



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: DECEMBER 12, 2022

SUBJECT: 2021 GROUNDWATER ATLAS UPDATE

ISSUE:

Consider receiving an update on Riverside Public Utilities' 2021 Groundwater Atlas.

RECOMMENDATION:

That the Board of Public Utilities receive an update on Riverside Public Utilities' 2021 Groundwater Atlas.

BACKGROUND:

The Groundwater Atlas (GW Atlas) is 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. It is updated every three years or as significant changes occur in the basins. The GW Atlas provides readable and reliable data to customers, elected officials, executive management, and staff. It also provides information and analysis to RPU staff to help manage the City's water supply.

The 2021 GW Atlas is an update to the 2018 RPU GW Atlas, previously presented to the Board of Public Utilities on March 22, 2021. This document consists of detailed exhibits that characterize the state of the groundwater basins with respect to hydrology, RPU groundwater rights, 2021 groundwater production, groundwater recharge, groundwater levels, groundwater storage, and groundwater quality.

Staff developed a comprehensive hydrologic/hydrogeologic database and analyzed the complex data to make it available in a clear and concise format. The final report has been printed and is presented to the Board today. Many other regional water agencies, such as Chino Basin Watermaster, Eastern Municipal Water District, and Orange County Water District, prepare annual groundwater assessments or state-of-the-basin reports for evaluating changes in their local groundwater basins.

DISCUSSION:

RPU owns and operates over 53 groundwater production wells, and uses about 1,000 miles of potable transmission and distribution mains and 30 miles of non-potable conveyance system to

deliver groundwater from aquifers in San Bernardino and Riverside County. RPU currently serves water to a population of about 307,000 through approximately 69,200 service connections within a service area of 75 square miles. In addition, RPU also provides surplus potable water to the City of Norco and surplus potable and non-potable water to Western Municipal Water District, which serves City residents outside of the RPU service area. RPU has obtained 100 percent of its water supply from local groundwater basins since 2008 and has approximately 55,000 acre-feet (AF) of extraction rights from the San Bernardino Basin Area (SBBA), 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, most of which are outside of RPU control, such as the ongoing period of dry hydrology that started in 1999. Throughout the year, RPU staff collect water quality data at production and monitor wells across the three groundwater basins to observe current conditions. Groundwater data collected from other agencies, including the United States Geological Survey (USGS), is also used to understand the basins further. Over the last 20 years, groundwater levels in these basins have shown a long-term decline, negatively impacting RPU's production capacity and increasing the cost of producing groundwater.

The GW Atlas makes the data collected more visible and accessible to support water supply strategies and assist in tracking, monitoring, and analyzing groundwater use. It helps identify areas to optimize groundwater production and place new production wells. Staff uses this information to proactively evaluate water supply within our local basins, further understand the changing basin conditions, and educate the community, City Council, Board of Public Utilities, and Executive Management.

STRATEGIC PLAN ALIGNMENT:

This item contributes to **Strategic Priority 4 - Environmental Stewardship** and **Goal 4.2 – Sustainably manage local water resources to maximize reliability and advance water reuse to ensure safe, reliable and affordable water to our community.**

This item aligns with each of the five Cross-Cutting Threads as follows:

1. **Community Trust** – The GW Atlas characterizes critical information about the status of the City of Riverside's water supply and usage to inform and raise community awareness.
2. **Equity** – The GW Atlas is an informative document that shows that all RPU customers need to use water as efficiently as possible.
3. **Fiscal Responsibility** – The GW Atlas helps track, monitor, and analyze groundwater use.
4. **Innovation** – Information from the GW Atlas is used in strategic water management plans and helps keep the community better informed with a straightforward and atlas-style document.
5. **Sustainability & Resiliency** – The GW Atlas helps staff to better manage our local water resources, where to locate future water supply and infrastructure projects, and the importance of conservation and water use efficiency.

FISCAL IMPACT:

There is no fiscal impact associated with this informational report.

Prepared by: David A. Garcia, Utilities Assistant General Manager/Water
Approved by: Todd M. Corbin, Utilities General Manager
Approved by: Kris Martinez, Assistant City Manager
Approved as to form: Phaedra A. Norton, City Attorney

Certifies availability
of funds: Edward Enriquez, Interim Assistant City Manager/Chief Financial
Officer/City Treasurer

Attachments:

1. RPU's 2021 Groundwater Atlas
2. Presentation