



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: August 11, 2025

SUBJECT: 2024 RPU'S GROUNDWATER ATLAS

ISSUE:

Consider receiving an update on RPU's 2024 Groundwater Atlas

RECOMMENDATIONS:

That the Board of Public Utilities receive an update on RPU's 2024 Groundwater Atlas.

BACKGROUND:

The purpose of developing and updating RPU's Groundwater Atlas (GW Atlas) every three years is to have an atlas-style document that describes the current conditions of the groundwater basins that supply water to Riverside Public Utilities (RPU), and how they change over time. This document provides clear, accessible, and reliable data to customers, elected officials, executive management, and staff.

The 2024 RPU GW Atlas is an update to the 2021 RPU GW Atlas, which was previously presented to the Board of Public Utilities on November 14, 2022. This document consists of detailed exhibits that characterize the state of the groundwater basins with respect to hydrology, RPU groundwater rights, 2024 groundwater production, groundwater recharge, groundwater levels, groundwater storage, and groundwater quality.

RPU staff, with the assistance of WSC, developed a comprehensive hydrologic/hydrogeologic database, then analyzed, arranged, formatted, and documented the complex data in a clear and concise format. The final report has been printed and is now before the Board. An electronic version will be accessible online at <https://riversideca.gov/utilities/about-rpu/reports-finances>

Other regional water agencies, such as the Chino Basin Watermaster, Eastern Municipal Water District, and Orange County Water District, regularly prepare annual groundwater assessments, or State of the Basin reports, to evaluate changes in their local groundwater basins. Following the recommendations of the San Bernardino Basin (SBB) Optimization Study, a State of the Basin report is currently being prepared for the SBB.

DISCUSSION:

RPU currently owns and operates over 52 groundwater production wells and uses about 44 miles of potable transmission mains, 1,000 miles of distribution pipelines, and 30 miles of non-potable conveyance system to deliver the groundwater produced from the basins. RPU currently serves water to a population of about 300,000 people through approximately 69,340 service connections within a service area of 75 square miles. In addition, RPU also provides surplus potable and non-potable water to Western Municipal Water District, and surplus potable water to the City of Norco, which serves residents outside of the RPU service area. Since 2008, RPU has not utilized imported water; all its water supply has been sourced from local groundwater basins.

RPU has approximately 55,000 acre-feet (AF) of extraction rights from the San Bernardino Basin Area (Bunker Hill Basin), about 28,000 AF from the Riverside Basin, and 2,700 AF from the Rialto-Colton Basin.

General conditions in these basins are dynamic and influenced by many factors, such as periodic dry hydrology episodes and pumping by other stakeholders, most of which are outside of RPU's control. Throughout the year, RPU staff measures water levels, collects water quality data and production data to monitor wells across the four groundwater basins to observe current conditions. Groundwater data collected by the United States Geological Survey (USGS) and other water agencies in the area is also tracked to gain a further understanding of the basins. Over the last 25 years, groundwater levels in these basins have shown a long-term declining trend. This negatively impacts RPU's production capacity and increases the cost of producing groundwater.

The GW Atlas makes groundwater information more visible and accessible. It also allows staff to devise water supply strategies and to assist in tracking, monitoring, and analyzing the use of groundwater. It helps in identifying areas where groundwater production might be optimized, and where new production wells could be sited. The GW Atlas helps RPU staff proactively evaluate water supply within these local basins, further understand the changing basin conditions, and educate the community, City Council, RPU Board, and Executive Management. The GW Atlas is intended to facilitate better management of water allocation, help direct RPU's strategic planning, and serve as a historical record of the status of the basins.

FISCAL IMPACT:

There is no fiscal impact associated with this informational report.

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Attachments:

1. RPU's 2024 Groundwater Atlas
2. Presentation