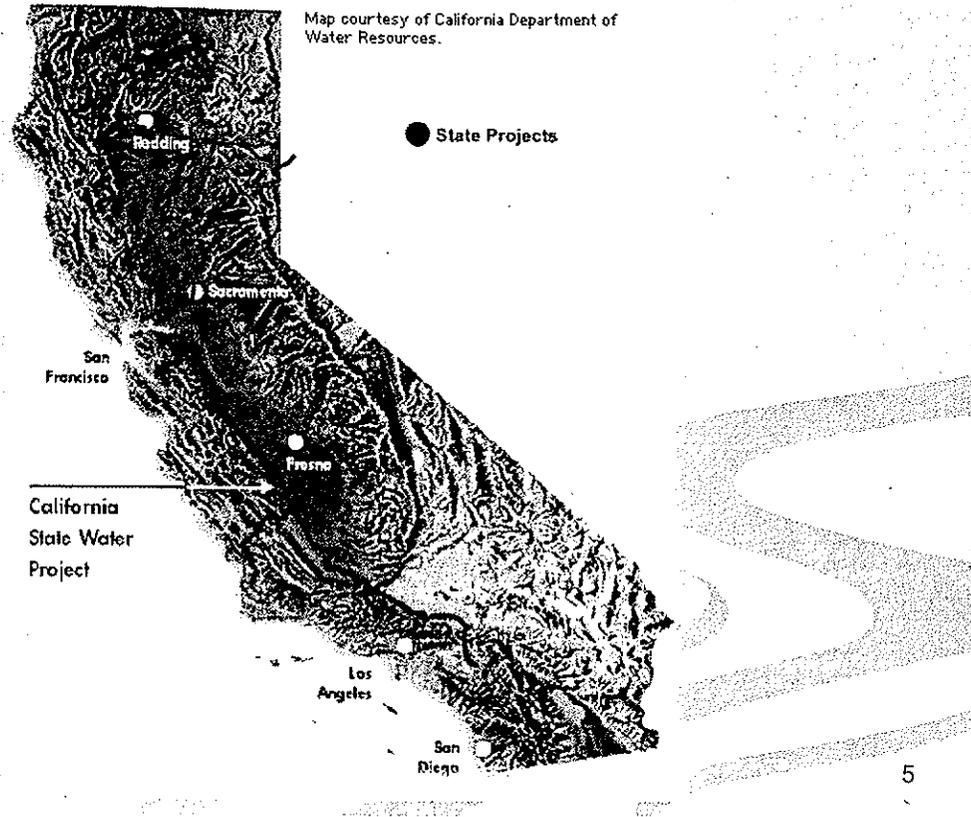
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Overview of State System

- Built and operated by DWR beginning in 1960s
- Captures water in Feather River watershed
- Includes 32 storage facilities, 17 pumping plants and 660 miles of canals and pipelines
- Long-term water supply contracts with 29 local agencies
- Annual average delivery is 2.5 MAF with roughly half going to MWD
- Maximum delivery is 3.2 MAF
- 70 percent of the water goes to urban users and 30 percent to Ag users
- 1994 Monterey Agreement provided for operational flexibility

State Water Project Map



Reliability of State's Delivery System

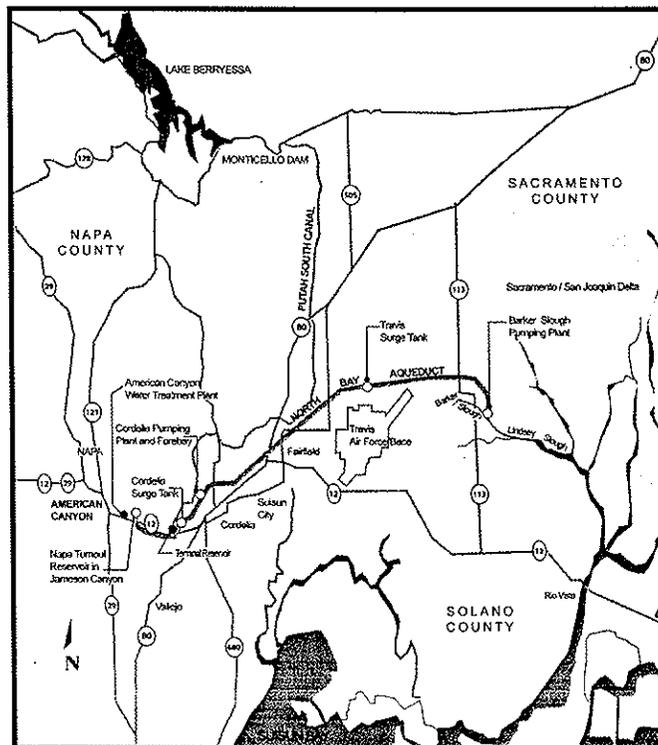
- DWR prepares a reliability report based on modeling of the State's water operations and assumptions of Contractor demands
- The last published report was issued in 2003; a working draft was issued in May 2005 but not finalized
- Reliability analysis in the 2050 Study uses the 2003 report and the City's 2005 UWMP uses the 2005 draft report
- Reliability analysis is based on a complex model with various assumptions and factors

North Bay Aqueduct System

- 28- mile pipeline starting at Barker Slough and ending at Napa turnout
- Includes two surge tanks and two pumping plants
- Delivers water from the Delta to Napa and Solano Counties
- Began serving Napa County in 1968 using water from Lake Berryessa and in 1988 using SWP water
- Capacity limited to Table A allocation

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NBA System Map



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Purpose & Background

- Required under State legislation
- Needed as a prerequisite for obtaining State water grants
- Purpose is to identify the City's supply and demand for the next 20 years and to identify how City will address shortfalls under certain water year conditions
- Must be updated every five years

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Existing Water Supply Contracts

Agency Source	Water Supply	Date of Agreement	Maximum Supply (AFY) (2005)	Total Supply (AFY)
State Water Project (SWP)				
Napa County	Table A Entitlement	1/4/1967	4,700	4,700
Calistoga	Transfer of water	1998	(500)	
Kern County Water Agency	Napa County	9/19/2000	500	5,936
Other Sources/ Supplies				
Vallejo Agreement and Addendum 3	Vallejo treated water	6/13/96	629	1,236
Vallejo Addendum 2	Permit water exchange for SWP Table A entitlement transfer	6/4/98	500	
American Canyon	Recycled water	NA	107	5,936
Total				
Emergency Supplies				
Vallejo Addendum 1	Emergency supply for raw water	7/18/1996	500	13
Napa (Informal Agreement)	Emergency supply for treated water	NA	Mutual Agreement	

Projected Water Supplies

Water Supply (AFY)	2005	2010	2015	2020	2025
State Water Project (SWP)	4,700	4,950	5,200	5,200	5,200
Other Sources/Supplies					
Vallejo Permit Water	500	500	500	500	500
Vallejo Treated Water *	629	1,352	2,075	2,641	3,207
Groundwater	0	0	0	0	0
Surface Diversions (None)	0	0	0	0	0
Transfers in or out (None)	0	0	0	0	0
Exchanges in or out	0	0	0	0	0
City's Recycled Water	107	858	858	858	858
Napa San Recycled Water	0	23	47	70	70
Desalination	0	0	0	0	0
Total	5,936	7,683	8,680	9,269	9,835

* Note: Raw water option desired.

Reliability of Supply – Normal Water Year

Year	2005	2010	2015	2020	2025
SWP Supply	69%	71%	73%	75%	77%
Other Sources/Supplies					
Vallejo Permit Water	100%	100%	100%	100%	100%
Vallejo Treated Water	100%	100%	100%	100%	100%
Vallejo Raw Water	100%	100%	100%	100%	100%
City's Recycled Water	100%	100%	100%	100%	100%
Napa San Recycled Water	100%	100%	100%	100%	100%

Year	2005	2010	2015	2020	2025
SWP Supply	3,243	3,515	3,796	3,900	4,004
Other Sources/Supplies					
Vallejo Permit Water	500	500	500	500	500
Vallejo Treated Water	629	1,352	2,075	2,641	3,207
Vallejo Raw Water	500	500	500	500	500
City's Recycled Water	107	858	858	858	858
Napa San Recycled Water	0	23	47	70	70
Total	4,979	6,748	7,776	8,469	9,139

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Reliability of Supply – Multiple Dry Year

Year	2005	2010	2015	2020	2025
SWP supply	38%	38%	38%	38%	38%
Other Sources/Supplies					
Vallejo Permit Water	90%	90%	90%	90%	90%
Vallejo Treated Water	90%	90%	90%	90%	90%
Vallejo Raw Water	90%	90%	90%	90%	90%
City's Recycled Water	90%	90%	90%	90%	90%
Napa San Recycled Water	90%	90%	90%	90%	90%

Year	2005	2010	2015	2020	2025
SWP supply	1,786	1,881	1,976	1,976	1,976
Other Sources/Supplies					
Vallejo Permit Water	450	450	450	450	450
Vallejo Treated Water	566	1,217	1,868	2,377	2,886
Vallejo Raw Water	450	450	450	450	450
City's Recycled Water	96	772	772	772	772
Napa San Recycled Water	0	21	42	63	63
Total	3,348	4,791	5,558	6,088	6,597

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Reliability of Supply – Single Dry Year

Year	2005	2010	2015	2020	2025
SWP supply	28%	28%	28%	28%	29%
Other Sources/Supplies					
Vallejo Permit Water	90%	90%	90%	90%	90%
Vallejo Treated Water	90%	90%	90%	90%	90%
Vallejo Raw Water	90%	90%	90%	90%	90%
City's Recycled Water	90%	90%	90%	90%	90%
Napa San Recycled Water	90%	90%	90%	90%	90%

Year	2005	2010	2015	2020	2025
SWP supply	1316	1,386	1,456	1,456	1,508
Other Sources/Supplies					
Vallejo Permit Water	450	450	450	450	450
Vallejo Treated Water	566	1,217	1,868	2,377	2,886
Vallejo Raw Water	450	450	450	450	450
City's Recycled Water	96	772	772	772	772
Napa San Recycled Water	0	21	42	63	63
Total	2,878	4,296	5,038	5,568	6,129

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Water Demand Assumptions

- General Plan land uses apply
- Buildout per City's and County's General Plans
- Buildout assumed by 2015: 0.5% growth per year beyond 2015
- Potential vineyard demands per *Recycled Water Implementation Plan, 2005*
- "Within City" refers to Sphere of Influence

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Methodology for Projecting Demands

- Review historical water use (2000-2004)
- Apply annual average water use to parcels and sorted by land use
- Eliminate statistical outliers
- Develop unit demand factors by land use (best for residential)
- Commercial – Use 1996 Water Master Plan
- Industrial – Use 650 gpd/acre maximum
- Public (schools) – Use industry “standards”
- Agriculture – Use RW Implementation Plan

Unit Demand Factors by Land Use Designation

Land Use Designation	Unit Demand Factor (gpd/unit)	Unit
Agriculture (AG)	2,680	acre
Community Commercial (CC)	155	ksf
Hotels/Motels	40	rooms
Commercial Neighborhood (CN)	155	ksf
Commercial Recreation (CR)	1,500	acre
Industrial (I)	650	acre
Open Space (OS)	530	acre
Public (P)		
High School (student portion)	20	student
Middle School (student portion)	15	student
Elementary School (student portion)	10	student
School (land portion)	141	acre
Residential Estate (RE)	342	du
Residential High (RH-1 (12-16 UPA))	210	du
Residential High (RH-2 (16-20 UPA))	210	du
Residential Low (RL)	286	du
Residential Medium (RM)	216	du

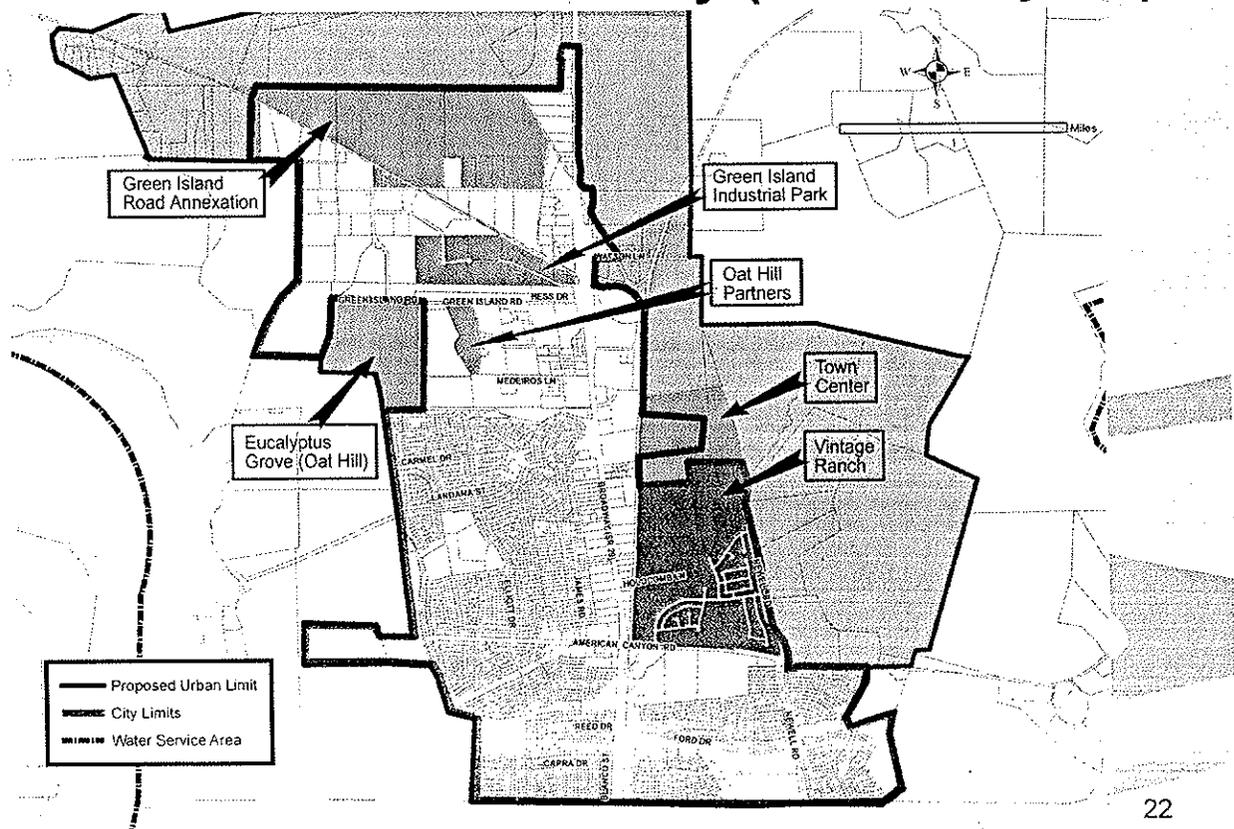
Note: Land use designations based on City's General Plan

Future Demands Within City (Non-Vineyard) (To Buildout)

Oat Hill Partners/Eucalyptus Grove	60 AFY
Town Center	288 AFY
Green Island Road Annexation	199 AFY
Green Island Industrial Park	49 AFY
Vintage Ranch	192 AFY
Other Developments	539 AFY
Total	1,327 AFY

NOTE: Based on General Plan

Future Demands Within City (Non-Vineyard)

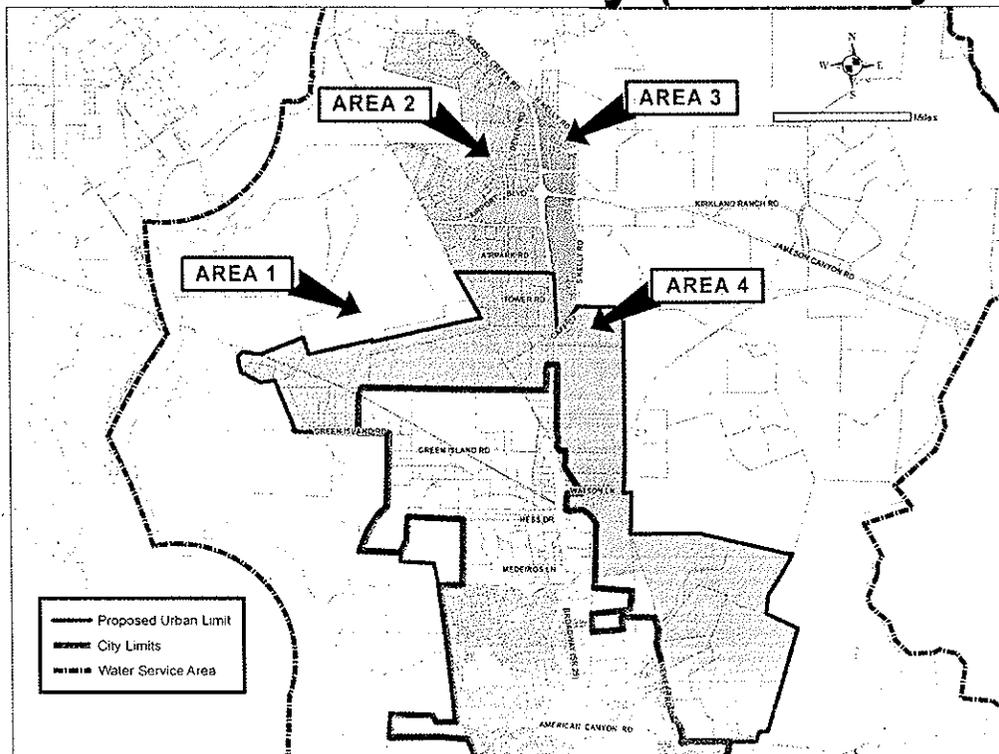


Future Demands Outside City (Non-Vineyard) (To Buildout)

County Area 1	28 AFY
County Area 2	865 AFY
County Area 3	145 AFY
County Area 4	63 AFY*
Total	1,101 AFY

* Note: County Area 4 is between City's Sphere of Influence and Proposed Urban Limit.

Demands Outside City (Non-Vineyard)



Potential Vineyard Demands

Existing Vineyard Demands	171 AFY
Potential Future Vineyard Demands	347 AFY
Total Potential Vineyard Demands	518 AFY

NOTE: Plan to offset with recycled water program

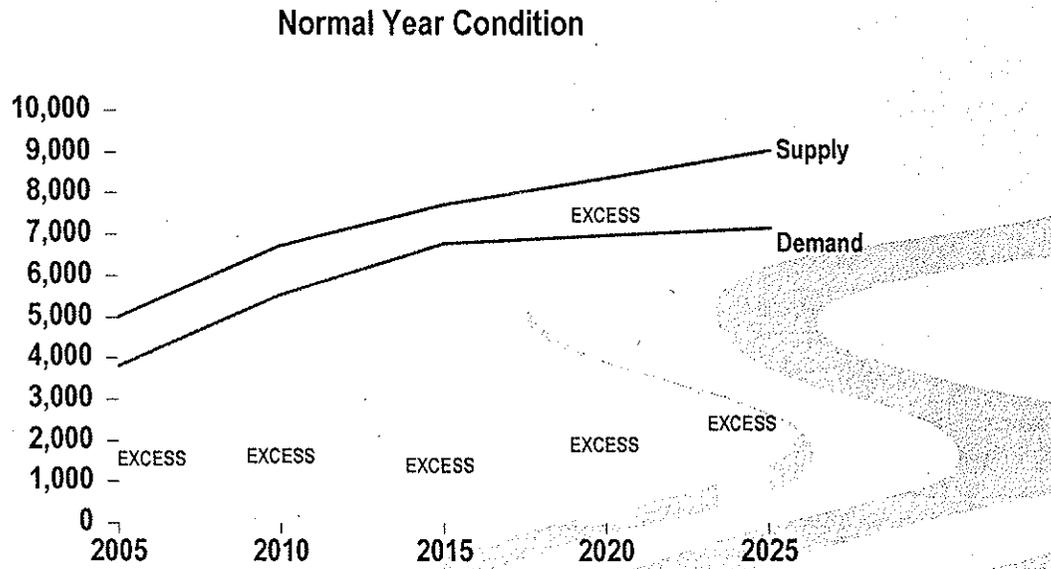
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Total Water Demands

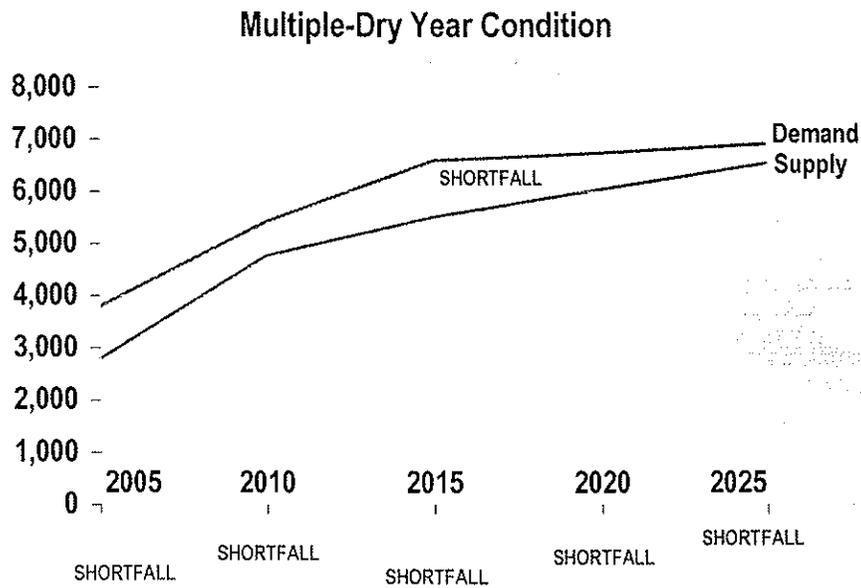
Demand Type	2005	2010	2015	2020	2025
Customer Demand					
Within City (non-vineyard)	2,836	3,473	4,129	4,233	4,339
Outside City (non-vineyard)	397	949	1,388	1,423	1,459
Vineyard	205	521	521	534	547
Total	3,438	4,943	6,038	6,190	6,345
Sales to Other Agencies	0	0	0	0	0
Un-metered Uses and Losses	343	491	598	613	628
Total	3,781	5,434	6,636	6,803	6,973

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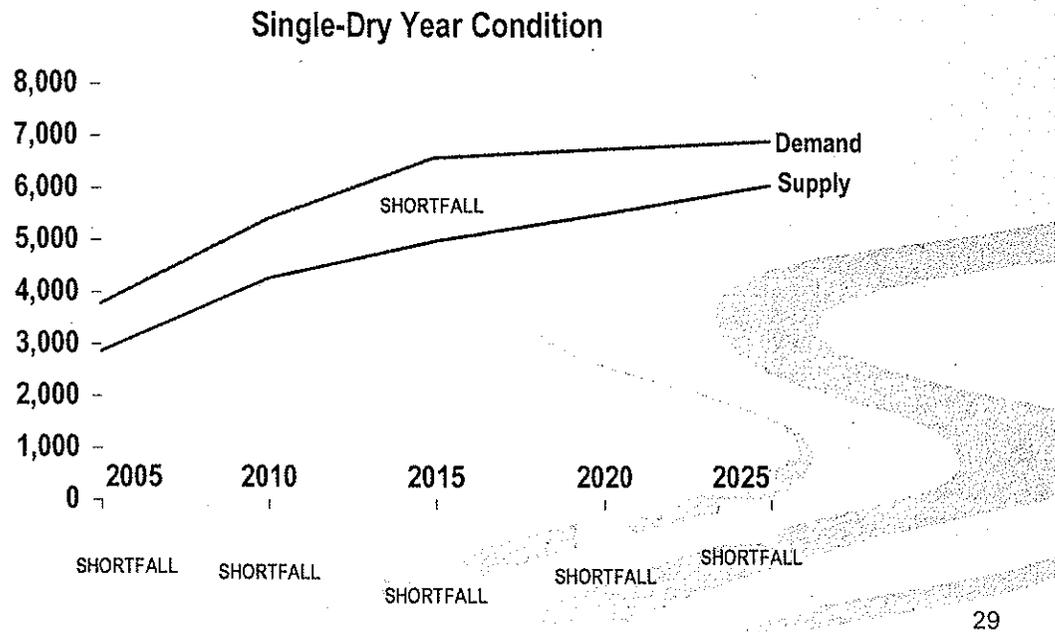
Supply and Demand Comparisons, AFY



Supply and Demand Comparisons, AFY



Supply and Demand Comparisons, AFY

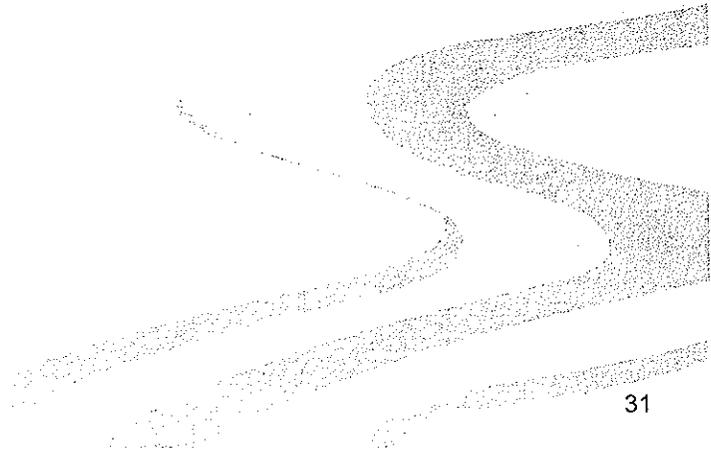


Provide Reliability for “Normal” Water Years

- Ongoing water conservation (“demand management measures” or DMMs)
- For existing customers – interior retrofits, replace with periscope landscape, replace with irrigation efficiencies
- For new development – work towards “zero” footprint concept

Provide Reliability for “Dry” Water Years

- Ongoing Water Conservation
- Purchase non-SWP water for drought contingency
- Aggressively pursue additional recycled water use



Demand Management

Ongoing 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

Demand Management

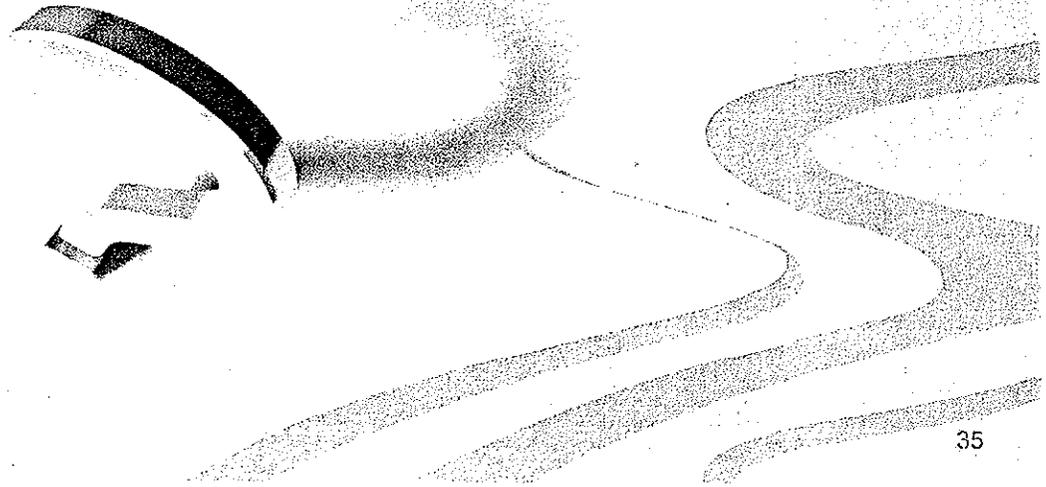
Stage	Compliance	Non-Essential Uses of Water/ Water Waste Prohibitions	Water Reduction Goal
--	Mandatory – Water Waste Prohibitions effective at all times	<ul style="list-style-type: none"> Excessive plumbing leaks not repaired Excessive irrigation run-off Fire suppression systems are exempt. 	NA
1	Voluntary	<p>Activities requested:</p> <ul style="list-style-type: none"> Inspection and repair of leaky irrigation systems Vary irrigation amount with weather conditions Reduce irrigation cycle when run-off occurs 	10%
2	Mandatory – Water Alert	<ul style="list-style-type: none"> Use of water from a fire hydrant except for fire fighting uses Use of potable water for dust control at construction sites 	20%
3	Mandatory – Water Emergency	<ul style="list-style-type: none"> Stage 1 activities continue to be in effect Stage 2 non-essential uses in effect Watering of lawn/turf at any time of day or night with potable water Planting of new landscaping and annuals 	30%
4	Mandatory – Severe Water Emergency	<ul style="list-style-type: none"> Stage 1 activities continue to be in effect Stage 2 and Stage 3 non-essential uses in effect Mandatory water rationing in effect. 	50%

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Next Steps

- Open Public Hearing and receive comments
- Prepare final UWMP based on comments received
- Adopt UWMP at future Council meeting
- Update Water Master Plan using land use per the General Plan Update

Questions and Comments



**NOTICE OF PUBLIC HEARING
CITY OF AMERICAN CANYON CITY COUNCIL**

ADOPTION OF URBAN WATER MANAGEMENT PLAN

NOTICE IS HEREBY GIVEN that the City Council of the City of American Canyon will hold a Public Hearing pursuant to Government Code Section 66018 on Thursday, January 5, 2006, at the Recreation Center, 2185 Elliott Drive, at 7:30 p.m., or as soon as possible thereafter, to receive comments in consideration of adoption of an Urban Water Management Plan.

The specific action before the City Council will be to receive public comments regarding a draft Urban Water Management Plan that has been prepared for submittal to the California Department of Water Resources. Submittal of the plan is mandated by the Urban Water Management Planning Act, which requires development of a management plan by all urban water suppliers with 3,000 or more connections or agencies that supply at least 3,000 acre feet of water per year. The City of American Canyon has approximately 4,750 connections and supplied approximately 4,118 acre feet of water in 2005.

Copies of the proposed Urban Water Management Plan have been submitted to interested agencies and are available for public review at the City Clerk's Office, 300 Crawford Way, and at the Public Works Engineering Division, 3423 Broadway, Suite D-2.

Interested persons may submit their concerns and comments in writing prior to the Public Hearing to Robert C. Weil, Public Works Director, 205 Wetlands Edge Road, American Canyon, CA 94503. They may also appear in person at the hearing and be heard in support of, or in opposition to, adoption of the proposed plan.

In compliance with the American Disabilities Act (ADA), disabled individuals requiring special accommodations to access, attend, or participate in City Council meetings should contact the City Clerk's office at (707) 647-4352. To ensure that your request is granted, please notify this office at least one business day before the scheduled public meeting.

**Kay Woodson
City Clerk**

**Publication Date: December 21, 2005
 December 26, 2005**