

APPENDIX G – SB X7-7 VERIFICATION FORM

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	1,540	Million Gallons
	2008 total volume of delivered recycled water	0	Million Gallons
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period ¹	10	Years
	Year beginning baseline period range	1999	
	Year ending baseline period range ²	2008	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range ³	2008	
<p>¹If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.</p>			
<p>²The ending year must be between December 31, 2004 and December 31, 2010.</p>			
<p>³The ending year must be between December 31, 2007 and December 31, 2010.</p>			
NOTES:			

SB X7-7 Table 2: Method for Population Estimates

Method Used to Determine Population (may check more than one)	
<input type="checkbox"/>	1. Department of Finance (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
<input checked="" type="checkbox"/>	2. Persons-per-Connection Method
<input type="checkbox"/>	3. DWR Population Tool
<input checked="" type="checkbox"/>	4. Other DWR recommends pre-review

NOTES: In developing the 2015 UWMP the Suisun Solano Water Authority and Maddaus Water Management evaluated several data sources available for historical and projected population and opted to use ABAG 2013 population data as it represented the most current population information for the Suisun Solano Water Authority service area. Population estimates were provided by the Association of Bay Area Governments (ABAG) in their Plan Bay Area Projections 2013 report (<http://abag.ca.gov/planning/housing/projections13.html>) on a sub-regional jurisdictional level (not by water service area boundaries) in 5 year increments from year 1990 to 2040.

ABAG boundaries were aligned with Suisun Solano Water Authority’s service area boundary as provided by the water agency to ascertain the percent of the service area in each jurisdiction. Suisun Solano Water Authority’s population numbers were analyzed in detail by comparing both sets of boundaries. Through this analysis it was found that the majority of the Suisun Solano Water Authority water service area fell inside the City of Suisun with only the separate rural community of Mankas Corner falling outside the City of Suisun’s ABAG boundary. Mankas Corner has 23 residential parcels with an average household size of 2.9. The 2.9 household size is based on ABAG 2013 estimates for household size in the City of Suisun. This rural area, served by Suisun Solano Water Authority, but outside the City of Suisun, has approximately 68 people (23 parcels x 2.9 people per parcel = 68 people). ABAG 2013 data was also compared to the 2010 Census data for further verification of accuracy. This analysis determined a value of population that was served by Suisun Solano Water Authority within the City of Suisun and outside the City of Suisun (Mankas Corner).

The two values of inside the City of Suisun and the small rural area of Mankas Corner (population of 68) were added together to arrive at the total water service area population. In summary the ABAG population values were adjusted on the basis of the Suisun Solano Water Authority service area boundary aligning with the City of Suisun ABAG boundary with the addition of a people per connection methodology for the rural community of Mankas Corner that ensured that the population data used was consistent with the actual water area served. The described methodology was approved by Gwen Huff from the Department of Water Resources in writing via email on March 3, 2016.

SB X7-7 Table 3: Service Area Population

Year	Population	Source
10 to 15 Year Baseline Population		
Year 1	1999	26,306
		Population interpolated between 1990 and 2000 population. 1990 Census Data for Suisun City plus Mankas Corner population of 68 ppl. Mankas Corner is a rural area served by SSWA which has 23 residential parcels with a 2.9 household size. The 2.9 household size is from ABAG 2013 estimates for hhs. 1990 census population source: http://www.bayareacensus.ca.gov/cities/SuisunCity70.htm
Year 2	2000	26,708
		2013 ABAG estimate for Suisun City plus Mankas Corner population of 68 ppl. Mankas Corner is a rural area served by SSWA which has 23 residential parcels with a 2.9 household size. The 2.9 household size is from ABAG 2013 estimates for hhs.
Year 3	2001	26,942
		Interpolated population between 2000 and 2005
Year 4	2002	27,177
		Interpolated population between 2000 and 2005
Year 5	2003	27,411
		Interpolated population between 2000 and 2005
Year 6	2004	27,645
		Interpolated population between 2000 and 2005
Year 7	2005	27,879
		2013 ABAG estimate for Suisun City plus Mankas Corner population of 68 ppl. Mankas Corner is a rural area served by SSWA which has 23 residential parcels with a 2.9 household size. The 2.9 household size is from ABAG 2013 estimates for hhs.
Year 8	2006	27,941
		Interpolated population between 2005 and 2010. 2010 population based on 2013 ABAG estimate for Suisun City plus Mankas Corner population of 68 ppl. Mankas Corner is a rural area served by SSWA which has 23 residential parcels with a 2.9 household size. The 2.9 household size is from ABAG 2013 estimates for hhs.
Year 9	2007	28,002
		Interpolated population between 2005 and 2010
Year 10	2008	28,063
		Interpolated population between 2005 and 2010
5 Year Baseline Population		
Year 1	2004	27,645
		Interpolated population between 2000 and 2005
Year 2	2005	27,879
		2013 ABAG estimate for Suisun City plus Mankas Corner population of 68 ppl. Mankas Corner is a rural area served by SSWA which has 23 residential parcels with a 2.9 household size. The 2.9 household size is from ABAG 2013 estimates for hhs.
Year 3	2006	27,941
		Interpolated population between 2005 and 2010. 2010 population based on 2013 ABAG estimate for Suisun City plus Mankas Corner population of 68 ppl. Mankas Corner is a rural area served by SSWA which has 23 residential parcels with a 2.9 household size. The 2.9 household size is from ABAG 2013 estimates for hhs.
Year 4	2007	28,002
		Interpolated population between 2005 and 2010
Year 5	2008	28,063
		Interpolated population between 2005 and 2010
2015 Compliance Year Population		

SB X7-7 Table 3: Service Area Population

Year	Population	Source
2015	28,994	2013 ABAG estimate for Suisun City plus Mankas Corner population of 68 ppl. Mankas Corner is a rural area served by SSWA which has 23 residential parcels with a 2.9 household size. The 2.9 household size is from ABAG 2013 estimates for hhs.

NOTES: In developing the 2015 UWMP the Suisun Solano Water Authority and Maddaus Water Management evaluated several data sources available for historical and projected population and opted to use ABAG 2013 population data as it represented the most current population information for the Suisun Solano Water Authority service area. Population estimates were provided by the Association of Bay Area Governments (ABAG) in their Plan Bay Area Projections 2013 report (<http://abag.ca.gov/planning/housing/projections13.html>) on a sub-regional jurisdictional level (not by water service area boundaries) in 5 year increments from year 1990 to 2040.

ABAG boundaries were aligned with Suisun Solano Water Authority's service area boundary as provided by the water agency to ascertain the percent of the service area in each jurisdiction. Suisun Solano Water Authority's population numbers were analyzed in detail by comparing both sets of boundaries. Through this analysis it was found that the majority of the Suisun Solano Water Authority water service area fell inside the City of Suisun with only the separate rural community of Mankas Corner falling outside the City of Suisun's ABAG boundary. Mankas Corner has 23 residential parcels with an average household size of 2.9. The 2.9 household size is based on ABAG 2013 estimates for household size in the City of Suisun. This rural area, served by Suisun Solano Water Authority, but outside the City of Suisun, has approximately 68 people (23 parcels x 2.9 people per parcel = 68 people). ABAG 2013 data was also compared to the 2010 Census data for further verification of accuracy. This analysis determined a value of population that was served by Suisun Solano Water Authority within the City of Suisun and outside the City of Suisun (Mankas Corner).

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SB X7-7 Table 4: Annual Gross Water Use *

	Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Into Distribution System <i>Fm SB X7-7 Table(s) 4-A</i>	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water <i>Fm SB X7-7 Table 4-B</i>	Water Delivered for Agricultural Use	Process Water <i>Fm SB X7-7 Table(s) 4-D</i>	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1999	1437	0	0	0	0	0	1,437
Year 2	2000	1422	0	0	0	0	0	1,422
Year 3	2001	1467	0	0	0	0	0	1,467
Year 4	2002	1549	0	0	0	0	0	1,549
Year 5	2003	1556	0	0	0	0	0	1,556
Year 6	2004	1637	0	0	0	0	0	1,637
Year 7	2005	1643	0	0	0	0	0	1,643
Year 8	2006	1520	0	0	0	0	0	1,520
Year 9	2007	1538	0	0	0	0	0	1,538
Year 10	2008	1540	0	0	0	0	0	1,540
10 - 15 year baseline average gross water use								1,531
5 Year Baseline - Gross Water Use								
Year 1	2004	1,637	0	0	0	0	0	1,637
Year 2	2005	1,643	0	0	0	0	0	1,643
Year 3	2006	1,520	0	0	0	0	0	1,520
Year 4	2007	1,538	0	0	0	0	0	1,538
Year 5	2008	1,540	0	0	0	0	0	1,540
5 year baseline average gross water use								1,576
2015 Compliance Year - Gross Water Use								
	2015	1,058	0	0	0	0	0	1,058

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3.

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source		Solano County Water Agency under contract to City of Suisun City for Solano Project water		
This water source is:				
<input type="checkbox"/>	The supplier's own water source			
<input checked="" type="checkbox"/>	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1999	1,437	0	1,437
Year 2	2000	1,422	0	1,422
Year 3	2001	1,467	0	1,467
Year 4	2002	1,549	0	1,549
Year 5	2003	1,556	0	1,556
Year 6	2004	1,637	0	1,637
Year 7	2005	1,643	0	1,643
Year 8	2006	1,520	0	1,520
Year 9	2007	1,538	0	1,538
Year 10	2008	1,540	0	1,540
5 Year Baseline - Water into Distribution System				
Year 1	2004	1,637	0	1,637
Year 2	2005	1,643	0	1,643
Year 3	2006	1,520	0	1,520
Year 4	2007	1,538	0	1,538
Year 5	2008	1,540	0	1,540
2015 Compliance Year - Water into Distribution System				
2015		1,058	0	1,058
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1999	26,306	1,437	150
Year 2	2000	26,708	1,422	146
Year 3	2001	26,942	1,467	149
Year 4	2002	27,177	1,549	156
Year 5	2003	27,411	1,556	155
Year 6	2004	27,645	1,637	162
Year 7	2005	27,879	1,643	161
Year 8	2006	27,941	1,520	149
Year 9	2007	28,002	1,538	150
Year 10	2008	28,063	1,540	150
10-15 Year Average Baseline GPCD				153
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2004	27,645	1,637	162
Year 2	2005	27,879	1,643	161
Year 3	2006	27,941	1,520	149
Year 4	2007	28,002	1,538	150
Year 5	2008	28,063	1,540	150
5 Year Average Baseline GPCD				155
2015 Compliance Year GPCD				
2015		28,994	1,058	100

SB X7-7 Table 6: Gallons per Capita per Day <i>Summary From Table SB X7-7 Table 5</i>			
10-15 Year Baseline GPCD			153
5 Year Baseline GPCD			155
2015 Compliance Year GPCD			100

SB X7-7 Table 7: 2020 Target Method

Select Only One

Target Method		Supporting Documentation
<input type="checkbox"/>	Method 1	SB X7-7 Table 7A
<input type="checkbox"/>	Method 2	SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i>
<input checked="" type="checkbox"/>	Method 3	SB X7-7 Table 7-E
<input type="checkbox"/>	Method 4	Method 4 Calculator

SB X7-7 Table 7-E: Target Method 3

Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
<input type="checkbox"/>		North Coast	137	130
<input type="checkbox"/>		North Lahontan	173	164
<input type="checkbox"/>		Sacramento River	176	167
<input checked="" type="checkbox"/>	100%	San Francisco Bay	131	124
<input type="checkbox"/>		San Joaquin River	174	165
<input type="checkbox"/>		Central Coast	123	117
<input type="checkbox"/>		Tulare Lake	188	179
<input type="checkbox"/>		South Lahontan	170	162
<input type="checkbox"/>		South Coast	149	142
<input type="checkbox"/>		Colorado River	211	200
Target <i>(If more than one region is selected, this value is calculated.)</i>				124

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target

5 Year Baseline GPCD <i>From SB X7-7 Table 5</i>	Maximum 2020 Target*	Calculated 2020 Target <i>Fm Appropriate Target Table</i>	Confirmed 2020 Target
155	147	124	124

* Maximum 2020 Target is 95% of the 5 Year Baseline GPCD

SB X7-7 Table 8: 2015 Interim Target GPCD

Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	2015 Interim Target GPCD
124	153	138

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments (in GPCD)					Adjusted 2015 GPCD	2015 GPCD (Adjusted if applicable)	Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments				
100	138	0	0	0	0	100	100	YES	