

## **APPENDIX 2-1: 60-DAY NOTICE FOR URBAN WATER MANAGEMENT PLAN 2020 UPDATE**

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# City of Watsonville

*"A Community of Opportunities"*

February 10, 2021

SUBJECT: CITY OF WATSONVILLE 2020 URBAN WATER MANAGEMENT PLAN UPDATE

Pursuant to California Water Code §10621(b), the City of Watsonville (City) does hereby give notice that it is in the process of reviewing its 2015 Urban Water Management Plan (UWMP) and updating it for the 2020 UWMP Update. As part of this process, the City is also reviewing and updating its Water Shortage Contingency Plan.

The Urban Water Management Planning Act (Act) requires that each urban water supplier providing water to more than 3,000 customers, or providing more than 3,000 acre-feet of water annually, shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update and projections for a 20-year planning period.

Watsonville's Draft 2020 UWMP Update is anticipated to be available in May 2021 for review on the City's website, with a Public Hearing and City Council adoption planned on June 22, 2021. If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Beau Kayser".

Beau Kayser  
Water Division Manager  
(831) 768-3193  
[beau.kayser@cityofwatsonville.org](mailto:beau.kayser@cityofwatsonville.org)

RE: City of Watsonville: 60-day notice for Urban Water Management Plan 2020 update...

File Message Insert Options Format Text Review Tell me what you want to do...

Clipboard Paste Basic Text Address Book Names Attach File Attach Item Assign Policy Office Add-ins Insights View Templates My Templates

To... Brian Lockwood <Lockwood@pvwater.org>; Sierra Ryan <Sierra.Ryan@santacruzcounty.us>; Tim Carson <tcarson@cfsc.org>; Joe.Serrano@santacruzcounty.us; donrosa@pajarosunnymesa.com; robert@aromaswaterdistrict.org

Cc... Subject RE: City of Watsonville: 60-day notice for Urban Water Management Plan 2020 update

**From:** Beau Kayser <beau.kayser@cityofwatsonville.org>

**Sent:** Wednesday, February 10, 2021 9:36 AM

**To:** Brian Lockwood <Lockwood@pvwater.org>; Sierra Ryan <Sierra.Ryan@santacruzcounty.us>; Tim Carson <tcarson@cfsc.org>; Joe.Serrano@santacruzcounty.us; donrosa@pajarosunnymesa.com; robert@aromaswaterdistrict.org

**Cc:** Christy Cooper <Christy.Cooper@weareharris.com>

**Subject:** City of Watsonville: 60-day notice for Urban Water Management Plan 2020 update

Good morning,

I am attaching the City of Watsonville's notification letter informing you that we are working on an update to our 2015 Urban Water Management Plan.

Please contact me if you have any questions.

thank you,

Beau

**Beau Kayser**

**City of Watsonville Water Division**

**desk phone: (831) 768-3193**

**[beau.kayser@cityofwatsonville.org](mailto:beau.kayser@cityofwatsonville.org)**

## APPENDIX 3-2: POPULATION CALCULATIONS

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## APPENDIX 3-2: POPULATION CALCULATIONS

### DWR POPULATION TOOL

The DWR Population tool was created by DWR to assist water agencies in developing population projections for Urban Water Management Plans. The tool combines the agencies' Water Service Areas with US Census data to estimate populations.

The DWR Population tool was utilized for the purpose of estimating the population of Watsonville's Water Service Area (WSA). In order to provide context to the population results, the WSA population was compared to the City of Watsonville's population (which is a subset of the Water Service Area).

Initially, the tool overestimated the decline in the number of persons per connection. The tool returned a Water Service Area population of 61,710 for 2020 (see Figure 1 below), a 4.6 percent decline since 2010. However, the California Department of Finance indicated that the City's population (which is less than the Water Service Area) remained mostly steady from 2010-2020, slightly increasing from 51,199 to 51,515 persons (Table 1), or 0.62%. During this same time period, Watsonville's number of residential water connections increased by a total of 0.89% (Table 2). The 4.6% decline in population was therefore deemed unlikely.

The DWR Population Tool provided an Acceptable Modification when the tool's persons-per-connection trend line was incorrect. The Acceptable Modification provided a new calculation for population (see Figure 2): use the 2010 persons-per-connection of 5.043 times the 2020 residential and multifamily connections of 12,935 (see Table 2). This results in a **2020 population estimate of 65,231**. This figure represented a 0.8% increase over the 2010 population reported in the 2015 UWMP, a growth rate that was consistent with both the California Department of Finance estimates for the region and growth in Watsonville's residential water connections.

Population Growth Rates based on 2010 vs 2015 Persons-Per-Connection:

- 0.80% 2010-2020 WSA Population Growth Rate based on 2010 Connections-Per-Person (Population = 65,231)
- 2.8% 2010-2020 WSA Population Growth Rate based on 2015 Connections-Per-Person (Population = 66,480)

Comparison Growth Rates:

- 0.62% 2010-2020 City of Watsonville Population Growth Rate
- 0.89% 2010-2020 WSA Residential Connections Growth Rate

The Guidebook suggested using 2015 persons-per-connection as an Acceptable Modification. Utilizing 2015 provided an over-aggressive population growth rate of 2.8%. Therefore, the 2010 persons-per-connection figure was used as the basis for the Acceptable Modification.

**Table 1: City of Watsonville Population (City is a subset of the Water Service Area)**

Year	Population	Annual Growth Rate	2010-2020 Growth Rate
<b>2010</b>	51,199		
<b>2011</b>	51,431	0.45%	
<b>2012</b>	51,844	0.80%	
<b>2013</b>	51,890	0.09%	
<b>2014</b>	52,092	0.39%	
<b>2015</b>	52,410	0.61%	
<b>2016</b>	52,431	0.04%	
<b>2017</b>	52,330	-0.19%	
<b>2018</b>	52,045	-0.54%	
<b>2019</b>	51,672	-0.72%	
<b>2020</b>	51,515	-0.30%	0.62%

Source: California Department of Finance, [E-4 Population Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark \(May 1, 2020\)](#).

**Figure 1: DWR Population Tool**

Confirmation Information			
Generated By Christine Cooper	Water Supplier Name Watsonville City Of	Confirmation # 1250318229	Generated On 2/25/2021 2:41:50 PM

Boundary Information		
Census Year	Boundary Filename	Internal Boundary ID
1990	watsonville_waterservicearea.kml	1535
2000	watsonville_waterservicearea.kml	1535
2010	watsonville_waterservicearea.kml	1535
1990	watsonville_waterservicearea.kml	1535
2000	watsonville_waterservicearea.kml	1535
2010	watsonville_waterservicearea.kml	1535
1990	watsonville_waterservicearea.kml	1535
2000	watsonville_waterservicearea.kml	1535
2010	watsonville_waterservicearea.kml	1535

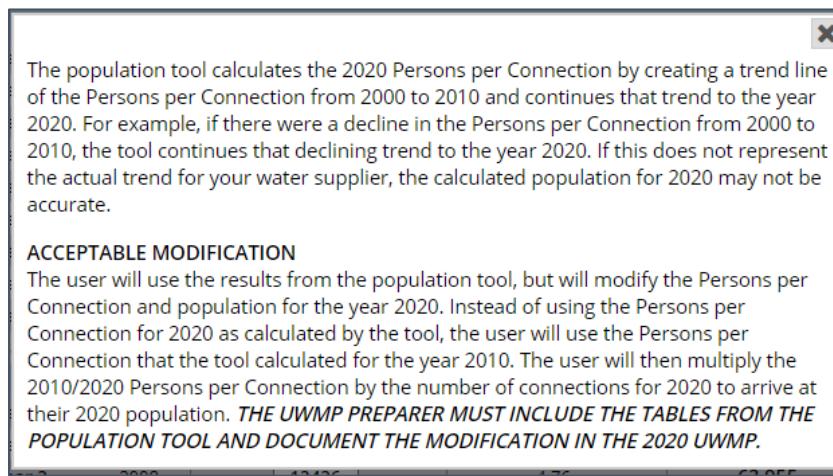
Baseline Period Ranges	
10 to 15-year baseline period	
Number of years in baseline period:	<input type="button" value="10"/>
Year beginning baseline period range:	<input type="button" value="2001"/>
Year ending baseline period range <sup>1</sup> :	2010
5-year baseline period	
Year beginning baseline period range:	<input type="button" value="2006"/>
Year ending baseline period range <sup>2</sup> :	2010

<sup>1</sup> The ending year must be between December 31, 2004 and December 31, 2010.  
<sup>2</sup> The ending year must be between December 31, 2007 and December 31, 2010.

Persons per Connection			
Year	Census Block Level	Number of Connections *	Persons per Connection
	Total Population		
1990	46,555		5.60
1991	-	-	5.57
1992	-	-	5.54
1993	-	-	5.51
1994	-	-	5.49
1995	-	-	5.46
1996	-	-	5.43
1997	-	-	5.40
1998	-	-	5.38
1999	-	-	5.35
2000	59,001	11089	5.32
2001	-	-	5.29
2002	-	-	5.26
2003	-	-	5.24
2004	-	-	5.21
2005	-	-	5.18
2006	-	-	5.15
2007	-	-	5.12
2008	-	-	5.10
2009	-	-	5.07
2010	64,664	12821	5.04
2011	-	-	5.01
2012	-	-	4.99
2013	-	-	4.96
2014	-	-	4.93
2015	-	-	4.90
2020	-	-	4.77 **

Population Using Persons-Per-Connection				
Year		Number of Connections *	Persons per Connection	Total Population
10 to 15 Year Baseline Population Calculations				
Year 1	2001	11196	5.29	59,249
Year 2	2002	11226	5.26	59,094
Year 3	2003	11474	5.24	60,078
Year 4	2004	11920	5.21	62,079
Year 5	2005	13602	5.18	70,458
Year 6	2006	13740	5.15	70,788
Year 7	2007	13768	5.12	70,547
Year 8	2008	13436	5.10	68,470
Year 9	2009	13654	5.07	69,198
Year 10	2010	12821	5.04	64,664
5 Year Baseline Population Calculations				
Year 1	2006	13740	5.15	70,788
Year 2	2007	13768	5.12	70,547
Year 3	2008	13436	5.10	68,470
Year 4	2009	13654	5.07	69,198
Year 5	2010	12821	5.04	64,664
2020 Compliance Year Population Calculations				
2020		12935	4.77 **	61,710

**Figure 2: DWR Population Tool, Acceptable Modification**



In 2010, the reported number of residential connections for new accounts was incorrect due to double counting related to new accounts (people moving, not new development). This error was corrected in 2011. To get 2010 residential connections, the 2009 and 2011 persons-per-connection were averaged, as shown below.

**Table 2: Persons / Connection**

Year	Population	Residential Connections*	Persons/Connection	2010-2020 Growth Rate
2000	59,003	11,089	5.321	
2001	58,517	11,196	5.227	
2002	58,445	11,226	5.206	
2003	59,502	11,474	5.186	
2004	61,572	11,920	5.165	
2005	69,982	13,602	5.145	
2006	70,412	13,740	5.125	
2007	70,275	13,768	5.104	
2008	68,306	13,463	5.074	
2009	69,136	13,654	5.063	
2010*	64,657	12,821	5.043	
2011	63,626	12,668	5.023	
2012	63,588	12,712	5.002	
2013	63,687	12,784	4.988	
2014	63,436	12,786	4.961	
2015	65,966	12,835	5.140	
2020	65,231	12,935	5.043	0.89%

\*Persons/Connection is calculated as average of 2009 and 2011

## **APPENDIX 3-3: EXTRACT FROM APPENDIX A OF DRAFT WATER MASTER PLAN FUTURE SYSTEM EVALUATION**

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## Appendix A

# DEMAND PROJECTION ASSUMPTIONS

### Background and Purpose

The purpose of this appendix is to document the water demand projection assumptions that will be used in the development of future system demands for the City of Watsonville (City) Water Master Plan (Master Plan). The demand projections are presented for the 20-year planning horizon of the Master Plan (through Year 2040).

Long-term water master planning typically relies on several sources of information to estimate future water needs associated with growth and development, including census projections and adopted General Plan information such as future land use maps. The City's water service area (WSA) encompasses both City limits and portions of unincorporated Santa Cruz County (County) including Corralitos, Amesti and Pajaro Dunes. Hence, Carollo requested planning information from both the City's Community Development Department and the County's Planning Department.

The City's planning document currently in effect is the 2005 General Plan, which was adopted in 1990. The City prepared a Draft Watsonville Vista 2030 General Plan; however, this document was the subject of litigation and has not replaced the 2005 General Plan. The City has directed Carollo to not use the Draft 2030 General Plan for developing this Water Master Plan, and instead has prepared preliminary future land use information which forms the basis of the assumptions described in this appendix. The preliminary future land use information was presented and discussed at a meeting with Carollo, the City Public Works and Utilities Department, and the City Community Development Department, and the meeting presentation slides is attached to the end of this appendix.

The County's planning document currently in effect is the 2005 General Plan (updated in May 1994). Updated information such as land use maps were provided by the County and were also used in the assumptions described in this appendix.

### Existing Demands

The City has been very successful in implementing water conservation throughout the WSA. Conservation has reduced existing demands over the past decade from 98 gpcd in 2008 to 83 gpcd in 2018 (total demand). It is assumed that existing demands (i.e. demands without growth or development) will not be reduced further and that existing demands will remain at current levels in the future.

Pajaro Valley Water Management Agency (PV Water) pulls water from Zone 1 at the Water Reclamation Facility. Flows are limited to 2000 gpm demand for several hours per day normally, but are restricted to 1,000 gpm from 10 PM – 8 AM. PV Water does not take water between midnight and 5 AM unless they give verbal warning. For future maximum day demand planning, we assume flows to PV Water will not increase in the future (will remain at a maximum of 2,000 gpm for 14 hrs/day).

## Population and Employment Projections

Carollo received population and employment projections from the Association of Monterey Bay Area Governments (AMBAG). The current 2040 Metropolitan Transportation Plan and the Sustainable Communities Strategy (MTP/SCS) and Regional Travel Model (adopted in June of 2018 by AMBAG) are the most current population and employment projections available for the City and unincorporated Santa Cruz County.

The data was received on a per census tract basis. Each census tract was assigned a percentage within the City's WSA. Then, the employment and population were totaled for the WSA. As shown in Table 1, AMBAG projects that between Years 2015 to 2040 the WSA population will increase by 7,610 people (or 11.5 percent) and the total employment will increase by 4,567 (or 18.1 percent).

Table 1      **Watsonville Water Service Area Population and Employment**

Year	Population	Construction, Commercial, Retail, and Institutional Employment	Industrial Employment	Total Employment
2015	65,966	23,456	1,839	25,295
2020	66,643	24,157	2,125	26,281
2035	72,041	26,663	2,366	29,028
2040	73,576	27,434	2,429	29,862

Source: Calculated from AMBAG population and employment projections.

## Vacant and Underutilized Parcels and Major Projects

Assumptions were made for how vacant and underutilized parcels will be developed in the future. Pending major projects that are under permitting review, pending permitting approval, or currently under construction were also incorporated into the analysis. These areas are further described below.

### Downtown Area

The City recently started preparing a specific plan for the Downtown area, which is not expected to be completed or adopted until 2021. The City provided Carollo with preliminary Downtown development data to use for the Water Master Plan. The area proposed to be covered by the Downtown specific plan is shown in Figure 1. Preliminary land use planning data for the Downtown specific plan is shown in Table 2. The Downtown area has three growth scenarios. For the Water Master Plan, we will assume the medium growth scenario for the Downtown area.

Table 2      **Downtown Watsonville Development Projections**

	HIGH		MEDIUM		LOW	
Residential units (du)		4,432		2,369		1,843
Cafes, restaurants, bars, etc. (SF)	60%	772,123	60%	613,349	60%	460,012
Retail (SF)	20%	257,374	20%	204,450	20%	153,337
Office (SF)	5%	64,344	5%	51,112	5%	38,334
Industrial (SF)	15%	193,031	15%	153,337	15%	115,003
<b>Total (SF)</b>	<b>1,286,871</b>		<b>1,022,249</b>		<b>766,686</b>	

Source: City Principal Planner (Justin Meek), August 2019.

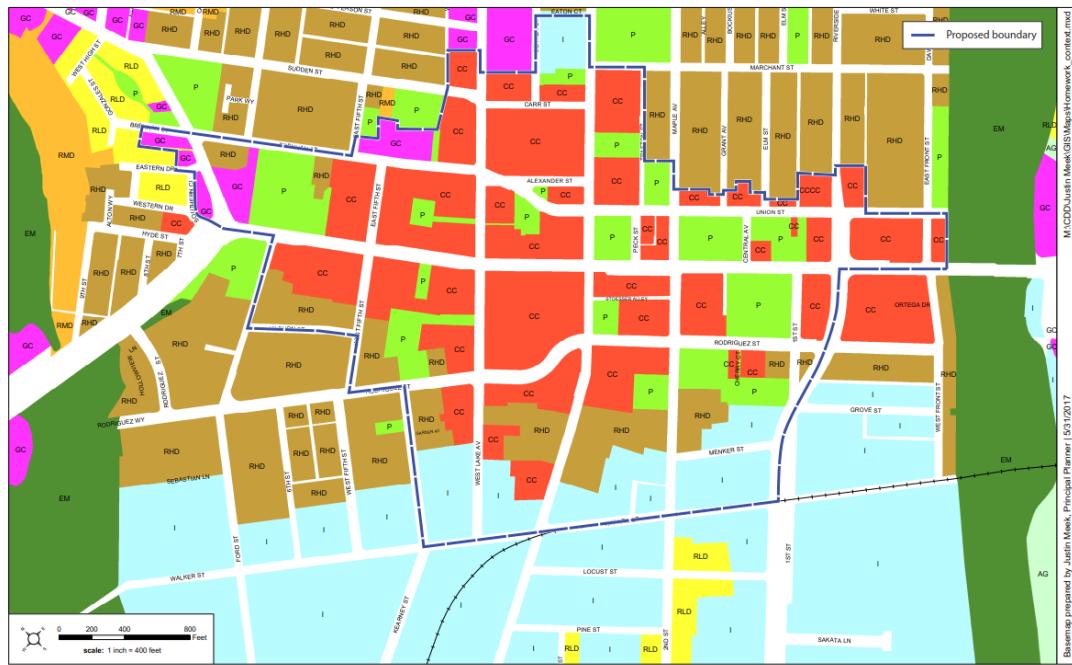


Figure 1      **Downtown Specific Plan Area**

Source: City Principal Planner (Justin Meek), August 2019.

### Vacant Parcels Within City Limits

The City provided Carollo a current Vacant and Underutilized Land map, shown in Figure 2. This map categorizes vacant land by three categories: vacant land, vacant land with environmental constraints such as sloughs or deep slopes, and vacant land with entitlement. Table 3 summarizes the vacant parcels without constraints within City limits, excluding the parcels covered by Major Projects as discussed below. The vacant parcels without constraints are the dark blue areas shown in Figure 2. It is assumed that these parcels will develop within the next 20 years.

Table 3      **Vacant Parcels Without Constraints and Within City Limits**

Land Use Category	Acres
Central Commercial	2.8
General Commercial	18.7
Industrial	86.2
Public/Quasi-Public	4.7
Residential High Density	1.9
Residential Low Density	8.5
Residential Medium Density	4.2
Specific Plan Area (Assumed to be Residential Low Density)	2.7

Source: Data from GIS Shapefile provided by City GIS staff (David Rosenow), 2019.

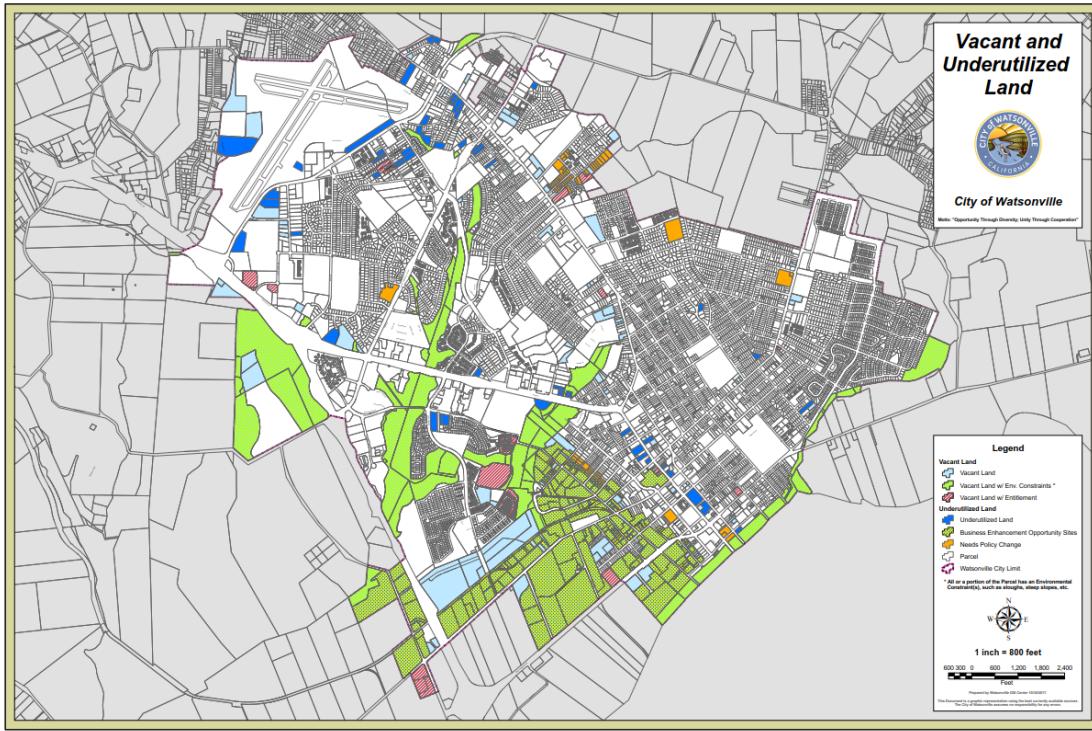


Figure 2    Vacant Land in the City of Watsonville

### Underutilized Parcels within City Limits

Information from the City indicated that some redevelopment may be expected in the Freedom Blvd and East Lake corridors within the next 20 years. The corridors are shown in purple (Freedom Blvd) and red (East Lake) on Figure 3. Though the City has indicated that there is potential interest in developing the Freedom and East Lake Corridors, since there are no current timelines for developing specific plans for these corridors, Carollo assumes that the areas will have no changes in future land use. Because this is a major assumption that could significantly affect future water system demands, we recommend that the City update this Water Master Plan at least every five (5) years and reevaluate this assumption to reflect City planning updates.

In order to estimate future demands on underutilized parcels within City limits, the theoretical demand for these corridors is calculated using duty factors presented later in this document. The amount of future demands that could be realized by development can be assumed based on calculating the difference between the theoretical and existing demands. Existing demands for this region, based on billing records, is subtracted from the calculated theoretical demands for these corridors. If the existing demand is greater than the theoretical future demand, then future demands due to redevelopment is assumed to be zero.

## APPENDIX 4-1: PWS STATISTICS 2015–2020

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## PUBLIC WATER SYSTEM STATISTICS

Calendar Year 2015

<b>Watsonville, City of</b>
Beau Kayser, Water Operations Sup.
500 CLEARWATER LANE
WATSONVILLE, CA 95077
<b>PWS# 4410011 SCRO</b>

**1. General Information**

Please follow the provided instructions.

Contact : Beau Kayser  
 Title: Water Operations Supervisor  
 Phone: (831) 768-3193  
 Fax: (831) 763-1970  
 E-mail: beau.kayser@cityofwatsonville.org  
 Website: http://www.cityofwatsonville.org  
 County: Santa Cruz  
 Population served: 65,739  
 Names of communities served: Watsonville, Freedom, Corralitos

**2. Active Service Connections**

Customer Class	Potable Water		Recycled Water	
	Metered	Unmetered	Metered	Unmetered
Single Family Residential	12608			
Multi-family Residential	227			
Commercial/Institutional	1125			
Industrial	17			
Landscape Irrigation	408			
Other	396			
Agricultural Irrigation	1			
<b>TOTAL</b>	<b>14782</b>			

**3. Total Water Into the System** - Units of production:**MG**

(Select: AF=acre-feet; MG=million gallons; CCF=hundred cubic feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Potable	Wells	152.46	154.31	172.56	182.34	210.01	222.97	234.75	227.15	214.12	184	150.41	133.47 2238.55
	Surface	0	0	0	0	0	0	0	0	0	0	0	0
	Purchased <sup>1/</sup>												
	<b>Total Potable</b>	<b>152.46</b>	<b>154.31</b>	<b>172.56</b>	<b>182.34</b>	<b>210.01</b>	<b>222.97</b>	<b>234.75</b>	<b>227.15</b>	<b>214.12</b>	<b>184</b>	<b>150.41</b>	<b>133.47 2238.55</b>
Untreated Water													
Recycled <sup>2/</sup>													

1/ Potable wholesale supplier(s): \_\_\_\_\_

2/ Recycled wholesale supplier(s): \_\_\_\_\_

Level of treatment:

**4. Metered Water Deliveries** - Units of delivery:**MG**

(Select: AF=acre-feet; MG=million gallons; CCF=hundred cubic feet)

If recycled is included, X box ↓	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
A.SingleFamilyResidential	85.40	76.08	73.75	91.87	73.94	75.72	101.30	81.43	114.10	84.17	86.68	79.70	1024.13
B.Multi-family Residential	24.90	20.30	20.43	26.21	21.66	21.59	28.08	22.09	27.41	21.36	20.72	24.07	278.84
C.Commercial/Institutional	29.73	20.30	20.53	28.88	24.39	24.89	33.71	27.34	35.48	27.05	23.52	24.07	319.89
D.Industrial	9.04	12.63	12.17	7.43	20.32	12.70	11.15	4.30	8.61	13.50	16.96	9.37	138.17
E.Landscape Irrigation	2.99	3.84	4.96	11.73	9.92	11.04	15.79	12.81	15.03	12.84	8.61	3.80	113.36
F.Other	0.39	0.56	0.54	0.99	0.89	1.11	3.06	2.21	2.16	1.31	0.97	0.74	14.94
<b>Total Urban Retail (A thru F)</b>	<b>152.44</b>	<b>133.71</b>	<b>132.38</b>	<b>167.11</b>	<b>151.12</b>	<b>147.05</b>	<b>193.09</b>	<b>150.18</b>	<b>202.80</b>	<b>160.23</b>	<b>157.46</b>	<b>141.74</b>	<b>1889.32</b>
Agricultural Irrigation	9.20	14.74	11.65	18.40	34.11	47.69	50.53	45.00	28.61	7.93	8.45	4.71	281.01
Wholesale(to other agencies)													

## PUBLIC WATER SYSTEM STATISTICS

Calendar Year 2016

<b>Watsonville, City of</b>	<b>PWS# 4410011</b>
Beau Kayser, Water Operations Sup.	SCRO
500 CLEARWATER LANE	WATSONVILLE, CA 95077

**1. General Information**

Please follow the provided instructions.

Contact : Beau Kayser  
 Title: Water Operations Supervisor  
 Phone: (831) 768-3193  
 Fax: (831) 763-1970  
 E-mail: beau.kayser@cityofwatsonville.org  
 Website: http://www.cityofwatsonville.org  
 County: Santa Cruz  
 Population served: 65,966  
 Names of communities served: Watsonville, Freedom, Corralitos

**2. Active Service Connections**

Customer Class	Potable Water		Recycled Water	
	Metered	Unmetered	Metered	Unmetered
Single Family Residential	12599			
Multi-family Residential	226			
Commercial/Institutional	1118			
Industrial	17			
Landscape Irrigation	407			
Other	398			
Agricultural Irrigation	1			
<b>TOTAL</b>	<b>14766</b>			

**3. Total Water Into the System** - Units of production:**MG**

(Select: AF=acre-feet; MG=million gallons; CCF=hundred cubic feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Potable	Wells	133.37	139	148.47	163.41	198.95	220.42	217.91	212.4	206.12	180.56	150.5	134.36
	Surface						12.95	22.95	16.11	8.46			60.47
	Purchased <sup>1/</sup>												
	<b>Total Potable</b>	<b>133.37</b>	<b>139</b>	<b>148.47</b>	<b>163.41</b>	<b>198.95</b>	<b>233.37</b>	<b>240.86</b>	<b>228.51</b>	<b>214.58</b>	<b>180.56</b>	<b>150.5</b>	<b>134.36</b>
Untreated Water													
Recycled <sup>2/</sup>													

1/ Potable wholesale supplier(s):

2/ Recycled wholesale supplier(s):

Level of treatment:

**4. Metered Water Deliveries** - Units of delivery:**MG**

(Select: AF=acre-feet; MG=million gallons; CCF=hundred cubic feet)

If recycled is included, X box ↓	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
A.SingleFamilyResidential	79.68594	77.43595	80.74136	67.69998	72.50439	108.7742	90.3023	87.32077	105.2982	87.87055	94.72747	71.19988	1023.561
B.Multi-family Residential	18.97227	19.02314	23.93226	19.69783	20.39272	26.88686	22.58661	22.7407	27.59222	21.30753	25.69978	19.49812	268.33
C.Commercial/Institutional	17.66851	19.92373	23.71758	20.45406	23.01372	32.59186	28.14425	28.34022	33.15884	27.68647	27.80466	19.22958	301.7335
D.Industrial	5.91294	10.659	14.06913	12.59931	13.77666	14.07886	10.74203	8.465864	8.774788	17.59745	18.87952	11.63439	147.1899
E.Landscape Irrigation	1.996412	1.899172	3.306908	3.825272	7.624364	16.2503	16.43954	17.13967	19.38292	13.65773	7.208476	2.5058	111.2366
F.Other	0.712844	0.769692	0.839256	0.71808	0.638044	1.037476	1.764532	1.958264	1.783232	1.160148	0.8041	0.409156	12.59482
<b>Total Urban Retail (A thru F)</b>	<b>124.9489</b>	<b>129.7107</b>	<b>146.6065</b>	<b>124.9945</b>	<b>137.9499</b>	<b>199.6195</b>	<b>169.9793</b>	<b>165.9655</b>	<b>195.9902</b>	<b>169.2799</b>	<b>175.124</b>	<b>124.4769</b>	<b>1864.646</b>
Agricultural Irrigation		4.16	7.36	3.77	12.41	19.18	40.02	42.24	32.47	25.02	6.41	7.92	3.15
Wholesale(to other agencies)													

## PUBLIC WATER SYSTEM STATISTICS

Calendar Year 2017

<b>Watsonville, City of</b>
Beau Kayser, Water Operations Sup.
500 CLEARWATER LANE
WATSONVILLE, CA 95077
<b>PWS# 4410011 SCRO</b>

**1. General Information**

Please follow the provided instructions.

Contact : Beau Kayser

Title: Water Operations Supervisor

Phone: (831) 768-3193

Fax: (831) 763-1970

E-mail: beau.kayser@cityofwatsonville.org

Website: http://www.cityofwatsonville.org

County: Santa Cruz

Population served: 65,966

Names of communities served:

Watsonville, Freedom, Corralitos

**2. Active Service Connections**

Customer Class	Potable Water		Recycled Water	
	Metered	Unmetered	Metered	Unmetered
Single Family Residential	12630			
Multi-family Residential	223			
Commercial/Institutional	1134			
Industrial	16			
Landscape Irrigation	411			
Other	406			
Agricultural Irrigation	1			
<b>TOTAL</b>	<b>14821</b>			

**3. Total Water Into the System** - Units of production:**MG**

(Select: AF=acre-feet; MG=million gallons; CCF=hundred cubic feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Potable	Wells	138.2164	127.5365	152.8345	150.9138	219.7059	208.3639	223.0763	194.8958	193.1198	178.8118	138.9393	131.7766
	Surface	0	0	0	0	0	22.547	26.60396	38.338	32.799	39.14484	29.259	33.988
	Purchased <sup>1/</sup>												
	<b>Total Potable</b>	<b>138.2164</b>	<b>127.5365</b>	<b>152.8345</b>	<b>150.9138</b>	<b>219.7059</b>	<b>230.9109</b>	<b>249.6802</b>	<b>233.2338</b>	<b>225.9188</b>	<b>217.9567</b>	<b>168.1983</b>	<b>165.7646</b>
Untreated Water													
Recycled <sup>2/</sup>													

1/ Potable wholesale supplier(s): \_\_\_\_\_

2/ Recycled wholesale supplier(s): \_\_\_\_\_

Level of treatment:

**4. Metered Water Deliveries** - Units of delivery:**MG**

(Select: AF=acre-feet; MG=million gallons; CCF=hundred cubic feet)

If recycled is included, X box ↓	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
A.SingleFamilyResidential	66.03942	70.77426	86.86225	73.63462	72.10645	112.8837	90.64788	127.4457	97.11957	103.497	104.7888	69.60888	1075.409
B.Multi-family Residential	18.60575	17.13892	26.50912	19.57965	20.62236	27.07311	22.48712	28.46664	22.55145	21.89172	26.7021	19.7113	271.3392
C.Commercial/Institutional	17.51068	17.21672	26.79411	21.318	21.68901	32.76689	28.06571	36.35804	29.26026	29.31562	34.45812	22.60381	317.357
D.Industrial	6.77314	11.73762	12.16772	12.50357	12.2485	13.3129	9.127096	8.546648	8.135996	15.70202	17.95499	11.51022	139.7204
E.Landscape Irrigation	2.425764	1.8326	2.945624	2.067472	4.932312	16.29294	17.27581	23.38248	18.54741	16.24731	15.24125	4.994396	126.1854
F.Other	0.362032	0.36652	0.403172	0.631312	0.711348	1.371832	1.567808	2.597056	1.609696	1.603712	1.313488	0.5984	13.13638
<b>Total Urban Retail (A thru F)</b>	<b>111.7168</b>	<b>119.0666</b>	<b>155.682</b>	<b>129.7346</b>	<b>132.31</b>	<b>203.7013</b>	<b>169.1714</b>	<b>226.7966</b>	<b>177.2244</b>	<b>188.2574</b>	<b>200.4588</b>	<b>129.027</b>	<b>1943.147</b>
Agricultural Irrigation	6.14639	1.91855	7.83627	8.80062	36.65896	41.7208	43.77545	32.08549	24.32186	18.02217	11.71314	18.10239	251.1021
Wholesale(to other agencies)													

## PUBLIC WATER SYSTEM STATISTICS

Calendar Year **2018**

**Watsonville, City of**  
 Beau Kayser, Water Operations Sup.  
 500 CLEARWATER LANE  
 WATSONVILLE, CA 95077  
**PWS# 4410011 SCRO**

**1. General Information**

Please follow the provided instructions.

Contact : Beau Kayser

Title: Water Operations Supervisor

Phone: (831) 768-3193

Fax: (831) 763-1970

E-mail: beau.kayser@cityofwatsonville.org

Website: http://www.cityofwatsonville.org

County: Santa Cruz

Population served: **65,966**

Names of communities served:

Watsonville, Freedom, Corralitos

**2. Active Service Connections**

Customer Class	Potable Water		Recycled Water	
	Metered	Unmetered	Metered	Unmetered
Single Family Residential	12647			
Multi-family Residential	227			
Commercial/Institutional	1131			
Industrial	9			
Landscape Irrigation	408			
Other	409			
Agricultural Irrigation	1			
<b>TOTAL</b>	<b>14832</b>			

**3. Total Water Into the System - Units of production:****MG**

(Select: AF=acre-feet; MG=million gallons; CCF=hundred cubic feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Potable	Wells	138.782	145.700	148.789	161.090	221.780	228.878	221.513	221.789	206.927	184.382	169.615	130.141
	Surface	0.000	0.000	0.000	0.000	0.000	11.735	29.461	25.023	21.812	22.789	18.558	0.000
	Purchased <sup>1/</sup>												
	<b>Total Potable</b>	<b>138.7821</b>	<b>145.6998</b>	<b>148.7892</b>	<b>161.0897</b>	<b>221.7804</b>	<b>240.6131</b>	<b>250.9741</b>	<b>246.8113</b>	<b>228.739</b>	<b>207.1709</b>	<b>188.1727</b>	<b>130.141</b>
Untreated Water													
Recycled <sup>2/</sup>													

1/ Potable wholesale supplier(s): \_\_\_\_\_

2/ Recycled wholesale supplier(s): \_\_\_\_\_

Level of treatment: \_\_\_\_\_

**4. Metered Water Deliveries - Units of delivery:****MG**

(Select: AF=acre-feet; MG=million gallons; CCF=hundred cubic feet)

If recycled is included, X box ↓	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
A.SingleFamilyResidential	73.846	76.575	78.547	67.342	93.835	100.592	89.754	121.557	86.818	82.023	106.109	56.582	1033.581
B.Multi-family Residential	19.519	23.694	19.351	19.166	25.812	21.210	21.794	27.546	21.284	21.904	25.464	12.025	258.771
C.Commercial/Institutional	98.797	29.377	23.032	23.507	33.460	30.502	32.801	40.554	33.403	31.647	35.208	14.300	426.587
D.Industrial	6.613	11.480	10.240	12.580	12.123	11.441	6.330	5.563	7.836	12.866	20.006	15.471	132.549
E.Landscape Irrigation	3.515	5.160	4.734	3.033	11.968	15.154	16.717	23.999	16.831	16.748	16.128	3.558	137.546
F.Other	0.873	0.631	0.619	0.633	1.014	1.141	1.692	2.728	1.830	1.466	1.439	0.824	14.890
<b>Total Urban Retail(A thru F)</b>	<b>203.162</b>	<b>146.9177</b>	<b>136.5227</b>	<b>126.2617</b>	<b>178.2117</b>	<b>180.0406</b>	<b>169.0891</b>	<b>221.9466</b>	<b>168.003</b>	<b>166.6544</b>	<b>204.3543</b>	<b>102.7595</b>	<b>2003.923</b>
Agricultural Irrigation	1.349	6.178	0.779	7.727	32.705	47.677	46.637	45.848	35.192	16.383	19.686	0.000	260.160
Wholesale(to other agencies)													

## PUBLIC WATER SYSTEM STATISTICS

Calendar Year **2019**

**Watsonville, City of**  
 Beau Kayser, Water Operations Sup.  
 500 CLEARWATER LANE  
 WATSONVILLE, CA 95077  
**PWS# 4410011**  
**SCRO**

**1. General Information**

Please follow the provided instructions.

Contact : Beau Kayser  
 Title: Water Operations Supervisor  
 Phone: (831) 768-3193  
 Fax: (831) 763-1970  
 E-mail: beau.kayser@cityofwatsonville.org  
 Website: http://www.cityofwatsonville.org  
 County: Santa Cruz  
 Population served: **65,966**  
 Names of communities served: Watsonville, Freedom, Corralitos

**2. Active Service Connections**

Customer Class	Potable Water		Recycled Water	
	Metered	Unmetered	Metered	Unmetered
Single Family Residential	12672			
Multi-family Residential	226			
Commercial/Institutional	1134			
Industrial	9			
Landscape Irrigation	407			
Other	407			
Agricultural Irrigation	1			
<b>TOTAL</b>	<b>14856</b>			

**3. Total Water Into the System** - Units of production:**MG**(Select: **AF**=acre-feet; **MG**=million gallons; **CCF**=hundred cubic feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Potable	Wells	134.682	122.779	144.951	167.887	200.236	217.215	217.459	213.620	212.090	199.221	184.169	131.529
	Surface	0.000	0.000	0.000	0.000	0.000	13.023	36.057	36.590	29.892	23.835	14.839	0.000
	Purchased <sup>1/</sup>												
	<b>Total Potable</b>	<b>134.6819</b>	<b>122.7793</b>	<b>144.9507</b>	<b>167.8869</b>	<b>200.2361</b>	<b>230.238</b>	<b>253.5159</b>	<b>250.2105</b>	<b>241.9815</b>	<b>223.0558</b>	<b>199.0082</b>	<b>131.5289</b>
Untreated Water													
Recycled <sup>2/</sup>													

1/ Potable wholesale supplier(s): \_\_\_\_\_

2/ Recycled wholesale supplier(s): \_\_\_\_\_

Level of treatment: \_\_\_\_\_

**4. Metered Water Deliveries** - Units of delivery:**MG**(Select: **AF**=acre-feet; **MG**=million gallons; **CCF**=hundred cubic feet)

If recycled is included, X box ↓	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
A.SingleFamilyResidential	95.531	62.043	62.629	64.825	93.477	73.739	92.954	107.216	87.268	105.284	77.402	69.908	992.275
B.Multi-family Residential	30.151	18.778	20.874	19.294	31.655	20.851	21.344	26.960	21.977	26.836	20.628	19.461	278.809
C.Commercial/Institutional	29.827	20.069	22.148	22.091	34.727	26.746	29.754	34.975	30.815	37.746	28.529	22.979	340.406
D.Industrial	7.142	13.365	59.240	16.339	14.683	13.065	12.056	8.863	9.697	16.486	19.210	16.040	206.185
E.Landscape Irrigation	4.136	1.614	1.855	2.534	12.025	12.729	18.274	21.892	18.164	21.483	18.544	6.602	139.852
F.Other	0.767	0.570	0.638	0.550	0.978	0.904	1.293	2.605	2.122	1.866	1.055	0.901	14.250
<b>Total Urban Retail (A thru F)</b>	<b>167.555</b>	<b>116.4382</b>	<b>167.3837</b>	<b>125.6333</b>	<b>187.5445</b>	<b>148.0329</b>	<b>175.6753</b>	<b>202.512</b>	<b>170.0436</b>	<b>209.6998</b>	<b>165.3671</b>	<b>135.8922</b>	<b>1971.778</b>
Agricultural Irrigation	0.000	0.000	0.007	16.176	22.146	43.254	51.926	51.425	41.888	24.973	27.318	0.097	279.211
Wholesale(to other agencies)													

## PUBLIC WATER SYSTEM STATISTICS

Calendar Year **2020**

**Watsonville, City of**  
 Beau Kayser, Water Operations Sup.  
 500 CLEARWATER LANE  
 WATSONVILLE, CA 95077  
**PWS# 4410011 SCRO**

**1. General Information**

Please follow the provided instructions.

Contact : Beau Kayser

Title: Water Division Manager

Phone: (831) 768-3193

Fax: (831) 763-1970

E-mail: beau.kayser@cityofwatsonville.org

Website: http://www.cityofwatsonville.org

County: Santa Cruz

Population served: **65,966**

Names of communities served: Watsonville, Freedom, Corralitos

**2. Active Service Connections**

Customer Class	Potable Water		Recycled Water	
	Metered	Unmetered	Metered	Unmetered
Single Family Residential	12710			
Multi-family Residential	225			
Commercial/Institutional	1124			
Industrial	10			
Landscape Irrigation	404			
Other	410			
Agricultural Irrigation	1			
<b>TOTAL</b>	<b>14884</b>			

**3. Total Water Into the System** - Units of production:**MG**(Select: **AF**=acre-feet; **MG**=million gallons; **CCF**=hundred cubic feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Potable	Wells	138.032	159.719	153.926	159.753	210.636	224.118	240.502	246.352	222.502	217.434	188.004	153.106
	Surface	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Purchased <sup>1/</sup>												
	<b>Total Potable</b>	138.0315	159.7192	153.9258	159.7534	210.6355	224.1176	240.5017	246.3518	222.5015	217.4337	188.0044	153.1057
Untreated Water													
Recycled <sup>2/</sup>													

1/ Potable wholesale supplier(s): \_\_\_\_\_

2/ Recycled wholesale supplier(s): \_\_\_\_\_

Level of treatment: \_\_\_\_\_

**4. Metered Water Deliveries** - Units of delivery:**MG**(Select: **AF**=acre-feet; **MG**=million gallons; **CCF**=hundred cubic feet)

If recycled is included, X box ↓	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
A.SingleFamilyResidential	77.087	68.157	104.092	88.800	77.935	84.570	123.279	101.544	108.675	90.569	80.221	79.894	1084.822
B.Multi-family Residential	21.407	20.106	18.721	25.477	21.262	21.545	29.033	23.875	27.538	22.246	21.455	20.812	273.478
C.Commercial/Institutional	23.150	19.558	20.016	20.010	26.099	22.521	33.218	27.502	33.510	27.425	26.060	91.094	370.164
D.Industrial	9.059	15.619	15.285	14.805	14.921	13.503	8.577	9.997	15.554	17.847	23.151	15.973	174.291
E.Landscape Irrigation	3.459	9.918	5.037	5.091	13.697	12.036	30.123	17.100	20.535	15.930	12.346	8.060	153.333
F.Other	0.625	0.565	0.804	0.909	0.856	1.101	2.130	1.551	1.692	1.881	1.185	0.638	13.937
<b>Total Urban Retail (A thru F)</b>	134.7859	133.9242	163.9549	155.0926	154.7702	155.2758	226.3613	181.5688	207.5042	175.8989	164.4179	216.4712	2070.026
Agricultural Irrigation	0.955	15.083	5.662	5.282	28.635	32.857	35.962	35.100	22.959	20.568	24.208	10.165	237.435
Wholesale(to other agencies)													

## APPENDIX 4-2: DEMAND PROJECTIONS CALCULATIONS

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Category:	Use Rates								Customers										
	SFR	MFR	Commercial/Institutional	Industrial	Landscape <sup>2</sup>	Other	Agriculture	SFR	MFR	Commercial/Institutional	Industrial	Landscape	Other	Agriculture	SFR	MFR	Commercial		
Unit:	gpcd <sup>1</sup>	gpcd <sup>1</sup>	Gal/connection/day	Gal/connection/day	Gal/connection/day	Gal/connection/day	Gal/conn	Residential Pop.	Connections	Conne	Connections	Connections	Connections	Connections	MGD	MGD	MGD		
2015	42.68144658	11.62088266	779.0319635	22267.52619	761.2140747	103.362391	715096	65739	1125	17	408	396	1	2.805836	0.763945	0.876411			
2016	42.51094067	11.14438779	739.4160316	23721.17647	748.7906836	86.69938735	559205	65966	1118	17	407	398	1	2.804277	0.735151	0.8266671			
2017	44.66431233	11.26936708	766.7294823	23924.72603	841.1518848	88.64552264	687951	65966	1134	16	411	406	1	2.946326	0.743395	0.8694712			
2018	42.92709528	10.74737962	1033.361191	40349.77169	923.623422	99.74210403	712767	65966	1131	9	408	409	1	2.831729	0.708962	1.1687315			
2019	41.21155813	11.57960577	822.415501	62765.60122	941.4156373	97.74157719	764962	65966	1134	9	407	407	1	2.718562	0.76386	0.9326192			
2020	45.56292359	11.48617673	902.2668552	47750.9589	1039.82775	93.13063816	650507	65231	1124	10	404	410	1	2.972115	0.749255	1.0141479			
2021	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	713662		1131.666667	13	407.5	404.3333333	1	0	0	1.0792901			
2022	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	722780		1132.809524	13	407.5	404.3333333	1	0	0	1.08038			
2023	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	731898		1133.952381	13	407.5	404.3333333	1	0	0	1.08147			
2024	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	741017		1135.095238	13	407.5	404.3333333	1	0	0	1.08256			
2025	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	750135	67426	1136.238095	13	407.5	404.3333333	1	2.916829	0.762451	1.0836499			
2026	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	759253		1137.380952	13	407.5	404.3333333	1	0	0	1.0847399			
2027	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	768372		1138.52381	13	407.5	404.3333333	1	0	0	1.0858298			
2028	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	777490		1139.666667	13	407.5	404.3333333	1	0	0	1.0869198			
2029	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	786608		1140.809524	13	407.5	404.3333333	1	0	0	1.0880098			
2030	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	795726	69696	1141.952381	13	407.5	404.3333333	1	3.015029	0.78812	1.0890997			
2031	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	804845		1143.095238	13	407.5	404.3333333	1	0	0	1.0901897			
2032	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	813963		1144.238095	13	407.5	404.3333333	1	0	0	1.0912797			
2033	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	823081		1145.380952	13	407.5	404.3333333	1	0	0	1.0923696			
2034	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	832199		1146.52381	13	407.5	404.3333333	1	0	0	1.0934596			
2035	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	841318	72041	1147.666667	13	407.5	404.3333333	1	3.116473	0.814637	1.0945495			
2036	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	850436		1148.809524	13	407.5	404.3333333	1	0	0	1.0956395			
2037	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	859554		1149.952381	13	407.5	404.3333333	1	0	0	1.0967295			
2038	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	868673		1151.095238	13	407.5	404.3333333	1	0	0	1.0978194			
2039	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	877791		1152.238095	13	407.5	404.3333333	1	0	0	1.0989094			
2040	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	886909	73576	1153.380952	13	407.5	404.3333333	1	3.182877	0.831995	1.0999994			
2041	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	896027		1154.52381	13	407.5	404.3333333	1	0	0	1.1010893			
2042	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	905146		1155.666667	13	407.5	404.3333333	1	0	0	1.1021793			
2043	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	914264		1156.809524	13	407.5	404.3333333	1	0	0	1.1032692			
2044	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	923382		1157.952381	13	407.5	404.3333333	1	0	0	1.1043592			
2045	43.25971276	11.30796661	953.7172949	36796.62675	1039.82775	94.88693673	932500	74764	1159.095238	13	407.5	404.3333333	1	3.234269	0.845429	1.1054492			

||
||
||

Category:	Water Demand				SFR				MFR		Commercial		Industrial		Landscape		Other		Agriculture	
	Industrial	Landscape	Other	Agriculture	TOTAL	TOTAL	TOTAL	TOTAL	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr
	Unit:	MGD	MGD	MGD	MGD	TOTAL	TOTAL	TOTAL	TOTAL	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr
2015	0.378548	0.310575	0.040932	0.71509589	1024.13	3142.940114	278.84	855.7287	319.89	981.7065	138.17	424.0282	113.36	347.8891	14.94	45.84918	261.01	801.0104		
2016	0.40326	0.304758	0.034506	0.559205479	1023.561	3141.193917	268.33	823.4747	301.7335	925.9863	147.1899	451.7093	111.2366	341.3727	12.59482	38.65209	204.11	626.3907		
2017	0.382796	0.345713	0.03599	0.687950959	1075.409	3300.309614	271.3392	832.7096	317.357	973.933	139.7204	428.7862	126.1854	387.2488	13.13638	40.31408	251.1021	770.6042		
2018	0.363148	0.376838	0.040795	0.712767123	1033.581	3171.944173	258.771	794.1392	426.587	1309.148	132.549	406.778	137.546	422.1132	14.89	45.69574	260.16	798.4019		
2019	0.56489	0.383156	0.039781	0.764961644	992.275	3045.180691	278.809	855.6336	340.406	1044.668	206.185	632.7586	139.852	429.1901	14.52	44.56025	279.211	856.8672		
2020	0.47751	0.42009	0.038184	0.650506849	1084.822	3329.197055	273.478	839.2733	370.164	1135.992	174.291	534.8795	153.333	470.5618	13.937	42.77109	237.435	728.6614		
2021	0.478356	0.42373	0.038366	0.713661936	0	0	0	0	393.9409	1208.96	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	260.4866	799.4042		
2022	0.478356	0.42373	0.038366	0.722780206	0	0	0	0	394.3387	1210.181	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	263.8148	809.618		
2023	0.478356	0.42373	0.038366	0.731898476	0	0	0	0	394.7365	1211.402	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	267.1429	819.8317		
2024	0.478356	0.42373	0.038366	0.741016746	0	0	0	0	395.1344	1212.623	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	270.4711	830.0455		
2025	0.478356	0.42373	0.038366	0.750135016	1064.642728	3267.269134	278.2946	854.0549	395.5322	1213.844	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	273.7993	840.2593		
2026	0.478356	0.42373	0.038366	0.759253286	0	0	0	0	395.9301	1215.065	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	277.1274	850.4731		
2027	0.478356	0.42373	0.038366	0.768371556	0	0	0	0	396.3279	1216.286	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	280.4556	860.6868		
2028	0.478356	0.42373	0.038366	0.777489826	0	0	0	0	396.7257	1217.507	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	283.7838	870.9006		
2029	0.478356	0.42373	0.038366	0.786608097	0	0	0	0	397.1236	1218.728	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	287.112	881.1144		
2030	0.478356	0.42373	0.038366	0.795726367	1100.485563	3377.266775	287.6638	882.808	397.5214	1219.949	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	290.4401	891.3282		
2031	0.478356	0.42373	0.038366	0.804844637	0	0	0	0	397.9192	1221.17	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	293.7683	901.5419		
2032	0.478356	0.42373	0.038366	0.813962907	0	0	0	0	398.3171	1222.39	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	297.0965	911.7557		
2033	0.478356	0.42373	0.038366	0.823081177	0	0	0	0	398.7149	1223.611	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	300.4246	921.9695		
2034	0.478356	0.42373	0.038366	0.832199447	0	0	0	0	399.1127	1224.832	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	303.7528	932.1833		
2035	0.478356	0.42373	0.038366	0.841317717	1137.512633	3490.898699	297.3426	912.511	399.5106	1226.053	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	307.081	942.397		
2036	0.478356	0.42373	0.038366	0.850435987	0	0	0	0	399.9084	1227.274	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	310.4091	952.6108		
2037	0.478356	0.42373	0.038366	0.859554257	0	0	0	0	400.3063	1228.495	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	313.7373	962.8246		
2038	0.478356	0.42373	0.038366	0.868672527	0	0	0	0	400.7041	1229.716	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	317.0655	973.0384		
2039	0.478356	0.42373	0.038366	0.877790797	0	0	0	0	401.1019	1230.937	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	320.3936	983.2522		
2040	0.478356	0.42373	0.038366	0.886909067	1161.749969	3565.280363	303.6782	931.9542	401.4998	1232.158	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	323.7218	993.4659		
2041	0.478356	0.42373	0.038366	0.896027337	0	0	0	0	401.8976	1233.379	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	327.05	1003.68		
2042	0.478356	0.42373	0.038366	0.905145607	0	0	0	0	402.2954	1234.6	174.6	535.8278	154.6614	474.6384						

## **Ch.4 Demand Projection Calculation Methodology**

1. Use Rates
  - a. Residential (SFR & MFR) –
    - i. Calculated: (GPCD)
      1.  $2015-2020 = ((\text{PWS Stats: Metered Water Delivery (gpd)}) / (\text{Population}))$
      2.  $2021-2045 = \text{Average 2015-2020}$
  - b. Commercial/institutional –
    - i. Calculated: (gallons/connection/day)
      1.  $2015-2020 = ((\text{PWS Stats: Metered Water Delivery (gpd)}) / (\text{PWS Stats: Metered Active Service Connections}))$
      2.  $2021-2045 = \text{Linear Trend 2015-2020 to 2021 (constant -> 2045)}$
  - c. Industrial –
    - i. Calculated: (gallons/connection/day)
      1.  $2015-2020 = ((\text{PWS Stats: Metered Water Delivery (gpd)}) / (\text{PWS Stats: Metered Active Service Connections}))$
      2.  $2021-2045 = \text{Average 2015-2020}$
  - d. Landscape –
    - i. Calculated: (gallons/connection/day)
      1.  $2015-2020 = ((\text{PWS Stats: Metered Water Delivery (gpd)}) / (\text{PWS Stats: Metered Active Service Connections}))$
      2.  $2021-2045 = \text{Held steady at 2020 rate}$
  - e. Other –
    - i. Calculated: (gallons/connection/day)
      1.  $2015-2020 = ((\text{PWS Stats: Metered Water Delivery (gpd)}) / (\text{PWS Stats: Metered Active Service Connections}))$
      2.  $2021-2045 = \text{Average 2015-2020}$
  - f. Agriculture –
    - i. Calculated: (gallons/connection/day)
      1.  $2015-2020 = ((\text{PWS Stats: Metered Water Delivery (gpd)}) / (\text{PWS Stats: Metered Active Service Connections}))$
      2.  $2021-2045 = \text{Linear Trend 2015-2020}$
2. Customers
  - a. Residential (SFR & MFR) –
    - i. Calculated: (population)
      1. Used population data and population projections as described in Ch.3
  - b. Commercial/institutional –
    - i. Calculated: Connections
      1.  $2015-2020 = \text{Metered Active Service Connections from PWS Stats}$
      2.  $2021-2045 = \text{Linear Trend 2015-2020}$
  - c. Industrial –
    - i. Calculated: (gallons/connection/day)
      1.  $2015-2020 = \text{Metered Service Connections from PWS Stats}$
      2.  $2021-2045 = \text{Average 2015-2020}$

- d. Landscape –
  - i. Calculated: Connections
    1. 2015-2020 = Metered Active Service Connections from PWS Stats
    2. 2021-2045 = Average 2015-2020
- e. Other –
  - i. Calculated: Connections
    1. 2015-2020 = Metered Active Service Connections from PWS Stats
    2. 2021-2045 = Average 2015-2020
- f. Agriculture –
  - i. Calculated: (gallons/connection/day)
    1. 2015-2020 = Metered Active Service Connections from PWS Stats
    2. 2021-2045 = Linear Trend 2015-2020

3. Water Demand – Use Rate x Customers

- a. Residential (SFR & MFR) –
  - i. Calculated: (MGD)
    1.  $((\text{Residential Use Rate (gpcd)} \times \text{Population}) / 1,000,000)$
    2. Conv. MGD  $\rightarrow$  MG/yr  $\rightarrow$  AF/yr
- b. Commercial/institutional –
  - i. Calculated: (MGD)
    1.  $((\text{Commercial Use Rate (gpcd)} \times \text{Commercial Connections}) / 1,000,000)$
    2. Conv. MGD  $\rightarrow$  MG/yr  $\rightarrow$  AF/yr
- c. Industrial –
  - i. Calculated: (MGD)
    1.  $((\text{Industrial Use Rate (gpcd)} \times \text{Industrial Connections}) / 1,000,000)$
    2. Conv. MGD  $\rightarrow$  MG/yr  $\rightarrow$  AF/yr
- d. Landscape –
  - i. Calculated: (MGD)
    1.  $((\text{Landscape Use Rate (gpcd)} \times \text{Landscape Connections}) / 1,000,000)$
    2. Conv. MGD  $\rightarrow$  MG/yr  $\rightarrow$  AF/yr
- e. Other –
  - i. Calculated: (MGD)
    1.  $((\text{Other Use Rate (gpcd)} \times \text{Other Connections}) / 1,000,000)$
    2. Conv. MGD  $\rightarrow$  MG/yr  $\rightarrow$  AF/yr
- f. Agriculture –
  - i. Calculated: (MGD)
    1.  $((\text{Agriculture Use Rate (gpcd)} \times \text{Agriculture Connections}) / 1,000,000)$
    2. Conv. MGD  $\rightarrow$  MG/yr  $\rightarrow$  AF/yr
- g. Losses –
  - i. Calculated: (MGD)
    1. 2015-2019 = Data from AWWA Water Loss Worksheets
    2. 2020 = PWS Stats: Total Water Into System – Metered Water Deliveries
    3. 2021 – 2045 = Average 2015-2020

## APPENDIX 4-3: AWWA WATER LOSS WORKSHEETS

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## AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

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Water Audit Report for: **City of Watsonville (CA4410011)**  
Reporting Year: **2016** **1/2016 - 12/2016**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds **all** criteria for that grade and all grades below it.

### WATER SUPPLIED

Volume from own sources:	+	?	5	6,638.310	acre-ft/yr	+	?	3	( <input checked="" type="radio"/> <input type="radio"/> )	acre-ft/yr
Water imported:	+	?	n/a	0.000	acre-ft/yr	+	?	( <input checked="" type="radio"/> <input type="radio"/> )	acre-ft/yr	
Water exported:	+	?	n/a	0.000	acre-ft/yr	+	?	( <input checked="" type="radio"/> <input type="radio"/> )	acre-ft/yr	

----- Enter grading in column 'E' and 'J' ----->

Master Meter and Supply Error Adjustments

Pcnt:

Value:

**WATER SUPPLIED:**

**6,638.310** acre-ft/yr

Enter negative % or value for under-registration  
Enter positive % or value for over-registration

### AUTHORIZED CONSUMPTION

Billed metered:	+	?	6	6,214.767	acre-ft/yr
Billed unmetered:	+	?	n/a	0.000	acre-ft/yr
Unbilled metered:	+	?	10	134.290	acre-ft/yr
Unbilled unmetered:	+	?	5	16.596	acre-ft/yr

**AUTHORIZED CONSUMPTION:**

**6,365.653** acre-ft/yr

Click here: [?](#)  
for help using option buttons below

Pcnt:   16.596 acre-ft/yr

Use buttons to select  
percentage of water supplied  
**OR**  
value

Pcnt:  0.25%  1.50% acre-ft/yr

Pcnt:  0.25%  1.50% acre-ft/yr

### WATER LOSSES (Water Supplied - Authorized Consumption)

**272.657** acre-ft/yr

#### Apparent Losses

Unauthorized consumption:   16.596 acre-ft/yr

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

Customer metering inaccuracies:	+	?	3	96.686	acre-ft/yr
Systematic data handling errors:	+	?	5	15.537	acre-ft/yr

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

Apparent Losses:   128.819 acre-ft/yr

### Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses:   143.839 acre-ft/yr

**WATER LOSSES:** **272.657** acre-ft/yr

### NON-REVENUE WATER

**NON-REVENUE WATER:**   423.543 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

Length of mains:	+	?	8	178.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	6	14,766	
Service connection density:	?			83	conn./mile main

Are customer meters typically located at the curbstop or property line?

Yes

(length of service line, beyond the property boundary,  
that is the responsibility of the utility)

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

Average operating pressure:   65.0 psi

### COST DATA

Total annual cost of operating water system:	+	?	10	\$10,408,573	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	4	\$2.63	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	5	\$122.47	\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

### WATER AUDIT DATA VALIDITY SCORE:

**\*\*\* YOUR SCORE IS: 57 out of 100 \*\*\***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

**1: Volume from own sources**

**2: Customer metering inaccuracies**

**3: Customer retail unit cost (applied to Apparent Losses)**



## AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

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Water Audit Report for: **City of Watsonville (CA4410011)**  
Reporting Year: **2017** **1/2017 - 12/2017**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds **all** criteria for that grade and all grades below it.

### WATER SUPPLIED

Volume from own sources:	+	?	3	6,999.195	acre-ft/yr	+	?	3	● ○	acre-ft/yr
Water imported:	+	?	n/a	0.000	acre-ft/yr	+	?	3	● ○	acre-ft/yr
Water exported:	+	?	n/a	0.000	acre-ft/yr	+	?	3	● ○	acre-ft/yr

**WATER SUPPLIED:****6,999.195** acre-ft/yr

----- Enter grading in column 'E' and 'J' ----->

Master Meter and Supply Error Adjustments

Pcnt:

Value:

+	?	3	● ○	acre-ft/yr
+	?	3	● ○	acre-ft/yr
+	?	3	● ○	acre-ft/yr

Enter negative % or value for under-registration

Enter positive % or value for over-registration

### AUTHORIZED CONSUMPTION

Billed metered:	+	?	7	6,725.253	acre-ft/yr
Billed unmetered:	+	?	n/a	0.000	acre-ft/yr
Unbilled metered:	+	?	10	8.670	acre-ft/yr
Unbilled unmetered:	+	?	5	17.498	acre-ft/yr

**AUTHORIZED CONSUMPTION:****6,751.421** acre-ft/yr

Click here: [?](#)  
for help using option  
buttons below

Pcnt:

Value:

17.498 acre-ft/yr

Use buttons to select  
percentage of water supplied  
**OR**  
value

Pcnt:

Value:

0.25% ● ○ acre-ft/yr

1.50% ● ○ acre-ft/yr

0.25% ● ○ acre-ft/yr

### WATER LOSSES (Water Supplied - Authorized Consumption)

**247.774** acre-ft/yr

#### Apparent Losses

Unauthorized consumption:	+	?	17.498	acre-ft/yr
---------------------------	---	---	--------	------------

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

Customer metering inaccuracies:	+	?	2	102.547	acre-ft/yr
---------------------------------	---	---	---	---------	------------

Systematic data handling errors:	+	?	5	16.813	acre-ft/yr
----------------------------------	---	---	---	--------	------------

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

Apparent Losses:	?	136.858	acre-ft/yr
------------------	---	---------	------------

#### Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses:	?	110.916	acre-ft/yr
---	---	---------	------------

WATER LOSSES:	?	247.774	acre-ft/yr
---------------	---	---------	------------

### NON-REVENUE WATER

NON-REVENUE WATER:	?	273.942	acre-ft/yr
--------------------	---	---------	------------

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

Length of mains:	+	?	8	178.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	6	14,821	
Service connection density:	?			83	conn./mile main

Are customer meters typically located at the curbstop or property line?

Yes

(length of service line, beyond the property boundary,  
that is the responsibility of the utility)

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

Average operating pressure:	+	?	4	65.0	psi
-----------------------------	---	---	---	------	-----

### COST DATA

Total annual cost of operating water system:	+	?	10	\$12,117,910	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	8	\$2.87	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	5	\$107.39	\$/acre-ft

Use Customer Retail Unit Cost to value real losses

### WATER AUDIT DATA VALIDITY SCORE:

**\*\*\* YOUR SCORE IS: 54 out of 100 \*\*\***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

**1: Volume from own sources**

**2: Customer metering inaccuracies**

**3: Variable production cost (applied to Real Losses)**



## AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

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Water Audit Report for: **City of Watsonville (CA4410011)**  
Reporting Year: **2018** **1/2018 - 12/2018**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds **all** criteria for that grade and all grades below it.

### WATER SUPPLIED

<----- Enter grading in column 'E' and 'J' ----->				Master Meter and Supply Error Adjustments		
Volume from own sources:	+	?	5	7,085,333	acre-ft/yr	Pcnt:
Water imported:	+	?	n/a	0.000	acre-ft/yr	<input checked="" type="radio"/> <input type="radio"/>
Water exported:	+	?	n/a	0.000	acre-ft/yr	<input checked="" type="radio"/> <input type="radio"/>

**WATER SUPPLIED:** **6,890.739** acre-ft/yr

Value:

acre-ft/yr  
acre-ft/yr  
acre-ft/yr

Enter negative % or value for under-registration  
Enter positive % or value for over-registration

Click here: [?](#)  
for help using option buttons below

Pcnt: **1.25%**   Value: acre-ft/yr

Use buttons to select  
percentage of water supplied  
**OR**  
value

Pcnt: **0.25%**   Value: acre-ft/yr

**1.50%**   acre-ft/yr  
**0.25%**   acre-ft/yr

### AUTHORIZED CONSUMPTION

Billed metered:	+	?	6	5,741,040	acre-ft/yr
Billed unmetered:	+	?	n/a	0.000	acre-ft/yr
Unbilled metered:	+	?	10	191,510	acre-ft/yr
Unbilled unmetered:	+	?	5	86,134	acre-ft/yr

**Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed**

**AUTHORIZED CONSUMPTION:** **6,018.684** acre-ft/yr

### WATER LOSSES (Water Supplied - Authorized Consumption)

**872.055** acre-ft/yr

#### Apparent Losses

Unauthorized consumption: **17.227** acre-ft/yr

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

Customer metering inaccuracies:	+	?	3	90,343	acre-ft/yr
Systematic data handling errors:	+	?	5	14,353	acre-ft/yr

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

**Apparent Losses:** **121.923** acre-ft/yr

#### Real Losses (Current Annual Real Losses or CARL)

**Real Losses = Water Losses - Apparent Losses:** **750.132** acre-ft/yr

**WATER LOSSES:** **872.055** acre-ft/yr

### NON-REVENUE WATER

**NON-REVENUE WATER:** **1,149.699** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

Length of mains:	+	?	8	178.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	6	14,832	
Service connection density:	?			83	conn./mile main

Are customer meters typically located at the curbstop or property line?

Yes

(length of service line, beyond the property boundary,  
that is the responsibility of the utility)

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

Average operating pressure: **65.0** psi

### COST DATA

Total annual cost of operating water system:	+	?	10	\$10,376,959	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	8	\$3.98	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	5	\$119.82	\$/acre-ft

Use Customer Retail Unit Cost to value real losses

### WATER AUDIT DATA VALIDITY SCORE:

**\*\*\* YOUR SCORE IS: 60 out of 100 \*\*\***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources**
- 2: Customer metering inaccuracies**
- 3: Billed metered**



## AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association.  
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[?](#) Click to access definition  
[+](#) Click to add a comment

Water Audit Report for: **City of Watsonville (CA4410011)**  
Reporting Year: **2019** **1/2019 - 12/2019**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds **all** criteria for that grade and all grades below it.

### WATER SUPPLIED

Volume from own sources:	+	?	5	7,058.340	acre-ft/yr	+	?	3	Pcnt:	Value:
Water imported:	+	?	n/a	0.000	acre-ft/yr	+	?		<input checked="" type="radio"/>	<input type="radio"/>
Water exported:	+	?	n/a	0.000	acre-ft/yr	+	?		<input checked="" type="radio"/>	<input type="radio"/>

**WATER SUPPLIED:**

**7,058.340** acre-ft/yr

### Master Meter and Supply Error Adjustments

+	?	3	Pcnt:	Value:
+	?		<input checked="" type="radio"/>	acre-ft/yr
+	?		<input checked="" type="radio"/>	acre-ft/yr
+	?		<input type="radio"/>	acre-ft/yr

Enter negative % or value for under-registration

Enter positive % or value for over-registration

### AUTHORIZED CONSUMPTION

Billed metered:	+	?	6	5,881.670	acre-ft/yr
Billed unmetered:	+	?	n/a	0.000	acre-ft/yr
Unbilled metered:	+	?	10	181.270	acre-ft/yr
Unbilled unmetered:	+	?	5	17.646	acre-ft/yr

**AUTHORIZED CONSUMPTION:**

**6,080.586** acre-ft/yr

Click here: [?](#)  
for help using option buttons below

Pcnt:   Value: 17.646 acre-ft/yr

Use buttons to select  
percentage of water supplied  
**OR**  
value

Pcnt:   Value: 0.25% acre-ft/yr

1.50%   0.25%   acre-ft/yr

### WATER LOSSES (Water Supplied - Authorized Consumption)

**977.754** acre-ft/yr

#### Apparent Losses

Unauthorized consumption: **17.646** acre-ft/yr

**Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed**

Customer metering inaccuracies:	+	?	3	92.329	acre-ft/yr
Systematic data handling errors:	+	?	5	14.704	acre-ft/yr

**Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed**

Apparent Losses: **124.679** acre-ft/yr

### Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **853.075** acre-ft/yr

**WATER LOSSES:** **977.754** acre-ft/yr

### NON-REVENUE WATER

**NON-REVENUE WATER:** **1,176.670** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

### SYSTEM DATA

Length of mains:	+	?	8	178.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	6	14,855	
Service connection density:	?			83	conn./mile main

Are customer meters typically located at the curbstop or property line?

Yes

(length of service line, beyond the property boundary,  
that is the responsibility of the utility)

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

Average operating pressure: **65.0** psi

### COST DATA

Total annual cost of operating water system:	+	?	10	\$12,416,786	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	8	\$4.28	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	5	\$124.63	\$/acre-ft

Use Customer Retail Unit Cost to value real losses

### WATER AUDIT DATA VALIDITY SCORE:

**\*\*\* YOUR SCORE IS: 60 out of 100 \*\*\***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

### PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources**
- 2: Customer metering inaccuracies**
- 3: Billed metered**

## APPENDIX 5-1: SB X7-7 VERIFICATION TABLES

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## Appendix D – SB X7-7 Verification Tables

SB X7-7 Table 0: Units of Measure Used in UWMP* <i>(select one from the drop down list)</i>	
Acre Feet	
<i>*The unit of measure must be consistent with Table 2-3</i>	
NOTES:	

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	8,807	Acre Feet
	2008 total volume of delivered recycled water	-	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period <sup>1,2</sup>	10	Years
	Year beginning baseline period range	2001	
	Year ending baseline period range <sup>3</sup>	2010	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2006	
	Year ending baseline period range <sup>4</sup>	2010	

<sup>1</sup>If 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. <sup>2</sup>The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

<sup>3</sup>The ending year must be between December 31, 2004 and December 31, 2010.

<sup>4</sup>The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
<input type="checkbox"/>	<b>1. Department of Finance (DOF)</b> DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
<input type="checkbox"/>	<b>2. Persons-per-Connection Method</b>
<input type="checkbox"/>	<b>3. DWR Population Tool</b>
<input checked="" type="checkbox"/>	<b>4. Other</b> DWR recommends pre-review
NOTES: The City's Method was pre-reviewed by DWR.	

**SB X7-7 Table 3: Service Area Population**

Year		Population
<b>10 to 15 Year Baseline Population</b>		
Year 1	2001	58,517
Year 2	2002	58,445
Year 3	2003	59,502
Year 4	2004	61,572
Year 5	2005	69,982
Year 6	2006	70,412
Year 7	2007	70,275
Year 8	2008	68,306
Year 9	2009	69,136
Year 10	2010	64,657
<i>Year 11</i>		
<i>Year 12</i>		
<i>Year 13</i>		
<i>Year 14</i>		
<i>Year 15</i>		
<b>5 Year Baseline Population</b>		
Year 1	2006	70,412
Year 2	2007	70,275
Year 3	2008	68,306
Year 4	2009	69,136
Year 5	2010	64,657
<b>2015 Compliance Year Population</b>		
<b>2015</b>		65,966

NOTES: 2010 Populations and 2015 Population calculated by the City's GIS Center. 2001-2009 calculated using a linear trend. Calculations and methodology can be found in Appendix C.

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

Baseline Year Fm SB X7-7 Table 3	Volume Into Distribution System <i>This column will remain blank until SB X7-7 Table 4- A is completed.</i>	Deductions					Annual Gross Water Use	
		Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water <i>This column will remain blank until SB X7-7 Table 4-B is completed.</i>	Water Delivered for Agricultural Use	Process Water <i>This column will remain blank until SB X7-7 Table 4-D is completed.</i>		
<b>10 to 15 Year Baseline - Gross Water Use</b>								
Year 1	2001	7,615		-	-	270	7,345	
Year 2	2002	7,683		-	-	282	7,401	
Year 3	2003	7,635		-	-	319	7,316	
Year 4	2004	7,804		-	-	337	7,466	
Year 5	2005	7,573		-	-	305	7,268	
Year 6	2006	7,914		-	243	311	7,361	
Year 7	2007	8,631		-	710	323	7,598	
Year 8	2008	8,805		-	846	285	7,674	
Year 9	2009	7,761		-	454	208	7,098	
Year 10	2010	7,460		-	505	198	6,756	
Year 11	0							
Year 12	0							
Year 13	0							
Year 14	0							
Year 15	0							
<b>10 - 15 year baseline average gross water use</b>								<b>7,328</b>
<b>5 Year Baseline - Gross Water Use</b>								
Year 1	2006	7,914		-	243	311	7,361	
Year 2	2007	8,631		-	710	323	7,598	
Year 3	2008	8,805		-	846	285	7,674	
Year 4	2009	7,761		-	454	208	7,098	
Year 5	2010	7,460		-	505	198	6,756	
<b>5 year baseline average gross water use</b>								<b>7,298</b>
<b>2015 Compliance Year - Gross Water Use</b>								
<b>2015</b>		6,870	-	-	862	9	<b>5,998</b>	

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

Complete one table for each source.

<b>Name of Source</b>		City of Watsonville Water Produced		
<b>This water source is:</b>				
<input checked="" type="checkbox"/>	The supplier's own water source			
<input type="checkbox"/>	A purchased or imported source			
<b>Baseline Year</b> <i>Fm SB X7-7 Table 3</i>		Volume Entering Distribution System	Meter Error Adjustment <i>* Optional (+/-)</i>	Corrected Volume Entering Distribution System
<b>10 to 15 Year Baseline - Water into Distribution System</b>				
Year 1	2001	7,615		7,615
Year 2	2002	7,683		7,683
Year 3	2003	7,635		7,635
Year 4	2004	7,804		7,804
Year 5	2005	7,573		7,573
Year 6	2006	7,914		7,914
Year 7	2007	8,631		8,631
Year 8	2008	8,805		8,805
Year 9	2009	7,761		7,761
Year 10	2010	7,460		7,460
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
<b>5 Year Baseline - Water into Distribution System</b>				
Year 1	2006	7,914		7,914
Year 2	2007	8,631		8,631
Year 3	2008	8,805		8,805
Year 4	2009	7,761		7,761
Year 5	2010	7,460		7,460
<b>2015 Compliance Year - Water into Distribution System</b>				
<b>2015</b>		6,870		6,870
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
<b>NOTES:</b>				

**SB X7-7 Table 4-C: Process Water Deduction Eligibility***(For use only by agencies that are deducting process water) Choose Only One*

<input type="checkbox"/>	<b>Criteria 1</b> - Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
<input type="checkbox"/>	<b>Criteria 2</b> - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
<input type="checkbox"/>	<b>Criteria 3</b> - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
<input checked="" type="checkbox"/>	<b>Criteria 4</b> - Disadvantaged Community. Complete SB x7-7 Table 4-C.4

NOTES:

**SB X7-7 Table 4-C.4: Process Water Deduction Eligibility****Criteria 4**

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

**SELECT ONE**

"Disadvantaged Community" status was determined using one of the methods listed below:

<input type="checkbox"/>	<b>1. IRWM DAC Mapping tool</b> <a href="http://www.water.ca.gov/irwm/grants/resources_dac.cfm">http://www.water.ca.gov/irwm/grants/resources_dac.cfm</a>																
	If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.																
<input checked="" type="checkbox"/>	<b>2. 2010 Median Income</b>																
	<table border="1"> <thead> <tr> <th>California Median Household Income</th> <th>Service Area Median Household Income</th> <th>Percentage of Statewide Average</th> <th>Eligible for Exclusion? Y/N</th> </tr> </thead> <tbody> <tr> <td colspan="4">2015 Compliance Year - Process Water Deduction Eligibility</td> </tr> <tr> <td>2010</td> <td>\$60,883</td> <td>\$46,675</td> <td>77%</td> </tr> <tr> <td></td> <td></td> <td></td> <td>YES</td> </tr> </tbody> </table>	California Median Household Income	Service Area Median Household Income	Percentage of Statewide Average	Eligible for Exclusion? Y/N	2015 Compliance Year - Process Water Deduction Eligibility				2010	\$60,883	\$46,675	77%				YES
California Median Household Income	Service Area Median Household Income	Percentage of Statewide Average	Eligible for Exclusion? Y/N														
2015 Compliance Year - Process Water Deduction Eligibility																	
2010	\$60,883	\$46,675	77%														
			YES														
	NOTES:																

**SB X7-7 Table 4-D: Process Water Deduction - Volume  
industrial customer with a process water exclusion**

*Complete a separate table for each*

**SB X7-7 Table 4-D: Process Water Deduction - Volume  
industrial customer with a process water exclusion**

*Complete a separate table for each*

**SB X7-7 Table 4-D: Process Water Deduction - Volume  
industrial customer with a process water exclusion**

*Complete a separate table for each*

**SB X7-7 Table 4-D: Process Water Deduction - Volume  
industrial customer with a process water exclusion**

*Complete a separate table for each*

**SB X7-7 Table 4-D: Process Water Deduction - Volume  
*industrial customer with a process water exclusion***

*Complete a separate table for each*

**SB X7-7 Table 4-D: Process Water Deduction - Volume  
*industrial customer with a process water exclusion***

*Complete a separate table for each*



**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)
<b>10 to 15 Year Baseline GPCD</b>				
Year 1	2001	58,517	7,345	112
Year 2	2002	58,445	7,401	113
Year 3	2003	59,502	7,316	110
Year 4	2004	61,572	7,466	108
Year 5	2005	69,982	7,268	93
Year 6	2006	70,412	7,361	93
Year 7	2007	70,275	7,598	97
Year 8	2008	68,306	7,674	100
Year 9	2009	69,136	7,098	92
Year 10	2010	64,657	6,756	93
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
<b>10-15 Year Average Baseline GPCD</b>				<b>101</b>
<b>5 Year Baseline GPCD</b>				
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	2006	70,412	7,361	93
Year 2	2007	70,275	7,598	97
Year 3	2008	68,306	7,674	100
Year 4	2009	69,136	7,098	92
Year 5	2010	64,657	6,756	93
<b>5 Year Average Baseline GPCD</b>				<b>95</b>
<b>2015 Compliance Year GPCD</b>				
<b>2015</b>		65,966	5,998	<b>81</b>
NOTES:				

**SB X7-7 Table 6: Gallons per Capita per Day Summary From Table SB X7-7 Table 5**

10-15 Year Baseline GPCD			101
5 Year Baseline GPCD			95
2015 Compliance Year GPCD			81
NOTES:			

**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

NOTES:

**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 type="checkbox"/>		San Francisco Bay	131	124
<input type="checkbox"/>		San Joaquin River	174	165
<input checked="" type="checkbox"/>	100%	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
<b>Target</b> <i>(If more than one region is selected, this value is calculated.)</i>				<b>117</b>

NOTES:

**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 <sup>1</sup>	Calculated 2020 Target <sup>2</sup>	Confirmed 2020 Target
95	N/A	117	<b>117</b>

<sup>1</sup>Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.

<sup>2</sup>2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

NOTES:

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## APPENDIX 5-2: SB X7-7 2020 COMPLIANCE FORM

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## Final SB X7-7 2020 Compliance Forms

Not used: Tables 1, 4B, 4C, 4C.1-4C.4, 4D, 6, 7, 8

<b>SB X7-7 Table 0: Units of Measure Used in 2020 UWMP*</b> (select one from the drop down list)	
Acre Feet	
<i>*The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.</i>	
NOTES:	

<b>SB X7-7 Table 2: Method for 2020 Population Estimate</b>	
Method Used to Determine 2020 Population (may check more than one)	
<input type="checkbox"/>	1. Department of Finance (DOF) or American Community Survey (ACS)
<input type="checkbox"/>	2. Persons-per-Connection Method
<input checked="" type="checkbox"/>	3. DWR Population Tool
<input type="checkbox"/>	4. Other DWR recommends pre-review
NOTES:	

<b>SB X7-7 Table 3: 2020 Service Area Population</b>	
2020 Compliance Year Population	
2020	65,231
NOTES:	

SB X7-7 Table 4: 2020 Gross Water Use							
Compliance Year 2020	2020 Volume Into Distribution System <i>This column will remain blank until SB X7-7 Table 4-A is completed.</i>	2020 Deductions				2020 Gross Water Use <i>This column will remain blank until SB X7-7 Table 4-D is completed.</i>	
		Exported Water *	Change in Dist. System Storage* (+/-)	Indirect Recycled Water <i>This column will remain blank until SB X7-7 Table 4-B is completed.</i>	Water Delivered for Agricultural Use*		
	7,102			-	729	-	6,373
* Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.							
NOTES:							

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment				
Complete one table for each source.				
Name of Source	City of Watsonville Produced			
This water source is (check one):				
<input checked="" type="checkbox"/> The supplier's own water source	Compliance Year 2020	Meter Error Adjustment <sup>2</sup> Optional (+/-)	Corrected Volume Entering Distribution System	
<input type="checkbox"/> A purchased or imported source		7,102	7,102	
<sup>1</sup> Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.				
<sup>2</sup> Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES:				

**SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)**

2020 Gross Water Fm SB X7-7 Table 4	2020 Population Fm SB X7-7 Table 3	2020 GPCD
6,373	65,231	87
NOTES:		

**SB X7-7 Table 9: 2020 Compliance**

Actual 2020 GPCD <sup>1</sup>	Optional Adjustments to 2020 GPCD			TOTAL Adjustments <sup>1</sup>	Adjusted 2020 GPCD <sup>1</sup> (Adjusted if applicable)	2020 Confirmed Target GPCD <sup>1, 2</sup>	Did Supplier Achieve Targeted Reduction for 2020?
	Enter "0" if Adjustment Not Used						
87	Extraordinary Events <sup>1</sup>	Weather Normalization <sup>1</sup>	Economic Adjustment <sup>1</sup>	-	87	117	YES

<sup>1</sup> All values are reported in GPCD

<sup>2</sup> 2020 Confirmed Target GPCD is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.

NOTES:

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## APPENDIX 7-1: WATER QUALITY REPORT 2019

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# City of Watsonville Water Quality Report 2019



## Why Do We Test Our Drinking Water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- ◆ **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- ◆ **Inorganic contaminants**, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- ◆ **Pesticides and herbicides**, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- ◆ **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- ◆ **Radioactive contaminants**, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).



The City of Watsonville is proud to report that the water provided by our Utilities Department met all Federal and State Standards for drinking water during 2019.

## Information for People with Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). Remember, the City's water met all Federal and State standards for drinking water during 2019.

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Our 2016 monitoring indicated the

presence of Cryptosporidium in our source water. The City of Watsonville's treatment plant removes Cryptosporidium through effective filtration. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

# 2019 WATER QUALITY INFORMATION

This table lists only the substances detected, out of the more than 2,000 water quality analyses conducted during 2019.

**Arsenic.** While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

**Lead.** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Watsonville is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

**Nitrate:** Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than 6 months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies.

If you are caring for an infant, or if you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

## Terms & Abbreviations Used in Table:

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements.

**Regulatory Action Level (AL):** The concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**NA:** not applicable

**ND:** not detectable at testing limit

**ppb:** parts per billion or micrograms per liter

**ppm:** parts per million or milligrams per liter

**ppt:** parts per trillion or nanograms per liter

**pCi/l:** picocuries per liter (a measure of radiation)

## Source Water Assessment

The Source Water Assessment is a tool to help us protect our water supplies by identifying potential sources of contamination. It is important to note that the City is in compliance with all State water quality regulations. An assessment of the City's drinking water was completed in March 2013. Our sources are considered most vulnerable to the following activities associated with nitrate detected in the water supply: agricultural drainage channels, fertilizer and pesticide application to irrigated crops. In addition, the sources are considered most vulnerable to gas stations, known contaminant plumes from historical leaking fuel tanks, utility stations, septic systems, and recreational areas.

The City works closely with State agencies to ensure the proper and rapid cleanup of potential contaminant sources, such as leaking underground fuel tank sites, and our program has effectively protected the City water supply. A copy of the complete assessment is available for viewing at the City's Main Library, located at 275 Main Street. A summary of the assessment can be mailed upon request by calling Beau Kayser at 768-3193.

## Footnotes to Table

1. The limit of 1,300 ppb for copper & 15 ppb for lead is at the 90<sup>th</sup> percentile of data after ranking. Lead & copper have not been detected in the City water system, but may occur due to corrosion of plumbing in private homes. Thirty sites were sampled in 2019.

2. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

3. Compliance based on presence of coliform bacteria in less than 5% of distribution samples collected in a month.

4. Total trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform.

5. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Turbidity is measured in NTUs (nephelometric turbidity units).

6. Treatment Technique performance standard: 0.5 NTU for filtered water in 95% of measurements taken each month and shall not exceed 5.0 NTU at any time.

7. Treatment Technique performance standard: 5.0 NTU for unfiltered water at any time.

8. Divide by 17.12 to convert ppm to grains/gallon as CaCO<sub>3</sub>.

# Primary Drinking Water Standards / Normas primarias del agua potable

Substance (units) Sustancia (unidad)	Highest Level Allowed: MCL <i>NMC</i> o (MCLG) <i>MSP</i>	Ideal Goals: PHG or (MCLG) <i>MSP</i>	Treated Surface Water <i>Agua de la superficie</i>		Treated Ground-water <sup>2</sup> <i>Agua subterránea</i> <sup>2</sup>		Violation? ¿violación?	Major Sources Origen
			Range Límites	Average Promedio	Range Límites	Average Promedio		
Aluminum (ppb) Aluminio (ppb)	1000	600	86-110	98	ND	ND	No	Erosion of deposits of naturally occurring minerals La erosión de depósitos de minerales radioactivas naturales
Arsenic (ppb) Arsénico (ppb)	10	0.004	ND	ND	0-6.2	0.4	No	Naturally occurring mineral Mineral natural
Barium (ppb) Bario (ppb)	1000	2000	ND	ND	3.9-78	38.3	No	Erosion of deposits of naturally occurring minerals La erosión de depósitos de minerales radioactivas naturales
Chlorine (ppm) Cloro (ppm)	MRDL =4	MRDLG =4	Average = 0.61, Range = 0.11-1.03 Promedio = 0.61, margen = 0.11-1.03				No	Drinking water disinfectant Desinfectante de agua
Chromium (ppb) Cromo (ppb)	50	100	ND	ND	ND-18	7.5	No	Naturally occurring mineral; Chrome plating Cromodo; Mineral natural
Total Coliform <sup>3</sup> (% positive) Coliforme total <sup>3</sup> (% positivas)	5%	(0)	Highest Monthly % Positive Samples=1.3% Promedio mensual positivo más alto=1.3%				No	Naturally present in the environment Existe naturalmente
Copper in tap water (ppb) <sup>1</sup> Cobre en el agua de beber (ppb) <sup>1</sup>	AL= 1,300 <sup>1</sup>	170	90 <sup>th</sup> percentile=1100 ppb; 0 sites exceeded the AL 90 <sup>th</sup> percentil=1100 ppb; 0 sitios excedieron el NAR				No	Corrosion of household plumbing Oxidación de la plomería del hogar
Fluoride (ppb) Fluoruro (ppb)	2,000	1,000	180-200	190	84-280	196	No	Naturally occurring mineral Mineral natural
Haloacetic Acids (ppb) Ácidos haloacéticos (ppb)	60	NA	Highest Average = 13.6, Range = 0-28.0 Promedio más alto = 13.6, margen = 28.0				No	By-product of drinking water chlorination Producto secundario del proceso de cloración
Lead in tap water (ppb) <sup>1</sup> Plomo en el agua de beber (ppb) <sup>1</sup>	AL=15 <sup>1</sup>	0.2	90 <sup>th</sup> percentile=<5.0 ppb; 0 sites exceeded the AL 90 <sup>th</sup> percentil=<5.0 ppb; 0 sitios excedieron el NAR				No	Corrosion of household plumbing Oxidación de la plomería del hogar
Nickel (ppb) Niquel (ppb)	100	12	ND	ND	ND-12	1.4	No	Erosion of deposits of naturally occurring minerals La erosión de depósitos de minerales radioactivas naturales
Nitrate (ppm as N) Nitrito (ppm como N)	10	10	ND	ND	0-3.7	1.1	No	Runoff/leaching from fertilizer/septic Escurreimiento/la lixiviación por el fertilizante/séptico
Total Trihalomethanes <sup>4</sup> (ppb) Trihalometano Total <sup>4</sup> (ppb)	80	NA	Highest Average = 33.7, Range = 2.7-61.0 Promedio más alto = 33.7, margen = 2.7-61.0				No	By-product of drinking water chlorination Producto secundario del proceso de cloración
Turbidity (NTU) <sup>5</sup> Turbidez (NTU) <sup>5</sup>	TT=0.5 <sup>6</sup> TT=5.0 <sup>7</sup>	NA	100% Compliance Complimiento	0.03	Not subject to monitoring No está sujeto a la observación		No	Eroded soil in water runoff Tierra que se va con la lluvia
Uranium(pCi/L) Uranio(pCi/L)	20	0.43	ND	ND	ND-1	0.143	No	Erosion of natural deposits Erosion de depósitos naturales

## Secondary (Non-Health Related) Drinking Water Standards - Aesthetic Qualities that can Affect Taste, Odor & Color<sup>2</sup> Secundaria (no relación con la salud) Normas de agua potable - Calidades estéticas que puedan afectar el sabor, olor y color del agua<sup>2</sup>

Chloride (ppm) Cloruro (ppm)	500	NA	15-25	20	10-430	51	No	Naturally occurring mineral Mineral natural
Color (Units) Color (unidades)	15	NA	7-10	8	1-4	1.4	No	Naturally occurring organic materials Materiales orgánicos naturales
Conductivity (umhos) Conductividad (umhos)	1,600	NA	360-410	385	420-1700	650	No	Naturally occurring mineral Mineral natural
Dissolved Solids (ppm) Sólidos disueltos (ppm)	1,000	NA	230-260	245	220-460	332	No	Naturally occurring mineral Mineral natural
Hardness (ppm) <sup>8</sup> Agua dura (ppm) <sup>8</sup>	No limit No límite	NA	150-180	165	190-510	281	No	Naturally occurring mineral Mineral natural
Iron (ppb) Hierro (ppb)	300	NA	170	170	ND-270	19	No	Naturally occurring mineral Mineral natural
Manganese (ppb) Manganoso (ppb)	50	NA	24	24	ND-32	3.8	No	Naturally occurring mineral Mineral natural
Sodium (ppm) Sodio (ppm)	No Limit No límite	NA	18	18	14-150	37	No	Naturally occurring mineral Mineral natural
Sulfate (ppm) Sulfato (ppm)	500	NA	53-59	56	13-91	52	No	Naturally occurring mineral Mineral natural

# Reporte de la calidad del agua del 2019



La Ciudad de Watsonville está orgullosa de informarle que el agua suministrada por nuestro Departamento de Utilidades cumplió con todas las normas federales y estatales para el agua potable durante 2019.

## Información para Personas con Problemas de Salud

Algunas personas pueden ser más susceptibles a los contaminantes en el agua potable que la población en general. Por ejemplo, las más susceptibles a infecciones son aquellas con un sistema inmune delicado, incluso las personas con cáncer y en tratamiento de quimioterapia, las personas que se les hizo un trasplante de un órgano, las personas con VIH o SIDA o algún otro problema médico del sistema inmune, algunas personas ancianas y bebés.

Estas personas deben consultar con su médico si tienen dudas. Usted puede obtener las normas para reducir el peligro de infección por Cryptosporidium u otros contaminantes microbianos de la USEPA y el Centro para el Control de Enfermedades (sus siglas en inglés CDC) llamando a la Línea Telefónica de Agua Potable al (800-426-4791). Recuerde que el agua de la Ciudad cumplió con todas las normas federales y estatales para el año 2019.

Cryptosporidiosis es un germen microbiano encontrado en agua superficial por todo Estados Unidos. Nuestro monitoreo ha indicado la presencia de este organismo en la fuente de agua superficial. La planta de tratamiento de la ciudad de Watsonville remueve el criptosporidio a través de filtración efectiva. Métodos de prueba actuales no pueden detectar si el organismo está muerto o si es capaz de causar enfermedades. La ingestión de criptosporidio puede causar criptosporidiosis, una infección abdominal. Síntomas incluyen náuseas, diarrea, y dolor abdominal. Personas sanas pueden sobrepasar esta enfermedad en unas semanas. Pero, personas con un sistema inmune comprometido, infantes o niños pequeños, y personas de edad avanzada están con riesgo de desarrollar enfermedades que ponen en riesgo la vida. Es recomendado que personas con un sistema inmune comprometido consulten un doctor para aprender qué medidas deben tomar para prevenir infecciones. El criptosporidio debe de ser ingerido para causar enfermedades, y puede ser difundido por otras medidas.

## ¿Por qué analizamos el agua potable?

Las fuentes de agua potable (tanto el agua corriente como el agua embotellada) incluyen ríos, lagos, arroyos, lagunas, reservorios, manantiales y pozos. Al correr el agua sobre la superficie de la tierra o por debajo del suelo, disuelve los minerales presentes naturalmente y puede arrastrar sustancias originadas por la presencia de animales o de la actividad humana. Los agentes contaminantes que pueden encontrarse en el agua antes del tratamiento de ésta, incluyen:

- ◆ **Agentes contaminantes microbianos**, como virus y bacterias, que pueden provenir de plantas depuradoras de aguas residuales, sistemas sépticos, operaciones agropecuarias, y fauna y flora silvestre.
- ◆ **Agentes contaminantes inorgánicos**, como sales y metales, que pueden estar presentes naturalmente o pueden surgir como consecuencia de la escorrentía pluvial de las zonas urbanas, descargas de aguas residuales industriales o domésticas, producción de petróleo y gas, y actividades de minería o agricultura.
- ◆ **Pesticidas y herbicidas**, que pueden provenir de diversas fuentes, por ejemplo, agricultura, escorrentía pluvial de las zonas urbanas y usos residenciales.
- ◆ **Agentes contaminantes químicos orgánicos**, incluidos productos químicos orgánicos sintéticos y volátiles, que son subproductos de procesos industriales y de la producción petrolera, y también pueden provenir de estaciones de servicio, escorrentía pluvial de las zonas urbanas, uso agrícola y sistemas sépticos.
- ◆ **Agentes contaminantes radiactivos**, que pueden estar presentes naturalmente o que pueden surgir como resultado de la producción de petróleo y gas, y actividades de minería.

Para garantizar que el agua corriente sea saludable para el consumo, la Agencia de Protección Ambiental de los EE. UU. (U.S. Environmental Protection Agency, USEPA) y el State Water Resources Control Board prescriben reglamentaciones que limitan la cantidad de ciertos agentes contaminantes en el agua suministrada por los sistemas públicos de abastecimiento de agua. Las regulaciones estatales también establecen límites para los agentes contaminantes del agua embotellada ya que deberán proveer el mismo nivel de protección a la salud pública.

Es razonable que el agua potable, incluso la embotellada, contenga por lo menos cantidades pequeñas de algunos contaminantes. La presencia de contaminantes no significa un peligro para la salud. Puede obtener más información tocante los contaminantes y los posibles efectos a la salud llamando a la Línea Telefónica de Agua Potable de la USEPA al (1-800-426-4791).

# Información de la calidad del agua del 2019

Esta tabla enumera las sustancias detectadas de las mas que 2,000 muestras que se efectuaron durante el año 2019.

**Arsénico.** Aunque el agua potable cumple con las normas federales y estatales de arsénico, ésta contiene niveles bajos de arsénico. Las normas buscan un equilibrio entre lo que se conoce hasta ahora sobre los efectos posibles del arsénico en la salud y los costos de remover el arsénico del agua potable. USEPA continua con las investigaciones de los niveles bajos del arsénico en la salud, el cual es un mineral conocido como causante de cáncer en altas concentraciones y se vincula con otros efectos a la salud tales como daños a la piel y problemas circulatorios.

**Plomo.** Si está presente, el plomo en niveles elevados puede causar problemas serios a la salud, especialmente a mujeres embarazadas y niños pequeños. El plomo que se encuentra en el agua potable proviene de la tubería y plomería de su casa. La Ciudad de Watsonville es responsable por proveer agua potable de la más alta calidad, pero no puede controlar la variedad de materiales que se utilizan en la plomería. Si no habré las llaves de su casa por varias horas, puede minimizar el riesgo de exponerse al plomo dejando correr el agua entre 30 segundos a 2 minutos antes de tomar o usar el agua para cocinar. Si está preocupado por el nivel de plomo en su agua puede hacer una prueba. Para información sobre el plomo en el agua potable, tipos de pruebas disponibles, y sugerencias en cómo minimizar su exposición hable a Safe Drinking Water Hotline (línea telefónica de agua potable segura) o visite el sitio <http://www.epa.gov/safewater/lead>.

**Nitratos:** El nitrato en el agua potable a un nivel de más de 10 mg/L es un riesgo para la salud en los niños menores de 6 meses de edad. Tales niveles de nitrato en el agua potable puede interferir con la capacidad de la sangre de portar el oxígeno, que resultaría que la piel se pusiera azul. Los niveles de nitrato de más de 10 mg/L pueden también afectar la habilidad de la sangre de portar el oxígeno en otros individuos, así como las mujeres embarazadas y aquellos con ciertas deficiencias de enzimas específicas. Si está cuidando a un niño o si está embarazada, debe consultar su proveedor de cuidado de salud. Los niveles de nitrato pueden subir rápidamente por intervalos cortos de tiempo a causa de la lluvia o la actividad agrícola.

## Términos y abreviaciones usadas en la tabla a la izquierda

**Meta de la Salud Pública (MSP):** El nivel más bajo de un contaminante en el agua potable bajo el cual no se conoce o se espera que haya peligro a la salud. El MSP se calcula por la Agencia de la Protección del Medio Ambiente de California.

**Meta Máxima Del Nivel de Contaminación (MMNC):** El nivel más bajo de un contaminante en el agua potable bajo el cual no se conoce o se espera que haya peligro a la salud. El MMNC es calculado por la Agencia de la Protección del Medio Ambiente.

**Nivel Máximo de Contaminación (NMC):** El nivel más alto de un contaminante que se permite en el agua potable. El NMC primario se establece lo más cerca de los MSP's (o MMNC's) como sea práctico económicamente y tecnológicamente. Los MCLs secundarios se establecieron para proteger el olor, sabor y apariencia del agua.

**Nivel máximo de desinfectante residual (MRDL):** El nivel más alto de desinfectante permitido en el agua potable. Existe evidencia que indica que es necesario añadir un desinfectante para el control de contaminantes microbianos.

**Meta para nivel máximo de desinfectante residual (MRDLG):** El nivel de desinfectante de agua potable por debajo de la cantidad que no se reconoce o se espera riesgo alguno para la salud. Los estándares de MRDLGs no reflejan los beneficios del uso de desinfectantes para el control de contaminantes microbianos.

**Norma Primaria del Agua Potable (NPAP):** NMC para los contaminantes que afectan la salud junto con los requisitos en materia de informes e inspecciones.

**Nivel de Acción Reglamentaria (NAR):** La concentración de un contaminante, que cuando es excedida, causa que se efectúen tratamientos u otros requerimientos al sistema del agua.

**Técnica de Tratamiento (TT):** Un proceso que es requerido con el propósito de reducir el nivel de un contaminante en el agua potable.

**NA:** no es pertinente

**ND:** no es detectable

**ppb:** partes por mil millones o microgramos por litro

**ppm:** partes por millón o miligramos por litro

**ppm:** partes por trillón o nanogramos por litro

**pCi/l:** una medida de radiación

## La Evaluación Fuentes del Agua

La Evaluación Fuentes del Agua es un instrumento utilizado para identificar potenciales de contaminación en nuestros suministros de agua potable. Es muy importante señalar que la Ciudad de Watsonville cumple con todos las leyes establecidas para la provisión de agua potable del Estado de California. Durante de marzo del 2013 se desarrollo una evaluación sobre el sistema de agua potable de la Ciudad. La evaluación concluyó que nuestras fuentes de agua son vulnerables a las actividades relacionadas con nitratos, tales como: canales de desagüe agrícola, fertilizantes y aplicar pesticidas en cultivos de riego. Asimismo, nuestras fuentes de agua son más vulnerables a gasolineras, tanques de combustible que históricamente han demostrado fugas de gases contaminantes, instalaciones de empresas de servicios públicos, fosas sépticas, e áreas recreativas.

La Ciudad trabaja conjuntamente con las agencias del Estado para garantizar que se toman las medidas adecuadas y rápidas para la limpieza de las posibles fuentes de contaminantes tales como terrenos donde existen tanques subterráneos con fugas. Consecuentemente, nuestro programa ha protegido muy eficazmente las fuentes de agua municipal. Puede encontrar una copia de la evaluación total en la Biblioteca Principal de la Ciudad, ubicada en el 275 de la calle Main Street. Si gusta puede solicitar una copia del resumen de la evaluación por correo comunicándose con Beau Kayser a 768-3193.

## Notas al pie de la tabla

1. El límite de 1,300 ppb (cobre) & 15 ppb (plomo) están en el 90<sup>avo</sup> percentil después de clasificar la información. El cobre y plomo no se han detectado en los sistemas de agua, pero pudiera ocurrir a causa de la oxidación de la plomería de las casas. En 2019 se tomaron muestras de 30 lugares.

2. El Estado nos permite monitorear ciertos contaminantes menos de una vez por año porque las concentraciones de estos contaminantes no cambian con frecuencia. Algunos de nuestros datos, aunque representativa, tienen más de un año.

3. El acatamiento basado en la presencia de la bacteria de coliforme debe ser menos del 5% de la distribución de las muestras colectadas en un mes.

4. El total de los trihalometanos son la suma de cloroformo, bromodichlorometano, dibromochlorometano y bromoform.

5. Turbidez es la medida de la nubidad del agua. La monitoreamos ya que es un buen indicador de la eficacia de nuestro sistema de filtración. La turbidez se mide en unidades de turbidez nefelométricas (UTN).

6. La Norma de Cumplimiento de la Técnica de Tratamiento: 0.5 UTN en el agua filtrada en 95% de las medidas que se examinan cada mes y no deberá en ningún tiempo exceder el 5.0 UTN.

7. La Norma de Cumplimiento de la Técnica de Tratamiento: 5.0 UTN para agua que no ha sido filtrada nunca.

8. Dividir por 17.12 para convertir ppm a los granos como CaCO<sub>3</sub>.

# How We Get Our Water

When rainfall hits the ground in the Pajaro Valley, a portion of the water is absorbed into the ground and eventually reaches the groundwater table. City-owned and private wells then pump the water out for residential, agricultural, and business uses. About 90% of Watsonville's water supply is groundwater, primarily taken from the Aromas Red Sands Aquifer. The remainder is collected from Corralitos and Browns Creeks and treated at a plant in Corralitos.

The City's water meets the strict standards set by the State. However, each year more water is pumped out of the groundwater supplies than is replaced by rainfall. Over-pumping causes saltwater intrusion, the process where ocean water

City is working with the Pajaro Valley Water Management Agency on water conservation efforts and on projects to increase water supplies in the Pajaro Valley.

While the City of Watsonville uses less than 10% of the groundwater pumped in the Pajaro Valley, we must all begin to deal with the challenges created by this shortage. Let's all maintain our precious resources for future generations by continuing to practice water conservation.

For more information about your water, call Beau Kayser at 768-3193. Additional copies of this report are available at City Hall, or online at [www.cityofwatsonville.org/777/Water-Quality](http://www.cityofwatsonville.org/777/Water-Quality), or call 768-3133. The City Council is the governing body for the City water system. The City Council meets on the second and fourth Tuesday of each month at 4:00 p.m. and 6:30 p.m. in the Council Chambers, 275 Main Street, Fourth Floor. The City welcomes your participation in these meetings.

Para recibir más información sobre el agua potable, llame a Beau Kayser al 768-3193. Las copias adicionales de este informe están disponibles en las oficinas municipales o llamando al 768-3133 o en linea a [www.cityofwatsonville.org/777/Water-Quality](http://www.cityofwatsonville.org/777/Water-Quality). El Concilio Municipal es el cuerpo legislativo del sistema del agua potable de la Ciudad. El Concilio Municipal se reúne el segundo y cuarto martes de cada mes a las 4:00 p.m. y 6:30 p.m. en la Cámara del Concilio, ubicada en 275 Main Street, cuarto piso. La Ciudad les invita a que asistan a estas juntas.

# ¿De dónde proviene el agua potable?

Cuando la lluvia cae en el suelo del Valle del Pájaro, una porción de la lluvia es absorbida por el suelo y ésta a la larga llega al subsuelo. Los pozos municipales y privados bombean el agua para los usos residenciales, agrícolas y comerciales. Cerca del 90% del suministro del agua del subsuelo proviene del acuífero *Aromas Red Sands*. El agua restante proviene de los arroyos Corralitos y el arroyo Browns y pasa por un tratamiento en la planta de filtración de Corralitos.

El agua potable de la Ciudad excede las normas estrictas establecidas por el estado. Sin embargo, hay una escasez de agua en el Valle del Pájaro: cada año se bombea más agua del subsuelo de la que es reemplazada por la lluvia. El bombeo demas causa la intrusión de agua salada (es cuando el agua del océano se filtra por el subsuelo a los pozos convirtiéndolos inservibles y los echa a perder).

Mientras que Watsonville usa menos de 10% de todo el agua subterránea en el Valle del Pájaro, todos debemos empezar a afrontar los retos ocasionados por la escasez de agua. Hay que mantener nuestros recursos para las generaciones futuras, y así hemos de continuar con el ahorro de agua.

## Unregulated Contaminant Monitoring Rule (UCMR3)\* Monitoreo de los Contaminantes no Regulados (UCMR3)\*

Substance (units) Sustancia (unidad)	Ideal Goals: PHG or (MCLG) MSP o (MMNC)	Treated Groundwater Agua subterránea Range Límites	Average Promedio	Violation? ¿Violación?	Major Sources Origen
Chlorodifluoromethane (ppt) Clorodifluorometano (ppt)	NA	0 - 120	4	No	Industrial sources Químicas industriales
Molybdenum (ppb) Molibdeno (ppb)	NA	0 - 4.6	2.0	No	Leaching from natural deposits Lixiviación de depósitos naturales
Strontium (ppb) Estroncio (ppb)	NA	220 - 530	333	No	Leaching from natural deposits Lixiviación de depósitos naturales
Vanadium (ppb) Vanadio (ppb)	NA	0.52 - 5.8	3.4	No	Leaching from natural deposits Lixiviación de depósitos naturales

\* Unregulated contaminants are those that don't yet have a drinking water standard set by USEPA. The purpose of monitoring for these contaminants is to help USEPA decide whether the contaminants should have a standard. For general information on UCMR3, visit <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3> or contact EPA's Safe Drinking Water Hotline at 1-800-426-4791.

\*Los contaminantes no regulados son aquellos que aún no tienen un estándar de agua potable establecidos por la USEPA. El objetivo de la vigilancia de estos contaminantes es ayudar a USEPA decidir si los contaminantes deben tener un estándar. Para obtener más información acerca del monitoreo del UCMR visita <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3> o llama a la Línea Telefónica de Agua Potable al (800) 426-4791.



## APPENDIX 7-2: HISTORICAL PRECIPITATION

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Sources:

<https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9473>

NOAA

STATION	NAME	DATE	PRCP	5 year average	Actual Minus Average
USC00049473	WATSONVILLE WATERWORKS, CA US	1991	20.61	24.41	-2.27
USC00049473	WATSONVILLE WATERWORKS, CA US	1992	22.11	27.78	-0.77
USC00049473	WATSONVILLE WATERWORKS, CA US	1993	26.52	27.25	3.64
USC00049473	WATSONVILLE WATERWORKS, CA US	1994	20.80	30.21	-2.08
USC00049473	WATSONVILLE WATERWORKS, CA US	1995	32.01	29.50	9.13
USC00049473	WATSONVILLE WATERWORKS, CA US	1996	37.48	28.86	14.60
USC00049473	WATSONVILLE WATERWORKS, CA US	1997	19.44	26.68	-3.44
USC00049473	WATSONVILLE WATERWORKS, CA US	1998	41.30	26.08	18.42
USC00049474	WATSONVILLE WATERWORKS, CA US	1999	>= 17.27 *Note 1	21.52	-5.61
USC00049475	WATSONVILLE WATERWORKS, CA US	2000	28.79	22.00	5.91
USC00049476	WATSONVILLE WATERWORKS, CA US	2001	26.60	21.70	3.72
USC00049473	WATSONVILLE WATERWORKS, CA US	2002	16.45	22.03	-6.43
USC00049473	WATSONVILLE WATERWORKS, CA US	2003	18.47	21.24	-4.41
USC00049473	WATSONVILLE WATERWORKS, CA US	2004	19.67	20.80	-3.21
USC00049473	WATSONVILLE WATERWORKS, CA US	2005	27.29	20.82	4.41
USC00049473	WATSONVILLE WATERWORKS, CA US	2006	28.25	21.38	5.37
USC00049473	WATSONVILLE WATERWORKS, CA US	2007	12.50	19.53	-10.38
USC00049473	WATSONVILLE WATERWORKS, CA US	2008	16.31	21.48	-6.57
USC00049473	WATSONVILLE WATERWORKS, CA US	2009	19.76	18.93	-3.12
USC00049473	WATSONVILLE WATERWORKS, CA US	2010	30.10	19.62	7.22
USC00049473	WATSONVILLE WATERWORKS, CA US	2011	>= 18.96 *Note 2	n/a	n/a
USC00049473	WATSONVILLE WATERWORKS, CA US	2012	22.28	18.35 Dryest 5 years ('12-16)	-0.60
USC00049473	WATSONVILLE WATERWORKS, CA US	2013	3.54 Single Dry Year	20.03	-19.34
USC00049473	WATSONVILLE WATERWORKS, CA US	2014	23.24	23.19	0.36 Single Year closest to average
USC00049473	WATSONVILLE WATERWORKS, CA US	2015	12.78	24.68	-10.10
USC00049473	WATSONVILLE WATERWORKS, CA US	2016	29.92	24.80	7.04
USC00049473	WATSONVILLE WATERWORKS, CA US	2017	30.67		7.79
USC00049473	WATSONVILLE WATERWORKS, CA US	2018	19.32		-3.56
USC00049473	WATSONVILLE WATERWORKS, CA US	2019	30.70		7.82
USC00049473	WATSONVILLE WATERWORKS, CA US	2020	13.39		-9.49
30 Year Average			22.88	18.35	

Notes

- 1.Two days of data missing.
2. Nine days of data missing; other nearby weather stations also missing data.

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## **APPENDIX 7-3: WATER DEMAND DURING THREE-YEAR AND FIVE-YEAR DROUGHTS**

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Appendix 7-3: Water Demand during Three-Year and Five-Year Droughts

	Year	Demand AFY
<b>Average Year</b>	2014	7506

	Year	Demand AFY	Yearly Change	Precip Type	Variance from Avg	Demand Increase from Drought	Conservation Percent
	2006	7671	-	Higher	102.2%	-	-
<b>Consecutive Dry Years 1st Year</b>	2007	8631	12.51%	Lower	115.0%	115.0%	-
<b>Consecutive Dry Years 2nd Year</b>	2008	8805	2.02%	Lower	117.3%	117.3%	-
<b>Consecutive Dry Years 3rd Year</b>	2009	7761	-11.86%	Lower	103.4%	103.4%	
	2010	7460	-3.87%	Higher	99.4%		
	2011	7301	-2.13%	Lower	97.3%		
<b>Consecutive Dry Years 1st Year</b>	2012	7770	6.43%	Lower	103.5%	103.5%	
<b>Consecutive Dry Years 2nd Year</b>	2013	8318	7.05%	Lower	110.8%	110.8%	
<b>Consecutive Dry Years 3rd Year</b>	2014	7506	-9.76%	Higher	100.0%	100.0%	
<b>Consecutive Dry Years 4th Year</b>	2015	6874	-8.42%	Lower	91.6%		91.6%
<b>Consecutive Dry Years 5th Year</b>	2016	6349	-7.64%	Higher	84.6%		84.6%

<b>Average</b>	-	-
<b>1st Year Increase due to Drought</b>	109.3%	-
<b>2nd Year Increase due to Drought</b>	114.1%	
<b>1st Year Conservation</b>	101.7%	
<b>2nd Year Conservation</b>	-	91.6%
<b>3rd Year Conservation</b>	-	84.6%

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## APPENDIX 9-1: WATER CONSERVATION CERTIFICATION

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# City of Watsonville

## Water Conservation Certification

All residential, commercial and industrial buildings within the incorporated City of Watsonville area *and* unincorporated area that is served by the City of Watsonville's public water service which administers a water conservation program, are required to be retrofitted with high efficiency plumbing fixtures when a property is sold. This form is to certify that all plumbing fixtures at the property meet the high efficiency standards.

Important: The seller must file this completed form with the City of Watsonville before the property is sold.

Please refer below to the instructions and information. For assistance, call City of Watsonville Public Works Customer Service at 831.768.3133.

### 1. Property Location

Street Address	City	Zip code
Assessor's Parcel No.	Water Provider or Well	

### 2. Plumbing Fixtures

	Toilets	Showerheads	Urinals	Interior Faucets
Total number of fixtures at this property				
Number of fixtures retrofitted				
Number of fixtures exempt (e.g., 1.6 gal toilet)				

\_\_\_\_ Number of full baths \_\_\_\_ Number of half baths

### 3. Exemptions

- Historic registry
- Already retrofitted with low flow fixtures
- Other \_\_\_\_\_

**4. Retrofit Verification**

- Inspection by real estate agent or broker
- Inspection by licensed plumber or general contractor
- Inspection by a licensed home inspector

---

Verifier's Name (please print)	Signature	Date	Telephone
--------------------------------	-----------	------	-----------

---

Verifier's Business Name	License Number
--------------------------	----------------

- I am the property owner
- I am the real estate agent for the owner

---

Name (please print)	Signature	Date	Telephone
---------------------	-----------	------	-----------

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**Summary of the City of Watsonville Plumbing Fixture Retrofit Compliance Process with California's State Mandated SB 407 and the Cal Green Plumbing Code in regards to water conservation:**

Effective January 2017, all residential commercial and industrial buildings in the incorporated City of Watsonville *and* unincorporated area that is served by the City of Watsonville's public water service are required to be retrofitted completely, if not already conforming, with high efficiency plumbing fixtures at the time of sale of the property. Under the law, the seller of the property is responsible of the following:

1. Replacing any toilets, showerheads and urinals that don't meet the high efficiency standards.
2. Obtaining a Water Conservation Certificate from the City of Watsonville.
3. Disclosing retrofit requirements to the buyer of the property, before the property changes ownership.

\*Copies of the written disclosure form and the Water Conservation Certificate are to be included with documents transferring title to the property.

**High efficiency Plumbing Standards**

- Toilets 1.28 gallons per flush (or less)
- Showerheads 2.0 gallons per minute (or less)
- Urinals .5 gallon per flush (or less)
- Interior faucets: Kitchen aerators- 1.8 gallons per minute or less  
Bath aerators- 1.2 gallons per minute (or lower) for residential and  
0.5 gallons per minute (or less) for commercial

### **Option to Have Buyer Retrofit**

An option in the ordinance allows the seller to transfer the retrofit responsibility to the buyer. Both parties must agree that the buyer assumes the responsibility. The buyer has ninety (90) calendar days from the date of the sale to complete the retrofit. The seller and buyer must fill out the Transfer of Responsibility to Retrofit Form and file with the City of Watsonville.

### **Instructions to Seller**

**Step 1** – Complete parts 1, 2 and 3 of this form.

**Step 2** – Hand deliver or mail the completed form to:

City of Watsonville  
Public Works and Utilities  
320 Harvest Drive  
Watsonville, CA. 95076

**Or email to:**

[customerservice@cityofwatsonville.org](mailto:customerservice@cityofwatsonville.org)

*The form will be retained on file.*

**Step 3** - Keep a copy of this form for your records. Give one copy to the buyer and one to your real estate agent to be included with documents transferring title to the property.

### **Buyers signing the Transfer of Responsibility Form Agree to:**

Make sure all the fixtures on the property meet the high efficiency plumbing standards listed above. This will involve replacing any older fixtures that don't comply. Note: the buyer is not responsible for retrofitting if the sale of the property is not completed.

### **Failure to Retrofit**

If it is determined that the retrofit was never completed by the buyer as agreed to in this form, a notice of violation will be recorded against the property by the City of Watsonville in accordance with procedures contained in the above stated process in compliance with California state mandated SB 407 and the residential and commercial Cal Green Plumbing Code.

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## **APPENDIX 9-2: TRANSFER OF RESPONSIBILITY TO RETROFIT FORM**

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# City of Watsonville

## Transfer of Responsibility To Retrofit Form

All residential, commercial and industrial buildings within the unincorporated County area that are not served by a public water service which administers a similar water conservation program, are required to be retrofitted with high efficiency plumbing fixtures when a property is sold. Under the law, the seller of the property is responsible for retrofitting. The responsibility for retrofitting may be transferred from the seller to the buyer, if both parties mutually agree to do so. This form is used when a buyer agrees to perform the required plumbing fixture retrofit. Important: The seller must file this completed form with the County of Santa Cruz Water Conservation Program before the property is sold. Please refer below for instructions and information. For assistance, call the City of Watsonville's Public Works Customer Service line at (831)768-3133.

### 1. Property Location

---

Street Address City

Assessor's Parcel No.

### 2. Plumbing Fixtures

Fixtures:	Toilets	Showerheads	Urinals	Faucets
Total number of plumbing fixtures at this property:				
Number of fixtures retrofitted:				
Number of fixtures exempt:				

### 3. Seller's signature

By signing below, I, the seller, declare that the buyer has agreed to assume the responsibility for plumbing fixture retrofit at the above-referenced property.

Estimated Escrow Closing Date:

#### 4. Buyer's Signature

By signing below I, the buyer of the above-referenced property, agree to accept the responsibility of retrofitting the property with low consumption plumbing fixtures as required by State Bill 407 and the Cal Green Plumbing Code. I understand that I will be required to retrofit the property and to obtain a water conservation certificate within (90) calendar days following the date of change in ownership, in accordance with the procedures outlined on the back of this form.

Buyer's name (please print)      Buyer's signature      Date Telephone

## **Summary of the City of Watsonville Plumbing Fixture Retrofit Compliance Process with California's State Mandated SB 407 and the Cal Green Plumbing Code in regards to water conservation:**

Effective January 2017, all residential commercial and industrial buildings in the incorporated City of Watsonville *and* unincorporated area that is served by the City of Watsonville's public water service are required to be retrofitted completely, if not already conforming, with high efficiency plumbing fixtures at the time of sale of the property. Under the law, the seller of the property is responsible of the following:

1. Replacing any toilets, showerheads and urinals that don't meet the high efficiency standards.
2. Obtaining a Water Conservation Certificate from the City of Watsonville.
3. Disclosing retrofit requirements to the buyer of the property, before the property changes ownership.

\*Copies of the written disclosure form and the Water Conservation Certificate are to be included with documents transferring title to the property.

## **High efficiency Plumbing Standards**

- Toilets 1.28 gallons per flush (or less)
- Showerheads 2.0 gallons per minute (or less)
- Urinals .5 gallon per flush (or less)
- Interior faucets: Kitchen aerators- 1.8 gallons per minute or less  
Bath aerators- 1.2 gallons per minute (or lower) for residential and 0.5 gallons per minute (or less) for commercial

## **Option to Have Buyer Retrofit**

An option in the ordinance allows the seller to transfer the retrofit responsibility to the buyer. Both parties must agree that the buyer assumes the responsibility. The buyer has ninety (90) calendar days from the date of the sale to complete the retrofit. The seller and buyer must fill out the Transfer of Responsibility to Retrofit Form and file with the City of Watsonville Water Conservation Program.

## **Instructions to Seller**

**Step 1** – Complete parts 1, 2 and 3 of this form.

**Step 2** – Hand deliver or mail the completed form to:

City of Watsonville  
Public Works and Utilities  
320 Harvest Drive  
Watsonville, CA. 95076

Or email to:

[customerservice@cityofwatsonville.org](mailto:customerservice@cityofwatsonville.org)

*The form will be retained on file.*

**Step 3** - Keep a copy of this form for your records. Give one copy to the buyer and one to your real estate agent to be included with documents transferring title to the property.

## **Buyers signing the Transfer of Responsibility Form Agree to:**

Make sure all the fixtures on the property meet the high efficiency plumbing standards listed above. This will involve replacing any older fixtures that don't comply. Note: the buyer is not responsible for retrofitting if the sale of the property is not completed.

## **Failure to Retrofit**

If it is determined that the retrofit was never completed by the buyer as agreed to in this form, a notice of violation will be recorded against the property by the City of Watsonville in accordance with procedures contained in the above stated process in compliance with California state mandated SB 407 and the residential and commercial Cal Green Plumbing Code.

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## APPENDIX 9-3: PROPOSED WATER RATES

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## Proposed Water Rates/Tarifas Propuestas para Servicio de Agua Potable

Water: Fixed Monthly Charges (Inside City Limits)/Agua: Tarifas Mensuales (Dentro de los Límites de la Ciudad de Watsonville)						
Meter Size/Tamaño de Medidor de Agua	Current Rate/Tarifas Actuales	July/Julio 2021	July/Julio 2022	July/Julio 2023	July/Julio 2024	July/Julio 2025
5/8"	\$33.54	\$28.76	\$29.05	\$29.34	\$29.63	\$29.93
3/4"	\$33.54	\$28.76	\$29.05	\$29.34	\$29.63	\$29.93
1"	\$47.12	\$57.11	\$57.68	\$58.26	\$58.84	\$59.43
1.5"	\$81.00	\$104.37	\$105.41	\$106.47	\$107.53	\$108.61
2"	\$121.64	\$161.07	\$162.68	\$164.31	\$165.95	\$167.61
3"	\$230.00	\$312.28	\$315.40	\$318.55	\$321.74	\$324.96
4"	\$351.96	\$482.39	\$487.21	\$492.09	\$497.01	\$501.98
6"	\$567.20	\$954.93	\$964.48	\$974.12	\$983.86	\$993.70
8"	\$1,275.07	\$1,521.98	\$1,537.20	\$1,552.58	\$1,568.10	\$1,583.78
For each additional connection/ Por conexión adicional	\$5.43	N/A	N/A	N/A	N/A	N/A

Water: Fixed Monthly Charges (Inside City Limits)/Agua: Tarifas Mensuales (Fuera de los Límites de la Ciudad de Watsonville)						
Meter Size/Tamaño de Medidor de Agua	Current Rate/Tarifas Actuales	July/Julio 2021	July/Julio 2022	July/Julio 2023	July/Julio 2024	July/Julio 2025
5/8"	\$37.77	\$33.78	\$34.12	\$34.46	\$34.80	\$35.15
3/4"	\$37.77	\$33.78	\$34.12	\$34.46	\$34.80	\$35.15
1"	\$53.38	\$69.65	\$70.35	\$71.05	\$71.77	\$72.48
1.5"	\$92.37	\$129.46	\$130.75	\$132.06	\$133.38	\$134.71
2"	\$139.13	\$201.22	\$203.23	\$205.26	\$207.31	\$209.39
3"	\$263.80	\$392.57	\$396.50	\$400.46	\$404.47	\$408.51
4"	\$404.12	\$607.84	\$613.92	\$620.06	\$626.26	\$632.52
6"	\$651.75	\$1,205.83	\$1,217.89	\$1,230.07	\$1,242.37	\$1,254.80
8"	\$1,466.18	\$1,923.42	\$1,942.65	\$1,962.08	\$1,981.70	\$2,001.52
For each additional connection/ Por conexión adicional	\$5.43	N/A	N/A	N/A	N/A	N/A

Water: Consumption Charges per Unit (1 unit=100 cubic feet of water)/Agua: Tarifas de Consumo, por unidad (1 unidad = 100 pies cúbicos de agua)						
	Current Rate/Tarifas Actuales	July/Julio 2021	July/Julio 2022	July/Julio 2023	July/Julio 2024	July/Julio 2025
Residential Tier 1 (Old: 1-5 units/New: 0-6 units) Residencial – Escala 1 (Actual : 1-5 unidades/Nueva: 0-6 unidades)	\$3.84	\$3.95	\$3.99	\$4.03	\$4.07	\$4.11
Residential Tier 2 (Old: 6-10 units/New: 7-12 units)/Residencial – Escala 2 (Actual : 6-10 unidades/Nueva: 7-12 unidades)	\$4.53	\$5.17	\$5.22	\$5.27	\$5.32	\$5.38
Residential Tier 3 (Old: >10 units/New: >12 units)/Residencial – Escala 3 (Actual : >10 unidades/Nuevo: >12 unidades)	\$6.14	\$8.00	\$8.08	\$8.16	\$8.25	\$8.33
Industrial/Industrial	\$3.79	\$3.76	\$3.80	\$3.84	\$3.88	\$3.91
Other Non-residential/Otro, No-residencial	\$4.83	\$4.72	\$4.77	\$4.82	\$4.86	\$4.91
Irrigation/Irrigación	\$6.73	\$6.74	\$6.81	\$6.88	\$6.95	\$7.02

Fire: Fixed Monthly Charges (Inside City Limits)/Sistema de Incendios: Tarifas Mensuales (Dentro de los Límites de la Ciudad de Watsonville)						
Meter Size/Tamaño de Medidor de Agua	Current Rate/Tarifas Actuales	July/Julio 2021	July/Julio 2022	July/Julio 2023	July/Julio 2024	July/Julio 2025
2" and smaller/2" o menos	\$19.25	\$17.52	\$17.69	\$17.87	\$18.05	\$18.23
4"	\$53.33	\$37.54	\$37.91	\$38.29	\$38.67	\$39.06
6"	\$59.26	\$83.01	\$83.84	\$84.68	\$85.52	\$86.38
8"	\$65.84	\$161.44	\$163.06	\$164.69	\$166.34	\$168.00
10"	\$72.45	\$279.42	\$282.22	\$285.04	\$287.89	\$290.77
Irrigation	\$6.73	\$6.74	\$6.81	\$6.88	\$6.95	\$7.02

Fire Service: Fixed Monthly Charges (Outside City Limits)/Sistema de Incendios: Tarifas Mensuales (Fuera de los Límites de la Ciudad de Watsonville)						
Meter Size/Tamaño de Medidor de Agua	Current Rate/Tarifas Actuales	July/Julio 2021	July/Julio 2022	July/Julio 2023	July/Julio 2024	July/Julio 2025
2" and smaller/2" o menos	\$23.29	\$17.52	\$17.69	\$17.87	\$18.05	\$18.23
4"	\$62.38	\$37.54	\$37.91	\$38.29	\$38.67	\$39.06
6"	\$68.46	\$83.01	\$83.84	\$84.68	\$85.52	\$86.38
8"	\$75.08	\$161.44	\$163.06	\$164.69	\$166.34	\$168.00
10"	\$81.66	\$279.42	\$282.22	\$285.04	\$287.89	\$290.77

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**APPENDIX 10-1: SECOND NOTICE OF PUBLIC HEARING TO  
COUNTY OF SANTA CRUZ AND OTHER AGENCIES**

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## Appendix 10-1: Second Notice of Public Hearing to County of Santa Cruz and other Agencies

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**From:** Beau Kayser <beau.kayser@cityofwatsonville.org>  
**Sent:** Tuesday, June 1, 2021 3:41 PM  
**To:** Brian Lockwood <Lockwood@pvwater.org>; Sierra Ryan <Sierra.Ryan@santacruzcounty.us>; Tim Carson <tcarson@cfssc.org>; Joe.Serrano@santacruzcounty.us; donrosa@pajarosunnymesa.com; robert@aromaswaterdistrict.org  
**Cc:** Christy Cooper <Christy.Cooper@weareharris.com>  
**Subject:** [External]City of Watsonville: Urban Water Management Plan 2020 public hearing

Good afternoon,

This is a reminder that a public hearing will be held by the City Council of the City of Watsonville, on Tuesday, June 22, 2021, at the 6:30 p.m. session, in the City Council Chambers, 275 Main Street, 4th Floor (6th Level Parking—Entrance off Rodriguez Street), Watsonville, California, to introduce, discuss, and adopt the 2020 Urban Water Management Plan ("UWMP") and the updated Water Shortage Contingency Plan.

The public hearing can be heard by:

Zoom Meeting at: <https://cityofwatsonville-org.zoomgov.com/j/1604661504>

Or iPhone one-tap: US: +16692545252,,1604661504#

or +16692161590,,1604661504#

Or Telephone: US: +1 669 254 5252 or +1 669 216 1590 or +1 646 828 7666

Webinar ID: 160 466 1504

In compliance with California Water Code, the City of Watsonville is currently preparing an update to its 2020 Urban Water Management Plan (UWMP) and its Water Shortage Contingency Plan. The purpose of the public hearing is to receive public comment prior to formal adoption of the City's 2020 UWMP Update and the City's Water Shortage Contingency Plan. Copies of the final draft 2020 UWMP and the final draft Water Shortage Contingency Plan will be available for public review on the City's website at <https://www.cityofwatsonville.org/1205/Water-Management-Plan> . Comments can be provided up until the date of the Public Hearing to the contact listed below:

Beau Kayser  
500 Clearwater Lane  
Watsonville, CA 95076  
phone: (831) 768-3193  
email: [beau.kayser@cityofwatsonville.org](mailto:beau.kayser@cityofwatsonville.org)

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## APPENDIX 10-2: PUBLIC NOTIFICATIONS

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Legal Notice	Legal Notice
<b>CITY OF WATSONVILLE</b> <b>PUBLIC HEARING NOTICE</b> <b>CITY COUNCIL</b>	
<b>2020 Urban Water Management Plan Update</b>	
<p><b>NOTICE IS HEREBY GIVEN</b> that a Remote/Teleconference public hearing will be held by the City Council of the City of Watsonville, on Tuesday, June 22, 2021, at the 5:30 p.m. session. The public may participate through <a href="https://cityofwatsonville.org.zoomgov.com/j/1604661504">https://cityofwatsonville.org.zoomgov.com/j/1604661504</a> or iPhone one-tap US: 16692545252, 16692161590, +1 669 254 5252 or +1 669 216 1590 or +1 646 828 7666 Webinar ID: 160 466 1504, to consider:</p>	
<p><b>The 2020 Urban Water Management Plan ("UWMP") and the updated Water Shortage Contingency Plan</b></p>	
<p>The hearing is established by virtue of California Government Code Section 6061 and 6066.</p>	
<p>In compliance with California Water Code, the City of Watsonville is currently preparing an update to its 2020 Urban Water Management Plan (UWMP), and its Water Shortage Contingency Plan. The purpose of the public hearing is to receive public comment prior to formal adoption by the City. The 2020 UWMP and the final draft Water Shortage Contingency Plan are available for public review on the City's website at <a href="https://www.cityofwatsonville.org/">https://www.cityofwatsonville.org/</a>.</p>	
<p>The public may participate and provide comments during the meeting by joining the remote meeting at <a href="https://cityofwatsonville.org.zoomgov.com/j/1604661504">https://cityofwatsonville.org.zoomgov.com/j/1604661504</a>. The public may also call by telephone by dialing +1 669 254 5252 or +1 669 216 1590 or +1 646 828 7666 Webinar ID: 160 466 1504.</p>	
<p>To submit a comment in writing, please email <a href="mailto:citycouncil@cityofwatsonville.org">citycouncil@cityofwatsonville.org</a> and write "Public Comment" in the subject line. Include</p>	
Legal Notice	Legal Notice
<p>the item number and title of the item in the body of the email and your comments. All comments received by 1:00 p.m. will be included in the City Council Packet on the City's website at <a href="https://www.cityofwatsonville.org/2123/Agendas-Minutes">https://www.cityofwatsonville.org/2123/Agendas-Minutes</a>. Comments received after 1:00 p.m. will be added to the record of the meeting.</p>	
<p>Any person may observe, make inquiries, and present testimony, either for or against the Plan at said public hearing. Further information regarding this notice can be obtained by contacting Beau Kayser, 500 Clearwater Lane, Watsonville, CA 95076; telephone: (831) 768-3193; email: <a href="mailto:beau.kayser@cityofwatsonville.org">beau.kayser@cityofwatsonville.org</a>.</p>	
<p>Date: June 3, 2021  <i>/s/Beatriz Vazquez Flores</i>            City Clerk            Pub: 06/08 &amp; 06/15/21</p>	
<p><b>SUMMONS</b>  <b>(CITACION JUDICIAL)</b>            CASE NUMBER (Número Del Caso): 20CV01122</p>	
<p><b>NOTICE TO DEFENDANT:</b>  <b>(AVISO AL DEMANDADO):</b>            Krishna Chatanya Chidwary Nambur, and individual, and DOES 1-10, inclusive;</p>	
<p><b>YOU ARE BEING SUED BY PLAINTIFF:</b>  <b>(Usted es demandado por el demandante):</b>            International B2B Solutions, Inc., a California Corporation;            AppsIntegration, Inc., a California Corporation.</p>	
<p><b>NOTICE!</b> You have been sued. The court may decide against you without your being present unless you respond within three days. You have 30 CALENDAR DAYS after this summons and legal papers are served on you to file a written response. You must file a copy served on the plaintiff. A letter or phone call will not protect you. Your written response must be in proper legal form if you want the court to consider it. You may be a court form that you can use for your response. You can find these court forms and more information at <a href="http://www.courtinfo.ca.gov">www.courtinfo.ca.gov</a>.</p>	

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<p>Date: June 3, 2021  <i>/s/Beatriz Vazquez Flores</i>            City Clerk            Pub: 06/08 &amp; 06/15/21</p>	
<p><b>NOTICE OF PUBLIC HEARING</b>  <b>BEFORE THE BOARD OF DIRECTORS</b>  <b>OF THE SANTA CRUZ COUNTY</b>  <b>LIBRARY FINANCING AUTHORITY</b></p>	
<p>NOTICE IS HEREBY GIVEN that the <b>Board of Directors of the Santa Cruz County Library Financing Authority</b> has set a public hearing on <b>Wednesday, June 30, 2021 at 6:00 p.m.</b>, to be held virtually by teleconference and in person at the <b>Government Center Building, 5th floor Redwood Conference Room, 701 Ocean Street, Santa Cruz, CA, to consider the proposed budget of the Santa Cruz County Library Financing Authority (LFA) for the 2021-22 fiscal year.</b></p>	
<p>Any member of the public may appear at this hearing and address the Board regarding the LFA budget, either by joining virtually on the Zoom platform, by calling the telephone number provided on the agenda, or by attending in person at the above meeting location.</p>	
<p>The agenda for this hearing will be published at least three days in advance on the Internet at:</p>	



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WHAT WE DO

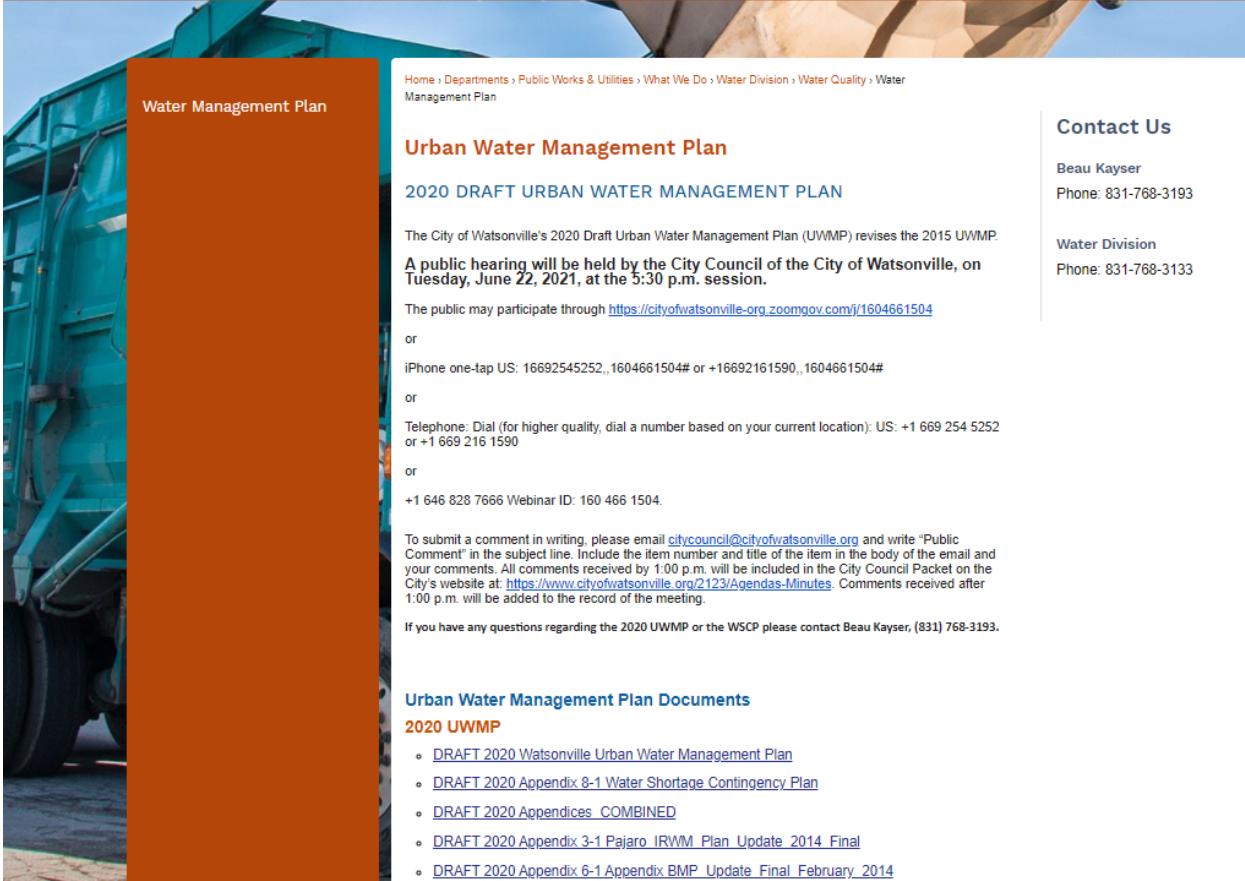
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CONSERVATION

PUBLIC EDUCATION

BUSINESS RESOURCES

HOW DO I?



Water Management Plan

Home > Departments > Public Works & Utilities > What We Do > Water Division > Water Quality > Water Management Plan

## Urban Water Management Plan

### 2020 DRAFT URBAN WATER MANAGEMENT PLAN

The City of Watsonville's 2020 Draft Urban Water Management Plan (UWMP) revises the 2015 UWMP. A public hearing will be held by the City Council of the City of Watsonville, on Tuesday, June 22, 2021, at the 5:30 p.m. session.

The public may participate through <https://cityofwatsonville-org.zoomgov.com/j/1604661504>

or

iPhone one-tap US: 16692545252,,1604661504# or +16692161590,,1604661504#

or

Telephone: Dial (for higher quality, dial a number based on your current location): US: +1 669 254 5252 or +1 669 216 1590

or

+1 646 828 7666 Webinar ID: 160 466 1504.

To submit a comment in writing, please email [citycouncil@cityofwatsonville.org](mailto:citycouncil@cityofwatsonville.org) and write "Public Comment" in the subject line. Include the item number and title of the item in the body of the email and your comments. All comments received by 1:00 p.m. will be included in the City Council Packet on the City's website at: <https://www.cityofwatsonville.org/2123/Agendas-Minutes>. Comments received after 1:00 p.m. will be added to the record of the meeting.

If you have any questions regarding the 2020 UWMP or the WSCP please contact Beau Kayser, (831) 768-3193.

### Urban Water Management Plan Documents

#### 2020 UWMP

- [DRAFT 2020 Watsonville Urban Water Management Plan](#)
- [DRAFT 2020 Appendix 8-1 Water Shortage Contingency Plan](#)
- [DRAFT 2020 Appendices COMBINED](#)
- [DRAFT 2020 Appendix 3-1 Pajaro IRWM Plan Update 2014 Final](#)
- [DRAFT 2020 Appendix 6-1 Appendix BMP Update Final February 2014](#)

**Contact Us**

Beau Kayser  
Phone: 831-768-3193

Water Division  
Phone: 831-768-3133

## APPENDIX 10-3: CITY COUNCIL RESOLUTION

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**RESOLUTION NO. 182-21 (CM)**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WATSONVILLE APPROVING THE CITY OF WATSONVILLE 2020 URBAN WATER MANAGEMENT PLAN, DATED JULY 2021**

**WHEREAS**, Section 10620 of the California Water Code mandates that every supplier providing water to more than 3,000 customers prepare and adopt an Urban Water Management Plan (“Plan”); and

**WHEREAS**, the Plan needs to be reviewed every five (5) years and must be adopted after a public review and hearing; and

**WHEREAS**, the Plan must be adopted by July 1, 2021, after it is first made available for public inspection and a public hearing is noticed and held, and it must be filed with the California Department of Water Resources within thirty (30) days of adoption; and

**WHEREAS**, notice has been properly given as required by and according to the provisions of Section 6066 of the Government Code; and

**WHEREAS**, on June 22, 2021, the Council afforded every interested person an opportunity to comment on the Plan either in writing or orally.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WATSONVILLE, CALIFORNIA, AS FOLLOWS:**

1. That the City of Watsonville 2020 Urban Water Management Plan, a copy of which is attached hereto and incorporated herein by this reference, is hereby approved.
2. That the Public Works Director, or his designee, is hereby directed to submit a copy of this Plan no later than thirty (30) days after adoption to the California Department of Water Resources (DWR), the California State Library, and the County of Santa Cruz, pursuant to Subsection (a) of Section 10644 of the California Water Code.

3. That the Council finds and determines that, under Section 10652 of the California Water Code, the adoption of the Plan does not constitute a project under the California Environmental Quality Act (CEQA), and no environmental assessment is required.

\*\*\*\*\*

The foregoing resolution was introduced at a regular meeting of the Council of the City of Watsonville, held on the 22<sup>nd</sup> day of June, 2021, by Member Montesino, who moved its adoption, which motion being duly seconded by Mayor Pro Tempore Parker, was upon roll call carried and the resolution adopted by the following vote:

AYES: COUNCIL MEMBERS: **Estrada, García, Gonzalez, Hurst, Montesino, Parker, Dutra**

NOES: COUNCIL MEMBERS: **None**

ABSENT: COUNCIL MEMBERS: **None**

DocuSigned by:  
  
49273AB2E4924F0...  
Jimmy Dutra, Mayor

ATTEST: DS

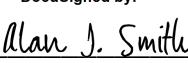
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City Clerk

6/28/2021 | 4:53 PM PDT

Date

APPROVED AS TO FORM:

DocuSigned by:  
  
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City Attorney

\*\*\*\*\*

I, Beatriz Vázquez Flores, City Clerk of the City of Watsonville, do hereby certify that the foregoing Resolution No. 182-21 (CM) was duly and regularly passed and adopted by the Watsonville City Council at a meeting thereof held on the 22<sup>nd</sup> day of June, 2021, and that the foregoing is a full, true and correct copy of said Resolution.

DocuSigned by:  
  
26A00ECA30A14E3...  
Beatriz Vázquez Flores, City Clerk

Date 6/28/2021 | 4:53 PM PDT

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## APPENDIX 10-4: DWR TABLES

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Appendix 10-4 DWR Tables

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
<i>Add additional rows as needed</i>			
CA4410011	City of Watsonville	14,884	7,102
<b>TOTAL</b>		<b>14,884</b>	<b>7,102</b>
<i>* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>			
NOTES:			

Submittal Table 2-2: Plan Identification		
Select Only One	Type of Plan	Name of RUWMP or Regional Alliance <i>if applicable</i> (select from drop down list)
<input checked="" type="checkbox"/>	<b>Individual UWMP</b>	
	<input type="checkbox"/>	Water Supplier is also a member of a RUWMP
	<input type="checkbox"/>	Water Supplier is also a member of a Regional Alliance
<input type="checkbox"/>	<b>Regional Urban Water Management Plan (RUWMP)</b>	
NOTES:		

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
<input type="checkbox"/>	Supplier is a wholesaler
<input checked="" type="checkbox"/>	Supplier is a retailer
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables are in calendar years
<input type="checkbox"/>	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP * (select from drop down)	
Unit	AF
<i>* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>	
NOTES:	

Submittal Table 2-4 Retail: Water Supplier Information Exchange	
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631.	
Wholesale Water Supplier Name	
<i>Add additional rows as needed</i>	
n/a	
NOTES:	

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045(opt)
	65,231	67,426	69,696	72,041	73,576	75,144
NOTES:						



Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable <i>From Tables 4-1R and 4-2 R</i>	7,102	7,707	7,903	8,104	8,255	8,384
Recycled Water Demand <sup>1</sup> <i>From Table 6-4</i>	3,434	4,000	4,000	4,000	4,000	4,000
Optional Deduction of Recycled Water Put Into Long-Term Storage <sup>2</sup>	3,331	3,880	3,880	3,880	3,880	3,880
<b>TOTAL WATER USE</b>	<b>7,205</b>	<b>7,827</b>	<b>8,023</b>	<b>8,224</b>	<b>8,375</b>	<b>8,504</b>

<sup>1</sup> Recycled water demand fields will be blank until Table 6-4 is complete

<sup>2</sup> Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.

NOTES: Optional deduction is not for long-term storage; it is for recycled water that is produced in the Water Service Area and distributed outside the Water Service Area. Included here per DWR suggestion.

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss <sup>1,2</sup>
01/2016	273
01/2017	248
01/2018	872
01/2019	978
01/2020	n/a

<sup>1</sup> Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.

<sup>2</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.

Source: City's AWWA Water Loss Worksheets 2016-2019. 2020 AWWA Water Loss worksheet was not yet available, and the

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
<b>Are Future Water Savings Included in Projections?</b> (Refer to Appendix K of UWMP Guidebook) Drop down list (y/n)	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	
<b>Are Lower Income Residential Demands Included In Projections?</b> Drop down list (y/n)	Yes
NOTES: The City is a DAC and includes lower income residential demands into both single and multi-family residential water demands.	

<b>Submittal Table 5-1 Baselines and Targets Summary</b>				
<b>From SB X7-7 Verification Form</b>				
<b>Retail Supplier or Regional Alliance Only</b>				
<b>Baseline Period</b>	<b>Start Year *</b>	<b>End Year *</b>	<b>Average Baseline GPCD*</b>	<b>Confirmed 2020 Target*</b>
10-15 year	2001	2010	101	117
5 Year	2006	2010	95	

Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form Retail Supplier or Regional Alliance Only				Did Supplier Achieve Targeted Reduction for 2020? Y/N
2020 GPCD			2020 Confirmed Target GPCD*	
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* (Adjusted if applicable)	2020 Confirmed Target GPCD*	
87	0	87	117	Y



**Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area**

<input type="checkbox"/> Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.										
Name of Supplier Producing (Treating) the Recycled Water:	City of Watsonville									
Name of Supplier Operating the Recycled Water Distribution System:	Pajaro Valley Water Management Agency									
Supplemental Water Added in 2020 (volume) <i>Include units</i>	729									
Source of 2020 Supplemental Water	City of Watsonville									
Beneficial Use Type <i>Insert additional rows if needed.</i>	Potential Beneficial Uses of Recycled Water (Describe)	Amount of Potential Uses of Recycled Water (Quantity) <i>Include volume units</i> <sup>1</sup>	General Description of 2020 Uses	Level of Treatment <i>Drop down list</i>	2020 <sup>1</sup>	2025 <sup>1</sup>	2030 <sup>1</sup>	2035 <sup>1</sup>	2040 <sup>1</sup>	2045 <sup>1</sup> (opt)
Agricultural irrigation			Agricultural	Tertiary	3,434	4,000	4,000	4,000	4,000	4,000
Landscape irrigation (exc golf courses)										
Golf course irrigation										
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
					Total: 3,434	4,000	4,000	4,000	4,000	4,000
					2020 Internal Reuse	0				

<sup>1</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.

NOTES:

**Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual**

<input type="checkbox"/> Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.		
Beneficial Use Type	2015 Projection for 2020 <sup>1</sup>	2020 Actual Use <sup>1</sup>
<i>Insert additional rows as needed.</i>		
Agricultural irrigation	4,000	3,434
Landscape irrigation (exc golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	4,000	3,434

<sup>1</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.

NOTE:

**Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use**

<input checked="" type="checkbox"/>	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
6-10	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
<i>Add additional rows as needed</i>			
<b>Total</b>		0	
<b>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b>			
NOTES:			

**Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs**

<input checked="" type="checkbox"/>	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
<input type="checkbox"/>	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List</i>	Expected Increase in Water Supply to Supplier* <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Supplier Name</i>				
<i>Add additional rows as needed</i>						
<b>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b>						
NOTES:						



Table 6-10 and 6-11 in UWMP (aka Table 01C in DWR Energy Use Spreadsheet):

Enter Start Date for Reporting Period		Urban Water Supplier Operational Control						
End Date		Water Management Process						Non-Consequential Hydropower (if applicable)
		Is upstream embedded in the values reported?						
		Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility	Hydropower
Water Volume Units	Total Volume of Water Entering Process (volume units)	7081	7081		7081	7081	N/A	Net Utility
AF	Retail Potable Deliveries (%)	90%	90%		90%	90%		N/A
	Retail Non-Potable Deliveries (%)							
	Wholesale Potable Deliveries (%)							
	Wholesale Non-Potable Deliveries (%)							
	Agricultural Deliveries (%)	10%	10%		10%	10%		
	Environmental Deliveries (%)							
	Other (%)							
	Total Percentage [must equal 100%]	100%	100%	0%	100%	100%	N/A	0%
	Energy Consumed (kWh)	981176	139609		1160580	1183630	3464995	3464995
	Energy Intensity (kWh/vol. converted to MG)	425.2	60.5		503.0	513.0	N/A	#DIV/0!
		Production Volume (volume units defined above)			Total Utility (kWh/volume)	Net Utility (kWh/volume)		
	Retail Potable Deliveries	8306.5		375.4	375.4			
	Retail Non-Potable Deliveries	0.0		0.0	0.0			
	Wholesale Potable Deliveries	0.0		0.0	0.0			
	Wholesale Non-Potable Deliveries	0.0		0.0	0.0			
	Agricultural Deliveries	922.9		375.4	375.4			
	Environmental Deliveries	0.0		0.0	0.0			
	Other	0.0		0.0	0.0			
	All Water Delivery Types	9229.4		375.4	375.4			

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		<input type="checkbox"/> Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		<input checked="" type="checkbox"/> Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available *	% of Average Supply
Average Year	2014	7506	100%
Single-Dry Year	2013	8318	111%
Consecutive Dry Years 1st Year	2012	7770	104%
Consecutive Dry Years 2nd Year	2013	8318	111%
Consecutive Dry Years 3rd Year	2014	7506	100%
Consecutive Dry Years 4th Year	2015	6874	92%
Consecutive Dry Years 5th Year	2016	6349	85%
Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.			
NOTES: Volume Available column is actually the volume supplied in that year. Additional volume could have been withdrawn.			

<b>Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison</b>					
	2025	2030	2035	2040	2045 (Opt)
Supply totals (autofill from Table 6-9)	21,900	21,900	21,900	21,900	21,900
Demand totals (autofill from Table 4-3)	7,827	8,023	8,224	8,375	8,504
Difference	14,073	13,877	13,676	13,525	13,396
NOTES:					

<b>Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison</b>					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	21,900	21,900	21,900	21,900	21,900
Demand totals*	8,688	8,906	9,128	9,296	9,440
Difference	13,212	12,994	12,772	12,604	12,460
<i>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>					
NOTES:					

## Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	21,900	21,900	21,900	21,900	21,900
	Demand totals	8,140	8,344	8,553	8,710	8,845
	Difference	13,760	13,556	13,347	13,190	13,055
Second year	Supply totals	21,900	21,900	21,900	21,900	21,900
	Demand totals	8,688	8,906	9,128	9,296	9,440
	Difference	13,212	12,994	12,772	12,604	12,460
Third year	Supply totals	21,900	21,900	21,900	21,900	21,900
	Demand totals	7,827	8,023	8,224	8,375	8,504
	Difference	14,073	13,877	13,676	13,525	13,396
Fourth year	Supply totals	21,900	21,900	21,900	21,900	21,900
	Demand totals	7,201	7,381	7,566	7,705	7,824
	Difference	14,699	14,519	14,334	14,195	14,076
Fifth year	Supply totals	21,900	21,900	21,900	21,900	21,900
	Demand totals	6,653	6,820	6,990	7,118	7,229
	Difference	15,247	15,080	14,910	14,782	14,671
Sixth year (optional)	Supply totals	21,900	21,900	21,900	21,900	21,900
	Demand totals					
	Difference	21,900	21,900	21,900	21,900	21,900

**Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)**

<b>2021</b>		<b>Total</b>
	Total Water Use	7,674
	Total Supplies	21,000
	Surplus/Shortfall w/o WSCP Action	13,326
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
	WSCP - supply augmentation benefit	
	WSCP - use reduction savings benefit	-714
	Revised Surplus/(shortfall)	12,612
	Resulting % Use Reduction from WSCP action	-9%
<b>2022</b>		<b>Total</b>
	Total Water Use	7,712
	Total Supplies	21,000
	Surplus/Shortfall w/o WSCP Action	13,288
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
	WSCP - supply augmentation benefit	
	WSCP - use reduction savings benefit	-1,087
	Revised Surplus/(shortfall)	12,201
	Resulting % Use Reduction from WSCP action	-14%
<b>2023</b>		<b>Total</b>
	Total Water Use	7,750
	Total Supplies	21,000
	Surplus/Shortfall w/o WSCP Action	13,250
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
	WSCP - supply augmentation benefit	
	WSCP - use reduction savings benefit	-132
	Revised Surplus/(shortfall)	13,118
	Resulting % Use Reduction from WSCP action	-2%
<b>2024</b>		<b>Total</b>
	Total Water Use	7,789
	Total Supplies	21,000
	Surplus/Shortfall w/o WSCP Action	13,211
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
	WSCP - supply augmentation benefit	
	WSCP - use reduction savings benefit	654
	Revised Surplus/(shortfall)	13,865
	Resulting % Use Reduction from WSCP action	8%
<b>2025</b>		<b>Total</b>
	Total Water Use	7,827
	Total Supplies	21,000
	Surplus/Shortfall w/o WSCP Action	13,173
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
	WSCP - supply augmentation benefit	
	WSCP - use reduction savings benefit	1,205
	Revised Surplus/(shortfall)	14,378
	Resulting % Use Reduction from WSCP action	15%

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	Percent Shortage Range	Shortage Response Actions ( <i>Narrative description</i> )
1	Up to 10%	Implement Stage 1 Water Shortage Contingency Plan
2	Up to 20%	Implement Stage 2 Water Shortage Contingency Plan
3	Up to 30%	Implement Stage 3 Water Shortage Contingency Plan
4	Up to 40%	Implement / Continue Stage 3 Water Shortage Contingency Plan
5	Up to 50%	Implement Stage 4 Water Shortage Contingency Plan
6	>50%	Implement / Continue Stage 4 Water Shortage Contingency Plan
NOTES:		

**Submittal Table 8-2: Demand Reduction Actions**

Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference (optional)	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only</i> <i>Drop Down List</i>
<i>Add additional rows as needed</i>				
1	Expand Public Information Campaign	Estimated 4%		No
1	Other	182 AFY	Reduce potable water supplement to reused water by 25%	No
1	Other	Estimated 4%	See narrative	No
2	Landscape - Limit landscape irrigation to specific times	Estimated 1.5%		Yes
2	Landscape - Limit landscape irrigation to specific days	Estimated 1.5%		Yes
2	Landscape - Other landscape restriction or prohibition	Estimated 1%	Watering or irrigating limited to 15 minutes per day and method (except for drip irrigation)	Yes
2	CII - Lodging establishment must offer opt out of linen service	Estimated 0.2%		Yes
2	CII - Commercial kitchens required to use pre-rinse spray valves	Estimated 0.2%		Yes
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated 0.2%	Within 5 days	Yes
2	Water Features - Restrict water use for decorative water features, such as fountains	Estimated 0.2%		Yes
2	Other - Prohibit use of potable water for washing hard surfaces	Estimated 0.2%		Yes
2	Other	365 AFY	Reduce potable water supplement to reused water by 50%	No
2	Other	Estimated 3%	See narrative	Yes
3-4	Landscape - Limit landscape irrigation to specific days	Estimated 1%		Yes
3-4	Landscape - Prohibit certain types of landscape irrigation	Estimated 3%		Yes
3-4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated .1%	Within 48 hours	Yes
3-4	Other	547 AFY	Reduce potable water supplement to reused water by 75%	No
3-4	Other	Estimated 1%	See narrative	Yes
5-6	Landscape - Prohibit all landscape irrigation	Estimated 2.5% (total of 5% with drought surcharge/rationing system)		Yes
5-6	Implement or Modify Drought Rate Structure or Surcharge	Estimated 2.5% (total of 5% with landscape irrigation prohibition)		Yes
5-6	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated .1%	Within 24 hours	Yes
5-6	Moratorium or Net Zero Demand Increase on New Connections	0%		No
5-6	Other	729 AFY	Reduce potable water supplement to reused water by 100%	No
5-6	Other	Estimated 2.9%	See narrative	Yes

NOTE: Shortage gap estimates for each shortage level are additive to those in the prior level.

**Submittal Table 8-3: Supply Augmentation and Other Actions**

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference (optional)
<i>Add additional rows as needed</i>			
1-6	Other Actions (describe)	No augmentation supplies available	
NOTES:			

**Submittal Table 10-1 Retail: Notification to Cities and Counties**

City Name	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
County Name <i>Drop Down List</i>	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
Santa Cruz County	Yes	Yes
NOTES:		

## APPENDIX 10-5: DWR CHECKLIST

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## Appendix F: UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1.0
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Executive Summary: Highlights box on page ES-1 and additional verbiage throughout Exec Summary
x	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.2 and 2.4
x	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 2.4
x		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	n/a

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	n/a
x	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 3.2
x	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3
x	x	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3.5.1
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3.5.2
x	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 3.5.1
x	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 3.6

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Appendix 4-2 Tables 4-1 and 4-2
x	x	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4-3
x	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	Section 4-2
x	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4-2
x	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 4-3
x	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4-4
x	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 4-2

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 5.4 Appendices 5-1 and 5-2
x		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5.3
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	n/a
x		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	n/a

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5-year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.4
x		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Appendix 5-2
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Chapter 7
x	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including changes in supply due to climate change.</i>	System Supplies	Section 6.11 and Chapter 7

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 6.2.3 and 6.3
x	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 6.9 and 6.10
x	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 6.10
x	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.1

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2
x	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Sections 6.2, 6.2.2, and 6.2.3
x	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.3
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 6.2.3
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6.8

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.6
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.6
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.6
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.6
x	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.6

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.6
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.7
x	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Sections 6.5 and 6.6
x	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Sections 6.9 and 6.10
x	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 6.11

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1
x	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.2 and Water Shortage Contingency Plan (WSCP) Section 4.3
x	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 7.4

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 7.4
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 7.4
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7.4
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 7.4
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Appendix 8-1

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	WSCP Section 1.0
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	WSCP Section 4.6
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	WSCP Sections 2.0-2.2
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	WSCP Section 2.2

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	WSCP Section 3.0
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	WSCP Section 3.0
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	n/a, discussed in WSCP Section 4.2
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	WSCP Section 4.1

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	WSCP Section 4.3
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	WSCP Section 4.4 and 4.1
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	WSCP Section 4.1
x	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	WSCP Section 4.5
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	WSCP Section 5
x	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	WSCP Section 5

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	WSCP Section 6
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	WSCP Section 7
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	WSCP Section 7
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	WSCP Section 7
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP Section 8
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP Section 8

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	WSCP Section 8
x		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	WSCP Section 9
x		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	WSCP Section 11
x	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	WSCP Section 11

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.14	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	WSCP Section 11
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	n/a
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.1-9.2
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 10.2

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Sections 2.4 and 10.1
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 10.3
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 10.1 and Appendix 10-2
x	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 10.1 and Appendix 10-1
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Appendix 10-3

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.3
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.3
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 10.3
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.4
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.4

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	n/a
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	n/a

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