THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

INFORMATION

- **Board of Directors**
  Water Planning and Stewardship Committee

9/14/2021 Board Meeting

9-3

Subject

Considerations for purchasing land assigned senior priority Colorado River water supplies

Executive Summary

Metropolitan has a strong interest in promoting the long-term health of the Colorado River and the vital communities and economic activity which depend on its flow. For decades, Metropolitan has taken actions to conserve Colorado River supplies, which flow through the river's priority system for use by Metropolitan. These actions included establishing a 35-year rotational fallowing program with Palo Verde Irrigation District (PVID) landowners and providing rent reduction incentives to decrease water consumption on Metropolitan-owned land. To date, Metropolitan owns a total of 29,126 acres of land with Priority 1 and 3 rights within the Palo Verde region. Moving forward, staff seeks Board input to guide future potential land acquisitions, including the purchase of additional lands in either the Palo Verde Valley or other regions with rights to higher priority Colorado River supplies. This informational report focuses on the history and considerations for purchasing and leasing land holdings in the Palo Verde region.

Details

Background

For decades, the purchase of land to acquire water or water rights has increased in the western United States. From time to time, opportunities are brought to Metropolitan to purchase additional lands that use Colorado River water for the potential purpose of incentivizing water conservation on that land. Metropolitan has Priority 4 water rights to the Colorado River, and acquiring lands with senior priority rights is a potential strategy to obtain reliable and cost-effective water supplies in the face of a changing climate and reduced water supplies.

The Law of the River and the Quantification Settlement Agreement

Water rights in the Colorado River are governed by a set of statutes, interstate compacts, court decrees, and regulations collectively known as "the Law of the River." Under the Law of the River, California has a basic apportionment of 4.4 million acre-feet per year plus one-half of any surplus water available to the Lower Basin states made up of California, Arizona, and Nevada. In addition, California may make use of any unused water apportionments of the other two lower basin states.

In California, the 1931 Seven Party Agreement established the state's Colorado River water apportionment to each agency by priority status. This apportionment was incorporated in the water delivery contracts for each agency. The agricultural agencies with senior priority over Metropolitan have the right to use up to 3,850,000 acre-feet per year. The highest California priority under the 1931 Seven Party Agreement is held by PVID for the irrigation of land in the Palo Verde Valley. Table 1 sets forth the existing priorities of the California users of Colorado River water established under the 1931 Seven-Party Agreement.

Table 1

PRIORITIES UNDER THE 1931 CALIFORNIA SEVEN-PARTY AGREEMENT(1)

Priority	Description	Acre-Feet Annually
1	Palo Verde Irrigation District gross area of 104,500 acres of land in the Palo Verde Valley	
2	Yuma Project in California not exceeding a gross area of 25,000 acres in California	3,850,000
3(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys(2) to be served by All-American Canal	
3(b)	Palo Verde Irrigation District - 16,000 acres of land on the Lower Palo Verde Mesa	
4	Metropolitan Water District of Southern California for use on the coastal plain	550,000
	SUBTOTAL	4,400,000
5(a)	Metropolitan Water District of Southern California for use on the coastal plain	550,000
5(b)	Metropolitan Water District of Southern California for use on the coastal plain(3)	112,000
6(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys to be served by the All-American Canal	300,000
6(b)	Palo Verde Irrigation District - 16,000 acres of land on the Lower Palo Verde Mesa	
	TOTAL	5,362,000
7	Agricultural use in the Colorado River Basin in California	Remaining surplus

Source: Metropolitan.

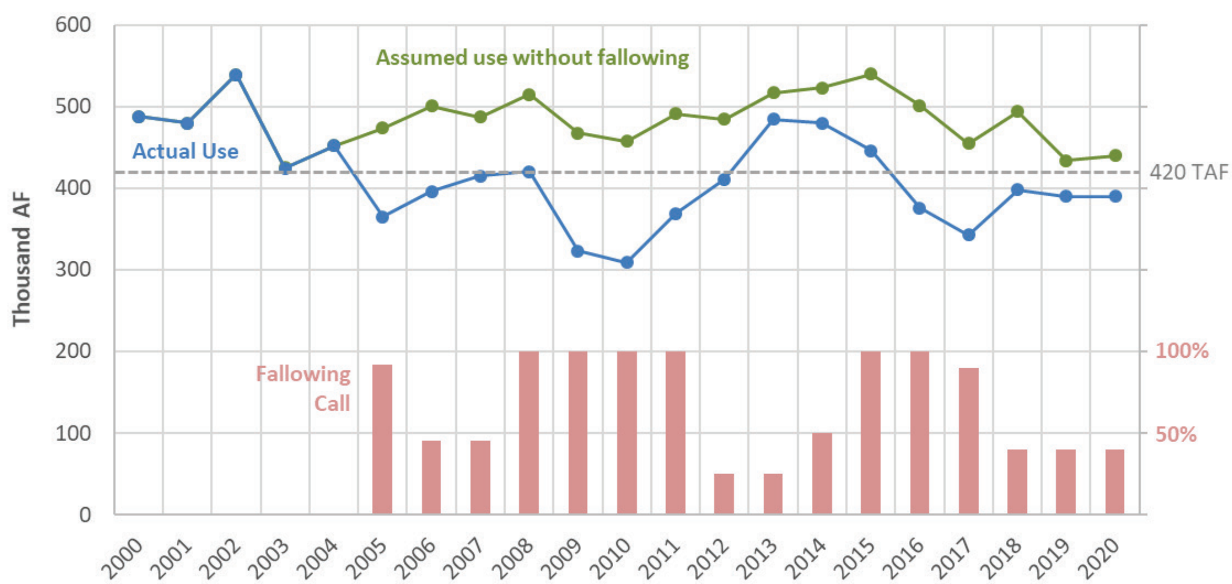
(1) Agreement dated August 18, 1931, among Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, Metropolitan, the City of Los Angeles, the City of San Diego and the County of San Diego. These priorities were memorialized in the agencies' respective water delivery contracts with the Secretary of the Interior.
(2) The Coachella Valley Water District serves Coachella Valley.
(3) In 1946, the City of San Diego, the San Diego County Water Authority, Metropolitan and the Secretary of the Interior entered into a contract that merged and added the City and County of San Diego's rights to storage and delivery of Colorado River water to the rights of Metropolitan.

The 2003 Quantification Settlement Agreement (QSA) established a limit on the use of Colorado River water by Imperial Irrigation District (IID) and Coachella Valley Water District (CVWD). However, PVID is not a party to the QSA; therefore, its Colorado River water rights are not quantified. The terms of the QSA provide that Metropolitan is responsible for any use by PVID and the Yuma Project that exceeds 420,000 acre-feet per year and, conversely, will receive any balance when PVID and the Yuma Project use less than that amount.

Figure 1 shows the net use of Colorado River water by PVID and the Yuma Project compared to their QSA baseline use of 420,000 acre-feet per year. When the higher priority annual water use exceeded 420,000 acre-feet, that amount came out of Metropolitan's supplies. Nevertheless, any volume of water saved from the fallowing program is made available to Metropolitan in accordance with the QSA. These actions help achieve an Integrated Water Resource Plan (IRP) goal of being able to run the Colorado River Aqueduct at full capacity, when needed.

Until 2003, Metropolitan diverted more than its base 5a priority allocation of the California apportionment by taking advantage of the unused apportionments of Arizona and Nevada and any surplus water. In recent years, however, those states have taken their full Colorado River apportionments due to drought, which has also limited the availability of surplus water. As a result, Metropolitan has sought to make the most efficient use of California's share of Colorado River water supplies, including providing funding for water conservation by the California agricultural agencies. By helping to reduce water consumption of higher priority users, Metropolitan increases the amount of Colorado River supplies available to it under its Priority 4 rights. In addition, Metropolitan incentivizes conservation by its own member agencies and others throughout its service area.

Figure 1. Fallowing has reduced Priority 1, 2, 3b water use



Palo Verde Valley

Acquiring land for a water supply from the Palo Verde valley first occurred with the 1975 Sun Desert Agreement, approved by the Secretary of the Interior and California's Colorado River contractors. Under this agreement, San Diego Gas and Electric Company (SDG&E) purchased over 9,000 acres in PVID to provide cooling water for the proposed Sun Desert nuclear power plant. However, because of concerns about the permanent retirement of land in the valley, SDG&E purchased two acres for every acre to be taken out of production for a water supply. To make an annual flow of water available to the power plant, SDG&E planned to rotate land each year with half of its landholdings out of production and half under lease to farm operators.

In 2001, Metropolitan acquired approximately 16,344 gross acres from Sempra Energy, the eventual corporate parent of SDG&E, for about $2,600 per acre. Of this acreage, 9,704 acres were in the valley, and 6,640 acres were undeveloped acreage located outside the PVID boundaries on the mesa; this mesa acreage remains undeveloped. Ownership of some of the valley's Priority 1 property provides Metropolitan with a basis for implementing water conservation measures and allows Metropolitan greater flexibility to implement various water conservation and related efficiency management programs.

In 2015, Metropolitan acquired approximately 12,782 acres from Verbena LLC for about $20,000 per acre. Verbena initially proposed to Metropolitan that it would take the lands out of production if Metropolitan would agree to exchange the conserved water for State Water Project supplies to be delivered to contractors in the San Joaquin Valley. Metropolitan declined this offer, at which point Verbena offered to sell. By purchasing the land, Metropolitan could then work with existing tenants to reduce consumptive water use while keeping the lands under production as active farmland. With this purchase, Metropolitan became the largest landowner in the Palo Verde region.

Palo Verde Land Management, Crop Rotation and Water Supply Program (fallowing program)

Under the 35-year term fallowing program, Metropolitan made an initial payment of $3,170 per acre to farmers who agreed to fallow a portion of their lands each year during the 35-year term of the program. In addition, Metropolitan annually pays landowners for each acre of land fallowed at Metropolitan's call. The fallowing payment for 2021 is $909 per acre. This rate escalates each year depending on inflation.

The program generates up to 110,000 acre-feet in a year when the program operates at full capacity (the program is limited to maximum fallowing of 29 percent of irrigated lands in the Palo Verde Valley). The actual amount of conserved water, and the cost to Metropolitan, varies depending on the fallowing calls during the program term. The present value of the unit cost to Metropolitan for the conserved water (including the initial payment) is estimated to range from $134 to $147 per acre-foot depending on the amount of fallowing called for over the term of the program (the range is based on projected future fallowing calls of 90 percent and 25 percent, respectively).

Objectives for Leasing of Metropolitan-Owned Lands in the Palo Verde Region

Metropolitan began leasing most of its acquired property since the initial purchase in 2001. Metropolitan and PVID entered a memorandum-of-understanding (MOU) in 2001, which established an ongoing Property Utilization Committee for Metropolitan and PVID to discuss, analyze, and review Metropolitan's actions regarding the property.

Metropolitan's first lease structures were relatively simple and charged a market-based rent which was discounted because of the requirement that the lessees fallow land consistent with the fallowing program terms. These initial leases did not contain rent structures to incentivize water conservation. When new leases were later established, a rent structure was used that incentivized (or penalized) tenants based on variation from an agreed-upon baseline water use. This rent structure was later modified because of the difficulty in measuring applied water use with existing infrastructure and because of the heavy penalties for water use above the baseline. The next versions of the lease structures emphasized rent discounts based on crop choices, with lower rents for cropping patterns that were expected to lower consumptive water use. A land management credit was also added to these leases in recognition of the need to maintain any land that became fallowed on the leased land through the fallowing program.

Through these lessons learned with the tenants, staff identified several management objectives in 2016 to guide the leasing of Metropolitan-owned lands in the Palo Verde region. These objectives, updated since, guided the development of existing lease terms.

- **Reduce consumptive water use on the land** by incentivizing less water-intensive crops or more efficient irrigation methods. Reducing consumptive water use increases Colorado River supplies available to Metropolitan through the priority system.
- **Maintain a vibrant agricultural economy in the Palo Verde Valley** by maintaining the lands as productive farmland and providing farmers flexibility to respond to market forces in their choice of crops and irrigation methods.
- **Promote community acceptance and participation** by creating a fair and transparent process for lease selection and soliciting input from the community.
- **Advance state-of-the-art farming techniques** by encouraging innovative irrigation methods, crop selection, and data collection that can serve as a model.
- **Keep administrative overhead low** by limiting the total number of leases to be administered.
- **Provide a positive revenue stream for Metropolitan** by generating rents and reflecting a balance between the value of the agricultural land and the unique lease conditions in place to achieve these objectives.

These leasing objectives have proved effective thus far. Metropolitan's leased lands in the Palo Verde region, while controlling for variables in fallowing—produce a crop mix using less water per acre on average compared to the rest of the Palo Verde region. For example, the average water use on Metropolitan-leased lands from 2017-2020 was 8.2 AF/acre, compared to the valley average of 8.6 AF/acre. Reduced water use results from a broad range of Metropolitan's incentives and creative measures for conservation, which are developed and implemented by the farmers, such as improved irrigation efficiency, crop selection, crop stressing, and the like. If additional land was purchased in the Palo Verde Valley, Metropolitan would receive Colorado River water supply benefits because lands could be managed under the existing fallowing program or leased with goals to save water which would be managed through the Colorado River priority system.

Considerations for Purchasing Additional Lands receiving Senior Priority Colorado River Water Supplies

Similar to the guidance authorized by the Board for lease management objectives for land already owned by Metropolitan, staff seeks guidance on future potential land acquisitions, including the purchase of additional lands in either the Palo Verde Valley or other regions with rights to higher priority Colorado River supplies. As a matter of practice, Metropolitan regularly reviews publicly listed land, but has not actively pursued land purchases in the Palo Verde region. Metropolitan is occasionally approached by sellers desiring to sell their lands. Metropolitan's past practice to begin negotiations with these sellers have considered the following factors:

- **Overall location and use of Priority 1 water.** Consistent with the objective to conserve Colorado River supplies, bundled properties with adequate proportions of Priority 1 water rights are more desirable.
- **Water toll acreage.** Properties with a higher proportion of water toll acres increase water savings opportunities.
- **Adjacency/contiguity to existing Metropolitan properties.** Lands which are contiguous or adjacent to existing properties improve farming efficiencies, reduce land management overhead, and improve desirability for potential tenants.
- **Asking price.** The asking price should consider the appraised value range, market conditions, soil quality, encumbrances, and existing irrigation infrastructure. The appraised value may not fully reflect Metropolitan's strategic needs for the property. As such, appraised value is just one piece of information informing the purchase price.
- **Potential tenants.** Sale and leasebacks are considered with respect to the tenant's farming experience, financial viability and creditworthiness, proposed rent and agricultural innovation.
- **Fallowing Program enrollment.** Purchasing lands which are currently enrolled in a fallowing program would reduce year-to-year costs of normal fallowing payments.

Moving forward, other considerations for land purchases in the Palo Verde region may be:

- **Potential water supply benefits.** Consider purchases only when conserved water can be assured to flow to Metropolitan through the priority system or through creation of Intentionally Created Surplus (ICS) credits.
- **Buy and lease for the long-term.** While the current fallowing program will eventually end in 2040, Metropolitan's lands are a long-term investment providing a durable supply of water and other benefits for decades to come. The ability to lease farmland for decades allows long-term partnerships to improve irrigation infrastructure, manage soil health, and balance market-based lease structures with water management flexibility. Over time, lease revenues will recover the purchase cost of the land.
- **Community investment.** Land ownership and leasing back to farmers promotes a long-term investment in a vibrant community dependent on agricultural production. Metropolitan's past $6 million investment in a Community Improvement Fund in Palo Verde Valley can also serve as a model to create and retain local jobs.
- **Building partners for Colorado sustainability.** Land ownership attracts other funding and innovation partners to support the long-term health of the Colorado River system. For example, the recent partnership among the U.S. Bureau of Reclamation, Central Arizona Project, Southern Nevada Water Authority, Metropolitan, and PVID is fallowing land enrolled in the fallowing program and on Metropolitan-owned property.

Funding for Past Land Purchases in the Palo Verde Region

In July 2015, after the adoption of the biennial budget, the Board approved the purchase of land and associated transactional costs in Palo Verde Valley for up to $264 million. This purchase was funded wholly from reserves, given that the purchase had not been included in budgeted revenues. Future property acquisitions can be treated in an Ad Hoc manner, which would likely result in reserve funds being used. However, alternative approaches can also be considered along with the considerations listed above.

Next Steps

Staff seeks board guidance on the following:

(1) Considerations for purchasing land receiving Senior Priority Colorado River Water Supplies

(2) Considerations for actively pursuing land or responding to unsolicited offers, and funding such acquisitions, if they arise

Based on the Board's feedback, staff can develop proposed policy guidelines for Board consideration.

Policy

By Minute Item 41222, dated January 10, 1995, the Board adopted a policy that Metropolitan continue to seek ways to increase the reliability of its Colorado River supplies in order to operate the Colorado River Aqueduct at capacity as much of the time as is feasible.

By Minute Item 42820, dated February 10, 1998, the Board approved the policy principle on Colorado River Resources Strategy supporting Metropolitan's interests and increasing its dependable entitlements to Colorado River water, while collaborating with other California Colorado River agencies.

By Minute Item 44542, dated July 10, 2001, the Board approved Principles of Agreement for a Land Management, Crop Rotation, and Water Supply Program with Palo Verde Irrigation District.

By Minute Item 45053, dated October 22, 2002, the Board authorized entering into agreements for the Palo Verde Irrigation District Land Management, Crop Rotation, and Water Supply Program and community improvement programs.

By Minute Item 45517, dated September 23, 2003, the Board approved the QSA and related agreements among Imperial Irrigation District, Coachella Valley Water District, San Diego County Water Authority, and Metropolitan. Under the QSA, Metropolitan could acquire Colorado River water from PVID during the Quantification period without objection by IID and/or CVWD.

By Minute Item 50446, dated April 12, 2016, the Board authorized authorize staff to negotiate new leases with HayDay Farms and River Valley Ranches, with lease terms to meet the objectives stated in the board letter for consumptive water use and positive revenue, and pursue leasing the remaining Metropolitan-owned lands through a generalized request for proposals process.

Fiscal Impact

There are no fiscal impacts as no action is being proposed at this time. Future actions may yield revenue in the form of rent and reduce costs for additional Colorado River supply.

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9/2/2021

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