

Appendix F Land Use Agencies' Growth Projections



**PLANNING DEPARTMENT
LAND USE AGENCY**

COUNTY ADMINISTRATION CENTER

810 Court Street • Jackson, CA 95642-2132
Telephone: (209) 223-6380

website: www.co.amador.ca.us
e-mail: planning@co.amador.ca.us

MEMORANDUM

TO: John Griffin, Amador Water Agency
FROM: Heather Anderson, Planner II 
DATE: October 21, 2010
SUBJECT: Information for 2010 Urban Water Management Plan Update

On August 04, 2010 the Planning Department received your request for the following information for use in the 2010 Urban Water Management Plan Update:

- A list of all anticipated residential and non-residential development projects anticipated by each land use agency between 2011 and 2015;
- Any anticipated residential and non-residential development projects that the County reasonably expects to develop within the next twenty years, in five year increments broken down into the Lake Camanche, Amador Water System, and Central Amador Water Project areas; and
- Information regarding the number of parcels anticipated to be developed specifically for low, very low, and extremely low housing needs.

Based on the Department of Finance figures which we are utilizing in our General Plan Update, the population in the unincorporated County will increase to 31, 145 residents by 2030. This is an increase of 9, 022 people which equates to a need for an additional 3,968 units (assuming 2.274 persons/household) over the next 20 years. Assuming the Amador Water Agency (AWA) continues to serve approximately 47 % of the units in the unincorporated County, the Planning Department would anticipate the following:

- **Anticipated Residential Projects (2011-2015):**
There are no specific anticipated residential projects to be completed for this time period. Assuming AWA will continue to serve approximately 47% of residential units, AWA could anticipate **373 new units needing connection in the next 4 years.**
- **Anticipated Residential Projects for the next 20 years (in 5 year increments):**
Using the above assumptions the Planning Department estimates an increase of approximately 466 new connections every 5 years distributed as follows:

AREA	# of New Connections 5 yrs.	# of New Connections 10 yrs.	# of New Connections 15 yrs.	# of New Connections 20 yrs.
Lake Camanche Village	155.33	155.33	155.33	155.33
Amador Water System	155.33	155.33	155.33	155.33
Central Amador Water Project	155.33	155.33	155.33	155.33

- Parcels Anticipated for Low, Very Low, and Extremely Low Income Housing needs:** In order to meet the housing needs outlined in the State’s Regional Housing Needs Assessment for Amador County (1413 units for 2009-2014 planning period), the County, as proposed in the Draft Housing Element scheduled for adoption in November 2010, will undertake a zone change for 54.14 acres in the Martell area to be zoned “R3” to provide for opportunities for low, very low, and extremely low income housing. Additionally, a 31 acre portion of APN 044-100-027-000 (known as the Wicklow property) is currently zoned “R3” which may provide opportunity for low, very low, and extremely low income housing.
- Anticipated Non-residential Projects (2011-2015):**
There are no specific anticipated non-residential projects to be completed for this time period. Using the above assumptions the Planning Department assumes a growth of approximately 784,450 square feet during this 4 year time period (within the unincorporated County).
- Anticipated Non-residential Projects for the next 20 years (in 5 year increments):**
Using the above assumptions, the Planning Department estimates the increase in non-residential square footage to be distributed as follows:

AREA	SQ. FT. 5yrs.	SQ. FT. 10 yrs.	SQ. FT. 15 yrs.	SQ. FT. 20 yrs.
Lake Camanche Village	50,000	50,000	50,000	50,000
Amador Water System	862,812.5	862,812.5	862,812.5	862,812.5
Central Amador Water Project	62,750	62,750	62,750	62,750

Please feel free to contact this department with any additional questions.



COPY	FORWARD	FILE
	RECEIVED	
	DEL 30 2010	
	A.W.A.	

City of Ione
City Planning

December 28, 2010

John Griffin, P.E.
Supervising Engineer
Amador Water Agency
12800 Ridge Road
Sutter Creek, CA 95685

RE: Urban Water Management Plan

Dear Mr. Griffin,

Please find enclosed the City of Ione's response to your request for information for the pending Amador Water Agency (AWA) Urban Water Management Plan (UWMP). The City understands that AWA needs this data in order to complete the UWMP in accordance with the requirements of Water Code sections 10910 through 10915.

Should you need additional information, please feel free to contact me at your convenience at 209.274.2412 x104 or at 916.317.2479. I can also be reached via email at cityplan@ione-ca.com.

Sincerely,

Christopher Jordan, AICP
City Planner

Cc: Kimberly Kerr, City Manager
John Wanger, City Engineer

E:\Work\Ione\AWA\AWA UWMP Letter.docx

1. List of Major Development Projects Anticipated Between 2011 and 2015

Development Name	Anticipated Development During the 2011-2015 Planning Period	
	Residential (EDU) ¹	Commercial (sf)
Castle Oaks ²	70	-
Wildflower ³	30	-
Multi-Family Development project	86	-
Downtown	-	5,000 sf commercial/office
Industrial Park	-	25,000 sf industrial
TOTAL	186	5,000 sq ft commercial/office 25,000 sf industrial

Notes:

1. Assumptions consistent with City's Regional Housing Needs Allocation for the 2007-2014 planning period and represent "best guess" based upon current market conditions.
2. Maximum development potential of project, inclusive of Village 2, is 720 single family dwellings. Village 2 is at or very near buildout. Development during planning period is anticipated to occur within Villages 1, 3, and 4, but may occur in other areas depending upon desires of developer and successive interests.
3. Maximum development potential is 277 units. Development during planning period is anticipated to occur within Units 4 and 5.

2. Anticipated Development Over the Next 20 Years

Development Type	Planning Period				Total
	2011-2015	2016-2020	2021-2025	2026-2030	
Single Family Residential¹	100 du	200 du	300 du	350 du	950 du
Multi-Family Residential¹	86 du	90 du	100 du	150 du	426 du
Commercial	5,000 sf	5,000 sf	30,000 sf	10,000 sf	50,000 sf
Office	0 sf	5,000 sf	10,000 sf	10,000 sf	25,000 sf
Industrial	25,000 sf	25,000 sf	100,000 sf	100,000 sf	250,000 sf

Notes:

1. Residential assumptions are consistent with the City's current Regional Housing Needs Allocation and anticipated allocations in subsequent planning periods and represent "best guess" based upon current market conditions.

3. Number of Parcels Anticipated to be Developed Over the Next 20 Years

Development Type	Planning Period				Total
	2011-2015	2016-2020	2021-2025	2026-2030	
Single Family Residential¹	100 parcels	200 parcels	300 parcels	350 parcels	950 parcels
Multi-Family Residential¹	1 parcel	1 parcel	2 parcels	2 parcels	6 parcels
Commercial	1 parcel	1 parcel	2-3 parcels	1-2 parcels	5-7 parcels
Office	0 parcels	1 parcel	1-2 parcels	1-2 parcels	3-5 parcels
Industrial	1 parcel	1 parcel	1-5 parcels	1-5 parcels	4-12 parcels

4. Summary of Recycled Water Use Anticipated Over the Next 20 Years

Tertiary (Recycled) Water Capacity City WWTP By Planning Period (in MGD)			
2011-2015	2016-2020	2021-2025	2026-2030
Pre-2013: 0.0 MGD Post 2013: 0.55 MGD	0.8 MGD	1.2 MGD	2.4 MGD

Potential users of the City WWTP Tertiary water:

- Howard Park (2013)
- Unimin Mine (2013)
- Preston Youth Correctional Facility (2013-2020)
- Mule Creek Prison (2013-2020)
- Arroyo Seco Ranch (2013-2020)
- Other users (2020-2030)

Tertiary (Recycled) Water Capacity City COWRP By Planning Period (in AF)			
2011-2015	2016-2020	2021-2025	2026-2030
412-530 AF	412-530 AF	412-530 AF	412-530 AF

Users of the City COWRP water:

- Castle Oaks Golf Course (existing)

Note: As part of the development of the new WWTP, the City is considering phasing out the COWRP facility and relying entirely on the tertiary operations at the WWTP. In doing so, the service needs for Castle Oaks Golf Course would also be transferred to the WWTP's operations.

John Griffin

From: Susan Peters [speters@ci.jackson.ca.us]
Sent: Tuesday, May 31, 2011 11:47 AM
To: John Griffin
Subject: RE: Urban Water Management Plan

Hi John,

We had 1706 residential connections at of the end of 2010.

With regards to recycled water... There are no plans to recycle water. The preferred discharge option currently under environmental review is land application. So, I guess that means that annual volume of water to be recycled in the next 20 years is 0.

Let me know if you require additional information.

Susan
Susan M. Peters, AICP
City Planner
City of Jackson
33 Broadway
Jackson, CA 95642
209.223.1646
speters@ci.jackson.ca.us

-----Original Message-----

From: John Griffin [<mailto:jgriffin@amadorwater.org>]
Sent: Tuesday, May 31, 2011 9:48 AM
To: 'Susan Peters'
Subject: Urban Water Management Plan

Susan,

Good morning. Agency staff received direction to move forward with the Urban Water Management Plan last Thursday. I have reviewed your letter dated February 8, 2011. I have a couple of requests for additional information:

- Please let me know the number of residential connections at the end of Calendar Year 2010. Given the letter states that residential growth is estimated at 1% per year for the next twenty years, the calculation relies upon the baseline year residential units.
- My letter dated August 2, 2010 also requested information on anticipated recycled water use for the next twenty years. I did not find any information on recycled water use in the letter. I reviewed the August 2010 study (Wastewater Treatment, Storage, Disposal, and Reclamation Options), and tried to quantify an annual volume of water to be recycled (excess that could not be sent to Jackson Creek). Please see attached and let me know if this is reasonable to use.

For the recycled water section, this data would be updated every five years. The report would use the most reasonable data available, recognizing that plans may change.

Please respond as soon as possible, preferably no later than the end of the week.

Thanks,
John Griffin, P.E.
Supervising Engineer
Amador Water Agency
12800 Ridge Road



"Preserving Our Past, Enriching Our Present, Building Our Future"

33 Broadway, Jackson, California 95642-2301 • voice (209) 223-1646 • fax (209) 223-3141
E-mail: cinfo@ci.jackson.ca.us • Web site: <http://ci.jackson.ca.us>

February 8, 2011

John Griffin, P.E.
Supervising Engineer
Amador Water Agency
12800 Ridge Road
Sutter Creek, CA 95685-9630

Re: 2010 Urban Water Management Plan Information Request

Dear Mr. Griffin,

You have requested information regarding anticipated residential and commercial development in the City of Jackson and the City's Sphere of Influence. After reviewing the City of Jackson General Plan Update Environmental Impact Report, pending applications, and building records for the past decade, we have determined that the most accurate depiction of growth in the City of Jackson for the next twenty years will be similar to the growth rate for the past decade, which is approximately one percent per year.

Growth rates in the Commercial sector are more variable and thus harder to predict. Again, based on building records for the past decade combined with availability of commercial property and the projected population, we anticipate approximately twenty thousand square feet of commercial development every five years.

With regard to anticipated affordable housing development, the City of Jackson does not have any lots that are expressly designated for affordable housing. However, the City's Housing Element of the General Plan does identify 12 sites which would be suitable for low-income housing. For more information regarding these sites, please refer to the City's Housing Element, which may be found on-line at www.ci.jackson.ca.us.

Should you have any questions regarding this information, please do not hesitate to contact me.

Sincerely,

Susan M. Peters, AICP
City Planner

Credible estimates of the maximum potential volume of effluent in need of disposal by other means using either Condition 1 or Condition 2 can be made for any population between 4,400 and 6,500 by interpolating the estimates presented in Table 2-7.

Table 2-7
**Estimates of the Maximum Potential Volume of Effluent
 in Need of Disposal by Other Means**

Estimated Population	Can Stored Effluent be Returned to the WWTP for Discharge to Jackson Creek?	Estimated Maximum Potential Volume in Need of Disposal by Other Means ^(a)
4,400	Condition 1: no effluent returned	≤ 62 Mgal
	Condition 2: effluent returned	≤ 46 Mgal
6,500	Condition 1: no effluent returned	≤ 131 Mgal ^(b)
	Condition 2: effluent returned	≤ 130 Mgal ^(b)

- (a) More effluent may be disposed by the other means if appropriate, e.g., reclamation facilities may need some effluent that could be discharged to Jackson Creek, thus leaving more effluent assimilative capacity in Lake Amador to reduce late summer to late autumn effluent storage/disposal needs.
- (b) The totals for 6,500 people are essentially the same because even without the effluent return features, the effluent assimilative capacity of Jackson Creek/Lake Amador is utilized fully.

Baseline Year : 62 Mgal

Years 1-10: +3 Mgal/year

Years 11-20: +4 mgal/year

Total e ^{Year} 20 = 131 mgal/year

John Griffin

From: Richard Prima [richardcprima@gmail.com]
Sent: Thursday, December 02, 2010 10:13 PM
To: John Griffin
Subject: FW: AWA Urban WMP - Plymouth Input.xlsx
Attachments: AWA Urban WMP - Plymouth Input.xlsx

From: Richard Prima [<mailto:richardcprima@gmail.com>]
Sent: Thursday, December 02, 2010 8:12 PM
To: 'John Griffin'
Cc: 'Jeff Beiswenger'
Subject: AWA Urban WMP - Plymouth Input.xlsx

John,

Here's our growth numbers for purposes of the UWMP.

We don't have any adopted plans for recycled water other than what is in the Wastewater Treatment Concept Plan which calls for upgrading the WWTP to tertiary treatment when the capacity of the pond system is reached and the plant is replaced with a higher rate plant. However, that is beyond the 20 year time horizon.

Richard Prima
City of Plymouth Special Projects Manager
(209) 369-6942 (home office)
(209) 329-1085 (mobile)

City of Plymouth Input to AWA Urban Water Management Plan, 2010

<u>Land Use</u>	<u>Units</u>	Additional Units (does not include existing)				<u>Total</u>	<u>Notes, Comments</u>
		<u>Time Frame</u>					
		<u>0 - 5 yrs</u>	<u>5 - 10 yrs</u>	<u>10 - 15 yrs</u>	<u>15- 20 yrs</u>		
Residential Units	each	100	121	148	179	548	4.0% Assumed annual growth rate; # units per CMX program
Low Income Units	each	2	3	3	3	11	Draft Housing Element, total units spread
Very Low Income Units	each	2	2	2	2	8	Draft Housing Element, total units spread
Extremely Low Income Units	each	1	2	2	2	7	Draft Housing Element, total units spread
Non Residential	1,000 SF	52	65	82	104	303	4.8% Assumed annual growth rate; # units per CMX program

John Griffin

From: Mary Van Voorhis [MVANVOORHIS@ci.sutter-creek.ca.us]
Sent: Friday, June 03, 2011 10:33 AM
To: John Griffin
Cc: Anders J. Hauge <ahauge@haugebrueck.com>; Bruce Baracco; Sean Rabe; broberts@haugebrueck.com
Subject: Re: Urban Water Management Plan - Request for Information

Good morning John;
Please refer to my comments shown in **BLUE** below.
Do not hesitate to contact me if you have any additional questions.
Mary Beth

Mary Beth Van Voorhis
City of Sutter Creek
18 Main Street
Sutter Creek, CA 95685
(209) 267-5647 Ext. 245
(209) 267-0639 fax
mvanvoorhis@ci.sutter-creek.ca.us



Please think before you print!

City Hall hours Monday through Thursday, 8:30 a.m. – 5:00 p.m.

>>> John Griffin <jgriffin@amadorwater.org> 5/31/2011 10:54 AM >>>

Sean,

Good morning. Agency staff received direction to move forward with the Urban Water Management Plan last Thursday. In order to estimate water demands for the next twenty years, the Agency needs land use information from the City of Sutter Creek. I have attached excerpts from a document I received a couple of years ago from Bruce Baracco. The attached indicates anticipated residential, commercial, industrial, and institutional growth for the next forty years. Please let me know if the first attachment is acceptable for use for growth/demand projections for the Urban Water Management Plan. **The Bruce Baracco estimates are acceptable to use for growth/demand projections for the Urban Water Management Plan.**

It is important to note the Census Bureau population figures released in March 2011 for California Counties and Cities as of April 1, 2010. The Census indicates the population of Sutter Creek @ 2,501 which is a further reduction from the January 1, 2010 population estimate from CA DOF of 2,666 (a decrease of 165 residents).

The City's population was 2,303 in the Year 2000, and peaked in 2005 & 2006 at 2,725 persons. Since 2006, the City population is lower by 224 persons (8.2%).

Also reported from CA DOF Census 2010 Housing Units, Households, and Vacant Units 2000 and 2010 indicates April 1, 2000 total housing units of 1,106 with a vacancy rate of 7%. As of April 1, 2010 the total housing units were 1,367 with a vacancy rate of 14.5%.

Also, please let me know the residential growth rate to use. The attached provides various rates. **It is safe to refer to, and use, the current HCD growth projection rates (<http://www.hcd.ca.gov/hpd/hrc/rtr/chp2r.htm>). It is hard to predict, at this time, the speed at which the Gold Rush Ranch project will be constructed, other development turnovers, and existing and future economic factors.**

Lastly, I am looking for information on number of low-income housing units and recycled water usage for the next twenty years, as the State regulations require an analysis of these in the Urban Water Management Plan. I looked in the 2008 Housing Element, and I couldn't find any new information, only older information through 2008. Please let me know where I can find low-income housing data to use. **The 2008 housing element is the appropriate document to use. The City of Sutter Creek has met the low-income housing requirements and maintains appropriate zoning in place to meet future needs. Recycled water is not used in Sutter Creek. Once the wastewater treatment plant is upgraded to a tertiary system it is possible for recycled to be used. At this time there are no plans for the use of recycled water except as proposed for the Gold Rush project.**

For the recycled water analysis, I have attached an excerpt from the ARSA Master Plan. Please let me know if Table 2-1 is acceptable for use. **Table 2-1 is acceptable for use.**

Thanks,
John Griffin, P.E.
Supervising Engineer
Amador Water Agency
12800 Ridge Road
Sutter Creek, CA 95685-9630
(209) 257-5293 - direct line
(209) 257-5295 - fax line

*Please note new e-mail address jgriffin@amadorwater.org

<IMAGE.png>

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Thank You,

Amador Water Agency 12800 Ridge Road, Sutter Creek, California 95685 www.amadorwater.org

Official City of Sutter Creek Correspondence

www.ci.sutter-creek.ca.us

Official City of Sutter Creek Correspondence

www.ci.sutter-creek.ca.us

Exhibit 5: Projected Population Growth by Metro Region, MSA, and County, 1997-2020

	Population			Population Change			Percent Population Change			Percent of State Change		
	1997	2010 Proj.	2020 Proj.	1997-2010	1997-2020	2010-2020	1997-2010	1997-2020	2010-2020	1997-2010	1997-2020	2010-2020
URBAN AND METROPOLITAN COUNTIES	31,871,420	38,536,888	43,777,518	6,665,468	11,906,098	5,240,630	20.9%	37.4%	13.6%	95.2%	95.3%	95.4%
Greater Los Angeles Metro Region	16,141,025	19,157,737	21,808,471	3,016,712	5,667,446	2,650,734	18.7%	35.1%	13.8%	43.1%	45.4%	48.3%
Los Angeles County	9,524,767	10,604,452	11,575,693	1,079,685	2,050,926	971,241	11.3%	21.5%	9.2%	15.4%	16.4%	17.7%
Orange County	2,705,287	3,163,776	3,431,869	458,489	726,582	268,093	16.9%	26.9%	8.5%	6.5%	5.8%	4.9%
Riverside County	1,423,664	2,125,537	2,773,431	701,873	1,349,767	647,894	49.3%	94.8%	30.5%	10.0%	10.8%	11.8%
San Bernardino County	1,617,385	2,187,807	2,747,213	570,422	1,129,828	559,406	35.3%	69.9%	25.6%	8.1%	9.0%	10.2%
Riverside/San Bernardino MSA	3,041,049	4,313,344	5,520,644	1,272,295	2,479,595	1,207,300	41.8%	81.5%	28.0%	18.2%	19.8%	22.0%
Ventura County	727,248	854,580	981,565	127,332	254,317	126,985	17.5%	35.0%	14.9%	1.8%	2.0%	2.3%
Imperial County	142,674	221,585	298,700	78,911	156,026	77,115	55.3%	109.4%	34.8%	1.1%	1.2%	1.4%
San Francisco Bay Area Metro Region	6,631,230	7,725,520	8,293,810	1,094,290	1,662,580	568,290	16.5%	25.1%	7.4%	15.6%	13.3%	10.3%
San Francisco County	777,492	782,469	750,904	4,977	(26,588)	(31,565)	0.6%	-3.4%	-4.0%	0.1%	-0.2%	-0.6%
Marin County	243,301	258,569	268,630	15,268	25,329	10,061	6.3%	10.4%	3.9%	0.2%	0.2%	0.2%
San Mateo County	711,723	815,532	855,506	103,809	143,783	39,974	14.6%	20.2%	4.9%	1.5%	1.2%	0.7%
San Francisco MSA	1,732,516	1,856,570	1,875,040	124,054	142,524	18,470	7.2%	8.2%	1.0%	1.8%	1.1%	0.3%
Alameda County	1,398,570	1,654,485	1,793,139	255,915	394,569	138,654	18.3%	28.2%	8.4%	3.7%	3.2%	2.5%
Contra Costa County	896,214	1,025,857	1,104,725	129,643	208,511	78,868	14.5%	23.3%	7.7%	1.9%	1.7%	1.4%
Oakland-East Bay MSA	2,294,784	2,680,342	2,897,864	385,558	603,080	217,522	16.8%	26.3%	8.1%	5.5%	4.8%	4.0%
Santa Clara County (San Jose MSA)	1,671,410	2,021,417	2,196,750	350,007	525,340	175,333	20.9%	31.4%	8.7%	5.0%	4.2%	3.2%
Sonoma County (Santa Rosa MSA)	432,751	544,513	614,173	111,762	181,422	69,660	25.8%	41.9%	12.8%	1.6%	1.5%	1.3%
Solano County	378,676	479,136	552,105	100,460	173,429	72,969	26.5%	45.8%	15.2%	1.4%	1.4%	1.3%
Napa County	121,093	143,542	157,878	22,449	36,785	14,336	18.5%	30.4%	10.0%	0.3%	0.3%	0.3%
Vallejo-Fairfield-Napa	499,769	622,678	709,983	122,909	210,214	87,305	24.6%	42.1%	14.0%	1.8%	1.7%	1.6%
San Joaquin Valley Metro Region	3,172,028	4,188,340	5,082,335	1,016,312	1,910,307	893,995	32.0%	60.2%	21.3%	14.5%	15.3%	16.3%
Fresno County	778,656	953,457	1,114,403	174,801	335,747	160,946	22.4%	43.1%	16.9%	2.5%	2.7%	2.9%
Madera County	113,462	175,132	224,567	61,670	111,105	49,435	54.4%	97.9%	28.2%	0.9%	0.9%	0.9%
Fresno MSA	892,118	1,128,589	1,338,970	236,471	446,852	210,381	26.5%	50.1%	18.6%	3.4%	3.6%	3.8%
Kern County (Bakersfield MSA)	634,333	859,818	1,073,748	225,485	439,415	213,930	35.5%	69.3%	24.9%	3.2%	3.5%	3.9%
San Joaquin County (Stockton MSA)	542,193	725,868	884,375	183,675	342,182	158,507	33.9%	63.1%	21.8%	2.6%	2.7%	2.9%
Stanislaus County (Modesto MSA)	425,316	585,519	708,950	160,203	283,634	123,431	37.7%	66.7%	21.1%	2.3%	2.3%	2.2%
Merced County (Merced MSA)	201,962	264,420	319,785	62,458	117,823	55,365	30.9%	58.3%	20.9%	0.9%	0.9%	1.0%
Tulare County	358,359	469,509	569,896	111,150	211,537	100,387	31.0%	59.0%	21.4%	1.6%	1.7%	1.8%
Kings County*	117,747	154,617	186,611	36,870	68,864	31,994	31.3%	58.5%	20.7%	0.5%	0.6%	0.6%
Visalia-Tulare-Porterville MSA	476,106	624,126	756,507	148,020	280,401	132,381	31.1%	58.9%	21.2%	2.1%	2.2%	2.4%
San Diego Metro Region	2,763,318	3,441,436	3,917,001	678,118	1,153,683	475,565	24.5%	41.7%	13.8%	9.7%	9.2%	8.7%
Sacramento Metro Region	1,801,973	2,346,438	2,725,468	544,465	923,495	379,030	30.2%	51.2%	16.2%	7.8%	7.4%	6.9%
Sacramento County	1,146,882	1,436,286	1,651,765	289,404	504,883	215,479	25.2%	44.0%	15.0%	4.1%	4.0%	3.9%
Placer County	215,505	325,648	391,245	110,143	175,740	65,597	51.1%	81.5%	20.1%	1.6%	1.4%	1.2%
El Dorado County	147,386	215,155	256,119	67,769	108,733	40,964	46.0%	73.8%	19.0%	1.0%	0.9%	0.7%
Sacramento MSA	1,509,773	1,977,089	2,299,129	467,316	789,356	322,040	31.0%	52.3%	16.3%	6.7%	6.3%	5.9%
Sutter County	76,037	100,437	116,408	24,400	40,371	15,971	32.1%	53.1%	15.9%	0.3%	0.3%	0.3%
Yuba County	61,265	73,935	84,610	12,670	23,345	10,675	20.7%	38.1%	14.4%	0.2%	0.2%	0.2%
Yuba-Marysville MSA	137,302	174,372	201,018	37,070	63,716	26,646	27.0%	46.4%	15.3%	0.5%	0.5%	0.5%
Yolo County	154,898	194,977	225,321	40,079	70,423	30,344	25.9%	45.5%	15.6%	0.6%	0.6%	0.6%

Exhibit 5 continued: Projected Population Growth by Metro Region, MSA, and County, 1997-2020

	Population			Population Change			Percent Population Change			Percent of State Change		
	1997	2010 Proj.	2020 Proj.	1997-2010	1997-2020	2010-2020	1997-2010	1997-2020	2010-2020	1997-2010	1997-2020	2010-2020
Central Coast Metro Region	1,306,680	1,650,082	1,969,749	343,402	663,069	319,667	26.3%	50.7%	19.4%	4.9%	5.3%	5.8%
Monterey County (Salinas MSA)	377,828	479,638	575,102	101,810	197,274	95,464	26.9%	52.2%	19.9%	1.5%	1.6%	1.7%
San Luis Obispo County	234,661	324,741	392,329	90,080	157,668	67,588	38.4%	67.2%	20.8%	1.3%	1.3%	1.2%
Santa Barbara County	400,788	488,457	552,846	67,669	152,058	84,389	16.9%	37.9%	18.0%	1.0%	1.2%	1.5%
Santa Cruz County	247,252	309,206	367,196	61,954	119,944	57,990	25.1%	48.5%	18.8%	0.9%	1.0%	1.1%
San Benito County	46,151	68,040	82,276	21,889	36,125	14,236	47.4%	78.3%	20.9%	0.3%	0.3%	0.3%
Northern California Metro Region	461,772	612,309	722,778	150,537	261,006	110,469	32.6%	56.5%	18.0%	2.2%	2.1%	2.0%
Butte County (Chico-Paradise MSA)	198,484	258,630	307,296	60,146	108,812	48,666	30.3%	54.8%	18.8%	0.9%	0.9%	0.9%
Shasta County (Redding MSA)	163,254	212,947	240,975	49,693	77,721	28,028	30.4%	47.6%	13.2%	0.7%	0.6%	0.5%
Tehama County	54,623	70,567	83,996	15,944	29,373	13,429	29.2%	53.8%	19.0%	0.2%	0.2%	0.2%
Glenn County	26,889	39,055	49,113	12,166	22,224	10,058	45.2%	82.7%	25.8%	0.2%	0.2%	0.2%
Colusa County	18,522	31,110	41,398	12,588	22,876	10,288	68.0%	123.5%	33.1%	0.2%	0.2%	0.2%
NON-METROPOLITAN COUNTIES	1,085,141	1,420,728	1,671,109	335,587	585,968	250,381	30.9%	54.0%	17.6%	4.8%	4.7%	4.6%
Alpine County	1,205	1,449	1,701	244	496	252	20.2%	41.2%	17.4%	0.0%	0.0%	0.0%
Amador County	33,430	38,214	40,129	4,784	6,699	1,915	14.3%	20.0%	5.0%	0.1%	0.1%	0.0%
Calaveras County	37,894	53,989	62,688	16,095	24,794	8,699	42.5%	65.4%	16.1%	0.2%	0.2%	0.2%
Del Norte County	28,391	37,257	41,898	8,866	13,507	4,641	31.2%	47.6%	12.5%	0.1%	0.1%	0.1%
Humboldt County	126,069	135,602	141,092	9,533	15,023	5,490	7.6%	11.9%	4.0%	0.1%	0.1%	0.1%
Inyo County	18,262	19,447	20,694	1,185	2,432	1,247	6.5%	13.3%	6.4%	0.0%	0.0%	0.0%
Lake County	55,034	77,755	93,058	22,721	38,024	15,303	41.3%	69.1%	19.7%	0.3%	0.3%	0.3%
Lassen County	33,787	43,286	49,322	9,499	15,535	6,036	28.1%	46.0%	13.9%	0.1%	0.1%	0.1%
Mariposa County	15,976	20,672	23,390	4,696	7,414	2,718	29.4%	46.4%	13.1%	0.1%	0.1%	0.0%
Mendocino County	85,956	105,225	118,804	19,269	32,848	13,579	22.4%	38.2%	12.9%	0.3%	0.3%	0.2%
Modoc County	10,152	11,505	12,396	1,353	2,244	891	13.3%	22.1%	7.7%	0.0%	0.0%	0.0%
Mono County	10,582	12,561	14,166	1,979	3,584	1,605	18.7%	33.9%	12.8%	0.0%	0.0%	0.0%
Nevada County	88,368	120,362	136,405	31,994	48,037	16,043	36.2%	54.4%	13.3%	0.5%	0.4%	0.3%
Plumas County	20,422	22,261	23,077	1,839	2,655	816	9.0%	13.0%	3.7%	0.0%	0.0%	0.0%
Sierra County	3,412	3,559	3,575	147	163	16	4.3%	4.8%	0.4%	0.0%	0.0%	0.0%
Siskiyou County	44,199	49,538	53,676	5,339	9,477	4,138	12.1%	21.4%	8.4%	0.1%	0.1%	0.1%
Trinity County	13,245	14,668	15,594	1,423	2,349	926	10.7%	17.7%	6.3%	0.0%	0.0%	0.0%
Tuolumne County	52,151	68,404	77,350	16,253	25,199	8,946	31.2%	48.3%	13.1%	0.2%	0.2%	0.2%
Non-metropolitan population in metropolitan counties	406,606	584,974	742,094	178,368	335,488	157,120	43.9%	82.5%	26.9%	2.5%	2.7%	2.9%
STATE OF CALIFORNIA	32,956,561	39,957,616	45,448,627	7,001,055	12,492,066	5,491,011	21.2%	37.9%	13.7%	100.0%	100.0%	100.0%

SOURCE: California Department of Finance, *County Population Projections with Racial/Ethnic Detail*, December 1998.

Table 2: E-5 City/County Population and Housing Estimates, 1/1/2010

COUNTY/CITY	POPULATION			HOUSING UNITS					MOBILE HOMES	OCCUPIED	PCT VACANT	PERSONS PER HOUSEHOLD
	TOTAL	HOUSE-HOLD	GROUP QUARTERS	TOTAL	SINGLE DETACHED	ATTACHED	2 TO 4	5 PLUS				
Alameda County												
Alameda	75,409	74,683	726	32,057	12,858	4,015	5,084	9,800	300	31,013	3.26	2.408
Albany	17,021	16,988	33	7,376	3,785	198	831	2,556	6	7,110	3.61	2.389
Berkeley	108,119	101,526	6,593	48,165	20,181	1,760	9,352	16,813	59	46,184	4.11	2.198
Dublin	48,821	43,779	5,042	16,695	8,381	1,310	466	6,510	28	16,106	3.53	2.718
Emeryville	10,227	10,160	67	6,212	273	397	506	4,999	37	5,778	6.99	1.758
Fremont	218,128	216,369	1,759	72,659	42,813	7,236	3,061	18,793	756	71,388	1.75	3.031
Hayward	153,104	150,605	2,499	48,767	24,441	3,724	3,473	14,825	2,304	47,740	2.11	3.155
Livermore	85,312	85,021	291	30,165	21,744	2,695	1,258	4,037	431	29,612	1.83	2.871
Newark	44,380	44,291	89	13,424	9,213	1,240	766	2,146	59	13,263	1.20	3.339
Oakland	430,666	423,409	7,257	166,274	72,902	6,665	29,851	56,400	456	159,182	4.27	2.660
Piedmont	11,262	11,260	2	3,869	3,791	0	36	34	8	3,814	1.42	2.952
Pleasanton	70,711	70,476	235	25,961	17,146	2,802	1,169	4,388	456	25,258	2.71	2.790
San Leandro	83,183	82,356	827	32,000	19,528	2,044	2,264	7,260	904	31,294	2.21	2.632
Union City	75,054	74,712	342	20,705	12,952	2,420	1,133	3,266	934	20,446	1.25	3.654
Balance Of County Incorporated	143,460	140,778	2,682	51,136	34,585	3,474	3,454	8,696	927	50,042	2.14	2.813
County Total	1,574,857	1,546,413	28,444	575,465	304,593	39,980	62,704	160,523	7,665	558,230	2.99	2.770
Alpine												
County Total	1,189	1,188	1	1,828	1,042	55	35	634	62	581	68.22	2.045
Amador												
Amador	208	208	0	103	84	12	5	2	0	97	5.83	2.144
lone	7,707	3,610	4,097	1,540	1,248	54	66	87	85	1,441	6.43	2.505
Jackson	4,304	4,036	268	2,159	1,388	112	176	247	236	2,029	6.02	1.989
Plymouth	1,027	1,027	0	506	281	31	24	26	144	434	14.23	2.366
Sutter Creek	2,666	2,665	1	1,356	829	111	61	273	82	1,256	7.37	2.122
Balance Of County Incorporated	22,110	22,044	66	11,729	10,401	89	128	58	1,053	9,742	16.94	2.263
County Total	15,912	11,546	4,366	5,664	3,830	320	332	635	547	5,257	7.19	2.196
County Total	38,022	33,590	4,432	17,393	14,231	409	460	693	1,600	14,999	13.76	2.239
Butte												

John Griffin

From: John Griffin
Sent: Tuesday, May 31, 2011 10:55 AM
To: 'Sean Rabe'
Subject: Urban Water Management Plan - Request for Information
Attachments: 3224_001.pdf; 4179_001.pdf

Sean,

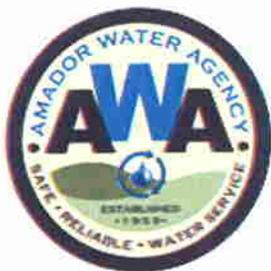
Good morning. Agency staff received direction to move forward with the Urban Water Management Plan last Thursday. In order to estimate water demands for the next twenty years, the Agency needs land use information from the City of Sutter Creek. I have attached excerpts from a document I received a couple of years ago from Bruce Baracco. The attached indicates anticipated residential, commercial, industrial, and institutional growth for the next forty years. Please let me know if the first attachment is acceptable for use for growth/demand projections for the Urban Water Management Plan. Also, please let me know the residential growth rate to use. The attached provides various rates.

Lastly, I am looking for information on number of low-income housing units and recycled water usage for the next twenty years, as the State regulations require an analysis of these in the Urban Water Management Plan. I looked in the 2008 Housing Element, and I couldn't find any new information, only older information through 2008. Please let me know where I can find low-income housing data to use.

For the recycled water analysis, I have attached an excerpt from the ARSA Master Plan. Please let me know if Table 2-1 is acceptable for use.

Thanks,
John Griffin, P.E.
Supervising Engineer
Amador Water Agency
12800 Ridge Road
Sutter Creek, CA 95685-9630
(209) 257-5293 - direct line
(209) 257-5295 - fax line

*Please note new e-mail address jgriffin@amadorwater.org



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Residential Yield for the 2006 General Plan Update

Based on the Study Area that was established for the 2006 General Plan Update, a residential yield has been calculated. This residential yield is predicated upon various development scenarios suggested by the Land Use Task Force, as well as proposed or expected residential development projects within the existing City Limits.

Keep in mind that these are initial 'rough cut' numbers that are subject to refinement and detailing. The objective was to gain a magnitude for residential buildout within the General Plan Update Study Area.

Preliminary results are as follows:

<u>Area</u>	<u>Residential Yield</u>	<u>Population</u>
Outside the Current City Limits	4,488 dwelling units	10,771
Within Existing City Limits	442 dwelling units	1,061
Total	4,930 dwelling units	11,832

This would result in a total population for Sutter Creek of 14,600 residents.

Attached for review are the detailed sheets of the analysis.

Future Growth

The rate at which the City grows will determine the anticipated population at the end of the 40-year General Plan period. Scenarios are as follows:

1. Growth at 2% per year for 40 years: 6,112 total population
2. Growth at 4% per year for 40 years: 13,289 total population
3. Growth at 4.5% per year for 40 years: 16,100 total population
3. Growth at 20 dwelling units per year for 40 years: 4,410 total population
4. Growth at 40 dwelling units per year for 40 years: 6,114 total population
5. Growth at 80 dwelling units per year for 40 years: 9,459 total population
6. Growth at 120 dwelling units per year for 40 years: 12,805 total population
7. Growth at 140 dwelling units per year for 40 years: 14,477 total population

Note: These growth numbers are based on the City's current persons per dwelling unit of 2.258, and a current occupancy rate of 92.6% (7.4% vacant).

* * * *

BB:db

Commercial

Actual 1994-2005: ~~111,111~~ 41,435¢

Annual Average: 41,435 @ 12-years = 3,453¢

Gold Country Plaza Shopping Center

140,500¢ @ 41 years = 3,415¢ per year

Outlook

8,000¢ per year @ 41 years = 328,000¢

1,400¢ per year @ 41 years = 57,400¢

~~111,111~~ 110,000 (140,500 - 30,500)

Total: 385,400¢

Less Gold Country Plaza: 140,500¢

Remaining: 245,400¢

Industrial

Actual 1994-2005: Zero

Currently under construction: 24,376¢
Grow Biz-Industrial Condos

Average w/ New Construction: 2,031¢ per year

Outlook: 2,000¢ per year @ 41 years = 82,000¢

Institutional

includes public buildings, classrooms,
new school facilities

Actual 1994-2005: 4,640¢
Community Building

Average: 387¢ per year

Outlook:

~~Projects:~~

1 new classroom - @ 960¢ per year

New school campus @ 6,240¢ per year

2,200¢ per year @ 41 years = 90,200¢

The projected ADWF and peak hour flows for the Sutter Creek WWTP service area **excluding** and **including** Gold Rush are shown in Table 2-1 and graphically in Figure 2-1.

Table 2-1. ADWF and Peak Hour Flow Projections

Year	ADWF Projections (mgd)		Peak Hour Flow Projections (mgd)	
	Excluding Gold Rush	Including Gold Rush	Excluding Gold Rush	Including Gold Rush
2010	0.31	0.31	1.63	1.63
2015	0.47	0.57	2.28	2.74
2020	0.65	0.86	2.97	3.89
2025	0.86	1.14	3.68	4.86
2030	1.25	1.53	5.13	6.25
Buildout	1.81	2.02	7.14	7.97

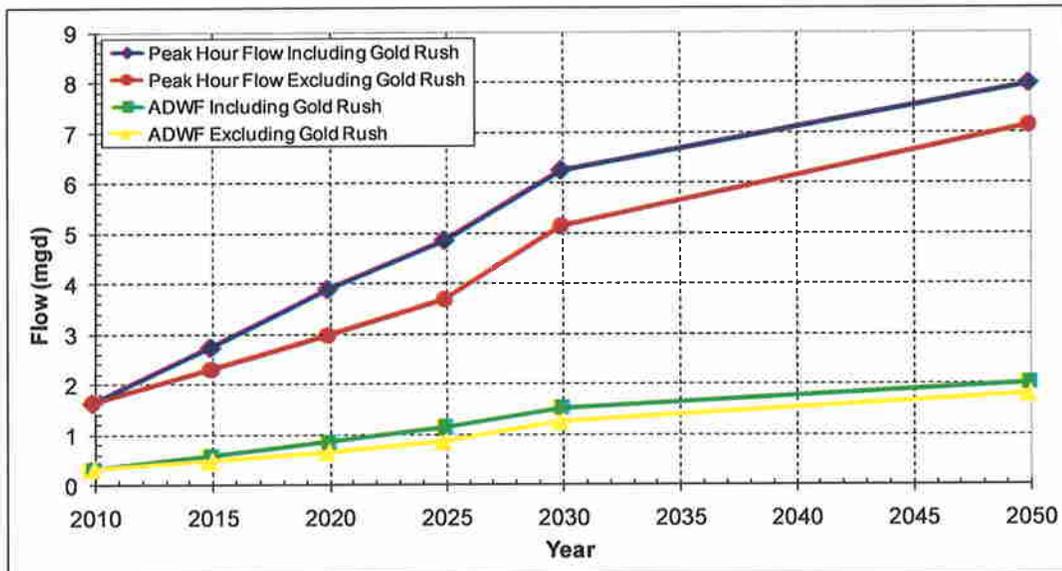


Figure 2-1. ADWF and Peak Hour Flow Projections

2.2 Peak Flow Equalization

When the new Sutter Creek WWTP is upgraded, the existing emergency storage basin / aerated lagoon could be used as an equalization basin to reduce peak flows by providing 1.1 MG of storage capacity. Reducing the peak flows would reduce the capacity needed in the ARSA system piping.

The estimated equalized flows were based on a unit hydrograph developed from historic hourly flow data from a storm event during April 6 through 8, 2006. A summary of the equalized peak flows excluding and including Gold Rush are shown in Table 2-2 and graphically in Figure 2-2. These are the peak flows that the pipelines within the ARSA system would have to be designed for.