

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,

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

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

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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

Send 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

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
2010	51,199		
2011	51,431	0.45%	
2012	51,844	0.80%	
2013	51,890	0.09%	
2014	52,092	0.39%	
2015	52,410	0.61%	
2016	52,431	0.04%	
2017	52,330	-0.19%	
2018	52,045	-0.54%	
2019	51,672	-0.72%	
2020	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:	10 ▼
Year beginning baseline period range:	2001 ▼
Year ending baseline period range ¹ :	2010
5-year baseline period	
Year beginning baseline period range:	2006 ▼
Year ending baseline period range ² :	2010

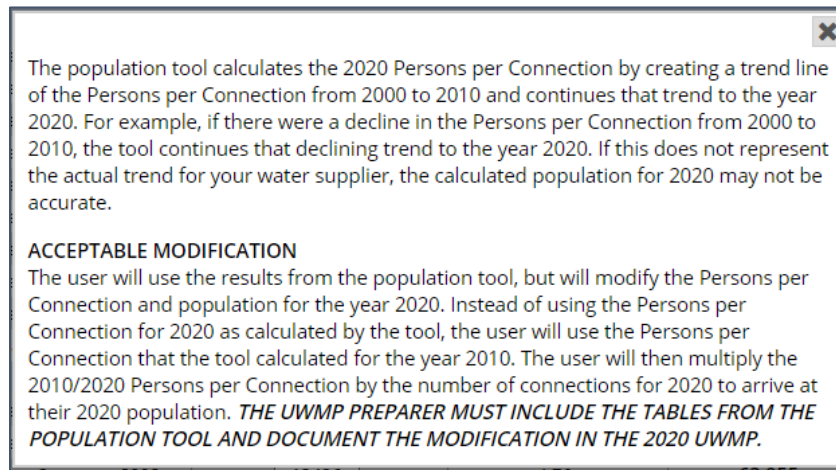
¹ The ending year must be between December 31, 2004 and December 31, 2010.

² The ending year must be between December 31, 2007 and December 31, 2010.

Persons per Connection			
Year	Census Block Level Total Population	Number of Connections *	Persons per Connection
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
Total (SF)		1,286,871		1,022,249		766,686

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

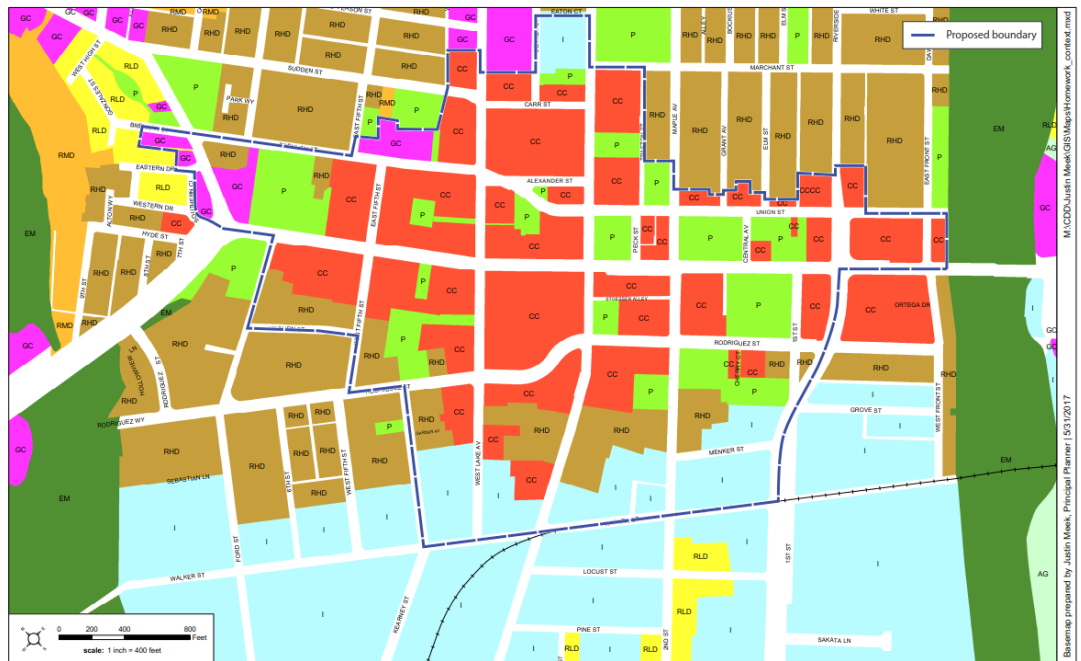


Figure 1 Downtown Specific Plan Area

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.

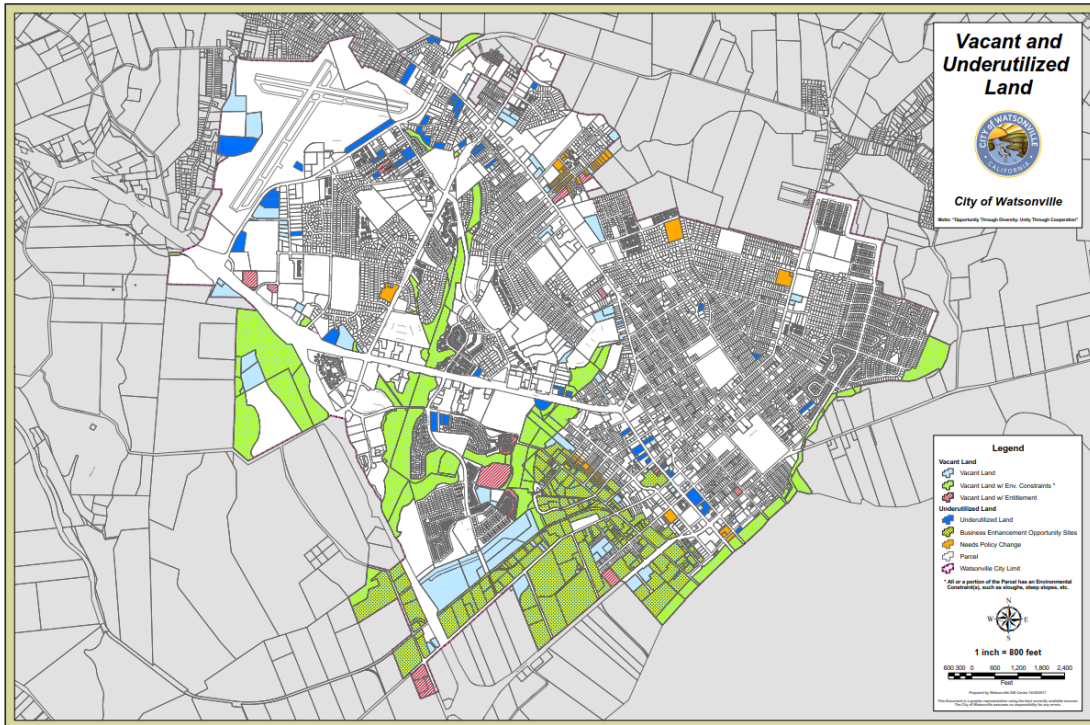


Figure 2 Vacant Land in the City of Watsonville

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 STATISTICSCalendar Year **2015**

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: **65,739**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			
TOTAL	14782			

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	0
	Purchased ^{1/}													
	Total Potable	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
Untreated Water														
Recycled ^{2/}														

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)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
If recycled is included, X box ↓														
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
Total Urban Retail (A thru F)		152.44	133.71	132.38	167.11	151.12	147.05	193.09	150.18	202.80	160.23	157.46	141.74	1889.32
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 STATISTICSCalendar Year **2016**

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	12599			
Multi-family Residential	226			
Commercial/Institutional	1118			
Industrial	17			
Landscape Irrigation	407			
Other	398			
Agricultural Irrigation	1			
TOTAL	14766			

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	2105.47
	Surface						12.95	22.95	16.11	8.46				60.47
	Purchased ^{1/}													
	Total Potable	133.37	139	148.47	163.41	198.95	233.37	240.86	228.51	214.58	180.56	150.5	134.36	2165.94
Untreated Water														
Recycled ^{2/}														

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)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
If recycled is included, X box ↓														
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
Total Urban Retail (A thru F)		124.9489	129.7107	146.6065	124.9945	137.9499	199.6195	169.9793	165.9655	195.9902	169.2799	175.124	124.4769	1864.646
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	204.11
Wholesale(to other agencies)														

PUBLIC WATER SYSTEM STATISTICSCalendar Year **2017**

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	12630			
Multi-family Residential	223			
Commercial/Institutional	1134			
Industrial	16			
Landscape Irrigation	411			
Other	406			
Agricultural Irrigation	1			
TOTAL	14821			

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	2058.191
	Surface	0	0	0	0	0	22.547	26.60396	38.338	32.799	39.14484	29.259	33.988	222.6798
	Purchased ^{1/}													
	Total Potable	138.2164	127.5365	152.8345	150.9138	219.7059	230.9109	249.6802	233.2338	225.9188	217.9567	168.1983	165.7646	2280.87
Untreated Water														
Recycled ^{2/}														

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
Total Urban Retail (A thru F)		111.7168	119.0666	155.682	129.7346	132.31	203.7013	169.1714	226.7966	177.2244	188.2574	200.4588	129.027	1943.147
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 STATISTICSCalendar 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			
TOTAL	14832			

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	2179.386
	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	129.378
	Purchased ^{1/}													
	Total Potable	138.7821	145.6998	148.7892	161.0897	221.7804	240.6131	250.9741	246.8113	228.739	207.1709	188.1727	130.141	2308.763
Untreated Water														
Recycled ^{2/}														

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
Total Urban Retail (A thru F)		203.162	146.9177	136.5227	126.2617	178.2117	180.0406	169.0891	221.9466	168.003	166.6544	204.3543	102.7595	2003.923
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 STATISTICSCalendar 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			
TOTAL	14856			

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	2145.838
	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	154.236
	Purchased ^{1/}													
	Total Potable	134.6819	122.7793	144.9507	167.8869	200.2361	230.238	253.5159	250.2105	241.9815	223.0558	199.0082	131.5289	2300.074
Untreated Water														
Recycled ^{2/}														

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
Total Urban Retail (A thru F)		167.555	116.4382	167.3837	125.6333	187.5445	148.0329	175.6753	202.512	170.0436	209.6998	165.3671	135.8922	1971.778
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 STATISTICSCalendar 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			
TOTAL	14884			

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	2314.082
	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	0.000
	Purchased ^{1/}													
	Total Potable	138.0315	159.7192	153.9258	159.7534	210.6355	224.1176	240.5017	246.3518	222.5015	217.4337	188.0044	153.1057	2314.082
Untreated Water														
Recycled ^{2/}														

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
Total Urban Retail (A thru F)		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 ²	Other	Agriculture	SFR	MFR	Commercial/Institutio	Indust	Landscape	Other	Agriculture	SFR	MFR	Commercial	
	Unit: gpcd ¹	gpcd ¹	Gal/connection/day	Gal/connection/day	Gal/connection/day	Gal/connection/day	Gal/connr	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	Demand Projection (AF/yr)					
	2020	2025	2030	2035	2040	2045
SFR	3329	3267	3377	3491	3565	3623
MFR	839	854	883	913	932	947
Commercial/Instituti	1136	1214	1220	1226	1232	1238
Industrial	535	536	536	536	536	536
Landscape	471	475	475	475	475	475
Other	43	43	43	43	43	43
Agriculture	729	840	891	942	993	1045
Total:	7081	7229	7425	7625	7776	7906

Category:	Water Demand				SFR		MFR		Commercial		Industrial		Landscape		Other		Agriculture	
	Industrial	Landscape	Other	Agriculture	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
	Unit: MGD	MGD	MGD	MGD	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/yr	MG/yr	AF/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	14.00357	42.97539	330.3781	1013.893
2043	0.478356	0.42373	0.038366	0.914263877	0	0	0	0	402.6933	1235.821	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	333.7063	1024.107
2044	0.478356	0.42373	0.038366	0.923382147	0	0	0	0	403.0911	1237.041	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	337.0345	1034.321
2045	0.478356	0.42373	0.038366	0.932500417	1180.508245	3622.847411	308.5815	947.0021	403.4889	1238.262	174.6	535.8278	154.6614	474.6384	14.00357	42.97539	340.3627	1044.535

Ch.4 Demand Projection Calculation Methodology

1. Use Rates

a. Residential (SFR & MFR) –

i. Calculated: (GPCD)

1. 2015-2020 = ((PWS Stats: Metered Water Delivery (*gpd*)) / ((Population))
2. 2021-2045 = Average 2015-2020

b. Commercial/institutional –

i. Calculated: (gallons/connection/day)

1. 2015-2020 = ((PWS Stats: Metered Water Delivery (*gpd*)) / (PWS Stats: Metered Active Service Connections))
2. 2021-2045 = Linear Trend 2015-2020 to 2021 (constant -> 2045)

c. Industrial –

i. Calculated: (gallons/connection/day)

1. 2015-2020 = ((PWS Stats: Metered Water Delivery (*gpd*)) / (PWS Stats: Metered Active Service Connections))
2. 2021-2045 = Average 2015-2020

d. Landscape –

i. Calculated: (gallons/connection/day)

1. 2015-2020 = ((PWS Stats: Metered Water Delivery (*gpd*)) / (PWS Stats: Metered Active Service Connections))
2. 2021-2045 = Held steady at 2020 rate

e. Other –

i. Calculated: (gallons/connection/day)

1. 2015-2020 = ((PWS Stats: Metered Water Delivery (*gpd*)) / (PWS Stats: Metered Active Service Connections))
2. 2021-2045 = Average 2015-2020

f. Agriculture –

i. Calculated: (gallons/connection/day)

1. 2015-2020 = ((PWS Stats: Metered Water Delivery (*gpd*)) / (PWS Stats: Metered Active Service Connections))
2. 2021-2045 = 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 = Metered Active Service Connections from PWS Stats
2. 2021-2045 = Linear Trend 2015-2020

c. Industrial –

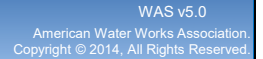
i. Calculated: (gallons/connection/day)

1. 2015-2020 = Metered Service Connections from PWS Stats
2. 2021-2045 = 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. ((Residential Use Rate (*gpcd*) x Population)) / 1,000,000
 - 2. Conv. MGD -> MG/yr -> AF/yr
 - b. Commercial/institutional –
 - i. Calculated: (MGD)
 - 1. ((Commercial Use Rate (*gpcd*) x Commercial Connections)) / 1,000,000
 - 2. Conv. MGD -> MG/yr -> AF/yr
 - c. Industrial –
 - i. Calculated: (MGD)
 - 1. ((Industrial Use Rate (*gpcd*) x Industrial Connections)) / 1,000,000
 - 2. Conv. MGD -> MG/yr -> AF/yr
 - d. Landscape –
 - i. Calculated: (MGD)
 - 1. ((Landscape Use Rate (*gpcd*) x Landscape Connections)) / 1,000,000
 - 2. Conv. MGD -> MG/yr -> AF/yr
 - e. Other –
 - i. Calculated: (MGD)
 - 1. ((Other Use Rate (*gpcd*) x Other Connections)) / 1,000,000
 - 2. Conv. MGD -> MG/yr -> AF/yr
 - f. Agriculture –
 - i. Calculated: (MGD)
 - 1. ((Agriculture Use Rate (*gpcd*) x Agriculture Connections)) / 1,000,000
 - 2. Conv. MGD -> MG/yr -> 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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Reporting Worksheet 1



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: **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
Water imported: + ? n/a 0.000 acre-ft/yr
Water exported: + ? n/a 0.000 acre-ft/yr

WATER SUPPLIED: 6,999.195 acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt: + ? 3 Value: + ? 3
+ ? 3
+ ? 3
+ ? 3

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

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

Pcnt: 0.25% Value: 17.498 acre-ft/yr

1.50% 0.25%

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 active AND inactive service connections: + ? 6 14,821
Service connection density: ? 83 conn./mile main

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

Average length of customer service line: + ?

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

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

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
American Water Works Association
Copyright © 2014, All Rights Reserved.

? Click to access definition
+ Click to add a comment

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.

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

WATER SUPPLIED

Volume from own sources: + ? 5 7,085.333 acre-ft/yr
Water imported: + ? n/a 0.000 acre-ft/yr
Water exported: + ? n/a 0.000 acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt: Value:
+ ? 3 2.82% 0.000 acre-ft/yr
+ ? 0.000 acre-ft/yr
+ ? 0.000 acre-ft/yr

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

WATER SUPPLIED: 6,890.739 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

Click here: ?
for help using option
buttons below

Pcnt: Value:
1.25% 0.000 acre-ft/yr

Use buttons to select
percentage of water supplied
OR
value

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

Pcnt: Value:
0.25% 0.000 acre-ft/yr

1.50% 0.000 acre-ft/yr
0.25% 0.000 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 active AND inactive service connections: + ? 6 14,832
Service connection density: ? 83 conn./mile main

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

Average length of customer service line: + ?

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

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

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

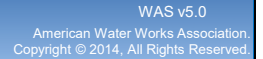
PRIORITY AREAS FOR ATTENTION:

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

Reporting Worksheet 1

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 ^{1, 2}	10	Years
	Year beginning baseline period range	2001	
	Year ending baseline period range ³	2010	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2006	
	Year ending baseline period range ⁴	2010	
¹ 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. ² 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.			
³ The ending year must be between December 31, 2004 and December 31, 2010.			
⁴ 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)	
☐	1. Department of Finance (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	2. Persons-per-Connection Method
☐	3. DWR Population Tool
☒	4. Other DWR recommends pre-review
NOTES: The City's Method was pre-reviewed by DWR.	

SB X7-7 Table 3: Service Area Population		
Year		Population
10 to 15 Year Baseline Population		
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
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
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
2015 Compliance Year Population		
2015		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 <i>Fm SB X7-7 Table 3</i>	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>		
10 to 15 Year Baseline - Gross Water Use								
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							
10 - 15 year baseline average gross water use								7,328
5 Year Baseline - Gross Water Use								
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
5 year baseline average gross water use								7,298
2015 Compliance Year - Gross Water Use								
2015	6,870	-		-	862	9	5,998	
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3								
NOTES:								

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

Complete one table for each source.

Name of Source	City of Watsonville Water Produced			
This water source is:				
☒	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment <i>* Optional (+/-)</i>	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System				
Year 1	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			-
5 Year Baseline - Water into Distribution System				
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
2015 Compliance Year - Water into Distribution System				
2015	6,870			6,870
<i>* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document</i>				
NOTES:				

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

☐	Criteria 1- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	Criteria 2 - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	Criteria 3 - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☒	Criteria 4 - 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:

☐	1. IRWM DAC Mapping tool http://www.water.ca.gov/irwm/grants/resources_dac.cfm			
	If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.			
☒	2. 2010 Median Income			
	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				Complete a separate table for each industrial customer with a process water exclusion		
Name of Industrial Customer		Martinelli's (East & West)				
Baseline Year Fm SB X7-7 Table 3	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer	
10 to 15 Year Baseline - Process Water Deduction						
Year 1	2001	195	195	100%	186	186
Year 2	2002	202	202	100%	192	192
Year 3	2003	227	227	100%	216	216
Year 4	2004	210	210	100%	200	200
Year 5	2005	218	218	100%	207	207
Year 6	2006	215	215	100%	204	204
Year 7	2007	230	230	100%	218	218
Year 8	2008	196	196	100%	186	186
Year 9	2009	159	159	100%	151	151
Year 10	2010	166	166	100%	158	158
Year 11						
Year 12						
Year 13						
Year 14						
Year 15						
5 Year Baseline - Process Water Deduction						
Year 1	2006	215	215	100%	204	204
Year 2	2007	230	230	100%	218	218
Year 3	2008	196	196	100%	186	186
Year 4	2009	159	159	100%	151	151
Year 5	2010	166	166	100%	158	158
2015 Compliance Year - Process Water Deduction						
2015	199		0%	189	-	
NOTES: Estimating 95% of Total Water Use is for Process Water.						

SB X7-7 Table 4-D: Process Water Deduction - Volume				Complete a separate table for each industrial customer with a process water exclusion		
Name of Industrial Customer		La Rosa				
Baseline Year Fm SB X7-7 Table 3	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer	
10 to 15 Year Baseline - Process Water Deduction						
Year 1	2001	13	13	100%	12	12
Year 2	2002	14	14	100%	13	13
Year 3	2003	13	13	100%	13	13
Year 4	2004	11	11	100%	11	11
Year 5	2005	11	11	100%	11	11
Year 6	2006	11	11	100%	10	10
Year 7	2007	9	9	100%	9	9
Year 8	2008	11	11	100%	11	11
Year 9	2009	13	13	100%	12	12
Year 10	2010	7	7	100%	6	6
Year 11						
Year 12						
Year 13						
Year 14						
Year 15						
5 Year Baseline - Process Water Deduction						
Year 1	2006	11	11	100%	10	10
Year 2	2007	9	9	100%	9	9
Year 3	2008	11	11	100%	11	11
Year 4	2009	13	13	100%	12	12
Year 5	2010	7	7	100%	6	6
2015 Compliance Year - Process Water Deduction						
2015	10	10	100%	9	9	
NOTES: Estimating 95% of Total Water Use is for Process Water.						

SB X7-7 Table 4-D: Process Water Deduction - Volume				Complete a separate table for each industrial customer with a process water exclusion		
Name of Industrial Customer		Watsonville Co-Gen				
Baseline Year Fm SB X7-7 Table 3	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer	
10 to 15 Year Baseline - Process Water Deduction						
Year 1	2001	0	0	100%	0	0
Year 2	2002	0	0	100%	0	0
Year 3	2003	0	0	100%	0	0
Year 4	2004	0	0	100%	0	0
Year 5	2005	0	0	100%	0	0
Year 6	2006	24	24	100%	23	23
Year 7	2007	20	20	100%	19	19
Year 8	2008	22	22	100%	21	21
Year 9	2009	0	0	100%	0	0
Year 10	2010	0	0	100%	0	0
Year 11						
Year 12						
Year 13						
Year 14						
Year 15						
5 Year Baseline - Process Water Deduction						
Year 1	2006	24	24	100%	23	23
Year 2	2007	20	20	100%	19	19
Year 3	2008	22	22	100%	21	21
Year 4	2009	0	0	100%	0	0
Year 5	2010	0	0	100%	0	0
2015 Compliance Year - Process Water Deduction						
2015						-
NOTES: Estimating 95% of Total Water Use is for Process Water. Not in business in 2015.						

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

Complete a separate table for each

Name of Industrial Customer			Aliotti			
Baseline Year Fm SB X7-7 Table 3	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer	
10 to 15 Year Baseline - Process Water Deduction						
Year 1	2001	2	2	100%	2.1	
Year 2	2002	2	2	100%	1.9	
Year 3	2003	2	2	100%	1.6	
Year 4	2004	42	42	100%	39.8	
Year 5	2005	1	1	100%	0.8	
Year 6	2006	0	0	100%	0.1	
Year 7	2007				-	
Year 8	2008				-	
Year 9	2009				-	
Year 10	2010				-	
Year 11						
Year 12						
Year 13						
Year 14						
Year 15						
5 Year Baseline - Process Water Deduction						
Year 1	2006	0	0	100%	0.1	
Year 2	2007				-	
Year 3	2008				-	
Year 4	2009				-	
Year 5	2010				-	
2015 Compliance Year - Process Water Deduction						
2015					-	
NOTES: Estimating 95% of Total Water Use is for Process Water. Out of business in 2006.						

Complete a separate table for each

NOTES: Estimating 95% of Total Water Use is for Process Water. Not in business in 2015.

SB X7-7 Table 4-D: Process Water Deduction - Volume				Complete a separate table for each industrial customer with a process water exclusion		
Name of Industrial Customer		New West Cooling				
Baseline Year Fm SB X7-7 Table 3	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer	
10 to 15 Year Baseline - Process Water Deduction						
Year 1	2001	3	3	100%	3	3
Year 2	2002	4	4	100%	3	3
Year 3	2003	6	6	100%	5	5
Year 4	2004	5	5	100%	4	4
Year 5	2005	4	4	100%	4	4
Year 6	2006	4	4	100%	4	4
Year 7	2007					-
Year 8	2008					-
Year 9	2009					-
Year 10	2010					-
Year 11	0					-
Year 12	0					-
Year 13	0					-
Year 14	0					-
Year 15	0					-
5 Year Baseline - Process Water Deduction						
Year 1	2006	4	4	100%	4	- 4
Year 2	2007					-
Year 3	2008					-
Year 4	2009					-
Year 5	2010					-
2015 Compliance Year - Process Water Deduction						
2015						-
NOTES: Estimating 95% of Total Water Use is for Process Water. Out of business in 2006.						

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

Complete a separate table for each

Name of Industrial Customer			Cascade Properties			
Baseline Year Fm SB X7-7 Table 3	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer	
10 to 15 Year Baseline - Process Water Deduction						
Year 1	2001	5	5	100%	5	
Year 2	2002	3	3	100%	3	
Year 3	2003	15	15	100%	15	
Year 4	2004	11	11	100%	10	
Year 5	2005	7	7	100%	7	
Year 6	2006	18	18	100%	17	
Year 7	2007	14	14	100%	13	
Year 8	2008	8	8	100%	7	
Year 9	2009	9	9	100%	8	
Year 10	2010				-	
Year 11						
Year 12						
Year 13						
Year 14						
Year 15						
5 Year Baseline - Process Water Deduction						
Year 1	2006	18	18	100%	17	
Year 2	2007	14	14	100%	13	
Year 3	2008	8	8	100%	7	
Year 4	2009	9	9	100%	8	
Year 5	2010				-	
2015 Compliance Year - Process Water Deduction						
2015					-	
NOTES: Estimating 95% of Total Water Use is for Process Water. Out of business in 2009.						

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	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
<i>Year 11</i>	0	-	-	
<i>Year 12</i>	0	-	-	
<i>Year 13</i>	0	-	-	
<i>Year 14</i>	0	-	-	
<i>Year 15</i>	0	-	-	
10-15 Year Average Baseline GPCD				101
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	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
5 Year Average Baseline GPCD				95
2015 Compliance Year GPCD				
2015		65,966	5,998	81
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
☐	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i>
☒	Method 3	SB X7-7 Table 7-E
☐	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%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☒	100%	Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
Target <i>(If more than one region is selected, this value is calculated.)</i>				117

NOTES:

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD From SB X7-7 Table 5	Maximum 2020 Target ¹	Calculated 2020 Target ²	Confirmed 2020 Target
95	N/A	117	117
¹ Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD. ² 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

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* (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:

SB X7-7 Table 2: Method for 2020 Population Estimate	
Method Used to Determine 2020 Population (may check more than one)	
☐	1. Department of Finance (DOF) or American Community Survey (ACS)
☐	2. Persons-per-Connection Method
☒	3. DWR Population Tool
☐	4. Other DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: 2020 Service Area Population	
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
		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>	
		7,102			-	729	-

* 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):			
☒	The supplier's own water source		
☐	A purchased or imported source		
Compliance Year 2020	Volume Entering Distribution System ¹	Meter Error Adjustment ² <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System
	7,102	-	7,102

¹ 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.

² 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 <i>Fm SB X7-7 Table 4</i>	2020 Population <i>Fm SB X7-7 Table 3</i>	2020 GPCD
6,373	65,231	87
NOTES:		

SB X7-7 Table 9: 2020 Compliance

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

¹ All values are reported in GPCD

² 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 90th 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 CaCO₃.

Primary Drinking Water Standards / Normas primarias del agua potable

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

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

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

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.

Criptosporidio 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 que 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 esta 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 concluyo 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^{avo} 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 bromoformo.
5. Turbidez es la medida de la nubedad 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 CaCO₃.

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, 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 línea a 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 demás 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		Violation? ¿violación?	Major Sources Origen
		Range Limites	Average Promedio		
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 depositos naturales
Strontium (ppb) Estroncio (ppb)	NA	220 - 530	333	No	Leaching from natural deposits Lixiviación de depositos naturales
Vanadium (ppb) Vanadio (ppb)	NA	0.52 - 5.8	3.4	No	Leaching from natural deposits Lixiviación de depositos 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
Average Year	2014	7506

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

Average	-	-
1st Year Increase due to Drought	109.3%	-
2nd Year Increase due to Drought	114.1%	
1st Year Conservation	101.7%	
2nd Year Conservation	-	91.6%
3rd Year Conservation	-	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
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Verifier's Business Name	License Number
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- ☐ 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

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.

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

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

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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