RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MILPITAS ADOPTING THE 2010 URBAN WATER MANAGEMENT PLAN AND ESTABLISHING THE 2020 PER CAPITA DAILY WATER USE TARGET

WHEREAS, on September 21, 1983, the State of California enacted Assembly Bill 797, known as the "Urban Water Management Plan Act," which, as amended, required that urban retail suppliers of potable water for municipal purposes serving more than 3,000 customers or retailing more than 3,000 acre feet of water annually adopt Urban Water Management Plans by December 31, 1985, and every five years thereafter adopt updated plans for the conservation and efficient use of water; and

WHEREAS, as in 1985 the City provided municipal water to a population of over 40,000 (now over 70,000) and supplied over 6,000 acre-feet of water annually (now over 10,000 acre-feet), it adopted Urban Water Management Plans on December 17, 1985; June 4, 1991 as amended; April 1994; March 19, 1996; January 16, 2001; and December 6, 2005; and

WHEREAS, over the past 25 years, the City's Urban Water Management Plans have set forth an increasingly comprehensive and effective water conservation program that includes public information and outreach; residential services such as plumbing fixture and appliance rebates and home surveys; residential and commercial landscaping rebates; residential inverted block (tiered) retail pricing structure; and municipal code requirements through ordinances such as Green Building (Ordinance 65.138 adopted June 2, 2009) and Water Conservation in Landscaping (Ordinance 238.3 adopted August 3, 2010); and

WHEREAS, on November 10, 2009, the State of California enacted Senate Bill 7 (SBx7-7), known as the "Water Conservation Act of 2009," which requires 20 percent reduction of urban per capita water use by December 31, 2020; requires water suppliers to include in their 2010 Urban Water Management Plans per capita daily water use target values to achieve 20 percent water use reduction; and granted a six-month extension to July 1, 2011 for adoption of 2010 Urban Water Management Plans; and

WHEREAS, to establish the 2020 per capita daily water use target, the City selects Method 1 – "Gross Water Use Method," as developed by the California Department of Water Resources, which requires the City's 2020 per capita water consumption rate to be 80 percent of its baseline per capita water use; determines that the City's baseline, as averaged over the ten-year period from July 1, 1995 to June 30, 2005, is 176 gallons per day, and therefore finds that the target per capita water use for the year 2020 is 141 gallons per day; and

WHEREAS, as the City's per capita use is currently 140 gallon per day, a consumption rate lower than the 2020 target water use, the City finds that interim per capita target water use for the year 2015 will also be 141 gallons per day; and

WHEREAS, the City has prepared a draft 2010 Urban Water Management Plan describing the City's service area, existing and planned sources of water, reliability of the supply; water demand and use projections; water conservation and demand management measures; water shortage contingency analysis; recycled water use; and the 2015 and 2020 per capita water use target value of 141 gallons per day; and

WHEREAS, the said Plan incorporates the City's current water conservation program consisting of policies, practices, and regulations that may be expected to continue yielding increased per capita water savings as higher-density housing is developed in accordance with water conservation requirements; and

WHEREAS, the said Plan contains a Water Shortage Contingency Plan defining City actions to address four stages of drought causing up to a 50 percent water shortage and catastrophic supply interruptions from power outage, earthquakes, or other disasters; and

WHEREAS, the City prepared the draft 2010 Urban Water Management Plan in coordination with other appropriate agencies, including other suppliers sharing common sources, regional water management agencies, and relevant public agencies, to the extent practicable; and

WHEREAS, the City has provided notice to the public of its intent to adopt the 2010 Urban Water Management Plan, has made the draft plan available for public review, and has encouraged the public to provide comment; and

WHEREAS, the City properly noticed and held a public hearing on June 7, 2011 prior to adoption of said Plan for the purpose of allowing community comment regarding the City's water conservation implementation plan; consideration of the economic impacts of the implementation plan; and the proposed per capita daily water use targets for the years 2015 and 2020.

NOW, THEREFORE, the City Council of the City of Milpitas hereby finds, determines, and resolves as follows:

1. The City Council has considered the full record before it, which may include but is not limited to such things as the staff report, testimony by staff and the public, and other materials and evidence submitted or provided to it. Furthermore, the recitals set forth above are found to be true and correct and are incorporated herein by reference.

2. The 2010 Urban Water Management Plan, which replaces the 2005 Urban Water Management Plan, is hereby adopted and ordered filed with the City Clerk.

3. The City Manager, or his designee, is hereby authorized and directed to file the Plan with the California Department of Water Resources within 30 days after this date.

4. The City Manager, or his designee, is hereby authorized and directed to implement the Water Conservation Program set forth in the 2010 Urban Water Management Plan, which includes procedures, rules, and regulations to carry out effective and equitable water conservation and water recycling programs; and

5. The City Manager, or his designee, is hereby authorized and directed to implement the Water Shortage Contingency Plan during water shortages when declared by City Council.

PASSED AND ADOPTED this _____ day of _____, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Mary Lavelle, City Clerk

APPROVED:

_____
Jose S. Esteves, Mayor

APPROVED AS TO FORM:

_____
Michael J. Ogaz, City Attorney

Draft 2010 Urban Water Management Plan

A review of current and future water resources

City of Milpitas

455 East Calaveras Boulevard
Milpitas, CA 95035

http://www.ci.milpitas.ca.gov

Proposed adoption June 7, 2011

TABLE OF CONTENTS

Chapter 1 Plan Preparation……. 1

1.1 Coordination and Public Notice……. 1

1.2 Plan Adoption……..……. 1

Chapter 2 System Description……..... 3

2.1 Service Area Physical Description……. 3

2.2 Service Area Population……. 3

Chapter 3 System Demand……. 5

3.1 Baselines and Targets……. 5

3.2 Water Demand……. 7

3.3 Water Demand Projections……. 9

3.4 Water Use Reduction Plan……..... 12

Chapter 4 System Supply……..... 13

4.1 Water Sources……. 13

4.2 Groundwater……..... 16

4.3 Transfer Opportunities…….. 16

4.4 Desalinated Water Opportunities…… 17

4.5 Recycled Water Opportunities……..... 18

4.6 Future Water Projects……... 22

Chapter 5 Water Supply Reliability and Contingency Planning……..... 23

5.1 Water Supply Reliability……. 23

5.2 Water Shortage Contingency Planning…….. 29

5.3 Water Quality…….. 36

5.4 Drought Planning…….. 36

Chapter 6 Demand Management Measures…… 39

Tables and Figures

Table 1-1	Public and agency coordination…….....	2
Table 2-1	Population - current and projected…….	3
Table 3-1	Base period ranges……	5
Table 3-2	Base daily per capita water use - 10- to 15-year range…….	6
Table 3-3	Base daily per capita water use - 5-year range……..	7
Table 3-4	Water deliveries - actual, 2005……..	8
Table 3-5	Water deliveries - actual, 2010……..	9
Table 3-6	Water deliveries - projected, 2015……	9
Table 3-7	Water deliveries - projected, 2020……..	10
Table 3-8	Water deliveries - projected 2025, 2030, and 2035……	10
Table 3-9	Sales to other water agencies…….....	10
Table 3-10	Additional water uses and losses……	11
Table 3-11	Total water use……...	11
Table 3-12	Low-income projected water demands……...	11
Table 3-13	Retail agency demand projections provided to wholesale suppliers …….	12
Table 4-1	Wholesale supplies - existing and planned sources of water…….	15
Table 4-2	Water supplies - current and projected……..	15
Table 4-3	Groundwater - volume pumped……...	16
Table 4-4	Groundwater - volume projected to be pumped……	16
Table 4-5	Transfer and exchange opportunities……	16
Table 4-6	Recycled water - wastewater collection and treatment……	18
Table 4-7	Recycled water - non-recycled wastewater disposal……	18
Table 4-8	Recycled water - potential future use……..	21
Table 4-9	Recycled water - 2005 UWMP use projection compared to 2010 actual..	21
Table 4-10	Methods to encourage recycled water use……	22
Table 4-11	Future water supply projects……	22
Table 5-1	Factors resulting in inconsistency of supply……..	23
Table 5-2	Water shortage contingency - rationing stages……	29
Table 5-3	Water shortage contingency - mandatory prohibitions……	32
Table 5-4	Water shortage contingency - consumption reduction methods……	32
Table 5-5	Water shortage contingency - penalties and charges……	32
Table 5-6	SCVWD Shortage Response Action Guidelines……..	36
Table 5-7	Water quality - current and projected water supply impacts……..	36
Table 5-8	Basis of water year data……..	37
Table 5-9	Supply reliability - historic conditions……	37
Table 5-10	Supply reliability - current water sources……..	37
Table 5-11	Supply and demand comparison - normal year……	38
Table 5-12	Supply and demand comparison - single dry year……..	38
Table 5-13	Supply and demand comparison - multiple dry-year events……..	38
Table 6-1	Water Conservation Best Management Practices……...	39
Figure 4-1	Water Source Map……	13
Figure 4-2	Milpitas Recycled Water System……	19

Appendices

Appendix A: Public Notifications
Appendix B: Council Resolution Adopting 2010 UWMP
Appendix C: SFPUC letter
Appendix D: Sample Public Hearing Notice for Water Shortage Emergency
Appendix E: 1992 Water Shortage Emergency Rate Ordinance
Appendix F: Sample Water Shortage Emergency Restrictions Ordinance
Appendix G: Rationing Program Options
Appendix H: SFPUC Tier Two Allocations
Appendix I: Water Efficient Landscape Ordinance No. 238.3
Appendix J: Water Conservation Ordinance No. 240.1

Abbreviations and Acronyms

ABAG	Association of Bay Area Governments
AF	Acre-foot
BAWSCA	Bay Area Water Supply and Conservation Agency
BMP	Best Management Practice
CUWCC	California Urban Water Conservation Council
DWR	California Department of Water Resources
DU	Dwelling Unit
FY	Fiscal Year
gpd	Gallons per Day
gpcpd	Gallons per Capita per Day
hcf	Hundred Cubic Feet
IWRP	SCVWD's Integrated Water Resources Plan
IWSAP	SFPUC's Interim Water Shortage Allocation Plan
mgd	Million Gallons Per Day
NA	Not Applicable
NPDES	National Pollutant Discharge Elimination System
RWQCB	Regional Water Quality Control Board
SBWR	South Bay Water Recycling
SCVWD	Santa Clara Valley Water District
SFPUC	San Francisco Public Utilities Commission
UWMP	Urban Water Management Plan
WPCP	San Jose/Santa Clara Water Pollution Control Plant
WSIP	SFPUC's Water Supply Improvement Program

Chapter 1 Plan Preparation

This 2010 Urban Water Management Plan (UWMP) has been prepared in response to the California Urban Water Management Planning Act (Water Code Division 6, Part 2.6, Sections 10610 through 10657). All publicly and privately owned urban water suppliers must prepare and adopt a UWMP every five years. Urban water suppliers are defined as those providing water for municipal purposes either directly or indirectly to more than 3,000 customers, or those who supply more than 3,000 acre-feet of water annually. UWMPs must describe the suppliers' service area, water use by customer class, water supply and demand, water service reliability and shortage response options, water transfer and exchange opportunities, water recycling efforts and conservation measures. This 2010 UWMP updates and replaces the City's 2005 UWMP.

This 2010 UWMP addresses the requirements of the "Water Conservation Act of 2009," as enacted by California Senate Bill 7-7. This act is intended to produce a 20 percent reduction in urban per capita water use by December 31, 2020. It requires urban water suppliers to include in their 2010 UWMPs per capita daily water use target values to achieve 20 percent water use reduction. It also granted a six-month extension, to July 1, 2011, for adoption of the 2010 UWMP.

1.1 Coordination and Public Notice

The 2010 UWMP was prepared by City staff in coordination with the City's two potable water wholesalers, the San Francisco Public Utilities Commission (SFPUC) and the Santa Clara Valley Water District (SCVWD), and the City's recycled water wholesaler, the City of San Jose's South Bay Water Recycling (SBWR). City staff participated in SCVWD and Bay Area Water Supply and Conservation Agency (BAWSCA) committees to develop consistent water planning goals. The City notified surrounding cities, Santa Clara County, BAWSCA, and its water wholesalers of its intention to modify the UWMP, as shown in Table 1-1 at the end of this section. Note that all tables in this report are in the standard format recommended by the California Department of Water Resources (DWR) to facilitate this agency's review.

The City placed a display ad in *The Milpitas Post* on March 11, 2011, notifying residents and businesses of its intention to modify the UWMP. The City placed public hearing notices in *The Milpitas Post* on Friday, May 20, 2011, and May 27, 2011, and provided a draft UWMP available for public review at City Hall, and on the City's website at http://www.ci.milpitas.ca.gov. A copy of public notifications can be found in Appendix A.

1.2 Plan Adoption

The City Council held a public hearing on June 7, 2011 after which the Council adopted a resolution (see Appendix B) adopting the 2010 UWMP and establishing the 2015 and 2020 water use target and directing that the plan be filed with DWR within 30 days of adoption. The adopted UWMP will be submitted the California State Library and the Milpitas City Hall Information Desk for public review during normal business hours and will be available on the City's website.

Table 1-1 (DWR 1) Coordination with appropriate agencies				
Coordinating Agencies	Participated in developing the plan	Commented on the draft	Contacted for assistance	Sent a notice of intention to adopt
Other water suppliers				
SFPUC			X	X
SCVWD	X		X	X
SBWR			X	X
Water mgmt agencies				
BAWSCA	X		X	X
Relevant public agencies				
BAWSCA members			X	X
SCVWD retailers			X	X
Santa Clara County			X	X
General public			X	X

Chapter 2 System Description

The City owns, operates and maintains a potable water distribution system which consists of approximately 200 miles of water main, 4,300 valves, 1,600 fire hydrants, 5 water tanks, 4 pumping stations, 16 pressure regulating valves and 1 well to serve more than 16,000 water service connections. The City also operates and maintains a recycled water system, owned by the City of San Jose South Bay Water Recycling Program (SBWR), which has approximately 20 miles of recycled water main and 50 valves to serve 1 industrial and 180 irrigation services in the City of Milpitas.

2.1 Service Area Physical Description

The City of Milpitas is located in Santa Clara County near the southern tip of San Francisco Bay, forty-five miles south of San Francisco. With a population over 70,000, Milpitas is a progressive community that is an integral part of the Silicon Valley. The City of Fremont borders Milpitas to the north and the City of San Jose borders Milpitas to the south. Most of its 14 square miles of land is situated between two major freeways (I-880 and I-680), State Route 237, and a county expressway. The City has approximately 10 square miles of valley floor to the west and four square miles of hillside areas to the east. Industrial and commercial areas are located on the valley floor with residential areas on the valley floor and hillside. Parks and recreational open spaces are distributed throughout residential areas. There are about 1,800 acres designated for industrial uses, and 200+ manufacturing plants, with products that include semiconductors, disk drives, magnetic components and voice processing systems. Other large sources of employment include the school district and the Great Mall shopping center.

The City's Mediterranean climate is characterized by warm, dry summers and mild wet winters. Annual precipitation averages about 15 inches, and average temperature is 61 degrees Fahrenheit.

2.2 Service Area Population

The City's 2010 population was 70,817 and is projected to grow over the next twenty-five years as shown in Table 2-1. These population numbers are based on current planning documents, including the latest Association of Bay Area Governments (ABAG) population projections from 2009. Any change due to new plans adopted after this writing will change the projections. The population estimates reflect the City's entire water service area.

Table 2-1 (DWR 2)
Population – current and projected

	2010	2015	2020	2025	2030	2035 - optional
Service area population	70,817	74,700	82,300	90,400	98,100	106,000

Midtown and Transit Area Development Plans

The expected population growth will come from redevelopment of two central areas defined in the Midtown Specific Plan and Transit Area Specific Plan. The Midtown Specific Plan outlines planned growth of a mixed-use community that includes high-density, transit-oriented housing and a central community "gathering place," while maintaining needed industrial, service and commercial uses. The plan is long-range in nature, intended to guide development for the next

20 years. Some land in the Midtown Area is undeveloped and readily developable over the short-term, while other parcels may be developed over a longer time frame. Overall, the Midtown Specific Plan provides for up to 4,860 new dwelling units and supporting retail development, new office developments at key locations, bicycle and pedestrian trails linking the areas together, and new parks to serve residential development.

The Transit Area Specific Plan outlines planned growth at the hub of the existing Santa Clara Valley Transportation Authority (VTA) Light Rail station and the planned Bay Area Rapid Transit (BART) station near the City's Great Mall shopping center. The plan calls for new residential and mixed-use developments. New residential neighborhoods will consist of mixed-use areas with commercial use on the ground floor and residential units above, and high-density residential neighborhoods. Industrial areas will be transitioned to areas that support higher intensity mixed use. Overall, the Transit Area Specific Plan provides for up to 7,000 new dwelling units (combined with the Midtown Specific Plan), 1,000,000 square feet of office space and 300,000 square feet of retail space.

Chapter 3 System Demand

Based on the City's 2009 Water Master Plan Update, total potable water demand is estimated to be 17 mgd in Fiscal Year (FY) 2029/30. This was determined to be adequate to meet the demands of anticipated future developments as identified in the General Plan, Midtown Specific Plan, Transit Area Specific Plan and other General Plan amendments.

3.1 Baselines & Targets

The Water Conservation Bill of 2009 (SBx7-7) requires the State of California to reduce per capita urban water use by 20% by December 31, 2020, with an interim goal of at least 10% by December 31, 2015. Each urban retail water supplier is required to develop water use targets and an interim water use target.

SBx7-7 requires that the City:

1) Determine the base daily per capita water use,

2) Determine the urban water use target,

3) Compare the urban water use target to the 5-year baseline,

4) Determine the interim urban water use target.

Baseline daily per capita water use

Before determining its base daily per capita use, the City must first compare the percentage of recycled water deliveries to total water deliveries in 2008. Since the percentage of recycled water use was less than 10% of the total water use, the City must use a base period of 10 continuous years, ending no earlier than December 31, 2004 and no later than December 31, 2010. Table 3-1 summarizes the base period ranges selected for this analysis.

Table 3-1 (DWR 13)
Base period ranges

Base	Parameter	Value	Units
10- to 15-year base period	2008 total water deliveries	3,843	million gallons
	2008 total volume of delivered recycled water	307	million gallons
	2008 recycled water as a percent of total deliveries	7	percent
	Number of years in base period	10	years
	Year beginning base period range	FY 1995/96	
	Year ending base period range	FY 2004/05	
5-year base period	Number of years in base period	5	years
	Year beginning base period range	FY 2002/03	
	Year ending base period range	FY 2006/07	

The City determined its 10-year base period to be from FY 1995/96 to FY 2004/05, which yielded the highest and most conservative baseline. Table 3-2 shows the annual base daily per capita water use, which is calculated by dividing the distribution system population by daily system gross water use.

Table 3-2 (DWR 14) Base daily per capita water use — 10- to 15-year range				
Base period year		Distribution System Population	Daily system gross water use (mgd)	Annual daily per capita water use (gpcd)
Sequence Year	Fiscal Year			
Year 1	1995/96	59,725	11.22	188
Year 2	1996/97	61,229	12.10	198
Year 3	1997/98	62,600	11.14	178
Year 4	1998/99	64,300	11.10	173
Year 5	1999/2000	65,254	11.51	176
Year 6	2000/01	62,900	11.59	184
Year 7	2001/02	63,800	10.86	170
Year 8	2002/03	65,000	10.70	165
Year 9	2003/04	64,964	11.04	170
Year 10	2004/05	64,998	10.18	157
			Base Daily Per Capita Water Use	176

Urban Water Use Target

State regulations allow the City to select one of four methodologies developed by the California Department of Water Resources (DWR) to determine the 2020 urban water use target:

- Method 1: Gross Water Use (80% of Base Daily Per Capita Water Use)
- Method 2: Performance Standards
- Method 3: 95% of Regional Target
- Method 4: Water Savings

The City chose Method 1, consistent with the State's 20% reduction mandate. Since the City's base per capita water use is 176 gallons per capita per day (gpcd), the City's 2020 target is 141 gpcd, which is 80% of baseline.

Urban Water Use Target to 5-year Baseline

SBX7-7 includes a minimum water use reduction requirement, ensuring that each water agency's 2020 urban water use target is below 95% of its five-year base per capita water use. The five-year base must be continuous, ending no earlier than December 31, 2007 and no later than December 31, 2010. Table 3-3 shows the City's five-year base period:

Table 3-3 (DWR 15) Base daily per capita water use — 5-year range				
Base period year		Distribution System Population	Daily system gross water use (mgd)	Annual daily per capita water use (gpcd)
Sequence Year	Fiscal Year			
Year 1	2002/03	63,800	10.70	168
Year 2	2003/04	64,964	11.04	170
Year 3	2004/05	64,998	10.18	157
Year 4	2005/06	65,276	10.31	158
Year 5	2006/07	66,472	10.51	158
			Base Daily Per Capita Water Use	162

The 2020 target must be adjusted if it is not at least a 5% reduction from the 5-year base of 162 gpcd, which is 159 gpcd. Since the City's urban water use target of 141 gpcd is less than 159 gpcd, no further adjustment is necessary.

Interim Urban Water Use Target
SBx7-7 sets forth an interim urban water use target for 2015 to ensure progress toward the 2020 target. The City must not exceed the midpoint between their baseline daily per capita water use and their 2020 urban water use target. The City's interim target may be as high as 159 gpcd, halfway between the 10-year baseline of 176 gpcd and the 2020 target of 141 gpcd. However, since the City has already met its 2020 goal, the interim target will be set equal to the 2020 target of 141 gpcd.

Individual versus Alliance

The City's baselines and targets were developed individually. However, the City would consider joining an alliance if doing so would benefit the City. If further analysis of the benefits of an alliance is conducted at a later time, it will be documented in the 2015 UWMP update.

3.2 Water Demand

The City's customer classes are characterized as follows:

Residential
To date, the City has more than 12,000 single-family accounts. However, the City's newer housing is shifting from the single family home with individual yards to high density housing units with shared outdoor space, combined with retail and office space, as described in the specific plans for future development around the future BART station, as well as limited vacant land and hillside growth restrictions.

Commercial
The City has a complex mix of commercial customers, ranging from beauty shops, supermarkets, and gas stations to multi-story office buildings, outlet and regional shopping centers, and high-volume restaurants and other facilities serving the visitor population.

Industrial
The City retains research & development facilities, along with some food preparatory facilities.

Institutional/Governmental
The City has a stable institutional/governmental sector, including local government, schools, a county correctional facility, and outpatient medical facilities.

Landscape
Irrigation demand will increase due to continued development of vacant lands and redevelopment in the commercial and industrial sectors. However, landscape conversions to recycled water and increased efficiency in irrigation systems will help offset future increases in potable water demand for landscaping.

Water Deliveries

The City maintains water use information for residential, commercial, industrial, institutional/governmental, and irrigation (potable and recycled) water users. All customer accounts are metered. Tables 3-4 and 3-5 give actual water deliveries (in hundred cubic feet, or hcf) for 2005 and 2010, respectively.

Table 3-4 (DWR 3)
Water deliveries – actual, 2005

	2005				
	Metered		Not metered		Total
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	12,084	1,670,744	0	0	1,670,744
Multi-family	1,610	560,935	0	0	560,935
Commercial/Institutional	632	718,266	0	0	718,266
Industrial	360	751,094	0	0	751,094
Landscape	638	693,803	0	0	693,803
Agriculture	0	0	0	0	0
Fire	491	1,154	0	0	1,154
Total	15,815	4,395,996	0	0	4,395,996

Table 3-5 (DWR 4) Water deliveries — actual, 2010					
	2010				
	Metered		Not metered		Total
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	12,264	1,483,790	0	0	1,483,790
Multi-family	1,851	607,459	0	0	607,459
Commercial/Institutional	689	704,541	0	0	704,541
Industrial	352	627,466	0	0	627,466
Landscape	611	558,042	0	0	558,042
Agriculture	0	0	0	0	0
Fire	583	1,322	0	0	1,322
Total	16,350	3,982,620	0	0	3,982,620

3.3 Water Demand Projections

The City's water demand projections are taken from the City's 2009 Water Master Plan Update.

Tables 3-6 through 3-8 give the City's projected water demands (in hcf), in five-year increments starting in 2015:

Table 3-6 (DWR 5) Water deliveries — projected, 2015					
	2015				
	Metered		Not metered		Total
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	12,414	1,541,458	0	0	1,541,458
Multi-family		936,282	0	0	936,282
Commercial/Institutional		819,723	0	0	819,723
Industrial		698,649	0	0	698,649
Landscape		607,225	0	0	607,225
Agriculture	0	0	0	0	0
Fire		1,470	0	0	1,470
Total	12,414	4,604,807	0	0	4,604,807

Table 3-7 (DWR 6) Water deliveries — projected, 2020					
	2020				
	Metered		Not metered		Total
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	12,514	1,559,903	0	0	1,559,903
Multi-family		1,261,432	0	0	1,261,432
Commercial/Institutional		919,536	0	0	919,536
Industrial		765,461	0	0	765,461
Landscape		643,037	0	0	643,037
Agriculture	0	0	0	0	0
Fire		1,620	0	0	1,620
Total	12,514	5,150,989	0	0	5,150,989

Table 3-8 (DWR 7) Water deliveries — projected 2025, 2030, and 2035						
	2025		2030		2035 - optional	
	metered		metered		metered	
Water use sectors	# of accounts	Volume	# of accounts	Volume	# of accounts	Volume
Single family	12,689	1,592,182	12,939	1,638,295	13,239	1,684,408
Multi-family		1,725,472		2,180,618		2,618,763
Commercial/Institutional		1,098,811		1,264,771		1,439,732
Industrial		839,735		920,696		1,010,657
Landscape		692,311		743,272		793,233
Agriculture	0	0	0	0	0	0
Fire		1,770		1,920		2,070
Total	12,689	5,950,281	12,939	6,749,572	13,239	7,548,863

The City does not sell water to other water agencies, as reflected in Table 3-9 below.

Table 3-9 (DWR 9) Sales to other water agencies					
Water distributed	2005	2010	2015	2020	2025
None	0	0	0	0	0

Additional water uses and losses

One measure of the integrity of a water system is “system losses” – the difference between the amount of water entering a system (supplied or purchased) and the amount of water sold, expressed as a percentage. System losses include water used for fire fighting, losses due to water line breaks, and leaks from the distribution system. The average system loss over the last 10-year period is 8.7%, considered to be relatively small for a retail water system. Table 3-

10 summarizes the City's system losses and recycled water usage (in hcf) from 2005 and 2010 and projects out every five years to 2030. Water losses were assumed to be 9% of total potable water demand.

Table 3-10 (DWR 10) Additional water uses and losses							
Water use[1]	2005	2010	2015	2020	2025	2030	2035
Saline barriers	0	0	0	0	0	0	0
Groundwater recharge	0	0	0	0	0	0	0
Conjunctive use	0	0	0	0	0	0	0
Raw water	0	0	0	0	0	0	0
Recycled water	373,012	351,337	483,088	580,682	673,396	766,110	863,703
System losses	513,964	473,983	455,420	509,439	588,489	667,540	746,591
Other (define)	0	0	0	0	0	0	0
Total	886,976	825,320	938,508	1,090,121	1,261,885	1,433,650	1,610,294

Total water use

Table 3-11 shows the City's total water use (in hcf), taking into account total water deliveries and additional water uses and losses, in five-year increments, starting in 2005.

Table 3-11 (DWR 11) Total water use							
Water Use	2005	2010	2015	2020	2025	2030	2035
Total water deliveries (from Tables 3 to 7)	4,395,996	3,982,620	4,604,807	5,150,989	5,950,281	6,749,572	7,548,863
Sales to other water agencies (from Table 9)	0	0	0	0	0	0	0
Additional water uses and losses (from Table 10)	886,976	825,320	938,508	1,090,121	1,261,885	1,433,650	1,610,294
Total	5,282,972	4,807,940	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157

Low-Income Water Demands

The City provides a small percentage of affordable housing to qualifying low-income families. As such, the State requires the City to project water usage for low-income single-family and multi-family residential. Table 3-12 shows the City's projected water demands (in percentage of total demand) for low-income housing:

Table 3-12 (DWR 8) Low-income projected water demands					
Low Income Water Demands	2015	2020	2025	2030	2035 - opt
Single-family and multi-family residential	15%	15%	15%	15%	15%

Projections to wholesale suppliers

Table 3-13 shows the City's demand projections (in hcf) as provided to the wholesale suppliers:

Table 3-13 (DWR 12) Retail agency demand projections provided to wholesale suppliers							
Wholesaler	Contracted Volume	2010	2015	2020	2025	2030	2035
SFPUC	4,503,944	2,937,567	3,449,933	3,752,473	4,025,735	4,294,118	4,294,118
SCVWD	varies	1,517,580	1,610,294	1,907,955	2,513,035	3,122,995	4,001,337
SBWR	no limit	351,337	483,088	580,682	673,396	766,110	863,703

3.4 Water Use Reduction Plan

The City is required to develop an implementation plan for compliance with SBx7-7. The plan is to provide a general description of how the supplier intends to reduce per capita water use to meet its urban water use target while discussing any potential economic impacts that may result from the water use reduction program.

The City expects to continue meeting the 2015 interim target and the 2020 target due to declining per capita water use, ongoing implementation of existing water conservation and "Demand Management Measures" (covered in Chapter 6), and recycled water usage. In 2010, the City's annual water use per capita was 129 gpcd. The City will continue to work with its wholesale suppliers in promoting water conservation.

The City's projected per capita use for 2015 and 2020 are 139 gpcd and 141 gpcd, respectively, compared to the City's 2015 interim target and 2020 target of 141 gpcd. Therefore, continuing the current water conservation programs should keep the City on target with the State's water use reduction goals.

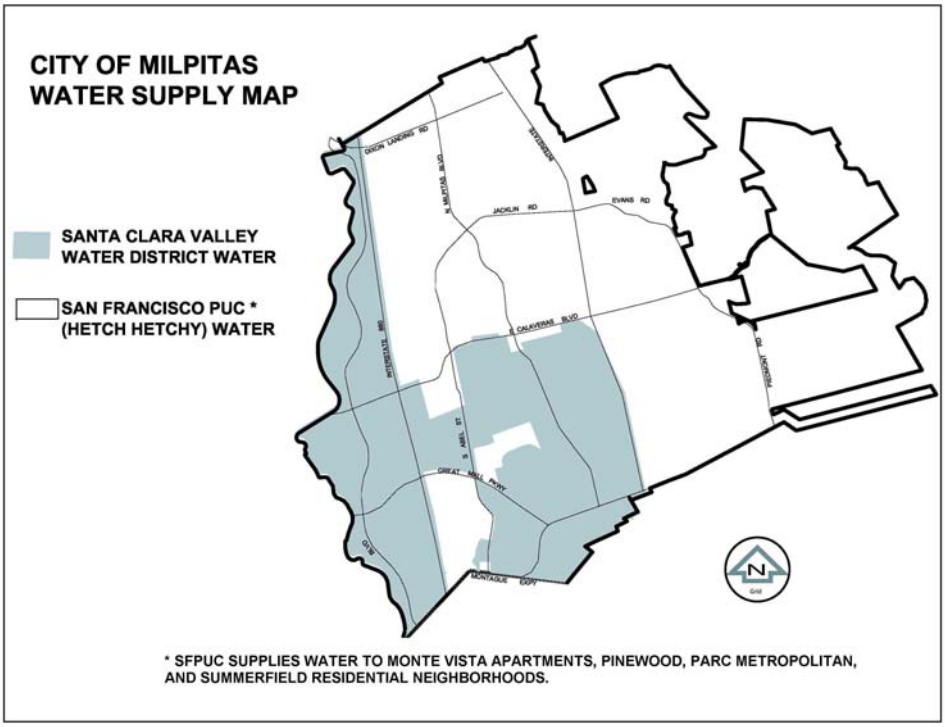
Chapter 4 System Supply

4.1 Water Sources

The City purchases treated potable water from two wholesalers, SFPUC and SCVWD. Approximately two-thirds of the City's potable water is from SFPUC and the remaining one-third is from SCVWD. These two sources are not blended under normal operating conditions, however, they are physically interconnected with isolation valves to provide emergency water supply if needed. The City also has one existing and one future groundwater well which can provide emergency water supply when necessary (see Section 4.2 – Groundwater).

In its incorporation year of 1954, the City began distributing SFPUC water to all residents and businesses, expanding to the hillside area in 1982. In August 1993, the City began serving SCVWD water, primarily to the commercial and industrial areas of the City (west of Highway 880, and also south of Calaveras Blvd. and west of Highway 680). Figure 4-1 shows the SFPUC and SCVWD service areas.

Figure 4-1 Water Source Map



San Francisco Public Utilities Commission (SFPUC)

Milpitas purchases wholesale water from the City and County of San Francisco's regional water system. This supply is predominantly snowmelt from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by SFPUC from its local watersheds and facilities in Alameda County. On June 2, 2009, the City entered into a 25-year Water Supply Agreement with the San Francisco Public Utilities Commission (SFPUC). This

agreement affirms the City the perpetual right to purchase up to 9.23 million gallons per day (mgd) of treated potable water unless SFPUC has a water shortage.

Bay Area Water Supply and Conservation Agency (BAWSCA)

The City of Milpitas is a member of the Bay Area Water Supply and Conservation Agency (BAWSCA), a special district created on May 27, 2003 by Assembly Bill 2058 to represent the interests of 24 cities and water districts, and two private utilities in Alameda, Santa Clara and San Mateo counties that purchase water on a wholesale basis from the San Francisco Regional Water System. BAWSCA is the only entity having authority to directly represent the needs of the cities, water districts and private utilities (wholesale customers) that depend on the regional water system. BAWSCA enables customers of the regional system to work with San Francisco on an equal basis to ensure the water system is reliable, and to collectively and efficiently meet local responsibilities.

BAWSCA has the authority to coordinate water conservation, supply, and recycling activities for its agencies; acquire water and make it available to other agencies on a wholesale basis; finance projects, including improvements to the regional water system; and build facilities jointly with other local public agencies or on its own to carry out the agency's purposes. BAWSCA's role in the development of the 2010 UWMP update is to work closely with its member agencies and SFPUC to maintain consistency between the multiple documents being developed and to ensure overall consistency with the Water Supply Improvement Program (WSIP) and the associated environmental documents.

To fulfill its role as a water supply agency, BAWSWA is developing a "Long-Term Reliable Water Supply Strategy" to quantify the water supply needs of the BAWSCA member agencies through 2035, and identify the water supply management projects to be developed necessary to meet that need. Under evaluation are groundwater, recycled water, water transfer, surface water and new reservoir storage, desalination, expanded conservation, and localized water capture and reuse projects.

Santa Clara Valley Water District (SCVWD)

The City began receiving treated surface water from SCVWD in August 1993 under a September 1984 contract between the City and SCVWD. The supply delivery is adjusted annually based on a binding 3-year annual delivery schedule. The City's annual purchase must be at least 90% of the delivery schedule and the City's monthly "supply guarantee" is at least 15% of the annual delivery schedule. SCVWD provides treated water from its Penitencia and Santa Teresa treatment plant via its Milpitas Pipeline which terminates in the City.

Although the City purchases are currently limited to surface water largely purchased by SCVWD from the State Water Project and Central Valley Project, SCVWD's overall water supply comes from a variety of sources. Nearly half is from local groundwater aquifers, and more than half is imported from the Sierra Nevada through pumping stations in the Sacramento-San Joaquin River Delta. Both groundwater and imported water are sold to retailers. SCVWD also manages the groundwater basin to the benefit of agricultural users and other independent users who pump groundwater. Local runoff is captured in SCVWD reservoirs for recharge into the groundwater basin or treatment at one of SCVWD's water treatment plants. The total storage capacity of these reservoirs is about 170,000 acre-feet (AF).

In 2010, SCVWD entered into agreement with the City of San Jose to build an advanced water treatment facility (to be completed in early 2012) to produce up to 10 mgd of highly purified recycled water from treated wastewater through reverse osmosis, microfiltration, and UV light disinfection. This near distilled-quality water will be blended into existing recycled water provided by the Santa Clara/San Jose Water Pollution Control Plant's (WPCP) recycled water producer, South Bay Water Recycling (SBWR), to improve overall recycled water quality so that the water can be used for a wider variety of irrigation and industrial purposes. Longer term, SCVWD is investigating the possibility of using this highly purified recycled water for replenishment of its groundwater basins. Further discussion of recycled water can be found in Section 4.5.

Water Supplies

Table 4-1 shows the City's existing and planned sources of wholesale water, and Table 4-2 shows current and projected water supplies (in hcf).

Table 4-1 (DWR 17)
Wholesale supplies — existing and planned sources of water

Wholesale sources	Contracted Volume	2015	2020	2025	2030	2035 - opt
SFPUC	4,503,944	4,503,944	4,503,944	4,503,944	4,503,944	4,503,944
SCVWD	varies	varies	varies	varies	varies	varies
SBWR	no limit	no limit	no limit	no limit	no limit	no limit

Table 4-2 (DWR 16)
Water supplies — current and projected

Water Supply Sources		2010	2015	2020	2025	2030	2035
Water purchased from:	Wholesaler supplied volume (yes/no)						
SFPUC	**Yes**	4,503,944	4,503,944	4,503,944	4,503,944	4,503,944	4,503,944
SCVWD	**No**	1,517,580	1,610,294	1,907,955	2,513,035	3,122,995	4,001,337
SBWR	**No**	351,337	483,088	580,682	673,396	766,110	863,703
Supplier-produced groundwater		0	0	0	0	0	0
Supplier-produced surface water		0	0	0	0	0	0
Transfers in		0	0	0	0	0	0
Exchanges In		0	0	0	0	0	0
Recycled Water		see SBWR	see SBWR	see SBWR	see SBWR	see SBWR	see SBWR
Desalinated Water		0	0	0	0	0	0
	Total	**6,372,861**	**6,597,326**	**6,992,581**	**7,690,375**	**8,393,049**	**9,368,984**

4.2 Groundwater

The City does not use groundwater to meet customer demands under normal conditions. However, in emergency situations, the City can operate its one well (Pinewood Well), which is located in the southwestern part of the City. A second well (Curtis Well) was drilled a few years ago near the Great Mall and is scheduled for completion in the near future. This well is also intended to provide emergency supply in the event that SFPUC and SCVWD cannot deliver contract treated water supplies.

The local groundwater basin is called the Santa Clara Valley Sub-basin. For more information, please refer to SCVWD's Groundwater Management Plan.

Table 4-3 shows the historical annual volume (in acre-feet) of groundwater pumped since 2006. This groundwater was pumped only for the purposes of testing a disinfection system under construction in 2008 and routine water quality testing. It was not added to the municipal water supply.

Table 4-3 (DWR 18)
Groundwater — volume pumped

Basin name(s)	Metered or Unmetered	2006	2007	2008	2009	2010
Santa Clara Valley	Metered	0	1	25	2	1
Total groundwater pumped		0	1	25	2	1
Groundwater as a percent of total water supply		0	0	0	0	0

Table 4-4 shows the projected annual volume (in acre-feet) of groundwater pumped, in five-year intervals. Although the well is permitted for active use, the City reserves groundwater usage for emergency supply.

Table 4-4 (DWR 19)
Groundwater — volume projected to be pumped

Basin name(s)	2015	2020	2025	2030	2035 - opt
Santa Clara Valley	1	1	1	1	1
Total groundwater pumped	1	1	1	1	1
Percent of total water supply	0	0	0	0	0

4.3 Transfer Opportunities

The City does not have, or plan, any transfer or exchange opportunities for the purpose of reducing costs or improving water quality, as reflected in Table 4-5:

Table 4-5 (DWR 20)
Transfer and exchange opportunities

Transfer agency	Transfer or exchange	Short term or long term	Proposed Volume
None	0	0	0

However, the City has transfer agreements with two retail agencies for emergency water supply, as described below.

San Jose Water Company (SJWC) Intertie

The Milpitas/SJWC intertie (agreement dated March 7, 1973) is a one-way relief connection to the City. The agreement remains in effect until either party terminates it by written notice 90 days prior to the termination date. As of the date of this UWMP, the City and SJWC are in the process of revising the agreement to replace the emergency intertie for future two-way mutual relief.

The City has a right to obtain water from SJWC within two hours of notification to the extent that SJWC is able to supply water. Water charges will be based on the current SJWC tariff schedule. The maximum flow is estimated at 1,800 gpm, or 2.6 mgd and would provide supply to the City's southeastern SFPUC service area.

Alameda County Water District (ACWD) Intertie

The Milpitas/ACWD interties (agreement dated December 21, 1995) provide two 2-way mutual relief connections. The agreement remains in effect until either party terminates it by written notice 90 days prior to the termination date.

The City has a right to obtain water from ACWD within two hours of notification to the extent that ACWD is able to supply water. Water charges will be based on the current ACWD tariff schedule. The maximum capacity for both connections is estimated at 3,125 gpm, or 4.5 mgd, and would provide supply to the City's northern SFPUC service area.

SFPUC/SCVWD Intertie

SFPUC and SCVWD share an intertie (located in Milpitas) which can provide water to either wholesaler under emergency conditions or during planned shutdowns with prior notice. Although the City does not operate or maintain the intertie, the City benefits from the increased reliability it gives the City's wholesalers.

4.4 Desalinated Water Opportunities

The City does not plan to implement desalination projects on its own, but it may have the opportunity to participate in one or more regional projects in the future.

Bay Area Water Supply and Conservation Agency

BAWSCA is evaluating the feasibility of desalinization as part of its "Long-Term Reliable Water Supply Strategy. Over the last decade, membrane technology improvements and greater water resource pressures have caused desalination to advance significantly in use and cost competitiveness. However, there are technical and environmental issues to be resolved, including disposal of the concentrated brine.

Although Milpitas currently is not participating in regional desalination efforts, as they are not economically or geographically feasible, the City is aware of the following efforts.

Bay Area Regional Desalination Project

The Bay Area's five largest water agencies (SFPUC, SCVWD, East Bay Municipal Utility District (EBMUD), Contra Costa Water District (CCWD) and Zone 7 Water Agency) are jointly developing The Bay Area Regional Desalination Project, which could benefit 5.4 million Bay Area residents and businesses served by these agencies. In March 2008, a consultant was selected to build a pilot desalination plant in Contra Costa County to test pretreatment options, membrane performance and approaches for brine disposal. DWR awarded a $1 million grant to help fund the pilot project. A site for the full-scale desalination plant has not yet been selected.

Brackish Groundwater

SCVWD is sponsoring brackish groundwater desalination research studies at Stanford University using SCVWD funds and grant money from DWR, to determine the feasibility of brackish groundwater treatment in Santa Clara County. The Feasibility of Brackish Groundwater Reuse project will investigate using brackish groundwater to supplement expected shortages in future supplies of potable water.

4.5 Recycled Water Opportunities

About 7% of the City's water supply is recycled water, which is considered a highly reliable supply since it is generated locally from the San Jose/Santa Clara Water Pollution Control Plant (WPCP) through the San Jose South Bay Water Recycling Program (SBWR).

City of Milpitas Wastewater Collection & Recycled Water

The City does not treat wastewater, but instead pumps its wastewater, consisting primarily of industrial and sanitary discharge, through a force main to WPCP for treatment to be either discharged in to the San Francisco Bay, or turned into recycled water and redistributed. Table 4-6 shows the City's past, current, and projected wastewater quantities for collection and treatment (in mgd), based on the City of Milpitas 2009 Sewer Master Plan Update. Flows include projections for the Midtown and Transit Area future developments.

Table 4-6 (DWR 21)
Recycled water — wastewater collection and treatment

Type of Wastewater	2005	2010	2015	2020	2025	2030	2035
Wastewater collected in service area	8.3	7.3	8.3	9.3	10.7	12.1	13.5
Wastewater treated in service area	0	0	0	0	0	0	0
Volume that meets recycled water standard	100%	100%	100%	100%	100%	100%	100%

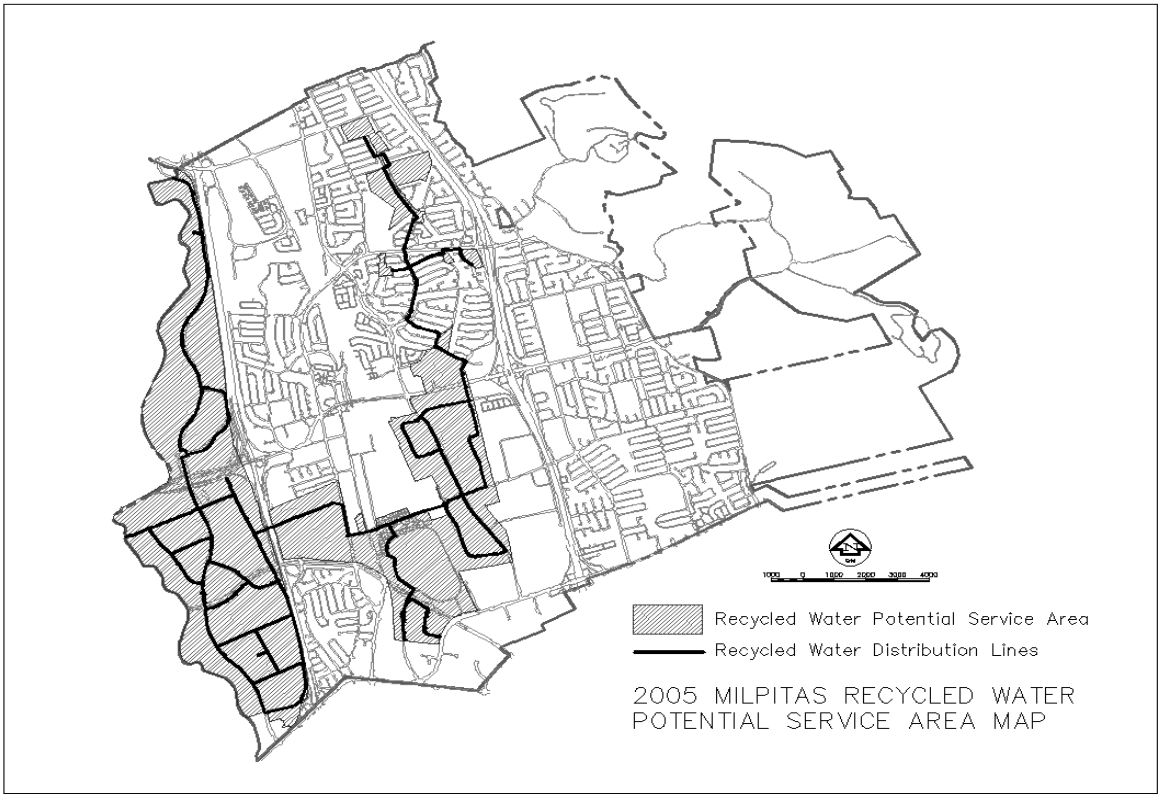
Table 4-7 shows the method of disposal and treatment level of non-recycled wastewater.

Table 4-7 (DWR 22)
Recycled water — non-recycled wastewater disposal

Method of disposal	Treatment Level
Outfall to South San Francisco Bay	Tertiary

As a tributary agency to the WPCP, the City of Milpitas has rights to the recycled water purveyed by SBWR. The City purchases recycled water from SBWR through a contract with the City of San Jose. As of May 2011, the City's recycled water system consists of almost 20 miles of pipeline serving 1 industrial and 180 irrigation customers. Figure 4-2 shows a layout of the City's recycled water distribution system.

Figure 4-2 Milpitas Recycled Water System



The City operates and maintains the recycled water distribution facilities within City boundaries through a contract with the City of San Jose, whereby Milpitas provides day-to-day operational services and helps to comply with recycled water permit requirements within the City. The City developed Non-Potable Water Guidelines to implement proper design and construction of on-site recycled water systems in addition to SBWR's Rules and Regulations.

The City also distributes recycled water to limited areas within Alameda County (Caltrans interchange at Highway 880 and Dixon Landing Road) and to the City of San Jose (North McCarthy Boulevard).

San Jose/Santa Clara Water Pollution Control Plant (WPCP) Treatment

Wastewater treatment is provided by agreement with the cities of San Jose and Santa Clara (as joint owners of WPCP). Under terms of the agreement, the City pays a capital share (in proportion to the City's 14.25 mgd capacity rights and the total Plant capacity) and pays an operating cost share based on discharge volumes to WPCP. WPCP is one of the largest advanced wastewater treatment facilities in California, treating wastewater from over 1.5 million people that live and work in the 300-square mile area encompassing the cities of San Jose,

Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. WPCP has the capacity to treat 167 mgd and is located in San Jose, at the southernmost tip of the San Francisco Bay. Originally constructed in 1956, upgraded its wastewater treatment process to an advanced, tertiary system in 1979. Most of the final treated water is discharged as fresh water through Artesian Slough into South San Francisco Bay. About 10% is recycled through South Bay Water Recycling (SBWR) pipelines for landscaping, agricultural irrigation, and industrial needs throughout the South Bay.

South Bay Water Recycling (SBWR)

WPCP treats wastewater to tertiary levels before discharging to San Francisco Bay. In 1997, the City of San Jose developed an Action Plan to develop a recycling as a means to reduce the volume of treated wastewater discharge into the Bay. As a result, South Bay Water Recycling (SBWR) was developed as a joint effort between the City of San Jose and SCVWD to provide recycled water to the cities of Milpitas, Santa Clara, and San Jose.

The recycled water production process takes a portion of the effluent for further treatment to meet Title 22 unrestricted water quality standards (i.e., virtually any use except drinking water), and pumps it through over 100 miles of distribution system to recycled water customers in Milpitas, Santa Clara, and San Jose. SCVWD and SBWR are collaboratively working on the expansion, maintenance and operation of the recycled water system. This includes $2.9 million in funding for the Revised South Bay Action Plan – SBWR Extension Project, $14 million for a South Bay Water Recycling Master Plan, and an additional $7 million for other SBWR projects. The expansion of the recycled water has the potential for a huge impact on potable water use reduction.

SCVWD: Advanced Water Treatment Facility

In February 2010, SCVWD and the City of San Jose entered into agreements to build a new advanced recycled water treatment facility (AWT). The first agreement provides a 40-year lease on WPCP lands for the AWT, which will be owned and operated by SCVWD. The second agreement allows for integration of the recycled water programs at the City of San Jose and the district.

The AWT will use microfiltration, reverse osmosis and ultraviolet disinfection to produce highly purified water. This near distilled-quality water will be blended with existing recycled water provided by SBWR to reduce salinity to allow wider irrigation and industrial use. Distribution of water from the AWT will be through existing and new pipelines. The plant design allows for potential expansion.

When completed in 2012, the AWT will produce up to 10 mgd of highly purified recycled water, saving an equivalent volume in drinking water. The AWT provides SCVWD with a cost-effective means of reducing demand on the potable water supply. It will also reduce the salinity of the recycled water supply which will help to protect groundwater quality.

Potential Uses of Recycled Water

SBWR actively participates in the Bay Area Regional Water Recycling Program, which includes the federal government, DWR, and numerous Bay Area water and wastewater agencies, and has examined potential near-term and long-term uses of recycled water throughout the San Francisco Bay Area. Table 4-8 shows potential SBWR recycled water uses.

Table 4-8 (DWR 23) Recycled water — potential future use	
User type	Feasibility
Agricultural irrigation	Possible
Landscape irrigation	Ongoing
Commercial irrigation	Ongoing
Golf course irrigation	Ongoing
Wildlife habitat	Possible
Wetlands	Possible
Industrial reuse	Ongoing
Groundwater recharge	Being considered
Seawater barrier	Unknown
Getothermal/Energy	Unknown
Indirect potable reuse	Being considered
Export to other agencies	Being considered

Table 4-9 shows a comparison between the 2005 UWMP's projected recycled water use in 2010 and the actual recycled water use in 2010 (in million gallons):

Table 4-9 (DWR 24) Recycled water — 2005 UWMP use projection compared to 2010 actual		
Use type	2010 actual use	2005 Projection for 2010
Agricultural irrigation	0	0
Landscape irrigation[2]	258	394
Commercial irrigation[3]	0	0
Golf course irrigation	0	0
Wildlife habitat	0	0
Wetlands	0	0
Industrial reuse	6	0
Groundwater recharge	0	0
Seawater barrier	0	0
Getothermal/Energy	0	0
Indirect potable reuse	0	0
Total	264	394

Encouraging Recycled Water Use

Table 4-10 lists the methods used to encourage recycled water use.

Table 4-10 (DWR 25) Methods to encourage recycled water use
Actions
Financial incentives - Discounted from potable water rate
Grants
Dual plumbing standards
Regional planning
Incentive program
Prohibit specific potable water use
Public education / information
Require recycled water use
Cooling tower standards

4.6 Future Water Projects

The City is able to meet future projected water needs from wholesale water purchases**.** Supplemental emergency water supply is available from the City's wells and interconnections with neighboring agencies. The City does not plan other future projects or programs to be implemented for water supply augmentation, as shown in Table 4-11.

Table 4-11 (DWR 26) Future water supply projects						
Project name	Projected start date	Projected completion date	Potential project constraints	Normal-year supply	Single-dry year supply	Multiple-dry year first year supply
None						

Chapter 5 Water Supply Reliability and Contingency Planning

5.1 Water Supply Reliability

Supply reliability examines the water supply outlook under different hydrologic conditions in five-year increments to 2030 under normal, dry year and multiple dry year conditions. Since the wholesalers' water supplies are obtained from local and imported sources, each wholesaler's water supply is a function of the amount of precipitation that falls both locally and in the watersheds of the Sierra Nevada. The supply available is also a function of the facilities in place to develop the supply.

Evaluating the availability of existing and projected local water supplies requires an understanding of the driest periods that can reasonably be expected to occur. This evaluation considers how often drought events have occurred and whether they are frequent enough to warrant designing the utility's system to withstand them, how much existing supply is available during a drought, and what duration of drought is most critical to the system. During the 120+ years of recorded rainfall, seven major drought events have affected Milpitas.

City of Milpitas

The reliability of the City's water supply depends on its vulnerability to seasonal or climatic water shortage affecting its suppliers. Single-dry and multiple-dry years are usually based on historic records of annual runoff from a particular watershed. A multiple-dry year drought is generally three or more consecutive years with the lowest average annual runoff. Since the City has multiple sources of water supplies (SFPUC, SCVWD, and SBWR), each individual supply is evaluated to assess its response to single year and multiple year droughts.

Table 5-1 shows the various factors which could result in inconsistency of supply.

Table 5-1 (DWR 29)
Factors resulting in inconsistency of supply

Water supply sources	Specific source name, if any	Limitation quantification	Legal	Environmental	Water quality
SFPUC	Hetch Hetchy	Yes	X	X	X
SCVWD	Sacramento Delta	Yes	X	X	X
SBWR	WPCP	No			

SFPUC

In order to enhance the ability of the SFPUC water supply system to meet identified service goals for water quality, seismic reliability, delivery reliability, and water supply, SFPUC has undertaken the Water System Improvement Program (WSIP), approved October 31, 2008. The WSIP will deliver capital improvements to enhance SFPUC's ability to meet its water service mission of providing high quality water to customers in a reliable, affordable and environmentally sustainable manner.

SFPUC prepared a Program Environmental Impact Report (PEIR) in accordance with the California Environmental Quality Act for the WSIP. The PEIR, certified in 2008, analyzed the broad environmental effects of the projects in the WSIP at a program level and the water supply

impacts of various alternative supplies at a project level. Individual WSIP projects are also undergoing individual project specific environmental review as required.

In approving the WSIP, the San Francisco Planning Commission adopted a Phased WSIP Variant for water supply that was analyzed in the PEIR. This established a mid-term water supply planning milestone in 2018 when SFPUC would reevaluate water demands through 2030. SFPUC also imposed the Interim Supply Limitation (ISL) which limits the volume of water that the member agencies and San Francisco can draw without financial penalty to 265 mgd until at least 2018.

As of April 2011, the WSIP was 27% complete overall with the planning and design work over 90% complete. The WSIP is scheduled to be completed in December 2015.

Reliability of the Regional Water System

SFPUC's WSIP provides goals and objectives to improve water delivery reliability. The goals and objectives of the WSIP related to water supply are:

Program Goal	System Performance Objective
Water Supply – *meet customer water needs in non-drought and drought periods*	• Meet average annual water demand of 265 mgd from SFPUC watersheds for retail and wholesale customers during non-drought years for system demands through 2018. • Meet dry-year delivery needs through 2018 while limiting rationing to a maximum 20 percent system-wide reduction in water service during extended droughts. • Diversify water supply options during non-drought and drought periods. • Improve use of new water sources and drought management, including groundwater, recycled water, conservation, and transfers.

The adopted WSIP had several water supply elements to address the WSIP water supply goals and objectives. The following provides the water supply elements for all year types and the dry-year projects of the adopted WSIP to augment all year type water supplies during drought.

Water Supply – All Year Types

SFPUC historically has met demand in its service area in all year types from its watersheds. They are the:

- Tuolumne River watershed
- Alameda Creek watershed
- San Mateo County watersheds

In general, 85 percent of the supply comes from the Tuolumne River through Hetch Hetchy Reservoir and the remaining 15 percent comes from the local watersheds through the San Antonio, Calaveras, Crystal Springs, Pilarcitos and San Andreas Reservoirs. The adopted WSIP retains this mix of water supply for all year types.

Water Supply – Dry-Year Types

The adopted WSIP includes the following water supply projects to meet dry-year demands with no greater than 20 percent system-wide rationing in any one year:

- Restoration of Calaveras Reservoir capacity
- Restoration of Crystal Springs Reservoir capacity
- Westside Basin Groundwater Conjunctive Use
- Water Transfer with Modesto Irrigation District (MID) / Turlock Irrigation District (TID)

In order to achieve its target of meeting at least 80 percent of its customer demand during droughts, SFPUC must successfully implement the dry-year water supply projects included in the WSIP.

Projected SFPUC System Supply Reliability

SFPUC has provided the attached table [*Table 3: Projected System Supply Reliability Based on Historical Hydrologic Period from 2/22/10 letter from P. Kehoe – see Appendix C*] presenting its projected supply reliability. This table assumes that the wholesale customers purchase 184 mgd through 2030 and the implementation of the dry-water water supply projects included in the WSIP. The numbers represent the wholesale share of available supply during historical year types per the Tier One Water Shortage Allocation Plan. This table does not reflect any potential impact from the additional fishery flows required as part of Calaveras Dam Replacement Project and the Lower Crystal Springs Dam Improvements Project.

Impact of Recent SFPUC Actions on Dry Year Reliability of SFPUC Supplies

In adopting the Calaveras Dam Replacement Project and the Lower Crystal Springs Dam Improvements Project, SFPUC committed to providing fishery flows below Calaveras Dam and Lower Crystal Springs Dam as well as bypass flows below Alameda Creek Diversion Dam. The fishery flow schedules for Alameda Creek and San Mateo Creek represent a potential decrease in available water supply of an average annual 3.9 mgd and 3.5 mgd, respectively with a total of 7.4 mgd average annually. These fishery flows could potentially create a shortfall in meeting SFPUC demands of 265 mgd and slightly increase SFPUC's dry-year water supply needs. If a shortfall occurs, it is anticipated at the completion of construction of both the Calaveras Dam Replacement Project and the Lower Crystal Springs Dam Improvements project in approximately 2015 and 2013, respectively when SFPUC will be required to provide the fishery flows.

The adopted WSIP water supply objectives include (1) meeting a target delivery of 265 mgd through 2018 and (2) rationing at no greater than 20 percent system-wide in any one year of a drought. As a result of the fishery flows, SFPUC may not be able to meet these objectives between 2013 and 2018 without (1) a reduction in demand, (2) an increase in rationing, or (3) a supplemental supply. The following describes these actions.

Reduction in Demand

The current projections for purchase requests through 2018 remain at 265 mgd. However, in the last few years, SFPUC deliveries have been below this level, as illustrated below. If this trend continues, SFPUC may not need 265 mgd from its watersheds to meet purchase requests through 2018. As a result, the need for supplemental supplies of 3.5 mgd starting in 2013 and increasing to 7.4 mgd in 2015 to offset the water supply loss associated with fish releases may be less than anticipated.

Water Deliveries in SFPUC Service Area[1]

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Total Deliveries (mgd)	247.5	257	254.1	243.4	225.2

Increase in Rationing

The adopted WSIP provides for a dry year water supply program that, when implemented, would result in system-wide rationing of no more than 20 percent. The PEIR identified the following drought shortages during the design drought; 3.5 out of 8.5 years at 10 percent rationing and 3 out of 8.5 years at 20 percent. If SFPUC did not develop a supplemental water supply in dry years to offset the effects of the fishery flows on water supply, rationing would increase during dry years. If SFPUC experiences a drought between 2013 and 2018 in which rationing would need to be imposed, rationing would increase by approximately 1 percent in shortage years. Rationing during the design drought would increase by approximately 1 percent in rationing years.

Supplemental Supply

SFPUC may be able to manage the water supply loss associated with the fishery flows through the following actions and considerations:

- Development of additional conservation and recycling
- Development of additional groundwater supply
- Water transfer from Modesto Irrigation District and/or Turlock Irrigation District
- Increase in Tuolumne River supply
- Revising the Upper Alameda Creek Filter Gallery Project capacity[2]
- Development of a desalination project

Meeting the Level of Service Goal for Delivery Reliability

SFPUC has stated a commitment to meeting its contractual obligation to its wholesale customers of 184 mgd and its delivery reliability goal of 265 mgd with no greater than 20 percent rationing in any one year of a drought. SFPUC has a projected shortfall of available water supply to meet its "Level of Service" goals and contractual obligations. SFPUC has stated that current decreased levels of demand keep this from being an immediate problem, but that in the near future, SFPUC must resolve these issues. Various activities are underway by SFPUC to resolve the shortfall problem. SFPUC staff will report back to the Commission by August 31, 2011 to provide further information on actions to resolve the shortfall problem.

---

[1] Reference: SFPUC FY09-10 J-Table Line 9 "Total System Usage" plus 0.7 mgd for Lawrence Livermore National Laboratory use and 0.4 mgd for Groveland. No groundwater use is included in this number. Unaccounted-for-Water is included.

[2] The adopted WSIP included the Alameda Creek Fishery Enhancement project, since renamed the Upper Alameda Creek Filter Gallery (UACFG) project, which had the stated purpose of recapturing downstream flows released under a 1997 California Department of Fish and Game MOU. Implementation of the UACFG project was intended to provide for no net loss of water supply as a result of the fishery flows bypassed from ACDD and/or released from Calaveras Dam. At the time the PEIR was prepared, the UACFG was described in the context of recapturing up to 6,300 AF per year.

SCVWD

To maintain water supply reliability and flexibility, SCVWD's water supply includes a variety of sources including local groundwater, imported water, local surface water, and recycled water. SCVWD has an active conjunctive water management program to optimize the use of groundwater and surface water, and to prevent groundwater overdraft and land subsidence.

Long-term planning and modeling analysis performed by SCVWD as part of its Integrated Water Resources Planning Study (IWRP) indicates that if additional investments are made, future countywide demands can reliably be met. It is the intent of SCVWD to invest in accordance with the IWRP framework to develop a flexible resource mix. This flexibility will allow SCVWD to respond to uncertain future conditions.

SCVWD's first IWRP report, completed in 1997, identified alternative water resource strategies and ranked them against planning objectives that ultimately resulted in a final preferred strategy. That strategy identified three programs corresponding to a range of future water shortage levels, with components phased in over time, based on demand.

The 2003 IWRP developed a planning framework and supporting modeling tools to help SCVWD identify and select specific water resource investments. The 2003 IWRP evaluation was based on a best estimate of the water demand and water supply outlook through 2040. Future water demand was estimated based on data from ABAG, Department of Finance and general plans from cities and Santa Clara County. The demand projection for the cities in Santa Clara County did not distinguish between SCVWD or SFPUC supplies.

The key findings from the 2003 IWRP are: 1) securing baseline supplies is top priority for ensuring reliability, 2) a mix of three types of new water supply investments makes the best water supply portfolio, and 3) local supplies decrease vulnerability.

Based upon the findings above, the IWRP 2003 provides three recommendations to ensure reliability through 2040.

1. Secure the Baseline

SCVWD's baseline includes existing water supplies, infrastructure, and programs, including the groundwater basins, reservoirs, imported water supplies, water rights, water use efficiency programs, and water utility infrastructure. The key steps to secure this baseline supply and SCVWD's progress are summarized below.

Improve infrastructure reliability

SCVWD is evaluating the condition of its water treatment plants and distribution system and is rehabilitating aging or defective components. Improving local infrastructure is vital to ensuring reliability of both the water treatment and conveyance systems during emergencies.

Expand groundwater management

Local groundwater basins supply nearly half of the water used annually in Santa Clara County and also provide emergency reserve for droughts or outages. SCVWD is considering development of SCVWD-owned groundwater extraction facilities to utilize this resource during emergencies -- particularly during outages of the treated water system -- and to maximize conjunctive use opportunities.

Sustain existing supplies
SCVWD is protecting imported water supplies by resolving contract and policy issues, supporting Bay-Delta system improvements, resolving the San Luis Reservoir low-point problem, and supporting SFPUC efforts to implement a Capital Improvement Program to secure the long-term reliability of SFPUC supplies in the County. SCVWD is protecting local water supplies by maintaining local water rights and protecting the local groundwater basins.

Reaffirm commitments to water conservation and recycling
SCVWD is investing in conservation and recycling, as demonstrated by its water conservation programs and investment into the Advanced Water Treatment facility described in Section 4.1.

Continue to provide clean, safe drinking water
SCVWD has an aggressive source water protection program to meet and exceed water quality standards by conducting ongoing improvements to treatment facilities.

2. Implement the "No Regrets" Portfolio for Near-Term Reliability (Phase I)
IWRP 2003 identified a "No Regrets" investment portfolio to ensure reliability through about 2020. With these investments, potential shortages through about year 2020 are reduced to levels that can be managed through contingency planning and response, including spot market transfers or demand management measures. IWRP 2003 stakeholders endorsed the No Regrets portfolio, which calls for the following new near-term investments:

- 28,000 AF of additional annual savings from agricultural, and municipal and industrial conservation.
- 20,000 AF of additional groundwater recharge capacity.
- 60,000 AF of additional capacity in the Semitropic Water Bank.

3. Flexible Options for Long Term Planning

Critical steps to ensure long-term water supply reliability include monitoring for risks, new opportunities, and technology improvements, further investigating desalination feasibility and recycled water acceptance and marketability, exploring potential water management and water quality improvement alternatives, and maximizing external funding.

SCVWD finds that its water supply will reliably meet future countywide demands. Although this UWMP presents projections of future water supply by source, ongoing coodination with SCVWD will be necessary to ensure projections are consistent with SCVWD's long-term water management strategies. The City will continue to work with SCVWD to refine future water supply projections and ensure long-term planning efforts are consistent.

BAWSCA

BAWSCA looks for opportunities to work with other water agencies, including SFPUC and SCVWD to leverage available resources to implement water use efficiency projects. For example, in 2005, BAWSCA and SFPUC entered into a Memorandum of Understanding (MOU) to provide a Spray Valve Installation Program to food service providers throughout the BAWSCA service area. In addition, BAWSCA participates in the Bay Area Efficient Clothes Washer Rebate Program, a residential rebate program offered by all of the major Bay Area water utilities. Through participation in this program, BAWSCA and its participating member agencies were the recipients of a $187,500 Proposition 50 grant in FY 2006/07.

As part of the Bay Area Integrated Regional Water Management Plan, BAWSCA and other major Bay Area water utilities submitted a Proposition 84 Implementation Grant Proposal in January 2011 to support regional water conservation efforts that offer drought relief and long-term water savings. The proposed project includes a package of water conservation programs to improve water use efficiency throughout the San Francisco Bay Area. The project provides direct funding, financial incentives (rebates), and/or subsidies for the implementation of programs that achieve reduced water demand, by all classes of water users: residential, commercial, industrial, and institutional. Four specific programs were selected for the project because they were determined to provide the most quantifiable and sustainable water savings, including: 1) Water-Efficient Landscape Rebates, Training and Irrigation Calculator, 2) High-Efficiency Toilet/Urinal Direct Install and/or Rebates, 3) High-Efficiency Clothes Washer Rebates, and 4) Efficient Irrigation Equipment Rebates.

BAWSCA and its member agencies will continue to partner with each other and other Bay Area water utilities, as appropriate, to develop regional water conservation efforts that extend beyond local interests. The goal is to maximize the efficient use of water regionally by capitalizing on variations in local conditions and economies of scale.

WPCP

Since WPCP can generate excess recycled water beyond that which is being used, recycled water is considered drought proof and the supply reliability is considered to be stable even during drought periods.

5.2 Water Shortage Contingency Planning

The City's Water Shortage Contingency Plan analysis consists of 5 steps:

1. Stages of Action
2. Catastrophic Supply Interruption Plan
3. Prohibitions, Penalties and Consumption Reduction Methods
4. Analysis of Revenue Impacts of Reduced Sales During Shortages
5. Draft Ordinance and Use Monitoring Procedure

Stages of Action
Table 5-2 shows the City's 4-stage rationing plan that could be invoked during declared water shortages. The rationing plan includes voluntary and mandatory rationing, depending on the causes, severity, and anticipated duration of the water supply shortage.

Table 5-2 (DWR 35)
Water shortage contingency — rationing stages

Stage No.	Water Supply Conditions	% Shortage
0	Voluntary	0
I	Voluntary	5 - 20
II	Mandatory	20 - 35
III	Mandatory	35 - 50

Stage O, or a 0% shortage, requires no forced conservation measures, however water conservation is always encouraged with resources available to the public to assist in water conservation.

Stage I, 5-20% shortage, continues the Stage O activities and in addition would increase public outreach and optimize the draw from wholesalers, such as mixing water supplies to subsidize the supply facing the shortage.

Stage II, 20-35% shortage, continues the Stage I activities and in addition would include the possibility of operating supplemental water supplies, such as one or both of the City's wells, as well as the possibility of implementing a rationing program, which is discussed later in this chapter.

Stage III, 35-50% shortage, continues the Stage II activities and in addition could include the expansion of the recycled water system. This option is costly and time consuming to implement and therefore would weigh heavily on the anticipated duration of the water supply shortage.

Catastrophic Supply Intervention Plan

Catastrophic events include non-drought related events. The City's 2004 Water Emergency Management Plan addresses two possible events that could be triggered by any of the following threats: earthquakes, floods, waterborne diseases, backflow conditions, chemical spills, construction accidents, contamination of water storage tank, fires, mechanical equipment disabled, power outages, sewage spills, terrorism, theft of materials, and vandalism.

- **Water Shortage Event** – An event (non-drought) where there is not enough water supplied to meet the normal demands of the City. The following text describes procedures the City plans to follow during a water shortage event.

- **Water Contamination Event** – An event where the water quality may not meet Safe Drinking Water Standards and water use is curtailed. This may include contamination from the wholesale source, external contamination, or this may include contamination within the City's system, internal contamination. For either source of water, the contamination must be isolated via water valves and depending on the severity and duration of the contamination a secondary means (bypass) or source of water (wells, different wholesaler) must be put in place.

Water Shortage Event Action Items

In the event of a water shortage, depending on the scenario, Staff intends to address the problem, however is not limited to, the following action items as necessary.

Scenario 1: ONE water wholesaler has a full or partial shutdown of turnout supplies.

- Public notification
- Fill as many reservoirs as possible before supply is lost
- Open interties between wholesale agencies
- Fill Gibraltar reservoir from the unaffected water service (Gibraltar has two reservoirs that can be filled from either source)
- Request emergency water service from neighboring interties with ACWD or SJWC
- Draw from wells (only in the event of long-term water loss)

Scenario 2: BOTH water wholesalers have a full or partial shutdown of turnout supplies.

- Public notification
- Fill as many reservoirs as possible (short-term water loss)
- Draw from wells (long-term water loss)

Water Contamination Event Action Items

Actions the City may take depend on the specifics of the event, but the plan calls for some or all of the following:

Scenario 1: Water contaminated from the wholesaler (external).

- Public notification in accordance with State Department of Public Health requirements
- Close off valves to isolate contaminated water from entering municipal system
- Assuming only ONE wholesaler is contaminated, fill the reservoirs with the unaffected wholesaler's water
- Assuming only ONE wholesaler is contaminated, open inter-ties between wholesale agencies
- Assuming only ONE wholesaler is contaminated, request emergency water service from neighboring interties with ACWD or SJWC
- Draw from City wells (long-term water loss)
- Assuming BOTH wholesalers contaminated, contact bottled water companies for temporary water supply
- Request assistance though WARN agreement

Scenario 2: Water contaminated within the municipal system (internal)

- Public notification
- Issue boil water notice (if biological contamination only)
- Begin to purge contaminated water, if possible
- Provide water via uncontaminated reservoir
- Contact bottled water companies for temporary water supply
- If feasible, continue monitoring until Safe Drinking Water Standards are achieved
- Request assistance through WARN agreement

Prohibitions, Consumption Reduction Methods and Penalties

The City is currently in the Stage O non-drought condition, but the City anticipates implementing a rationing program during water shortage stages. Table 5-3 lists various prohibitions at different stages that would be imposed upon residents and businesses as mechanisms to reduce water use, Table 5-4 lists consumption reduction methods for the different rationing stages, and Table 5-5 shows the penalties and charges for violating the water shortage ordinance.

Table 5-3 (DWR 36) Water shortage contingency — mandatory prohibitions	
Examples of Prohibitions	**Stage When Prohibition Becomes Mandatory**
Using potable water for street washing	O
Hydrant flushing, except for public safety	I
Cleaning, filling, or maintaining levels in decorative fountains	II
Potable irrigation of golf courses except greens and tees	II
Washing vehicles outside of commercial washing facility	III
Irrigation of median landscape strips	III
Failure to repair leaks	III

Table 5-4 (DWR 37) Water shortage contingency — consumption reduction methods		
Consumption Reduction Methods	**Stage When Method Takes Effect**	**Projected Reduction (%)**
Inverted block rates	II	20 - 50
Percent of use	II	20 - 50
Per capita	II	20 - 50
Hybrid of per capita & irrigation	II	20 - 50
Per household	II	20 - 50
Hybrid of per household & irrigation	II	20 - 50

Table 5-5 (DWR 38) Water shortage contingency — penalties and charges	
Penalties or Charges	**Stage When Penalty Takes Effect**
Fine not exceeding $100 for 1st violation	II
Fine not exceeding $200 for 2nd violation of same act within 1 year	II
Fine not exceeding $500 per day for each additional violation of same act within 1 year	II

Drought Impacts on Revenue

One consequence of water rationing is a loss in revenues due to the decrease in the quantity of water sold. Expenses also increase due to costs associated with managing a drought program. Funding may be used from 30% operating budget water fund reserves (roughly $4 million) which are available for the dual purpose of providing funds for emergency operations and for mitigating the financial impacts of a drought. To further subsidize revenue loss, if necessary,

Council may authorize staff to re-allocate water infrastructure funding in an emergency situation from the City's Capital Improvement Program (CIP) fund, which at this time holds approximately a $3 million reserve, to subsidize revenue loss due to drought.

Draft Ordinance and Use Monitoring Procedure

Adoption of mandatory prohibitions (Stages II and III) would require the following actions:

Trigger: Either or both water suppliers declare a water shortage emergency of 20% or more. This would trigger development of a draft ordinance establishing rules, regulations and restrictions for water use.

Public Input: The City may be required to solicit public comment on a draft ordinance through a City Council public hearing. Adjustments would be incorporated as directed by City Council. Appendix D contains a sample public hearing notice for a Water Shortage Emergency.

Adoption: City Council would consider adopting ordinances. Appendix E contains the Water Shortage Emergency Rate Ordinance that the City implemented in 1992, and Appendix F contains a sample Water Shortage Emergency Restrictions Ordinance.

Prior Drought Experience (Individual Water Allotment Base System Method)

In order for the City to achieve water demand reduction goals at Stages II or III, a rationing system must be in effect. During the 1988-1993 drought, both SFPUC and SCVWD implemented the Percent of Use method for their retailers. The City elected to apply the same method to its customers. However, this method was labor intensive and costly to implement and manage. There are many other ways in which a rationing system can be implemented. Several methods have been evaluated and described in Appendix G**.**

Excess use charges can supplement water revenue losses, however, excess use charges cannot fully replace the lost revenue. Drought periods cause increasing expenses. Conservation program costs such as rationing implementation, tracking and billing, educational information dissemination, and program management all result in expense increases. The 1988-1993 drought program management was estimated requiring 24 hours per week of billing department staff time and 100 hours per week of engineering staff time. Excluding staff time, the City spent approximately $870,000 managing rationing during the 1988-1993 drought period.

Inverted Block Rate Option

For future droughts, the City may consider using the Inverted Block Rate Method, which was used by the Cities of Sunnyvale and Mountain View during the previous drought. Escalating unit rates are applied when greater water amounts are used. The City already uses this rate structure for existing residential water rates, and customers directly control the amount of their water bill by eliminating or reducing water consumption to avoid higher unit rates. The City would need to establish tiers for the non-residential customer classes.

Mechanism for Determining Actual Reductions

The City's utility billing system tracks water usage by user categories (i.e. single-family, commercial, irrigation). Data is easily accessible and customized reports can be printed or downloaded to spreadsheet format. Meters are read every two months.

To determine actual reductions during a water shortage emergency, staff can review readings from wholesale turnout meters and compare to historical readings, review monthly water use reports by user categories and compare to historical use, or extract data from the utility billing system and manipulate accordingly to obtain the data needed.

SFPUC Shortage Allocation Plan

The Water Shortage Allocation Plan between SFPUC and its wholesale customers, adopted as part of the WSA in July 2009, addresses shortages of up to 20% of system-wide use. The Tier 1 Shortage Plan allocates water between San Francisco Retail and the wholesale customers during system-wide shortages of 20% or less. The WSA also anticipated a Tier 2 Shortage Plan adopted by the wholesale customers which would allocate the available water among the wholesale customers.

Tier One Drought Allocations
In the case of a drought which reduces SFPUC supplies by up to 20%, the Agreement specifies that water will be allocated according to the Agreement's Tier 1 Shortage Plan. This plan allocates water to Milpitas and the other 25 members of the Bay Area Water Conservation and Supply Agency (BAWSCA) by a formula based on each member's previous three years of water consumption.

The Tier One Plan also allows for voluntary transfers of shortage allocations between SFPUC and any wholesale customer and between wholesale customers themselves. In addition, water "banked" by a wholesale customer, through reductions in usage greater than required, may also be transferred.

The Tier One Plan, which allocates water between San Francisco and the wholesale customers collectively, distributes water based on the level of shortage:

Level of System Wide Reduction in Water Use Required	Share of Available Water	
	SFPUC Share	Wholesale Customers Share
5% or less	35.5%	64.5%
6% through 10%	36.0%	64.0%
11% through 15%	37.0%	63.0%
16% through 20%	37.5%	62.5%

Tier Two Drought Allocations
To address severe drought shortages over 20%, the Water Supply Agreement authorized the BAWSCA agencies to develop a Tier 2 Drought Implementation Plan. In 2010, staff representatives from the 26 agencies derived a plan based on each agency's individual supply guarantee and each agency's characteristic summer water usage. This plan offers consistent and pre-determined rules for calculation; provides sufficient water for basic health and safety needs of customers; creates incentive for water conservation; avoids preventable, adverse

economic impacts; avoids reallocating individual agency water supply assets without consent and compensation; and accounts for the inherent differences in the agencies' land use and climate.

An example of how the Tier 2 plan would apply to Milpitas is as follows. In a normal year, SFPUC commits to taking up to 265 mgd from the Hetch Hetchy system to meet customer demand. In the event of a 20% drought shortage, San Francisco would keep 37.5% of the available water for San Francisco customers and give the remaining 62.5% to the BAWSCA agencies. This provides 131 mgd which represents a 26.4% reduction of the BAWSCA agencies' normal allotment. The Tier 2 plan allocates the 26.4% cutback to the BAWSCA agencies prior year usage using the supply guarentees and summer use factors. For Milpitas, this would result in a 19.1% cutback. Milpitas currently purchases about 6.9 MGD from SFPUC, so if a 20% drought shortage occurred next year, Milpitas would be allowed 5.6 MGD of water. All these factors will vary depending on the actual percent shortage, Milpitas's actual prior year usage, and Milpitas's actual prior summer usage. Appendix H shows the Tier 2 allocation.

The Tier Two Plan will expire in 2018 unless extended by the wholesale customers.

SCVWD Water Shortage Contingency Plan

SCVWD's Water Shortage Contingency Plan focuses on drought risk, based on the range of hydrologic conditions observed in the past. Risks from water supply shortages include overdrafting Santa Clara County's groundwater basin and experiencing land surface subsidence. In addition to the permanent loss of aquifer storage, land surface subsidence can damage infrastructure and lower the land elevation along the County's many rivers and streams, resulting in greater backwater influences from the saline San Francisco Bay and greater flooding risks among densely developed urban areas.

Supply shortages to the County can result in overdrafting of the groundwater basin. Although SCVWD manages the County's groundwater basin, the groundwater is pumped by major retailers and independent users. SCVWD can influence groundwater pumping through pumping charges and other management practices, but it cannot directly control the amount of groundwater pumped. The groundwater basin is a complex and non-homogeneous system and the natural groundwater yield, groundwater operational storage, and land subsidence threshold are uncertain.

Groundwater end-of-year carryover storage is the best indicator to evaluate the overall water supply picture. When the operational storage in the groundwater sub-basins drops below 350,000 AF, compared to a full capacity of 530,000 AF, the following year is at risk of water shortage. The indicator is quite conservative, as it identifies about 1 in 5 years to be a potential first year of water shortage, compared to 1 in 20 years that actually can be expected to result in shortages.

Table 5-6 summarizes the recommended shortage response guidelines for different expected end-of-year groundwater carryover storage. Potential responses include; voluntary water demand reduction/public outreach (including media campaign and increased water conservation literature and conservation kit distribution), demand reduction measure or increased supplies. The shortage response action guidelines do not specify the form of the drought response. Annual decisions, including whether to participate in the water market or call for demand cutbacks, are made through annual operations planning.

Table 5-6 SCVWD Shortage Response Action Guidelines

Level	Expected End-of-Year Groundwater Basin Carryover Storage (AF)	Recommended Shortage Response: Total Over the 2-Year Planning Horizon	Demand % assuming 400,000 AF Demand
--	350,000 to 530,000	No Action	-
1	320,000 to 350,000	Continue to monitor. Appropriate response (if any) to be determined	-
2	270,000 to 320,000	Implement 50,000 AF response	12.5%
3	220,000 to 270,000	Implement 100,000 AF response	25%
4	170,000 to 220,000	Implement 150,000 AF response	37.5%
5	120,000 to 170,000	Implement 200,000 AF response	50%
6	50,000 to 120,000	Implement 270,000 AF response	62.5%

By following these action levels, the groundwater carryover storage at the end of the 2-year planning horizon can be maintained above the 50,000 AF minimum considered prudent to protect against subsidence.

5.3 Water Quality

The City does not anticipate any water quality impacts for its current and project water supplies, as shown in Table 5-7 below.

Table 5-7 (DWR 30)
Water quality — current and projected water supply impacts

Water source	Description of condition	2010	2015	2020	2025
SFPUC	None	NA	NA	NA	NA
SCVWD	None	NA	NA	NA	NA
SBWR	None	NA	NA	NA	NA

5.4 Drought Planning

Normal Year is a year in the historical sequence that most closely represents median runoff levels and patterns.

Single-dry Year is generally considered to be the lowest annual runoff for a watershed since the water-year beginning in 1903.

Multiple-dry Year is generally considered to be the lowest average runoff for a consecutive multiple year period (three years or more) for a watershed since 1903. For example, 1928-1934 and 1987-1992 were the two multi-year periods of lowest average runoff during the 20th century in the Central Valley basin.

Table 5-8 gives the base year(s) based on the water year type, Table 5-9 gives the supply reliability based on historic conditions, and Table 5-10 gives supply reliability based on current sources.

Table 5-8 (DWR 27) Basis of water year data	
Water Year Type	Base Year(s)
Average Water Year	2002
Single-Dry Water Year	1977
Multiple-Dry Water Years	1987-1992

Table 5-9 (DWR 28) Supply reliability — historic conditions					
Average / Normal Water Year	Single Dry Water Year	Multiple Dry Water Years			
		Year 1	Year 2	Year 3	Year 4
SFPUC	90%	90%	80%	80%	80%
SCVWD	100%	100%	100%	100%	100%

Table 5-10 (DWR 31) Supply reliability — current water sources				
Water supply sources	Average / Normal Water Year Supply	Multiple Dry Water Year Supply		
		Year 2011	Year 2012	Year 2013
SFPUC	100%	90%	80%	80%
SCVWD	100%	100%	100%	100%
Percent of normal year:				

Supply and Demand Comparison

Although the City has planned for adequate supplies to meet demands through 2035, the City may be impacted by drought shortages, during which water wholesalers may not have supplies to meet demands, and some form of water allocation may be anticipated. Table 5-11 shows a supply and demand comparison in a normal year scenario, Table 5-12 shows a single dry year scenario, and Table 5-13 shows a multiple dry year scenario.

Table 5-11 (DWR 32) Supply and demand comparison — normal year					
	2015	2020	2025	2030	2035 - opt
Supply totals	6,597,326	6,992,581	7,690,375	8,393,049	9,368,984
Demand totals	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
Difference	1,054,011	751,471	478,209	209,827	209,827
Difference as % of Supply	16.0%	10.7%	6.2%	2.5%	2.2%
Difference as % of Demand	19.0%	12.0%	6.6%	2.6%	2.3%

Table 5-12 (DWR 33) Supply and demand comparison — single dry year					
	2015	2020	2025	2030	2035 - opt
Supply totals	5,831,656	6,226,911	6,924,705	7,627,379	8,603,314
Demand totals	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
Difference	288,341	(14,199)	(287,461)	(555,843)	(555,843)
Difference as % of Supply	4.9%	-0.2%	-4.2%	-7.3%	-6.5%
Difference as % of Demand	5.2%	-0.2%	-4.0%	-6.8%	-6.1%

Table 5-13 (DWR 34) Supply and demand comparison — multiple dry-year events						
		2015	2020	2025	2030	2035 - opt
Multiple-dry year first year supply	**Supply totals**	5,831,656	6,226,911	6,924,705	7,627,379	8,603,314
	Demand totals	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
	Difference	288,341	(14,199)	(287,461)	(555,843)	(555,843)
	Difference as % of Supply	4.9%	-0.2%	-4.2%	-7.3%	-6.5%
	Difference as % of Demand	5.2%	-0.2%	-4.0%	-6.8%	-6.1%
Multiple-dry year second year supply	**Supply totals**	5,336,222	5,731,477	6,429,271	7,131,945	8,107,880
	Demand totals	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
	Difference	(207,093)	(509,633)	(782,895)	(1,051,277)	(1,051,277)
	Difference as % of Supply	-3.9%	-8.9%	-12.2%	-14.7%	-13.0%
	Difference as % of Demand	-3.7%	-8.2%	-10.9%	-12.8%	-11.5%
Multiple-dry year third year supply	**Supply totals**	5,336,222	5,731,477	6,429,271	7,131,945	8,107,880
	Demand totals	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
	Difference	(207,093)	(509,633)	(782,895)	(1,051,277)	(1,051,277)
	Difference as % of Supply	-3.9%	-8.9%	-12.2%	-14.7%	-13.0%
	Difference as % of Demand	-3.7%	-8.2%	-10.9%	-12.8%	-11.5%

Chapter 6 Demand Management Measures

The City conducts its conservation program in conjunction with resources provided by SCVWD and BAWSCA. Programs implemented through the partnerships with these agencies include the Free Showerheads and Faucet Aerators Program, Water Efficient Landscape Program, Washing Machine Rebate Program, and High Efficiency Toilet (HET) Rebate Program. BAWSCA provides Water Efficient Gardening workshops. The City contributes to fund these programs indirectly through wholesale water costs and wastewater treatment purchases.

The City is not a signatory to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU) on water conservation since current analysis indicates that to fully implement the BMPs would not be cost effective. Historically, the City selected BMPs that were cost-effective and reasonable in total cost.

The City will participate in all BMPs recommended by the CUWCC to some degree, either through City supported local programs or as part of regional programs as shown below:

Table 6-1 Water Conservation Best Management Practices

BMP	Program	Source
A	Water Survey Programs for Single Family and Multiple Family Residential Customers	SCVWD/ City
B	Residential Plumbing Retrofit	SCVWD
C	System Water Surveys, Leak Detection and Repair	City
D	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	City
E	Large Landscape Conservation Programs and Incentives	SCVWD
F	High-Efficiency Washing Machine Rebate Programs	SCVWD
G	Public Information Programs	SCVWD/BAWSCA
H	School Education Programs	SCVWD
I	Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts	SCVWD
J	Wholesale Agency Assistance Program	SCVWD
K	Conservation Pricing	City
L	Conservation Coordinator	City
M	Water Waste Prohibition	City
N	Residential ULFT Replacement Programs	SCVWD

BMP A - Water Survey Programs for Single Family and Multiple-Family Residential Customers

SCVWD developed this program to market home water-use surveys to the top 20% of single-family and multi-family customers of participating water retailers including the City of Milpitas. Water Savings per survey ranged from 73 to 78 gpd per household based on a representative sample of survey participants.

The water surveys consist of educating customers on how to read their water meter; checking flow rates of showerheads and faucet aerators; checking for leaks; installing low-flow showerheads, faucet aerators, and/or toilet flappers if necessary; checking irrigation system efficiency; measuring landscape area; developing an efficient irrigation schedule for the different seasons; and providing customers with evaluation results, water savings recommendations, and other education materials.

This program will continue to be marketed to the top 20% of residential water consumers through direct mailing efforts. In addition, the program is advertised to all Milpitas residents through newsletter distribution, local advertisements, and City media.

BMP B - Residential Plumbing Retrofit

SCVWD has provided free low-flow showerheads and faucet aerators to Santa Clara County residents via its water retailers, residential water surveys, and public events. City staff offers these free water-saving devices to Milpitas residents via distribution at city-sponsored events, City media, and residential newsletters. In addition to the showerheads and aerators directly distributed by SCVWD, the City has distributed thousands of low-flow showerheads and aerators

BMP C - System Water Surveys, Leak Detection and Repair

All connections within the City are metered, except for some City maintenance activities such as street sweeping, fireflow testing, and sewer hydro/vac truck filling. To minimize leaks from residential, business, and irrigation connections, City maintenance crews replace all leaking meters, repair water service and main leaks, and calibrate compound or multi-head meters annually.

The City calculates unaccounted water annually. In the past 10 years, annual unaccounted-for-water has averaged 8.7%, which is less than the 10% audit trigger point. The City will continue to conduct its meter calibration and replacement program.

BMP D - Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections

All water connections in the City are metered, and separate irrigation meters are required for non-residential customers and new large-scale multi-family developments. Commercial, industrial, and institutional customers are required to have fire sprinkler systems with separate meters. The City has also installed separate meters for recycled water services.

The City will continue to install and read meters for all new services.

BMP E - Large Landscape Conservation Programs and Incentives

The SCVWD Irrigation Technical Assistance Program (ITAP) provided large landscape water audits to sites in the county with one acre or more of landscaping. Participants are provided with water-use analyses, scheduling information, in-depth irrigation evaluations, and recommendations for affordable irrigation upgrades.

SCVWD has established a comprehensive program to develop Eto-based water-use budgets for all large landscape sites by using aerial images and GIS techniques. The project acquired multi-spectral images of over 900 square miles of Santa Clara County, performed image analysis (classification) to identify the areas of turf, other landscaping, water features, bare ground and hardscape for each parcel and prepared a database of these areas to support Landscape Water Budgets.

In January 1993, the City adopted a Water Efficient Landscape Ordinance No. 238, amended it in August 2005, and amended it once again in August 2010 (see Appendix I), to

conform to stricter landscaping and irrigation recommendations. This Ordinance was developed to provide conservation equivalent to the State Model Ordinance developed by DWR and applies to new and rehabilitated landscapes 2,500 square feet or larger for single family and multi-family development common areas, single-family homeowner-installed or contractor-installed landscape, public agency projects, and private development. It also covers existing landscaped areas one acre or larger to which the City provides potable water. For new and rehabilitated landscapes 2,500 square feet or larger, applicants have the option to use the planting restrictions option, designed to minimize turf and encourage native drought resistant plants, or submit a water calculations and plans. However, regardless of which landscape method is chosen, the applicant must submit a certificate verifying that landscapes have been installed as approved, and that an irrigation audit has been performed (with the exception of single-family residences). For existing landscaped areas one acre or larger being supplied potable water for irrigation, applicants shall comply with the City's Ordinance relating to irrigation audits, surveys, and water use analysis; and shall maintain landscape irrigation facilities to prevent water waste and runoff.

BMP F - High-Efficiency Washing Machine Rebate Programs

SCVWD offers high-efficiency washing machine rebates in conjunction with PG&E. Funding partners for this program include SCVWD, City of San Jose, City of Palo Alto and DWR grant funding. The rebate amount has varied depending on funding availability. The current rebate amount ranges from $100 to $150 depending on the efficiency rating of the clothes washer model.

BMP G - Public Information Programs

SCVWD operates an extensive public information program and associated schools program, which provide materials, speakers, and outreach activities to the general public. The SCVWD employs a professional staff of 10 to provide outreach related to water conservation, urban runoff pollution, water recycling, watershed and flood protection, and water quality. In addition, SCVWD's Water Conservation Unit staff conducts targeted outreach tailored to individual conservation programs.

SCVWD outreach activities include publications and website development, public meetings, participation at community events, multi-media campaigns, inter-agency partnerships, corporate environmental fairs, professional trade shows, water conservation workshops and seminars, and a speakers bureau. Their Residential Landscape Program currently consists of a Nursery Program, Water Efficient Landscape Workshop Series, Spanish-Language Irrigation Workshop Series, Landscape Water Management Seminar, and Water-Efficient Landscape Awards Program.

In addition to SCVWD's public information program, City staff also disseminates information to the public through City media, the City's annual Consumer Confidence Report, and City sponsored events.

BMP H - School Education Programs

SCVWD has a full-time educator to coordinate the school education programs. SCVWD provides free classroom presentations, puppet plays, and tours of district facilities to schools within the county. The objective is to teach students about water conservation, water supply, watershed stewardship and flood protection. SCVWD also provides school

curricula to area educators, including workbooks and videos, as well as hands-on training for teachers. Students range from pre-kindergarten through college.

BMP I - Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

SCVWD implemented a regional pilot program that provided water-use for large water-using businesses and industries in Santa Clara County. The audits provided thorough water-use analysis and recommendations for efficient process upgrades.

- **Water Efficient Technologies**

  To encourage all commercial and industrial businesses to implement permanent water reduction measures, the City of San Jose and SCVWD offer financial awards to businesses (including those in Milpitas) through their Water Efficient Technologies Program (WET). As a tributary agency to WPCP, the City funds a proportionate share of this program. The maximum rebate amount is $50,000 or 50% of total project costs.

- **Commercial Toilet Program**

  SCVWD offered an Ultra Low Flush Toilet (ULFT) Rebate Program from 1992 to 1999. SCVWD then switched to a direct ULFT installation program. Over 5,000 ULFT's were installed through SCVWD's efforts. Additionally, the City of San Jose provided over 4,000 ULFT's to customers within the WPCP Tributary area. As a tributary agency to WPCP, the City funds a proportionate share of this program.

  In 2004, SCVWD began the High Efficiency Toilet (HET) replacement program. HET's flush at 1.0 gallon per flush and feature a pressure-assisted flushing mechanism. Funding for this program comes from DWR, SCVWD, and the cities of San Jose and Palo Alto.

- **Commercial Washer Program**

  In July 1999, SCVWD, along with funding partners Silicon Valley Power (supplies electric power to customers within the City of Santa Clara) and the City of San Jose (administers Santa Clara/San Jose Water Pollution Control Plant) began offering a rebate for replacement with high-efficiency clothes washers in laundromats.

  Beginning in July 2000, the commercial washer program was expanded throughout the county. Cost-sharing partners include PG&E, Silicon Valley Power, Palo Alto, and San Jose. The program also now includes commercial machines installed in multi-family complexes.

  SCVWD is unable to calculate the effectiveness of CII programs, as each of the retailers in the County use different customer classification breakdowns, making data compilation and analysis difficult. SCVWD is looking into other ways to obtain Standard Industrial Classification (SIC) codes and has obtained lists of hotels, restaurants, gas stations and other commercial sites by contacting county agencies that regulate these facilities.

BMP J - Wholesale Agency Assistance Program

SCVWD continues to provide a high level of support with the water retailers in the regional implementation of the BMPs.

BMP K - Conservation Pricing

The City meters and bills water service by volume of use. The City has an increasing four-tier residential water rate structure and a single rate structure for all other customer sectors. The City also bills sewer service at a flat rate to residential customers and volume of use rates to all other customers. The City will continue to analyze water and sewer service charges on an annual basis, as well as market recycled irrigation water at a rate 20% less than potable irrigation water to encourage use of recycled water and thereby conserve potable water.

BMP L - Conservation Coordinator

Water conservation activities are coordinated by an Associate Civil Engineer in the Public Works Utilities section with the support of the section's Public Information Specialist and Engineering Technician.

BMP M - Water Waste Prohibition

In May 1994, the City adopted a Water Conservation Ordinance No. 240, and amended it in August 2005 (see Appendix J), which describes water use prohibitions in accordance with BMP requirements.

BMP N - Residential Ultra-Low Flush Toilet (ULFT) Replacement Programs

Since 1992, SCVWD has offered various residential ULFT replacement programs for single-family and multi-family residences. Currently, SCVWD offers rebates for High Efficiency Toilets (HETs), which use less water than conventional ULFTs. SCVWD has provided incentives to retrofit hundreds of thousands of residential toilets throughout Santa Clara County.

BAWSCA

In September 2009, BAWSCA completed the Water Conservation Implementation Plan (WCIP). The goal of the WCIP is to develop an implementation plan for BAWSCA and its member agencies to attain the water efficiency goals that the agencies committed to in 2004 as part of the Program Environmental Impact Report (PEIR) for the Water System Improvement Program (WSIP) which is further described in Chapter 5. The WCIP's goal was expanded to include using water conservation to provide reliable water supplies through 2018 given SFPUC's 265 mgd Interim Supply Limitation (ISL) until at least 2018.

Based on the WCIP development and analysis process, BAWSCA and its member agencies identified five new water conservation measures, which, if implemented fully throughout the BAWSCA service area, could potentially save an additional 8.4 mgd by 2018 and 12.5 mgd by 2030. The demand projections for the BAWSCA member agencies indicate that collective purchases from SFPUC will stay below 184 mgd through 2018 as a result of revised water demand projections, the identified water conservation savings, and other actions.

Appendices

APPENDIX A

Public Notifications

UPDATE OF URBAN WATER MANAGEMENT PLAN

The City of Milpitas will be reviewing and updating its Urban Water Management Plan, which was last updated in 2005. The City encourages all customers to participate in this review process. Any proposed revisions to the Plan will be made available for public review and the City Council plans to hold a public hearing in the spring of 2011. In the meantime,those who wish to learn more about the current Plan, the schedule for considering changes to it, or how to participate in the process, please contact:

Howard Salamanca
City of Milpitas — Engineering
455 E. Calaveras Blvd. Milpitas, CA 95035
Phone: (408) 586-3348
Fax: (408) 586-3305
hsalamanca@ci.milpitas.ca.gov

938

This was published in the Milpitas Post March 11, 2010 and posted to the City's webpage at: http://www.ci.milpitas.ca.gov

CITY OF MILPITAS

455 East Calaveras Boulevard, Milpitas, California 95035-5479 • www.ci.milpitas.ca.gov

March 7, 2011

BAWSCA
155 Bovet Rd., Ste. 302
San Mateo, CA 94404

SUBJECT: NOTICE OF PREPARATION OF URBAN WATER MANAGEMENT PLAN

The Urban Water Management Plan Act (Water Code Section 10610 – 10657) requires the City of Milpitas to update its Urban Water Management Plan. We are reviewing our current Plan, which was last updated in 2005, and will be considering revisions to it. We invite your agency's participation in this process.

We will make any proposed revisions to our Plan available for public review and will hold a public hearing later this year. In the meantime, if you have any questions about our Plan, or the process for updating it, please contact:

Howard Salamanca
City of Milpitas
455 E. Calaveras Blvd., Milpitas, CA 95035
Phone: (408) 586-3348
Fax: (408) 586-3305
hsalamanca@ci.milpitas.ca.gov

Sincerely,

Kathleen Phalen, P.E.
Utility Engineer

CITY OF MILPITAS

455 East Calaveras Boulevard, Milpitas, California 95035-5479 • www.ci.milpitas.ca.gov

March 7, 2011

Santa Clara Valley Water District
Attn: James O'Brien
5750 Almaden Expressway
San Jose, CA 95118

SUBJECT: NOTICE OF PREPARATION OF URBAN WATER MANAGEMENT PLAN

The Urban Water Management Plan Act (Water Code Section 10610 – 10657) requires the City of Milpitas to update its Urban Water Management Plan. We are reviewing our current Plan, which was last updated in 2005, and will be considering revisions to it. We invite your agency's participation in this process.

We will make any proposed revisions to our Plan available for public review and will hold a public hearing later this year. In the meantime, if you have any questions about our Plan, or the process for updating it, please contact:

Howard Salamanca
City of Milpitas
455 E. Calaveras Blvd., Milpitas, CA 95035
Phone: (408) 586-3348
Fax: (408) 586-3305
hsalamanca@ci.milpitas.ca.gov

Sincerely,

Kathleen Phalen

Kathleen Phalen, P.E.
Utility Engineer

CITY OF MILPITAS

455 East Calaveras Boulevard, Milpitas, California 95035-5479 • www.ci.milpitas.ca.gov

March 7, 2011

San Francisco Public Utilities Commission
Attn: Paula Kehoe
1155 Market St.
San Francisco, CA 94103

SUBJECT: NOTICE OF PREPARATION OF URBAN WATER MANAGEMENT PLAN

The Urban Water Management Plan Act (Water Code Section 10610 – 10657) requires the City of Milpitas to update its Urban Water Management Plan. We are reviewing our current Plan, which was last updated in 2005, and will be considering revisions to it. We invite your agency's participation in this process.

We will make any proposed revisions to our Plan available for public review and will hold a public hearing later this year. In the meantime, if you have any questions about our Plan, or the process for updating it, please contact:

Howard Salamanca
City of Milpitas
455 E. Calaveras Blvd., Milpitas, CA 95035
Phone: (408) 586-3348
Fax: (408) 586-3305
hsalamanca@ci.milpitas.ca.gov

Sincerely,

Kathleen Phalen

Kathleen Phalen, P.E.
Utility Engineer

CITY OF MILPITAS

455 East Calaveras Boulevard, Milpitas, California 95035-5479 • www.ci.milpitas.ca.gov

To Whom It May Concern:

SUBJECT: NOTICE OF PREPARATION OF URBAN WATER MANAGEMENT PLAN

The Urban Water Management Plan Act (Water Code Section 10610 – 10657) requires the City of Milpitas to update its Urban Water Management Plan. We are reviewing our current Plan, which was last updated in 2005, and will be considering revisions to it. We invite your agency's participation in this process.

We will make any proposed revisions to our Plan available for public review and will hold a public hearing later this year. In the meantime, if you have any questions about our Plan, or the process for updating it, please contact:

Howard Salamanca
City of Milpitas
455 E. Calaveras Blvd., Milpitas, CA 95035
Phone: (408) 586-3348
Fax: (408) 586-3305
hsalamanca@ci.milpitas.ca.gov

Sincerely,

Kathleen Phalen, P.E.
Utility Engineer

CITY OF MILPITAS
NOTICE OF PUBLIC HEARING FOR
UPDATE OF 2010 URBAN WATER MANAGEMENT PLAN (UWMP) &
COMPLIANCE WITH CALIFORNIA'S WATER CONSERVATION ACT OF 2009 (SBX7-7)

NOTICE IS HEREBY GIVEN that the Milpitas City Council will hold a public hearing on Tuesday, June 7, 2011, starting at or soon after 7:00 p.m. in the Council Chambers of the Milpitas City Hall located at 455 E. Calaveras Blvd., Milpitas; first to receive public comment regarding the City's implementation of SBx7-7, obtain community input and consider the economic impacts, if any; and second, to receive public comment for adoption of the 2010 UWMP.

The draft UWMP is available for public review and comment through the end of the public hearing described above. A copy of the draft UWMP is available for viewing at the City Hall front desk, and is also accessible on the City's website:

http://www.ci.milpitas.ca.gov/government/pworks/water_management.asp

NOTICE IS FURTHER GIVEN, pursuant to CA Government Code §65009, that any challenge of these topics in court may be limited to issues raised at the public hearing described in this notice, or in written correspondence delivered to the City Council at or prior to the hearing.

INTERESTED PERSONS MAY appear and be heard at the public hearing, or may provide written comments to the City Council, via the City Clerk. The City encourages the active involvement of the diverse social, cultural and economic elements of the population within the service area. Written comments may be mailed to the City Clerk, City of Milpitas, 455 E. Calaveras Boulevard, Milpitas, CA 95035: delivered to the Information Desk on the first floor of City Hall: sent by fax to 408-586-3030; or e-mailed to: mlavelle@ci.milpitas.ca.gov.

Mary Lavelle

City Clerk

May 20 and 27, 2011 publication date

Appendix B

Council Resolution Adopting 2010 UWMP

APPENDIX C

SFPUC Letter

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

1155 Market St., 11th Floor, San Francisco, CA 94103 • Tel. (415) 554-3155 • Fax (415) 554-3161 • TTY (415) 554.3488

WATER
WASTEWATER
POWER

GAVIN NEWSOM
MAYOR

F.X. CROWLEY
PRESIDENT

FRANCESCA VIETOR
VICE PRESIDENT

ANN MOLLER CAEN
COMMISSIONER

JULIET ELLIS
COMMISSIONER

ANSON B. MORAN
COMMISSIONER

ED HARRINGTON
GENERAL MANAGER

February 22, 2010

Nicole Sandkulla
Senior Water Resources Engineer
Bay Area Water Supply and Conservation Agency
155 Bovet Road, Suite 302
San Mateo, CA 94402

Dear Nicole,

Attached please find the information you requested on the Regional Water System's supply reliability for use in the Wholesale Customer's 2010 Urban Water Management Plan updates. The SFPUC has assessed the water supply reliability under the following planning scenarios:

- Projected Single dry-year supply for 2010
- Projected Multiple dry-year supply beginning 2010; and
- Projected supply reliability for years 2010-2030.

Table 1 summarizes deliveries to the Wholesale Customers for projected single dry-year supply for 2010 and projected multiple dry-year supply beginning 2010.

With regards to future demands, the SFPUC proposes to expand their water supply portfolio by increasing the types of water supply resources. Table 2 summarizes the water supply resources assumed to be available by 2030.

Concerning allocation of supply during dry years, the Water Shortage Allocation Plan ("Plan") was utilized to allocate shortages between the SFPUC and the Wholesale Customers collectively. The Plan implements a method for allocating water among the individual Wholesale Customers which has been adopted by the Wholesale Customers. The Plan was adopted pursuant to Section 7.03(a) of the 1984 Settlement Agreement and Master Water Sales Contract and has been updated to correspond to the terminology used in the June 2009 Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County.

Finally, the SFPUC estimated the frequency and severity of anticipated shortages for the period 2010 though 2030. For this analysis, we assumed that the historical hydrologic period is indicative of future events and evaluated the supply reliability assuming a repeat of the actual historic hydrologic period 1920 through 2002. The results of this analysis are summarized in Table 3.

It is our understanding that you will pass this information on to the Wholesale Customers. If you have any questions or need additional information, please do not hesitate to contact me at (415) 554-0792.

Sincerely,

Paula Kehoe

Paula Kehoe
Director of Water Resources

Table 1
Projected Deliveries for Three Multiple Dry Years

	Purchase Request Year 2010 mgd	One Critical Dry Year	Current Deliveries during Multiple Dry Years in mgd		
			Year 1	Year 2	Year 3
System-Wide Shortage in Percent	0%	10%	10%	20%	20%
Wholesale Allocation mgd	184.0	152.6	152.6	132.5	132.5

Table 2

UWMP Studies: Water Supply Reliability
Water Supply Options for Years 2010 through 2030

	2010	2015	2020	2025	2030
Crystal Springs Reservoir (22.28bg)		x	x	x	x
Westside Basin Groundwater afa		8,100	8,100	8,100	8,100
Calaveras Reservoir Recov(31.5 bg)		x	x	x	x
Districts' Transfer afa		2240	2240	2240	2240

Table 3: Projected System Supply Reliability Based on Historical Hydrologic Period

Allocation by Year	Wholesale Demand in mgd				
	184.0	184.0	184.0	184.0	184.0
	Projected Wholesale Allocation in mgd				
Delivery for Fiscal Year	**2010**	**2015**	**2020**	**2025**	**2030**
1920	184.0	184.0	184.0	184.0	184.0
1921	184.0	184.0	184.0	184.0	184.0
1922	184.0	184.0	184.0	184.0	184.0
1923	184.0	184.0	184.0	184.0	184.0
1924	184.0	184.0	184.0	184.0	184.0
1925	154.6	184.0	184.0	184.0	184.0
1926	184.0	184.0	184.0	184.0	184.0
1927	184.0	184.0	184.0	184.0	184.0
1928	184.0	184.0	184.0	184.0	184.0
1929	184.0	184.0	184.0	184.0	184.0
1930	184.0	184.0	184.0	184.0	184.0
1931	184.0	184.0	184.0	184.0	184.0
1932	132.5	152.6	152.6	152.6	152.6
1933	184.0	184.0	184.0	184.0	184.0
1934	184.0	184.0	184.0	184.0	184.0
1935	154.6	184.0	184.0	184.0	184.0
1936	184.0	184.0	184.0	184.0	184.0
1937	184.0	184.0	184.0	184.0	184.0
1938	184.0	184.0	184.0	184.0	184.0
1939	184.0	184.0	184.0	184.0	184.0
1940	184.0	184.0	184.0	184.0	184.0
1941	184.0	184.0	184.0	184.0	184.0
1942	184.0	184.0	184.0	184.0	184.0
1943	184.0	184.0	184.0	184.0	184.0
1944	184.0	184.0	184.0	184.0	184.0
1945	184.0	184.0	184.0	184.0	184.0
1946	184.0	184.0	184.0	184.0	184.0
1947	184.0	184.0	184.0	184.0	184.0
1948	184.0	184.0	184.0	184.0	184.0
1949	184.0	184.0	184.0	184.0	184.0
1950	184.0	184.0	184.0	184.0	184.0
1951	184.0	184.0	184.0	184.0	184.0
1952	184.0	184.0	184.0	184.0	184.0
1953	184.0	184.0	184.0	184.0	184.0
1954	184.0	184.0	184.0	184.0	184.0
1955	184.0	184.0	184.0	184.0	184.0
1956	184.0	184.0	184.0	184.0	184.0
1957	184.0	184.0	184.0	184.0	184.0
1958	184.0	184.0	184.0	184.0	184.0
1959	184.0	184.0	184.0	184.0	184.0

Delivery for Fiscal Year	2010	2015	2020	2025	2030
1960	184.0	184.0	184.0	184.0	184.0
1961	152.6	184.0	184.0	184.0	184.0
1962	132.5	152.6	152.6	152.6	152.6
1963	184.0	184.0	184.0	184.0	184.0
1964	184.0	184.0	184.0	184.0	184.0
1965	184.0	184.0	184.0	184.0	184.0
1966	184.0	184.0	184.0	184.0	184.0
1967	184.0	184.0	184.0	184.0	184.0
1968	184.0	184.0	184.0	184.0	184.0
1969	184.0	184.0	184.0	184.0	184.0
1970	184.0	184.0	184.0	184.0	184.0
1971	184.0	184.0	184.0	184.0	184.0
1972	184.0	184.0	184.0	184.0	184.0
1973	184.0	184.0	184.0	184.0	184.0
1974	184.0	184.0	184.0	184.0	184.0
1975	184.0	184.0	184.0	184.0	184.0
1976	184.0	184.0	184.0	184.0	184.0
1977	152.6	184.0	184.0	184.0	184.0
1978	136.2	152.6	152.6	152.6	152.6
1979	184.0	184.0	184.0	184.0	184.0
1980	184.0	184.0	184.0	184.0	184.0
1981	184.0	184.0	184.0	184.0	184.0
1982	184.0	184.0	184.0	184.0	184.0
1983	184.0	184.0	184.0	184.0	184.0
1984	184.0	184.0	184.0	184.0	184.0
1985	184.0	184.0	184.0	184.0	184.0
1986	184.0	184.0	184.0	184.0	184.0
1987	184.0	184.0	184.0	184.0	184.0
1988	152.6	184.0	184.0	184.0	184.0
1989	132.5	152.6	152.6	152.6	152.6
1990	132.5	152.6	152.6	152.6	152.6
1991	132.5	132.5	132.5	132.5	132.5
1992	132.5	152.6	152.6	152.6	152.6
1993	136.2	132.5	132.5	132.5	132.5
1994	184.0	184.0	184.0	184.0	184.0
1995	154.6	184.0	184.0	184.0	184.0
1996	184.0	184.0	184.0	184.0	184.0
1997	184.0	184.0	184.0	184.0	184.0
1998	184.0	184.0	184.0	184.0	184.0
1999	184.0	184.0	184.0	184.0	184.0
2000	184.0	184.0	184.0	184.0	184.0
2001	184.0	184.0	184.0	184.0	184.0
2002	184.0	184.0	184.0	184.0	184.0

APPENDIX D

Public Hearing Notice (Sample) for a Water Shortage Emergency
City of Milpitas

NOTICE IS HEREBY GIVEN that the Milpitas City Council has set the hour of 7:00 p.m. on (date) in the City Hall Council Chambers, 455 East Calaveras Boulevard, to consider a mandatory water rationing program to be imposed upon residents and businesses within the City. The program will establish water rates and use guidelines in response to water reductions imposed upon the City of Milpitas due to the drought.

NOTICE IS FURTHER GIVEN, pursuant to Government Code Section 65009, that any challenge of this matter in court may be limited to raising only those issues raised by you or on your behalf at the public hearing described in this notice, or in a written correspondence delivered to the Council at or prior to this hearing.

Individuals who wish to comment on these recommendations are encouraged to attend or may submit written communications to the Council prior to the hearing. Said comments should be mailed to: City of Milpitas, 455 E. Calaveras Blvd., Milpitas, CA 95035.

APPENDIX E

1992 Water Shortage Emergency Rate Ordinance 195.13

URGENCY

NUMBER: 195.13

TITLE: AN ORDINANCE OF THE CITY OF MILPITAS REPEALING AND REPLACING CHAPTER 4, TITLE VII OF THE MILPITAS MUNICIPAL CODE RELATING TO NON-ESSENTIAL USES OF WATER

HISTORY: This ordinance was introduced as an emergency measure at a meeting of the City Council of the City of Milpitas on May 19, 1992, upon motion of Councilmember Skyrud, passed and adopted by the following vote:

AYES: (4) Mayor McHugh and Councilmembers Lee, Livengood and Skyrud

NOES: (0) None

ABSENT: (1) Lawson

ABSTAIN: (0) None

ATTEST:

Gail Blalock, City Clerk

APPROVED:

Peter A. McHugh, Mayor

APPROVED AS TO FORM:

Sandra S. Faithfull, City Attorney

ORDAINING CLAUSE:

THE CITY COUNCIL OF THE CITY OF MILPITAS DOES ORDAIN AS FOLLOWS:

SECTION 1. URGENCY FINDINGS AND DETERMINATIONS

VII-4-1.00 The City Council of the City of Milpitas hereby finds and determines that:

A. The San Francisco Public Utilities Commission, on May 8, 1990, declared a Water Shortage Emergency and adopted a Water Conservation Program.

B. A water shortage emergency condition continues to prevail within the area served by the City of Milpitas.

C. The San Francisco Water Department (SFWD), at the direction of the San Francisco Public Utilities Commission, requires that all resale customers, including the City of Milpitas, have a water conservation program designed to reduce the amount of water purchased. The SFWD has determined monthly allotments of water for the City.

D. The rules, regulations and restrictions as set forth in this Chapter are intended to conserve the water supply of the City of Milpitas for the greatest public benefit with particular regard to domestic use, sanitation and fire protection.

E. The specific uses prohibited or restricted by this Chapter are non-essential, if allowed, would constitute wastage of City water, and should be prohibited pursuant to the City's power under Water Code Section 350 et seq., Water Code Section 31026 et seq., and other applicable laws.

F. The San Francisco Public Utilities Commission, on May 8, 1990, adopted a schedule of excess use charges that apply to wholesale customers exceeding their allotments of water.

G. The actions taken hereinafter are exempt from the provisions of Section 21000 et seq. of the Public Resources Code as a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Code of Regulations Section 15071.

SECTION 2. DEFINITIONS

VII-4-2.01 "Person" means any individual, firm, partnership, association, corporation, trust, governmental body or other organization or entity.

VII-4-2.02 "Customer" means any person, whether within or without the geographic boundaries of the City of Milpitas who uses water supplied by the City of Milpitas.

VII-4-2.03 "Winter usage" shall mean the average of the units of water for meters read in January, February, March and December, 1987.

VII-4-2.04 "Non-winter usage" shall mean the units of water used in each billing period for meters read in April through November, 1987, less the winter usage.

VII-4-2.05 "Unit of water" is 100 cubic feet of water.

VII-4-2.06 "Water" is water sold by the City of Milpitas.

VII-4-2.07 "Regular charge" is the quantity charge described in Section VIII-1-6.13 (a) and (b).

VII-4-2.08 "Banking" means the crediting to a water account of the difference between the actual units of water used and the account's water allotment in each bimonthly billing period when the usage is less than the allotment.

VII-4-2.09 "New allotments" shall mean newly opened residential accounts and any change to any existing allotments.

SECTION 3. PROHIBITION OF NON-ESSENTIAL WATER USE

VII-4-3.00 It shall be unlawful for any person to use water obtained from the water system of the City of Milpitas for non-essential uses as hereinafter defined.

SECTION 4. NON-ESSENTIAL USES DEFINED

VII-4-4.00 The following uses of water are hereby determined to be non-essential, except as further provided herein:

VII-4-4.01 Use of water in excess of the following allotment:

For each billing period and for each account, the sum of 90 percent of that account's winter usage and 40 percent of that account's non-winter usage; except that for irrigation accounts, the allotment shall be 40 percent of the usage in the corresponding 1987 billing period.

Any additional charge for excess use shall not apply to any residential customer whose consumption is less than twenty-one (21) units per each two month billing period nor shall it apply to any commercial, industrial, or institutional customer whose consumption is less than eleven (11) units per each two-month billing period. (Twenty (20) units are equal to 14,960 gallons for the two-month billing period, or approximately 245 gallons per day. Ten (10) units are equal to 7,480 gallons for the two-month billing period, or approximately 121 gallons per day.)

VII-4-4.02 Subject to the provisions of VII-4-7.03, use of water through any meter when the customer has been given 10 days written notice to repair broken or defective plumbing, sprinkler, watering or irrigation systems and has failed to effect such repairs.

VII-4-4.03 Use of water which includes, but is not limited to, flooding or runoff in gutters or streets.

VII-4-4.04 Use of water for washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas.

VII-4-4.05 Use of water for washing cars, boats, trailers, or other vehicles unless hoses have positive shut-off valves.

VII-4-4.06 Use of water for the initial filling of any swimming or other pool for which a building permit was issued after June 1, 1990, or refilling of an existing swimming or other pool (provided nothing herein contained shall prohibit the replacement in reasonable quantities of evaporated water necessary to maintain the customary water level for said pool or to repair said pool).

VII-4-4.07 Service of water by restaurants except upon the request of a customer.

VII-4-4.08 Use of water for cooling where less than fifty percent is recycled.

VII-4-4.09 Use of water to clean, fill or maintain levels in decorative fountains.

VII-4-4.10 Use of water for new landscaping or expansion of existing facilities unless low water use landscaping designs and irrigation systems are employed.

VII-4-4.11 Water service connections for new construction unless water saving devices are incorporated in interior plumbing fixtures and landscaping is kept to a minimum and installed as in VII-4-4.10 above.

VII-4-4.12 Use of water for construction purposes such as consolidation of backfill and dust control unless no other source of water or other method can be used (and then only on written approval of the appropriate departments of the City). Water may be used for new water line chlorination and cleaning, mixing of concrete and other building materials, and for all purposes where applicable codes require the use of potable water.

SECTION 5. BANKING OF UNUSED WATER

VII-4-5.00 Banking of unused units of water earned during any prior bimonthly billing period will be applied to that water account's future allotments. The unused units of water will only be applied to subsequent bimonthly billing periods.

With the exception of single family residential accounts being transferred from one address to another by the same owner, the water units credited to a water account are not transferable to another water account.

Banking for new allotments will begin within the billing period for which the City receives submittal of all information by the customer needed to compute the allotment.

SECTION 6. EXCEPTIONS

VII-4-6.00 Written application for an exception or adjustment may be made to the City Manager. The City Manager may designate a City employee to consider exceptions or adjustments. The decision of the City Manager, or his designee, may be appealed to the City Council under the provisions of Section 5, Chapter 20, Title I of the Milpitas Municipal Code. No appeal to the Council, however, shall stay any order of decision of the City Manager, or his designee.

VII-4-6.01 The City Council may (1) grant permits for the uses of water otherwise prohibited in Section VII-4-4.00 or (2) adjust the allotments if it finds that (a) to fail to do so would cause an emergency condition adversely affecting the health, sanitation, fire protection, or safety of the customer or the public and (b) the customer has adopted all practicable water conservation measures, or (c) particular circumstances exist which impose a hardship upon said customer.

SECTION 7. ENFORCEMENT

VII-4-7.01 Installation of Flow-Restricting Devices or Discontinuance of Service

The City may, after notice and hearing, install a flow-restricting device on the service line of any customer or discontinue service to any customer violating any of the provisions of this Chapter, including use of water in excess of the allotments set out in Section VII-4-4.01.

VII-4-7.02 Charges for installation of flow-restricting devices and restoration of device

Meter Size	Installation Charge	Removal Charge
5/8" to 1"	$40.00	$40.00
1-1/2" to 2"	$85.00	$85.00
3" and larger	Actual Cost*	Actual Cost*

* Actual cost shall include all material, labor, equipment and overhead charges. If service is discontinued, a charge of $25.00 (in addition to any other charges authorized herein) shall be paid prior to reactivating service.

VII-4-7.03 Notice and Hearing

No flow-restricting device shall be installed nor shall any service be discontinued under the provisions of Section VII-4-7.01 until the customer has been given notice to show cause at a hearing before the City Council at a time not less than forty-eight hours from the giving of said notice why said action should not be taken. The City Council shall not be required to continue said hearing (since the protection of the water supply and the needs of the community must take precedence in this emergency situation). The customer shall be entitled to present his evidence at said hearing, but the City Council may impose reasonable limits upon the length thereof. At the conclusion of said hearing (or following the time set for said hearing in the event said customer fails to appear), the City Council shall be empowered to order the installation of the flow-restricting device or the discontinuance of service forthwith or upon such condition or conditions as they, in their discretion, determine necessary or to discharge said notice to show cause.

VII-4-7.04 Service of Notice

Notice of the order show cause hereinabove provided shall be made by:

A. Delivery to the customer of a copy of said notice, or

B. In lieu of personal delivery, by the following:

(1) Mailing a copy of said notice via Certified Mail to the customer at his place of residence or employment (as the same may be shown upon City records) and in care of the premises to be affected by said order, and

(2) By posting in some conspicuous place a copy of said notice on the premises to be affected by said order, and

(3) By leaving a copy of said order with any person present (if there be a person present at the time of service) at the premises to be affected by said order; if there is no person present at said time, this requirement need not be met.

VII-4-7.05 Emergency Suspension

In the event of an emergency involving broken or defective plumbing, sprinkler, watering or irrigation systems where in the opinion of the Community Development Manager water is being or will be wasted or lost in considerable quantity, City shall be empowered to immediately suspend water service without notice or hearing to any customer pending repairs. The Community Development Manager shall attempt to give oral notice to the customer or customers affected as soon as practical. Subject to other provisions of this Chapter, service shall be restored as soon as practical. The provisions of this Section shall be without limitations to any other provisions of this Chapter or law.

VII-4-7.06 Unlawful to Violate Chapter

It shall be unlawful to violate any provision of this Chapter. Violation thereof shall constitute a misdemeanor in accordance with the provisions of Chapter 1, Title I of the Milpitas Municipal Code. All remedies hereunder shall be cumulative and in addition to such other remedies as the law allows.

SECTION 8. EXCESS WATER USE CHARGE

VII-4-8.00 An excess use charge for all water used in excess of the applicable allotment, during each billing period, shall be levied in addition to the quantity charge in accordance with the following schedule:

VII-4-8.01 Applicable to all non-irrigation customers as follows:

Excess Water Use	For water used in excess of allotment the Excess Use Charge will be
0 to 10% over allotment	.75 times quantity charge
10.01 - 20% over allotment	1.50 times quantity charge
more than 20% over allotment	2.00 times quantity charge

VII-4-8.02 Applicable to all irrigation customers as follows:

Excess Water Use	For water used in excess of allotment the Excess Use Charge will be
0 to 10% over allotment	1.5 times quantity charge
10.01 - 20% over allotment	3.0 times quantity charge
more than 20% over allotment	4.0 times quantity charge

SECTION 9. EFFECTIVE DATE

VII-4-9.00 This Chapter shall take effect upon adoption and shall remain in effect until revoked.

CD/5791/V

APPENDIX F

Sample Water Shortage Emergency Restrictions Ordinance

URGENCY

NUMBER: _____

TITLE: **AN ORDINANCE OF THE CITY OF MILPITAS ADDING SECTIONS 5, 6, AND 7, CHAPTER 6, TITLE VIII OF THE MILPITAS MUNICIPAL CODE, RELATING TO SUPPLEMENTAL WATER USE RESTRICTIONS, EFFECTIVE DATE, AND PENALTIES.**

HISTORY: This Ordinance was introduced at a meeting of the City Council of the City of Milpitas on _____, 20___, by motion of Councilmember _____ _____and passed, adopted, and ordered published in accordance with law by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

ATTEST:

_____
City Clerk

APPROVED:

_____
Mayor

APPROVED AS TO FORM:

_____
City Attorney

ORDAINING CLAUSE:
THE CITY COUNCIL OF THE CITY OF MILPITAS DOES ORDAIN AS FOLLOWS:

Addition of Section VIII-6-5. Title VIII, Chapter 6, Section 5 of the Milpitas Municipal Code is hereby added to read as follows:

This ordinance is declared to be an urgency ordinance to take effect immediately. The following is a statement of facts constituting the emergency:

The (City's water wholesaler) on _____, declared a Water Shortage Emergency and adopted a Water Conservation Program.

A Water Shortage Emergency condition prevails within the area served by city of Milpitas.

The (City's water wholesaler), at the direction of the (Commission or Board), requires that all resale customers, including the City of Milpitas, institute a water conservation program designed to reduce the amount of water purchased. The (City's wholesaler) has determined monthly allotments of water for the City.

The (City's water wholesaler), on _____, passed a resolution increasing water rates for the City of Milpitas.

VIII-6-5.00 Supplemental Water Use Restrictions (Select this Section 5 for Stage I Water Conservation Program)

The following additional uses of potable water are prohibited:

Cleaning sidewalks, hard surfaces, etc.
Construction purposes such as dust control and compaction.
Initial filling of any swimming pool or pond (refilling due to evaporation or repairs is acceptable).
Hydrant flushing, except for health and safety.
Street or parking lot cleaning.

VIII-6-5.00 Supplemental Water Use Restrictions (Select this Section 5 for Stage II Water Conservation Program)

The following additional uses of potable water are prohibited:

Cleaning sidewalks, hard surfaces, etc.
Construction purposes such as dust control and compaction.
New swimming pool or pond construction or initial filling of any swimming pool or pond (refilling due to evaporation or repairs is acceptable).
Hydrant flushing, except for health and safety.
Street or parking lot cleaning.
Cleaning, filling, or maintaining levels in decorative fountains.
Potable irrigation of golf courses except greens and tees.

VIII-6-5.00 Supplemental Water Use Restrictions (Select this Section 5 for Stage III Water Conservation Program)

The following additional uses of potable water are prohibited:

Cleaning sidewalks, hard surfaces, etc.
Construction purposes such as dust control and compaction.
New swimming pool or pond construction or initial filling of any swimming pool or pond (refilling due to evaporation or repairs is acceptable).
Hydrant flushing, except for health and safety.
Street or parking lot cleaning.
Cleaning, filling, or maintaining levels in decorative fountains.
Potable irrigation of golf courses except greens and tees.
Washing vehicles outside of a commercial washing facility
Irrigation of median landscape strips
Failure to repair leaks

Addition of Section VIII-6-6. Title VIII, Chapter 6, Section 6 of the Milpitas Municipal Code is hereby added to read as follows:

VIII-6-6.00 Effective Date of Supplemental Water Restrictions

The supplemental water restrictions shall become effective on _____.

Addition of Section VIII-6-7. Title VIII, Chapter 6, Section 7 of the Milpitas Municipal Code is hereby added to read as follows:

VIII-6-7.00 Penalties

Any person or persons, company, corporation or association, who shall violate any of the provisions of this Chapter or fail to comply therewith, or who shall violate or fail to comply with any order made thereunder, shall severally for each and every violation and non-compliance respectively, be guilty of an infraction, punishable in accordance with the provisions of I-1-4.09-1 of the Milpitas Municipal Code. The imposition of one fine for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects within a reasonable time; and when not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense.

APPENDIX G

Rationing Program Options

Water purveyors have tried various methods to get customers to cut usage during drought. All methods have pros and cons and have varying customer acceptance and effectiveness. When drought conditions develop that require usage reduction, the City will consider the circumstances and public input, and then expects to implement one or more of the following methods:

Inverted Block Rate Structure

This system does not assign allotments for each customer. Instead, the water rate structure includes several tiers with increasing costs as usage increases. The lowest tier would cost the least. As customers consume larger quantities of water, they would pay more for each unit of water used in succeeding tiers.

Pros	Cons
The customer can control costs by controlling water usage.	Some customers will not conserve as they are willing to pay the higher prices.
Allotments are not required. This also eliminates receiving, reviewing, and revising customer allotments.	May penalize high water users such as industries and institutions.
Can be implemented quickly.	Difficult to accurately predict revenues initially.
	May penalize large families who require higher water needs.
	Difficult to establish appropriate tiers for varying commercial such as bookstore versus restaurant.

Per Household

This system assigns identical allotments to each customer in a specific user group. For example, all residential customers would receive the same allotment, regardless of household size and outside water needs.

Pros	Cons
A census would not be required.	Variations in household size are not taken into account.
Can be implemented quickly.	Outside water needs are not taken into account.
	Commercial, industrial, institutional/governmental and irrigation customers have unique needs.

Per Household and Irrigation

This system assigns identical allotments to each customer in a specific user group and includes an additional amount for customers with outside water use.

Pros	Cons
A census would not be required.	Variations in household size are not taken into account.
Can be implemented quickly.	A fixed amount is given for outside needs. However, variations in these needs are not taken into account.
	Commercial, industrial, institutional/governmental and irrigation customers are not taken into account.

Per Capita

This system allows for a set volume of water for each person in the residential sector. Allotments can be increased for additional temporary or permanent visitors.

Pros	Cons
Customers may perceive this to be a fair system.	Allotment does not take into account variations in outside water needs.
Allotments are based on needs, not past water usage habits.	Does not provide allotments for commercial, industrial, institutional/governmental, and irrigation customers.
Some allotments will increase (compared to Percent of Use method).	A census will be required to determine household size. Customer honesty cannot be verified. This would require significant lead time to implement.
Allotments are based on current household sizes.	Some allotments will decrease (compared to Percent of Use method).
Results in a minimum number of residential exceptions.	Allotments are not automatically reduced when household size decreases.
	Does not consider individual needs.
	Single family homes with excessive outside consumption would be penalized.

Water Use Allocation (Water Budget)

This method allows customers to develop their individual water budget based on household size, are of outdoor water use (landscaping and pools/spas), and other factors. Customers may compute an online survey, or accept default values. This system provides a specific allotment for each person in the residential sector and includes an additional amount for outside water use. As in the per capita method, allotments can be increased for additional temporary or permanent visitors.

Pros	Cons
Customers may perceive this to be a fair system.	Variations in lot sizes are not taken into account.
Allotment includes some landscaping water.	Does not provide allotments for commercial, industrial, institutional/governmental, and irrigation customers.
Allotments are based on needs, not past water usage habits.	A census will be required to determine household size. Customer honesty cannot be verified. This would require significant lead time to implement.

Percent of Use with Exceptions Allowed

The allotment is based on a specified percentage of a previous year's usage. Allotments can be increased for documented changes such as absence during the base year, increased household size (both temporary and permanent), new landscaping, new appliances, pools, and growth in the non-residential sectors.

Pros	Cons
The majority of the allotments can be computer generated from the existing water usage database, allowing for a quick implementation.	Neighbors with identical lot size and family size can have greatly differing allotments, resulting in perceived unfairness.
Customers that require or use larger amounts of water receive larger allotments than those who use less water.	Customer who wasted water in the base year will receive larger allotments than those who did not waste water.
A population census is not required.	Does not provide allotments for customers who established accounts after the base year.
This method was implemented during the City's mandatory rationing of 1988-89 and 1990-93. City staff and water customers are familiar with the process.	Does not always provide adequate allotments for those customers who moved during the base year.
A "floor" (minimum allotment) can be established to serve as a lifeline.	This method was used during the 1988-89 and 1990-93 mandatory rationing periods. The exception process for requesting allotment increases was very labor intensive.
Can consider differences in lot sizes, number in households, and landscape sizes.	Allotment is not automatically reduced when household size is reduced.

APPENDIX H

SFPUC Two Tier Allocations

TABLE 3 - CALCULATION OF FINAL PURCHASE CUTBACK AND ALLOCATION FACTOR FOR TIER 2 DROUGHT IMPLEMENTATION PLAN (DRIP)

Overall Average Wholesale
Customer Reduction: 26.84%
Reduction from purchases in: FY 08-09

Base = 10.00%
Seasonal = 65.00%

Weighted average for Column 10:
0.33 =ISG component (Col. 2)
0.67 =Base/Seas component (Col. 9)

Variable component - Base/Seasonal Allocation (with ISG cap)
Minimum (Column 19) = 10.00%
Ceiling (Col. 21) = avg. cutback + 20.00%

Minimum residential per capita use threshold (Column 29) =
55.00 gpcpd

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Agency Information		Initial Allocations Based on Weighted Fixed (ISG) and Variable (Base/Seasonal) Components Adjusting for SJ/SC												
			Base/Seasonal Allocations				1st SJ/SC Adjustment		Weighted Allocation				2nd SJ/SC Adjustment		
Wholesale Customers	FY 08-09 SFPUC Purchases	Fixed Comp.	Lesser of Purchase or ISG	Base/ Seasonal Allocation Cutback	Base/ Seasonal Allocation	Base/ Seasonal Purchase Cutback	Subtotal Allocation Factors	Adjusted Base/Seasonal Allocation	Weighted ISG-Base/ Seasonal Avg	Allocation Factors	Weighted Shortage Allocation	Weighted Purchase Cutback	Subtotal Allocation Factors	Adjusted Weighted Shortage Allocation	Adjusted Weighted Purchase Cutback
ACWD	11.24	13.76	11.24	-26.83%	8.22	-26.83%	7.19%	8.35	10.14	7.00%	8.37	-25.55%	7.26%	8.43	-24.59%
Brisbane/GVMID	0.62	0.98	0.62	-28.53%	0.44	-28.53%	0.39%	0.45	0.62	0.43%	0.52	-16.72%	0.45%	0.52	-16.10%
Burlingame	4.28	5.23	4.28	-25.29%	3.20	-25.29%	2.79%	3.25	3.90	2.70%	3.22	-24.70%	2.80%	3.24	-24.13%
Coastside	1.97	2.18	1.97	-25.29%	1.47	-25.29%	1.28%	1.49	1.72	1.19%	1.42	-27.83%	1.23%	1.43	-27.29%
CWS Total	35.84	35.68	35.68	-29.00%	25.33	-29.31%	22.15%	25.73	29.01	20.05%	23.95	-33.17%	20.79%	24.13	-32.67%
Daly City	4.10	4.29	4.10	-13.44%	3.55	-13.44%	3.11%	3.61	3.83	2.65%	3.16	-22.90%	2.75%	3.19	-22.32%
East Palo Alto	1.92	1.96	1.92	-22.38%	1.49	-22.38%	1.30%	1.51	1.66	1.15%	1.37	-28.55%	1.19%	1.38	-28.02%
Estero	5.14	5.90	5.14	-31.61%	3.52	-31.61%	3.08%	3.57	4.34	3.00%	3.58	-30.34%	3.11%	3.61	-29.82%
Hayward	18.97	25.11	18.97	-17.31%	15.69	-17.31%	13.72%	15.93	18.96	13.10%	15.65	-17.50%	13.59%	15.77	-16.88%
Hillsborough	3.68	4.09	3.68	-42.62%	2.11	-42.62%	1.85%	2.14	2.79	1.93%	2.30	-37.47%	2.00%	2.32	-37.01%
Menlo Park	3.34	4.46	3.34	-33.40%	2.23	-33.40%	1.95%	2.26	2.99	2.06%	2.47	-26.25%	2.14%	2.48	-25.69%
Mid Pen WD	3.16	3.89	3.16	-27.30%	2.30	-27.30%	2.01%	2.33	2.85	1.97%	2.35	-25.64%	2.04%	2.37	-25.08%
Millbrae	2.39	3.15	2.39	-24.36%	1.81	-24.36%	1.58%	1.84	2.27	1.57%	1.88	-21.65%	1.63%	1.89	-21.06%
Milpitas	6.91	9.23	6.91	-20.83%	5.47	-20.83%	4.79%	5.56	6.77	4.68%	5.59	-19.16%	4.85%	5.63	-18.56%
Mountain View	9.81	13.46	9.81	-27.98%	7.07	-27.98%	6.18%	7.18	9.25	6.39%	7.64	-22.19%	6.63%	7.69	-21.61%
North Coast	3.05	3.84	3.05	-21.34%	2.40	-21.34%	2.10%	2.43	2.90	2.00%	2.39	-21.50%	2.08%	2.41	-20.91%
Palo Alto	11.63	17.07	11.63	-34.49%	7.62	-34.49%	6.66%	7.74	10.82	7.48%	8.93	-23.23%	7.75%	9.00	-22.65%
Purissima Hills	2.01	1.62	1.62	-42.43%	0.94	-53.47%	0.82%	0.95	1.17	0.81%	0.97	-51.85%	0.84%	0.98	-51.49%
Redwood City	10.35	10.93	10.35	-28.65%	7.38	-28.65%	6.45%	7.50	8.63	5.96%	7.12	-31.15%	6.18%	7.18	-30.63%
San Bruno	1.94	3.25	1.94	-18.01%	1.59	-18.01%	1.39%	1.62	2.15	1.49%	1.78	-8.42%	1.54%	1.79	-7.74%
Stanford	2.27	3.03	2.27	-21.33%	1.78	-21.33%	1.56%	1.81	2.22	1.53%	1.83	-19.39%	1.59%	1.84	-18.79%
Sunnyvale	10.62	12.58	10.62	-25.20%	7.94	-25.20%	6.95%	8.07	9.56	6.60%	7.89	-25.72%	6.85%	7.95	-25.16%
Westborough	0.95	1.32	0.95	-13.97%	0.82	-13.97%	0.72%	0.83	0.99	0.69%	0.82	-13.86%	0.71%	0.82	-13.21%
Subtotal	156.19		156.19	-26.18%	114.37	-26.78%	100.00%	116.16	139.55		115.18	-26.26%	100.00%	116.05	-25.70%
San José	4.46	4.50	4.46	-30.84%	3.08	-30.84%		2.07	2.87	1.99%	2.37	-46.78%		2.15	-51.85%
Santa Clara	2.64	4.50	2.64	-23.65%	2.01	-23.65%		1.23	2.31	1.59%	1.90	-27.78%		1.27	-51.85%
Total	163.29		163.29	-26.33%	119.46	-26.84%		119.46	144.73	100.00%	119.46	-26.84%		119.46	-26.84%

	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
	Adjustment for Minimum and Maximum Cutbacks														
	Minimum Cutback Adj.		Maximum Cutback Adjustment						Adjustment for East Palo Alto						
Wholesale Customers	Adjusted for 10.00% Minimum Cutback	Add'l Cutback for Hardship Bank	Adjusted for 46.84% Maximum Cutback	Cutback Over Cap	Allocations Adjusted For Cap	Agencies To Which Cutback Over Cap Is Redistributed	Min/Max Adjusted Allocation	Adj. Min/Max Purchase Cutbacks	FY 08-09 Residential Per Capita	Agencies To Which EPA Adjustment Applies	Share of EPA Adjustment	Allocations With EPA Adjustments	Final Purchase Cutback		Final Allocation Factor
ACWD	-24.99%		-24.99%		8.43	8.43	8.40	-25.29%	91.40	8.40	-0.019	8.376	-2.860	-25.45%	7.01%
Brisbane/GVMID	-16.10%		-16.10%		0.52	0.52	0.52	-16.43%	62.89	0.52	-0.001	0.516	-0.103	-16.62%	0.43%
Burlingame	-24.13%		-24.13%		3.24	3.24	3.23	-24.43%	89.50	3.23	-0.007	3.224	-1.052	-24.60%	2.70%
Coastside	-27.29%		-27.29%		1.43	1.43	1.42	-27.58%	68.30	1.42	-0.003	1.421	-0.545	-27.74%	1.19%
CWS Total	-32.67%		-32.67%		24.13	24.13	24.03	-32.94%	107.12	24.03	-0.054	23.977	-11.858	-33.09%	20.07%
Daly City	-22.32%		-22.32%		3.19	3.19	3.18	-22.63%	50.00			3.176	-0.929	-22.63%	2.66%
East Palo Alto	-28.02%		-28.02%		1.38	1.38	1.375	-28.30%	45.30		0.241	1.660	-0.257	-13.42%	1.39%
Estero	-29.82%		-29.82%		3.61	3.61	3.60	-30.10%	85.40	3.60	-0.008	3.588	-1.556	-30.26%	3.00%
Hayward	-16.88%		-16.88%		15.77	15.77	15.71	-17.21%	64.00	15.71	-0.035	15.670	-3.301	-17.40%	13.12%
Hillsborough	-37.01%		-37.01%		2.32	2.32	2.31	-37.26%	289.50	2.31	-0.005	2.303	-1.375	-37.40%	1.93%
Menlo Park	-25.69%		-25.69%		2.48	2.48	2.47	-25.99%	104.60	2.47	-0.006	2.468	-0.874	-26.16%	2.07%
Mid Pen WD	-25.08%		-25.08%		2.37	2.37	2.36	-25.38%	83.90	2.36	-0.005	2.354	-0.808	-25.55%	1.97%
Millbrae	-21.06%		-21.06%		1.89	1.89	1.88	-21.38%	75.70	1.88	-0.004	1.878	-0.516	-21.55%	1.57%
Milpitas	-18.56%		-18.56%		5.63	5.63	5.61	-18.88%	65.10	5.61	-0.013	5.595	-1.318	-19.06%	4.68%
Mountain View	-21.61%		-21.61%		7.69	7.69	7.66	-21.92%	78.80	7.66	-0.017	7.646	-2.169	-22.10%	6.40%
North Coast	-20.91%		-20.91%		2.41	2.41	2.40	-21.23%	57.10	2.40	-0.005	2.395	-0.652	-21.40%	2.00%
Palo Alto	-22.65%		-22.65%		9.00	9.00	8.96	-22.96%	107.00	8.96	-0.020	8.943	-2.691	-23.13%	7.49%
Purissima Hills	-51.49%		-46.84%	-0.094	1.07		1.07	-46.84%	302.70			1.069	-0.942	-46.84%	0.89%
Redwood City	-30.63%		-30.63%		7.18	7.18	7.15	-30.91%	85.40	7.15	-0.016	7.132	-3.214	-31.06%	5.97%
San Bruno	-10.00%	-0.044	-10.00%		1.75		1.75	-10.00%	66.20			1.748	-0.194	-10.00%	1.46%
Stanford	-18.79%		-18.79%		1.84	1.84	1.83	-19.11%	N/A	1.83	-0.004	1.831	-0.438	-19.29%	1.53%
Sunnyvale	-25.16%		-25.16%		7.95	7.95	7.92	-25.46%	89.20	7.92	-0.018	7.898	-2.721	-25.62%	6.61%
Westborough	-13.21%		-13.21%		0.82	0.82	0.82	-13.56%	48.50			0.822	-0.129	-13.56%	0.69%
Subtotal	-25.70%		-25.70%		116.09	113.28	115.65	-25.96%		107.46		115.689	-40.503	-25.93%	
San José	-51.85%		-46.84%	-0.223	2.37		2.37	-46.84%	63.20			2.370	-2.088	-46.84%	1.98%
Santa Clara	-51.85%		-46.84%	-0.132	1.40		1.40	-46.84%	85.80			1.401	-1.235	-46.84%	1.17%
Total	-26.84%	-0.044	-26.84%	-0.449	119.87	113.28	119.42	-26.87%		107.46	0.000	119.461	-43.826	-26.84%	100.00%

First SJ/SC Adjustment

1. Largest permanent customer cutback: -53.47%
2a. Adjusted SC allocation: 1.23 (Applying largest permanent customer cutback)
2b. Santa Clara adjustment: -0.79 (Difference between initial and adjusted alloc.)
3a. Adjusted SJ allocation: 2.07 (Applying largest permanent customer cutback)
3b. San José adjustment: -1.01 (Difference between initial and adjusted alloc.)
4. Total Adjustment: -1.80 (2b + 3b)

Second SJ/SC Adjustment

1. Largest permanent customer cutba: -51.85%
2a. Adjusted SC allocation: 1.27
2b. Santa Clara adjustment: -0.63
3a. Adjusted SJ allocation: 2.15
3b. San José adjustment: -0.23
4. Total Adjustment: -0.86

All values in MGD unless noted otherwise

Column Notes

Agency Information

(1) SFPUC Purchases: From Tab 1.
(2) Fixed Component: Individual Supply Guarantees for most agencies from Tab 1; 4.5 mgd for SJ & SC; projected 2018 demand before conservation used as surrogate for Hayward

Base/Seasonal Allocations

(3) Lesser of Purchase or ISG: The lesser of column (1) or column (2).
(4) Base/Seasonal Allocation Cutback: From Tab 3, column (17).
(5) Base/Seasonal Allocation: column (3) reduced by the Base/Seasonal cutback in column (4).
(6) Base/Seasonal Purchase Cutback: The change between column (5) and column (1) shown as a percentage.

First San Jose/Santa Clara Adjustment: This adjustment is made so that Santa Clara's and San José's cutbacks are at least as great as the highest cutback by the permanent customers.

(7) Subtotal Allocation Factors: The ratio of each permanent agency's column (5) allocation to the column (5) subtotal.
(8) Adjusted Base/Seasonal Allocation: Redistributes "First SJ/SC Adjustment" line 4 value among the permanent customers based on the proportionate shares in column (8).

Allocations Based on Weighted ISG/Base Seasonal Average

(9) Weighted ISG/Base-Seasonal Avg: 33% of column (2) plus 67% of column (8).
(10) Allocation Factors: Each agency's proportionate share of column (9).
(11) Weighted Shortage Allocation: Column (9) times the available water supply (column (5) total).
(12) Weighted Purchase Cutback: The change between column (11) and column (1) shown as a percentage.

Second San Jose/Santa Clara Adjustment: This adjustment is made so that Santa Clara's and San José's cutbacks are at least as great as the highest cutback by the permanent customers.

(13) Subtotal Allocation Factors: The ratio of each permanent agency's column (11) allocation to the column (11) subtotal.
(14) Adjusted Weighted Shortage Allocation: Redistributes "Second SJ/SC Adjustment" line 4 value among the permanent customers based on the proportionate shares in column (13).

Column Notes

Adjustment for Minimum Cutback: This adjustment forces a 10% minimum cutback with the reallocated water being placed in a hardship bank for later application to East Palo Alto.

(16) Adjusted for 10% Minimum Cutback: Decreases any percentage cutback in column (15) that is less than the minimum 10% floor to equal the 10% floor.
(17) Additional Cutback for Hardship Bank: The difference between column (15) and column (16) times column (1).

Adjustment for Maximum Cutback: This adjustment is made so that the maximum cutback applied to any agency is equal to the Overall Average BAWSCA Reduction + 20%.

(18) Adjusted for Maximum Cutback: Caps the cutbacks in column (18) to no more than 20% more than the average cutback.
(19) Cutback Over Cap: The difference between column (18) and column (15) times column (1).
(20) Allocations Adjusted for Cap: Purchases in column (1) reduced by the cutbacks in column (18).
(21) Agencies to Which Cutback Over Cap is Redistributed: Agencies that are not subject to the minimum or maximum adjustments in columns (17) and (19).
(22) Minimum/Maximum Adjusted Allocation: Redistributes the excess cutback in column (19) by the proportions in column (21) to agencies shown in column (21).
(23) Adjusted Minm/Max Purchase Cutbacks: The change between column (22) and column (1) shown as a percentage.

Adjustment for East Palo Alto (Low Residential Gallons per Capita per Day Adjustment)

(24) Residential Per Capita Usage: From Tab 1.
(25) Agencies To Which EPA Adjustment Applies: Column (22) agency allocations, except those whose GPCD is less than 55 GPCD & those who are impacted by the min./max. cutback .
(26) Share of EPA Adjustment: EPA value equal to difference 50% of the Overall Average Wholesale Customer Reduction and the sum of column (17) total (Hardship Bank value) and EPA allocation in column (22). Indivdiual agency proportionate shares of EPA's adjustment based on column (25).
(27) Allocation with EPA Adjustment: Column (22) plus column (26).

Final Allocations

(28) Final Purchase Cutback: Column (27) minus column (1) expressed as MGD
(29) Final Purchase Cutback: The change between column (31) and column (1) shown as a percentage.
(30) Final Allocation Factor: Each agency's allocation from Column (27) divided by the total water allocated to the wholesale agencies (total in Column (27)), shown as a percentage

APPENDIX I

Water Efficient Landscape Ordinance 238.3

REGULAR

NUMBER: **238.3**

TITLE: **AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MILPITAS ESTABLISHING WATER CONSERVATION IN LANDSCAPING REGULATIONS**

HISTORY: This Ordinance was introduced (first reading) by the City Council at its meeting of June 15, 2010, upon motion by Councilmember Polanski and was adopted (second reading) by the City Council at its meeting of August 3, 2010, upon motion by Councilmember Giordano. The Ordinance was duly passed and ordered published in accordance with law by the following vote:

AYES:	(5)	Mayor Livengood, Vice Mayor McHugh, Councilmembers Giordano, Gomez and Polanski
NOES:	(0)	None
ABSENT:	(0)	None
ABSTAIN:	(0)	None

ATTEST:

Mary Lavelle, City Clerk

APPROVED:

Robert Livengood, Mayor

APPROVED AS TO FORM:

Michael J. Ogaz, City Attorney

RECITALS AND FINDINGS:

WHEREAS, a reliable minimum supply of potable water is essential to the public health, safety and welfare of the people and the economy of the City of Milpitas.

WHEREAS, the California Water Conservation in Landscaping Act, also known as the State Landscape Model Ordinance ("Model Ordinance"), has been implemented by a Statewide Landscape Task Force which was overseen by the California Urban Water Conservation Council. The California Water Conservation in Landscaping Act was amended pursuant to AB 2717 (Chapter 682, Stats. 2004) and AB 1881 (Chapter 559, Stats. 2006).

WHEREAS, AB 1881 requires cities and counties, no later than January 1, 2010, to adopt the updated Model Ordinance or an equivalent document which is "at least as effective as" the Model Ordinance in conserving water. In the event cities and counties do not take such action, the State's Model Ordinance will be deemed to be automatically adopted by statute.

WHEREAS, the City of Milpitas has developed this local Water Conservation in Landscaping Ordinance to meet the requirements and guidelines of the Model Ordinance and to address the unique physical characteristics, including average landscaped areas, within the City of Milpitas' jurisdiction in order to ensure that this Ordinance will be "at least as effective as" the Model Ordinance in conserving water.

WHEREAS, although this Water Conservation in Landscaping Ordinance is more streamlined and simplified than the Model Ordinance, the City Council finds that it is "at least as effective as" the Model Ordinance for the following reasons: (1) this Ordinance applies to more accounts than the Model Ordinance does because it lowers the size threshold for single family and multi-family residences from 5,000 to 2,500 square feet to better reflect the typical landscaped areas located within the City of Milpitas boundaries; (2) this Ordinance includes a default turf restriction of 25% of the irrigated area and requires that at least 80% of the plants in non-turf areas be native plants, low-water using plants, or no-water using plants (unless the applicant elects to perform a water budget); and (3) this Ordinance expands the requirements for dedicated irrigation meters to all accounts with landscaping 2,500 square feet or greater. The Model Ordinance does not contain any such default turf restrictions or specified plant requirements and only requires dedicated irrigation meters on non-residential accounts with landscaping greater than 5,000 square feet.

WHEREAS, although this Water Conservation in Landscaping Ordinance is more streamlined and simplified than the Model Ordinance, the City Council further finds that is it "at least as effective as" the Model Ordinance because this Ordinance includes water budget parameters and values and landscape parameters that are consistent with the Model Ordinance. By using the same water budget parameters as the Model Ordinance (e.g., plant factors, irrigation efficiency), this Ordinance will be as effective as the Model Ordinance in developing water budgets. By using the same landscape parameters as the Model Ordinance for, among other things, slope restrictions and width restrictions for turf, irrigation times, and minimum mulch requirements, this Ordinance will be at least as effective as the Model Ordinance in achieving water savings.

WHEREAS, Article X, Section 2 of the California Constitution and Section 100 of the California Water Code declare that the general welfare requires water resources be put to beneficial use, waste or unreasonable use or unreasonable method of use of water be prevented, and conservation of water be fully exercised with a view to the reasonable and beneficial use thereof.

WHEREAS, the San Francisco Public Utilities Commission has imposed an interim water supply limitation on its wholesale customers, including local water suppliers, until at least 2018.

WHEREAS, current supply and demand projections for the Bay Area Water Supply and Conservation Agency ("BAWSCA") member agencies indicate that, in the absence of increased water conservation, water

demands will exceed available water supplies in 2015 and implementation of water conserving ordinances is one mechanism by which agencies can reduce future water demands and remain within existing supplies.

WHEREAS, the City of Milpitas finds and determines that this Ordinance is consistent with the provisions requiring reductions in outdoor water use for landscaping in the California Green Building Standards Code, as such provisions will be implemented in the coming years. Such requirements include the development of a water budget for landscape irrigation in accordance with methodology outlined in either the Model Ordinance or pursuant to a locally adopted ordinance.

WHEREAS, the State Legislature has identified the provision of a more reliable water supply and the protection, restoration and enhancement of the Delta ecosystem as a high priority for the State. Pursuant to this, in November 2009, the State Legislature passed Senate Bill 7 (7th Extraordinary Session) requiring certain urban water suppliers to reduce per capita urban water use by 20% by the year 2020. Accordingly, the City Council finds that implementation of this Ordinance is consistent with the policies and goals established by the State Legislature in enacting SB 7 (7th Extraordinary Session).

WHEREAS, Article XI, Section 7 of the California Constitution declares that a city or county may make and enforce within its limits all local, policy, sanitary, and other ordinances and regulation not in conflict with general laws.

WHEREAS, the City Council finds and determines that this Ordinance is not subject to the California Environmental Quality Act (Public Resources Code, Section 2100 *et seq.*) ("CEQA") pursuant to Section 15307 (the activity assures the maintenance, restoration, enhancement, or protection of a natural resource) and Section 15378 (b)(2) (the activity is not a project as it involves general policy and procedure making) of the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, since it makes and implements policies and procedures to ensure that water resources are conserved by reducing water consumption through the establishment of a structure for planning, designing, installing, maintaining and managing water-efficient landscapes.

WHEREAS, the adoption and enforcement of this Ordinance is necessary to manage the City of Milpitas' potable water supply in the short and long term and to avoid or minimize the effect of drought and shortage within the City of Milpitas. This Ordinance is essential to ensure a reliable and sustainable minimum supply of water for the public health, safety and welfare.

NOW, THEREFORE, the City Council of the City of Milpitas does ordain as follows:

SECTION 1. RECORD AND BASIS FOR ACTION

The City Council has duly considered the full record before it, which may include, but is not limited to such things as the City staff report, testimony by staff and the public, and other materials and evidence submitted or provided to the City Council. Furthermore, the recitals set forth above are found to be true and correct and are incorporated herein by reference.

SECTION 2. AMENDMENT OF MILPITAS MUNICIPAL CODE CHAPTER 5, TITLE VIII

Chapter 5, Title VIII of the Milpitas Municipal Code is hereby repealed in its entirety and replaced with the text below to read as follows:

CHAPTER 5. WATER EFFICIENT LANDSCAPE ORDINANCE

Section 1 PURPOSE

VIII-5-1.01 The City Council has found:

A. That the limited supply of City waters are subject to ever increasing demands;

B. That the City's economic prosperity depends on adequate supplies of water;

C. That City policy promotes conservation and efficient use of water;

D. That landscapes provide recreation areas, clean the air and water, prevent erosion, offer fire protection, and replace ecosystems displaced by development; and

E. That landscape design, installation, and maintenance can and should be water efficient.

VIII-5-1.02 Consistent with the findings, the purpose of this Chapter is to:

A. Promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible;

B. Establish a structure for designing, installing, and maintaining water efficient landscapes in new projects; and

C. Establish provisions for water management practices and water waste prevention for established landscapes.

D. Insure efficient landscape irrigation water use. This Chapter is applicable to all new and rehabilitated landscapes 2,500 square feet or greater, all common area landscapes in single-family and multi-family subdivisions or planned unit developments, and all existing landscapes one acre or more in size, irrigated with potable water.

Section 2 DEFINITIONS

The words used in this Ordinance have the meanings set forth below:

1. **Antidrain valve** or **check valve:** a valve located under a sprinkler head to hold water in the system so it minimizes drainage from the lower elevation sprinkler heads.

2. **Application rate:** the depth of water applied to a given area, usually measured in inches per hour.

3. **Applied water:** the portion of water supplied by the irrigation system to the landscape.

4. **Automatic controller:** a mechanical or solid state timer, capable of operating valve stations to set the days and length of time of a water application. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather based) or soil moisture data.

5. **Backflow prevention device:** a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

6. **Certified Irrigation Designer:** a person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the U.S. Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer Program.

7. **Certified Landscape Irrigation Auditor (CLIA):** a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the U.S. Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Associations Certified Landscape Irrigation Auditor program.

8. **Certified or Authorized Professional:** a certified irrigation designer, a certified landscape irrigation auditor, a licensed landscape architect or a licensed landscape contractor, or any other person authorized to design a landscape.

9. **City of Milpitas (City):** the entity that is responsible for adopting and implementing this Ordinance. The City is also responsible for enforcement of this Ordinance, including but not limited to: approval of a permit and plan check or design review or a project.

10. **Conversion factor (0.62):** a number that converts the maximum applied water allowance from inches per acre per year to gallons per square foot per year (1 inch/acre/yr = 0.62 gallons/sf/yr). The conversion factor is calculated as follows:

    325,829 gallons/43,560 square feet/12 inches = 0.62
    325,829 gallons = 1 acre-foot
    43,560 square feet = 1 acre
    12 inches = 1 foot

    To convert gallons per year to 100 cubic feet per year, another common billing unit for water, divide gallons per year by 748 (748 gallons = 100 cubic feet).

11. **Ecological restoration project:** a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

12. **Effective precipitation or usable rainfall:** the portion of total precipitation that is used by the plants. Precipitation is not a reliable source of water but can contribute to some degree toward the water needs of the landscape. For the purpose of this document, "effective precipitation" is 25 percent of local annual mean precipitation.

13. **Emitter:** drip irrigation fittings that deliver water slowly from the system to the soil.

14. **Established landscape:** the point at which plants in the landscape have developed roots into the soil adjacent to the root ball.

15. **Establishment period:** the first year after installing the plant in the landscape; or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth.

16. **Estimated Applied Water Use:** the portion of the Estimated Total Water Use that is derived from applied water. The Estimated Applied Water Use shall not exceed the Maximum Applied Water Allowance. The Estimated Applied Water Use may be the sum of the water recommended through the irrigation schedule as referenced in VIII-5-3.03(B).

17. **Estimated Total Water Use (ETWU):** the annual total amount of water estimated to be needed to keep the plants in the landscaped area healthy. It is based upon such factors as the local evapotranspiration (ET) rate, the size of the landscaped area, the types of plants, and the efficiency of the irrigation system, as described in VIII-5-3.03(B).

18. **ET adjustment factor (ETAF):** a factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.

    A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. The irrigation efficiency for the purpose of the ET Adjustment Factor is 0.7.

    Therefore, the ET adjustment factor (0.71) = (0.5/ 0.7).

19. **Evapotranspiration:** the quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time.

20. **Flow rate:** the rate at which water flows through pipes and valves (gallons per minute or cubic feet per second).

21. **Hardscape:** any durable material (pervious or non-pervious).

22. **Hydrozone:** a portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation once established is a non-irrigated hydrozone.

23. **Infiltration rate:** The rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

24. **Irrigation efficiency:** the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for

purposes of this Ordinance is 0.7. Greater irrigation efficiency can be expected from well designed and maintained systems.

25. **Landscape Architect:** a person who holds a license to practice landscape architecture in California as further defined by the California Business and Professions Code, Section 5615.

26. **Landscape irrigation audit:** a process to perform site inspection, evaluate irrigation systems, and develop efficient irrigation schedules.

27. **Landscaped area:** the entire parcel less the building footprint, driveways, non-irrigated portions of the parking lots, hardscape such as decks and patios, and other nonporous areas. Water features are included in the calculation of the landscaped area. Areas dedicated to edible plants such as orchards or vegetable gardens are not included.

28. **Landscape Contractor:** a person licensed by the State of California to construct, maintain, repair, install or subcontract the development of landscape systems.

29. **Landscape Project:** total area comprising the landscape area, as defined in this Ordinance.

30. **Lateral line:** the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

31. **Local annual mean precipitation:** the Department of Water Resources 20-year historical rainfall data.

32. **Low Volume Irrigation:** the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as a drip, drip lines and bubblers.

33. **Low Water Use Plant:** a plant species whose water needs are compatible with local climate and soil conditions. Species classified as "very low water use" and "low water use" by the Water Use Classification of Landscape Species (WUCOLS), having a regionally adjusted plant factor of 0.0 through 0.3, shall be considered low water use plants.

34. **Main line:** the pressurized pipeline that delivers water from the water source to the valve or outlet.

35. **Maximum Applied Water Allowance (MAWA):** for design purposes, the upper limit of annual applied water for the established landscaped area as specified in VIII-5-3.03(B). It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscaped area. The Estimated Applied Water Use shall not exceed the Maximum Applied Water Allowance.

36. **Mulch:** any organic material such as leaves, bark, straw, or other materials left loose and applied to the soil surface to reduce evaporation.

37. **Native Plant:** a plant indigenous to a specific area of consideration. For the purposes of these guidelines, the term shall refer to plants indigenous to the costal ranges of Central and Northern California, and more specifically to such plants that are suited to the ecology of the present or historic natural community(ies) of the project's vicinity.

38. **New Construction:** construction of a new building or structure containing a landscape or other new land improvement, such as a park, playground, or greenbelt without an associated building.

39. **No-Water Using Plant:** a plant species with water needs that are compatible with local climate and soil conditions such that regular supplemental irrigation is not required to sustain the plant after it has become established.

40. **Operating pressure:** the pressure at which a system of sprinklers is designed to operate, usually indicated at the base of a sprinkler.

41. **Overhead Sprinkler Irrigation System:** System that delivers water through the air (e.g. spray heads and rotors).

42. **Overspray:** the water which is delivered beyond the landscaped area, wetting pavements, walks, structures, or other non-landscaped areas.

43. **Permit:** an authorizing document issued by the City of Milpitas for a new construction or rehabilitated landscape.

44. **Pervious:** any surface or material that allows the passage of water through the material and into the underlying soil.

45. **Plant factor:** a factor that when multiplied by reference evapotranspiration, estimates the amount of water used by plants. For purposes of this Ordinance, the average plant factor of low water-using plants range from 0 to 0.3, for average water-using plants the range is 0.4 to 0.6, and for high water-using plants the range is 0.7 to 1.0.

46. **Precipitation Rate:** the rate of application of water measured in inches per hour.

47. **Project Applicant:** the individual or entity submitting a Landscape Documentation Package required by the Milpitas Municipal Code, Title VIII, Chapter 5, Sections 1-8, to request a permit, plan check or design review from the City or requesting new or expanded water service from the City. The project applicant may be the property owner or his/her designee.

48. **Rain sensing device:** a system which automatically shuts off the irrigation system when it rains.

49. **Record drawing** or **as-builts:** a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

50. **Recreational area:** areas of active play or recreation such as sports fields, school yards, picnic grounds, or other areas with intense foot traffic.

51. **Recycled water, reclaimed water,** or **treated sewage effluent water:** treated or recycled wastewater of a quality suitable for non-potable uses such as landscape irrigation; not intended for human consumption.

52. **Reference evapotranspiration (ETo):** a standard measurement of environment parameter which affect the water use of plants. ETo is given in inches per day, month, or year as represented in VIII-5-6 and is an estimate of the evapotranspiration of a large field of 4- to 7-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis in determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.

53. **Rehabilitated landscape:** any re-landscaping project that requires a permit.

54. **Runoff:** water which is not absorbed by the soil or landscape to which it is applied and flows from the area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a severe slope.

55. **Soil moisture sensing device:** a device that measures the amount of water in the soil.

56. **Soil texture:** the classification of soil based on the percentage of sand, silt, and clay in the soil.

57. **Special Landscape Area (SLA):** an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play, such as parks, sports fields, golf courses, and where turf provides a playing surface.

58. **Sprinkler head:** a device which sprays water through a nozzle.

59. **Static water pressure:** the pipeline or municipal water supply pressure when water is not flowing.

60. **Station:** an area served by one valve or by a set of valves that operate simultaneously.

61. **Turf:** a surface layer of earth containing mowed grass with its root. Annual bluegrass, Kentucky bluegrass, perennial ryegrass, red fescue, and tall fescue are cool-season grasses. Bermuda grass, Kikuyu grass, Seashore paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.

62. **Valve:** a device used control the flow of water in the irrigation system.

63. **Water conservation concept statement:** a one-page checklist and a narrative summary of the project as shown in VIII-5-3.03(A).

64. **Water Feature:** a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied).

65. **WUCOLS:** means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2000.

Section 3 PROVISIONS FOR NEW OR REHABILITATED LANDSCAPES

VIII-5-3.01 APPLICABILITY

A. Except as provided in VIII-5-3.01(C), below, this Section shall apply to:

1. All new construction and rehabilitated landscapes for public agency projects and private development projects with an irrigated landscape area 2,500 square feet or greater requiring a building or landscape permit, plan check or design review, or requiring new or expanded water service;

2. All new construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects with a landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review, or requiring new or expanded water service;

3. All new construction landscapes which are homeowner-provided and/or homeowner-hired in single family and multi-family residential projects with a total project landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review, or requiring new or expanded water service;

4. All existing landscapes over one acre in size are subject to Section 4, Provision for Existing Landscapes, VIII-5-4.01, Water Management.

B. Projects subject to this Section shall conform to the provisions in of this Chapter.

C. This Ordinance shall not apply to:

1. cemeteries;
2. registered historical sites;
3. ecological restoration projects that do not require a permanent irrigation system;
4. any project with a landscaped area less than 2,500 square feet;
5. designated cultural resources, community gardens or plant collections, as part of a botanical garden or arboretums open to the public, agricultural uses, commercial nurseries and sod farms; or
6. Landscapes or portions of landscapes, that are only irrigated for an establishment period.

VIII-5-3.02 LANDSCAPE DOCUMENTATION PACKAGE

A. A copy of the landscape documentation package conforming to this Chapter shall be submitted to the City Engineer or his or her designee. No permit shall be issued until the City reviews and approves the landscape documentation package.

B. A copy of the approved landscape documentation package shall be provided to the property owner or site manager along with the record drawings and any other information normally forwarded to the property owner or site manager.

C. In applying for a landscape permit, the project applicant has the choice of one of two options, the Water Budget Calculation Option or the Planting Restrictions Option. For either option, each landscape documentation package shall include the following elements, which are described in VIII-5-3.03:

1. Water Conservation Concept Statement
   Water Budget Calculation
   Planting Restrictions Option*

2. Water Budget Calculation Option
   - Calculation of the Maximum Applied Water Allowance*
   - Calculation of the Estimated Applied Water Use*
   - Calculation of the Estimated Total Water Use*
3. Landscape Design Plan
   - Plant Selection and Grouping
   - Water Features
   - Landscape Design Plan Specifications
4. Irrigation Design Plan
   - Irrigation Design Criteria
   - Recycled Water
   - Irrigation Design Plan Specifications
5. Irrigation Schedules
6. Maintenance Schedules
7. Landscape Irrigation Audit Schedules
8. Grading Design Plan
9. Soil Analysis
10. Certification
    - Certificate of Substantial Completion

D. If effective precipitation is included in the calculation of the Estimated Total Water Use, then an Effective Precipitation Disclosure Statement* from the landscape professional and the property owner shall be submitted with the Landscape Documentation Package.
**Project applicants using the Planting Restrictions Option are not subject to calculation of the Maximum Applied Water Allowance, the Estimated Applied Water Use, the Estimated Total Water Use, and/or the Effective Precipitation Disclosure Statement.*

VIII-5-3.03 ELEMENTS OF LANDSCAPE DOCUMENTATION PACKAGE

A. Water Conservation Concept Statement

All landscape documentation packages shall include a cover sheet referred to as the Water Conservation Concept Statement similar to the attached example. It serves as a checklist to verify that the elements of the landscape documentation package have been completed and has a narrative summary of the project. The Water Conservation Concept Statement shall be completed by a Certified Landscape Architect or Irrigation Designer.

The Water Conservation Concept Statement Worksheet gives the project applicant two options to demonstrate that the landscape meets the Ordinance's water efficiency goals. Regardless of which option is selected, the applicant must complete and comply with all applicable elements of this Ordinance. The two options include:

1. The Water Budget Calculation Option; or

2. The Planting Restrictions Option:

   a. The turf area may not be more than 25% of the landscape area or no more than 1300 square feet, whichever is lesser; and
   b. At least 80% of the plants in the non-turf landscape areas shall be native plants, low- or no-water using plants. Water features are considered high-use for purposes of this calculation.

WATER CONSERVATION CONCEPT STATEMENT

Project Site:	Water Account Number:
Project Location:	

Certified Landscape Architect/Irrigation Designer

Select Option One or Two:

☐ ***Option One:*** **Water Budget Calculation** (Check to indicate completion) _____

☐	Maximum Applied Water Allowance:	_____	Gallons/year
☐	Estimated Applied Water Use:	_____	Gallons/year
☐	Estimated Amount of Water Expected from Effective Precipitation*:	_____	Gallons/year
☐	Estimated Total Water Use:	_____	Gallons/year

NOTE: *If the design assumes that a part of the Estimated Total Water Use will be provided by precipitation, the Effective Precipitation Disclosure Statement in VIII-5-5.00 shall be completed and submitted. The Estimated Amount of Water Expected from Effective Precipitation shall not exceed 25 percent of the local annual mean precipitation (average rainfall).

☐ ***Option Two:*** **Planting Restrictions** (Check to indicate completion) _____

☐	Turf Area Square Footage (Not to exceed 1300 square feet)	_____	Square Feet
☐	Turf Area Percentage (Maximum 25% of total landscape area)	_____	%
☐	Percentage of native, low- and/or no-water using plants (minimum 80%)	_____	%

Regardless of which option is chosen above, ALL project applicants are to complete all the items listed below:

☐	Landscape Design Plan	☐	Landscape Irrigation Audit Schedule
☐	Irrigation Design Plan	☐	Grading Design Plan
☐	Irrigation Schedule	☐	Soil Analysis
☐	Maintenance Schedule		

Description of Project: Briefly describe the planning and design actions that are intended to achieve conservation and efficiency in water use.

Prepared by:	Date:

B. Water Budget Calculation Option
(Applicable only to applicants who choose Water Budget Calculation Option)

1. Water Budget Calculations must be completed by a certified or authorized professional.

2. The plant factor used shall be from WUCOLS. The plant factor ranges from 0.0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.

3. All Special Landscape Areas (SLA) shall be identified and their water use included in the water budget calculations. A statement shall be included with the landscape design plan, designating areas to be used for such purposes and specifying any needed amount of additional water above the Maximum Applied Water Allowance.

4. The referenced evapotranspiration adjustment factor (ETAF) for the SLA shall not exceed 1.0. The ETAF for all other landscaped areas shall not exceed 0.7.

5. Irrigation efficiency shall be greater than, or equal to 0.7.

6. Calculating the Maximum Applied Water Allowance (MAWA)

   a. A project's Maximum Applied Water Allowance shall be calculated using the following formula:

MAWA	=	(ETo) (.62) [(0.7 x LA) + (0.3 x SLA)] where:
MAWA	=	Maximum Applied Water Allowance (gallons per year)
ETo	=	Reference Evapotranspiration (inches per year)
0. 0.7	=	Evapotranspiration Adjustment Factor (ETAF)
LA	=	Landscaped Area (square feet)
0.62	=	Conversion Factor
0.3	=	Additional Water Allowance for SLA
SLA	=	Special Landscape Area (square feet)

7. Calculating Estimated Applied Water Use

   a. The Estimated Applied Water Use shall not exceed the Maximum Applied Water Allowance.

   b. A calculation of Estimated Applied Water Use shall be submitted with the Landscape Documentation Package. It may be calculated by summing the 12 monthly amounts of applied water recommended in the irrigation schedule on an annual basis.

8. Calculating Estimated Total Water Use

   a. A calculation of the Estimated Total Water Use shall be submitted with the Landscape Documentation Package. The Estimated Total Water Use may be calculated by summing the amount of water recommended in the irrigation schedule and adding any amount of water expected from effective precipitation (not to exceed 25% of the local annual mean precipitation) or may be calculated from a formula such as the following:

   b. The Estimated Total Water Use for the entire landscaped area equals the sum of the Estimated Water Use of all hydrozones in that landscaped area.

$$ETWU = (ETo)\,(0.62)\left(\frac{PFxHA}{IE} + SLA\right)$$

ETWU	=	Estimated Total Water Use (gallons/year)
ETo	=	Reference Evapotranspiration (inches/year)
PF	=	Plant factor from WUCOLS
HA	=	Hydrozone area (square feet)
0.62	=	Conversion factor
IE	=	Irrigation efficiency (minimum 0.7)

If the Estimated Total Water Use is greater than the Estimated Applied Water Used due to precipitation being included as a source of water, an Effective Precipitation Disclosure Statement such as the one in VIII-5-5.00 shall be included in the Landscape Documentation Package.

C. Landscape Design Plan

The components of the Landscape Design Plan shall be prepared by, and bear the signature of a licensed landscape architect, licensed landscape contractor, or that of a certified or authorized professional. A landscape design plan meeting the following requirements shall be submitted as part of the landscape documentation package.

1. Plant Selection and Grouping

a. If using the Water Budget Calculation Option, any plants may be used in the landscape, provided the Estimated Applied Water Use recommended does not exceed the Maximum Applied Water Allowance and that the plants meet the specifications set forth (Section VIII-5-3.03 B). Mixed use hydrozones, such as moderate/high and low/moderate, may be allowed if the plant factor calculation is based on the proportion of the respective plant water uses or if the plant factor of the higher water using plant is used. Individual hydrozones that mix high and low/no-water using plants is strictly prohibited.

b. If using the Planting Restrictions Option, plants having similar water use shall be grouped together in distinct hydrozones. Mixed use hydrozones are prohibited.

c. Groundcover other than turf will be used on all slopes exceeding 10% or in areas less than eight feet wide in any direction, unless irrigated with subsurface irrigation or a low volume irrigation system.

d. Plants shall be selected appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the site. Protection and preservation of native species and natural areas is encouraged. The planting of trees is encouraged wherever it is consistent with the other provisions of this Ordinance.

e. Avoid fire prone plant materials and highly flammable mulches. Fire prevention needs shall be addressed in areas that are fire prone. Information about fire prone areas and appropriate landscaping for fire safety is available from the California Department of Forestry.

f. The architectural guidelines of a common interest development shall not prohibit or include conditions that have the effect of prohibiting the use of low- and/or no-water use plants as a group.

2. Water Features

a. Re-circulating water shall be used for decorative water features.

b. Pool and spa covers are encouraged.

c. Water features will be considered a high water use plant. The surface area of a water feature shall not exceed 10% of the landscape area.

3. Landscape Design Plan Specifications

The landscape design plan shall be drawn on project base sheets at a scale that accurately and clearly identifies:

a. Designation of hydrozones, identifying each as low-, moderate-, high-water, or mixed use.

b. Landscape materials, trees, shrubs, ground cover, turf, and other vegetation. Planting symbols shall be clearly drawn and plants labeled by botanical name, common name, container size, spacing, and quantities of each group of plants indicated.

c. Property lines and street names.

d. Streets, driveways, walkways, paved areas, and any other pervious and non-pervious hardscapes.

e. Pools, ponds, water features, fences, and retaining walls. Identify the type and surface area of water features.

f. Existing and proposed buildings and structures including elevation if applicable.

g. Natural features including, but not limited to, rock outcroppings, existing trees, shrubs that will remain.

h. Tree staking, plant installation, soil preparation details, and any other applicable planting and installation details.

i. A calculation of the total landscaped area.

j. Designation of Special Landscape Areas (i.e., recreational areas, areas permanently and solely dedicated to edible plants, areas irrigated with recycled water).

k. Identify type of mulch and application depth.

D. Irrigation Design Plan

The irrigation design portion shall be prepared by, and bear the signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or that of a certified or authorized professional. An irrigation design plan meeting the following conditions shall be submitted as part of the Landscape Documentation Package.

1. Irrigation Design Criteria

a. **Runoff and Overspray.** Soil types and infiltration rate shall be considered when designing irrigation systems. All irrigation systems shall be designed to minimize runoff, low head drainage, overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, or structures. Proper irrigation equipment and schedules, including features such as repeat cycles, shall be used to closely match application rates to infiltration rates, therefore, minimizing runoff.

Low volume irrigation is required in mulched areas, in areas with slopes greater than 25%, and within 24-inches of a non-permeable surface, or in areas that are less than eight feet wide in any direction.

b. **Irrigation Efficiency.** For the purpose of determining the Maximum Applied Water Allowance, irrigation efficiency is assumed to be 0.7. Irrigation systems shall be designed, maintained, and managed to meet or exceed 0.7 efficiency.

c. **Equipment:** Location, type and size of all components of the irrigation system shall be noted.

Water meters. Separate landscape water meters shall be required for all projects 2,500 square feet or greater, except for single-family and duplex homes.

Controllers. Automatic control systems utilizing either evapotranspiration or soil moisture sensor data shall be required for all irrigation systems and must be able to accommodate all aspects of the design.

Valves. Plants which require different amounts of water shall be irrigated by separate valves. Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use. Where feasible, trees shall be placed on separate valves from shrubs, groundcover and turf. Antidrain (check) valves shall be installed in strategic points to minimize or prevent low-head drainage.

Sprinkler heads. Heads and emitters shall have consistent application rates within each control valve circuit. Sprinkler heads shall be selected for proper area coverage, application rate, operating pressure, adjustment capability, and ease of maintenance.

Sensors (rain, freeze, wind, etc.). Either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems.

Soil Moisture Sensing Devices. It is recommended that soil moisture sensing devices be considered where appropriate.

Backflow Prevention Assemblies. Backflow protection shall be in accordance with Chapter 3, Title VIII of the Milpitas Municipal Code which establishes backflow prevention and cross-connection control.

2. *Recycled Water*

a. The installation of recycled water irrigation systems (dual distribution systems) shall be required to allow for the current and future use of recycled water, unless a written exemption has been granted as described in the following Section (b).

b. Irrigation systems shall make use of recycled water unless a written exemption has been granted by the City Engineer, stating that recycled water is not available and will not be available in the foreseeable future. Non-shared landscaped areas of residential projects are categorically exempt from recycled water use and waivers are not necessary.

c. The recycled water irrigation systems shall be designed and operated in accordance with all local and state codes.

3. *Irrigation Design Plan Specifications*

Irrigation system shall be designed to be consistent with hydrozones.

The irrigation design plan shall be drawn on project base sheets. It should be separate from, but use the same format as the landscape design plan. The scale shall be the same as that used for the landscape design plan described in VIII-5-3.03(C-3).

The irrigation plan shall accurately and clearly identify:

a. Location and size of separate water meters for the landscape.

b. Location, type, and size of all components of the irrigation system, including automatic controllers, main and lateral lines, valves, sprinkler heads, pressure regulators, moisture sensing devices, rain switches, quick couplers, and backflow prevention devices.

c. Static water pressure at the point of connection to the public water supply.

d. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (psi) for each station.

e. Recycled water irrigation systems as specified in the VIII-5-3.03(D-2).

E. Irrigation Schedules

Irrigation schedules satisfying the following conditions shall be submitted as part of the Landscape Documentation Package.

1. The irrigation schedule shall:

   a. include run time (in minutes per cycle), suggested number of cycles per day, and frequency of irrigation for each station; and

   b. provide the amount of applied water (in hundred cubic feet, gallons, or in whatever billing units the local water supplier uses) recommended on a monthly and annual basis.

2. With the exception of testing, maintenance and audits, the landscape irrigation shall be scheduled during non-daylight hours, 8:00 p.m. to 10:00 a.m., unless unfavorable weather prevents it or otherwise renders it unnecessary.

The following is applicable only to project applicants who use the Water Budget Calculation Option:

3. The total amount of water for the project shall include water designated in the Estimated Total Water Use calculation plus water needed for any water features which shall be considered as a high water using hydrozone.

4. SLAs designated in the landscape design plan shall be highlighted and the irrigation schedule shall indicate if any additional water is needed above the Maximum Applied Water Allowance because of high plant factors (but not due to irrigation inefficiency).

5. Whenever possible, irrigation scheduling shall incorporate the use of evapotranspiration data such as those from the California Irrigation Management Information System (CIMIS) weather stations to apply the appropriate levels of water for different climates.

F. Maintenance Schedules

A regular maintenance schedule satisfying the following conditions shall be submitted as part of the Landscape Documentation Package:

1. Landscape shall be maintained to ensure water efficiency. A regular maintenance schedule shall include, but not be limited to, checking, adjusting, and repairing irrigation equipment; resetting the automatic controller; aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning, weeding in all landscaped areas; and removing obstructions to emission devices.

2. Whenever possible, repair of irrigation equipment shall be done with the originally specified materials or their equivalents.

3. A project applicant is encouraged to implement sustainable or environmentally-friendly practices for overall landscape maintenance.

G. Landscape Irrigation Audit Schedules

A schedule of landscape irrigation audits, for all but single-family residences, satisfying the following conditions shall be submitted to the City as part of the Landscape Documentation Package.

1. Landscape irrigation audits for new or rehabilitated landscapes shall be conducted by a Certified Landscape Irrigation Auditor (CLIA) after the landscaping and irrigation system has been installed.

2. At a minimum, audits shall be in accordance with the State of California Landscape Water Management Program as described in the most current version of the Landscape Irrigation Auditor Handbook, the entire document, which is hereby incorporated by reference.

3. The City has the right to administer ongoing landscape efficiency requirements that may include, but are not limited to, irrigation audits, surveys, water use analysis, post installation landscape inspection and water budget calculations to evaluate compliance with the MAWA (applicable to those who use the Water Budget Calculation Option). Owners of applicable landscapes shall comply, at the owner's expense, with the City's ongoing landscape efficiency requirements when deemed necessary by the City, to maintain landscape irrigation facilities in order to prevent waste water and runoff.

H. Grading Design Plan

Grading design plans satisfying the following conditions shall be submitted as part of the Landscape Documentation Package:

1. A grading design plan shall be drawn on project base sheets. It should be separate from, but use the same format as the landscape design plan.

2. The grading design plan shall indicate finished configurations and elevations of the landscaped area, including the height of graded slopes, drainage patterns, pad elevations, and finish grade.

3. The grading design plan shall maintain all irrigation and normal rainfall within property lines and avoid drainage onto non-permeable hardscapes.

4. The grading design plan shall avoid disruption of natural drainage patterns and undisturbed soil.

5. The grading design plan shall avoid soil compaction in landscape areas.

6. The grading design plan shall be consistent with the City grading Ordinance.

I. Soil Analysis

1. A soil analysis satisfying the following conditions shall be submitted as part of the Landscape Documentation Package:

   a. Determination of soil texture, indicating the percentage of organic matter.

b. An approximate soil infiltration rate (either measured or derived from soil texture/infiltration rate tables). A range of infiltration rates should be noted where appropriate.

c. Measure of pH and total soluble salts.

2. A mulch of at least 3 inches shall be applied to all planting areas except turf.

3. Decomposed organic matter or polymer products shall be incorporated into the soil to improve infiltration, water retention and soil structure.

J. Certification

1. Upon completing the installation of landscaping and irrigation systems, an irrigation audit shall be conducted by a Certified Landscape Irrigation Auditor (CLIA) prior to the final field observation. The CLIA shall be certified by the Irrigation Association. (See Landscape Irrigation Auditor Handbook as referenced in VIII - 5 - 3.03 [G-2].)

2. A licensed irrigation designer, landscape architect or other licensed or Certified Professional in Horticulture or in a field related to Horticulture shall conduct a final field observation to confirm that the irrigation system was installed as designed, that plants were installed as specified, and that an irrigation audit has been performed.

3. A licensed Landscape Architect, Irrigation Designer or Licensed or Certified Professional in Horticulture or in a field related to Horticulture shall provide a certificate of substantial completion to the City and to the owner of record. This certificate shall specifically indicate that plants were installed as specified, that the irrigation system was installed as designed on the plan, and that an irrigation audit has been performed. Any deficiencies shall also be identified on the certificate of substantial completion.

4. A Certificate of Substantial Completion shall be submitted to the City and to the owner of record. A sample of such a form, provided by the City, is attached.

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project Site:	Water Account Number:
Project Location:	

Preliminary Project Documentation Submitted:

☐ **Option One: Water Budget Calculation** (Check to indicate completion)

☐	Maximum Applied Water Allowance:	_____ Gallons/year
☐	Estimated Applied Water Use:	_____ Gallons/year
☐	Estimated Amount of Water Expected from Effective Precipitation*:	_____ Gallons/year
☐	Estimated Total Water Use:	_____ Gallons/year

NOTE: *If the design assumes that a part of the Estimated Total Water Use will be provided by precipitation, the Effective Precipitation Disclosure Statement in VIII-5-5 shall be completed and submitted. The Estimated Amount of Water Expected from Effective Precipitation shall not exceed 25 percent of the local annual mean precipitation (average rainfall).

☐ **Option Two: Planting Restrictions** (Check to indicate completion)

☐	Turf Area Square Footage (Not to exceed 1300 square feet)	_____ Square Feet
☐	Turf Area Percentage (Maximum 25% of total landscape area)	_____ %
☐	Percentage of native, low- and/or no-water using plants (minimum 80%)	_____ %

The following seven elements must be completed by all applicants, regardless of which option was chosen above (Check to indicate completion) :

☐	Landscape Design Plan	☐	Landscape Irrigation Audit Schedule
☐	Irrigation Design Plan	☐	Grading Design Plan
☐	Irrigation Schedule	☐	Soil Analysis
☐	Maintenance Schedule		

Post-Installation Inspection (Check to indicate completion):

☐ A. Plants installed as specified

☐ B. Irrigation system installed as designed

- ☐ dual distribution system for recycled water, as applicable
- ☐ minimal runoff or overspray

☐ C. Landscape Irrigation Audit performed

Project submittal package and a copy of this certification has been provided to property owner/manager and local water agency.
Comments:

I/we certify that work has been installed in accordance with the contract documents.

Contractor

Signature	Date	State License Number

I/we certify that based upon periodic site observations, the work has been substantially completed in accordance with the Water Efficient Landscape Ordinance and that the landscape planting and irrigation conform with the approved plans and specifications.

Landscape Architect, Irrigation Designer or Licensed or Certified Professional in Horticulture or in a field related to Horticulture.

Signature	Date	State License Number

I/we certify that I/we have received all of the contract documents and that it is our responsibility to see that the project is maintained in accordance with the contract documents.

Owner

Signature	Date

VIII-5-3.04 PUBLIC EDUCATION

A. Publications

The City will maintain public information materials on water efficient landscaping at the public information counter at City Hall.

B. Model Homes

At least one model home that is landscaped in each project consisting of eight or more homes shall demonstrate via signs and information the principles of water efficient landscape described in this Ordinance.

1. Signs shall be used to identify the model as an example of water efficient landscape and featuring elements such as hydrozones, irrigation equipment, and others which contribute to the overall water efficient theme.

2. Information shall be provided about designing, installing, and maintaining water efficient landscapes.

Section 4 PROVISIONS FOR EXISTING LANDSCAPES

VIII-5-4.01 WATER MANAGEMENT

All existing landscaped areas to which the City provides potable water that are one acre or more, including golf courses, green belts, common areas, schools, businesses, parks, and publicly owned landscapes: (1) shall comply with the City's Ordinance relating to irrigation audits, surveys, and water use analysis; and (2) shall maintain landscape irrigation facilities to prevent water waste and runoff. If an audit is required, at a minimum, the audit shall be in accordance with the California Landscape Water Management Program as described in the most current version of the Landscape Irrigation Auditor Handbook, the entire document which is hereby incorporated by reference.

If the project's water bills indicate that they are using less than or equal to the Maximum Applied Water Allowance for that project site, an audit shall not be required.

VIII-5-4.02 WATER WASTE PREVENTION

Water waste resulting from inefficient landscape irrigation such as runoff, low head drainage, overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, parking lots, or structures is prohibited.

Section 5 EFFECTIVE PRECIPITATION

VIII-5-5.00 If effective precipitation is included in the calculation of the Estimated Total Water Use, an Effective Precipitation Disclosure Statement (similar to the following Effective Precipitation Disclosure Statement sample) shall be completed, signed, and submitted with the Landscape Documentation Package. No more than 25% of the local annual mean precipitation shall be considered effective precipitation in the calculation of the Estimated Total Water Use.

EFFECTIVE PRECIPITATION DISCLOSURE STATEMENT

I certify that I have informed the project owner and developer that this project depends on _____ gallons of effective precipitation per year. This represents _____ percent of the local mean precipitation of _____ inches per year.

I have based my assumptions about the amount of precipitation that is effective upon:

_____

_____

_____

_____

_____

_____

I certify that I have informed the project owner and developer that in times of drought, there may not be enough water available to keep the entire landscape alive.

_____ _____

Licensed or Certified Landscape Professional Date

I certify that I have been informed that in times of drought, there may not be enough water available to keep the entire landscape alive.

_____ _____

Owner Date

_____ _____

Developer Date

In Inches (Historical Data, Extrapolated from 12-Month Normal Year ETo Maps and U.C. Publication 21426)

County	City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Alameda	Livermore	1.2	1.5	2.9	4.4	5.9	6.6	7.4	6.4	5.3	3.2	1.5	0.9	47.2
	Oakland	1.5	1.5	2.8	3.9	5.1	5.3	6.0	5.5	4.8	3.1	1.4	0.9	41.8
Contra Costa	Benicia	1.3	1.4	2.7	3.8	4.9	5.0	6.4	5.5	4.4	2.9	1.2	0.7	40.3
	Brentwood	1.0	1.5	2.9	4.5	6.1	7.1	7.9	6.7	5.2	3.2	1.4	0.7	48.3
	Courtland	1.9	1.5	2.9	4.4	6.1	6.9	7.9	6.7	5.3	3.2	1.4	0.7	48.0
	Concord	1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4
	Martinez	1.2	1.4	2.4	3.9	5.3	5.6	6.7	5.6	4.7	3.1	1.2	0.7	41.8
	Pittsburg	1.0	1.5	2.8	4.1	5.6	6.4	7.4	6.4	5.0	3.2	1.3	0.7	54.4
Marin	Novato	1.3	1.5	2.4	3.5	4.4	6.0	5.9	5.4	4.4	2.8	1.4	0.7	39.8
	San Rafael	1.2	1.3	2.4	3.3	4.0	4.8	4.8	4.9	4.3	2.7	1.3	0.7	35.8
San Benito	Hollister	1.5	1.8	3.1	4.3	5.5	5.7	6.4	5.9	5.0	3.5	1.7	1.1	45.1
San Francisco	San Francisco	1.5	1.3	2.4	3.0	3.7	4.6	4.9	4.8	4.1	2.8	1.3	0.7	35.1
San Mateo	Half Moon Bay	1.5	1.7	2.4	3.0	3.9	4.3	4.3	4.2	3.5	2.8	1.3	1.0	33.7
	Redwood City	1.5	1.8	2.9	3.8	5.2	5.3	6.2	5.6	4.8	3.1	1.7	1.0	42.8
Santa Clara	Gilroy	1.3	1.8	3.1	4.1	5.3	5.6	6.1	5.5	4.7	3.4	1.7	1.1	43.6
	Los Gatos	1.5	1.8	2.8	3.9	5.0	5.6	6.2	5.5	4.7	3.2	1.7	1.1	42.9
	Milpitas	1.5	1.8	3.1	4.1	5.5	5.8	6.5	5.9	5.2	3.3	1.8	1.0	45.3
	Palo Alto	1.5	1.8	2.8	3.8	5.2	5.3	6.2	5.6	5.0	3.2	1.7	1.0	43.0
	San Jose	1.5	1.8	3.1	4.1	5.5	5.8	6.5	5.9	5.2	3.3	1.8	1.0	45.3
Santa Cruz	Santa Cruz	1.5	1.8	2.6	3.5	4.3	4.4	4.8	4.4	3.8	2.8	1.7	1.2	36.6
	Watsonville	1.5	1.8	2.7	3.7	4.6	4.5	4.9	4.2	4.0	2.9	1.8	1.2	37.7

Section 7 PENALTIES

VIII-5-7.00 Any person or persons, company, corporation or association, who shall violate any of the provisions of this Chapter or fail to comply therewith, or who shall violate or fail to comply with any order made thereunder, shall severally for each and every violation and non-compliance respectively, be guilty of an infraction, punishable in accordance with the provisions of I-1-4.09-1 of the Milpitas Municipal Code. The imposition of one fine for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects within a reasonable time; and when not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense.

Section 8 SEVERABILITY

VIII-5-8.00 If any section, subsection, provision or part of this Ordinance, or its application to any person or circumstance, is held to be unconstitutional or otherwise invalid, the remainder of this Ordinance, and the application of such provision to other person or circumstances, shall not be affected thereby and shall remain in full force and effect and, to that end, the provisions of this Ordinance are severable.

SECTION 3 SEVERABILITY

The provisions of this Ordinance are separable, and the invalidity of any phrase, clause, provision or part shall not affect the validity of the remainder.

SECTION 4 EFFECTIVE DATE AND POSTING

In accordance with Section 36937 of the Government Code of the State of California, this Ordinance shall take effect thirty (30) days from and after the date of its passage. The City Clerk of the City of Milpitas shall cause this Ordinance or a summary thereof to be published in accordance with Section 36933 of the Government Code of the State of California.

APPENDIX J

Water Conservation Ordinance 240.1

CERTIFICATION OF CITY CLERK
ORDINANCE NO. 240.1

I, Mary Lavelle, City Clerk of the City of Milpitas, do hereby certify that the attached Ordinance is a true and correct copy of Ordinance No. **240.1** of the City of Milpitas, that said Ordinance was duly enacted and adopted by the City Council of the City of Milpitas at a meeting of said City Council held on the 16TH day of August 2005, and that said Ordinance has been published and/or posted in the manner required by law.

WITNESS my hand and the Official Seal of the City of Milpitas, California, this 23rd day of August 2005.

Mary Lavelle

Mary Lavelle
City Clerk

REGULAR

NUMBER: 240.1

TITLE: ORDINANCE AMENDING AN EXISTING SUBSECTION TO SECTION 3.00 OF TITLE VIII, CHAPTER 6 ENTITLED "WATER CONSERVATION"

HISTORY: This ordinance was introduced (first reading) at a meeting of the City Council of the City of Milpitas on August 2, 2005, upon motion by Councilmember Livengood, and was finally adopted (second reading) at a meeting of said Council on August 16, 2005, upon motion by Vice Mayor Gomez. Said ordinance was duly passed and ordered published in accordance with the law by the following vote:

AYES:	(4)	Mayor Esteves, Vice Mayor Gomez, Councilmembers Giordano and Livengood,
NOES:	(0)	None
ABSENT:	(1)	Councilmember Polanski
ABSTAIN:	(0)	None

ATTEST:

Mary Lavelle, City Clerk

APPROVED:

Jose Esteves, Mayor

APPROVED AS TO FORM:

Steven T. Mattas, City Attorney

ORDAINING CLAUSE:

THE CITY COUNCIL OF THE CITY OF MILPITAS DOES ORDAIN AS FOLLOWS:

Section 1. RECITALS AND FINDINGS

A. Pursuant to Government Code section 65853 and 65854, the City Council of the City of Milpitas held a properly noticed public hearing August 2, 2005 to consider the amendments to Title VIII, Chapter 6 of the Milpitas Municipal Code.

B. The City Council finds that this Ordinance does not render Title VIII, Chapter 6 inconsistent with the City of Milpitas General Plan.

Section 2. Title VIII, Chapter 6, Section 3.00 is hereby amended to read as follows:

VIII-6-3.00 Restrictions

The following uses of potable water are prohibited:

3.01 Use that results in flooding or runoff in gutters, waterways, patios, sidewalks, driveways, or streets except as permitted in Section 3.02 A and B.

3.02 Use without a shutoff nozzle on the outlet end of the hose for:

A. Washing cars, buses, boats, aircraft, trailers or other vehicles;

B. Washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas; and

C. Watering outside plants, lawn, landscape and turf areas.

3.03 Service of water by any restaurant except upon the request of a customer.

3.04 Use through broken or defective plumbing, sprinkler, watering or irrigation systems.

3.05 Use in new, added or altered commercial car wash equipment unless a recycled water system is incorporated.

3.06 Use in new, added or altered cooling system equipment unless at least fifty percent (50%) of the water is recycled. A waiver to allow less than fifty percent (50%) recycling may be granted by the Chief Building Official due to water quality concerns only. Cost is not an acceptable reason to request or receive a waiver.

3.07 Appropriate u~~U~~se for irrigation if reclaimed water is available, except in the following situations as deemed necessary by City Engineer:

A. Implementation of the streetscape along Abel and Main Streets;

B. Irrigation of City Cultural Resources;

C. An establishment period for native plantings, when irrigation will be eliminated at a later period;

D. Where recycled water use is prohibited under Title 22 of the State Water Code;

E. Other situations where reclaimed water use is deemed inappropriate by City Engineer.

3.08 Use in new, added, or altered decorative fountains unless a recycled water system is incorporated. (Ord. 240 (part), 5/3/94)

Section 3. *The Table of Contents* of Title VII (Public Utilities) of the City of Milpitas is hereby *amended* to reflect the deletion of the chapter as follows:

Public Utilities Table of Contents

Chapters:

VII-1 Granting a Franchise for Electrical Service 435
VII-2 Granting a Franchise for Gas Service 437
VII-3 Conversion of Overhead Utility Facilities 439
VII-4 Nonessential Uses of Water (Repealed) 443
~~VII-6 Water Conservation 445~~

Section 4. *The Table of Contents* of Title VIII (Public Works) of the City of Milpitas is hereby *amended* to reflect the addition of chapter 6 as follows:

Public Works Table of Contents

Chapters:

VIII-1 Water System 449
VIII-2 Milpitas Sanitary Code 463
VIII-3 Backflow Prevention and Cross-Connection Control 498-1
VIII-4 Fees for New Developments 498-8
VIII-5 Water Efficient Landscapes 498-11
VIII-6 Water Conservation 499

Section 5. PUBLICATION AND EFFECTIVE DATE.

This Ordinance shall take effect thirty (30) days after adoption, and prior to the expiration of 15 days from the passage thereof shall be published at least once in the Milpitas Post, a newspaper of general circulation, published and circulated in the City of Milpitas, County of Santa Clara, thenceforth and thereafter the same shall be in full force and effect.

Section 6. SEVERABILITY

In the event any section or portion of this ordinance shall be determined invalid or unconstitutional, such section or portion shall be deemed severable and all other sections or portions hereof shall remain in full force and effect.