

SBx7-7

The Water Conservation  
Bill of 2009

20x2020

Water Use Targets



# **20x2020 Water Conservation Plan**

**DRAFT**

April 30, 2009

**How to comment on the Draft 20x2020 Plan:**

Submit written comments via e-mail by May 22, 2009 to:  
[2020comments@waterboards.ca.gov](mailto:2020comments@waterboards.ca.gov)

Provide oral comments at a public workshop:  
Friday, May 29, 2009  
10:00 a.m. to no later than 1:00 p.m.  
Sacramento

A live video broadcast of the workshop will be available via the Internet and can be accessed at:  
<http://cawater.rmxpres.com/webcast/data/dwr05292009/msh.htm>

For more information on providing comments or attending the workshop, visit the 20x2020 Agency Team website hosted by the State Water Resources Control Board:  
[http://www.swrcb.ca.gov/water\\_issues/hot\\_topics/20x2020/index.shtml](http://www.swrcb.ca.gov/water_issues/hot_topics/20x2020/index.shtml)

# November 2009

**SBx7-1 Delta Governance**

**7-6 Groundwater Monitoring**

**7-7 Water Conservation**

**7-8 Water Diversion/Water Rights**

**Bond Measure**

# SBx7-7

**Urban Water Use Targets**

**CII BMP Task Force**

**Ag Water Measurement**

**Ag Quantification**

**Ag Water Management Plans**

**Standardized Reporting Form**

**Regional Targets**



Urban Water Use Targets

Gross  
Water



Base Daily  
per Capita  
Use



Service  
Area  
Population



Target Method

Method

1

Method

2

Method

3

Method

4



Confirm target

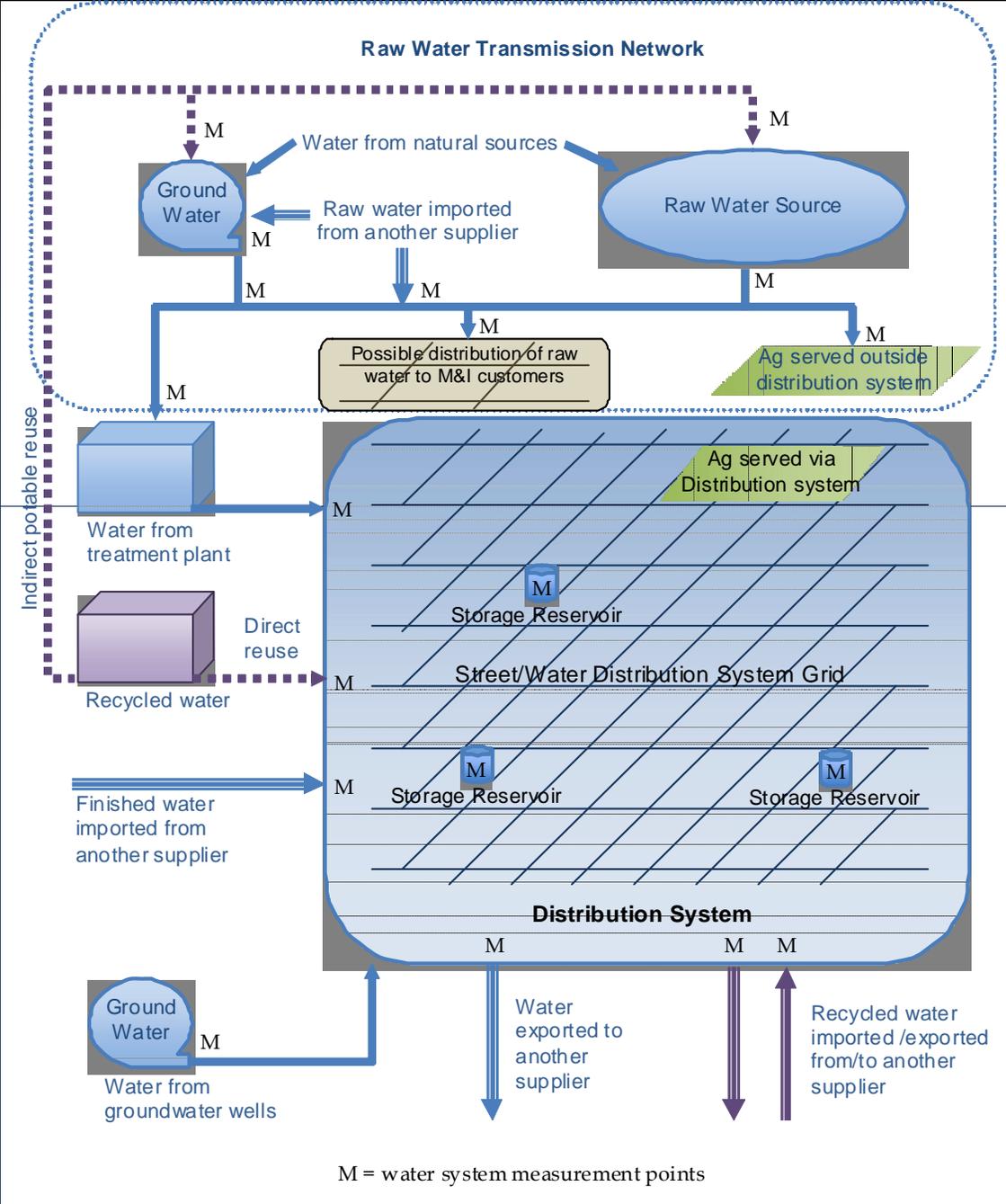


Calculate Compliance Daily per Capita  
Water Use  
2015 and 2020

# Gross Water

**Gross Water = treated or untreated water entering the distribution system.**

- 1. Define distribution system**



# Gross Water cont.-

**2. Calculate total water entering the distribution system**

**3. Subtract exemptions:**

- **Recycled Water**  
indirect potable reuse
- **Ag Water**
- **Transfers**
- **Long term storage**
- **Process water**



# Service Area Population

- **Distribution System Area = Service Area**
- **Population estimates must be consistent with census or Department of Finance figures**
- **Can use persons per connection**
  - multiplier developed for the service area**
- **Appendix A provides methodology for developing a multiplier**

Gross Water Use

Divided By

Service Area Population

Equals

Base Daily Per Capita Use

# 10-year Base Periods

1995

2004

2001

2010

**\*Suppliers who met more than 10% of their retail demand with recycled water can use a 15-year base period ending no earlier than Dec 31, 2004**

TABLE 4

BASE DAILY PER CAPITA WATER USE CALCULATION FOR SECTION 10608.20

Utility Name: \_\_\_\_\_

12-month Period: \_\_\_\_\_ to \_\_\_\_\_

(1)

(2)

(3)

(4)

Base Years*	Service Area Population	Gross Water Use (gal. per day)	Daily Per Capita Water Use (3) ÷ (2)
Year 1			
Year 2			
Year 3			
Year 4			
Year 5			
Year 6			
Year 7			
Year 8			
Year 9			
Year 10			
Year 11			
Year 12			
Year 13			
Year 14			
Year 15			
Total of Column (4):			
Divide Total by Number of Base Years:			

\* Enter the actual year of the data in this column. The most recent year in base period must end no earlier than December 31, 2004, and no later than December 31, 2010. *The base period cannot exceed 10 years unless at least 10 percent of 2008 retail deliveries were met with recycled water.*

# 5-year base period

(used in target confirmation)

2003

2007

2006

2010

TABLE 3

BASE DAILY PER CAPITA WATER USE CALCULATION FOR SECTION 10608.22

Utility Name: \_\_\_\_\_

12-month Period: \_\_\_\_\_ to \_\_\_\_\_

(1)

(2)

(3)

(4)

Base Years*	Service Area Population	Gross Water Use (gal. per day)	Daily Per Capita Water Use (3) ÷ (2)
Year 1			
Year 2			
Year 3			
Year 4			
Year 5			
Total of Column (4):			
Divide Total by 5:			

\*Most recent year in base period must end no earlier than December 31, 2007, and no later than December 31, 2010.

# Target Methods

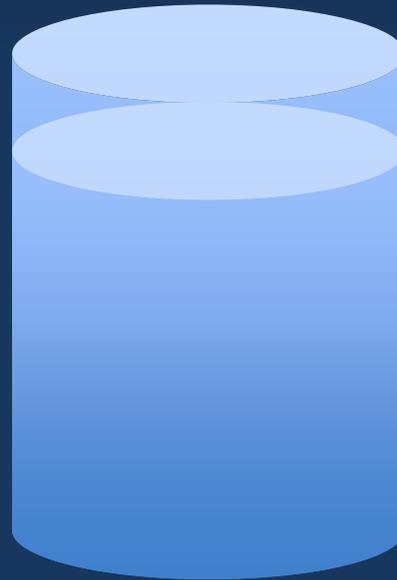


# Target Method 1

**20% reduction from base daily per capita water use**

180 gpcd

144 gpcd



# Target Method 2

Efficiency standards for



Indoor  
residential

+



Commercial,  
Industrial and  
Institutional

+

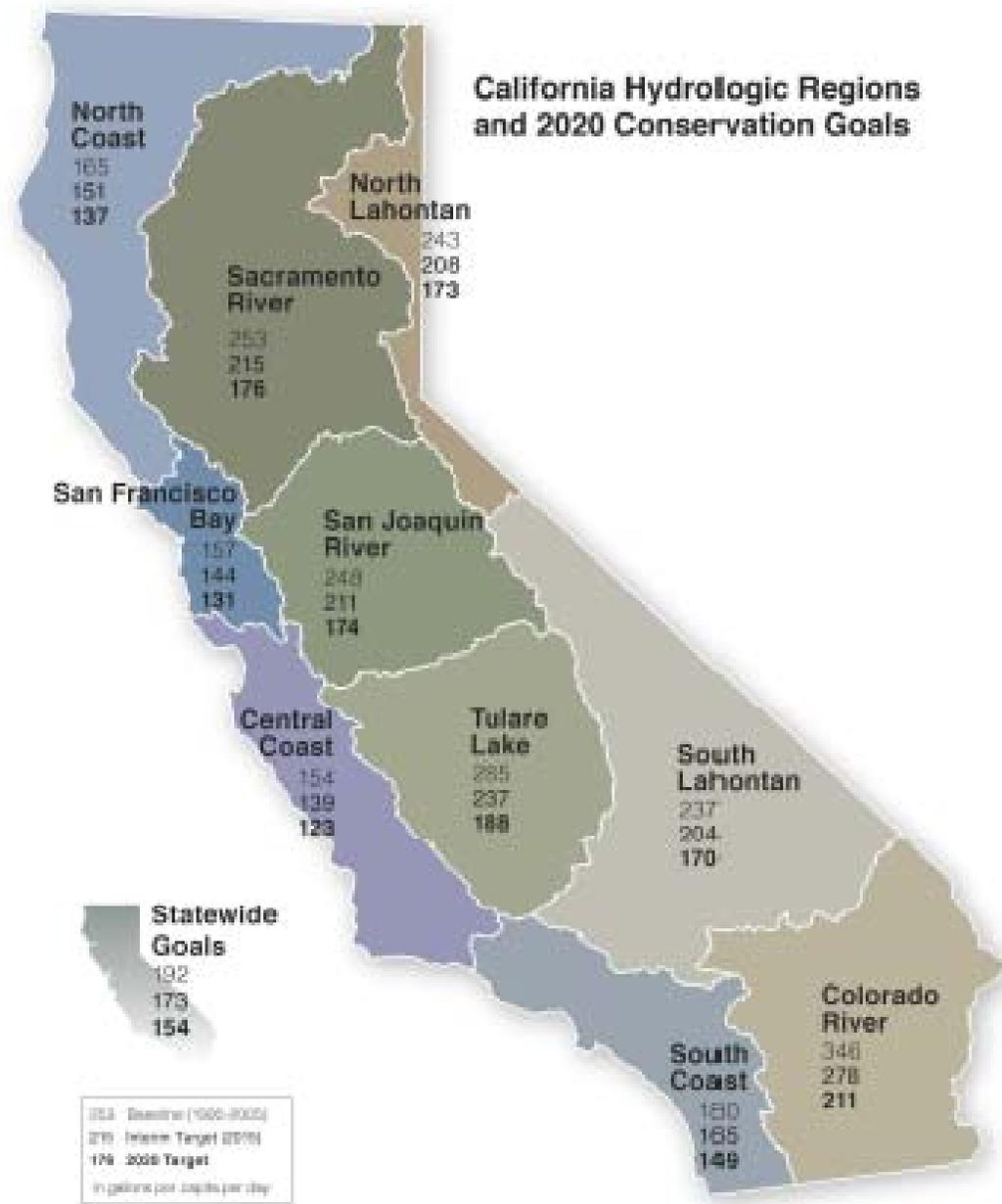


Efficient  
landscape

# Target Method 3

95% of 20x2020 Water Conservation Plan Hydrologic  
Region Target

## California Hydrologic Regions and 2020 Conservation Goals



<u>Region</u>	<u>Water Use Target</u>
---------------	-------------------------

South Coast	142 gpcd
-------------	----------

Central Coast	117
---------------	-----

South Lahontan	162
----------------	-----

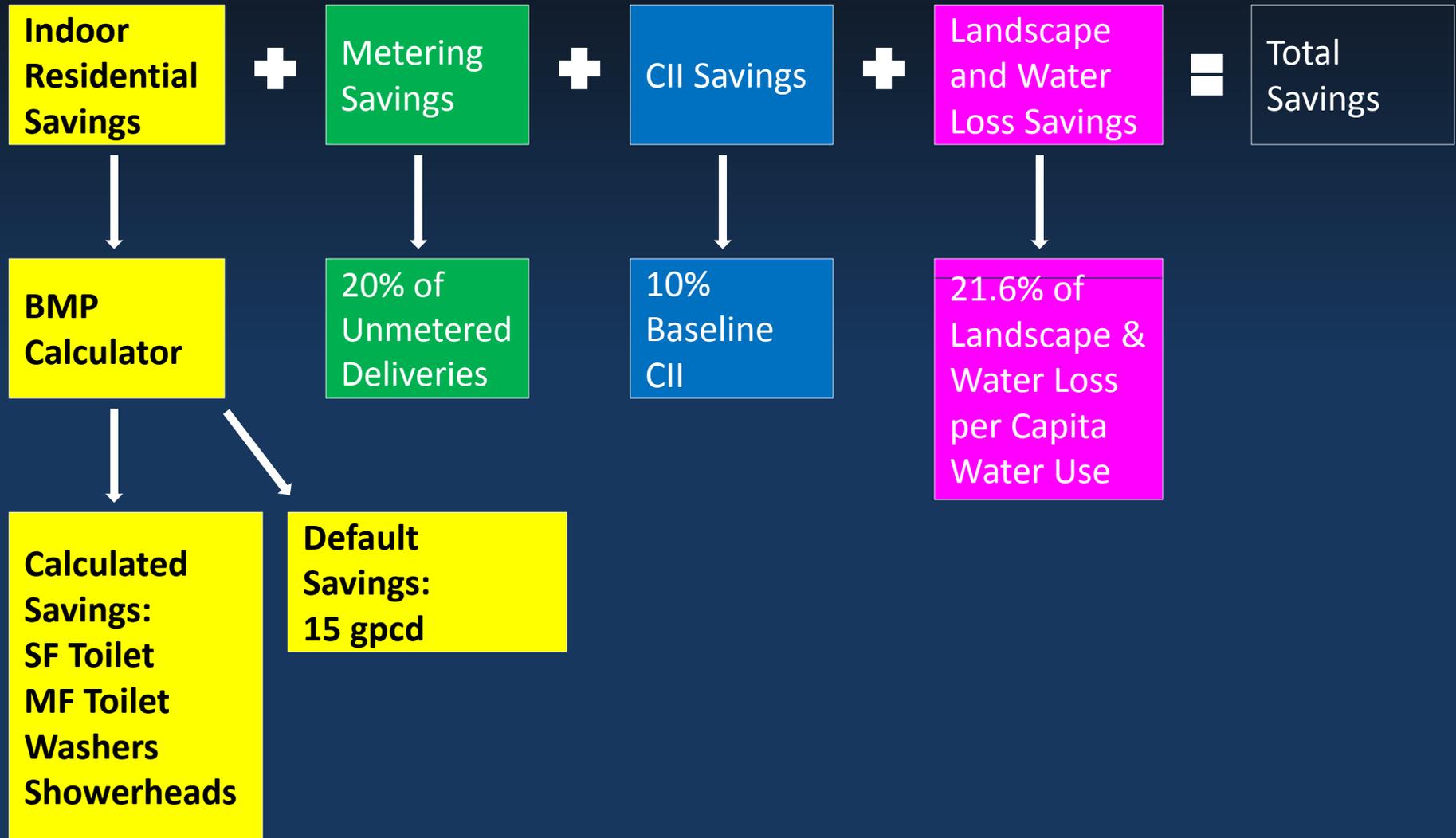
Colorado River	200
----------------	-----

# Target Method 4

## The basic equation



# Calculation of Total Savings:



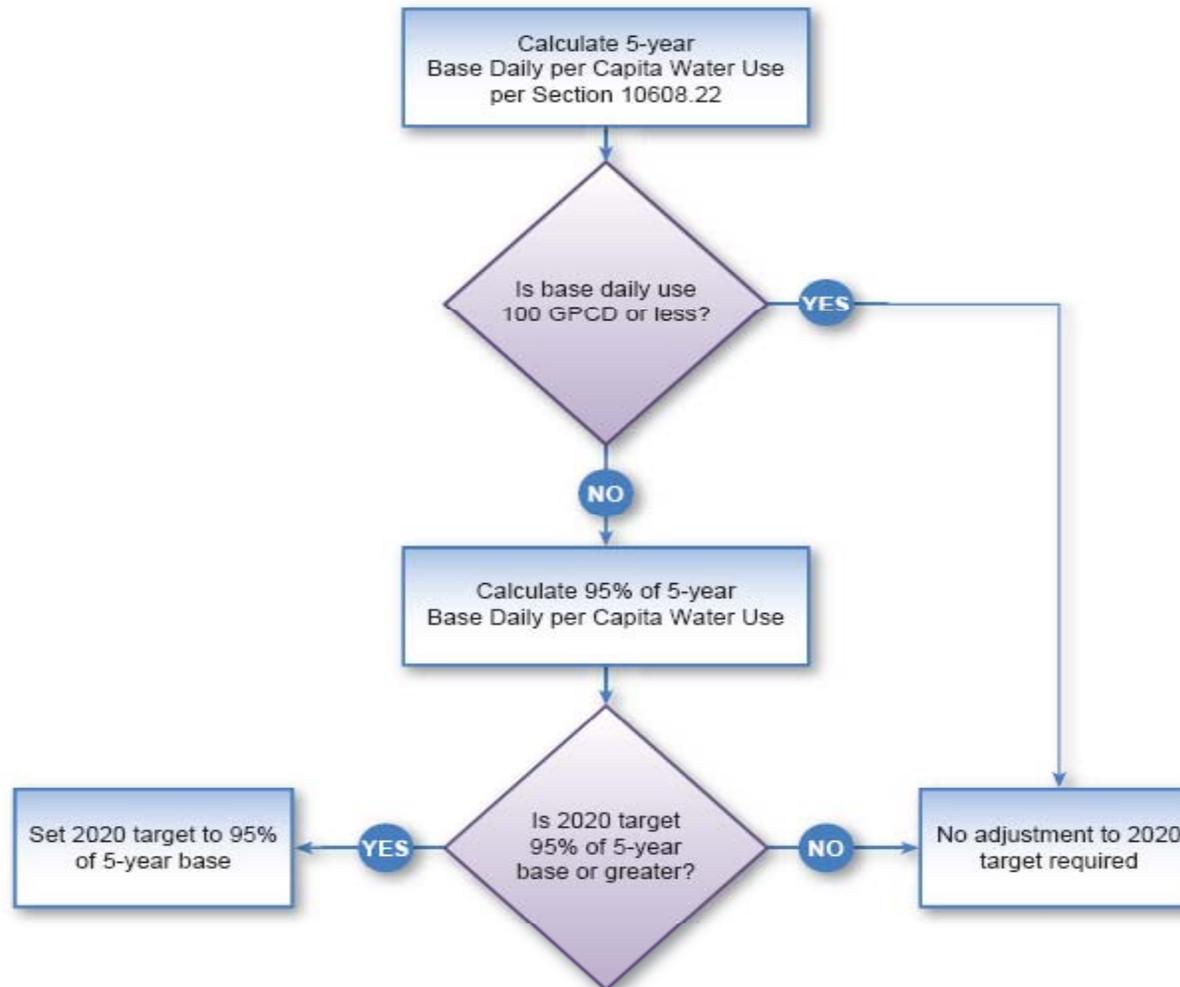
# Example: An Inland Community

**Baseline: 228 gpcd**

<b>Indoor residential</b>	<b>16</b>
<b>Metering savings</b>	<b>8</b>
<b>CII Savings</b>	<b>7</b>
<b><u>Landscape and water loss</u></b>	<b><u>19</u></b>
<b>Total Savings</b>	<b>51 gpcd</b>

**Target  $228 - 51 = 177$  gpcd    22% reduction**

# Check for 5% reduction



# Example

<b>10-year base</b>	<b>240 gpcd</b>
<b>method 1 target</b>	<b>192</b>

<b>5-year base</b>	<b>200</b>
<b>95% of 5-year base</b>	<b>190</b>

**192 greater than 190. Supplier lowers target to 190 to meet 5% minimum reduction requirement**

# Second Example: Same Supplier

**10-year base** **240 gpcd**

**Method 3: Sac River HR** **167**

**5-year base** **200**

**95% of 5-year base** **190**

**167 is less than 190, no target adjustment required**

# Interim Water Use Targets

**Halfway between  
Baseline and 2020 water use target**

**Compliance with Interim Target  
measured in 2015**

# Compliance

**AB1420 in effect until 2016**

**Compliance Daily per Capita Use (2015 and 2020)**

**DWR to develop criteria for adjustments for compliance daily per capita use**

**Weather**

**changes in CII water use**

# Regional Compliance

**Suppliers can form a regional alliance and set a regional target**

**Suppliers can set both an individual target and a regional target**

**Multiple alliances permitted if they meet the requirements in the methodologies**

# Changing Target Methods and Revising Targets

**Suppliers are able to change target methods in the 2015 UWMP plan, but not afterwards.**

**Targets and baselines can be also be updated in 2015 if better data is available.**

# Implementation Plan

**Provide general plan for what measures will be used to meet target**

**Must be discussed at a public hearing including a discussion of the economic impacts**

# Wholesalers

**Not required to set baselines and targets**

**Must document how they will assist  
retailers in meeting targets**

# Regional Alliance Report

**Regional targets and compliance reported in report**

**Suppliers must identify they are participating in a regional alliance and the regional target in individual UWMP**