WATER | ENERGY | LIFE

CITY OF RIVERSIDE PUBLIC UTILITIES

April 24, 2024

City of Riverside 2024-2025 Annual Supply and Demand Assessment Methodology

The purpose of this memorandum is to discuss the Annual Water Supply and Demand Assessment, how it relates to the City of Riverside and the City's process for completing this study.

System Overview

The Riverside Public Utilities (RPU) service area is located within the Santa Ana River Watershed and is approximately 60 miles east of Los Angeles and 100 miles north of San Diego. The RPU service area is approximately 75 square miles, of which approximately 70 square miles are located within Riverside's City limits.

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 on 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 Error! Reference source not found..

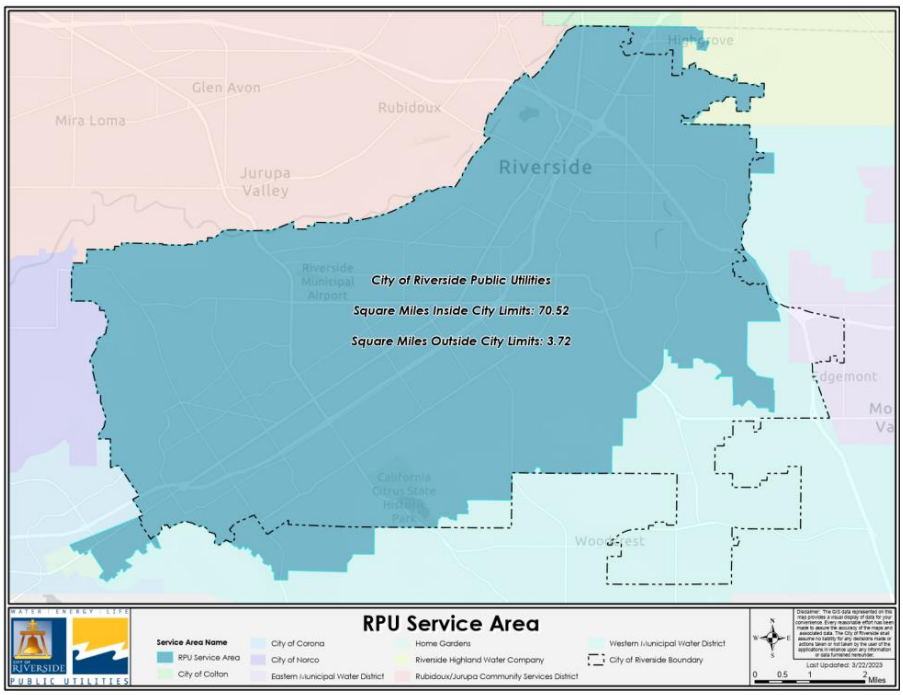

Figure 1. RPU Service Area Boundary

RPU provides potable water, non-potable water, and recycled water to the City of Riverside (City). RPU currently serves water to a population of about 299,444 people through approximately 69,000 service connections within a service area of 75 square miles. In addition, RPU provides surplus potable and non-potable water to WMWD, which serves City residents outside of the RPU service area. A small amount of surplus potable water is also supplied to the City of Norco via a wholesale agreement. Since 2009, all the City's potable water demand has been supplied solely from local groundwater rights as established by the court's Western-San Bernardino 1969 Judgement.

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 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 fixed extraction rights. Should a drought increase demand, RPU has the capacity and rights to increase pumping to maximize its fixed extraction rights in that drought year. As of 2024, RPU is able to 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
Total	85,773

As an additional backup supply source, RPU has access to imported water through WMWD. RPU is also able to receive water through an interconnection with Norco for emergency purposes.

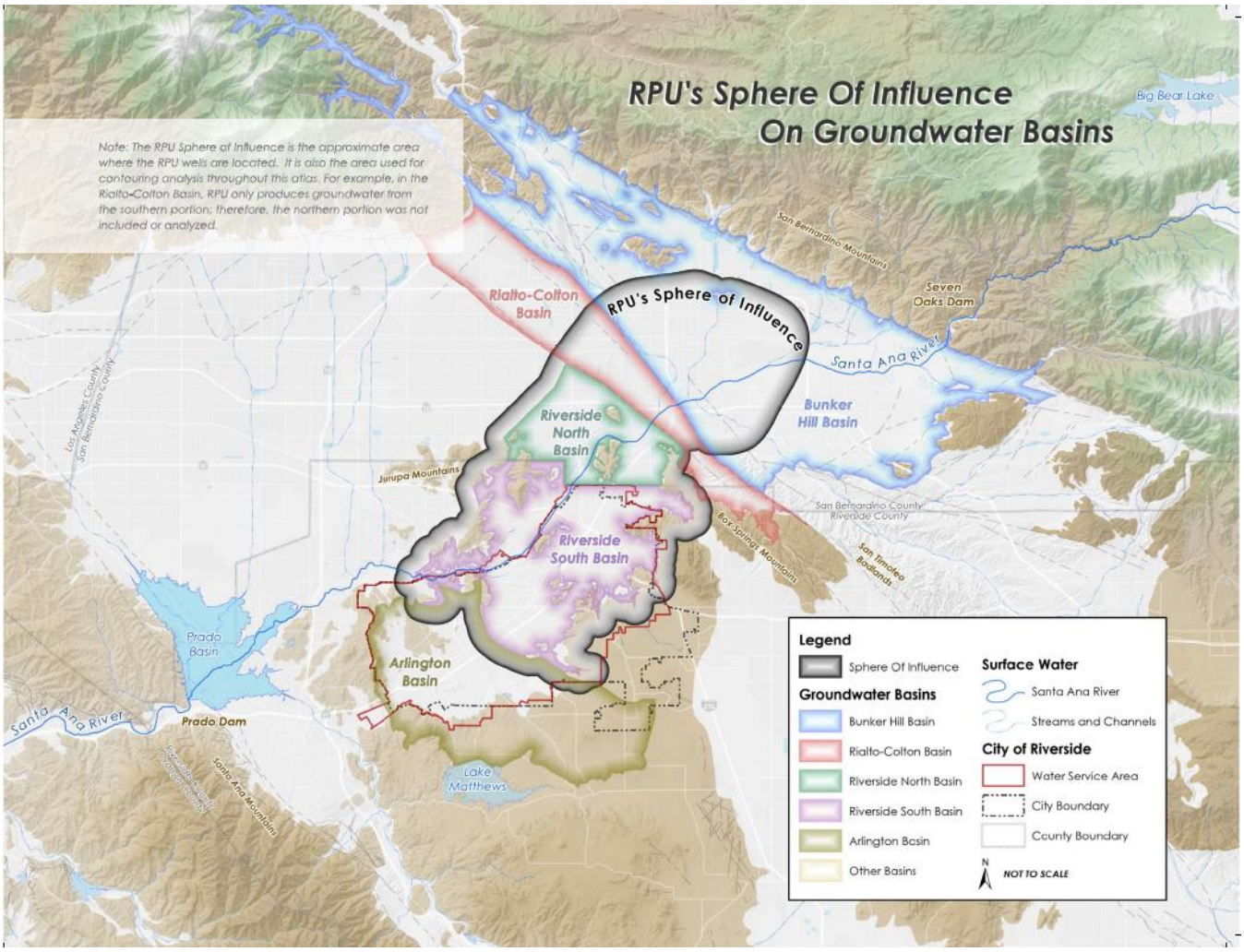

Figure 2. Groundwater Basins Underlying Service Area (City of Riverside water supplies consist of groundwater from City wells)

As of 2024, RPU has 53 wells located in five well fields that produce groundwater from the Bunker Hill Basin, Rialto Colton, Riverside North, and Riverside South groundwater basins. The vast majority of the groundwater is produced from the Waterman and Gage well fields located in the Bunker Hill Basin.

Riverside's Available Water Supply Projection in 2024-2025:

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.
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 from the City of Riverside Regional Water Quality Control Plant, which satisfies the need of up to 800 AFY.
4. RPU's Annual Supply projection is reflective of the available well's capacity during high demand season.

Riverside's Water Demand in 2024 and 2025:

The total potable and non-potable monthly water demand projections for RPU from July 2024 to June 2025 are estimated by adding all next year's projection water needs for all demand categories. The estimated demands are based on the last five years' monthly average gallon per capita per day (GPCD) and the projected population changes, weather, and potential growth.

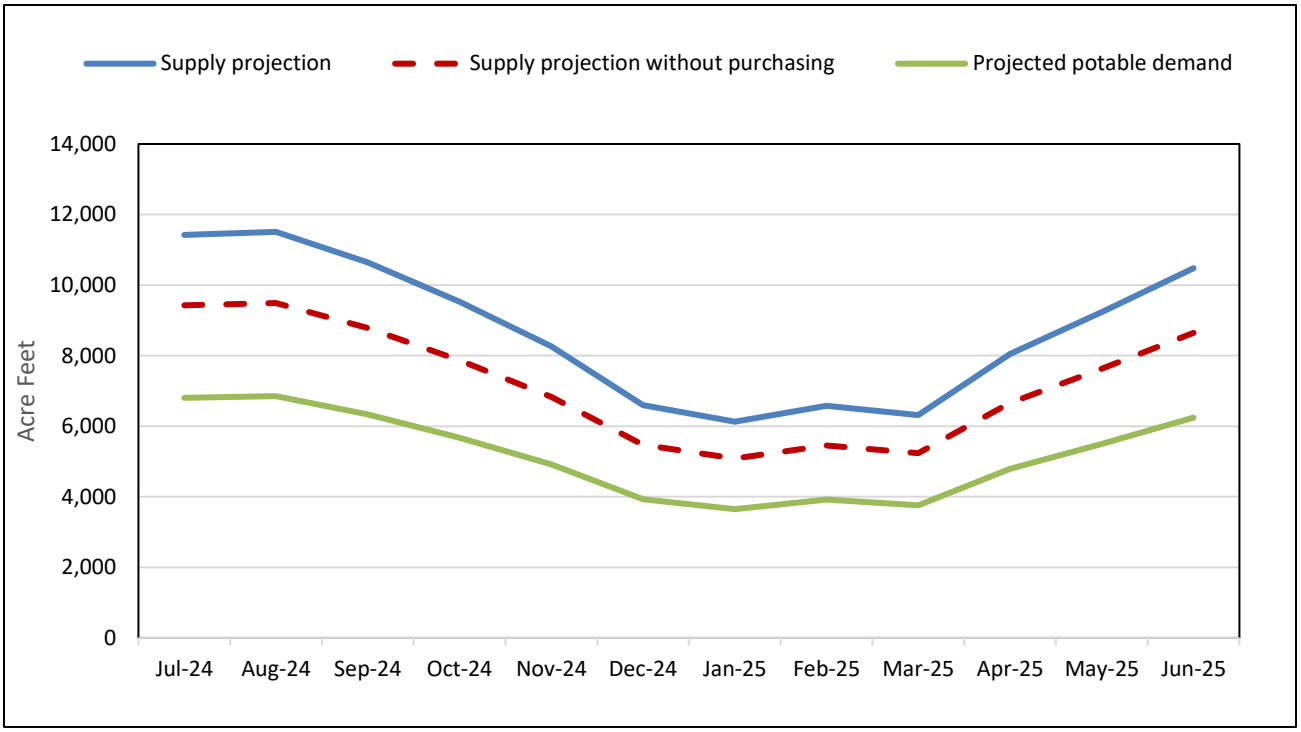

Figure 3. Projected Water Supply vs. Water Demand

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 under the demand consideration discussed in the Demand section is met, and the available supply will cover that demand. 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 that will trigger any of the Water Supply Shortage Contingency Plan stages. Table 4 in the OAAT shows the calculation steps and the positive monthly surplus. Despite the positive surplus in RPU's next year projection, some demand reduction actions are still ongoing and are summarized in Table 5 of the OAAT.

Annual Water Supply and Demand Assessment Procedures

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 April of each year, RPU staff will present a recommendation to the RPU Board of Public Utilities for approval. The Board will approve the determination of supply reliability and will take actions to implement shortage response actions, if needed. The Board will provide public notice of a hearing to consider changes in implementing shortage response actions.
3. In May of each year, RPU will prepare the Annual Assessment with the required information and submit it to DWR.