

# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE: APRIL 14, 2025**

**SUBJECT: SEVEN OAKS DAM ENHANCED RECHARGE PROJECT, PHASE 1B  
CONSTRUCTION STATUS-UPDATE**

**ISSUE:**

Consider receiving an update on the construction status of the Seven Oaks Dam Enhanced Recharge Project, Phase 1B.

**RECOMMENDATION:**

That the Board of Public Utilities receive an update on the construction status of the Seven Oaks Dam Enhanced Recharge Project, Phase 1B.

**BACKGROUND:**

Riverside has participated in two (2) "New Conservation" projects that capture storm water from Seven Oaks Dam and recharge it to the Bunker Hill groundwater basin. The first project is known as the Seven Oaks Dam Initial Conservation Project (Initial Project) and the second is the Seven Oaks Dam Enhanced Recharge Project. The recharge facilities associated with these projects are located east of the City of Redlands and approximately two (2) miles downstream from the Seven Oaks Dam.

Riverside currently holds adjudicated rights to extract and export 55,263 acre-feet per year (AFY) from the San Bernardino Basin Area (SBBA), representing 22.49% of the basin's total water rights. These rights include the additional extraction rights gained through participation in the Initial Conservation Project. Riverside can further increase its extraction and export rights by participating in Enhanced Recharge projects, classified as "New Conservation" projects under the 1969 Western Municipal Water District of Riverside County et al., v East San Bernardino County Water District. et al. Judgment (1969 Judgment).

San Bernardino Valley Municipal Water District (San Bernardino Valley) leads these projects, while Western Municipal Water District of Riverside County (Western Water) has agreed to cover Riverside's portion of the costs to date. Riverside and Western Water have established agreements for Riverside's participation in these "New Conservation" projects.

Since 1994, through City Council and Riverside Public Utilities (RPU) Board actions, Riverside has invested approximately \$23.5 million to expand water extraction and exports rights from the SBBA through participation in the regional Seven Oaks Dam (Initial Project) construction and two Enhanced Recharge (ER) project phases.

The ER project is divided into three phases to accommodate environmental permitting requirements and allows time for agency budgeting:

- **Phase 1A:** Completed - Consisted of the improvements to the San Bernardino Valley Water Conservation District's (WCD) canal, construction of the sedimentation basin and pipelines connecting to the Foothill Pipeline downstream of the Seven Oaks Dam.
- **Phase 1B:** Underway - Consists of construction of new canals and 20 recharge basins. Construction work on this Phase recently completed and environmental remediation underway.
- **Phase 1C:** Consists of improvements to the Intake Structure and construction of debris removal equipment.

The ER project will increase the recharge capacity of San Bernardino Valley Water Conservation District's (WCD) recharge basins and conveyance facilities downstream of Seven Oaks Dam from 195 cubic feet per second (cfs) to 500 cfs, enabling recharge of up to 78,500 acre-feet in a single wet year. Riverside participation will result in additional water rights and financial obligations, in line with its 22.49% water rights for the basin.

## **DISCUSSION:**

In 2018, following the completion of Phase 1A construction, San Bernardino Valley's Board of Directors selected Butier Engineering to manage the design and project oversight for Phase 1B. In March 2023, through a competitive bidding process, Bogh Engineering secured the construction contract for \$51,380,900. The total project cost of Phase 1B was estimated at \$64,518,990 to include a 10 percent contingency, professional inspection, material testing, and environmental biological monitoring services, and a financial security deposit, which is fully refundable if the project meets all of the California Department Fish and Wildlife permit requirements. San Bernardino Valley has \$4.5 million in grant funding to offset project costs, which will be distributed among all project partners, including Riverside. After accounting for Riverside's share of these grants, the City's financial obligation amounts to approximately \$13,498,271. In January 2024, RPU Board approved a capital expenditure increase to cover the costs of participating in Phase 1B as itemized in the table below:

### **Enhanced Recharge Project Phase 1B Anticipated Costs**

<b>ERP Phase 1B Anticipated Costs</b>	<b>Project Totals</b>	<b>Riverside (22.49%)</b>
Construction Contract	\$51,380,900	\$11,555,564
10% contingency	\$5,138,090	\$1,155,556
Inspections, Testing Services, and Biological Monitoring Services	\$3,500,000	\$787,150
Implementation of Mitigation	\$4,500,000	\$1,012,050
Grants	(\$4,500,000)	(\$1,012,050)
<b>Total</b>	<b>\$60,018,990</b>	<b>\$13,498,271</b>

Construction of Phase 1B began in May 2023 with an initial 30-month timeline, but the contractor completed construction 10 months ahead of schedule. Construction was completed in December 2024. This was made possible by San Bernardino Valley staff assuming the construction

management aspect of the project. Throughout the project, Valley staff's construction management provided better coordination for management efficiency which led to a saving by half in the projected contingency costs. Other costs related to additional work on the environmental restoration portion will still be ongoing until March 2025.

Additional costs related to environmental mitigation implementation are still expected. Originally, the mitigation implementation was planned to continue for five years after completion of construction. To expedite the process, a change order with Bogh Engineering was made to accelerate this timeline to about three years instead. This involves using the rock crushing operation they already have to create the required San Bernardino Kangaroo Rat (SBKR) sand for some areas. This approach will be faster and could result in cost savings, as it could reduce the need to use the entire budget with another environmental contractor later. The expected costs for the additional work after the completion of construction is estimated to remain within the original budget.

As of January 2024, coordination between San Bernardino Valley and WCD, has enabled stormwater capture along with the Seven Oaks Dam releases to begin recharging several new basins. It is estimated that between 12,000 and 15,000 acre-feet of additional water recharge was captured. For context, purchasing an equivalent amount of Riverside's additional water rights (estimated at 2,431 AFY) from the State Water Project would cost approximately \$180 million over the project's 50-year lifespan.

RPU and San Bernardino Valley staff coordinated a tour of the Santa Ana River Enhanced Recharge Phase 1-B facilities for RPU Board members on August 18<sup>th</sup>, 2024. Additionally, a ribbon cutting ceremony was scheduled for February 20<sup>th</sup>, 2025.

The last phase of the New Conservation projects, Enhanced Project Phase 1C will include improvements to the intake facilities, including a trash rack system behind the intake structure, a crest gate, and a deepening of the intake structure's front pool. This phase will require federal permits (408 and 1602). San Bernardino Valley staff estimates construction to start during fiscal year 2028 after finalizing Environmental Permitting and Design. As of December 2024, cost estimates for Phase 1C were updated to \$7,500,000 from February 2019 estimates of \$3,500,000. Riverside's portion would be \$1,618,000. Staff will seek RPU Board approval before the start of this phase.

### **STRATEGIC PLAN ALIGNMENT:**

Continued participation in the Enhanced Recharge Project projects contributes to Strategic Priority No. 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, and Strategic Priority No. 6 – Infrastructure, Mobility & Connectivity and Goal 6. 3 - Identify and pursue new and unique funding opportunities to develop, operate, maintain, and renew infrastructure and programs that meet the community's needs.

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

1. **Community Trust** – This project ensures a reliable and sustainable water supply for our community and the environment and will strengthen our water resilience by securing our water source for future demand requirements.

2. **Equity** – The Enhanced Recharge Project will permanently increase the City of Riverside’s water export rights. This project will provide all RPU customers with more reliable water sources.
3. **Fiscal Responsibility** – This project will provide regional water resources at a lower cost than imported water, maximizing the value of local water assets.
4. **Innovation** – The Enhanced Recharge Project is an innovative approach to use flood protection facilities to maximize water recharge opportunities by coordinating with multiple stakeholders in the Santa Ana Watershed.
5. **Sustainability & Resiliency** – This project demonstrates regional collaboration to provide reliable and sustainable water supply for the region and to enhance the use of local water resources.

### **FISCAL IMPACT:**

There is no fiscal impact to this update.

Prepared by:	Robin Glenney, Utilities Assistant General Manager/Water
Approved by:	David A. Garcia, Utilities General Manager
Certified as to availability of funds:	Kristie Thomas, Finance Director/Assistant Chief Financial Officer
Approved by:	Rafael Guzman, City Manager
Approved as to form:	Jack Liu, Interim City Attorney
Attachment:	Presentation