

# Appendix B – Targets

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## Introduction

This appendix documents the draft targets and methodologies used to develop metrics for each target included in the Los Angeles County Water Plan. Targets have previously been vetted through Public Works and workgroup participants. The information flows that will be used to track each target are also described here and use the data available at the time of writing. Future iterations of the Plan and target tracking may include updated data as it becomes available. All targets have an end date of 2045.

The CWP is intended as a planning tool, or guide, for the development of a shared, inclusive, regional path forward to sustainably achieve safe, clean, and reliable water resources for Los Angeles County. The CWP is a living document which contains concepts that will only become a reality if agencies and stakeholders continue to collaborate effectively and secure corresponding resources. The CWP is subject to change based on the changing needs of the region, new technologies, future legislation and regulations, the continued cooperation of participating entities, and the availability of state, federal, and other long-term stable funding sources. The CWP is intended to provide general direction, including collaborative targets, strategies, and actions. Nothing in the CWP should be construed as a commitment by any participating agency to fund the implementation of any specific actions identified herein. Adoption of the CWP is not intended to serve as approval or authorization for any specific activity that would be considered a project under the California Environmental Quality Act (CEQA).

### A. Achieve 100% compliance with State Urban Water Use Objectives

The target of 100% of agencies complying with State Urban Water Use objectives is in line with State legislation set in 2018 by two bills, Senate Bill 606 and Assembly Bill 1668, which established new regulations for long-term improvements in water use efficiency. The two bills require urban water supplies (defined as a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet (AF) of potable water annually at retail for municipal purposes) to implement permanent water use reporting and meet agency-wide targets. Increasing water use efficiency improves resilience to longer-term droughts and near-term emergencies, as well as provides environmental benefits by reducing energy consumption.

#### A.1 Baseline Calculation

The baseline of percent of agencies in compliance with State Urban Water Use objectives will be established in 2024 when the objectives are initiated.

#### A.2 Target Calculation

While State Urban Water Use Objectives have not yet been set, the target will be to achieve 100% compliance. Tracking of this target will begin once the numeric State targets have been set and will be based on a five-year rolling average. It should be noted that water suppliers will have individual objectives based on State Water Resources Control Board (SWRCB) and Department of Water Resources (DWR) direction, and suppliers will be responsible for meeting their own objectives. This target will only be tracking whether suppliers are meeting their objectives.

#### A.3 Target Tracking

**Tracking data source:** SWRCB reporting to determine percentage of agencies in compliance. A link to this data source will be provided when available.

**Tracking frequency:** Annual.

**Method for compiling data:** Automated.

- Develop code to count the number of reporting agencies within Los Angeles County that are in compliance with State Water Use objectives. This is assumed to be either a field confirming compliance as a “yes” or “no”. Calculate the percentage of agencies in compliance. The ability to pull data directly from the data source will be determined once SWRCB objectives tracking begins.

**Resulting metric:** Percent of agencies within Los Angeles County that are in compliance with State Water Use Objectives<sup>1</sup>.

**Endpoint:** None. Tracking will be ongoing.

## **B. Increase local supply sources by 580,000 AFY**

The target to increase local supply sources by 580,000 acre-feet per year (AFY) is intended to help to reduce dependence on imported water supplies and improve water supply resiliency by increasing local supply sources. Increasing local sources of water promotes water supply diversity, autonomy, and reliability as well as long-term drought resilience. In addition, local supplies provide environmental benefits by reducing energy consumption and improving local water quality as well as increasing local workforce. This target is in-line with the OurCounty Sustainability Plan (OurCounty) target to “Source 80% of water locally” but uses volume as a metric to allow for more straightforward tracking.

### **B.1 Baseline Calculation**

The baseline for local supply source use was calculated by adding together the following supplies directly used to meet demands:

- Imported water (**Table 1**)
- Local surface water (**Table 2**)
- Recycled water (**Table 3**)
- Desalted groundwater (**Table 4**)
- Groundwater production (**Table 5**)

For the purposes of this target, imported water is considered to be any water conveyed from outside the County, including water from the State Water Project, Colorado River Aqueduct, and the Los Angeles Aqueduct. Because groundwater pumped by suppliers is a mix of both native groundwater and recharged supplies consisting of imported, recycled and stormwater, the following assumption is used to estimate the portion of pumped water that is native groundwater versus recharged supply: groundwater produced is divided into local versus imported supplies as follows: 1) assume native groundwater is pumped first, 2) remaining water pumped assumed to be comprised of the 10-year average percent of local versus imported supplies. The 10-year average has been used in order to capture a range of hydrologic year types, ranging from wet years to dry years which can impact the supply types used by water providers. Native groundwater is considered to be the water that is naturally recharged to the basin. **Table 7** summarizes the native groundwater assumptions for each basin.

Replenishment by supply type for Los Angeles County is shown in **Table 6** and the estimate of native and locally replenished water production is shown in **Table 8**. Replenished water pumped” indicates the

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<sup>1</sup> Compliance will be with State Water Use Objectives developed to meet the requirements of SB606/AB1668. If new water use efficiency comes into effect at a later date, the target will be re-evaluated.

difference between what is considered as “safe yield” and the actual amount of groundwater pumped. This assumes that the “replenished water pumped” comes from previously infiltrated water (as in **Table 6**) used as “replenishment”.

**Table 9** provides a summary of supplies used to meet demands, and calculates that the 10-year average baseline for local supply use is approximately 760,000 AFY, which is equivalent to 45% of the total supply portfolio.

## B.2 Target Calculation

The target for the use of local supply sources aligns with the OurCounty target to source 80% of supplies locally by 2045. The 80% local supply source target was translated into AF by calculating 80% of the 10-year average of supply use shown in **Table 9** and is approximately 1,340,000 AFY. Given that the current local supply use is approximately 760,000 AFY, the total local supply use would need to increase by approximately 580,000 AFY (rounded to the nearest 10,000 AF).

**Table 1: Historic Imported Water for Direct Use (TAF)<sup>1</sup>**

Agency	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Metropolitan Water District of Southern California (MWDSC)	550.4	462.5	671.0	798.2	762.8	697.2	609.3	412.0	524.7	394.1
Los Angeles Department of Water & Power (LADWP)	251.1	355.1	166.9	64.7	64.0	33.2	95.6	380.3	245.9	344.5
Antelope Valley-East Kern Water Agency (AVEK)	59.7	44.4	43.0	43.8	20.5	16.6	25.2	26.3	29.9	31.6
Palmdale Water District	9.8	17.3	14.7	7.7	4.7	5.8	10.5	13.9	10.2	12.1
Santa Clarita Valley Water Agency	31.3	31.4	36.2	44.1	33.9	29.2	31.9	47.9	42.8	43.0
Total Imported Water for Direct Use	902.3	910.7	931.8	958.5	885.9	782.0	772.5	880.4	853.5	825.3

1. Values are rounded to the nearest hundred AF.

2. Data sources: MWDSC, 2021; LADWP, 2021; LADWP, 2016; LADWP, 2011; AVEK, 2021; AVEK, 2020; Palmdale Water District, 2021; Palmdale Water District, 2016; Palmdale Water District, 2011; Santa Clarita Valley Water Agency, 2021.

**Table 2: Historic Local Surface Water for Direct Use (AF)<sup>1</sup>**

Agency (Local Surface Water Source)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Pomona (San Antonio Creek)	2,600	3,400	1,900	1,100	1,000	900	1,000	2,300	1,400	2,600
Palmdale Water District (Littlerock Reservoir)	1,900	2,600	0	1,600	700	500	0	1,000	3,100	3,100
City of Azusa (San Gabriel River - Morris Reservoir)	7,400	7,800	9,000	4,600	6,200	4,700	4,600	6,200	5,300	5,900
Rubio Canyon Land and Water Association (Rubio Canyon)	200	400	200	100	100	100	100	100	100	200
Total Local Surface Water	12,100	14,200	11,100	7,400	8,000	6,200	5,700	9,600	9,900	11,800

1. Values are rounded to the nearest hundred AF.

Data sources: Pomona, 2021; Pomona, 2016; Pomona, 2011; Palmdale Water District, 2021; Palmdale Water District, 2016; Palmdale Water District, 2011; Azusa, 2021; Rubio Canyon Land and Water Association, 2021.

**Table 3: Historic Direct Non-Potable Reuse of Recycled Water (AF)<sup>1</sup>**

Reclamation Facility	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
La Canada Water Reclamation Plant (WRP)	100	100	100	100	100	100	100	100	100	100
Long Beach WRP	4,100	4,700	4,700	5,300	4,700	5,800	5,200	5,200	3,900	3,400
Los Coyotes WRP	5,600	6,000	6,700	7,500	6,600	6,200	6,300	7,100	5,900	6,200
Pomona WRP	2,900	3,200	3,700	3,800	3,500	3,100	3,300	3,500	2,700	3,000
San Jose Creek WRP	4,300	4,600	5,900	7,000	6,600	6,800	6,600	6,900	4,900	5,800
Whittier Narrows WRP	1,400	1,500	1,600	1,800	1,000	1,400	1,500	1,500	1,300	1,200
Valencia WRP	300	400	300	300	400	500	500	500	300	500
Lancaster WRP	5,300	5,600	7,400	6,300	5,300	6,400	7,300	9,400	8,500	8,700
Palmdale WRP	8,000	8,100	8,000	8,500	7,500	7,900	7,200	7,900	7,800	8,300
Los Angeles Department of Water & Power (LADWP) <sup>2</sup>	5,200	4,900	6,900	5,700	6,700	6,100	6,900	6,800	6,700	7,700
Burbank Water & Power <sup>2</sup>	2,000	1,600	1,900	1,900	2,400	2,500	3,000	3,200	2,800	2,800
Glendale Water & Power <sup>2</sup>	1,500	1,400	1,600	1,900	1,900	1,500	1,600	1,700	1,400	1,500
Edward C. Little Water Reclamation Facility (WRF) & Carson WRF	19,100	21,100	23,300	24,300	22,800	21,300	23,300	24,000	23,500	21,800
Tapia WRF	4,400	4,300	4,500	5,000	4,600	4,400	4,600	4,400	4,100	5,900
<b>Total Non-Potable Recycled Water Use</b>	<b>64,200</b>	<b>67,500</b>	<b>76,600</b>	<b>79,400</b>	<b>74,100</b>	<b>74,000</b>	<b>77,400</b>	<b>82,200</b>	<b>73,900</b>	<b>76,900</b>

1. Values are rounded to the nearest hundred AF.

2. Non-potable recycled water use for water reclamation facilities owned by the Los Angeles Department of Water & Power, Burbank Water & Power and Glendale Water & Power were not available; therefore, consumptive use for each agency was used for the baseline calculation.

Data sources: LACSD, 2011-2019; LADWP, 2021; LADWP, 2016; LADWP, 2011; West Basin Municipal Water District, 2020; Las Virgenes Municipal Water District, 2021.

**Table 4: Historic Desalted Groundwater (AF)<sup>1</sup>**

Agency	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
West Basin MWD	900	1,000	800	800	700	800	300	100	200	100
Water Replenishment District – Goldsworthy Desalter	1,100	1,300	1,800	1,400	1,400	1,100	300	0	1,400	1,700
<b>Total Desalted Water</b>	<b>2,000</b>	<b>2,300</b>	<b>2,600</b>	<b>2,200</b>	<b>2,100</b>	<b>1,900</b>	<b>600</b>	<b>100</b>	<b>1,600</b>	<b>1,800</b>

1. Values are rounded to the nearest hundred AF.

2. Data source: West Basin Municipal Water District, 2020; West Basin, 2019; Torrance, 2021; Torrance, 2016.

**Table 5: Historic Groundwater Production (TAF)<sup>1</sup>**

Groundwater Basin	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Antelope Valley Basin <sup>2</sup>	116.2	116.2	116.2	116.2	116.2	116.2	100.7	82.7	76.1	64
Antelope Valley Basin (East Acton) <sup>3</sup>	2.9	3.0	3.0	3.2	3.1	2.6	2.4	2.0	1.9	1.9
Santa Clara River Valley East Subbasin	49.3	49.1	49.4	45.9	47.5	42	40.7	29.8	35.9	30.1
West Coast Basin	44.5	45.6	42.3	42.5	36.3	30.8	29.4	32.2	27.6	20.1
Central Basin	170.6	195.8	196.4	199.5	173.9	184	183.3	188.5	180.5	171.7
Santa Monica Basin	3.6	8.3	8.8	10.1	11	10.9	11	10	10	10
Hollywood Basin	1.1	0.8	0.9	0.8	0.6	0	0	0	0	0
Main San Gabriel Basin	227.7	237	242.9	240.6	208.3	182.8	197.2	209.5	190.2	192.6
Raymond Basin	25.3	28.4	30.2	26.9	25.3	23.8	24.5	25	24.6	23.9
Six Basins	18.5	18.8	18.6	16.2	15.6	12.9	12.2	12.5	12.2	11.9
Spadra Basin	0.1	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1
Puente Basin	1.4	1.1	1.4	1.5	1.6	1.5	1.4	1.5	2.4	1.6
Chino Basin <sup>2</sup>	10.3	10.8	12.2	12.3	12.9	11.9	8.4	7	12.3	10.3
San Fernando Valley Basin	77.9	61.8	67.1	71.3	97.2	89.7	90.6	54.1	60.2	66.1
Verdugo Basin	4.8	4.7	5.1	4.6	3.6	3.2	2.9	2.6		
Sylmar Basin	5.7	4	4.3	5	4	2.7	3.4	2.8		
Eagle Rock Basin	0	0	0	0	0	0	0	0	0	0
Total Groundwater Production <sup>4</sup>	759.9	785.7	799	796.9	757.3	715.2	708.3	660.4	634	604.3

1. Values are rounded to the nearest hundred AF.

2. Only pumping in the Los Angeles County portions of the Antelope Valley Basin and Chino Basin are included.

3. Antelope Valley Basin (East Acton) underlies and serves Acton. Pumping is based on pumping volumes provided by Los Angeles County Waterworks District No. 37 and an estimate of pumping from the Thousand Trails Soledad Canyon RV campground, assuming well uptime of 90% and a pumping capacity of 1 MGD. Domestic well production is not included as pumping estimates are not available.

4. Pumping estimates for the Antelope Valley Basin (Leona Valley) and Acton Valley Basin (serving and underlying the Agua Dulce community) were not available.

Data sources: West Coast Basin Watermaster, 2011-2020; Central Basin Watermaster, 2011-2020; Santa Monica, 2022; Hollywood, 2021; Main San Gabriel Basin Watermaster, 2011-2020; Raymond Basin Watermaster, 2011-2020; Six Basins Watermaster, 2011-2020; Puente Basin Watermaster, 2021; Rowland Water District, 2021; Walnut Valley Water District, 2021; Palmdale, 2021; ULARA Watermaster, 2011-2020.

**Table 6: Groundwater Replenishment by Supply Type (AF)<sup>1</sup>**

Groundwater Basin	10-Year Average Annual Replenishment (AF)				10-Year Average Annual Injection (AF)		
	Stormwater	Imported Water	Recycled Water	Total Spread	Imported Water	Recycled Water	Total Injected
<b>West Coast Basin</b>	0	0	0	<b>0</b>	8,000	14,000	<b>22,000</b>
<b>Central Basin</b>	40,000	13,000	53,000	<b>106,000</b>	3,000	1,000	<b>4,000</b>
<b>Main San Gabriel Basin</b>	86,000	62,000	0	<b>148,000</b>	0	0	<b>0</b>
<b>Raymond Basin</b>	5,000	0	0	<b>5,000</b>	0	0	<b>0</b>
<b>Six Basins</b>	1,000	3,000	0	<b>4,000</b>	0	0	<b>0</b>
<b>ULARA Basin</b>	22,000	7,000	0	<b>29,000</b>	0	0	<b>0</b>
<b>Antelope Valley Basin</b>	0	23,400 <sup>2</sup>	0	<b>23,400</b>	0	0	<b>0</b>
<b>Total Recharged</b>	<b>154,000</b>	<b>108,400</b>	<b>53,000</b>	<b>315,400</b>	<b>11,000</b>	<b>15,000</b>	<b>26,000</b>

1. Values are rounded to the nearest thousand AF.

2. Includes average annual imported water return flows allowed by the Antelope Valley Basin Judgment (2016-2020) in addition to imported water recharged at spreading basins.

Data sources: West Coast Basin Watermaster, 2011-2020; Central Basin Watermaster, 2011-2020; Main San Gabriel Basin Watermaster, 2011-2020; Raymond Basin Watermaster, 2011-2020; Six Basins Watermaster, 2011-2020; ULARA Watermaster, 2011-2020.

**Table 7: Annual Native Groundwater Estimate**

Groundwater Basin	Annual Native Groundwater Estimate (TAF)	Information Source & Basin-Specific Terminology
Antelope Valley Basin <sup>2</sup>	75.7	Antelope Valley Judgment. Native Safe Yield stated in the is 82.3 TAF. 92 percent of pumping allocations are estimated to be in Los Angeles County (based on municipal and agricultural pumping), equal to 75.7 TAF. Note that this does not include imported water return flows.
Antelope Valley Basin (East Acton)	3.6	Based on the Richard C. Slade October 1990 report titled "Assessment of Hydrogeologic Conditions within Alluvial and Stream Terrace Deposits, Acton Area, Los Angeles County," total average annual natural recharge is estimated at 5,600 to 7,200 AFY, while the same report estimates outflows ranging from 1,200 afy (dry years) to 2,800 afy (wet year). The difference of the average natural recharge estimates and greatest outflow is used to conservatively estimate safe yield.
Santa Clara River Valley East Subbasin	52.2	Santa Clara River Valley East Groundwater Basin Groundwater Sustainability Plan, Long-Term Sustainable Yield.
Antelope Valley Basin (Leona Valley) and Acton Valley Basin	Data not available	Documentation was not available regarding the annual native groundwater available in the Antelope Valley Basin (Leona Valley) and Acton Valley Basin.
Central Basin	125.8	Metropolitan Water District Groundwater Basin Reports, Natural safe yield.
West Coast Basin	26.3	Metropolitan Water District Groundwater Basin Reports, Natural safe yield.
Santa Monica Basin	10.8	Groundwater Sustainability Plan for the Santa Monica Groundwater Subbasin, SGMA Sustainable Yield stated as 10,800 to 19,700 AFY.



Groundwater Basin	Annual Native Groundwater Estimate (TAF)	Information Source & Basin-Specific Terminology
Hollywood Basin	3.0	Feasibility Report Development of Groundwater Resource in the Santa Monica and Hollywood Basins, Safe Yield.
Main San Gabriel Basin	152.7	Main San Gabriel Basin Judgment, Natural Safe Yield.
Raymond Basin	30.6	Raymond Basin Judgment, Safe Yield
Six Basins	19.3	Six Basins Judgment, Safe Yield.
Spadra Basin	4.4	Spadra Basin Groundwater Sustainability Plan, Sustainable Yield
Puente Basin	1.5	Puente Basin Judgment, Safe Yield
Chino Basin <sup>2</sup>	11.0	Chino Basin Judgment, Safe Yield
San Fernando Valley Basin	43.7	Upper Los Angeles River Area Judgment, Native Safe Yield
Verdugo Basin	3.6	Upper Los Angeles River Area Judgment, Native Safe Yield
Sylmar Basin	3.9	Upper Los Angeles River Area Judgment, Native Safe Yield
Eagle Rock Basin	0	Upper Los Angeles River Area Judgment. No measurable native safe yield. Safe yield is derived from imported water delivered by Los Angeles.
Total	567.3	

**Table 8: Volume of Pumped Water Estimated to be Derived from Local Sources (TAF)<sup>1</sup>**

Supply Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Groundwater Pumped	758.9	784.7	798.0	795.9	756.3	714.2	707.3	569.4	633.0	603.3
Native Groundwater <sup>2</sup>	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3
Replenished Water Pumped <sup>3</sup>	191.6	217.4	230.7	228.6	189.0	146.9	140.0	92.1	65.7	36.0
Percent Replenishment from Local Sources <sup>4</sup>	79%	71%	64%	65%	57%	59%	64%	55%	73%	68%
Local Water Pumped	152.4	154.6	147.3	149.6	108.8	86.9	89.9	51.6	48.5	25.1

1. Values are rounded to the nearest hundred AF.

2. "Native groundwater" is considered to be the average safe yield of groundwater basins. See Table 7.

3. "Replenished Water Pumped" is the difference of "Groundwater Pumped" and "Native Groundwater", and includes recharged or injected imported water, stormwater and recycled water.

4. "Percent replenished from local sources" is the percent of total replenishment that is comprised of stormwater and recycled water, and includes both spreading and injection.

Data sources: West Coast Basin Watermaster, 2011-2020; Central Basin Watermaster, 2011-2020; Santa Monica, 2022; Hollywood, 2021; Main San Gabriel Basin Watermaster, 2011-2020; Raymond Basin Watermaster, 2011-2020; Six Basins Watermaster, 2011-2020; Puente Basin Watermaster, 2021; Rowland Water District, 2021; Walnut Valley Water District, 2021; Palmdale, 2021; ULARA Watermaster, 2011-2020.

**Table 9: Summary Regional Water Sources (TAF)<sup>1</sup>**

Supply Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Average
Imported Water for Direct Use	902.3	910.7	931.8	958.5	885.9	782	772.5	880.4	853.5	825.3	870.3
Local Surface Water for Direct Use	12.1	14.2	11.1	7.4	8	6.2	5.7	9.6	9.9	11.8	9.6
Recycled Water for Non-Potable Use	64.2	67.5	76.6	79.4	74.1	74	77.4	82.2	73.9	76.9	74.6
Desalted Groundwater for Direct Use	2	2.3	2.6	2.2	2.1	1.9	0.6	0.1	1.6	1.8	1.72
Native Groundwater Pumped	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3
Local Water Replenishment Pumped	152.4	154.6	147.2	149.6	108.8	86.9	89.9	51.6	48.5	25.1	101.5
Imported Water Replenishment Pumped	40.2	63.8	84.5	80.0	81.2	61.0	51.1	41.5	18.2	11.9	53.3
Total Imported Supplies Used to Meet Demands <sup>2</sup>	943	975	1,016	1038	967	843	824	922	872	837	924
Total Local Supplies Used to Meet Demands <sup>3</sup>	798	806	805	806	760	736	741	711	701	683	755
Total Supplies Used to Meet Demands <sup>4</sup>	1,741	1,780	1,821	1,844	1,727	1,579	1,565	1,633	1,573	1,520	1,678
Percent of Supplies from Local Sources	46%	45%	44%	44%	44%	47%	47%	44%	45%	45%	45%

1. Values are rounded to the nearest hundred AF.

2. Sum of "Imported Water for Direct Use" and "Imported Water Replenishment Pumped"

3. Sum of "Local Surface Water for Direct Use", "Recycled Water for Non-Potable Use", "Desalted Groundwater for Direct Use", "Native Groundwater Pumped", and "Local Water Replenishment Pumped"

4. Sum of "Total Imported Supplies Used to Meet Demands" and "Total Local Supplies Used to Meet Demands"

### B.3 Target Tracking

**Tracking data source:**

- Urban water management plan reporting – tables of actual retail water supplies used provided on DWR’s UWMP website (Excel format): <https://wuedata.water.ca.gov/>
- Recharged water by type (developed as part of tracking for the target to “Increase groundwater recharge and storage by enhancing regional facility recharge by 250,000 AFY” described in **Section G** of this appendix.)

**Tracking frequency:** Every five years (to align with UWMP reporting).

**Method for compiling data:** Semi-automated.

- Estimate water supply type used for direct use using DWR UWMP data.
  - Develop list of water suppliers within Los Angeles County.
  - Develop code to extract Los Angeles County water supplier data using the list of suppliers developed in the previous step OR import the data into MS Access and join the list of suppliers with the data of actual water supply used, then query only suppliers within Los Angeles County.
  - Sum water use by type.
- Estimate the percentage of groundwater pumped that is recharged imported, recycled or surface water using data gathered for the regional facility recharge target (described in **Section G**) for the purpose of estimating the percent of local water that is recharged.
  - Sum water recharged by type for the last five years.
  - Calculate the 5-year rolling average of recharged water by supply type, and calculate the percentage.
  - Subtract the adjudicated/sustainable yield from all basins within Los Angeles County (currently 568,700 AFY) from total groundwater pumped to obtain an estimate of water pumped that was recharged. Apply the percentages of recharged water by supply type to the pumped water that has been recharged to estimate the percentage of pumped water by supply type.
- Summarize direct water use and pumped water by type using the following categories: imported water, local surface water, recycled water, and desalinated water, then calculate the volume of water use that is local supply water (i.e. not imported water).

**Resulting metric:** Volume of water use from local supply sources.

**Endpoint:** When local supply sources equal 580,000 AFY.

## C. Meet 100% of water demands even in times of drought

The target to meet 100% of water demands even in times of drought captures a collective desired outcome about water supply reliability. Reliability is avoiding shortages and ensuring that residents have sufficient water for non-excessive use. Urban retail water suppliers are responsible for defining “excessive water use” per California Water Code §366 (2022), and must consider average daily use, full-time occupancy of households, amount of landscaped land on a property, rate of evapotranspiration, and seasonal weather changes.

### C.1 Baseline Calculation

The percent of agencies that meet water demand even in times of drought is calculated based on the percent of agencies that were required to implement their Water Shortage Contingency Plans (WSCPs) at a level higher than one, which assumes that some agencies may permanently remain at WSCP Level 1. The baseline for this target uses urban water supplier reporting to the State Water Resources Control Board (SWRCB) available through the Conservation Portal Monthly Reports during the drought period of 2014 to 2017, available at: [https://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/conservation\\_reporting.html](https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html). Given that WSCPs did not use consistent stage terminology prior to the preparation of 2020 Urban Water Management Plans (UWMP), the following terms listed in the supplier data were assumed to be equivalent to “Level 1”: 0, 1, 1a, 1b, 1<sup>st</sup> level, advisory, baseline, blue, city ordinance update, conservation rate, California Public Utilities Commission (CPUC) Rule 14.1 Stage 1, first, first stage, I, January 1 2010, level 1, level 1-mandatory, none, permanent, permanent water conservation, permanent water use restrictions, phase 1, stage 1, voluntary conservation. All other levels are assumed to be equivalent to Level 2 and above. In addition, many water suppliers have opted to permanently implement the first state or level or their WSCPs.

In total, 68 out of 79 urban water suppliers within Los Angeles County, or 86%, entered into a WSCP level above Level 1 between 2014 and 2019, meaning that 14% of agencies were able to meet 100% of demands even in times of drought. The period of 2014 to 2019 was used as this was the period during which the State required urban water suppliers to complete drought reporting.

### C.2 Target Calculation

The target to meet 100% of water demands even in times of droughts assumes that 100% of urban water suppliers will not have to enter Level 2 or above of their WSCP, according to reporting to the SWRCB. This target assumes that demands do not include excess water use that would be cut in a Level 1 shortage.

### C.3 Target Tracking

**Tracking data source:** State Water Resources Control Board (SWRCB) reporting of essential water use by water suppliers (Excel format): [https://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/conservation\\_reporting.html](https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html) under “Urban Water Supplier Monthly Reports”.

**Tracking frequency:** Annual.

**Method for compiling data:** Automated.

- Develop code to count the number of reporting agencies within Los Angeles County that have entered into Stage 2 or above of their Water Shortage Contingency Plan (WSCP). This is assumed to be a text or numeric field. Calculate the percentage of agencies that have not entered Stage 2 or above.

**Resulting metric:** Percent of Los Angeles County water suppliers that have not had to enter stages 2 or above of their WSCP.

**Endpoint:** None. Tracking will be ongoing.

## **D. Maximize ability to meet health and safety needs following an emergency by maintaining access to six months of emergency supply**

The target to maintain access to 6 months of emergency supply developed in recognition of the need to maintain access to water even during prolonged emergencies. For example, an earthquake in the Delta area or another emergency could potentially reduce or completely cut off the conveyance of State Water Project (SWP) water to southern California or MWDSC's regional water systems. This would require the ability to store and access local water supplies. For the purposes of this target, "stored water" is considered to be groundwater that is accounted for within a groundwater basin as long-term storage, and is accounted for through watermaster reporting. "Local" refers to water stored within the Los Angeles County region by local water suppliers. The 6-month storage target is based on MWDSC's Emergency Storage Objective which considers a 6- to 12- month outage period for the imported supply aqueducts based on the latest seismic information and estimates of repair duration for the different aqueducts (MWDSC, 2019b). While MWDSC may have the ability to supply limited imported water during emergency outage periods to its member agencies, not all suppliers in Los Angeles County are MWDSC member agencies and there is uncertainty regarding the length of time an outage would occur.

### **D.1 Baseline Calculation**

The baseline calculation relies on two pieces: 1) the volume of water in groundwater storage versus total water demand in Los Angeles County and 2) water supplier access to stored groundwater. Based on calculations made for the target to "increase local supply sources by 580,000 AFY", total demand in 2019 was 1,517,000 AF. If this is divided in half to estimate 6 months of supply, that would mean that 6-months of emergency supply is equal to 759,000 AF. Several local groundwater basins have agreements in place with pumpers to allow for water to be stored. The volume of groundwater in storage reported in 2019 Watermaster Reports is provided in **Table 10**, and indicates a baseline storage level of 946,000 AF in local groundwater basins, which exceeds the estimate for 6-months of supply. Basins that do not have a storage program in place via an adjudication are not included in this table.

For the purposes of calculating this target, water suppliers are assumed to have the ability to access stored groundwater if one of the following is true:

- 1) Large water systems<sup>1</sup>:
  - a. Supplier has at least 1 active well if not reliant on purchased surface water.
  - b. Supplier has more than 2 active wells if also reliant on purchased surface water.
  - c. Supplier has at least 1 emergency interconnection or access to purchased groundwater if purchased surface water is the only supply source or a standby source of water.

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<sup>1</sup> "Large water systems" are defined for the SWRCB's electronic Annual Report (eAR) as a system with greater than 1,000 service connections or greater than 3,300 population. Small water systems are less than 1,000 service connections or less than 3,000 population. Systems analyzed are limited to "community water systems" which is a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents.

- 2) Small community water systems<sup>2</sup>:
- a. Supplier plans to implement or has implemented interconnections with other utilities that have access to alternative supplies.
  - b. Supplier plans to implement or has implemented local supplemental water supply, enhanced treatment or increased storage capacity.

Local surface water diversions were not considered as part of this analysis due to the lack of reliable, year-round supply from this source. The source of information for determining access to stored groundwater is the SWRCB Electronic Annual Report (EAR), which collects different information for large water systems and small community water systems, necessitating the two different sets of criteria described above. Based on these criteria, 16 out of 122 large water systems (**Table 11**) and 53 out of 84 small community water systems (**Table 12**) did not meet the above criteria or did not provide an answer relevant to the EAR questions. In total, 70 out of 206 water suppliers, or 34%, do not meet the criteria for having the ability to access stored groundwater.

## D.2 Target Calculation

The target to maintain access to 6 months of supply assumes that 100% of water suppliers will have the ability to access locally stored groundwater, either via direct pumping or interconnection with neighboring agencies.

**Table 10: Groundwater Storage as of 2019<sup>1</sup>**

Groundwater Basin	2019 Total Stored Water (AF)
Antelope Valley <sup>2</sup>	147,000
West Coast Basin	2,000
Central Basin	17,000
Main San Gabriel Basin	80,000
Raymond Basin	39,000
Six Basins	14,000
San Fernando Valley Basin	638,000
Sylmar Basin	9,000
<b>Total Water Stored</b>	<b>946,000</b>

1. Values are rounded to the nearest thousand AF.

2. Antelope Valley includes only water stored for local use via spreading basins.

Data sources: West Coast Basin Watermaster, 2011-2020; Central Basin Watermaster, 2011-2020; Santa Monica, 2022; Hollywood, 2021; Main San Gabriel Basin Watermaster, 2011-2020; Raymond Basin Watermaster, 2011-2020; Six Basins Watermaster, 2011-2020; Puente Basin Watermaster, 2021; Rowland Water District, 2021; Walnut Valley Water District, 2021; Palmdale, 2021; ULARA Watermaster, 2011-2020.

**Table 11: Criteria to Determine Ability to Access Local Groundwater Storage for Large Water Systems**

Water System Name	Active Wells	Active Surface Water Intakes	Purchased Groundwater	Purchased Surface Water	Standby Sources	Emergency Interconnections	GW is only source, at least one well	Reliant on purchased surface water, and has >2 wells	Has emergency interconnection OR ability to purchase groundwater OR Standby Source	Insufficient access to groundwater storage and no interconnection
PETER PITCHESS HONOR RANCHO DETN. CTR	5	0	0	0	0	1	✓		✓	
CITY OF ALHAMBRA	9	0	1	1	0	0		✓	✓	
CITY OF ARCADIA	12	0	0	0	0	1	✓		✓	
GSWC – ARTESIA	7	0	2	0	0	5	✓		✓	
LOS ANGELES CWWD 40, REG. 38-LAKE LA	2	0	0	3	0	0		✓	✓	
SO. CAL. EDISON CO.-SANTA CATALINA	11	2	0	0	0	0	✓			
AZUSA LIGHT AND WATER	11	2	0	1	1	1		✓	✓	
VALLEY COUNTY WATER DIST.	6	0	0	0	0	1	✓		✓	
CALIFORNIA WATER SERVICE CO.-LANCASTER	2	0	0	0	0	0	✓			
GSWC – BELL, BELL GARDENS	6	0	0	1	0	4		✓	✓	
BELLFLOWER – SOMERSET MWC	7	0	1	1	0	0		✓	✓	
SANTA CLARITA VALLEY W.A.-SANTA CLARITA	13	0	0	13	0	0		✓		
BELLFLOWER MUNICIPAL WATER SYSTEM	1	0	0	4	0	3			✓	
CERRITOS – CITY, WATER DEPT.	3	0	0	1	0	0		✓		
EAST PASADENA WATER CO.	2	0	0	0	0	0	✓			
LIBERTY UTILITIES – COMPTON	2	0	2	2	0	0		✓	✓	
CALIF STATE POLYTECHNICAL UNIV – POMONA	1	2	0	1	0	0				✓
GSWC – CLAREMONT	13	0	0	5	0	0		✓		
COMPTON-CITY, WATER DEPT.	6	0	0	3	0	0		✓		
CRESCENTA VALLEY CWD	12	0	0	3	0	0		✓		
CITY OF INDUSTRY WATERWORKS SYSTEMS	1	0	4	0	0	0	✓		✓	
GSWC – CULVER CITY	1	0	0	3	0	0				✓
CALIFORNIA WATER SERVICE CO. – DOMINGUEZ	10	0	0	8	0	0		✓		
DOWNEY – CITY, WATER DEPT.	20	0	0	0	0	3			✓	
CALIFORNIA WATER SERVICE CO. – ELA	11	0	0	3	0	0		✓		
EL MONTE-CITY, WATER DEPT.	9	0	1	0	0	2	✓		✓	
SAN GABRIEL VALLEY WATER CO.-EL MONTE	31	0	0	0	0	11	✓		✓	
EL SEGUNDO-CITY, WATER DEPT.	0	0	0	2	0	0				✓
PICO RIVERA – CITY, WATER DEPT.	8	0	1	0	1	0		✓	✓	
GLENDALE-CITY, WATER DEPT.	13	1	0	5	0	0		✓		
GLENDORA-CITY, WATER DEPT.	8	0	0	3	0	0		✓		
SUBURBAN WATER SYSTEMS-GLENDORA	0	0	2	1	0	0			✓	
HAWTHORNE-CITY WATER DEPT.	1	0	0	2	0	0				✓

Water System Name	Active Wells	Active Surface Water Intakes	Purchased Groundwater	Purchased Surface Water	Standby Sources	Emergency Interconnections	GW is only source, at least one well	Reliant on purchased surface water, and has >2 wells	Has emergency interconnection OR ability to purchase groundwater OR Standby Source	Insufficient access to groundwater storage and no interconnection
HUNTINGTON PARK-CITY, WATER DEPT.	5	0	0	1	0	0		✓		
COMMERCE-CITY, WATER DEPT.	2	0	0	1	0	0		✓		
INGLEWOOD- CITY, WATER DEPT.	2	0	0	2	0	0		✓		
CAL/AM WATER COMPANY – BALDWIN HILLS	4	0	0	2	0	0		✓		
LA CANADA IRRIGATION DIST.	1	0	0	1	0	4			✓	
SUBURBAN WATER SYSTEMS-LA MIRADA	2	0	0	0	0	1	✓		✓	
LA PUENTE VALLEY CWD	3	0	5	0	0	4	✓		✓	
LAS FLORES WATER CO.	1	0	0	1	0	0				✓
LA VERNE, CITY WD	8	0	0	7	0	1		✓	✓	
LINCOLN AVENUE WATER CO.	3	1	0	1	0	0		✓		
LITTLEROCK CREEK IRRIGATION DIST.	4	0	1	0	0	0	✓		✓	
LONG BEACH-CITY, WATER DEPT.	24	0	1	6	0	1		✓	✓	
LOS ANGELES-CITY, DEPT. OF WATER & POWER	49	4	0	27	0	1			✓	
LOS ANGELES CWWO 40,REG 4 & 34-LANCASTER	39	0	0	11	4	1		✓	✓	
GSWC – WILLOWBROOK	2	0	0	1	0	0		✓		
LOMITA-CITY, WATER DEPT.	0	0	0	2	0	0				✓
GSWC – FLORENCE/GRAHAM	7	0	0	3	0	1		✓	✓	
LYNWOOD-CITY, WATER DEPT.	4	0	0	1	0	0		✓		
MANHATTAN BEACH-CITY, WATER DEPT.	2	0	0	1	0	2		✓	✓	
MAYWOOD MUTUAL WATER CO. #1	2	0	0	1	0	2		✓	✓	
MAYWOOD MUTUAL WATER CO. #2	2	0	0	1	0	2		✓	✓	
MAYWOOD MUTUAL WATER CO. #3	3	0	0	1	0	2		✓	✓	
MONROVIA-CITY, WATER DEPT.	5	0	0	0	0	1	✓		✓	
MONTEBELLO LAND & WATER CO.	7	0	0	0	0	9	✓		✓	
MONTEREY PARK-CITY, WATER DEPT.	8	0	1	0	0	0	✓		✓	
SANTA CLARITA VALLEY W.A.-NEWHALL DIV.	2	0	0	1	0	0				✓
GSWC – NORWALK	7	0	0	2	0	4		✓	✓	
ORCHARD DALE WATER DISTRICT	0	0	1	0	0	1	✓		✓	
PALMDALE WATER DIST.	22	1	0	0	2	2		✓	✓	
PALM RANCH IRRIGATION DIST.	3	0	0	4	0	0		✓		
CALIFORNIA WATER SERVICE CO. – PALOS VER	0	0	0	4	0	0				✓
PARAMOUNT – CITY, WATER DEPT.	2	0	0	2	0	0				✓
CITY OF BELL GARDENS	1	0	0	1	0	1			✓	
MONTEBELLO-CITY, WATER DEPT.	1	0	1	2	0	0			✓	



Water System Name	Active Wells	Active Surface Water Intakes	Purchased Groundwater	Purchased Surface Water	Standby Sources	Emergency Interconnections	GW is only source, at least one well	Reliant on purchased surface water, and has >2 wells	Has emergency interconnection OR ability to purchase groundwater OR Standby Source	Insufficient access to groundwater storage and no interconnection
PASADENA-CITY, WATER DEPT.	9	0	0	5	0	0		✓		
PICO WD	5	0	0	0	0	0	✓			
POMONA – CITY, WATER DEPT.	27	1	0	4	0	0		✓		
COVINA-CITY, WATER DEPT.	0	0	0	1	0	0				✓
QUARTZ HILL WATER DIST.	10	0	0	2	0	0		✓		
CALIFORNIA WATER SERVICE CO. – HERM/REDO	3	0	0	6	0	0		✓		
CAL/AM WATER COMPANY – SAN MARINO	9	0	0	2	0	0		✓		
RUBIO CANON LAND & WATER ASSOCIATION	2	3	0	1	0	0				✓
GSWC-SAN DIMAS	6	0	0	5	0	0		✓		
SAN FERNANDO-CITY, WATER DEPT.	3	0	0	0	0	3	✓		✓	
SAN GABRIEL COUNTY WD	6	0	0	0	2	2	✓		✓	
SANTA MONICA-CITY, WATER DIVISION	10	0	0	2	0	0		✓		
SATIVA WATER SYSTEM	2	0	1	0	0	1	✓		✓	
SIERRA MADRE-CITY, WATER DEPT.	5	0	1	0	0	0	✓		✓	
SIGNAL HILL – CITY, WATER DEPT.	3	0	0	1	0	0		✓		
SOUTH GATE-CITY, WATER DEPT.	11	0	0	2	0	5		✓	✓	
SOUTH MONTEBELLO IRRIGATION DIST.	4	0	0	0	0	0	✓			
CITY OF SOUTH PASADENA	2	0	0	2	0	0				✓
GSWC – SOUTHWEST	13	0	0	11	0	13		✓	✓	
BEVERLY HILLS-CITY, WATER DEPT.	0	0	0	2	0	0				✓
SUNNY SLOPE WATER CO.	5	0	0	0	0	0	✓			
TRACT 180 MUTUAL WATER CO.	2	0	0	0	0	0	✓			
TRACT 349 MUTUAL WATER CO.	2	0	0	0	0	1	✓		✓	
LIBERTY UTILITIES – LYNWOOD	2	0	2	1	0	0			✓	
VALENCIA HEIGHTS WATER CO.	4	0	0	2	0	0		✓		
VALLEY VIEW MUTUAL WATER CO.	1	0	0	0	0	0	✓			
VALLEY WATER CO.	4	0	0	1	0	0		✓		
VERNON-CITY, WATER DEPT.	7	0	0	1	1	0		✓	✓	
WALNUT PARK MUTUAL WATER CO.	3	0	0	0	0	1	✓		✓	
WHITTIER-CITY, WATER DEPT.	6	0	1	0	0	0	✓		✓	
SUBURBAN WATER SYSTEMS-WHITTIER	4	1	8	0	1	1	✓		✓	
BURBANK-CITY, WATER DEPT.	8	0	0	6	0	0		✓		
LOS ANGELES CWWD 36-VAL VERDE	1	0	0	1	0	0			✓	✓
CAL-AM WATER COMPANY – DUARTE	9	0	0	0	0	0	✓			
SAN GABRIEL VALLEY WATER CO.- MONTEBELLO	0	0	1	0	0	1			✓	

Water System Name	Active Wells	Active Surface Water Intakes	Purchased Groundwater	Purchased Surface Water	Standby Sources	Emergency Interconnections	GW is only source, at least one well	Reliant on purchased surface water, and has >2 wells	Has emergency interconnection OR ability to purchase groundwater OR Standby Source	Insufficient access to groundwater storage and no interconnection
NORWALK – CITY, WATER DEPT.	3	0	0	1	0	1		✓	✓	
ROWLAND WATER DISTRICT	0	0	2	3	0	0		✓	✓	
GSWC – HOLLYDALE	2	0	0	0	0	3	✓		✓	
LOS ANGELES CWWD 40, R 24,27,33-PEARBLSM	4	0	0	3	0	0		✓	✓	
LOS ANGELES CWWD 29 & 80-MALIBU	0	0	0	2	0	0			✓	
SUBURBAN WATER SYSTEMS-SAN JOSE	4	0	0	9	2	0		✓	✓	
LIBERTY UTILITIES – BELLFLOWER-NORWALK	6	0	11	3	0	1		✓	✓	
GSWC-SOUTH ARCADIA	7	0	0	0	0	1	✓		✓	
TORRANCE-CITY, WATER DEPT.	3	0	0	5	0	0		✓		
LA HABRA HEIGHTS CWD	4	0	0	1	0	0		✓		
GSWC-SOUTH SAN GABRIEL	4	0	0	1	0	0		✓		
LAS VIRGENES MWD	0	2	0	1	0	0				✓
WALNUT VALLEY WATER DISTRICT	0	0	0	5	0	1			✓	
LAKWOOD – CITY, WATER DEPT.	9	0	0	0	1	2	✓		✓	
SANTA CLARITA VALLEY W.A.-VALENCIA DIVIS	17	0	0	1	0	0		✓		
SANTA FE SPRINGS – CITY, WATER DEPT.	0	0	1	2	0	0			✓	
SANTA CLARITA VALLEY W.A.-CASTAIC DIV.	3	0	0	1	2	0		✓	✓	
LOS ANGELES CWWD 37-ACTON	3	0	0	1	0	0		✓		
SANTA CLARITA VALLEY W.A.-PINETREE DIV.	3	0	0	1	1	0		✓	✓	
SANTA CLARITA VALLEY W.A.-TESORO DIV.	0	0	0	2	0	0				✓

**Table 12: Criteria to Determine Ability to Access Local Groundwater Storage for Small Community Water Systems**

Water System Name	Interconnection with other utilities (transfers, mutual aid, etc.) (EAR question 18.82)	18.81 Develop local supplemental water supply, enhanced treatment or increased storage capacity (EAR question 18.81)	Responding agencies have responded that no interconnection is planned or completed, AND has responded that no local supplemental water supply will be implemented
CALIFORNIA CONSERVATION CAMP #14	N/A	Completed	
LANCASTER PARK MOBILE HOME PARK	No response	No response	No response
BLUE SKIES TRAILOR PARK	Will not Implement	Will not Implement	✓
LOS ANGELES RESIDENTIAL COMMUNITY FOUNDA	No response	No response	No response
THE PAINTED TURTLE CAMP	No response	No response	No response
BLEICH FLATS MUTUAL	No response	No response	No response
METTLER VALLEY MUTUAL	Plan to Implement	Plan to Implement	
WESTSIDE PARK MUTUAL WATER	Will not Implement	Will not Implement	✓
DEL RIO MUTUAL	Completed	Plan to Implement	
REESEDALE MUTUAL	Will not Implement	Will not Implement	✓
SUNNYSIDE FARMS MUTUAL WATER COMPANY	Will not Implement	Will not Implement	✓
TIERRA BONITA MUTUAL WATER	No response	No response	No response
WILSONA GARDENS MUTUAL	Completed	Will not Implement	
LITTLE BALDY WATER	No response	No response	No response
SHADOW ACRES MUTUAL WATER COMPANY	Completed	Will not Implement	
LLANO MUTUAL WATER COMPANY	N/A	Plan to Implement	
THE VILLAGE MOBILE HOME PARK	No response	No response	No response
WHITE FENCE FARMS MWC NO.3	Plan to Implement	N/A	
CAMP WILLIAMS-RESORT WATER	N/A	N/A	✓
OAK GROVE FAMILY PARK	No response	No response	No response
WESTERN SKIES MOBILE HOME PARK	No response	No response	No response
LOS ANGELES, CITY OF – POWER PLANT #2	No response	No response	No response
LOS ANGELES, CITY OF – POWER PLANT #1	No response	No response	No response

Water System Name	Interconnection with other utilities (transfers, mutual aid, etc.) (EAR question 18.82)	18.81 Develop local supplemental water supply, enhanced treatment or increased storage capacity (EAR question 18.81)	Responding agencies have responded that no interconnection is planned or completed, AND has responded that no local supplemental water supply will be implemented
SUNDALE MUTUAL WATER COMPANY A, B	Will not Implement	N/A	✓
VALHALLA WATER ASSOCIATION	N/A	N/A	✓
THE RIVER COMMUNITY	N/A	Will not Implement	✓
EL RANCHO MOBILE HOME PARK	N/A	N/A	✓
GOLDEN SANDS MOBILE HOME PARK	No response	No response	✓
DESERT PALMS MOBILE HOME PARK	N/A	N/A	✓
CASA DULCE ESTATES	Will not Implement	Will not Implement	✓
TERRA NOVA MOBILE HOME PARK	N/A	N/A	✓
GOLDEN VALLEY MUNICIPAL WATER DISTRICT	N/A	N/A	✓
MITCHELL'S AVENUE E MOBILE HOME PARK	N/A	N/A	✓
ANTELOPE PARK MUTUAL WATER COMPANY	No response	No response	No response
COLORADO MUTUAL WATER COMPANY	Will not Implement	Will not Implement	✓
EL DORADO MUTUAL WATER CO.	Will not Implement	Will not Implement	✓
EVERGREEN MUTUAL WATER COMPANY	No response	No response	No response
LANCASTER WATER COMPANY	Completed	Will not Implement	
LANDALE MUTUAL WATER COMPANY	N/A	Plan to Implement	
CLEAR SKIES MOBILE HOME PARK	Plan to Implement	N/A	
CALIFORNIAN MOBILE HOME PARK	N/A	N/A	✓
LLANO DEL RIO WATER COMPANY	No response	No response	No response
RIVERS END TRAILER PARK	No response	No response	No response
FIRE SUPPRESSION CAMP #19	N/A	Completed	
SLEEPY VALLEY WATER COMPANY	N/A	N/A	✓
SHERWOOD MOBILE HOME PARK	N/A	N/A	✓

Water System Name	Interconnection with other utilities (transfers, mutual aid, etc.) (EAR question 18.82)	18.81 Develop local supplemental water supply, enhanced treatment or increased storage capacity (EAR question 18.81)	Responding agencies have responded that no interconnection is planned or completed, AND has responded that no local supplemental water supply will be implemented
LILY OF THE VALLEY MOBILE VILLAGE	Will not Implement	In Progress	
AQUA J. MUTUAL WATER COMPANY	Will not Implement	Will not Implement	✓
ALPINE SPRINGS MOBILE HOME PARK	No response	No response	No response
WINTERHAVEN MOBILE ESTATES	No response	No response	No response
CALI LAKE RV RESORT	No response	No response	No response
THE OAKS	No response	No response	No response
NORTH TRAILS MUTUAL WATER COMPANY	N/A	Plan to Implement	
SPV WATER COMPANY	In Progress	Plan to Implement	
WEST VALLEY COUNTY WATER DISTRICT	Will not Implement	Will not Implement	✓
AMARILLO MUTUAL WATER COMPANY	N/A	N/A	✓
BELLFLOWER HOME GARDEN WATER COMPANY	N/A	No response	No response
AVERYDALE MWC	N/A	N/A	✓
LOS ANGELES CWWWD 40, REG. 39-ROCK CREEK	Completed	Plan to Implement	
LOS ANGELES CWWWD 40, REG. 35-N.E. L.A.	Completed	Plan to Implement	
FOOTHILL MUNICIPAL WATER DIST.	Completed	N/A	
KINNELOA IRRIGATION DIST.	Completed	In Progress	
THREE VALLEYS MWD	Plan to Implement	In Progress	
ANTELOPE VALLEY EAST KERN WATER AGENCY	Completed	Completed	
SANTA CLARITA VALLEY W.A.-IMPORTED DIVIS	In Progress	In Progress	
HEMLOCK MUTUAL WATER CO.	Will not Implement	Will not Implement	✓
LAKE ELIZABETH MUTUAL WATER CO.	N/A	N/A	✓
LEISURE LAKE MOBILE ESTATES	N/A	N/A	✓
LOS ANGELES CWWWD 21-KAGEL CANYON	Completed	Plan to Implement	

Water System Name	Interconnection with other utilities (transfers, mutual aid, etc.) (EAR question 18.82)	18.81 Develop local supplemental water supply, enhanced treatment or increased storage capacity (EAR question 18.81)	Responding agencies have responded that no interconnection is planned or completed, AND has responded that no local supplemental water supply will be implemented
LYNWOOD PARK MUTUAL WATER CO.	N/A	N/A	✓
METROPOLITAN WATER DIST. OF SO. CAL.	Completed	In Progress	
PARADISE RANCH MHP	N/A	Will not Implement	✓
COVINA IRRIGATING CO.	Completed	Will not Implement	
STERLING MUTUAL WATER COMPANY	Plan to Implement	N/A	
CALIFORNIA DOMESTIC WATER COMPANY	Completed	N/A	
SUBURBAN WATER SYSTEMS-COVINA KNOLLS	Completed	Will not Implement	
LIBERTY UTILITIES – MESA CREST	N/A	N/A	✓
CALIFORNIA WATER SERVICE CO-LAKE HUGHES	Completed	Plan to Implement	
CALIFORNIA WATER SERVICE CO-LEONA VALLEY	Completed	Plan to Implement	
GREEN VALLEY CWD	No response	N/A	✓
LAND PROJECTS MUTUAL WATER CO.	Plan to Implement	N/A	
WHITE FENCE FARMS MWC NO. 1	N/A	N/A	✓
CENTRAL BASIN MWD	N/A	Completed	
FENNER CANYON YOUTH CONSERVATION CAMP	No response	No response	No response

### D.3 Target Tracking

**Tracking data source:**

- Watermaster annual reports
  - Antelope Valley Watermaster, <https://avwatermaster.net/new-annual-report/>
  - West Coast Basin Watermaster, <https://www.wbwa.info/wcb-water-rights-panel>
  - Central Basin Watermaster, <http://www.cbwatermaster.org/>
  - Main San Gabriel Basin Watermaster, <https://www.watermaster.org/reports>
  - Raymond Basin Water Management Board, <https://www.raymondbasin.org/>
  - Six Basins Watermaster, <http://www.6bwm.com/info.php?pnum=6>
  - ULARA Watermaster, [http://ularawatermaster.com/index.html?page\\_id=922](http://ularawatermaster.com/index.html?page_id=922)
- SWRCB EAR data: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/eardata.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/eardata.html)

**Tracking frequency:** Annual.

**Method for compiling data:** Manual.

- Estimate the volume of water in storage and determine if 6-months of supply is available
  - Estimate 6-months of demand based on a 2020 baseline demand of 1.6 MAF, increased by the percentage increase in population for the given year.
  - For each basin within Los Angeles County, review watermaster annual reports to gather the total volume of water stored in each basin through storage programs (note that this is accounted for differently than annual replenishment or recharge). Sum the total supply available in each basin.
  - Compare the volume in storage to the estimated 6-month demand volume and calculate the months of supply in local groundwater storage.
- Estimate the percent that report having either an emergency interconnection or access to more than one supply source
  - Download annual EAR reporting data and the “Water System Inventory” data.
  - Import the EAR reporting data and Water System Inventory to MS Access, and join the data sets.
  - Extract all records for Los Angeles County into a separate Excel spreadsheet.
  - Identify water systems with only one water source:
    - Extract data for questions related to water sources (in 2020, these are #s 5.3, 5.34, 5.38, 5.42, 5.46).
    - Count the number of source types by and create a column with this count.
    - Identify water systems with no emergency interconnection.
  - Extract data for the question related to “Emergency Interconnections” (in 2020, this is question #5.5).
  - Create a column for “Emergency Interconnections”.

- Write a formula that identifies agencies that have only one water source and zero interconnections.
- Calculate the percent of agencies that only have one water source and no interconnections to then calculate the agencies that report having either an emergency interconnection or access to more than one supply source.

**Resulting metrics:** (1) Months of water supply available in local groundwater storage and (2) Percent of systems that report having either an emergency interconnection or access to more than one supply source.

**Endpoint:** Reached when 100% of systems have either one interconnection or one supply source.

## E. Optimize production of groundwater by maintaining at least 700,000 AFY baseline groundwater production

The target to maintain at least 700,000 AFY of baseline groundwater production is one of two targets to optimize production of groundwater. Groundwater basins provide a critical source of local supply along with seasonal and annual storage that can be accessed during drought conditions.

### E.1 Baseline Calculation

The baseline groundwater production for Los Angeles County is based on the 10-year average of groundwater production for pumping from all groundwater basins as described in annual water master reports, groundwater sustainability plans, and UWMPs. The 10-year average is used in order to capture different hydrologic year types which can impact the availability of supplies. Historic annual production from each groundwater basin is provided in **Table 5**, and average 700,000 AFY.

### E.2 Target Calculation

There is no calculation required to prepare the target as it is meant to maintain the baseline pumping level of 700,000 AFY groundwater production. This volume assumes recharge activities continue in order to maintain groundwater levels.

### E.3 Target Tracking

**Tracking data source:** SGMA basin reporting.

- Groundwater Sustainability Plan (GSP) annual reports (Santa Monica Basin and Santa Clara River Valley East Basin only): <https://sgma.water.ca.gov/portal/gspar/submitted>
- Adjudicated area annual reports: <https://sgma.water.ca.gov/adjudbasins/report/publicview>. Select the desired year, then click "Detail CSV export"

**Tracking frequency:** Annual.

**Method for compiling data:** Automatic (though this is a simple process that could also be done manually).

- Download Excel files of basin reporting from the SGMA website.
- Sum "Total Groundwater Extraction" for basins within Los Angeles County to obtain the AF of groundwater pumped for the given year. Note that Antelope Valley Basin pumping will need to be



adjusted to account for a portion of the basin being located outside of Los Angeles County by assuming 92% of pumping is within Los Angeles County.

**Resulting Metric:** Volume of groundwater produced per year.

**Endpoint:** No endpoint. Ongoing tracking of groundwater produced.

## F. Optimize production of groundwater by increasing production in areas overlying stranded groundwater by 18,000 AFY

The target to increase production in areas overlying stranded groundwater is the second of two targets to optimize production of groundwater. Being able to further tap into and use localized areas of impaired groundwater would enhance regional resilience.

### F.1 Baseline Calculation

The baseline assumes that no wells are currently producing in areas of “stranded” groundwater, which is defined as groundwater that cannot be accessed due to water quality issues.

### F.2 Target Calculation

The target to increase production in areas overlying stranded groundwater by 18,000 AFY is calculated based on an estimate of the stranded groundwater within Los Angeles County as well as the assumption that only a portion of that stranded groundwater can reasonably be accessed (assumed as 50%). Impaired water as described here is not intended to be inclusive of all groundwater treatment needs (such as brackish groundwater desalination), but brackish groundwater desalination can be considered for future iterations.

The estimate of stranded groundwater is calculated based on the estimated volume of pumping for wells taken offline due to quality issues. **Table 13** provides an estimate of the number of wells in each basin offline due to water quality issues, and totals 122 wells. Wells within operable units that are already receiving treatment are not included in this total as this target is intended to capture additional treatment needs. Given that wells can have a wide range of production based on the well equipment, underlying geohydrology, and the treatment necessary, a conservative 300 AFY per well, based on the lower end of production from wells treated in the Main San Gabriel Basin as reported by the Main San Gabriel Basin Watermaster in annual reporting. Assuming these wells have the capability to produce an average of 300 AFY, the total volume of stranded groundwater is approximately 37,000 AFY, 50% of which is 18,000 AFY (rounded to the nearest 1,000 AF).

**Table 13: Wells Not Producing Due to Water Quality Issues**

Groundwater Basin	Number of Wells Not Producing
Antelope Valley <sup>1,2</sup>	10
Santa Clara River Valley East	4
Leona Valley Basin <sup>2</sup>	1
Acton Valley Basin <sup>2</sup>	2
West Coast Basin	3
Central Basin	25
Santa Monica Basin	0
Hollywood Basin	4
Main San Gabriel Basin	39

Groundwater Basin	Number of Wells Not Producing
Raymond Basin	18
Six Basins	8
Spadra Basin	0
Puente Basin	0
Chino Basin <sup>1</sup>	3
San Fernando Valley Basin	4
Verdugo Basin	1
Sylmar Basin	0
Eagle Rock Basin	0
<b>Total Wells Not Producing</b>	<b>122</b>

1. Antelope Valley Basin and Chino Basin only consider wells within Los Angeles County
2. The count of wells based on GAMA data are assumed based on exceedances of MCLs, but have not been confirmed via pumping records.
3. Data was not available for wells on Santa Catalina Island.

Data sources: West Coast Basin Watermaster, 2011-2020; Central Basin Watermaster, 2011-2020; Santa Monica, 2022; Hollywood, 2021; Main San Gabriel Basin Watermaster, 2011-2020; Main San Gabriel Basin Watermaster, 2021; Raymond Basin Watermaster, 2011-2020; Six Basins Watermaster, 2011-2020; Puente Basin Watermaster, 2021; Santa Clarita Valley Water Agency, 2021; Palmdale, 2021; ULARA Watermaster, 2011-2020; SWRCB GAMA, 2022.

### F.3 Target Tracking

**Tracking data source:** Watermaster Annual Reports, Water Quality and Supply Plans, GSP Annual Reporting

- Antelope Valley Watermaster Annual Reports, <https://avwatermaster.net/new-annual-report/>.
- West Coast Basin Watermaster Annual Reports, <https://www.wbwa.info/wcb-water-rights-panel>.
- Central Basin Watermaster Annual Reports, <http://www.cbwatermaster.org/>.
- Main San Gabriel Basin Watermaster Annual Reports and Water Quality & Supply Plans, <https://www.watermaster.org/reports>.
- Raymond Basin Water Management Board Annual Reports, <https://www.raymondbasin.org/>.
- Six Basins Watermaster Annual Reports, <http://www.6bwm.com/info.php?pnum=6>.
- ULARA Watermaster Annual Reports, [http://ularawatermaster.com/index.html?page\\_id=922](http://ularawatermaster.com/index.html?page_id=922).
- GSP Annual Reporting (for Upper Santa Clara, Santa Monica and Puente Basins), <https://sgma.water.ca.gov/portal/#gsp>.

**Tracking frequency:** Annual.

**Method for compiling data:** Manual.

- Review watermaster annual reports, water quality and supply plans, and GSP annual reporting to identify volume of water available from new groundwater treatment facilities, new wells or wells brought back online. Note to not double-count volume from wells and volume of water treated if the wells identified are treated at a new treatment plant.

**Resulting Metric:** Volume of groundwater produced by treatment projects, new wells and wells brought back online.

**Endpoint:** Reached when the production volume in areas overlying stranded groundwater equals 18,000 AFY.

## G. Increase groundwater recharge and storage by enhancing regional facility recharge by 250,000 AFY

Enhancing regional facility recharge by 250,000 AFY is one of two targets to increase groundwater recharge and storage. Leveraging combined groundwater storage potential through enhanced groundwater recharge of local and imported water would improve local emergency, seasonal, annual, and long-term supply reliability. This target focuses on centralized recharge facilities, which are structural projects related to large recharge and storage solutions (e.g., recharge basins, dams, channels, and debris basins).

### G.1 Baseline Calculation

Historical recharge in local groundwater basins, based on a 10-year average (2010 to 2019), is approximately 330,000 AFY, based on the average annual replenishment via spreading basins (310,000 AFY) and via injection (20,000 AFY). It is assumed that 100% of water recharged via spreading or injected is available as a groundwater supply. Values are rounded to the nearest 10,000 AF. Details of recharge to each groundwater basin in Los Angeles County are shown in **Table 14**.

**Table 14: Historic Recharge<sup>1</sup>**

Groundwater Basin	10-Year Average Annual Replenishment (AF)				10-Year Average Annual Injection (AF)		
	Stormwater	Imported Water	Recycled Water	Total Spread	Imported Water	Recycled Water	Total Injected
<b>West Coast Basin</b>	0	0	0	<b>0</b>	8,000	14,000	<b>22,000</b>
<b>Central Basin</b>	40,000	13,000	53,000	<b>106,000</b>	3,000	1,000	<b>4,000</b>
<b>Main San Gabriel Basin</b>	86,000	62,000	0	<b>148,000</b>	0	0	<b>0</b>
<b>Raymond Basin</b>	5,000	0	0	<b>5,000</b>	0	0	<b>0</b>
<b>Six Basins</b>	1,000	3,000	0	<b>4,000</b>	0	0	<b>0</b>
<b>ULARA Basin</b>	22,000	7,000	0	<b>29,000</b>	0	0	<b>0</b>
<b>Antelope Valley Basin</b>	0	14,000	0	<b>14,000</b>	0	0	<b>0</b>
<b>Total Recharged</b>	<b>154,000</b>	<b>99,000</b>	<b>53,000</b>	<b>306,000</b>	<b>11,000</b>	<b>15,000</b>	<b>26,000</b>

1. Values are rounded to the nearest hundred acre-foot

2. Antelope Valley recharge is to existing water banks which have only recently started banking groundwater. For this analysis, only the year 2019 was available and 3,000 AFY was recharged.

Data sources: West Coast Basin Watermaster, 2011-2020; Central Basin Watermaster, 2011-2020; Main San Gabriel Basin Watermaster, 2011-2020; Raymond Basin Watermaster, 2011-2020; Six Basins Watermaster, 2011-2020; Puente Basin Watermaster, 2021; ULARA Watermaster, 2011-2020.

### G.2 Target Calculation

The centralized groundwater recharge target calculation is based on planned projects and supply available, as described below.

**Potential Additional Recycled Water Recharge**

The centralized groundwater recharge target is based on estimates provided in plans and studies, and total 152,800 AFY of recycled water that could be recharged with the implementation of new projects. Two large projects are in the planning stages: the Regional Recycled Water Program being led by Metropolitan Water District (MWDSC) and Los Angeles County Sanitation Districts (LACSD), and Operation NEXT being led by the Los Angeles Department of Water and Power (LADWP) and City of Los Angeles Sanitation and Environment (LASAN).

The Regional Recycled Water Program is expected to recharge 168,000 AFY of recycled water to the Main San Gabriel, Orange County, Central, and West Coast Basins. As the Orange County Basin isn't included as part of the Los Angeles County basins, the volume that is expected to be recharged outside of the County is removed (52,000 AFY). This yields 116,000 AFY of recycled water recharged to groundwater basins within Los Angeles County through the Regional Recycled Water Project. (MWDSC, 2019a)

Operation NEXT is expected to provide 190,000 AFY of recycled water for direct use and replenishment. Approximately 25% of the recycled water is expected to be used for groundwater recharge, equal to approximately 47,500 AFY. (LADWP, n.d.)

These two projects alone have an estimated 163,000 AFY of recycled water planned for recharge to groundwater basins in the greater Los Angeles County area. Direct potable reuse regulations have not been released and the projections are under evaluation, so the planned quantities are estimates only.

**Table 15: Potential Recycled Water Recharge**

Agency	Program	Supply Volume
Palmdale Water District	Palmdale Water District Water Augmentation Feasibility Study (Palmdale Water District, 2021, <a href="https://www.palmdalewater.org/about-pwd/reports-and-studies/engineering-reports/">https://www.palmdalewater.org/about-pwd/reports-and-studies/engineering-reports/</a> ). Recharge via injection or surface water augmentation at Lake Palmdale with water from the new advanced water purification facility	4,300 AFY
Metropolitan Water District (MWDSC)  Los Angeles County Sanitation Districts (LACSD)	Regional Recycled Water Program (partnership between MWDSC & LACSD, <a href="https://www.mwdh2o.com/building-local-supplies/pure-water-southern-california/">https://www.mwdh2o.com/building-local-supplies/pure-water-southern-california/</a> ) will treat water from the Joint Water Pollution Control Plant (JWPCP) for recharge via spreading and injection in the West Coast, Central and Main San Gabriel Basins. Environmental planning is in progress from 2021-24. Once approved, design and construction will follow for an estimated eight years (2025-2032). (MWDSC, 2022; MWDSC, 2020)	116,000 AFY
Spadra Basin GSA	Spadra Basin Groundwater Sustainability Plan ( <a href="http://spadrabasin.com/">http://spadrabasin.com/</a> ) (Scenario 3 – Maximum Beneficial Use). Create new spreading basins for recharge of water from the Pomona Water Reclamation Plant. (Spadra Basin GSA, 2022)	3,500 AFY
Los Angeles Department of Water and Power (LADWP)  City of Los Angeles Sanitation and Environment (LASAN)	Operation NEXT (LADWP/LASAN) will convey purified recycled water from Hyperion WRP to recharge via spreading and injection in the West Coast, Central and San Fernando Valley Basins. (LADWP, 2021b)	47,500 AFY
	<b>Total</b>	<b>171,300 AFY</b>

**Potential Additional Imported Water Recharge**

The potential additional imported water recharge estimate is based on targets for imported water banking in the Antelope Valley. AVEK has a groundwater banking storage capacity target of 132,900 AF and a production capacity target of 44,300 AFY, as reported in Antelope Valley Watermaster Annual Reports (<https://avwatermaster.net/new-annual-report/>). For the purposes of this plan, an annual production capacity target of 44,300 AFY is used.

**Table 16: Potential Imported Water Recharge**

Agency	Description	Supply Volume
Antelope Valley-East Kern Water Agency (AVEK)	AVEK groundwater banking program. Storage capacity target of 132,900 AF and production capacity target of 44,300 AFY by 2045. (Antelope Valley Watermaster, 2016-2020, <a href="https://avwatermaster.net/new-annual-report/">https://avwatermaster.net/new-annual-report/</a> )	44,300 AFY

**Potential Additional Stormwater Recharge**

The potential additional stormwater recharge estimate is based on an analysis completed as part of United States Bureau of Reclamation’s (USBR’s) Los Angeles Basin Study that examined the potential for stormwater capture in detail in the greater Los Angeles County area. This study calculated potential additional stormwater capture based on both potential projects and available stormwater supply. **Table 17** provides the total range of potential stormwater capture identified in the Study, while **Table 18** lists the potential volumes of the regional stormwater capture projects identified in the study. Note that the projects identified may not be implemented, but are used to identify a feasible volume of stormwater that could be captured and recharged based on modeled stormwater flows and facility capacities. Additional information can be found in the USBR Los Angeles Basin Study at <https://www.usbr.gov/lc/socal/basinstudies/LABasin.html>.

It is assumed that centralized stormwater capture projects are not feasible in the Upper Santa Clara River watershed as downstream users depend on flows in the river. In the Antelope Valley, stormwater is not lost to the ocean as with other watersheds in Los Angeles County because it is a closed basin, making stormwater recharge unnecessary in the Antelope Valley area.

**Table 17: Potential Stormwater Recharge**

Agency	Description	Supply Volume
United States Bureau of Reclamation (USBR) Los Angeles County Public Works (LACPW)	Los Angeles Basin Stormwater Conservation Study (Task 5 – Infrastructure & Operations Concepts) led by USBR and LACPW. As part of the Study, regional stormwater capture projects were evaluated, including enhancements to existing facilities and new facilities, that can capture an additional 26,100 AFY (low climate scenario) to 59,900 AFY (high climate scenario). The middle-projected climate scenario estimates 43,300 AFY stormwater captured. (USBR, 2015, <a href="https://www.usbr.gov/lc/socal/basinstudies/LABasin.html">https://www.usbr.gov/lc/socal/basinstudies/LABasin.html</a> )	24,900 to 56,200 AFY (based on facilities)

**Table 18: Regional Stormwater Capture Projects Identified in the Los Angeles Basin Study, Task 5 (USBR, 2015)**

Basin	Potential Additional Stormwater Recharge (AFY)
New Basin: Miller Pit	2,800 to 5,600
New Basin: Rock Pit No. 3	500 to 1,200
New Basin: Sepulveda Dam	3,700 to 4,700
New Basin: Spadra Basin	1,400 to 1,900
New Basin: LA Forebay Spreading Ground	4,000 to 4,800
New Basin: Bull Creek Area Spreading Grounds	1,200 to 1,600
New Basin: Browns Creek Area Spreading Grounds	800 to 1,800
Enhanced Basin: Big Dalton	60 to 100
Enhanced Basin: Citrus	50 to 100
Enhanced Basin: Eaton Wash	1,200 to 2,800
Enhanced Hansen/Tujunga Basin and New Tujunga Spreading Grounds	5,000 to 18,300
Enhanced Basin: Little Dalton	20 to 30
Enhanced Basin: Live Oak	20 to 30
Enhanced Basin: Lopez	40 to 50
Enhanced Basin: Pacoima	2,400 to 5,900
Enhanced Basin: Rio Hondo	1,400 to 5,800
Enhanced Basin: San Dimas	200 to 300
Enhanced Basin: San Gabriel Coastal	100 to 1,100
Enhanced Basin: Santa Anita	40 to 50
Enhanced Basin: Sawpit	10 to 30

**Total Potential Recharge**

The target to increase centralized recharge was developed based on the total potential recharge identified from recycled water, imported water and stormwater. The range of potential centralized recharge is 241,200 AFY to 275,000 AFY, as shown in the table below. A target of 250,000 AFY was set as a general target based on the midpoint of this range.

**Table 19: Total Potential Centralized Recharge**

Supply Type	Supply Volume
Recycled Water	170,800 AFY
Imported Water	44,300 AFY
Stormwater	26,100 AFY to 59,900 AFY
<b>Total</b>	<b>241,200 AFY to 275,000 AFY</b>

G.3 Target Tracking

**Tracking data source:** Watermaster Annual Reports and GSP annual reporting.

**Tracking frequency:** Annual.

**Method for compiling data:** Manual.

- Review watermaster annual reports and GSP annual reporting to extract the volume and type of water recharged within each groundwater basin in Los Angeles County.

- Sum the total recharge and calculate the average of the last 10 years of water recharged.
- Subtract the baseline volume of 300,000 AFY to obtain the volume of enhanced regional facility recharged.

**Resulting Metric:** Volume of increased centralized recharge.

**Endpoint:** Reached when the volume of centralized recharge equals 250,000 AFY.

## H. Increase groundwater recharge and storage by increasing decentralized infiltration by 80,000 AFY

Increasing decentralized infiltration by 80,000 AFY is the second of two targets related to increasing groundwater recharge and storage. As previously mentioned, increased groundwater storage would improve local emergency, seasonal, annual, and long-term supply reliability. This target also highlights the importance of natural infrastructure. This target focuses on decentralized stormwater capture, which are structural and nonstructural projects related to smaller distributed recharge or direct use solutions (e.g., sub-regional infiltration, green streets, and cisterns).

### H.1 Baseline Calculation

The baseline for decentralized infiltration is set as 0 AFY. All new decentralized infiltration projects will contribute to the target.

### H.2 Target Calculation

The target to increase decentralized infiltration by 80,000 AFY is based on an analysis completed as part of USBR's Los Angeles Basin Study that examined the potential for local stormwater capture in detail in the greater Los Angeles County area. The study defines "local stormwater capture" as "facilities that receive moderate volumes of stormwater runoff from upstream areas for infiltration and retention. Local stormwater capture facilities may be in the form of surface infiltration basins or underground infiltration chambers." The study calculated potential decentralized stormwater capture based on an analysis of stormwater supply, the area available for projects, and modeling for local stormwater capture. The prorated estimates range from 64,500 AFY to 98,000 AFY (USBR, 2015, <https://www.usbr.gov/lc/socal/basinstudies/LABasin.html>).

In the Upper Santa Clara River watershed, the capture volume is estimated based on the Upper Santa Clara River Enhanced Watershed Management Plan (EWMP) acreage of stormwater to be captured via decentralized methods. The EWMP states that 622 acres of Best Management Practice (BMP) capacity are needed to achieve compliance targets. Assuming that the BMPs will capture and infiltrate 1.5 inches of precipitation per year (approximately 0.13 AFY per acre), then decentralized infiltration achieved by the BMPs equals 80 AFY. (Upper Santa Clara River Watershed Management Group, 2021)

In the Antelope Valley, stormwater is not lost to the ocean as with other watersheds in Los Angeles County because it is a closed basin, making stormwater recharge unnecessary in the Antelope Valley area.

In total, the potential range for decentralized infiltration in the County is 64,600 AFY to 98,100 AFY (rounded to the nearest 100 AF). A mid-range target of 80,000 AFY of decentralized infiltration was selected.

**Table 20: Potential Decentralized Stormwater Recharge**

Region	Potential Decentralized Stormwater Recharge (AFY)
Greater Los Angeles County	64,500 – 98,000
Upper Santa Clara River Watershed	80
Antelope Valley	0
<b>Total Potential Decentralized Stormwater Recharge</b>	<b>64,580 – 98,080</b>

Data Sources: USBR, 2015; Upper Santa Clara River Watershed Management Group, 2020.

### H.3 Target Tracking

**Tracking data source:**

- Safe Clean Water Program project tracking (when available): <https://safecleanwaterla.org/>
- Annual reports for municipal separate storm sewer systems (MS4), when available:
  - Watershed Reporting Adaptive Management & Planning System for Los Angeles County (WRAMPS): <https://wramps2.org/>
  - City of LA Stormwater Partners: <https://www.lastormh2o.org/>

**Tracking frequency:** Annual.

**Method for compiling data:** Automated and manual.

- Extract the volume of water reported as groundwater recharge supply benefit.

**Resulting Metric:** Volume of decentralized infiltration.

**Endpoint:** Reached when the volume of decentralized infiltration reaches 80,000 AFY.

## I. Reduce at-risk systems by 100%

With over 200 water supply entities in Los Angeles County of various sizes and supply portfolios, not all systems are able to provide consistently high quality, reliable drinking water to their customers. Many small and at-risk systems provide water to underserved communities and have limited resources and revenue potential to address water quality and quantity needs. This target aims to ensure all water systems have sufficient Technical, Managerial, Financial (TMF) capabilities and provide water services equitably throughout Los Angeles County. A 100% reduction means that no water system will be considered at-risk.

### I.1 Baseline Calculation

The baseline estimate of at-risk systems uses the State Water Resources Control Board’s list of failing, at-risk, and potentially at-risk as reported through the Safe and Affordable Funding for Equity and Resilience (SAFER) program.

**Table 21** provides a summary of the risk indicators used to define system status according to the SAFER Needs Assessment. Information regarding the scoring of risk indicators is available on the SAFER website: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/needs.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs.html)



**Table 21: SAFER Needs Assessment Risk Indicators**

Category	Risk Indicators
Water Quality	<ul style="list-style-type: none"> <li>Increasing Presence of Water Quality Trends Toward MCL</li> <li>Percentage of Sources Exceeding an MCL</li> <li>Past Presence on the Human Right to Water (HR2W) List</li> <li>History of E. coli Presence</li> <li>Treatment Technique Violations</li> <li>Constituents of Emerging Concern</li> </ul>
Accessibility	<ul style="list-style-type: none"> <li>Absence of Interties</li> <li>Number of Sources</li> <li>Department of Water Resources (DWR) – Drought &amp; Water Shortage Risk Assessment Results</li> <li>Critically Overdrafted Groundwater Basins</li> <li>Bottle Bater or Hauled Water Reliance</li> <li>Source Capacity Violations</li> </ul>
Affordability	<ul style="list-style-type: none"> <li>Residential Arrearage Burden</li> <li>Percent of Median Household Income (%MHI)</li> <li>Extreme Water Bill</li> <li>Percent of Residential Arrearages</li> </ul>
TMF Capacity	<ul style="list-style-type: none"> <li>Net Annual Income</li> <li>Operating Ratio</li> <li>Days Cash on Hand</li> <li>Monitoring and Reporting Violations</li> <li>Significant Deficiencies</li> <li>Operator Certification Violations</li> </ul>

**Table 22** provides the Los Angeles County water systems with a SAFER status of failing, at-risk, and potentially at-risk and total 64 systems as of June 2023. An online map of current SAFER status for all systems evaluated by the SWRCB is available at: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/2022.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/2022.html).

**Table 22: July 2022 SAFER Status of Los Angeles County Water Systems (Failing or At-Risk only)**

Classification Category	Water Systems	
Failing	<ul style="list-style-type: none"> <li>Lancaster Park Mobile Home Park</li> <li>Mettler Valley Mutual</li> <li>The Village Mobile Home Park</li> </ul>	<ul style="list-style-type: none"> <li>Cali Lake RV Resort</li> <li>North Trails Mutual Water Company</li> </ul>

Classification Category	Water Systems	
	<ul style="list-style-type: none"> <li>• Mitchell's Avenue E Mobile Home Park</li> <li>• Alpine Springs Mobile Home Park</li> <li>• Winterhaven Mobile Estates</li> </ul>	<ul style="list-style-type: none"> <li>• Signal Hill City Water Department</li> <li>• Land Projects Mutual Water Co.</li> </ul>
At-Risk	<ul style="list-style-type: none"> <li>• Los Angeles Residential Community Foundation</li> <li>• Del Rio Mutual</li> <li>• Oak Grove Family Park</li> <li>• Western Skies Mobile Home Park</li> <li>• Los Angeles, City Of - Power Plant 2</li> <li>• El Rancho Mobile Home Park</li> <li>• Desert Palms Mobile Home Park</li> <li>• Terra Nova Mobile Home Park</li> <li>• Golden Valley Municipal Water District</li> <li>• Lancaster Water Company</li> <li>• Landale Mutual Water Company</li> <li>• Clear Skies Mobile Home Park</li> <li>• Californian Mobile Home Park</li> <li>• Sleepy Valley Water Company</li> </ul>	<ul style="list-style-type: none"> <li>• Amarillo Mutual Water Company</li> <li>• Cal-Am Water Company - East Pasadena</li> <li>• Calif State Polytechnical Univ - Pomona</li> <li>• El Monte-City, Water Dept.</li> <li>• Hemlock Mutual Water Co.</li> <li>• GSWC - Florence/Graham</li> <li>• Lynwood Park Mutual Water Co.</li> <li>• Monterey Park-City, Water Dept.</li> <li>• Paramount – City, Water Dept.</li> <li>• GSWC – South San Gabriel</li> </ul>
Potentially At-Risk	<ul style="list-style-type: none"> <li>• Tierra Bonita Mutual Water</li> <li>• Llano Mutual Water Company</li> <li>• Golden Sands Mobile Home Park</li> <li>• Evergreen Mutual Water Company</li> <li>• Rivers End Trailer Park</li> <li>• Lily of the Valley Mobile Village</li> <li>• Aqua J. Mutual Water Company</li> <li>• So. Cal. Edison Co.-Santa Catalina</li> <li>• Valley County Water District</li> <li>• Averydale MWC</li> <li>• Kinneloa Irrigation Dist.</li> <li>• Pico Rivera - City, Water Dept.</li> <li>• La Puente Valley CWD</li> <li>• Lincoln Avenue Water Co.</li> <li>• Leisure Lake Mobile Estates</li> <li>• Maywood Mutual Water Co. #1</li> <li>• Santa Clarita Valley W.A.-Newhall Division</li> </ul>	<ul style="list-style-type: none"> <li>• Paradise Ranch MHP</li> <li>• City of Bell Gardens</li> <li>• Pico Water District</li> <li>• Suburban Water Systems - Sativa</li> <li>• South Gate-City, Water Dept.</li> <li>• South Montebello Irrigation District</li> <li>• Sunny Slope Water Co.</li> <li>• Sterling Mutual Water Company</li> <li>• Tract 180 Mutual Water Co.</li> <li>• Tract 349 Mutual Water Co.</li> <li>• Valley Water Co.</li> <li>• Liberty Utilities - Bellflower-Norwalk</li> <li>• Fenner Canyon Youth Conservation Camp</li> </ul>

Source: SWRCB, June 2023.

## I.2 Target Calculation

The target to reduce at-risk systems by 100% will address the risk factors that were identified for the 64 systems in **Table 22** to reduce their risk level.

## I.3 Target Tracking

**Tracking data source:** SWRCB SAFER Dashboard: <https://www.waterboards.ca.gov/safer/>. Select "Maps and Data" and navigate to the "SAFER Dashboard". A link to the 2022 assessment is located at: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/2022.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/2022.html)

**Tracking frequency:** Annual.

**Method for compiling data:** Manual.

- Download SAFER dataset for failing, at-risk, and potentially at-risk systems in Los Angeles County:
  - Open the SAFER Dashboard.
  - Use the drop-down menu to filter by county (select "Los Angeles").
  - Check the following boxes designating SAFER status: "Failing" and "At-Risk".
  - Click "Export Data" and select "List". This will download an Excel file of all Los Angeles County systems designated as failing or at-risk.
- Estimate the percent reduction in failing, at-risks, and potentially at-risk systems:
  - Count up the number of systems in the downloaded SAFER list.
  - Calculate the percent change in systems versus the baseline of 34 systems.

**Resulting Metric:** Percent reduction in failing, at-risk, and potentially at-risk systems.

**Endpoint:** Reached when the percentage of systems considered to be at-risk are reduced by 100%.

## J. 100% of water agencies, including those in severely disadvantaged communities, have affordable cost of water to meet health and safety needs

The target to ensure that costs paid by customers for water to meet health and safety needs does not exceed 2.5% of the MHI for severely disadvantaged communities (SDACs) is based on the national-level affordability criteria, which has a threshold of 2.5% of the MHI. Given the range of community sizes and incomes within Los Angeles County, 2.5% of the median income for SDACs was selected to better identify systems within disadvantaged communities (DACs) and SDACs. The State identifies the 8 hundred cubic feet (ccf) per month, equal to approximately 6,000 gallons, as the minimum volume of water needed to meet health and safety needs<sup>1</sup>.

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<sup>1</sup> Minimum human health and safety needs are defined in the California Code of Regulations, Title 23, §878.1 as 55 gpcd, unless special circumstances exist.

### J.1 Baseline Calculation

The baseline calculation estimates the number of systems where the cost of water to meet health and safety exceeds 2.5% of the MHI for severely disadvantaged communities. The MHI for Los Angeles County, based on American Community Survey 2015-2019 data, is \$68,044 per year (in 2019 dollars). The definition of an SDAC is 60% of the MHI, which for Los Angeles County is \$40,826. The affordability threshold for drinking water is 2.5% of \$40,826, calculated as \$1,021 per year or \$85 per month.

The cost for 8 ccf (6,000 gallons) of drinking water per month was estimated for water systems within Los Angeles County based on billing information submitted to the SWRCB EAR database and is shown in **Table 23**. Based on these rate calculations, six water systems within Los Angeles County charge rates for 8 ccf of drinking water more than 2.5% of the Los Angeles County MHI for SDACs.

### J.2 Target Calculation

The target to ensure costs paid by customers for water to meet health and safety needs throughout the County does not exceed 2.5% of the MHI for SDACs will address the water systems with costs that exceed this threshold, as described under the baseline calculation.

**Table 23: Water System Rates and Cost for 8 ccf**

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
ALPINE SPRINGS MOBILE HOME PARK	Other Rate	M	Gallons				\$0.00
AMARILLO MUTUAL WATER COMPANY	Uniform Usage	M	Hundred Cubic Feet	\$17.00	1	\$2.10	\$16.80
ANTELOPE PARK MUTUAL WATER COMPANY	Fixed Base	M	Not Applicable				\$0.00
ANTELOPE VALLEY EAST KERN WATER AGENCY							\$0.00
AQUA J. MUTUAL WATER COMPANY	Variable Base	M	Gallons		15000	\$61.00	\$61.00
AVERYDALE MWC	Variable Base	M	Hundred Cubic Feet	\$40.00	25	\$1.75	\$54.00
AZUSA LIGHT AND WATER	Variable Base	M	Hundred Cubic Feet	\$15.78	5	\$1.14	\$9.10
BELLFLOWER - SOMERSET MWC	Variable Base	BM	Hundred Cubic Feet	\$53.20	16	\$1.74	\$13.92
BELLFLOWER HOME GARDEN WATER COMPANY	Fixed Base	M	Not Applicable				\$31.50
BELLFLOWER MUNICIPAL WATER SYSTEM	Uniform Usage	BM	Hundred Cubic Feet	\$59.26		\$2.21	\$17.66

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
BEVERLY HILLS-CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$50.44	26	\$3.44	\$27.52
BLEICH FLATS MUTUAL							\$0.00
BLUE SKIES TRAILOR PARK	Fixed Base	M	Gallons				\$65.00
BURBANK-CITY, WATER DEPT.	Variable Base	M	Hundred Cubic Feet	\$14.79	15	\$3.31	\$26.45
CAL/AM WATER COMPANY - BALDWIN HILLS	Variable Base	M	Not Applicable	\$1.00	1	\$10.53	\$0.00
CAL/AM WATER COMPANY - SAN MARINO	Variable Base	M	Not Applicable	\$1.00	1	\$10.53	\$0.00
CAL-AM WATER COMPANY - DUARTE	Variable Base	M	Not Applicable	\$1.00	1	\$10.53	\$0.00
CALI LAKE RV RESORT							\$0.00
CALIF STATE POLYTECHNICAL UNIV - POMONA							\$0.00
CALIFORNIA CONSERVATION CAMP #14							\$0.00
CALIFORNIA DOMESTIC WATER COMPANY							\$0.00
CALIFORNIA WATER SERVICE CO. - DOMINGUEZ	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$3.61	\$28.88
CALIFORNIA WATER SERVICE CO. - ELA	Variable Base	M	Hundred Cubic Feet	\$17.99	8	\$4.00	\$32.01
CALIFORNIA WATER SERVICE CO. - HERM/REDO	Variable Base	M	Hundred Cubic Feet	\$12.05	10	\$4.57	\$36.55
CALIFORNIA WATER SERVICE CO. - PALOS VER	Variable Base	M	Hundred Cubic Feet	\$21.17	15	\$4.76	\$38.04
CALIFORNIA WATER SERVICE CO.-LANCASTER	Variable Base	M	Hundred Cubic Feet	\$21.17	15	\$4.76	\$38.04

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
CALIFORNIA WATER SERVICE CO-LAKE HUGHES	Variable Base	BM	Hundred Cubic Feet	\$42.34	30	\$4.76	\$38.04
CALIFORNIA WATER SERVICE CO-LEONA VALLEY	Variable Base	M	Hundred Cubic Feet	\$21.17	15	\$4.76	\$38.04
CALIFORNIAN MOBILE HOME PARK	Fixed Base	M	Gallons				\$14.00
CAMP WILLIAMS-RESORT WATER							\$0.00
CASA DULCE ESTATES							\$0.00
CENTRAL BASIN MWD							\$0.00
CERRITOS - CITY, WATER DEPT.	Uniform Usage	BM	Hundred Cubic Feet	\$37.61	10	\$2.75	\$22.00
CITY OF ALHAMBRA	Variable Base	BM	Hundred Cubic Feet	\$46.62	12	\$2.72	\$21.76
CITY OF ARCADIA	Variable Usage	BM	Hundred Cubic Feet	\$30.33	22	\$1.82	\$51.11
CITY OF BELL GARDENS	Uniform Usage	BM	Hundred Cubic Feet	\$17.60		\$1.84	\$14.75
CITY OF INDUSTRY WATERWORKS SYSTEMS	Variable Base	BM	Hundred Cubic Feet	\$46.20	30	\$2.10	\$16.80
CITY OF SOUTH PASADENA	Variable Usage	BM	Hundred Cubic Feet	\$3.33	15	\$3.33	\$26.64
CLEAR SKIES MOBILE HOME PARK	Fixed Base	M	Gallons				\$35.00
COLORADO MUTUAL WATER COMPANY	Variable Base	M	Cubic Feet	\$87.50	1250	\$0.07	\$87.50
COMMERCE-CITY, WATER DEPT.	Uniform Usage	M	Hundred Cubic Feet	\$5.73		\$2.02	\$16.13
COMPTON-CITY, WATER DEPT.	Variable Usage	M	Hundred Cubic Feet	\$30.54	20	\$2.67	\$21.36
COVINA IRRIGATING CO.							\$0.00
COVINA-CITY, WATER DEPT.	Variable Base	M	Hundred Cubic Feet	\$35.78	16	\$2.71	\$21.68

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
CRESCENTA VALLEY CWD	Variable Base	BM	Thousand Gallons	\$51.10	5.17	\$5.17	\$30.94
DEL RIO MUTUAL	Fixed Base	BM	Not Applicable				\$120.00
DESERT PALMS MOBILE HOME PARK	Uniform Usage	M	Thousand Gallons	\$23.35	750	\$1.42	\$8.52
DOWNEY - CITY, WATER DEPT.	Variable Usage	BM	Hundred Cubic Feet	\$22.60	15	\$1.40	\$11.18
EAST PASADENA WATER CO.	Uniform Usage	BM	Hundred Cubic Feet	\$3.02	3.024		\$0.00
EL DORADO MUTUAL WATER CO.	Variable Base	M	Thousand Gallons	\$33.00	50	\$1.75	\$10.47
EL MONTE-CITY, WATER DEPT.	Flat Rate	BM	Hundred Gallons	\$28.95	1	\$0.41	\$85.14
EL RANCHO MOBILE HOME PARK	Fixed Base	M	Thousand Gallons	\$23.92	0	\$1.34	\$31.95
EL SEGUNDO-CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$11.95	10	\$2.82	\$22.56
EVERGREEN MUTUAL WATER COMPANY	Variable Base	M	Hundred Cubic Feet	\$43.00	40	\$8.00	\$64.00
FENNER CANYON YOUTH CONSERVATION CAMP							\$0.00
FIRE SUPPRESSION CAMP #19							\$0.00
FOOTHILL MUNICIPAL WATER DIST.							\$0.00
GLENDALE-CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$51.16	14	\$2.64	\$21.12
GLENDORA-CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$87.54	37	\$2.18	\$17.44
GOLDEN SANDS MOBILE HOME PARK							\$0.00
GOLDEN VALLEY MUNICIPAL WATER DISTRICT	Other Rate	M	Gallons				\$0.00

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
GREEN VALLEY CWD	Variable Base	BM	Hundred Cubic Feet	\$80.00	8		\$0.00
GSWC - ARTESIA	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$4.41	\$35.25
GSWC - BELL, BELL GARDENS	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$4.41	\$35.25
GSWC - CLAREMONT	Variable Base	M	Hundred Cubic Feet	\$39.84	13	\$3.92	\$31.39
GSWC - CULVER CITY	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$4.41	\$35.25
GSWC - FLORENCE/GRAHAM	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$4.41	\$35.25
GSWC - HOLLYDALE	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$4.41	\$35.25
GSWC - NORWALK	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$4.41	\$35.25
GSWC - SOUTHWEST	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$4.41	\$35.25
GSWC - WILLOWBROOK	Variable Base	M	Hundred Cubic Feet	\$17.29	11	\$4.41	\$35.25
GSWC-SAN DIMAS	Variable Base	M	Hundred Cubic Feet	\$15.94	13	\$3.92	\$31.39
GSWC-SOUTH ARCADIA	Variable Base	M	Hundred Cubic Feet	\$15.94	13	\$3.92	\$31.39
GSWC-SOUTH SAN GABRIEL	Variable Base	M	Hundred Cubic Feet	\$15.94	8	\$3.92	\$31.39
HAWTHORNE-CITY WATER DEPT.	Uniform Usage	M	Hundred Cubic Feet	\$19.15		\$4.67	\$37.32
HEMLOCK MUTUAL WATER CO.	Uniform Usage	M	Gallons	\$30.00		\$5.00	\$30.00
HUNTINGTON PARK-CITY, WATER DEPT.	Uniform Usage	BM	Hundred Cubic Feet	\$12.70		\$2.54	\$20.32
INGLEWOOD-CITY, WATER DEPT.	Variable Base	M	Hundred Cubic Feet	\$15.87	12	\$4.01	\$32.08
KINNELOA IRRIGATION DIST.	Uniform Usage	M	Hundred Cubic Feet	\$69.05	0	\$4.56	\$36.48
LA CANADA IRRIGATION DIST.	Variable Base	BM	Hundred Cubic Feet	\$55.60	14	\$3.79	\$30.32
LA HABRA HEIGHTS CWD	Uniform Usage	M	Hundred Cubic Feet	\$69.34	0	\$2.37	\$88.30



Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
LA PUENTE VALLEY CWD	Variable Base	BM	Hundred Cubic Feet	\$35.46	20	\$2.01	\$16.08
LA VERNE, CITY WD	Uniform Usage	BM	Thousand Gallons	\$51.00	1	\$3.92	\$23.46
LAKE ELIZABETH MUTUAL WATER CO.	Other Rate	M	Hundred Cubic Feet				\$0.00
LAKESWOOD - CITY, WATER DEPT.	Variable Usage	BM	Hundred Cubic Feet	\$19.14	2		\$0.00
LANCASTER PARK MOBILE HOME PARK							\$0.00
LANCASTER WATER COMPANY	Variable Base	M	Gallons	\$60.00	1500	\$0.04	\$60.00
LAND PROJECTS MUTUAL WATER CO.	Uniform Usage	M	Thousand Gallons	\$45.45	40	\$0.80	\$45.45
LANDALE MUTUAL WATER COMPANY	Variable Base	M	Hundred Cubic Feet	\$47.00	1300	\$0.86	\$0.00
LAS FLORES WATER CO.	Uniform Usage	M	Hundred Cubic Feet	\$3.66	100	\$3.66	\$29.28
LAS VIRGENES MWD	Variable Base	M	Hundred Cubic Feet	\$35.86	100	\$3.14	\$25.12
LEISURE LAKE MOBILE ESTATES	Uniform Usage	M	Hundred Cubic Feet	\$20.00	100	\$1.25	\$30.00
LIBERTY UTILITIES - BELLFLOWER-NORWALK	Variable Base	BM	Hundred Cubic Feet	\$41.16	16	\$6.03	\$48.26
LIBERTY UTILITIES - COMPTON	Variable Base	BM	Hundred Cubic Feet	\$41.16	16	\$6.03	\$48.26
LIBERTY UTILITIES - LYNWOOD	Variable Base	BM	Hundred Cubic Feet	\$41.16	16	\$6.03	\$48.26
LIBERTY UTILITIES - MESA CREST	Uniform Usage	M	Hundred Cubic Feet	\$19.20	0	\$5.46	\$43.66
LILY OF THE VALLEY MOBILE VILLAGE	Variable Base	M	Hundred Cubic Feet	\$19.74	1	\$19.74	\$19.74
LINCOLN AVENUE WATER CO.	Variable Base	M	Hundred Cubic Feet	\$29.90	1	\$3.30	\$26.40
LITTLE BALDY WATER	Fixed Base	A	Not Applicable				\$53.75

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
LITTLEROCK CREEK IRRIGATION DIST.	Variable Base	M	Hundred Cubic Feet	\$51.54	100	\$1.16	\$9.28
LLANO DEL RIO WATER COMPANY	Variable Base	M	Hundred Cubic Feet	\$50.69	18	\$1.29	\$10.32
LLANO MUTUAL WATER COMPANY	Variable Base	M	Hundred Cubic Feet	\$36.56	26	\$1.07	\$8.56
LOMITA-CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$41.93	20	\$4.79	\$38.32
LONG BEACH-CITY, WATER DEPT.	Variable Base	M	Hundred Cubic Feet	\$0.70	6		\$0.00
LOS ANGELES CWWD 21-KAGEL CANYON	Variable Base	BM	Hundred Cubic Feet	\$90.95	10		\$0.00
LOS ANGELES CWWD 29 & 80-MALIBU	Variable Base	BM	Hundred Cubic Feet	\$159.52	20		\$0.00
LOS ANGELES CWWD 36-VAL VERDE	Variable Base	BM	Hundred Cubic Feet	\$41.05	10		\$0.00
LOS ANGELES CWWD 37-ACTON	Variable Base	BM	Hundred Cubic Feet	\$42.79	10		\$0.00
LOS ANGELES CWWD 40, R 24,27,33-PEARBLSM	Variable Base	BM	Hundred Cubic Feet	\$60.36	10		\$0.00
LOS ANGELES CWWD 40, REG. 35-N.E. L.A.	Variable Base	BM	Hundred Cubic Feet	\$63.43	10		\$0.00
LOS ANGELES CWWD 40, REG. 38-LAKE LA	Variable Base	BM	Hundred Cubic Feet	\$61.85	10		\$0.00
LOS ANGELES CWWD 40, REG. 39-ROCK CREEK	Variable Base	BM	Hundred Cubic Feet	\$79.76	10		\$0.00
LOS ANGELES CWWD 40,REG 4 & 34-LANCASTER	Variable Base	BM	Hundred Cubic Feet	\$50.71	10		\$0.00
LOS ANGELES RESIDENTIAL COMMUNITY FOUNDA	Allocation						\$0.00

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
LOS ANGELES, CITY OF - POWER PLANT #1	Uniform Usage						\$0.00
LOS ANGELES, CITY OF - POWER PLANT #2	Uniform Usage						\$0.00
LOS ANGELES-CITY, DEPT. OF WATER & POWER	Variable Usage	BM	Hundred Cubic Feet		\$16.00	\$7.69	\$61.50
LYNWOOD PARK MUTUAL WATER CO.	Uniform Usage	M	Hundred Cubic Feet			\$2.80	\$22.40
LYNWOOD-CITY, WATER DEPT.	Uniform Usage	BM	Hundred Cubic Feet	\$18.84	1	\$4.23	\$33.84
MANHATTAN BEACH-CITY, WATER DEPT.	Uniform Usage	BM	Hundred Cubic Feet	\$40.46	1	\$4.28	\$34.24
MAYWOOD MUTUAL WATER CO. #1	Uniform Usage	BM	Hundred Cubic Feet	\$46.35		\$3.30	\$26.40
MAYWOOD MUTUAL WATER CO. #2	Flat Rate	BM	Hundred Cubic Feet	\$20.00	1	\$2.78	\$22.24
MAYWOOD MUTUAL WATER CO. #3	Variable Usage	BM	Hundred Cubic Feet	\$2.75	2.75	\$2.75	\$22.00
METROPOLITAN WATER DIST. OF SO. CAL.	Variable Base						\$0.00
METTLER VALLEY MUTUAL	Variable Usage	BM	Hundred Cubic Feet	\$100.00		\$1.00	\$100.00
MITCHELL'S AVENUE E MOBILE HOME PARK	Variable Base						\$0.00
MONROVIA-CITY, WATER DEPT.	Flat Rate	M	Hundred Cubic Feet	\$37.12	0	\$2.20	\$17.60
MONTEBELLO LAND & WATER CO.	Uniform Usage	BM	Hundred Cubic Feet	\$36.35	20	\$2.91	\$23.28
MONTEBELLO-CITY, WATER DEPT.	Uniform Usage	BM	Hundred Cubic Feet	\$2,404.00	1266.49	\$3.35	\$26.78

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
MONTEREY PARK-CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$19.20	6	\$2.10	\$16.80
NORTH TRAILS MUTUAL WATER COMPANY	Uniform Usage	M	Hundred Cubic Feet	\$80.00	10	\$3.00	\$24.00
NORWALK - CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$62.27	4.47	\$4.34	\$34.72
OAK GROVE FAMILY PARK	Variable Base	M	Gallons				\$35.00
ORCHARD DALE WATER DISTRICT	Uniform Usage	BM	Hundred Cubic Feet	\$59.80		\$3.05	\$24.40
PALM RANCH IRRIGATION DIST.	Variable Base	BM	Thousand Gallons	\$93.48	1000	\$1.62	\$9.69
PALMDALE WATER DIST.	Variable Usage	M	Hundred Cubic Feet	\$49.79	10	\$1.03	\$58.03
PARADISE RANCH MHP	Allocation	M	Hundred Cubic Feet	\$16.14	1	\$2.86	\$22.84
PARAMOUNT - CITY, WATER DEPT.	Fixed Base	BM	Hundred Cubic Feet	\$19.21	10	\$1.92	\$15.36
PASADENA-CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$49.32	1	\$1.45	\$11.59
PETER PITCHES HONOR RANCHO DETN. CTR	Variable Base						\$0.00
PICO RIVERA - CITY, WATER DEPT.	Uniform Usage	BM	Hundred Cubic Feet	\$37.06	100	\$3.22	\$25.76
PICO WD	Variable Base	BM	Hundred Cubic Feet	\$30.58	7	\$1.30	\$10.40
POMONA - CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$1.95	13	\$1.95	\$15.60
QUARTZ HILL WATER DIST.	Variable Base	M	Hundred Cubic Feet				\$0.00
REESEDALE MUTUAL	Uniform Usage	BM	Gallons	\$80.00			\$80.00
RIVERS END TRAILER PARK	Uniform Usage						\$0.00
ROWLAND WATER DISTRICT	Uniform Usage	BM	Hundred Cubic Feet	\$85.16	16	\$2.96	\$23.68

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
RUBIO CANON LAND & WATER ASSOCIATION	Uniform Usage	M	Hundred Cubic Feet	\$28.50	12	\$3.00	\$24.00
SAN FERNANDO-CITY, WATER DEPT.	Uniform Usage	BM	Hundred Cubic Feet	\$40.12	1	\$2.10	\$16.80
SAN GABRIEL COUNTY WD	Uniform Usage	BM	Hundred Cubic Feet	\$43.80	30	\$2.04	\$16.32
SAN GABRIEL VALLEY WATER CO.-EL MONTE	Variable Base	M	Hundred Cubic Feet	\$24.09	5300	\$3.70	\$29.64
SAN GABRIEL VALLEY WATER CO.-MONTEBELLO	Variable Base	M	Hundred Cubic Feet	\$24.09	5300	\$3.70	\$29.64
SANTA CLARITA VALLEY W.A.-CASTAIC DIV.	Fixed Base	M	Hundred Cubic Feet	\$16.14	100	\$2.85	\$22.83
SANTA CLARITA VALLEY W.A.-IMPORTED DIVIS	Variable Base						\$0.00
SANTA CLARITA VALLEY W.A.-NEWHALL DIV.	Variable Base	M	Hundred Cubic Feet	\$16.14	100	\$2.85	\$22.83
SANTA CLARITA VALLEY W.A.-PINETREE DIV.	Variable Base	M	Hundred Cubic Feet	\$16.14	100	\$2.85	\$22.83
SANTA CLARITA VALLEY W.A.-SANTA CLARITA	Variable Base	M	Hundred Cubic Feet	\$30.28	100	\$1.99	\$15.92
SANTA CLARITA VALLEY W.A.-TESORO DIV.	Variable Base	M	Hundred Cubic Feet	\$16.14	100	\$2.85	\$22.83
SANTA CLARITA VALLEY W.A.-VALENCIA DIVIS	Uniform Usage	M	Hundred Cubic Feet	\$25.22	100	\$1.84	\$14.71
SANTA FE SPRINGS - CITY, WATER DEPT.	Variable Usage	BM	Hundred Cubic Feet	\$41.94	9	\$2.56	\$20.48
SANTA MONICA-CITY, WATER DIVISION	Variable Base	BM	Hundred Cubic Feet	\$11.11	11	\$3.78	\$30.24
SATIVA WATER SYSTEM	Fixed Base	M	Not Applicable				\$67.84

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
SHADOW ACRES MUTUAL WATER COMPANY	Variable Base	BM	Thousand Gallons	\$55.00	30	\$1.83	\$10.95
SHERWOOD MOBILE HOME PARK	Variable Base						\$0.00
SIERRA MADRE-CITY, WATER DEPT.	Variable Base	M	Hundred Cubic Feet	\$42.58	14	\$2.89	\$23.12
SIGNAL HILL - CITY, WATER DEPT.	Variable Base	M	Hundred Cubic Feet		1	\$2.94	\$23.52
SLEEPY VALLEY WATER COMPANY	Variable Base	BM	Hundred Cubic Feet	\$100.00	100	\$80.00	\$100.00
SO. CAL. EDISON CO.-SANTA CATALINA	Variable Base	M	Thousand Gallons	\$43.21	2	\$14.93	\$89.34
SOUTH GATE-CITY, WATER DEPT.	Variable Base	M	Hundred Cubic Feet	\$26.04	4	\$5.98	\$47.84
SOUTH MONTEBELLO IRRIGATION DIST.	Variable Base	M	Thousand Gallons	\$2.03	18700	\$2.85	\$17.05
SPV WATER COMPANY	Fixed Base	M	Hundred Cubic Feet	\$135.00	20	\$4.75	\$38.00
STERLING MUTUAL WATER COMPANY	Variable Base	Q	Not Applicable				\$55.00
SUBURBAN WATER SYSTEMS-COVINA KNOLLS	Variable Usage	M	Hundred Cubic Feet	\$20.82	20	\$3.30	\$26.42
SUBURBAN WATER SYSTEMS-GLENDORA	Flat Rate	M	Hundred Cubic Feet	\$20.82	20	\$3.17	\$25.39
SUBURBAN WATER SYSTEMS-LA MIRADA	Uniform Usage	M	Hundred Cubic Feet	\$20.82	20	\$3.07	\$24.54
SUBURBAN WATER SYSTEMS-SAN JOSE	Variable Base	M	Hundred Cubic Feet	\$20.82	20	\$3.17	\$25.39
SUBURBAN WATER SYSTEMS-WHITTIER	Variable Base	M	Hundred Cubic Feet	\$20.82	20	\$3.07	\$24.54

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
SUNDALE MUTUAL WATER COMPANY A, B	Variable Base	M	Thousand Gallons	\$65.00	40000	\$1.20	\$0.00
SUNNY SLOPE WATER CO.	Variable Base	M	Hundred Cubic Feet	\$15.59	3.78	\$1.46	\$11.68
SUNNYSIDE FARMS MUTUAL WATER COMPANY	Uniform Usage	M	Thousand Gallons	\$36.25	25000	\$1.45	\$8.68
TERRA NOVA MOBILE HOME PARK	Other Rate	M	Gallons				\$40.00
THE OAKS	Variable Base						\$0.00
THE PAINTED TURTLE CAMP	Uniform Usage						\$0.00
THE RIVER COMMUNITY	Variable Base						\$0.00
THE VILLAGE MOBILE HOME PARK	Uniform Usage						\$0.00
THREE VALLEYS MWD	Variable Base						\$0.00
TIERRA BONITA MUTUAL WATER	Variable Base	M	Thousand Gallons	\$100.00	50		\$0.00
TORRANCE-CITY, WATER DEPT.	Variable Base	BM	Hundred Cubic Feet	\$14.20	7	\$3.24	\$25.92
TRACT 180 MUTUAL WATER CO.		BM	Hundred Cubic Feet		0	\$3.04	\$24.32
TRACT 349 MUTUAL WATER CO.		BM	Hundred Cubic Feet		3.43		\$0.00
VALENCIA HEIGHTS WATER CO.		M	Hundred Cubic Feet	\$41.21	38	\$1.97	\$15.76
VALHALLA WATER ASSOCIATION							\$0.00
VALLEY COUNTY WATER DIST.		BM	Hundred Cubic Feet	\$34.78	16	\$1.35	\$10.80
VALLEY VIEW MUTUAL WATER CO.		BM	Hundred Cubic Feet	\$20.00	10	\$1.32	\$10.56

Water System	Rate Structure	Billing Frequency M= Monthly BM = Bi-Monthly A=Annual	Unit Volume	Flat Rate	Tier 1 Top Volume (Unit volume shown at left)	Tier 1 Usage Cost (\$/Unit Volume)	Cost for 8 ccf per month
VALLEY WATER CO.		M	Hundred Cubic Feet	\$1.00	50	\$4.28	\$34.26
VERNON-CITY, WATER DEPT.		M	Hundred Cubic Feet	\$24.68	0	\$2.21	\$17.65
WALNUT PARK MUTUAL WATER CO.		BM	Hundred Cubic Feet	\$20.00		\$3.15	\$25.20
WALNUT VALLEY WATER DISTRICT		M	Hundred Cubic Feet	\$20.67	9	\$2.94	\$23.52
WEST VALLEY COUNTY WATER DISTRICT		M	Hundred Cubic Feet	\$30.77		\$1.72	\$13.76
WESTERN SKIES MOBILE HOME PARK							\$0.00
WESTSIDE PARK MUTUAL WATER		M	Thousand Gallons	\$17.70	10000	\$1.77	\$10.59
WHITE FENCE FARMS MWC NO. 1		M	Thousand Gallons	\$27.41	1000	\$1.41	\$8.44
WHITE FENCE FARMS MWC NO.3		M	Thousand Gallons		40000	\$2.67	\$15.98
WHITTIER-CITY, WATER DEPT.		BM	Hundred Cubic Feet	\$69.13	22	\$2.19	\$17.52
WILSONA GARDENS MUTUAL		M	Hundred Cubic Feet	\$33.00	7.5	\$4.40	\$35.20
WINTERHAVEN MOBILE ESTATES							\$0.00

### J.3 Target Tracking

**Tracking data source:** SWRCB EAR database:

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/eardata.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/eardata.html)

**Tracking frequency:** Annual.

**Method for compiling data:**

- Download annual EAR reporting data and the “Water System Inventory” data for the current year.
- Import the EAR reporting data and Water System Inventory to MS Access, and join the data sets.



- Extract all records for Los Angeles County into a separate Excel spreadsheet.
- Calculate the cost of 8 ccf of water calculated using 2020 SWRCB EAR data, as follows:
  - Only calculate cost for water systems that note “yes” under question 8.1001, ‘WRHasRate’.
  - Estimate cost for water for 8 ccf (6,000 gallons) using the answers to the following EAR questions: 8.1001 through 8.1076 that define cost tiers for single family residential water rates.
  - Note: Several systems filled in the form incorrectly and had to be checked against rates available on agency websites.
- Calculate the MHI for severely disadvantaged communities using American Community Survey data for Los Angeles County.
- Count the number of systems that exceed 2.5% of the MHI for severely disadvantaged communities.

**Resulting Metric:** Percent of water agencies where the cost of water for health and safety (6,000 gallons) does not exceed 2.5% median household income of severely disadvantaged communities.

**Endpoint:** No endpoint. Ongoing tracking.

## **K. Reduce color, taste, and odor drinking water quality issues by 50%**

Although maximum contaminant levels are seldom exceeded for primary regulated constituents, there are several areas that regularly experience color, odor, and taste issues. Customer satisfaction is a fundamental part of equitable water delivery and every resident in Los Angeles County should have access to high quality, clean water for drinking, bathing, and other household uses.

### **K.1 Baseline Calculation**

The baseline calculation for the number of systems with color, taste and odor drinking water quality issues is based on the number of complaints reported in the SWRCB EAR database. To normalize the data, the complaints per 1,000 connections are used. Based on data provided in the SWRCB EAR database, in 2020, there were 605 taste and odor complaints across 82 water systems with 1,863,856 connections (see **Table 24** for taste and odor complaints by system), and 1,461 color complaints across 94 water systems with 1,937,102 connections (see **Table 25** for color complaints by system). Converting to complaints per 1,000 connections results in a baseline of 0.32 taste and odor complaints per 1,000 connections and 0.75 color complaints per 1,000 connections. Note that these calculations only include systems with these complaints regardless of number of connections.

### **K.2 Target Calculation**

The target to reduce color, taste and odor drinking water quality issues by 50% is intended to reduce the number of complaints per 1,000 connections by half. Based on this, the target would reduce taste and odor complaints to 0.16 complaints per 1,000 connections and color complaints to 0.37 per 1,000 connections.

**Table 24: Drinking Water System Taste and Odor Complaints in 2020**

Water System	Number of 2020 Taste & Odor Complaints	Total Connections	Complaints per 1,000 Connections
AZUSA LIGHT AND WATER	3	23644	0.13
BELLFLOWER - SOMERSET MWC	2	7058	0.28
BELLFLOWER MUNICIPAL WATER SYSTEM	2	1826	1.10
BEVERLY HILLS-CITY, WATER DEPT.	4	10087	0.40
BURBANK-CITY, WATER DEPT.	12	25762	0.47
CAL/AM WATER COMPANY - BALDWIN HILLS	1	6198	0.16
CAL/AM WATER COMPANY - SAN MARINO	3	14080	0.21
CAL-AM WATER COMPANY - DUARTE	2	7279	0.27
CALIFORNIA WATER SERVICE CO. - DOMINGUEZ	6	32937	0.18
CALIFORNIA WATER SERVICE CO. - ELA	8	26115	0.31
CALIFORNIA WATER SERVICE CO. - HERM/REDO	4	26669	0.15
CALIFORNIA WATER SERVICE CO. - PALOS VER	4	24059	0.17
CERRITOS - CITY, WATER DEPT.	3	15743	0.19
CITY OF ALHAMBRA	1	17419	0.06
CITY OF BELL GARDENS	1	1658	0.60
CITY OF SOUTH PASADENA	3	6163	0.49
COMMERCE-CITY, WATER DEPT.	1	989	1.01
COMPTON-CITY, WATER DEPT.	5	14384	0.35
COVINA-CITY, WATER DEPT.	1	8504	0.12
CRESCENTA VALLEY CWD	4	8004	0.50
DOWNEY - CITY, WATER DEPT.	5	23631	0.21
EL MONTE-CITY, WATER DEPT.	1	3485	0.29
EL SEGUNDO-CITY, WATER DEPT.	2	4640	0.43
GLENDALE-CITY, WATER DEPT.	10	34318	0.29
GLENDORA-CITY, WATER DEPT.	1	13468	0.07
GREEN VALLEY CWD	1	499	2.00
GSWC - SOUTHWEST	9	51764	0.17
GSWC-SAN DIMAS	1	16031	0.06
HAWTHORNE-CITY WATER DEPT.	3	6219	0.48
INGLEWOOD- CITY, WATER DEPT.	9	15795	0.57
LA CANADA IRRIGATION DIST.	4	2939	1.36
LA VERNE, CITY WD	2	8794	0.23
LAKE ELIZABETH MUTUAL WATER CO.	3	724	4.14
LAS VIRGENES MWD	3	19955	0.15

Water System	Number of 2020 Taste & Odor Complaints	Total Connections	Complaints per 1,000 Connections
LIBERTY UTILITIES - BELLFLOWER-NORWALK	6	16599	0.36
LIBERTY UTILITIES - COMPTON	6	6978	0.86
LIBERTY UTILITIES - LYNWOOD	1	4480	0.22
LIBERTY UTILITIES - MESA CREST	1	708	1.41
LINCOLN AVENUE WATER CO.	1	4476	0.22
LOMITA-CITY, WATER DEPT.	10	4384	2.28
LONG BEACH-CITY, WATER DEPT.	43	88503	0.49
LOS ANGELES CWWD 29 & 80-MALIBU	2	7263	0.28
LOS ANGELES CWWD 40,REG 4 & 34-LANCASTER	15	50885	0.29
LOS ANGELES-CITY, DEPT. OF WATER & POWER	199	725246	0.27
LYNWOOD-CITY, WATER DEPT.	1	9167	0.11
MANHATTAN BEACH-CITY, WATER DEPT.	3	13446	0.22
MAYWOOD MUTUAL WATER CO. #3	2	2014	0.99
MONTEBELLO LAND & WATER CO.	4	3971	1.01
MONTEREY PARK-CITY, WATER DEPT.	5	13631	0.37
NORTH TRAILS MUTUAL WATER COMPANY	1	49	20.41
NORWALK - CITY, WATER DEPT.	11	5320	2.07
ORCHARD DALE WATER DISTRICT	1	4311	0.23
PALM RANCH IRRIGATION DIST.	1	1692	0.59
PALMDALE WATER DIST.	4	26784	0.15
PARAMOUNT - CITY, WATER DEPT.	14	7347	1.91
PASADENA-CITY, WATER DEPT.	20	36448	0.55
POMONA - CITY, WATER DEPT.	5	30041	0.17
QUARTZ HILL WATER DIST.	1	5768	0.17
ROWLAND WATER DISTRICT	4	13202	0.30
SAN GABRIEL COUNTY WD	2	9264	0.22
SAN GABRIEL VALLEY WATER CO.-EL MONTE	7	46346	0.15
SANTA CLARITA VALLEY W.A.-CASTAIC DIV.	2	1909	1.05
SANTA CLARITA VALLEY W.A.-NEWHALL DIV.	3	3780	0.79
SANTA CLARITA VALLEY W.A.-SANTA CLARITA	10	31754	0.31

Water System	Number of 2020 Taste & Odor Complaints	Total Connections	Complaints per 1,000 Connections
SANTA CLARITA VALLEY W.A.-VALENCIA DIVIS	9	30184	0.30
SANTA MONICA-CITY, WATER DIVISION	6	16966	0.35
SATIVA-L.A. CWD	3	1643	1.83
SIGNAL HILL - CITY, WATER DEPT.	3	3052	0.98
SOUTH GATE-CITY, WATER DEPT.	1	14425	0.07
SOUTH MONTEBELLO IRRIGATION DIST.	2	2374	0.84
SUBURBAN WATER SYSTEMS-LA MIRADA	12	13621	0.88
SUBURBAN WATER SYSTEMS-SAN JOSE	13	40470	0.32
SUBURBAN WATER SYSTEMS-WHITTIER	6	19842	0.30
SUNNY SLOPE WATER CO.	1	6325	0.16
TRACT 180 MUTUAL WATER CO.	1	1184	0.84
TRACT 349 MUTUAL WATER CO.	8	919	8.71
VALENCIA HEIGHTS WATER CO.	2	1677	1.19
VALLEY COUNTY WATER DIST.	3	12462	0.24
VALLEY WATER CO.	3	3599	0.83
WALNUT VALLEY WATER DISTRICT	16	27100	0.59
WHITTIER-CITY, WATER DEPT.	2	11370	0.18
WILSONA GARDENS MUTUAL	5	37	135.14

**Table 25: Drinking Water System Color Complaints in 2020**

Water System	Number of 2020 Color Complaints	Total Connections	Complaints per 1,000 Connections
AZUSA LIGHT AND WATER	1	23644	0.04
BEVERLY HILLS-CITY, WATER DEPT.	5	10087	0.50
BURBANK-CITY, WATER DEPT.	8	25762	0.31
CAL/AM WATER COMPANY - BALDWIN HILLS	16	6198	2.58
CAL/AM WATER COMPANY - SAN MARINO	24	14080	1.70
CAL-AM WATER COMPANY - DUARTE	14	7279	1.92
CALIFORNIA WATER SERVICE CO. - DOMINGUEZ	10	32937	0.30
CALIFORNIA WATER SERVICE CO. - ELA	22	26115	0.84
CALIFORNIA WATER SERVICE CO. - HERM/REDO	10	26669	0.37
CALIFORNIA WATER SERVICE CO. - PALOS VER	14	24059	0.58
CERRITOS - CITY, WATER DEPT.	76	15743	4.83
CITY OF ALHAMBRA	6	17419	0.34
CITY OF ARCADIA	4	13545	0.30
CITY OF BELL GARDENS	3	1658	1.81
CITY OF SOUTH PASADENA	6	6163	0.97
COMMERCE-CITY, WATER DEPT.	1	989	1.01
COMPTON-CITY, WATER DEPT.	41	14384	2.85
CRESCENTA VALLEY CWD	17	8004	2.12
DOWNEY - CITY, WATER DEPT.	4	23631	0.17
EL SEGUNDO-CITY, WATER DEPT.	4	4640	0.86
GLENDALE-CITY, WATER DEPT.	3	34318	0.09
GLENDORA-CITY, WATER DEPT.	13	13468	0.97
GSWC - ARTESIA	26	10750	2.42
GSWC - BELL, BELL GARDENS	1	7375	0.14
GSWC - CLAREMONT	3	11085	0.27
GSWC - NORWALK	1	9361	0.11
GSWC - SOUTHWEST	29	51764	0.56
GSWC-SAN DIMAS	1	16031	0.06
HAWTHORNE-CITY WATER DEPT.	1	6219	0.16
HUNTINGTON PARK-CITY, WATER DEPT.	4	5572	0.72
KINNELOA IRRIGATION DIST.	1	588	1.70
LA HABRA HEIGHTS CWD	1	1988	0.50
LAKE ELIZABETH MUTUAL WATER CO.	2	724	2.76
LAKEWOOD - CITY, WATER DEPT.	9	20041	0.45

Water System	Number of 2020 Color Complaints	Total Connections	Complaints per 1,000 Connections
LAS VIRGENES MWD	5	19955	0.25
LIBERTY UTILITIES - BELLFLOWER-NORWALK	4	16599	0.24
LIBERTY UTILITIES - COMPTON	60	6978	8.60
LIBERTY UTILITIES - LYNWOOD	6	4480	1.34
LIBERTY UTILITIES - MESA CREST	3	708	4.24
LINCOLN AVENUE WATER CO.	7	4476	1.56
LITTLEROCK CREEK IRRIGATION DIST.	1	1294	0.77
LONG BEACH-CITY, WATER DEPT.	25	88503	0.28
LOS ANGELES CWWD 29 & 80-MALIBU	1	7263	0.14
LOS ANGELES CWWD 36-VAL VERDE	1	1356	0.74
LOS ANGELES CWWD 40, R 24,27,33-PEARLSM	1	2831	0.35
LOS ANGELES CWWD 40, REG. 38-LAKE LA	1	3594	0.28
LOS ANGELES CWWD 40,REG 4 & 34-LANCASTER	30	50885	0.59
LOS ANGELES-CITY, DEPT. OF WATER & POWER	187	725246	0.26
LYNWOOD-CITY, WATER DEPT.	26	9167	2.84
MANHATTAN BEACH-CITY, WATER DEPT.	5	13446	0.37
MAYWOOD MUTUAL WATER CO. #3	75	2014	37.24
METTLER VALLEY MUTUAL	1	98	10.20
MONROVIA-CITY, WATER DEPT.	1	10245	0.10
MONTEBELLO LAND & WATER CO.	12	3971	3.02
MONTEREY PARK-CITY, WATER DEPT.	12	13631	0.88
NORWALK - CITY, WATER DEPT.	21	5320	3.95
ORCHARD DALE WATER DISTRICT	1	4311	0.23
PALM RANCH IRRIGATION DIST.	3	1692	1.77
PALMDALE WATER DIST.	4	26784	0.15
PARAMOUNT - CITY, WATER DEPT.	19	7347	2.59
PASADENA-CITY, WATER DEPT.	66	36448	1.81
PICO RIVERA - CITY, WATER DEPT.	15	9433	1.59
PICO WD	7	5490	1.28
POMONA - CITY, WATER DEPT.	20	30041	0.67
ROWLAND WATER DISTRICT	2	13202	0.15
RUBIO CANON LAND & WATER ASSOCIATION	7	3128	2.24
SAN FERNANDO-CITY, WATER DEPT.	1	5183	0.19

Water System	Number of 2020 Color Complaints	Total Connections	Complaints per 1,000 Connections
SAN GABRIEL COUNTY WD	6	9264	0.65
SAN GABRIEL VALLEY WATER CO.- EL MONTE	7	46346	0.15
SAN GABRIEL VALLEY WATER CO.- MONTEBELLO	1	1581	0.63
SANTA CLARITA VALLEY W.A.- CASTAIC DIV.	4	1909	2.10
SANTA CLARITA VALLEY W.A.- NEWHALL DIV.	2	3780	0.53
SANTA CLARITA VALLEY W.A.- PINETREE DIV.	1	2756	0.36
SANTA CLARITA VALLEY W.A.- SANTA CLARITA	9	31754	0.28
SANTA CLARITA VALLEY W.A.- VALENCIA DIVIS	5	30184	0.17
SANTA MONICA-CITY, WATER DIVISION	10	16966	0.59
SATIVA-L.A. CWD	28	1643	17.04
SIERRA MADRE-CITY, WATER DEPT.	2	3804	0.53
SIGNAL HILL - CITY, WATER DEPT.	1	3052	0.33
SO. CAL. EDISON CO.-SANTA CATALINA	1	1942	0.51
SOUTH GATE-CITY, WATER DEPT.	148	14425	10.26
SOUTH MONTEBELLO IRRIGATION DIST.	20	2374	8.42
SUBURBAN WATER SYSTEMS- GLENORA	2	1558	1.28
SUBURBAN WATER SYSTEMS-LA MIRADA	39	13621	2.86
SUBURBAN WATER SYSTEMS-SAN JOSE	11	40470	0.27
SUBURBAN WATER SYSTEMS- WHITTIER	29	19842	1.46
SUNNY SLOPE WATER CO.	2	6325	0.32
TORRANCE-CITY, WATER DEPT.	6	26226	0.23
TRACT 180 MUTUAL WATER CO.	1	1184	0.84
TRACT 349 MUTUAL WATER CO.	23	919	25.03
VALLEY COUNTY WATER DIST.	47	12462	3.77
VERNON-CITY, WATER DEPT.	3	1104	2.72
WALNUT PARK MUTUAL WATER CO.	4	2832	1.41
WHITTIER-CITY, WATER DEPT.	38	11370	3.34

### K.3 Target Tracking

**Tracking data source:** SWRCB EAR data:

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/ear.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/ear.html)

**Tracking frequency:** Annual.

**Method for compiling data:** Manual.

- Estimate the count of customer complaints per 1,000 connections:
  - Download annual EAR reporting data and the “Water System Inventory” data for the current year.
  - Import the EAR reporting data and Water System Inventory to MS Access, and join the data sets.
  - Extract all records for Los Angeles County into a separate Excel spreadsheet.
  - Total the taste/odor complaints (Question 13.1) and divide by the number of connections for only those systems with complaints. Sum the connections (Question 4.1) with taste/odor complaints (Question 13.1) and color complaints (Question 13.2), and sum the number of connections for each question for only districts with complaints.
  - Calculate the number of taste/odor complaints per connection and the number of color complaints per connection.
- Calculate the percent reduction in complaints by comparing the taste/odor complaints per 1,000 connections to the baseline of 0.32 complaints per 1,000 connections and the color complaints per 1,000 connections to the baseline of 0.75 complaints per 1,000 connections.

**Resulting Metric:** Percent reduction of complaints.

**Endpoint:** Reached when the number of taste/odor and color complaints per 1,000 connections are reduced by 50%.

### L. Maximize ability to meeting health and safety needs following an emergency by confirming 100% of small community water systems have access to alternative sources of supply

Many smaller, at-risk systems have only one source of supply and have no real options if that source becomes impaired or is interrupted during an emergency. For these systems an intertie or connection to alternative sources of supply is essential.



## L.1 Baseline Calculation

The baseline calculation to estimate the number of small community water systems<sup>1</sup> that have access to alternative sources of supply uses the same data used to estimate the baseline calculation for the target to maintain access to six months of emergency supply described in Section 2.4. Those small community water systems that meet one of the following criteria are assumed to have access to alternative sources of supply:

- 1) Supplier plans to implement or has implemented interconnections with other utilities
- 2) Supplier plans to implement or has implemented local supplemental water supply, enhanced treatment or increased storage capacity

Based on SWRCB EAR data, 53 out of 84 small community water systems (**Table 12**) did not meet the above criteria or did not provide an answer to relevant the EAR questions, meaning 31 systems (equivalent to 37%) have access to alternative sources of supply.

## L.2 Target Calculation

The target to confirm that 100% of small community water systems have access to alternative sources of supply assumes that 100% of the 84 small community water systems that have reported to the SWRCB EAR system within Los Angeles County will have access to alternative supply sources via either an interconnection or supplemental local supply projects.

## L.3 Target Tracking

**Tracking data source:** SWRCB EAR data:

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/eardata.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/eardata.html)

**Tracking frequency:** Annual.

**Method for compiling data:** Manual.

- Estimate the percent that report having either an emergency interconnection or access to more than one supply source:
  - Download annual EAR reporting data and the “Water System Inventory” data for the current year.
  - Import the EAR reporting data and Water System Inventory to MS Access, and join the data sets.
  - Extract all records for Los Angeles County into a separate excel spreadsheet.

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<sup>1</sup> “Small community water system” is a combination of the SWRCB’s definitions of “small water system” and “community water system”, where a small water system is defined as a system that serves no more than 1,000 service connections or a yearlong population of no more than 3,300 persons, and a community water system is a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents.

- Identify small community water systems with only one water source:
  - Extract data for questions related to water sources (in 2020, these are #s 5.3, 5.34, 5.38, 5.42, 5.46).
  - Count the number of source types by and create a column with this count.
- Identify small community water systems with no emergency interconnection:
  - Extract data for the question related to “Emergency Interconnections” (in 2020, this is question #5.5).
  - Create a column for “Emergency Interconnections”.
- Write a formula that identifies the small community water systems with an interconnection or more than one source of supply.
- Calculate the percent of small community water systems that have more than one water source or an interconnection.

**Resulting metrics:** Percent of small systems that have an interconnection or access to more than one source of supply.

**Endpoint:** Reached when 100% of small systems have either one interconnection or one supply source.

## M. Reduce fire-contributing species in riparian areas by 2,900 acres

Wildfire frequency, intensity, and rate of spread have increased within the wildland-urban interfaces in Los Angeles County. Reducing wildfire ignition sources and fire-contributing species that exacerbate wildfire impact are key areas to target for enhanced resilience.

### M.1 Baseline Calculation

The baseline calculation estimates the area of fire-contributing species in riparian areas by using the acres of *Arundo donax* (giant reed) found in riparian areas as a representative species. While there are a number of other fire-contributing invasive species within the County’s riparian areas, *Arundo donax* is the most widely tracked. Removal often involves all invasive plant species in an area being treated. The area of *Arundo donax* within the major watersheds within Los Angeles County has been mapped by several agencies to develop eradication plans as summarized in **Table 26**. Based on this information, the baseline acres of fire-contributing species in riparian areas targeted for removal is 2,900 acres.

**Table 26: Acres of *Arundo donax* Coverage in Riparian Areas**

Watershed	<i>Arundo donax</i> area coverage (acres)
Upper Santa Clara River (Stillwater Sciences, 2019)	2,190 acres
Upper Los Angeles River (Stillwater Sciences, 2018)	180 acres
Rio Hondo/Upper San Gabriel River (Southern California Wetlands Recovery Project, nd)	80 acres
Angeles National Forest (USDA Forest Service, nd)	300 acres
Malibu Creek (Coastal Conservancy, 2008)	135 acres
<b>Total <i>Arundo donax</i> coverage in riparian areas</b>	<b>2,900 acres</b>

## M.2 Target Calculation

The target to reduce fire-contributing species in riparian areas by 2,900 acres assumes that 100% of the riparian area where fire-contributing species are located will be restored and maintained. Given the wide variety of removal, restoration, and maintenance methods, specific methods for achieving this target are not described here.

## M.3 Target Tracking

**Tracking data source:** Surveys to agencies and non-profit organizations that conduct invasive species removal.

**Tracking frequency:** Annual.

**Method for compiling data:** Semi-automatic.

- Prepare a survey asking for (1) the acreage of fire-contributing species removed in riparian areas and (2) confirm previously restored areas have been maintained.
- Compile results of the survey to summarize the acreage of fire-contributing species removed from riparian areas.

**Resulting Metric:** Acres of fire-contributing species in riparian areas removed and acres of area maintained.

**Endpoint:** Reached when 2,900 acres of fire-contributing species in riparian areas has been removed and maintained through 2045.

## N. Reduce human-caused ignitions by 50%

The target is to reduce human-caused ignitions by 50% as these have been identified as preventable. This target focuses on human-caused ignitions in wildlands, rural, and the wildland-urban interface in transportation and utility corridors.

### N.1 Baseline Calculation

The baseline for this target identifies the average number of wildfires per year that have occurred over the past ten years caused by anthropogenic ignitions. Since geographic information system (GIS) data of ignition points was not available, data on fires within Los Angeles County from the California Department of Forestry and Fire Protection Services was used. Wildfires that were caused by either powerlines or vehicles are assumed to represent wildfires that were human caused. From 2011 to 2020, 31 wildfires occurred with causes attributed to power lines or vehicles, which results in a baseline of 3.1 fires per year ignited in transportation and utility corridors.

### N.2 Target Calculation

The target to reduce human-caused ignitions by 50% would result in the number of fires being reduced to 1.6 fires per year over a 10-year rolling average.

### N.3 Target Tracking

**Tracking data source:** CalFire Fire Perimeter shapefile for the current year:  
<https://frap.fire.ca.gov/mapping/gis-data/>

**Tracking frequency:** Annual.

**Method for compiling data:** Manual.

- In GIS software, add the CalFire shapefile to a map.
- Add a shapefile of Los Angeles County.
- Select by location to select all fires that intersect with the Los Angeles County polygon.
- Either create a new shapefile or layer based on the selection.
- From the new shapefile or layer, select fires that have an alarm date of the tracking year and causes coded as 10 (Vehicle) or 11 (Power Line).<sup>1</sup>
- Calculate the percent reduction in ignitions within municipal corridors as compared to the baseline.

**Resulting Metric:** Count of fire ignitions in wildlands, rural, and the wildland-urban interface.

**Endpoint:** Reached when human-caused ignitions in transportation and utility corridors are reduced by 50%.

## **O. Maintain a minimum of 75% average available capacity in debris basins and 80% average capacity in reservoirs**

Post-wildfire impacts of erosion and debris flows on watershed lands can create flood management emergencies as well as long-term reduction in debris basin functionality and reservoir storage and groundwater recharge potential. The ability to effectively manage existing flood control debris basins and reservoirs to their highest potential is critical to protecting the environment and communities as well as our ability to maximize stormwater capture during precipitation events.

### **O.1 Baseline Calculation**

The baseline calculation for the percent of available capacity in debris basins and reservoirs taken up by sediment is estimated based on reporting provided in the Los Angeles County Flood Control District's (LACFCD) Sediment Management Strategic Plan and United States Army Corps of Engineers (USACE) Reservoir Regulation Section data. **Table 27** provides a summary of reservoirs and dams used for flood control within Los Angeles County, their capacity, and percent of capacity taken up by sediment (if available). On average, the percent of capacity taken up by sediment in LACFCD reservoirs is approximately 14%, meaning 86% of reservoir capacity is available.

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<sup>1</sup> Metadata defining the numeric cause codes is available at <https://frap.fire.ca.gov/frap-projects/fire-perimeters/>.

**Table 27: Reservoir and Dam Capacity**

Reservoir or Dam Name	Owner	Original Capacity (MCY)	Modified Total Capacity (MCY)	Current Capacity (MCY)	Capacity Taken Up by Sediment (%)
Big Dalton	LACFCD	1.70	1.74	1.73	1%
Big Tujunga	LACFCD	10.07	9.74	7.89	19%
Cogswell	LACFCD	19.84	18.59	17.17	8%
Devil's Gate	LACFCD	7.42	3.00	3.02	-2%
Eaton	LACFCD	1.54	1.46	1.05	28%
Live Oak	LACFCD	0.40	0.40	0.38	6%
Morris	LACFCD	52.11	36.36	36.15	1%
Pacoima	LACFCD	9.78	8.00	4.23	47%
Puddingstone	LACFCD	28.94	28.94	26.39	9%
Puddingstone Diversion	LACFCD	0.24	0.34	0.33	4%
San Dimas	LACFCD	2.41	2.41	2.42	0%
San Gabriel	LACFCD	86.06	86.06	71.06	17%
Santa Anita	LACFCD	2.22	1.33	0.73	45%
Thompson	LACFCD	1.04	0.93	0.83	10%
Brea Dam	USACE	1.70	1.74	1.73	1%
Fullerton	USACE	10.07	9.74	8.11	17%
Hansen	USACE	19.84	18.59	17.17	8%
Lopez	USACE	7.42	3.00	3.06	-2%
Santa Fe	USACE	1.54	1.46	1.05	28%
Sepulveda	USACE	0.40	0.40	0.38	6%
Whittier Narrows	USACE	52.11	36.36	36.15	1%

Data sources: LACFCD, 2022; USACE, no date.

## O.2 Target Calculation

The target to maintain a minimum of 95% of average available capacity of all debris basins in watersheds burned within the last five years and maintain a minimum of 75% of available capacity in all debris basins in watersheds not recently burned reflects the sediment management policies described in the LACFD's Sediment Management Strategic Plan (LACFCD, 2012). The target to maintain a minimum of 80% of average available capacity in reservoirs is based on the current available capacity in reservoirs, as described in the baseline calculation.

## O.3 Target Tracking

**Tracking data source:** Los Angeles County Flood Control District reporting of debris basin and reservoir capacity.

**Tracking frequency:** Annual (if available).

**Method for compiling data:** Manual.

- Calculate the average of available percent capacity in debris basins.
- Calculate the average of available percent capacity in reservoirs.

**Resulting Metric:** Percent of capacity available in debris basins and reservoirs.

**Endpoint:** None. Tracking will be ongoing.

## **P. Confirm 100% of water management agencies within the wildland-urban interface are implementing a wildfire resilience or mitigation plan**

Wildfires create direct impacts to local water resources through destruction or impairment of water supply and wastewater infrastructure, as well as indirect effects on surface water quality and watershed functionality. Water management agencies within wildland-urban interfaces need to be prepared for wildfire events and have plans in place for them to mitigate wildfire damage, respond during wildfire events, and minimize post-wildfire impacts.

### **P.1 Baseline Calculation**

The baseline calculation for the percent of water management agencies within the wildland-urban interface that are implementing a wildfire resilience or mitigation plan is estimated based on a combination of mapping data and SWRCB EAR data. First, the water management agencies within the wildland-urban interface were identified based on whether the service area of the agency overlaps with the wildland-urban interface mapped by the California Department of Forestry and Fire Protection Services. Those agencies were then cross-checked against the SWRCB EAR data question regarding whether an agency has implemented fire prevention measures and whether an agency has implemented alternative or backup energy for water sources, pumping stations and water treatment plants. These EAR questions were used as a proxy for the implementation of a wildfire resilience or mitigation plan as data regarding these types of plans is not readily available.

In total, 111 agencies overlap the wildland-urban interface. Of these, 69 agencies (62%) have completed or are in the process of completing fire prevention measures, and 101 agencies (91%) have implemented alternative or backup energy for some or all water sources, pumping stations and treatment plants (where applicable). **Table 28** lists these agencies.

### **P.2 Target Calculation**

The target for 100% of water management agencies within the wildland-urban interface to implement a wildfire resilience or mitigation plan assumes that all 111 agencies identified as overlapping the wildland-urban interface will have implemented a wildfire resilience or mitigation plan as represented by the implementation of wildfire mitigation and backup energy sources.

### **P.3 Target Tracking**

**Tracking data source:** SWRCB EAR data:

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/eardata.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/eardata.html)

**Tracking frequency:** Annual.

**Method for compiling data:** Manual.

- Identify water systems within the wildland-urban interface:
  - Load shapefiles of water systems (ensure the shapefile has state water IDs) and wildland-urban interface.
  - Select the water systems with service areas that overlap the wildland-urban interface. Add "SO. CAL. EDISON CO.-SANTA CATALINA" separately as the island was not included in the shapefile but is considered to be within a wildland-urban interface.
  - Export the table of systems.
- Identify water systems that have implemented fire prevention measures:
  - Download annual EAR reporting data and the "Water System Inventory" data from the current year.
  - Import the EAR reporting data and Water System Inventory to MS Access, and join the data sets.
  - Import the list of systems that overlap the wildland-urban interface and join to the water system inventory, and run a query to extract EARS data for these systems and export to an excel spreadsheet.
  - Extract data for questions related to fire prevention measure implementation.
  - Calculate the percentage of systems that have not completed or selected "NA" to the question related to implementing fire prevention measures (question 18.86 in the 2020 dataset).

**Resulting Metric:** Percent of water management agencies within the wildland-urban interface that are implementing a wildfire resilience or mitigation plan.

**Endpoint:** Reached when 100% of water management agencies within the wildland-urban interface that are implementing a wildfire resilience or mitigation plan.

**Table 28: Water Systems Overlapping the Wildland-Urban Interface and Status of Fire Prevention Measures and Backup Energy Sources**

Water System Name	Fire Prevention Measures (EAR #18.86)	Backup Energy (EAR #18.87)	Backup Energy for Sources (EAR #16.1)	Backup Energy for Pumping Stations (EAR #16.11)	Backup Energy for Water Treatment (EAR #16.12)
ALPINE SPRINGS MOBILE HOME PARK		Completed	Some	All	N/A
AQUA J. MUTUAL WATER COMPANY	Will not Implement		None	None	None
AVERYDALE MWC	Plan to Implement		All	N/A	All
AZUSA LIGHT AND WATER	Plan to Implement				
BEVERLY HILLS-CITY, WATER DEPT.	In Progress	Will not Implement	None	None	N/A
BURBANK-CITY, WATER DEPT.	N/A	Plan to Implement	None	None	N/A
CAL/AM WATER COMPANY - BALDWIN HILLS	In Progress		None	None	N/A
CAL-AM WATER COMPANY - DUARTE	In Progress	Plan to Implement			
CALI LAKE RV RESORT			None	None	None
CALIF STATE POLYTECHNICAL UNIV - POMONA	Plan to Implement	Plan to Implement			
CALIFORNIA WATER SERVICE CO. - DOMINGUEZ	In Progress				
CALIFORNIA WATER SERVICE CO. - ELA	In Progress		All	All	N/A
CALIFORNIA WATER SERVICE CO. - HERM/REDO	In Progress		All	N/A	N/A
CALIFORNIA WATER SERVICE CO. - PALOS VER	In Progress	Completed	None	None	None
CALIFORNIA WATER SERVICE CO.-LANCASTER	In Progress	Plan to Implement			
CALIFORNIA WATER SERVICE CO-LAKE HUGHES	In Progress	Will not Implement	None	All	N/A



<b>Water System Name</b>	<b>Fire Prevention Measures (EAR #18.86)</b>	<b>Backup Energy (EAR #18.87)</b>	<b>Backup Energy for Sources (EAR #16.1)</b>	<b>Backup Energy for Pumping Stations (EAR #16.11)</b>	<b>Backup Energy for Water Treatment (EAR #16.12)</b>
CALIFORNIA WATER SERVICE CO-LEONA VALLEY	In Progress	N/A	None	None	None
CALIFORNIAN MOBILE HOME PARK	N/A		None	None	None
CASA DULCE ESTATES	Completed	Completed	None	None	None
CITY OF ARCADIA	In Progress		None	None	None
CITY OF INDUSTRY WATERWORKS SYSTEMS	N/A	Will not Implement	Some	Some	N/A
CITY OF SOUTH PASADENA	In Progress		All	N/A	All
COVINA-CITY, WATER DEPT.	Completed		None	None	None
CRESCENTA VALLEY CWD	Completed	Completed	None	None	N/A
EL DORADO MUTUAL WATER CO.	N/A		None	None	None
EL RANCHO MOBILE HOME PARK	N/A		None	None	N/A
EL SEGUNDO-CITY, WATER DEPT.	N/A		None	None	None
FIRE SUPPRESSION CAMP #19	In Progress	Will not Implement	All	All	All
GLENDALE-CITY, WATER DEPT.	N/A	N/A	None	None	None
GLENDORA-CITY, WATER DEPT.	N/A	In Progress	Some	N/A	N/A
GOLDEN SANDS MOBILE HOME PARK			None	None	N/A
GREEN VALLEY CWD	Completed	Plan to Implement	Some	Some	N/A
GSWC - CLAREMONT		In Progress			
GSWC - CULVER CITY			Some	Some	All
GSWC - SOUTHWEST		Completed	All	All	All
GSWC-SAN DIMAS		Will not Implement	Some	Some	N/A
KINNELOA IRRIGATION DIST.	Completed	Completed	All	All	N/A
LA CANADA IRRIGATION DIST.	Completed	In Progress	All	All	All

<b>Water System Name</b>	<b>Fire Prevention Measures (EAR #18.86)</b>	<b>Backup Energy (EAR #18.87)</b>	<b>Backup Energy for Sources (EAR #16.1)</b>	<b>Backup Energy for Pumping Stations (EAR #16.11)</b>	<b>Backup Energy for Water Treatment (EAR #16.12)</b>
LA HABRA HEIGHTS CWD	N/A	N/A	None	Some	Some
LA VERNE, CITY WD	Completed	In Progress	Some	Some	Some
LAKE ELIZABETH MUTUAL WATER CO.	N/A	In Progress			
LAND PROJECTS MUTUAL WATER CO.	In Progress	N/A	None	Some	N/A
LANDALE MUTUAL WATER COMPANY	N/A	Completed	Some	Some	All
LAS FLORES WATER CO.	Completed	Plan to Implement	None	Some	N/A
LAS VIRGENES MWD	In Progress	Completed	N/A	Some	N/A
LEISURE LAKE MOBILE ESTATES	In Progress	In Progress	Some	Some	Some
LIBERTY UTILITIES - MESA CREST	Plan to Implement	In Progress	Some	Some	All
LILY OF THE VALLEY MOBILE VILLAGE	In Progress	In Progress	Some	Some	Some
LINCOLN AVENUE WATER CO.	In Progress	In Progress	Some	Some	Some
LITTLEROCK CREEK IRRIGATION DIST.	Completed	In Progress	None	Some	N/A
LLANO DEL RIO WATER COMPANY			None	Some	None
LOMITA-CITY, WATER DEPT.	N/A	Plan to Implement	Some	Some	N/A
LOS ANGELES CWWD 21-KAGEL CANYON	Plan to Implement	N/A			
LOS ANGELES CWWD 36-VAL VERDE	Plan to Implement	N/A	Some	All	N/A
LOS ANGELES CWWD 37-ACTON	Will not Implement	Completed	All	Some	None
LOS ANGELES CWWD 40, R 24,27,33-PEARBLSM	Will not Implement	Completed	None	Some	None
LOS ANGELES CWWD 40, REG. 35-N.E. L.A.	Will not Implement	Completed	Some	Some	Some

Water System Name	Fire Prevention Measures (EAR #18.86)	Backup Energy (EAR #18.87)	Backup Energy for Sources (EAR #16.1)	Backup Energy for Pumping Stations (EAR #16.11)	Backup Energy for Water Treatment (EAR #16.12)
LOS ANGELES CWWD 40, REG. 38-LAKE LA	Will not Implement	Completed	None	Some	None
LOS ANGELES CWWD 40, REG. 39-ROCK CREEK	Will not Implement	In Progress	All	All	N/A
LOS ANGELES CWWD 40,REG 4 & 34-LANCASTER	Will not Implement	Plan to Implement	Some	Some	N/A
LOS ANGELES-CITY, DEPT. OF WATER & POWER	In Progress	In Progress	None	None	None
METTLER VALLEY MUTUAL	In Progress	Completed	All	All	All
MONROVIA-CITY, WATER DEPT.	Plan to Implement	Plan to Implement	None	Some	N/A
MONTEREY PARK-CITY, WATER DEPT.	N/A	Completed	Some	None	All
NORTH TRAILS MUTUAL WATER COMPANY	Completed		None	Some	None
OAK GROVE FAMILY PARK		Completed	None	None	None
PALM RANCH IRRIGATION DIST.	Completed	In Progress	Some	Some	Some
PALMDALE WATER DIST.	In Progress	In Progress	All	All	All
PARADISE RANCH MHP	Completed	Plan to Implement	None	All	All
PASADENA-CITY, WATER DEPT.	In Progress	Completed	None	Some	All
PETER PITCHESS HONOR RANCHO DETN. CTR	In Progress	In Progress	None	None	None
POMONA - CITY, WATER DEPT.	In Progress	Completed	Some	Some	N/A
QUARTZ HILL WATER DIST.		Will not Implement	None	Some	None
RESEDALE MUTUAL	Will not Implement	Completed	Some	Some	Some
ROWLAND WATER DISTRICT	N/A	Will not Implement	N/A	All	N/A
RUBIO CANON LAND & WATER ASSOCIATION	In Progress	In Progress	Some	Some	Some
SAN GABRIEL VALLEY WATER CO.-EL MONTE	In Progress	Completed	None	Some	None

Water System Name	Fire Prevention Measures (EAR #18.86)	Backup Energy (EAR #18.87)	Backup Energy for Sources (EAR #16.1)	Backup Energy for Pumping Stations (EAR #16.11)	Backup Energy for Water Treatment (EAR #16.12)
SANTA CLARITA VALLEY W.A.-CASTAIC DIV.	In Progress	Plan to Implement	All	All	All
SANTA CLARITA VALLEY W.A.-NEWHALL DIV.	In Progress	N/A	Some	Some	Some
SANTA CLARITA VALLEY W.A.-PINETREE DIV.	In Progress	Completed	Some	All	All
SANTA CLARITA VALLEY W.A.-SANTA CLARITA	In Progress	In Progress	Some	All	All
SANTA CLARITA VALLEY W.A.-TESORO DIV.	In Progress	Plan to Implement	Some	All	All
SANTA CLARITA VALLEY W.A.-VALENCIA DIVIS	In Progress		Some	Some	Some
SANTA MONICA-CITY, WATER DIVISION	Completed	In Progress	None	None	None
SHADOW ACRES MUTUAL WATER COMPANY	N/A	Completed	All	All	All
SHERWOOD MOBILE HOME PARK	N/A	Completed	All	All	N/A
SIERRA MADRE-CITY, WATER DEPT.	N/A	Plan to Implement	All	All	All
SIGNAL HILL - CITY, WATER DEPT.	N/A	Completed	None	Some	All
SLEEPY VALLEY WATER COMPANY	N/A	Completed	Some	Some	N/A
SO. CAL. EDISON CO.-SANTA CATALINA	In Progress	Plan to Implement	None	None	Some
SPV WATER COMPANY	In Progress	In Progress	None	None	None
SUBURBAN WATER SYSTEMS-COVINA KNOLLS	In Progress	N/A	None	Some	N/A
SUBURBAN WATER SYSTEMS-LA MIRADA	In Progress	Completed			
SUBURBAN WATER SYSTEMS-SAN JOSE	In Progress	Completed	Some	All	N/A
SUBURBAN WATER SYSTEMS-WHITTIER	In Progress	In Progress	N/A	Some	N/A
SUNDALE MUTUAL WATER COMPANY A, B	N/A	N/A	None	Some	N/A
SUNNYSIDE FARMS MUTUAL WATER COMPANY	N/A	Plan to Implement	None	Some	None
TERRA NOVA MOBILE HOME PARK	In Progress	In Progress	None	Some	None
THE RIVER COMMUNITY	Completed	In Progress	Some	Some	N/A

Water System Name	Fire Prevention Measures (EAR #18.86)	Backup Energy (EAR #18.87)	Backup Energy for Sources (EAR #16.1)	Backup Energy for Pumping Stations (EAR #16.11)	Backup Energy for Water Treatment (EAR #16.12)
THE VILLAGE MOBILE HOME PARK		Plan to Implement	Some	Some	All
TORRANCE-CITY, WATER DEPT.	Completed	Will not Implement	Some	Some	N/A
VALENCIA HEIGHTS WATER CO.	N/A	In Progress	Some	Some	Some
VALLEY COUNTY WATER DIST.	N/A	Completed	All	All	N/A
VALLEY WATER CO.	In Progress	In Progress	None	None	None
WALNUT VALLEY WATER DISTRICT	In Progress	Plan to Implement	None	None	None
WEST VALLEY COUNTY WATER DISTRICT	Completed	Completed	Some	Some	Some
WESTERN SKIES MOBILE HOME PARK		Completed	Some	Some	Some
WESTSIDE PARK MUTUAL WATER	N/A	Completed	Some	All	N/A
WHITE FENCE FARMS MWC NO. 1	N/A	N/A	None	Some	N/A
WHITE FENCE FARMS MWC NO.3	In Progress	Completed	Some	Some	Some
WHITTIER-CITY, WATER DEPT.	In Progress	In Progress	Some	Some	N/A
WILSONA GARDENS MUTUAL	Completed	Completed	All	All	N/A

## Targets Summary

A summary of the targets described in this appendix is provided in **Table 29**.

**Table 29: Target Summary**

Target	Baseline
<b>Regional Water Supply Reliability</b>	
Achieve 100% compliance with State Urban Water Use Objectives	Baseline to be established in 2024 following agency initial reporting.
Increase local supply sources by 580,000 AFY	10-year average of local supply production and recharge (2010-2019): 45% (740,000 AFY) locally derived sources
Meet 100% of water demands even in times of drought	14% of water agencies did not need to implement WSCPs higher than Level 1 for the drought period from 2014 to 2017
Maximize ability of all agencies to meet health and safety needs following an emergency by maintaining access to 6 months of emergency supply	Countywide storage is currently sufficient to meet 6 months of demand (0.9 MAF of groundwater stored as of 2020) 66% of systems have emergency interconnections to an alternate source of supply
<b>Groundwater Management and Quality</b>	
Optimize production of groundwater by maintaining at least 700,000 AFY baseline groundwater production	10-year average of production (2011-2020, rounded to the nearest 10,000): 700,000 AFY
Optimize production of groundwater by increasing production in areas overlying stranded groundwater by 18,000 AFY.	122 wells assumed to be offline due to quality issues. Assuming 300 AFY per well based on a conservative estimate of production capability, the lost volume is equal to 37,000 AFY of "stranded" groundwater.
Increase groundwater recharge and storage by enhancing regional facility recharge by 250,000 AFY	10-year average of centralized recharge (2011-2020): 330,000 AFY
Increase groundwater recharge and storage by increasing decentralized infiltration by 80,000 AFY	No baseline. Target to reflect new decentralized recharge projects.
<b>Small, At-Risk System Resilience and Drinking Water Equity</b>	
Reduce at-risk systems by 100%	64 systems have been identified as failing, at-risk, or potentially at-risk through the SWRCB SAFER program
100% of water agencies, including those in severely disadvantaged communities, have affordable cost of water to meet health and safety needs	6 systems exceed 2.5% of the SDAC MHI for 6,000 gallons
Reduce color, taste, and odor drinking water quality issues by 50%	2020 taste and odor complaints per 1,000 connections: 0.32  2020 color complaints per 1,000 connections: 0.75

Maximize ability of all agencies to meet health and safety needs following an emergency by confirming 100% of small community water system have access to alternative sources of supply	37% of small community water systems have access to alternative sources of supply (31 out of 84 small community water systems that provided reporting information to the SWRCB EAR system.)
<b>Watershed Sediment Management</b>	
Reduce fire-contributing species in riparian areas by 2,900 acres	2,900 acres targeted for removal.
Reduce human-caused ignitions by 50%	3.1 wildfires per year ignited in municipal corridor, based on a 10-year average.
Maintain a minimum of 75% average available capacity in debris basins and 80% average available capacity in reservoirs	Reservoirs average available capacity of 80%. Data not available to estimate available capacity in debris basins.
Confirm 100% of water management agencies within the wildland-urban interface are implementing a wildfire resilience or mitigation plan	62% (69 out of 111 systems) with sensitivity to wildfire have implemented or plan to implement fire prevention measures (i.e. brush management partnerships)  91% (101 out of 111 systems) with sensitivity to wildfire have or plan to implement an alternative or backup energy supply

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