



MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

9-9

January 28, 1997

To: Board of Directors (Water Planning and Resources Committee--Information)

From: *for* General Manager

Submitted by: Debra C. Man, Chief
Planning and Resources

Timothy D. ...
Debra C. Man

Subject: Status Report on the Integrated Resources Plan

RECOMMENDATION

For information only.

EXECUTIVE SUMMARY

In January 1996, your Board approved the Integrated Resources Plan (IRP) as a planning guideline for water supply resource and capital investments. The IRP set targets for resource development that Metropolitan, its member agencies, and sub-agencies would need to make over the next 25 years in order to achieve the regional objectives for supply reliability and water quality. The main goal of the IRP was to develop a coordinated plan to meet these objectives in the most cost-effective and environmentally sound manner possible.

The IRP was designed to be a dynamic plan, with adjustments in resource targets being made if, and when, conditions changed. It has been one year from the approval of the IRP and this Board letter serves as a status report of how the region is doing in terms of meeting the resource targets. Semi-annual reports will be made to your Board to continuously monitor the IRP. This will help ensure that the resource targets will be achieved at the lowest possible cost. The semi-annual reports will also serve to update water demand projections and resource costs.

To date, approximately \$455 million has been invested by Metropolitan, its member agencies, and sub-agencies to develop water conservation programs, local water reclamation and groundwater recovery projects, and supply programs to enhance the Colorado River Aqueduct. These investments have produced an estimated 970,000 acre-feet of supply for the region. By the year 2020, it is anticipated that an additional \$7.5 billion will be spent to develop additional water management programs, surface and groundwater storage, imported supply improvements, and water transfers. See Figures 1-5 (attachments) for comparison of existing supplies and resource targets.

DETAILED REPORT

The Integrated Resources Plan (IRP) was developed over a three-year period through an open, participatory planning process involving Metropolitan, its member agencies, sub-agencies, and the major groundwater basin management agencies. The objective of the IRP was to develop a coordinated resources plan that includes investments in demand-side management, imported supplies, and local resources in order to achieve the region's supply reliability and water quality goals for the next 25 years. The IRP was designed to meet these objectives in a cost-effective and environmentally sound manner. In January 1996, your Board approved the IRP as a guideline for water resource and capital investments. The IRP was envisioned as a dynamic plan, with adjustments being made if, and when, conditions changed. This Board letter serves as a status report regarding progress toward achieving the resource targets identified in the IRP. Semi-annual reports will be made to continuously monitor the IRP to help ensure that proper resource investments are being made at the lowest possible cost. These status reports will also serve to update water demand projections, as they are used as a primary "trigger" for possible adjustments to resource and capital investments.

Water Demand Projections

The demand projections used to develop the IRP were based on the Southern California Association of Governments (SCAG) and the San Diego Association of Governments (SANDAG) growth management plans developed in 1993. Since then, SCAG and SANDAG have revised their demographic projections to reflect the severity of the recent economic recession and the long-term restructuring of business in Southern California. As a result of these lower projections of population, housing, and employment, staff has revised their water demand projections for Metropolitan. These revised demand projections indicate that by the year 2020, Metropolitan's demands could be about 200,000 acre-feet per year lower than that projected in the IRP. If this holds true throughout the planning period, then the resource targets in the IRP would need to be adjusted. Current demands are tracking to the revised, lower demand projections. However, at this time, staff is not recommending any changes to the long-term resource targets in the IRP. This is because it is still too early to tell if demands will stay at these lower levels or return to post-recession, post-drought levels. If, over the next three or so years, average demands are still below IRP projections, adjustments will likely be necessary.

Resource Investments

To date, approximately \$455 million has been invested by Metropolitan, its member agencies, and sub-agencies to develop water conservation programs, local projects in reclamation and groundwater recovery, and supply programs to enhance the Colorado River Aqueduct. These investments have produced an estimated cumulative 970,000 acre-feet of supply for the region. By the year 2020, it is anticipated that an additional \$7.5 billion will be spent to develop additional water management programs, surface and groundwater storage, imported supply improvements, and water transfers. These future investments will produce an estimated cumulative 25 million acre-feet of supply. Figure 1 shows the breakdown in resource

investments to date and the expected future investments by 2020. To date, about two-thirds of the investments have been made in conservation and local projects, while one-third has been made in enhancing the Colorado River Aqueduct. In the future, it is estimated that about 35 percent of the investments will be made in water management programs, about 40 percent in surface and groundwater storage, about 20 percent to improve the State Water Project and Colorado River Aqueduct, and about five percent in dry year water transfers.

Resource Targets

The region's investments in water conservation have produced an estimated savings of 350,000 acre-feet per year. Metropolitan's Conservation Credits Program has provided substantial financial assistance to its member agencies and sub-agencies to encourage effective conservation measures such as ultra-low-flush toilet rebate programs, low-flow showerhead programs, public education, and home water audits. Figure 2 shows the existing conservation compared to the resource targets in the IRP. Over time, the existing conservation increases due to plumbing code and landscape ordinances. By year 2000, existing conservation represents about 88 percent of the IRP target. By the year 2010, about 79 percent of the IRP target is achieved with existing conservation measures.

Metropolitan's Local Projects Program and Groundwater Recovery Program has provided over \$35 million in incentives to local agencies to help develop water recycling and groundwater projects. These incentives, together with local and federal funding, have produced an estimated 190,000 acre-feet per year of supply. Figure 3 shows the existing/approved local resources compared to the targets in the IRP. Over time, supply from existing/approved local resources will increase due to increases in project yield as new customers are added. By year 2000, existing/approved local resources projects represent about 90 percent of the IRP target. By the year 2010, about 84 percent of the IRP target is achieved with existing projects.

With the construction of the Eastside Reservoir Project, the implementation of the Monterey Agreement, and conjunctive-use groundwater storage programs, the region has secured about 740,000 acre-feet of dry-year supply. The IRP calls for about 300,000 acre-feet of dry-year supply from conjunctive-use groundwater storage. Metropolitan and Callegaus Municipal Water District have developed the first contractual groundwater storage program for the North Las Posas Basin. Wells, financed by Metropolitan, will be used during dry years to help the region meet its reliability goal. In 1994, the Monterey Agreement provided Metropolitan with about 220,000 acre-feet of dry-year supply in Castiac and Perris reservoirs. Existing storage represents about 90 percent of the IRP target in the year 2000, and 80 percent of the target in the year 2010 (see Figure 4).

Water transfers will play an increasing role in achieving Metropolitan's supply reliability goal. Dry year option contracts and storage programs in the Central Valley show promise as a flexible, low-cost water supply. Instead of developing more expensive core supplies such as desalination, which might only be needed two out of every 10 years, option transfers can be executed and paid for during dry years. The Semitropic and Friant-Kern storage programs

represent these types of low-cost transfers. Existing transfers represent about 60 percent of the IRP target in the year 2000, and 40 percent of the target in 2010 (see Figure 5). A transfer strategy will be developed over the next several months to determine the best way to meet the remaining transfer

Conclusion

In summary, the region is doing exceptionally well in securing a reliable and cost-effective water supply. In most cases, the near-term IRP targets are being achieved. However, there is still much to be done. Although the passage of Proposition 204 provides the necessary first step in resolving the physical and environmental problems in the Bay-Delta, the water supply solution still needs to be developed. And although great progress has been made with regard to water transfers, a fully functional market for transfers has not yet developed.

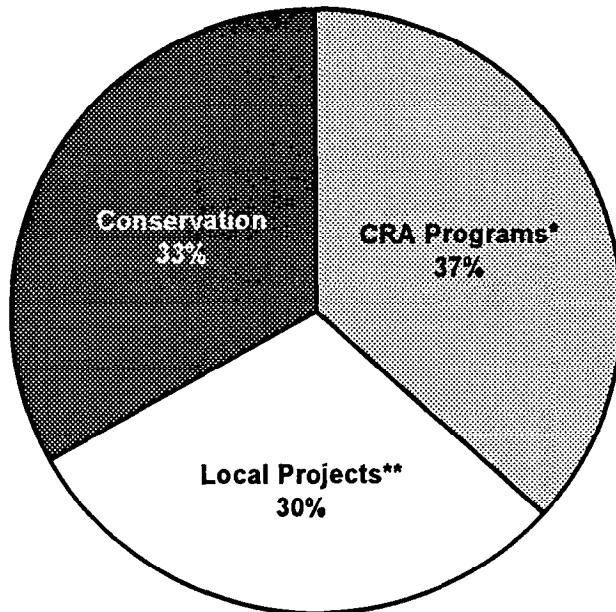
Staff will continue to monitor water demands, supplies, and costs of resource investments to determine if any mid-course changes are needed in the IRP. In addition, the IRP will be extended to 50 years to determine what resources on the long-term horizon will be needed. The 50 year IRP will be developed over the next eight to 10 months.

DR:cl

Attachments

Figure 1.
Cumulative Resource Investments

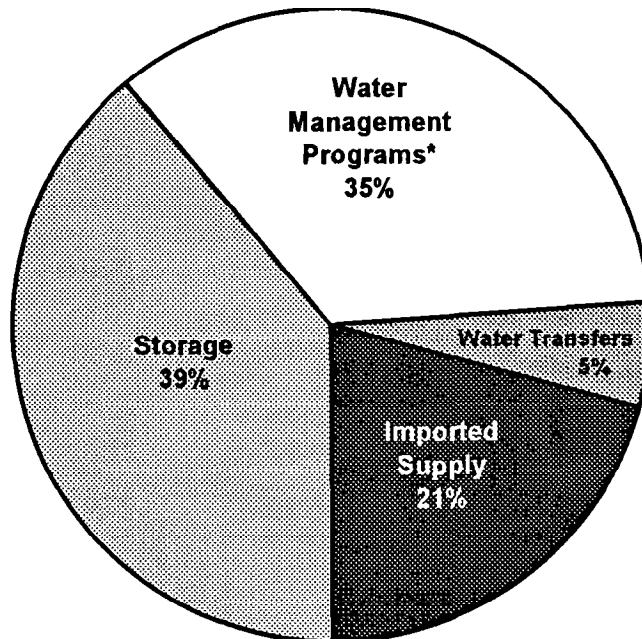
To Date:
\$0.5 Billion



** includes IID conservation project, test land-fallowing in Palo Verde, and interstate storage.*

*** includes water recycling and groundwater recovery.*

Additional by 2020:
\$7.5 Billion



** includes water conservation, water recycling and groundwater recovery.*

Figure 2.
Water Conservation Targets

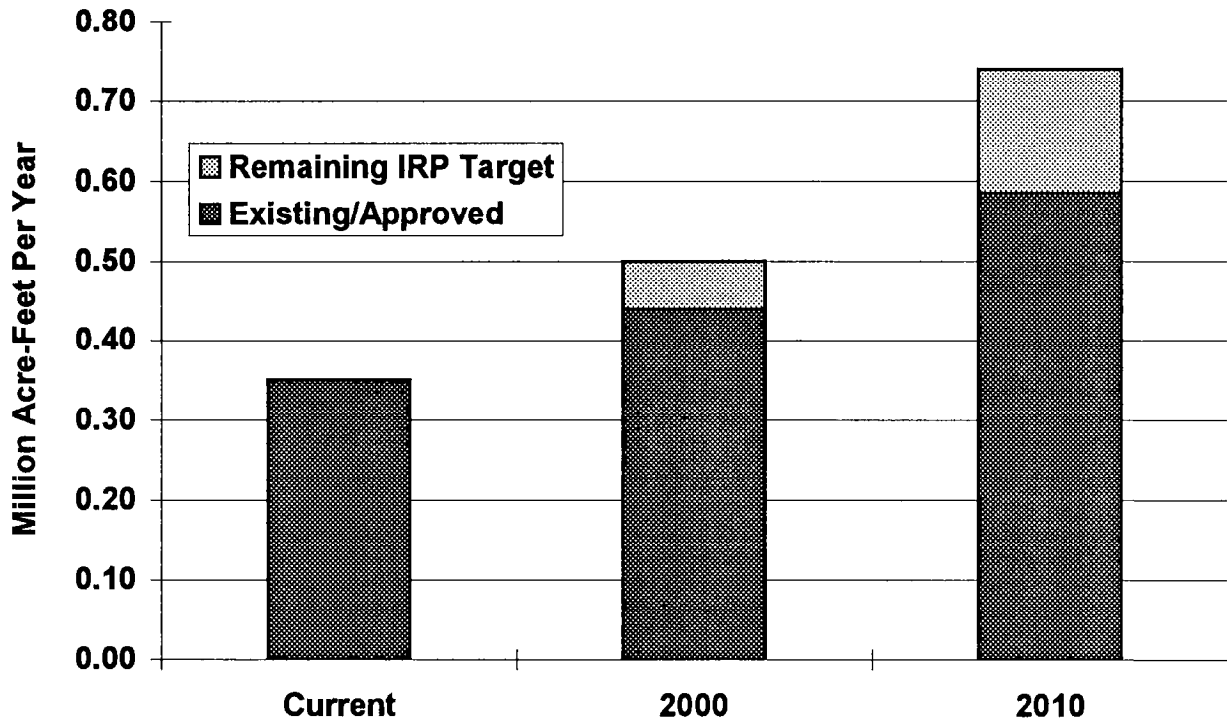
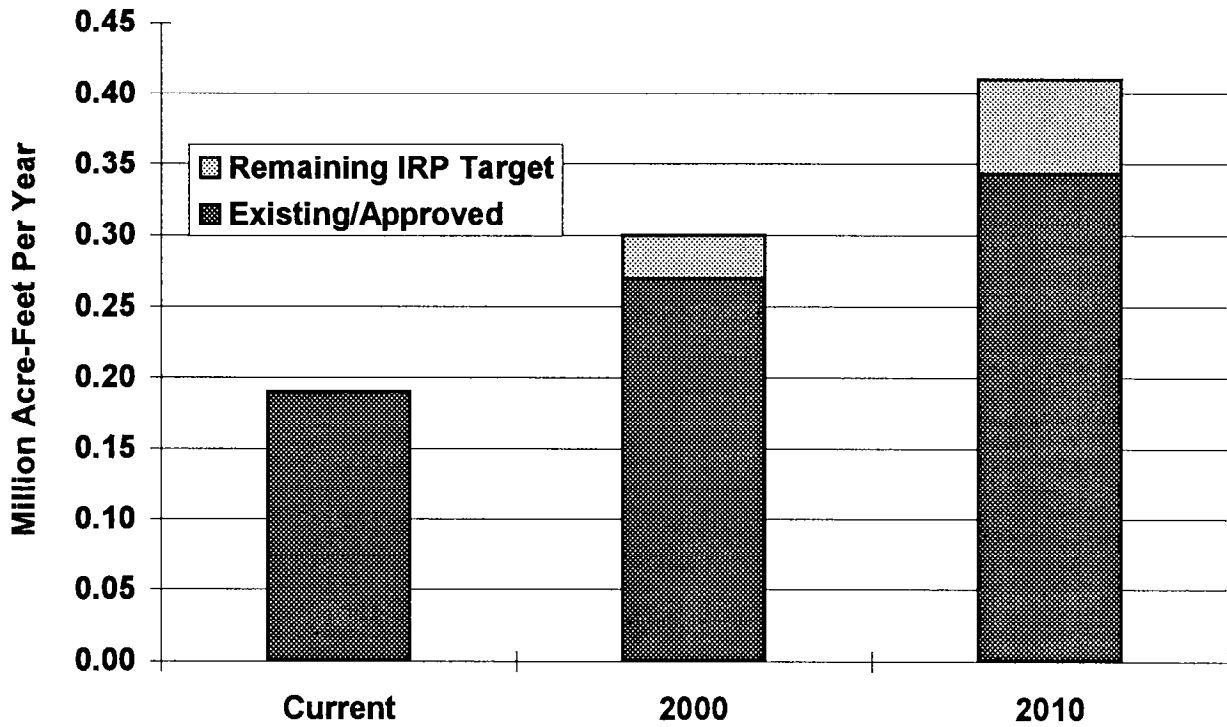
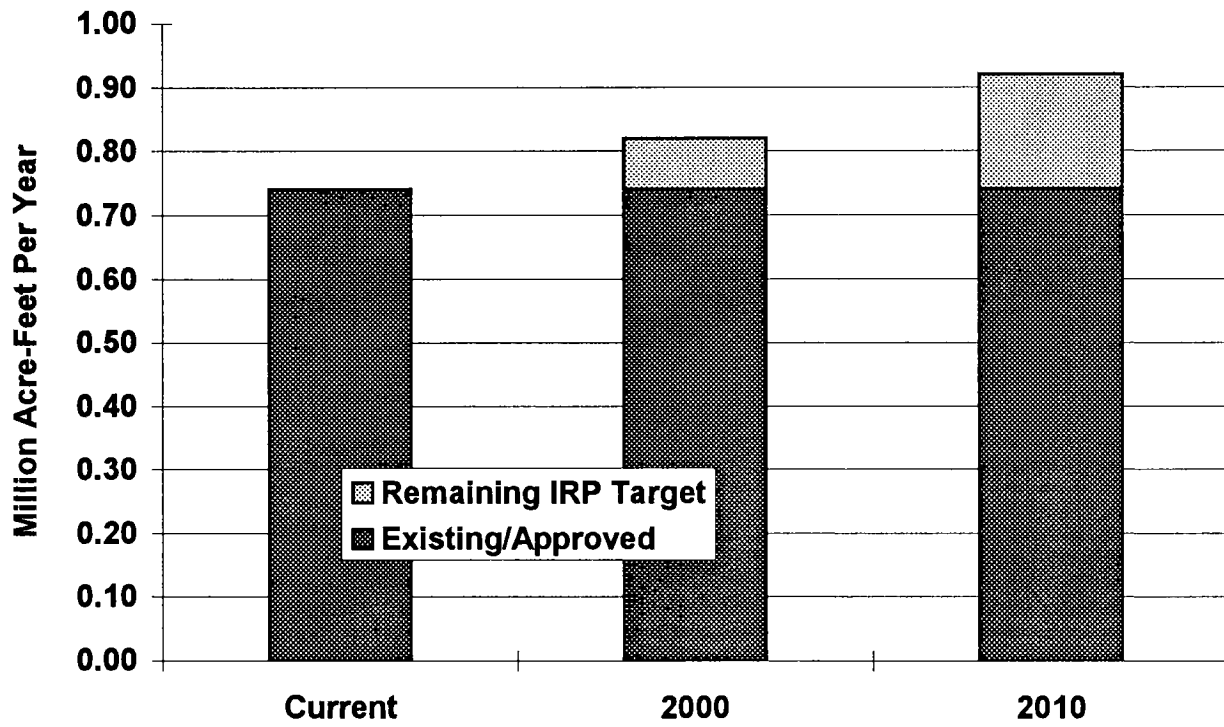


Figure 3.
Local Resources Targets



**Figure 4.
Regional Storage Targets (Dry Year Supply)**



**Figure 5.
Central Valley Water Transfer Targets (Dry Year Supply)**

