



**CITY OF SANTA MONICA**

**WATER SHORTAGE  
RESPONSE PLAN**

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### **Section 1: Introduction**

The City of Santa Monica City Council adopts this Water Shortage Response Plan (WSRP) pursuant to Santa Monica Municipal Code (“SMMC”) section 7.16.030(c). The WSRP is intended as an action plan and is designed to reduce water demand during water shortages. The WSRP is based in part on the State of California Department of Water Resources *2007 Urban Drought Guidebook*. The Urban Water Management Planning Act (Section 10632 of the California Water Code) requires water shortage contingency planning as a component of the Urban Water Management Plan, which is updated every five years.

The WSRP establishes five stages of water shortage severity based on predicted or actual water supply reductions. Each stage establishes water use reductions through voluntary or mandatory measures. Triggers for implementing the WSRP may include such events as a state or local emergency; natural disaster; a localized event that critically impacts the water supply; drought or the City’s wholesale water agency imposing water allocation restrictions.

### **Section 2: City of Santa Monica Water Supply**

The City of Santa Monica is a retail water agency providing water service to all single-family and multi-family residential users, commercial and industrial users and City of Santa Monica landscape and fire protection uses. The City is also a founding member agency of the Metropolitan Water District of Southern California (MWD). The City uses local groundwater, local recycled water and imported water from MWD. As a wholesale agency, the MWD finances, constructs and operates pipelines and other facilities to transport state water and Colorado River water to contracted water purveyors such as the City of Santa Monica.

The City of Santa Monica currently produces 12% of its water supply from groundwater wells and imports 88% from MWD. Since 1996, groundwater well production has been affected by contamination by infiltration of the fuel additive MTBE which has forced the City to increase dependence upon imported MWD water until groundwater remediation efforts are complete and a new treatment plant is operational. Voluntary water conservation programs have been used in Santa Monica since 1980.

**Section 3: Past, Current and Future Water Demand**

**Table 1: Current and Planned Water Supplies – AF/Y<sup>1</sup>**

Water Supply Sources	2005	2010	2015	2020	2025	2030
Imported Water Provider: Metropolitan Water District (MWD)	13196	12636	4006	4006	4006	4006
City of Santa Monica produced groundwater:	1406	1406	10036	10036	10036	10036
City of Santa Monica surface diversions:	0	0	0	0	0	0
Transfers in or out	0	0	0	0	0	0
Exchanges in or out	0	0	0	0	0	0
Recycled Water (current and projected production)	336	560	560	560	560	560
Desalination	0	0	0	0	0	0
Other	0	0	0	0	0	0

**Section 4: Objectives and Priorities of Water Use**

A. The objectives of the WSRP are to:

- (1) Prioritize essential uses of available water;
- (2) Avoid irretrievable loss of natural resources;
- (3) Manage current water supplies to meet ongoing and future needs;
- (4) Maximize local municipal water supplies;
- (5) Eliminate water waste city-wide;
- (6) Create equitable demand reduction targets; and
- (7) Minimize adverse financial effects.

B. The following priorities for use of available water are listed in order from highest to lowest priority:

- (1) Health and Safety including: consumption and sanitation for all water users; fire suppression; hospitals, emergency care, nursing and other convalescent homes and other similar health care facilities; shelters and water treatment;
- (2) Institutions, including government facilities and schools such as public safety facilities, essential government operations, public pools and recreation areas;
- (3) All non-essential commercial and residential water uses;
- (4) Landscaped areas of significance, including parks, cemeteries, open spaces, government-facility landscaped areas and green belt areas;
- (5) New water demand.

<sup>1</sup> City of Santa Monica Urban Water Management Plan 2005

**Section 5: Triggers for Implementation**

The City Council may declare by resolution that an Advisory or Stage 1, 2, 3 or 4 Water Supply Shortage exists and that the actions outlined in this WSRP are necessary. The type of event which may prompt the City Council to declare an Advisory or Stage 1, 2, 3, 4 Water Supply Shortage may include, among other factors, drought, state or local emergency, a natural disaster that critically impacts the water treatment or water distribution system, a localized event that critically impacts the water supply, water quality, water treatment or water distribution system, the City’s wholesale water agency requests extraordinary water conservation efforts in order to avoid mandatory water allocations, the City’s wholesale water agency implements a water allocation.

**Section 6: Stages of Water Shortage Supply**

The WSRP establishes five stages of severity based on predicted or actual water supply reductions. Each stage establishes water use reductions either through voluntary or mandatory measures. Mandatory water restrictions include water use allowance for each water customer category. Table 2 below outlines the stages and water use reduction goals.

**Table 2: Water Shortage Reduction Targets**

<b>Water Shortage Stage</b>	<b>Water Use Restrictions</b>	<b>Total Water Supply Reduction Percentage</b>	<b>City-wide Use Reduction Goal</b>
Advisory	Voluntary	Shortage is probable	10%
Stage 1	Mandatory	5-10%	15%
Stage 2	Mandatory	10-20%	20%
Stage 3	Mandatory	20-30%	30%
Stage 4	Mandatory	30+%	50%

**Section 7: Water Use Restrictions for All Stages**

The following water conservation requirements apply to all persons within the City of Santa Monica and are permanently enforced in accordance with SMMC section 7.16.020:

**(a) Landscape.**

(1) **Watering Hours.** No lawn or landscape area shall be spray irrigated between the hours of ten a.m. and four p.m. on any day. This subsection shall not apply to any drip irrigation system approved by the Director of Public Works or unless the Director of Public Works approves in writing an exemption for irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.

(2) **Irrigation Overspray and Runoff.** Water shall not spray or flow to any impermeable private or public surface including but not limited to walkways, driveways, sidewalks, alleys, streets, or storm drains.

(b) **Cleaning.** No person shall:

(1) Use water to wash, clean or clear any sidewalks, streets, walkways, patios, driveways, alleys or parking areas, whether paved or unpaved, with a hose connected to a domestic water source. Exception: Pressure washing may be permitted in writing by the Director of Public Works with approved equipment and if all wastewater is recovered for recycling, disposed of in the sanitary sewer, or directed to landscaping. In no event shall any water so used be permitted to run off into streets, alleys or storm drains;

(2) Wash or clean with water any vehicle, including, but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or unmotorized, except by use of a hand-held bucket or similar container or a hose equipped with a positive action quick release shutoff valve or nozzle. This subsection shall not apply to any commercial car washing facility which utilizes a recycling system to capture or reuse water. In no event shall any water so used be permitted to run off into streets, alleys or storm drains;

(c) **Water Features and Water Recreation Facilities.** No person shall:

(1) Fill, for the first time, any water feature such as a fountain, pond, lake or water display unless the water feature is constructed with a water recycling system and, prior to the issuance of a building permit, a fee is paid to the Director of Public Works equal to the first year water consumption of the water feature as determined by the Director of Public Works.

(2) Fill, for the first time, any water recreation facility such as a hot tub, spa, permanent swimming or wading pool unless the water recreation facility is constructed, installed or equipped with a cover to reduce water loss due to evaporation and, prior to the issuance of a building permit, a fee is paid to the Director of Public Works equal to the first year water consumption of the water recreation facility, as determined by the Director of Public Works.

(d) **Waste, Ponding and Leaks.** No person shall:

(1) Cause, permit or allow water to leak from any exterior or interior pipe, hose or plumbing fixture of any kind whatsoever.

(2) Cause, permit or allow water to flow from any source on private or public property into gutters, streets, alleys or storm drains except as a result of rainfall or from a source approved in writing by the Director of Public Works.

(3) Cause, permit or allow water from any source to pond on private or public property except as a result of rainfall or unless approved in writing by the Director of Public Works.

(4) Cause, permit or allow water to flow from any source on private or public property without beneficial use.

(e) **Eating and Drinking Establishments.** All eating and drinking establishments of any kind whatsoever including, but not limited to, any restaurant, hotel, cafe, cafeteria, bar or club, whether public or private, shall only provide drinking water to any person upon receipt of an express request.

(f) **Exceptions.** The provisions of this Section are not applicable to the uses of water which are necessary to protect public health and safety or for essential governmental services, such as police, fire and other similar emergency services.

The following water use restrictions shall apply as a result of implementing any stage of the WSRP:

**Swimming Pools and Spas.** No person shall empty and refill a privately-owned swimming pool or spa with water from the City's potable water supply, except to prevent or repair structural damage or to comply with public health regulations. No person shall fill with water from the City's potable water supply a new swimming pool or spa.

**Section 8: City of Santa Monica Staff Responsibilities**

- (A) City staff will be informed of the water supply shortage. Each staff member will be expected to use water efficiently.
- (B) The City's landscaped areas will be efficiently irrigated based on the Irrigation Association's Best Management Practices.
- (C) Each staff member will be expected to notify the appropriate City department immediately of any leaks seen on City property or private property.

**Section 9: Water Allowances for Stages 1,2,3,4**

A Water Use Allowance (WUA) is established for each water customer. Examples of Water Allowances are found in Exhibits 1 and 2.

The WUA shall not apply to:

- (A) Any water customer of the City of Santa Monica during an Advisory water supply shortage stage;
- (B) Any hospital, emergency care facility, public safety facility, emergency shelter, assisted living facility;
- (C) Any water customer account designated for municipal non-potable water.
- (D) Any single-family or duplex residences where water consumption usage is at or below twenty-two (22) HCF per bi-monthly bill;
- (E) Any multi-family residence where water consumption usage is at or below eight (8) HCF per dwelling unit per bi-monthly bill;

**Summary of Allowances**

**Residential Water Customers**

A water use allowance is a specified amount of water assigned to each residential water customer in the City of Santa Monica for the duration of a declared water shortage. The water allowance is calculated using a base amount (essential water use) plus an additional amount based on the customers past water usage (non-essential water use) then adjusted for summer and winter seasonal uses.

**Commercial and Landscape Only Water Customers**

A water use allowance is a percent reduction in the amount of water available for each commercial and landscape only water customer in the City of Santa Monica for the duration of a declared water shortage. Commercial water customers are allotted water on a percentage basis in recognition that water demand is constant and reductions may cause undue hardship.

## Residential Water Allowance

**Table 3: Residential Water Use Allowance**

	Stage 1	Stage 2	Stage 3	Stage 4
Allowance for Single-Family Property	68 gallons per capita per day + non-essential allowance		50 gallons per capita per day + non-essential allowance	
Allowance for Multi-Family Property Master Meter	68 gallons per capita per day + non-essential allowance		50 gallons per capita per day + non-essential allowance	
Allowance for Multi-Family Property Individual Unit Meter	68 gallons per capita per day		50 gallons per capita per day	

## Commercial Water Use Allowance

The water use allowance is a percentage of the previous year's average water usage over a certain period.

**Table 4: Commercial Water Allowance**

	Stage 1	Stage 2	Stage 3	Stage 4
% Water Available per Customer	95%	90%	85%	80%

## Landscape Only Water Allowance

The water use allowance is the same as the water shortage reduction targets per Table 2.

**Table 5: Landscape Only Water Allowance**

	Stage 1	Stage 2	Stage 3	Stage 4
% Water Available per Customer	85%	80%	70%	50%

### **Section 10: Water Use Allowance Penalty Surcharge and Fines**

Every customer of City-supplied water who uses water or permits water to be used in excess of the amounts established in accordance with this WSRP shall be charged a fine and penalty surcharge on their water bill for any water used in excess of the allowance set by this WSRP during the billing period as follows:

The following fines and penalty surcharges will be assessed for each HCF of EXCESS water used:

1-4 HCF*	= \$4.00
5-10HCF	= \$16.00
11-16HCF	= \$32.00
17+	= \$40.00 for each HCF over 17**

\*1 HCF= 748 gallons

\*\*plus other restrictions if applicable

If a water customer has more than three billing periods of excess water consumption usage, the Director of Public Works or his or her designee may restrict the flow of water to the customer in addition to charging the customer a fine and penalty surcharge for excess water usage. In addition, the Director of Public Works or his or her designee may require the customer at his or her expense to install appropriate water-efficient devices, appliances, plumbing fixtures, or irrigation equipment as may be required to bring water consumption within the limits established in the WSRP. If the water customer continues to fail to comply with the provisions of this WSRP the Director of Public Works may commence water disconnection procedures.

### **Section 11: Challenge or Variance**

(A) A variance for the use of water in excess of the Water Use Allowance established by this WSRP may be granted by the Director of Public Works or his or her designee if it is determined that there exists no feasible means available to comply with the limits established by this WSRP and that the excess use of water is:

(1) necessary to prevent an emergency condition relating to health and safety, and if the person seeking a variance has demonstrated that the maximum practical reduction in water consumption is being achieved by the affected property or business and the water customer is in full compliance with the water conservation requirements of SMMC section 7.16.020; or

(2) caused by facts such as, but not limited to, illness, a necessary change in use of the affected property, an increase in the size of the household, changes in vacancy, increases in employment, increases in production output; or

(B) A variance must be requested in writing on forms provided by the City and include all necessary information. The Director shall issue his or her written decision within thirty days of a request being filed.

(C) No late fees will be assessed during the variance review process.

(D) No variance shall be granted to a water customer unless the customer has demonstrated that the maximum practical reduction in water consumption is being achieved by the affected property or business and the water customer is in full

compliance with the water conservation requirements of this WSRP and the Santa Monica Municipal Code, including SMMC section 7.16.020. At minimum each property must have installed the following water-efficient fixtures:

- (1) All toilets must flush no more than 1.6 gallons per flush;
- (2) All showerheads installed must emit no more than 2.5 gallons;
- (3) All hand sink faucets must not emit more than 2.5 gallons per minute in residential properties and no more than 0.5 gallons per minute in commercial properties;
- (4) All kitchen sink faucets must not emit more than 2.5 gallons per minute;
- (5) All urinals must flush no more than 1.0 gallons per flush.

Any variance granted shall be based upon the water consumption rates of similar water users, properties or businesses.

### **Section 12: Additional Requirements**

The Director of Public Works, or his or her designee, may implement additional requirements or make changes to the existing requirements in order to meet water reduction goals.

### **Section 13: Definitions**

**Allowance.** The amount of water assigned to water customers based on customer type;

**Billing Period.** The billing period is approximately 60 days between water meter readings;

**Billing Unit.** The measure of water in hundred cubic feet (HCF). One HCF equals Seven Hundred Forty-Eight gallons (748) of water;

**Commercial Account.** Any water customer whose property not designated as single family, multi-family or landscape only. This may include multi-use properties, schools, businesses;

**Essential Water Use.** The water needed for consumption and sanitation that meets basic health and safety needs, such as water needed for drinking, toilet flushing, showering;

**HCF.** The billing measurement for water in hundred cubic feet. One HCF is equal to 748 gallons;

**Irrigation.** Any system for distribution of pressurized water in the landscape, including but not limited to any system in which any portion is installed below grade or affixed to any structure;

**Landscaping.** Modification of the ground surface with live planting materials such as trees, shrubs, turf, groundcover or other horticultural

materials; as well as non-living materials such as mulch, synthetic turf, hardscape, or stone;

**Landscape Only Account.** Any water meter installed to measure the flow of water for irrigation and landscape purposes only;

**Master Meter Account.** A meter that serves a multi-family building and may include water used for common areas such as laundry, irrigation equipment and pools;

**Multi-Family.** A residential property with three or more units on the premises. This may include master metered or individually metered units;

**Multi-Family Individual Meter Account.** A meter that serves only one unit and does not include outdoor or landscape water use;

**New Account.** A new water service connection where one was not previously installed;

**Non-essential Water Use.** Water used for purposes other than consumption and sanitation that is not required to maintain health and safety, such as landscape irrigation, water features;

**Person.** Any individual, corporation, organization, business, trust, partnership, limited partnership, association, firm, company, joint stock company, joint venture, commission or any other legal entity;

**Potable Water.** Water suitable or intended for human consumption;

**Single Family.** A residential property with one or two units;

**Shortage.** The actual demand for water placed upon the water supply system by water customers which exceeds the actual supply, where the actual supply of water is the amount of water available for delivery from the municipal water supply system for subsequent delivery to water customers;

**Summer Seasonal Use.** Water demand between May 1<sup>st</sup> through October 31<sup>st</sup>;

**Water:** All potable water supplied from the municipal water supply system to any water customer. Non-potable water is excluded;

**Water Customer.** The person designated on the water account records maintained by the City as the person responsible for payment of charges incurred for the use of the water supply system, or any person who uses water at the premises served;

**Water Demand.** The amount of water used by water customers;

**Winter Seasonal Use.** Water demand between November 1<sup>st</sup> through April 30<sup>th</sup>.

## Exhibit 1 – Residential Water Use Allowance Formulas

### Summary of Allowances

#### Residential Water Customers

##### Single Family and Multi Family Master Meter Accounts

A water use allowance is a specified amount of water assigned to each residential water customer of the City of Santa Monica for the duration of a declared water shortage. The water allowance is calculated using a base amount (essential water use) plus an additional amount based on the customers past water usage (non-essential water use) then adjusted for summer and winter seasonal uses.

##### Multi-Family Individual Meter Accounts

A water use allowance is a specified amount of water assigned to each residential water customer of the City of Santa Monica for the duration of a declared water shortage. The water allowance is calculated using a base amount (essential water use).

### Residential Water Allowance Formulas<sup>2</sup>

#### Single Family and Multi-Family Master Meter Account:

**Water Allowance =**

**essential water + non-essential water + seasonal water adjustment**

#### Multi-Family Individual Meter Account:

**Water Allowance = essential water**

#### Assumptions for Calculations:

1. Non-essential Use= average use – essential water use
2. Baseline Year (s) of Water Demand determined at time of shortage
3. Baseline Residential Water Demand determined at time of shortage
4. Residential Population as determined by the City's Planning Department at the time of shortage
5. Number of Single Family Residents = 4
6. Number of Multi-Family Residents = 1.5
7. Summer Season is defined as June through October
8. Winter Season is defined as November through May

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<sup>2</sup> 2007 Urban Drought Guidebook, State of California, Department of Water Resources.

**Table 6: Water Allowances for Each Stage**

	Stage 1 & 2	Stage 3 & 4
Allowance for Single-Family Property & Multi-Family Master Meter	68 gallons per capita per day + non-essential allowance	50 gallons per capita per day + non-essential allowance
Allowance for Multi-Family Property Individual Unit Meter	68 gallons per capita per day	50 gallons per capita per day

**Table 7: Essential Water Use Gallons Per Capita Day Calculation Stage 1 & 2**

<b>Allocated water use is 68 gallons per capita per day (gpcd)</b>		
Toilets	5 flushes x 1.6 gpf	8.0
Shower/bath	5 min x 2.5 gpm	12.5
Clothes Washer	1/3 load	6.0
Kitchen/Dishwasher	4 gpcd	4.0
Bathroom Sinks	4 gpcd	4.0
Inside Total (gpcd)		34.5
Cleaning/outdoor Use		33.5
<b>TOTAL</b>		<b>68.0 gpcd</b>

**Table 8: Essential Water Use Gallons Per Capita Day Calculation Stage 3 & 4**

<b>Allocated water use is 50 gallons per capita per day (gpcd)</b>		
Toilets	5 flushes x 1.6 gpf	8.0
Shower/bath	5 min x 2.5 gpm	12.5
Clothes Washer	1/3 load	6.0
Kitchen/Dishwasher	4 gpcd	4.0
Bathroom Sinks	4 gpcd	4.0
Inside Total (gpcd)		34.5
Cleaning/outdoor Use		15.5
<b>TOTAL</b>		<b>50.0 gpcd</b>

**Table 9: Essential Water Use Billing Unit (HCF) Calculations**

	Stage 1 & 2	Stage 3 & 4
Single Family Water Account	132 HCF/year	98 HCF/year
Multi-Family Master Meter Water Account	48 HCF/year/unit	37 HCF/year/unit

**Table 10: Non-essential Water Use Calculation in HCF Calculations**

	Stage 1 through 4
<b>Non-essential Use</b>	<b>Available water – essential water</b>
<b>Seasonal Adjustment</b>	<b>Avg. usage – the minimum allowance x percent reduction in total non-essential water use</b>

## Calculation for Determining a Water Allowance for an Individual Residential Water Customer

Residential Water Use Allowance (RWUA) = essential use + non-essential + adjustment for winter and summer seasons.

1. **Total residential customers essential allowance (TW)=**  
 gallons per capita per day) \* (population of Santa Monica) \* (365 days) =  
 (gallons per year / 325,800 gallons) = xxx AFY\*
  - A. **Single Family Water Customer Allowance** (assumes four residents):  

$$(68 \text{ gpcd}) * (4 \text{ people}) = [(272 \text{ gpd}) * (365 \text{ days})] = \left( \frac{99280}{748} \right) = 132 \text{ HCF/year}$$
  - B. **Multi-Family Water Customer Allowance** (assumes one and a half residents):  

$$(68 \text{ gpcd}) * (1.5 \text{ people}) = [(102 \text{ gpd}) * (365 \text{ days})] = \left( \frac{74460}{748} \right) = 50 \text{ HCF/year}$$
  
2. **Total Residential Non-essential Water Use Allowance:**  
 Available residential water – essential water use = non-essential water use  
 Average year use – essential water use = avg. non-essential water use  

$$\left( \frac{\text{Non-essential}}{\text{avg.non-essential}} \right) = \text{percentage total non-essential water use (TNW)}$$
  
3. **Individual Residential Water Customer Water Allowance:**
  - A. Yearly Allowance= [( avg. customer use – essential water use) \* TNW % ]+  
 essential water use
  - B. Percentage Reduction for this household = 
$$\left( \frac{\text{This year's water allowance}}{\text{Averagewateruse}} \right)$$
  
4. **Seasonal Adjustment**
  - A. Winter billing period difference = (winter avg. – minimum allotment) x TNW%
  - B. Summer billing period difference = (summer avg.- minimum allotment) x  
 TNW%

\*latest population number from CSM Planning Department and corresponding water demand from the Public Works Department will be used to determine the TW

## Residential Water Allowance Examples

### Sample Allowance for Residential Water Customers

**Assumptions:**

Stage 1 – 15% Reduction

Population: 88,000

Average Residential Water Use: 9,300 AF\*

Available Residential Water: 7,905 AF (9,300 AF less 15%)

**1. Essential Water Use**

68	Gallons Per Capita Per Day (gpcd)
88,000	Population
365	Days in a Year
2,184,160,000	Gallons Per Year
325,800	Number of Gallons in an Acre Foot
6,702	Acre Feet Available for Essential Water Use

$$(68)(88,000)(365) = (2,184,160,000/325,800) = 6,702 \text{ AF Essential Water Use}$$

**2. Non-essential Water Use**

7,905 AF	Available Residential Water Less
<u>6,702 AF</u>	Essential Water Use equals
1,203 AF	Non-Essential Water Use

9,300 AF	Average Residential Water Use
<u>6,702 AF</u>	Essential Use equals
2,598 AF	Average Non-Essential Use

<u>1,203 AF</u>	Non-Essential Water Use divided by
2,598 AF	Average Non-Essential Use equals

46%	Percentage Reduction Required per Customer for Non-Essential Water Use
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\*AF = Acre Feet, or 325,800 gallons

## Yearly Allowance for a Single Family Home with 4 residents

2004-2006 average yearly water use = 1284 HCF

*(This example is a non-conserving single family home)*

**Table 11: Single Family Water Allowance Chart Example**

	Stage 1		
Essential	132	Per Table 9	
Non-Essential	622	Average Annual Use less Essential Use at 46% Reduction	
Yearly Allowance	754	Sum of Essential Use and Non-Essential Use after Reduction	
Reduction %	46%	Amount required to reduce, or 54% available	

**Table 12: Single Family Bi-Monthly Average Water Use Example**

Year	2004	2005	2006	Average
Nov-Dec	153	163	166	161
Jan-Feb	188	135	147	157
Mar-Apr	155	156	179	163
May-Jun	253	253	189	232
Jul-Aug	268	262	344	291
Sep-Oct	254	292	295	280
Annual Use	1271	1261	1320	1284

**Table 13: Single Family Winter Seasonal Adjustment Example**

	Nov-Dec	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Sep-Oct	total
Essential Use per bill in HCF	22	22	22	22	22	22	132
Seasonal Adjustment (actual use less 22 less 46%)	75	73	77	113	145	139	622
<b>TOTAL PER BILL</b>	97	95	99	135	167	161	754

**Yearly Allowance for a Multi-Family Master Metered Six Unit Building Assuming 9 Residents**  
**2004-2006 average yearly water use = 340 HCF**

**Table 14: 6-Unit Master Metered Building Water Allowance Chart Example**

	<b>Stage 1</b>		
Essential	288	Per Table 9 (6 units X 48 HCF)	
Non-Essential	28	Average Annual Use less Essential Use at 46% Reduction	
Yearly Allowance	316	Sum of Essential Use and Non-Essential Use after Reduction	
Reduction %	46%	Amount required to reduce, or 54% available	

**Table 15: 6-unit Master Metered Building Bi-Monthly Average Water Use Example**

<b>Year</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Average</b>
Nov-Dec	66	58	48	57
Jan-Feb	53	83	56	64
Mar-Apr	55	55	36	49
May-Jun	55	59	57	57
Jul-Aug	65	68	42	58
Sep-Oct	58	54	52	55
Annual Use				340

**Table 16: Sample 6-unit Master Metered Building Bi-monthly Winter Seasonal Adjustment Example**

	<b>Nov-Dec</b>	<b>Jan-Feb</b>	<b>Mar-Apr</b>	<b>May-Jun</b>	<b>Jul-Aug</b>	<b>Sep-Oct</b>	<b>total</b>
Essential Use per bill in HCF	48	48	48	48	48	48	288
Seasonal Adjustment (actual use less 48 less 46%)	5	8	0	5	6	4	28
<b>TOTAL PER BILL</b>	53	56	48	53	54	52	316



## Exhibit 2 – Commercial and Landscape Only Water Use Allowance Formulas

### Commercial and Landscape Only Water Customers

A water use allowance is a percent reduction in the amount of water available for each commercial water customer of the City of Santa Monica for the duration of a declared water shortage.

### Commercial Water Allowance Formula

The water use allowance is a percentage of the previous year’s average water usage per billing period per the table below.

**Table 17: Commercial Water Allowance Formula**

	Stage 1	Stage 2	Stage 3	Stage 4
% Water Available per Customer	95%	90%	85%	80%

### Commercial Example

**Average water use in previous year = 5592 HCF**

**Table 18: Commercial Water Customer Example**

	Stage 1	Stage 2	Stage 3	Stage 4
Water Allowance	5312 HCF	5033 HCF	4253 HCF	4474 HCF

### Landscape Only Water Allowance Formula

The water use allowance is a percentage of the previous year’s average water usage per billing period. The percent reduction will be equal to Stages 1 – 4 in per Table 2.

**Table 19: Landscape Only Water Allowance**

	Stage 1	Stage 2	Stage 3	Stage 4
% Water Available per Customer	85%	80%	70%	50%

### Landscape Only Example

**Average water use in previous year = 250 HCF**

**Table 20: Landscape Only Customer Example**

	Stage 1	Stage 2	Stage 3	Stage 4
Water Allowance	213 HCF	200 HCF	175 HCF	125 HCF

### Exhibit 3 – Calculation Templates

The columns in this exhibit are intentionally left blank.

**Table 21: Sample Supply Projections**

PROJECTED SUPPLY INFORMATION IN ACRE FEE (AF)				
Source	Normal/Avg	Previous Year	Current Year	Next Year
Groundwater				
Imported MWD Water				
Recycled Water				
TOTAL				
% Shortage				
Average Demand				
Additional Supply Needed				
New Total				
% Supply Shortage				

**Table 22: Baseline Water Use Data**

	Year 1	Year 2	Year 3	Year 4	Average Use
Total Single Family Water Use (AF)					
Total Multi-Family Water Use (AF)					
Total Commercial Water Use (AF)					
Total Landscape Water Use (AF)					
<b>TOTAL</b>					

**Table 23 :Customer Reduction Goals**

Water Use by Customer Type	Baseline Water Sales (AF)	% of Total Sales	Stage 1 15%		Stage 2 20%		Stage 3 30%		Stage 4 50%+	
			Goal (%)	Sales (AF)	Goal (5)	Sales (AF)	Goal (%)	Sales (AF)	Goal (%)	Sales (AF)
Groundwater										
Imported MWD										
SMURRF										
<b>TOTAL</b>										

**Table 24: Baseline Population**

Number of Residents	
Source of Data	

**Exhibit 4 – Water Shortage Response Team**

**Table 25: Water Shortage Response Team Sheet**

Title	First Name	Last Name	Primary Phone	Phone	Emergency Number	Fax	Email
Team Leader							
Water Resources Manager							
Water Treatment							
Water/Wastewater Operations							
Finance							
Conservation							
Engineering							
Customer Service							
Public Relations Manager							
Law Enforcement							
Fire							
Community Maintenance							

**Team Leader:** Coordinates the WSRP, mobilizes the team as needed, and oversees implementation of the WSRP.

**Water Resources Manager:** Manages day-to-day operations of the WSRP.

**Water Production/Treatment:** Ensures water quality standards are met.

**Wastewater Operations:** Ensures water quality standards are met.

**Finance:** Balances impacts of water reduction and income.

**Conservation:** Develops and implements water conservation programs during the shortage.

**Engineering:** Ensures water supplies are met/infrastructure maintenance/repair/replacement.

**Customer Service:** Provides pertinent information to water customers.

**Public Relations Manager:** Provides pertinent information to the media, City Council and City Staff.

**Law Enforcement:** Protects the public and enforces laws.

**Fire:** Protects the public

**Community Maintenance:** Oversees water use at City facilities and landscaping.