

SECTION 5 - IMPLEMENTATION AND POLICY ISSUES

SUMMARY OF FINDINGS

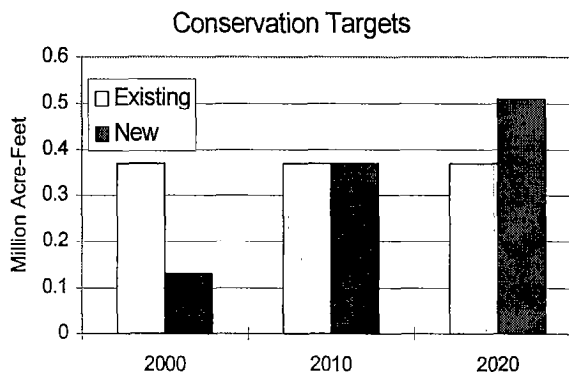
The strategy reflected in the Preferred Resource Mix is based on the following basic objectives: (1) maximize the availability of low cost water delivered by the Colorado River Aqueduct; (2) provide adequate State Water Project supplies to meet reliability and water quality requirements; (3) fully utilize the existing potential for local groundwater conjunctive use and planned surface storage; (4) implement cost-effective water recycling and groundwater recovery projects identified by member agencies and other water providers, and (5) aggressively pursue voluntary water transfers.

Resource Targets

Specifically, the additional water savings and new sources of supply comprising the Preferred Resource Mix are as follows:

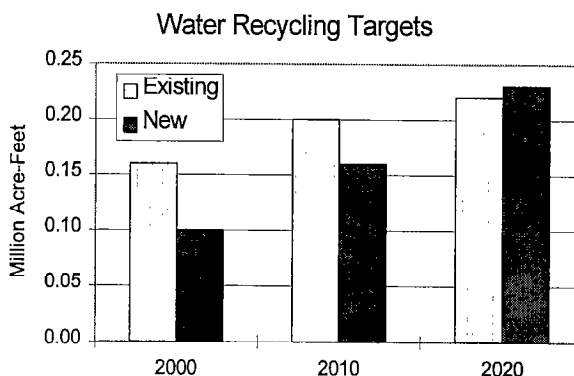
Conservation

Conservation measures implemented since 1980 are currently saving about 370,000 acre-feet. The Preferred Resource Mix depends on an additional 130,000 acre-feet of conservation savings by the year 2000 (representing a 35% increase over current levels), of which about 89,000 acre-feet results from the implementation of new plumbing codes and ordinances. By 2020, about 512,000 acre-feet of additional conservation savings is needed (representing a 138 percent increase over current levels), of which about 235,000 acre-feet results from the implementation of plumbing codes and ordinances.



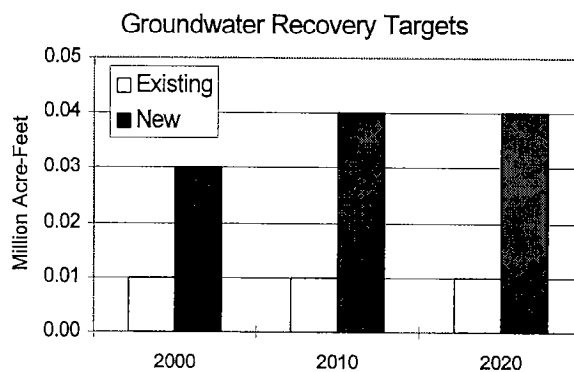
Water Recycling

Existing water recycling is providing the region with about 160,000 acre-feet per year of supply. These existing local projects are expected to increase their supply yield to about 220,000 acre-feet by 2020. The Preferred Resource Mix depends on an additional 100,000 acre-feet of new supply from water recycling by the year 2000 (representing an 63 percent increase from current levels). By the year 2020, about 230,000 acre-feet of additional supply is needed (representing a 180 percent increase over current levels).



Groundwater Recovery

Currently, about 12,000 acre-feet of net groundwater supply is produced from groundwater recovery projects. The Preferred Resource Mix depends on an additional 30,000 acre-feet of net groundwater production as a result of groundwater recovery projects by year 2000, representing a 150 percent increase over current levels). By 2020, about 40,000 acre-feet of net production is needed (representing a 233 percent increase over current levels).



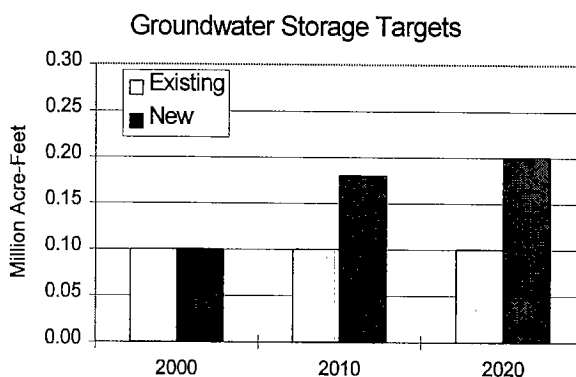
Regional Surface Reservoir Storage

Existing surface reservoirs used by Metropolitan for seasonal and regulatory purposes include Lake Mathews and Lake Skinner. In addition, the region can use a portion of the storage in DWR's terminal reservoirs for emergency purposes. As a result of the recently negotiated Monterey Agreement, about 220,000 acre-feet of storage in these DWR terminal reservoirs can now be used by Metropolitan during dry years (carryover supply). While this agreement provides the region with more dry year supplies during droughts and added flexibility, it does not change the total storage requirements for the region. Metropolitan's 800,000 acre-feet Eastside Reservoir Project will be used to meet Southern California's remaining storage requirements, with 400,000 acre-feet dedicated to emergency purposes and 400,000 acre-feet dedicated to drought carryover.

Groundwater Conjunctive Use Storage

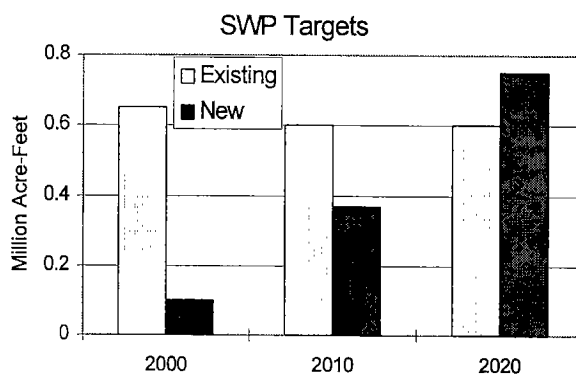
As a result of Metropolitan's Seasonal Storage Service pricing program, local agencies are currently storing available imported water in order to increase groundwater production during the summer season and dry years. It is estimated that an average of 100,000 acre-feet per year of groundwater supply is produced as a result of Metropolitan's existing discount pricing for winter season deliveries. The

Preferred Resource Mix identifies the potential for 200,000 acre-feet of additional groundwater production during dry years. To accomplish this additional dry year production, about one million acre-feet of dedicated storage capacity within the local basins is required.



State Water Project

Existing SWP supply available to Metropolitan during a dry year is estimated to be about 600,000 acre-feet. The Preferred Resource Mix calls for an increased utilization of SWP supplies of about 650,000 acre-feet of during dry year by the year 2020. Progress towards achieving this SWP resource target has already been made. The recently negotiated Bay-Delta Accord provides additional flexibility in the system and calls for identification of a permanent solution within three years. Reliance on SWP supplies is critical to achieving the region's reliability goals and to provide water quality adequate to carry out local resource programs.



Colorado River Aqueduct

The CRA represents the region's least-cost imported supply and should be maximized in order to ensure reliability for all of Metropolitan's member agencies. To ensure that deliveries from the CRA are fully maximized at about 1.3 million acre-feet per year, Metropolitan has a strategy that includes reliability improvements such as lining the All American Canal, land following agreements, and surplus banking along the Colorado River.

Central Valley Water Transfers

About 400,000 acre-feet of voluntary water transfers will be developed through option agreements, storage programs, and purchases of water through the drought bank or other similar spot markets. These agreements will allow Metropolitan to use this water only when needed, estimated to be about 25 percent of the time.

The Strength of a Balanced and Flexible Plan

For many participants, the decision to support the water resources plan developed through the IRP process was based on the strengths and benefits it offered over other competing alternative strategies.

Achievement of 100% Reliability at the Retail Level

As stated above, the most important feature of the plan is the assurance it provides that full-service demands at the retail level can be satisfied under all foreseeable hydrologic conditions. The ability to achieve this level of service for Southern California's retail water customers provides a solid foundation for a strong economy. Based on the progress already made since the IRP, the region's water supply is estimated to be 100 percent reliable during the next ten years, even under the worst-case hydrologic conditions and with conservative assumptions regarding local resource development. This short-term assessment of the region's reliability provides great optimism regarding the long-term solutions to Southern California's water issues identified in the IRP.

Least-Cost Approach to Sustainable Reliability

The Preferred Resource Mix represents the least-cost approach to meeting the region's reliability goal -- given the external forces affecting imported supplies. From a purely economic perspective, the development of local resources included in the plan, in some cases, may appear more costly than securing incremental supplies from imported sources or from agricultural water transfers. However, during the past decade, a new water management ethic has emerged in Southern California that has provided the foundation for consensus solutions among urban, environmental, and agricultural interests throughout the state. This demonstrated commitment to stewardship will be an essential element in securing the statewide agreements necessary for long-term reliable supplies. In that context, this plan is the least-cost, sustainable approach to long-term regional reliability. Although the Preferred Resource Mix will require an average annual cost of \$4 billion over the next 25 years to implement, the average unit cost will increase only by 4 percent annually (in escalated dollars).

Achievement of Regional Water Quality Objectives

A significant consideration that emerged during the planning process was the importance of SWP deliveries in managing the region's imported water quality. While Metropolitan is committed to meet or exceed all State and Federal water quality requirements, the two major sources of imported water have different water quality characteristics. Compared with SWP water, CRA water has much higher concentrations of salinity or total dissolved solids (TDS). The Preferred Resource Mix includes sufficient SWP supplies to allow for the blending with CRA water throughout most of the service area. This blending is also critical to implementing the conjunctive use storage and water recycling programs identified in the IRP.

Reduced Risks Through Diversification

The IRP process identified many risks associated with additional local and imported supply development. The diversification of investments offered in the plan reduces the region's exposure to uncertainties of a given investment not performing up to expectations. It also reduces the potential impact of an emergency such as a major earthquake. The Preferred Resources Mix avoids the pitfalls of "putting all your eggs in one basket."

Flexibility to Adjust to Future Changes

Besides reducing the exposure to risk through a diversification strategy, the plan offers flexibility in response to uncertain future demands. Specifically, the plan's reliance on voluntary water transfer option agreements and local resource projects allows the region to adapt more easily than is possible with a program of fewer, large capital and core resource investments. With the balanced approach in the Preferred Resource Mix, as circumstances change, the pace of additional investments can change as well. And while Metropolitan is committed to following through with its financial commitments to any given local project, the plan provides the ability to adjust overall program commitments based on revised projections of need.

Metropolitan's Role and Responsibilities

The water resource strategy that has emerged from the IRP process has strengthened Metropolitan's unique role in regional water management. The successful implementation of the Preferred Resource Mix places a significant responsibility on Metropolitan to provide leadership in several important areas. These areas include: (1) providing the infrastructure needed to integrate imported and local sources of supply, (2) implementing water management programs that support the development of cost-effective local resources, (3) securing additional imported supplies through comprehensive programs that increase the availability of water delivered through the Colorado River Aqueduct and the State Water Project, (4) establishing a

comprehensive management plan for dealing with periodic surplus and shortage conditions, and (5) developing a wheeling policy to allow member agencies to increase their local reliability without adversely impacting other members.

The regional benefits resulting from the implementation of the IRP are significant. The commitment to higher levels of conservation and local resources development allows Metropolitan to defer the capital improvements it would otherwise require to meet the demands of its member agencies. At one time, Metropolitan was planning a \$6.0 billion capital improvement plan. The commitment to seeking the most cost-effective solutions to meeting the region's need during the IRP process as resulted in a revised \$4.1 billion capital plan. This reduced capital program will contribute to lower rate increases at the regional level. Based on the IRP and latest water demand projections, Metropolitan is projecting its average cost of imported water to remain under \$500 per acre-foot over the next 10 years.

These potential savings can only be realized if the conservation and local resources development components of the IRP are accomplished, and the overall targets established in the plan are achieved. Metropolitan, its member agencies and other water providers must all do their part if the benefits of the Preferred Mix are to be realized.

POLICY GUIDELINES

As the IRP Preferred Resource Mix moves toward implementation, specific water management programs will need to be developed, capital projects approved, and annual budgets prepared. To help guide Metropolitan in these endeavors, several policy objectives, business principles, and program guidelines have been agreed upon, and in some cases, formally adopted, during the IRP process.

Policy Objectives

Water Supply Reliability. Through the implementation of the Integrated Resources Plan, Metropolitan and its member agencies will have the full capability to meet full-service demands at the retail level at all times.

Affordability. Metropolitan shall provide affordable water service and will maintain its competitiveness by assuring that the average cost of Metropolitan's water will be less than \$500 per acre-foot during the next ten years.

Balanced Approach. Metropolitan shall demonstrate stewardship by maintaining a resource mix which balances future investments in imported supply capability and local resource development and conservation, in order to reduce risks and assure national leadership.

Adaptability. Metropolitan commits to a resource development and financial strategy that is flexible and will provide financial security for Metropolitan and its member agencies, even if future conditions should change.

Business Principles

Financial Integrity. Investments by Metropolitan, member agencies, and other water providers resulting from the IRP should be accompanied by a mutual commitment of reliable revenue sources that recover the fixed capital and non-variable operating costs of those investments.

Fairness. Metropolitan should provide comparable access to reliable water service to each of its member agencies, recognizing that all member agencies have a beneficial interest in Metropolitan's delivery system and investments.

Equity & Value. Metropolitan's fees and charges for the delivery of water service should be set in a manner that establishes a clear and proportionate relationship between the cost of service and the value of benefits provided. A clear connection must be established between financial incentives and the benefit to the region.

Operating Integrity. The operating integrity of Metropolitan's delivery system should be maintained. The use of this delivery system for the transmission of non-Metropolitan supplies (wheeling) should be provided as long as there is no reduction in service (including water quality or capacity) to any member agency. Wheeling must not adversely impact the rates or charges to any other member agencies now or into the future.

Water Management and Conservation Program Guidelines

Water Management Programs

1. Regional benefits of both local storage and local projects programs should be measured by: (1) the reduction in capital investments due to a deferral and/or down-sizing of regional infrastructure; (2) the reduction in O & M expenditures needed for treatment and distribution of imported water; and (3) the reduction in expenditures associated with developing alternative regional supplies.

2. Metropolitan's investments for local storage and local projects programs should not exceed the regional benefits over the life of the project(s).
3. Metropolitan's investments for local storage and local projects programs should be sufficient to encourage the implementation of projects identified in the Preferred Resource Mix. Such investments and their associated payment schedules should also be flexible enough to meet the needs of each project.
4. Metropolitan's participation in local storage and local projects programs should not cause large fluctuations in Metropolitan's water rates.
5. Local storage must increase regional supplies during time of need. Specifically, water placed in local storage programs must be utilized during time of need without displacing dependable local supplies. The amount of water involved should be agreed to in advance when each storage and local projects program is established.
6. Local projects programs must increase regional supplies and provide measurable regional benefits.
7. Performance of local storage and local projects programs should be verifiable (e.g., deliveries into and withdrawals out of local storage should be accounted for by either direct measurement or by incorporation into a shortage management plan).

Conservation Program

1. Conservation projects should be designed to meet the IRP goals on a regional basis.
2. Recognizing that conservation occurs at the consumer level, the local water purveyor should sponsor the implementation of conservation measures. Metropolitan and the member agencies should work together to provide information, guidance, ideas, and incentives.
3. Metropolitan's pricing, financial incentives, and drought allocation methodologies should encourage the achievement of regional conservation goals, and any future water shortage allocations must recognize the "demand hardening" result of conservation programs.
4. Regional benefits of conservation projects should be measured by: (1) a reduction in capital investments due to a deferral and/or down-sizing of regional infrastructure; (2) a reduction in O&M expenditures needed for treatment and distribution of imported water; (3) a reduction in expenditures associated with developing alternative regional supplies; and (4) environmental benefits from reduced demands on the ecosystem.

5. Metropolitan's average level of investment for conservation projects should not exceed the regional benefits measured over the life of the project(s).
6. Conservation project savings must be verifiable and consistent in order to qualify for continuing Metropolitan investment. In partnership with member agencies and subagencies, Metropolitan will commit to pursuing evaluation studies to reliably define potential conservation savings and will continue to encourage studies of new or innovative conservation practices.
7. The region must devote a portion of the conservation investment to develop locally-implemented education programs. These programs need to be rigorously evaluated.
8. Metropolitan's investment in conservation projects should reflect equity among the member agencies. Agencies that conserved early should not be penalized for their initiative.
9. Metropolitan's participation in conservation incentives should not cause large fluctuations in Metropolitan's water rates. Metropolitan's involvement should be based on multi-year agreements for conservation.
10. Public and private partnerships to achieve conservation goals, implemented in cooperation with member agencies, should be included among conservation program measures. However, partnerships with the private sector should be based on a competitive system. Pay should be linked to performance.

Guidelines for the Development of Imported Supplies and Regional Storage

Colorado River Aqueduct. Because CRA supplies represent the region's least-cost imported resource, Metropolitan will take all necessary actions to assure that the Colorado River Aqueduct will be operated at full capacity for the benefit of all member agencies. Recently, Metropolitan, in cooperation with the Southern Nevada Water Authority and others, has developed the Colorado River Reliability Plus Program. This program, if approved by the Secretary of Interior, would translate 30 years of uncertainty into 30 years of reliability for the Colorado River system. Under this program, Metropolitan would be able to operate the CRA at full capacity at a cost ranging from \$75 to \$150 per acre-foot.

State Water Project. Because of the reliability and water quality benefits that the SWP supply provides, Metropolitan will support the CALFED process which establishes the essential coalition of urban, environmental and agricultural interests to reach long-term solutions for the Delta and operations of the SWP. Recent milestones, including the historic Bay-Delta Accord and Monterey Agreement, have resulted in significant operational improvements for the SWP system and set the stage for long-term solutions within a three year time frame.

Water Transfers. Metropolitan will pursue voluntary water transfers through options and storage agreements, the drought bank, or other similar spot markets at an affordable price to maximize the region's dry-year supply yield and optimize coordinated conjunctive-use operations.

Regional Storage. Additional surface reservoir storage in Metropolitan's service area is essential to maintain adequate emergency supplies should a major catastrophic event occur. Equally important, surface storage is needed to assure the effective conjunctive use storage of imported supplies and groundwater storage operations in order to provide additional dry year water supplies during periods of droughts. Although Metropolitan should continue to review its capital improvement program (CIP) in order to reduce the risks of "stranded" investments, all available evidence indicates that Metropolitan should proceed as planned with the construction of the 800,000 acre-feet Eastside Reservoir Project. This keystone project to the CIP will optimize imported supplies to meet emergency, drought, and regulatory requirements of the region, and to improve water quality blends and conjunctive use storage in the local groundwater basins.

PLANNING LEADS TO ACTION

The IRP process has produced many benefits for the region. It has fostered communications among a wide community of water providers, improved the region's understanding of the complex relationships that exist among water resource options, and provided an analytical framework for the evaluation of proposed resource projects and programs. Ultimately, however, the usefulness of the IRP will depend upon the ability to achieve regional goals in the real world of local decision-making, limited resources, and demanding schedules.

There is no value in arriving at a theoretical resources plan, if the analysis and understanding it provides fails to produce the required actions and programs. Bridging the gap between planning and implementation is always challenging. The actions needed to ensure that the Preferred Resource Mix achieves the goals and objectives identified during the IRP will require commitment from the region's water providers. Metropolitan and its member agencies have an enviable track record of taking the actions needed to achieve regional water reliability. Implementation of the recommendations resulting from the IRP process should continue in that tradition of following planning with effective action.