January 28, 2016

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Re: 2/2/16 Board Meeting – Item 7 (Conservation Extended Emergency Regulation)

The City of Riverside, through its Public Utilities Department, hereby submits the following comments in response to the State Water Resources Control Board’s (SWRCB) Proposed Conservation Extended Emergency Regulation (Emergency Regulation), which will be considered at its February 2, 2016 Board Meeting. The SWRCB’s proposed Emergency Regulations fail to recognize and take into account Riverside’s significant efforts to develop a local supply of groundwater and Riverside has three requests for modification to the proposed regulations.

Since 2008, Riverside has made significant financial investments in a new, local, drought-resilient sources of supply that supplies more than 12 percent of its total potable water production. Because of Riverside’s investment:

- Riverside meets 100% of its potable water demand from local adjudicated groundwater basins
- The groundwater basins collectively have more than 10 Million Acre Feet of water storage, which is equal to the combined capacity of Lake Shasta, Lake Oroville and the San Luis Reservoir, three of the five largest reservoirs in California and exceeds California’s annual urban water usage.
- The groundwater basins have been adjudicated and are carefully managed under the supervision of the state court. In any given year, safe yield extractions are limited to 4% or less of the basins’ capacities
- These extraction limits were set after years of study and collection of data. The limits are supported by the natural recharge from sources within Riverside’s hydrologic region
- The basins have weathered several multi-year droughts
- Riverside has spent almost $100 Million protecting, developing and enhancing the local groundwater water supply

In summary, Riverside has invested and planned wisely in order to ensure that it can serve the potable needs of its customers with local groundwater resources and not through the importation of water from outside of its area.

Riverside is also meeting all of the State’s goals of Reliability, Restoration and Resilience, as set forth in the 2016 update to the California Water Action Plan, including:
• Making conservation a way of life
• Protecting and restore important ecosystems
• Managing and prepare for dry periods
• Provide safe water for all communities

As noted above, the SWRCB’s proposed Emergency Regulations fail to recognize and take into account Riverside’s efforts, and Riverside has three requests for modification to the proposed regulations.

1. The SWRCB’s proposed Emergency Regulations continue to exclude, with no explanation, groundwater from the 4% tier set forth in continues to include Section 865 (c)(2) of the Proposed Emergency Regulations. Riverside’s water supply has a greater than 4 year reserved supply and does not rely on water imported from outside the hydrologic region. Riverside has previously requested that groundwater be part of this 4% tier. The SWRCB, with no factual justification or record, has disqualified Riverside’s water supply from participating in the 4% Tier, notwithstanding the fact that Riverside’s water supply is larger than any surface water source except Lake Tahoe. Riverside requests that Section 865 (c)(2) be amended to include qualifying sources of surface water and groundwater.

2. Riverside supports the SWRCB’s attempt to move away from the “one size fits all approach” that was contained in the previous drought regulations. That said, the proposed adjustments to urban water suppliers’ conservation standards that consider variances in climate and growth are narrowly defined and limit the amount of relief inland communities can realize. Furthermore, extending these drought regulations will not only have a continued and significant impact on revenues received by urban water suppliers, but it discourages growth and prosperity. Riverside requests that the State further increase the magnitude of the Climate Adjustment for areas with higher evapotranspiration rates than the State average; and, that allowances are given to urban water suppliers that experience growth following March 2016.

3. Proposed Emergency Regulation Section 865(f)(3) rewards new local, drought-resilient sources of supply, but limits this reward to sources developed after 2013. This section should be amended to include not only the qualifying sources of supply developed after 2013, but also any qualifying sources of supply developed by an urban water supplier to eliminate that supplier’s dependence upon imported water.

In conclusion, the State has applied one standard to certain surface water users that could easily be extended to qualifying groundwater users. There is no practical difference between Riverside’s sources of water and a surface water supply that has a demonstrated four year supply of water. Therefore, Riverside requests that the SWRCB amend the proposed Emergency Regulations to address Riverside’s issues, as set forth in Riverside’s comment letter dated December 2, 2015, attached hereto, as well as set forth in this letter.

If you should have any further questions, please contact Todd Jorgenson, Assistant General Manager at tjorgenson@riversideca.gov.
Sincerely

Girish Balachandran
General Manager
Riverside Public Utilities

Attachment: December 2, 2015 letter
December 2, 2015

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th floor
Sacramento, CA 95814

RE: EMERGENCY REGULATION FOR STATEWIDE URBAN WATER CONSERVATION - WORKSHOP COMMENTS

The City of Riverside, through its Public Utilities Department, hereby submits the following comments in response to the State Water Resources Control Board’s request for input for the December 7, 2015 informational workshop on the potential extension and modification of the existing Emergency Regulation for Statewide Urban Water Conservation (Emergency Regulations) if drought conditions persist into 2016.

Since 2008, Riverside has met 100% of its annual water needs from local, well managed, adjudicated groundwater basins, and locally produced recycled water. Presently, Riverside produces water from three local groundwater basins that recharge naturally within the Santa Ana River watershed. The basins from which we produce groundwater all recharge from natural, local precipitation and in spite of the drought, the water table depth has been stable over the past several years. Our prior capital expenses along with ongoing investments in groundwater management and dry-year yield programs would become significant stranded investments under arbitrary regulations to reduce water use. Our well managed groundwater basins are capable of meeting current and future demands, for at least the next four years, because of these significant local investments.

The City of Riverside has legally challenged the State Water Board’s adoption of the existing Emergency Regulation. Riverside does not dispute the existence of a drought in California or the need to conserve water. We do, however, object to the State Water Board’s failure to specifically recognize water conservation by groundwater water agencies with adequate supplies that are naturally recharged by sources other than imported water. Riverside is uniquely situated with a robust source of groundwater with many years’ worth of reserves. The current Emergency Regulations have a separate conservation tier for surface water agencies with a minimum of four years of supply and no dependence on imported water. No separate conservation tier is established for groundwater agencies with a minimum of four years of supply and no dependence on imported water. Now that the State Water Board has had time to fully consider the Emergency Regulations, Riverside requests that these regulations be amended to remedy this discrepancy.

Riverside proactively took the steps to be water-independent since 2008. Riverside does not import or rely upon imported water and has a decades-long reserve of groundwater even at pre-conservation use rates (see attached Exhibit A, Riverside Public Utilities’ June 18, 2015 “Rationale for the Petition for Writ of Mandate and Complaint for Relief,” pp. 13, 17). The water levels in the area have remained stable since 1934 (Exh. A, p. 17), and are sufficiently robust that purposeful dewatering by over-extraction took 24 years to lower the water table by 80 feet (Exh. A, p. 15).
Riverside’s water resources are unique within the state;

- Riverside is solely dependent upon local groundwater basins that have a minimum of four years of supply.
- Riverside does not import any water from outside the hydrologic region in which it is located, including no imports from the State Water Project.
- Riverside’s groundwater resources are naturally recharged.

The groundwater basins Riverside draws from were adjudicated in 1969, in Western Municipal Water District of Riverside County et al., vs. East San Bernardino County Water District et al., Riverside County Superior Court Case No. 78426 (the “1969 Judgment” [available online at http://www.sbymwd.com/Home/ShowDocument?id=1494]). The 1969 Judgment was adopted after the 1950’s drought to prevent overdrafts in this basin (Exh. A, p. 21). The 1969 Judgment establishes a safe yield, which is independent of imported water supplies. Riverside and the other parties have successfully cooperated in sustaining the groundwater through past droughts and can continue to do so through this drought. An additional benefit of the 1969 Judgment is the thorough, detailed data compiled by a court-appointed Watermaster. (Exh. A, pp 19-22.)

In conclusion, Riverside offers the following response to the specific question posed by the State Board:

1. What elements of the existing Emergency Regulation, if any, should be modified in an extended Emergency Regulation?

Riverside proposes the following amendment to the section 865(c)(2) of the “Adopted Text of Emergency Regulation” to address groundwater urban water suppliers with a minimum of four years of supply with no imports of water.

“(c)(1) To prevent the waste and unreasonable use of water and to meet the requirements of the Governor’s April 1, 2015 Executive Order, each urban water supplier shall reduce its total potable water production by the percentage identified as its conservation standard in this subdivision. Each urban water supplier’s conservation standard considers its service area’s relative per capita water usage.
(2) Each urban water supplier whose source of supply does not include groundwater or water imported from outside the hydrologic region in which the water supplier is located, and that has a minimum of four years’ reserved supply available may, submit to the Executive Director for approval a request that, in lieu of the reduction that would otherwise be required under paragraphs (34) through (4011), the urban water supplier shall reduce its total potable water production by 4 percent for each month as compared to the amount used in the same month in 2013. Any such request shall be accompanied by information showing that the supplier’s sources of supply do not include groundwater or water imported from outside the hydrologic region and that the supplier has a minimum of four years’ reserved supply available.
(3) Each urban water supplier whose source of supply is solely groundwater other than groundwater imported from outside the hydrologic region in which the water supplier is located, has a minimum of four years’ reserved supply available and whose groundwater supplies recharge naturally may submit to the Executive Director for approval a request that, in lieu of the reduction that would otherwise be required under paragraphs (4) through (11), the urban water supplier shall reduce its total potable water production by 4 percent for each month as compared to the amount used in the same month in 2013. Any such request shall be accompanied by information showing that the supplier’s source of supply do not include water imported from outside the hydrologic region and that the supplier has a minimum of four years’ reserved supply available.”
This amendment was also proposed in our July 2, 2015 letter to Ms. Caren Trgovich, attached hereto as Exhibit B.

With such addition, the State Water Board will still have the discretion to review the data submitted by the groundwater agencies and determine if a lower conservation tier is appropriate.

Respectfully,

Girish Balachandran
Public Utilities General Manager
July 2, 2015

Ms. Caren Trgovcich, Chief Deputy Director
State Water Resources Control Board
1001 I Street, 16th Floor
Sacramento, CA 95814

RE: CITY OF RIVERSIDE’S CONSERVATION TIER PROPOSAL

Dear Ms. Trgovcich:

This letter contains the City of Riverside’s proposed criteria to amend the State Water Resources Control Board’s (State Board’s) recently adopted emergency regulations in response to the drought, and also contains the additional data and information which we believe qualifies us for a 4% conservation tier. We look for guidance from the State Board as to how to best process the City’s request to be placed in a 4% conservation tier that would only apply to groundwater.

First, however, let me begin by thanking you, Mr. Oppenheimer, and Mr. Rose for making yourselves available to meet with us on June 18th. We were encouraged by the dialogue and the constructive efforts during the meeting, and we appreciate the opportunity to show why Riverside, even though it is groundwater-based, can be allowed to qualify for a 4% conservation tier within the spirit and intent of the emergency regulations.

We believe that Riverside is sufficiently different than likely any other urban water provider, that amending the regulations could be done without compromising real water conservation, and without revisiting the issue with every other groundwater-based supplier, for the following reasons:

1) Riverside draws its water from an adjudicated basin, where all extracting parties’ rights are represented. No extractor will be blind-sided, or unaccounted-for. This protects all the users.

2) The San Bernardino Basin area system (Bunker Hill, Rialto-Colton, and Riverside North and South basins) was adjudicated in 1969, over 45 years ago. The adjudication action was filed in 1963, over 50 years ago. The two Watermasters and the various agencies have large quantities of robust, reliable data. This addresses the State Board’s concern over groundwater data uncertainty.

3) The basins have deep reserves. Far beyond the four years reserve minimum for surface water suppliers to qualify for the four-percent conservation tier.

4) The basins are naturally recharging with stable water levels. In fact, the Bunker Hill basin has been intentionally dewatered through over-production to address liquefaction and flooding concerns.

5) The basins do not rely upon imported water. What negligible amount which was imported was done as a mathematical calculation, and not as a response to actual groundwater overdraft.

6) Riverside’s use has no impact whatsoever on the decision to import any water. Whether Riverside extracts all or none of its allocated share, will have no legal or physical effect on triggering any imported water recharge.
7) Riverside’s rights are non-transferable and exclusive. Whether Riverside extracts all or none of its allocated share, will have no legal or physical effect on any other user’s right or ability to extract.

8) While other users in the basins have the same non-transferable, exclusive rights as Riverside, none of those users are independent of the State Water Project system.


10) The regional agencies have developed and approved Integrated Regional Water Management Plans.

11) Riverside has entered into a number of settlement agreements with various entities related to contaminants such as perchlorate, TCE, and DBCP. Under the terms of the settlement agreements, the defendants fund Riverside’s removal of contaminants from groundwater in local water basins. Removal of the contaminants benefits not only Riverside but surrounding water agencies, as removal prevents the travel of the plumes of contaminants.

12) Riverside’s GPCD use is lower than other water agencies in its region, despite relatively low cost. That demonstrates Riverside’s early and real efforts to conserve. Riverside has been, and remains, a responsible water supplier.

The above reasons demonstrate why Riverside is uniquely situated to conserve at a 4% rate without adversely affecting State water supplies and the stated goals of water conservation. If requested by the State Board, Riverside can provide additional data and documentation supporting the above-noted facts. At our meeting on June 18, we provided an overview of these facts.

Again, we look for guidance from the State Board as to how to best place Riverside in a 4% conservation tier. As we previously discussed, Riverside proposes the following amendment to the section 865(c)(2) of the “Adopted Text of Emergency Regulation” to accommodate Riverside’s placement into a 4% conservation tier.

(c)(1) To prevent the waste and unreasonable use of water and to meet the requirements of the Governor’s April 1, 2015 Executive Order, each urban water supplier shall reduce its total potable water production by the percentage identified as its conservation standard in this subdivision. Each urban water supplier’s conservation standard considers its service area’s relative per capita water usage.

(2) Each urban water supplier whose source of supply does not include groundwater or water imported from outside the hydrologic region in which the water supplier is located, and that has a minimum of four years’ reserved supply available may, submit to the Executive Director for approval a request that, in lieu of the reduction that would otherwise be required under paragraphs (4) through (11), the urban water supplier shall reduce its total potable water production by 4 percent for each month as compared to the amount used in the same month in 2013. Any such request shall be accompanied by information showing that the supplier’s sources of supply do not include groundwater or water imported from outside the hydrologic region and that the supplier has a minimum of four years’ reserved supply available.

(3) Each urban water supplier whose source of supply does include groundwater, but not water imported from outside the hydrologic region in which the water supplier is located, and that has a minimum of eight years’ reserved supply available may, submit to the Executive Director for approval a request that, in lieu of the reduction that would otherwise be required under paragraphs (4) through (11), the urban water supplier shall reduce its total potable water production by 4 percent for each month as compared to the amount used in the same month in 2013. Any such request shall be accompanied by information showing that the supplier’s source of supply do not include water imported from outside the hydrologic region and that the supplier has a minimum of eight years’ reserved supply available.
(34) Each urban water supplier whose average July-September 2014 R-GPCD was less than 65 shall reduce its total potable water production by 8 percent for each month as compared to the amount used in the same month in 2013.

(45) Each urban water supplier whose average July-September 2014 R-GPCD was 65 or more but less than 80 shall reduce its total potable water production by 12 percent for each month as compared to the amount used in the same month in 2013.

(66) Each urban water supplier whose average July-September 2014 R-GPCD was 80 or more but less than 95 shall reduce its total potable water production by 16 percent for each month as compared to the amount used in the same month in 2013.

(67) Each urban water supplier whose average July-September 2014 R-GPCD was 95 or more but less than 110 shall reduce its total potable water production by 20 percent for each month as compared to the amount used in the same month in 2013.

(78) Each urban water supplier whose average July-September 2014 R-GPCD was 110 or more but less than 130 shall reduce its total potable water production by 24 percent for each month as compared to the amount used in the same month in 2013.

(89) Each urban water supplier whose average July-September 2014 R-GPCD was 130 or more but less than 170 shall reduce its total potable water production by 28 percent for each month as compared to the amount used in the same month in 2013.

(910) Each urban water supplier whose average July-September 2014 R-GPCD was 170 or more but less than 215 shall reduce its total potable water production by 32 percent for each month as compared to the amount used in the same month in 2013.

(4011) Each urban water supplier whose average July-September 2014 R-GPCD was 215 or more shall reduce its total potable water production by 36 percent for each month as compared to the amount used in the same month in 2013.

We look forward to a discussion that will bring this matter to resolution in the very near future. Please contact me directly at 951-826-8912 to discuss our next steps.

Respectfully,

Girish Balachandran
Riverside Public Utilities General Manager

GB/cef: PUGM-015-010_Letter to State Board

c: John A. Russo, Riverside City Manager
Kevin S. Milligan, Deputy General Manager
Anthony Beaumon, Deputy City Attorney
Eric Oppenheimer, SWRCB
Rationale for the Petition for Writ of Mandate and Complaint for Relief

June 18, 2015
City of Riverside

2010 Western Waterwise Landscape Contest 1st Place

Before

After
City of Riverside Public Utilities
History

• Water Department
  1913

• Acquired following Companies:
  – Riverside Water Company
    (founded 1885)
  – Gage Canal Co.
    (founded 1885)
  – Numerous smaller Companies
Services Provided

- RPU Service Area population is approximately 300,000
- 64,000 metered RPU customers
- Delivers potable water to retail and wholesale customers
- Delivers non-potable water to irrigation customers
- Delivers recycled water
Riverside’s Water System

- 49 active domestic wells
- 11 treatment plants and chlorination stations
- 3 imported water connections
- 8 emergency inter-ties
- 16 storage reservoirs (109 MG)
- 41 booster stations
- 46 Hydraulic Zones (925–1750)
- 954 miles pipeline (4–72 inch)
Sources of Water Supply

• 100% imported water independent
• Produce water from multiple groundwater basins
  – Bunker Hill (64% of 2014 supplies)
  – Rialto-Colton (0% of 2014 supplies)
  – Riverside North (12% of 2014 supplies)
  – Riverside South (24% of 2014 supplies)
Imported Water Independent

- Riverside has been independent of Imported water since 2008, and has groundwater infrastructure in place to remain independent for the foreseeable future.

- In 2008 Riverside began operating its John W North Treatment Plant, capable of production 10MGD.
- Bunker Hill Basin
- Rialto-Colton Basin
- Riverside North
- Riverside South
- Arlington Basin
## Basin Characteristics

<table>
<thead>
<tr>
<th>Groundwater Basin</th>
<th>Surface Area (acres)</th>
<th>Storage Capacity (acre-ft)</th>
<th>Depth to Bedrock (ft)</th>
<th>Estimated Safe Yield (acre-ft/yr)</th>
<th>Safe Yield % of Storage Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bunker Hill</td>
<td>89,600^C</td>
<td>5,976,000^C</td>
<td>&gt; 1,200^B</td>
<td>232,100^A</td>
<td>4%</td>
</tr>
<tr>
<td>Rialto-Colton</td>
<td>30,000^C</td>
<td>2,517,000^C</td>
<td>&gt; 1,000</td>
<td>17,675</td>
<td>1%</td>
</tr>
<tr>
<td>Riverside</td>
<td>39,680</td>
<td>1,646,000</td>
<td>400 to 700</td>
<td>62,300^D</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>159,280</strong></td>
<td><strong>10,139,000</strong></td>
<td><strong>---</strong></td>
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</tr>
</tbody>
</table>

A) Western-San Bernardino Judgment  
B) USGS Open-File Report 2005-1278  
C) DWR bulletin 118  
D) Riverside-Arlington Groundwater Flow Model
Bunker Hill Basin
Annual Groundwater Levels
Bunker Hill Basin
Annual Groundwater Levels

Levels trended upward from 2008 to 2013, during a time of below average hydrology.

24-ys to reduce water levels 80ft
Section A-A’ and stratigraphic base from Numeric Solutions, LLC.

Well construction and water level data from the SBVMWD Water Resources Database

Created by: Riverside Public Utilities
On: June, 2015

Water Resources
Change in Storage Relative to Actual Basin Capacity

5.3M acre-ft of water remains in storage
(Decades of available groundwater supply)
Bunker Hill Supplies in Storage

- Total Storage Capacity: 5,976,000 acre-ft
- Estimated water stored in the basin: 5,300,000 acre-ft
- Average depth to bedrock: 1,200 ft
- Current water level: 210 ft below surface (depth varies across basin)
- Riverside’s wells range in depth from 300 to 1,200 ft, with 80% of its wells greater than 500 ft
Robust Basin Management

- 1969 Western-San Bernardino Judgment
  - Court appointed a Watermaster to oversee the physical solution
  - Annual reports filed with the Court
- Metered water production
- Daily water level monitoring
- Daily surface flow monitoring
- Monthly water quality monitoring
Robust Basin Management

• Annual Change in Storage Report prepared by Valley District (SBVMWD)
• Annual Basin Engineering Investigation Report prepared by Conservation District (SBVWCD)
• Basin Technical Advisory Committee (BTAC)
  – Formed to collaboratively develop and evaluate projects that contribute to sustainable basin management
  – Meets monthly and is comprised of producers from the Bunker Hill Basin
• 3 Integrated Water Management Plans
• Started GSA process 7 years ahead of schedule
1969 Judgment

• The Western-San Bernardino Judgment and Orange County Judgment settled water right disputes within the Santa Ana River Watershed between some 4,000 parties.

• Groundwork for the Judgment begun in the 1950’s, during a time of drought.

• The Judgment established a physical solution to resolve the water problems within the Santa Ana River Watershed and became the foundation to assure every entity received their fair share of water, in both wet and dry years.
1969 Judgment (continued)

- **Western-San Bernardino Judgment**
  - Established a Safe Yield for the Basin of 232,000 acre-ft/yr (about 4% of the basin’s storage capacity)
  - Fixed export rights from Bunker Hill Basin for Riverside (use it or loss it)
  - Established certain obligations to maintain the integrity of the Bunker Hill, Rialto-Colton, Riverside North, and Riverside South basins
  - Court appointed Watermaster to enforce the Judgment
    - Collects & analyzes data, and conducts field inspections
    - Tracks groundwater extractions and distribution of extractions
    - Monitors stream flow, water quality & water levels
    - Prepares an annual report
Bunker Hill Aggregate Extractions

Data from Table 3 and Vol. 1A of Western-San Bernardino Watermaster Report

(in acre-ft)
Other Bunker Hill Basin Users

- City of Colton
- City of Loma Linda
- City of Redlands
- City of Rialto
- City of San Bernardino Municipal Water District
- East Valley Water District
- Riverside Highland Water Company
- West Valley Water District
Imported Water Recharged in Bunker Hill

(in acre-ft)
State’s Groundwater Basin Priorities

- CASGEM Basin Rankings
  - Bunker Hill & Riverside-Arlington: High Priority
  - Rialto-Colton: Medium Priority

- All basins have water quality impacts, declining water levels, and large populations.

- Response to Rankings
  - Riverside measures 16 wells seasonally
  - All contaminates plumes have/are being remediated with treatment
  - 1969 Judgment assists to manages the basins by requiring specific obligations and assurances.
  - Water levels relatively stable over last 10 years
# Riverside’s Water Rights Summary

## Available Extraction and Export Rights

<table>
<thead>
<tr>
<th>Basin</th>
<th>Annual Extraction (acre-feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Bernardino Basin Area&lt;sup&gt;1&lt;/sup&gt;</td>
<td>55,145</td>
</tr>
<tr>
<td>Rialto-Colton</td>
<td>2,728</td>
</tr>
<tr>
<td>Riverside North</td>
<td>11,351</td>
</tr>
<tr>
<td>Riverside South</td>
<td>16,880</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>86,104</strong></td>
</tr>
</tbody>
</table>

1) Includes New Conservation from Seven Oaks Dam

*0.9% of basin storage*
Riverside Annual Total Production

![Bar chart showing annual total production from 2010 to 2014. The total production is 86,104 acre-feet.](chart.png)
Riverside’s Investment in Local Supplies

1991 – SBVMWD/WMWD submitted application to appropriate 100,000 AF in Santa Ana River

1999 - Started our recycled water program

2002 – Received permit for 100,000 AF due to Seven Oaks Dam

2008 – Expanded our conservation program

2008 – Wastewater change Petition making additional recycled water supplies available

2009 – Received permit for another 100,000 AF at Seven Oaks Dam
Riverside’s Investment in Local Supplies

Riverside has invested $100M in its capital investment campaign
Riverside intends to invest an additional $30M in expanded conservation, recycled water & stormwater capture to remain imported water independent
Future Water Supply

- Enhanced Recharge at Seven Oaks Dam
- Active Recharge in the San Bernardino Basin Area
- Riverside North Aquifer Storage and Recovery Project
- Riverside Basin Storm Water Capture
- Recycled Water
- Upper Santa Ana River Habitat Conservation Plan
Riverside Water Conservation Results

Residential per capita water use 2013 v. Current

- June 2013: 140
- July 2013: 150
- Aug 2013: 140
- Sept 2013: 120
- Oct 2013: 110
- Nov 2013: 100
- Dec 2013: 90
- Jan 2013: 80
- Feb 2013: 70
- Mar 2013: 80
- Apr 2013: 130
- May 2013: 140

Current

- June: 100
- July: 120
- Aug: 110
- Sept: 100
- Oct: 90
- Nov: 80
- Dec: 70
- Jan: 60
- Feb: 70
- Mar: 80
- Apr: 120
- May: 130

RiversidePublicUtilities.com
2015 Water Conservation Tracking

RPU Total Urban Water Production Saving for 2015 Compared to 2013 Benchmark

- Monthly Percent Reduction in 2015
- Cumulative Percent Reduction in 2015
- Target Percent Reduction (28%)

<table>
<thead>
<tr>
<th>Month</th>
<th>Monthly Percent Reduction 2015</th>
<th>Cumulative Percent Reduction 2015</th>
<th>Target Percent Reduction (28%)</th>
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<tbody>
<tr>
<td>January</td>
<td>1%</td>
<td>-1%</td>
<td>30%</td>
</tr>
<tr>
<td>February</td>
<td>4%</td>
<td>1%</td>
<td>28%</td>
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<tr>
<td>March</td>
<td>-3%</td>
<td>-3%</td>
<td>28%</td>
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<tr>
<td>April</td>
<td>12%</td>
<td>12%</td>
<td>28%</td>
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<tr>
<td>May</td>
<td>30%</td>
<td>30%</td>
<td>28%</td>
</tr>
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RPU Total Urban Water Production Saving for 2015 Compared to 2013 Benchmark

- **Monthly Percent Reduction in 2015**
- **Cumulative Percent Reduction in 2015**
- **Target Percent Reduction (28%)**

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<th>Cumulative Reduction</th>
<th>Target Reduction</th>
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<tbody>
<tr>
<td>April</td>
<td>12%</td>
<td>12%</td>
<td>28%</td>
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<tr>
<td>May</td>
<td>30%</td>
<td>42%</td>
<td>28%</td>
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<td>June</td>
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<td>28%</td>
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<tr>
<td>January</td>
<td></td>
<td>64%</td>
<td>28%</td>
</tr>
<tr>
<td>February</td>
<td></td>
<td>64%</td>
<td>28%</td>
</tr>
</tbody>
</table>
Cumulative Percent Reduction up to 2nd Week in June: 26.5%

Daily Target for June based on 28% Reduction: 178 ac-ft (58.1 MGD)
Predicted RPU Daily Total Urban Water Production

- **RPU Daily Total Urban Water Production (Ac-ft)**
- **Projected Daily Urban Water Production (Ac-ft)**
- **June daily target based on 28% reduction (178 Ac-ft)**
- **Daily Maximum Temperature**
- **Forecasted Temperature**

Temperature in °F

Date Range: 6/1/2015 to 6/29/2015
Riverside’s - Water Rate Comparison

AVERAGE RESIDENTIAL RATE FOR 25 CCF PER MONTH
(AS OF SEPT. 30, 2014)

Glendale: $97.90
Pasadena: $90.16
Burbank: $86.18
Corona: $81.18
Anaheim: $57.75
Riverside: $48.92
Eastern MWD: $94.61
Western MWD: $100.31

RiversidePublicUtilities.com
Rationale for 4% Tier

• Minimum of 4 years of supply
  – The Bunker Hill Basin has decades of groundwater in storage, approximately 5,300,000 acre-feet

• Do not rely on imported water
  – Independent of Imported water since 2008

• Groundwater supplies recharge naturally
  – Western-San Bernardino Judgment established a safe yield of 232,100 acre-feet
**Rationale for 4% Tier (continued)**

In Addition:

- Riverside has Fixed Water Rights per the 1969 Western - San Bernardino Judgment
- Bunker Hill Basin has stable groundwater conditions
- 80% of our wells in Bunker Hill are constructed deeper than 500 ft
- Watermaster and Riverside have been sustainably managing the basins for more nearly 50 years (through varying hydrologic conditions)