MEMORANDUM - REVISED

TO: **Scott Rogers, Shadi Bader, Palmdale Water District**

PREPARED BY: **Dawn Flores**

REVISED BY: **Max Storms**

REVIEWED BY: **Brian Van Lienden**

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RE: **Water Supply Fee Analysis - REVISED**

1. Introduction and Background

For Palmdale Water District (PWD), providing clean and reliable water is an imperative public service. The purpose of this analysis is to develop a Water Supply Fee to equitably fund the development or acquisition of future sources based on identified needs. The water supply fee serves as a cost recovery mechanism to fund the future development or procurement of additional water supplies. Furthermore, the new fee cannot be developed in a vacuum; instead, it must account for the District's existing rates and charges, and clearly identify the purpose, methodology, and uses of revenues for the fee. Primarily, the fee is designed to complement PWD's Capital Infrastructure Fee (CIF) and Water Rate Charges and provide that same costs were not recovered twice.

The findings of this analysis are founded on PWD's 2023 Strategic Water Resources Plan (SWRP) and recent planning related to recycled water and groundwater wells. The SWRP identified service area demands and the potential water resource options available to PWD to meet an increase in demand related to development. Using these studies as the foundation of the Water Supply Fee provides sound justification and creates an internal consistency throughout PWD's engineering and planning documents.

Furthermore, as PWD maintains existing water rates and capital charges, it is necessary to identify, account for, and allocate capital project, potential conservation, and recycled water offsets to achieve an equitable and cost-of-service based Water Supply Fee. Development of this fee was performed to be in conformance with existing policies and Government Code §66000.

The findings in this memorandum were revised in October 2026 based on an updated cost estimate for the Palmdale Ditch enclosure project. The project was originally assumed to be fully grant funded, with a total capital cost of $22,580,000. The revised total capital cost is $50,790,000, while grant funding remains unchanged at $22,580,000. As a result, the total capital cost of the recommended facilities increases by $28,210,000. Where applicable, revisions are shown in red font or with strikethroughs.

2. Strategic Water Resources Plan

The SWRP was prepared to establish objectives and identify necessary steps to meet the projected future needs of PWD's customers. It forecasted that over the next 25 years (2025 to 2050), the population residing within PWD's service area will increase by 28%. Anticipated supply needs to meet those demands would increase by approximately 6,500 acre-feet per year (AFY).

As detailed in the SWRP, PWD has several water resource options available to meet these needs. These options include imported water, groundwater, local runoff, recycled water, conservation, and water banking. The plan evaluated various combinations of these options with respect to a variety of factors including cost, reliability, flexibility, ease of implementation, and sustainability. It was through this evaluation process that a recommended Water Resources Strategy was developed.

Based on the projected need of an additional 6,500 AFY by 2050 plus facility replacement and improvements to ensure continued reliable supply production, the recommended Water Resources Strategy projected capital needs of $245.3 million. The majority of additional supplies would be acquired through maximizing imported water, recycled water, groundwater pumping, and local surface water.

Table 1 summarizes the SWRP recommended capital costs associated with the proposed facilities.

TABLE 1: SUMMARY OF CAPITAL COSTS

Water Resource Element	Capital Cost	Assumptions
Groundwater rights purchase from Calandri Farms	$1,500,000	150 AF purchased from Calandri Farms in 2026
Groundwater rights to be purchased by 2045	$8,500,000	$10,000 per AF for 850 AF (needed by 2045)
New wells	$54,500,000	Assumes 7 new wells at $7M per well, and $5.5M for new collection pipelines.
Replacement wells	$35,000,000	$7M per well for 5 wells.
Recycled water (Pure Water AV)	$117,600,000	Cost updated based on WIFIA funding application cost estimate. Includes treatment, injection wells and conveyance facilities.
Palmdale Ditch enclosure	$28,210,000	Capital cost of $50,790,000 with $22,580,000 covered by grant funds.
Total	**$245,310,000**	

As disclaimed in the SWRP, the SWRP is not meant to be a static document. As existing and future demands can vary, it is important to regularly revisit assumptions and necessary capital needs. In addition, the District is working to secure grant funding to reduce these amounts. For the purposes of this Water Supply Fee, the capital and demand needs are used "as is" and have not been escalated to account for inflation or increases in construction costs.

3. Approach

Given PWD's existing rate structure, the approach to the fee design incorporates the cost to secure and supply one acre-foot of water. Capital costs were reviewed with PWD staff, and $35,000,000 in costs that were already incorporated into other fees or rate structures were excluded.

The approach uses the costs and demand assumptions set forth in the SWRP. Under this approach, the SWRP's proposed capital project costs (over 25-years) are divided by the forecasted new supply. Simply put, it defines the cost associated to acquire 1.0 afy of water. Under this structure, the proposed fee would be $32,400 per AFY. Table 2 provides the details of this calculation.

TABLE 2: FEE CALCULATIONS

Total Capital Cost	$245,310,000
Excluded Capital Cost	$35,000,000
Total Recovered Capital	**$210,310,000**
New Supply (AFY)	6,500
Water Supply Fee (per AFY)	**$32,400**

4. Development of Water Supplies

In addition to overall capital cost, the portion of the proposed fee related to the purchase of water and that portion directly related to capital were analyzed. These costs include only the cost to purchase groundwater rights. Remaining supplies are already available to PWD and therefore do not incur additional purchase cost. Costs for recycled purchase related to the Pure Water AV project are not included in the capital costs. Table 3 presents the percentage of the fee related to the development of water resources.

TABLE 3: FEE ALLOCATION

	Percent	Cost
Water Supply Fee related to water supply	5%	$1,500/AF
Water Supply Fee related to capital costs	95%	$30,900/AF
Proposed fee ($/AF)	100%	$32,400/AF

Note that the SWRP provides a comprehensive water supply portfolio to meet the future demands of the District. The purchase of additional water supplies alone does not fully meet the District's desired water supply, reliability, and sustainability concerns. As such a capital component of the proposed water supply fee is necessary to achieve the outlined SWRP objectives.

5. Rate Design Consistency

The proposed water supply fee is designed to mirror PWD's water rate structure. Under the existing budget-based tiered rate structure, each residential customer is budgeted a specific allotment of water in one of four tiers. As a budget or allotment is exceeded, a user enters the next tier where water becomes more

costly. This increase in costs is typically done to reflect the additional cost of acquiring additional water, additional energy use, or additional infrastructure needs.

As defined in the 2024 Water Rate Study, each customer receives a water budget for indoor and outdoor use that considers individual factors such as the number of people in the household, size of irrigable outdoor landscape, weather, and State efficiency standards. Under this structure, Tier 1 water is considered to be essential indoor use, and is calculated based on 50 gallons per capita per day (gpcd) for a household of four people, while Tier 2 water is considered efficient outdoor use and is calculated based on actual irrigable area, weather, and water supply conditions. Remaining Tiers 3 and 4 reflect the cost of obtaining additional supplies.

The proposed single family residential (SFR) connection fee is defined by a typical SFR parcel. It's assumed that 100% of the Tier 1 and Tier 2 allocation is used. Based on the assumption that single family residential users will use 50 gpcd and have four persons per household, annual Tier 1 water usage is equal to 8.1 hundred cubic feet (hcf) per month or 0.22 AFY. Tier 2 single family residential use varies by irrigable area and weather, but for the purposes of this analysis, it's assumed that an average lot size has 2,500 square feet of irrigable area and 65 inches per year of evapotranspiration to equal 7.9 hcf per month or 0.22 AFY. Additional information on the formulas used to estimate Tier 1 and Tier 2 allocations are detailed in the 2024 rate study. The combined Tier 1 and Tier 2 allocations equal 16 hcf per month or 0.44 AFY.

This analysis assumes that each new connection pays immediately for a "baseline" amount of supply and will pay over time for additional needs through Tiers 3 and 4. Under this structure, the proposed fee would be $14,310 per new single family connection.

6. Summary

This is a point-in-time analysis with numerous capital and financial assumptions and water demand forecasts. The purpose of this fee is to provide supply for the cost of supplying new customers with new supplies and the infrastructure to deliver those supplies. This includes funding new groundwater acquisition, new potable recycled water production, groundwater injection and groundwater production facilities. This fee does not include the capital costs of transmission, treatment, or distribution, as these charges are recovered in PWD's CIF. Furthermore, operation and maintenance costs related to the new supplies are set to be recovered in PWD's monthly water rates and charges. Table 4 summarizes the projected water supply fee. The single-family proposed fee presented in the table ($14,310) is based on an unrounded single-family allotment of just over 0.44 AFY.

TABLE 4: WATER SUPPLY FEE FOR TYPICAL SFR CONNECTION

	Cost
Proposed fee for one AFY	$32,400/AF
Single-family proposed fee[1]	$14,310/connection

1. Based on a typical single-family allotment of ~0.44 AFY