

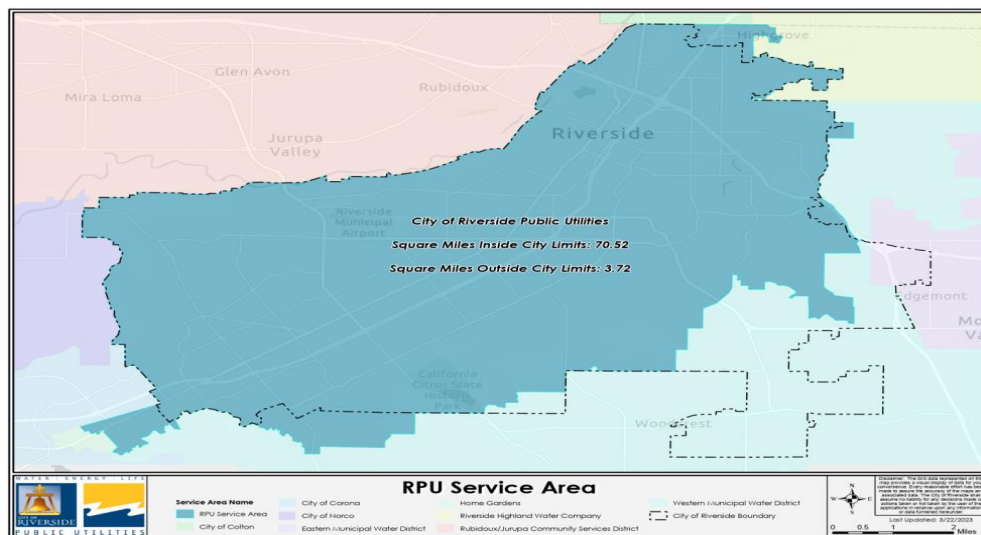
April 24, 2023

# City of Riverside 2023-2024 Annual Supply and Demand Assessment Methodology

This report satisfies the requirements of the California Water Code Section 10632.1, requiring urban water suppliers to prepare an Annual Water Supply Assessment and submit an Annual Water Shortage Report to the California Department of Water Resources (DWR) by July 1 each year.

## System Overview

The Riverside Public Utilities (RPU) service area is 75 square miles and is located within the Santa Ana River Watershed, approximately 60 miles east of Los Angeles and 100 miles north of San Diego. The RPU service area is bounded on the north by the City of Colton; on the east by the Riverside Highland Water Company (RHWC) and Western Municipal Water District (WMWD); on the south by WMWD; and the west by Home Gardens County Water District (HGCWD), City of Corona, City of Norco, Rubidoux Community Services District, and the Jurupa Community Services District. A service area map is shown in **Figure 1**.



**Figure 1. RPU Service Area Boundary**

The City of Riverside (City) receives most of its potable, non-potable, and recycled water from RPU. RPU currently serves water to a population of about 300,000 through approximately 69,000 service connections. In addition, RPU provides surplus potable and non-potable water to WMWD, which serves City residents outside of the RPU service area. The City of Norco also receives a small amount of potable water from a wholesale agreement with the City. Since 2009, the City's potable water demand has been

supplied solely from local groundwater via extraction rights established by the Western-San Bernardino 1969 court Judgment.

### Water Supply Reliability

RPU's supplies generally have a high degree of reliability. RPU's primary source of supply is local groundwater. Under the 1969 Western-San Bernardino court Judgment, RPU's annual extraction rights and base period production from the San Bernardino Basin Area (SBBA), Riverside North and South Basin, and the Rialto-Colton Basin is 85,773 AF, as shown in Table 1. RPU generally under-produces below its extraction rights. Should a drought increase demand, RPU can increase pumping to maximize its extraction rights in that drought year. As of 2023, RPU can meet all current demands with local groundwater production.

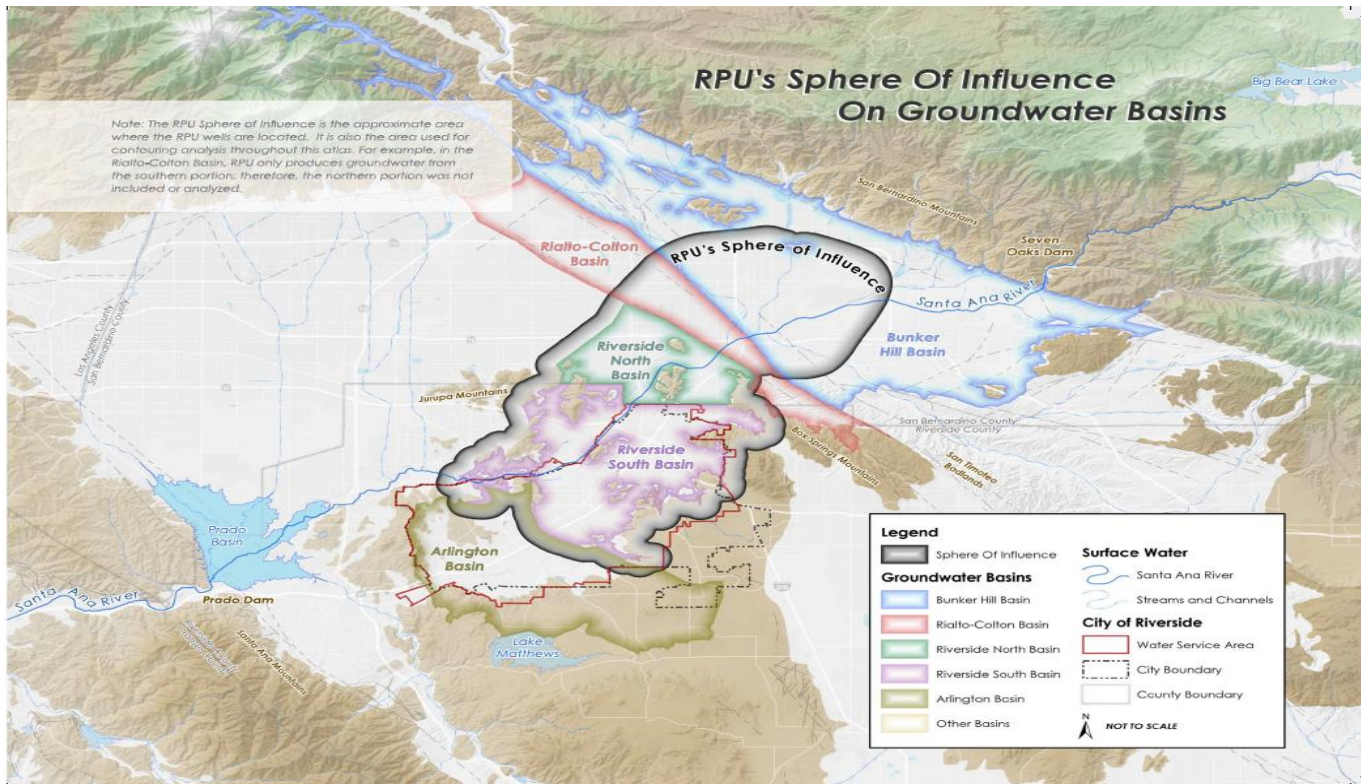
Table 1. RPU's Total Water Right and Base Period Production (in acre-feet)

Groundwater Basin	RPU's Extraction Rights
SBBA	55,263
Rialto-Colton	2,728
Riverside North	10,902
Riverside South	16,880
<b>Total</b>	<b>85,773</b>

RPU also has access to imported water through WMWD, which can be used to supplement groundwater supplies and a connection with the City of Norco for emergency purposes. As of 2023, RPU has 50 wells that produce groundwater from the Bunker Hill, Rialto-Colton, Riverside North, and Riverside South groundwater basins. Most groundwater is produced from the Bunker Hill Basin.

### Riverside's Available Water Supply Projection in 2023-2024:

1. RPU's Annual Assessment is reflective of the available water supply from groundwater extraction rights from all the basins, as shown in Figure 2 and;
2. RPU also has an agreement with WMWD to access up to 21,700 Acre Feet per Year (AFY) of imported water and;
3. Recycled water for non-potable uses is supplied by the City of Riverside Regional Water Quality Control Plant, which satisfies the need for up to 800 AFY, and;
4. RPU's annual supply projection reflects the available production capacity during the high-demand season.



**Figure 2. Groundwater Basins and Service Area**

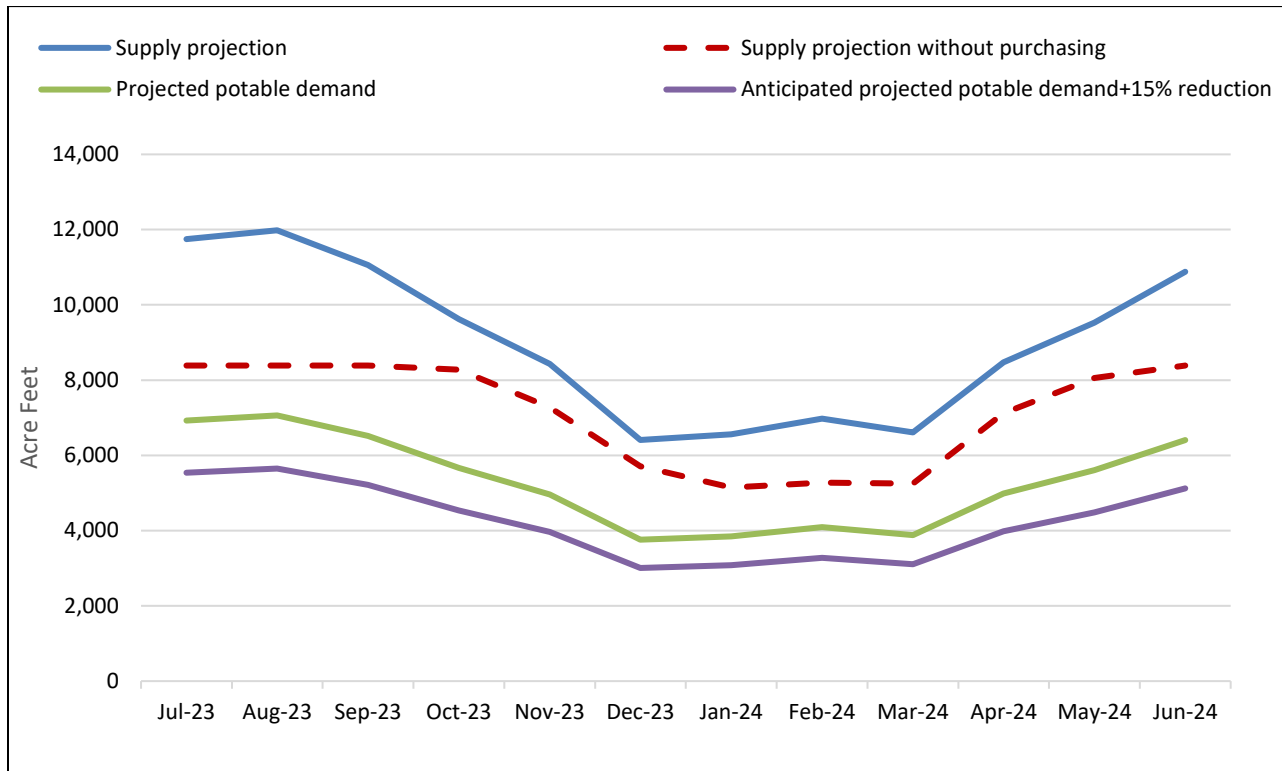
**Riverside’s Water Demand in 2023 and 2024:**

The total potable and non-potable monthly water demand projections for RPU from July 2023 to June 2024 are estimated by adding next year’s projected water demand for all customer categories. The estimated demands are based on the last four years’ monthly average gallon per capita per day (GPCD), projected population changes, weather and growth, and a 15% demand reduction per Stage 2 of the RPU Water Shortage Contingency Plan (WSCP).

**PROJECTED WATER SUPPLY VS. WATER DEMAND**

**Decision Making Process to Determine Water Supply Reliability**

Based on the calculation method established in the Optional Annual Assessment Tool (OAAT) provided in the DWR AWSDA guidebook, RPU's demand for next year is satisfied through the available supply shown in Figure 3. Therefore, RPU is not anticipating implementing a shortage response action. RPU is aware that the projected conditions can change and will monitor for these changes or any State requirement triggering any changes in the WSCP stages. Table 4 in the attached OAAT evaluation shows how water demand is calculated and that a positive monthly surplus is expected. Despite the positive surplus in RPU's next year's demand projection, some demand reduction actions are still in effect and are summarized in Table 5 of the attached OAAT evaluation.



**Figure 3. RPU's Projected Water Supply vs. Water Demand**

### Annual Water Supply and Demand Assessment Procedure

RPU used the following procedure in preparing this Annual Assessment report:

1. In January and February of each year, RPU staff will review available data related to anticipated supplies and demands. RPU staff will coordinate with WMWD and the City of Norco on the regional outlook for water supply reliability.
2. In May of each year, RPU staff will present a recommendation to the RPU Board of Public Utilities for review and approval. The Board will review and approve the determination of supply reliability and will take actions to implement shortage response actions, if needed.
3. In May of each year, RPU will prepare the Annual Assessment with the required information and submit it to DWR.