

Metropolitan Water District of Southern California:

**A Review of Evaluations and
Audits Conducted by Other Entities**

April 1996 95105

April 4, 1996

95105

The Governor of California
President pro Tempore of the Senate
Speaker of the Assembly
State Capitol
Sacramento, California 95814

Dear Governor and Legislative Leaders:

Summary

The purpose of our audit was to determine the extent to which the Metropolitan Water District of Southern California (Metropolitan) implemented recommendations included in its recent audits and evaluations conducted by other entities. Further, we determined whether there were any issues that had not been adequately addressed in the audits and evaluations or any recommendations that had not been adequately addressed by Metropolitan that merit further review. During our review of the issues addressed in the audits and evaluations and of Metropolitan's implementation of the recommendations they contained, nothing came to our attention that would merit further review at this time.

We reviewed six reports issued by either independent auditors or outside entities during the period of February 1992 through February 1996. Four of the six reports were reviews of Metropolitan's operations that were requested by either its board of directors or its management. The remaining two reports were annual reports prepared by Metropolitan's independent auditors. The six reports evaluated Metropolitan's operations in a variety of areas, including rates, human resources, information systems, organizational structure, policies and procedures, and project management.

From these reports, we identified 81 key recommendations that we determined had a direct effect on compliance with laws and regulations, equitable determination of rates, or operating efficiency. The results of our review indicate

that Metropolitan has fully implemented 62 of the recommendations (76 percent), partially implemented 15 of the recommendations (19 percent), and not implemented 4 of the recommendations (5 percent).

Background

Metropolitan, a public agency, was organized in 1928 by voters of 13 southern California cities. According to the Metropolitan Water District Act, Metropolitan's primary purpose is to develop, store, and distribute water at wholesale rates to its member public agencies for domestic and municipal use. Metropolitan's service area is approximately 5,200 square miles and includes portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.

Metropolitan's customer base is composed of 27 member agencies: 14 cities, 12 municipal water districts, and one county water authority. Member agencies receive water from Metropolitan at various delivery points on its system and provide their customers with a combination of water purchased from Metropolitan, local groundwater, surface water, and reclaimed water. In all, Metropolitan's member agencies provide water to approximately 16 million people.

Metropolitan's board of directors, which consists of 51 directors, has at least one representative from each member agency. Additional representation and voting rights are determined for each member agency by the valuation of its property that lies within the boundaries of Metropolitan's service area.

The management of Metropolitan is under the direction of its general manager, who reports directly to its board of directors. Ten division heads—who supervise the finance, information systems, administrative services, public affairs, human resources, water quality, environmental compliance, operations, engineering, and planning and resources divisions—report directly to the general manager.

Metropolitan's operating budget for fiscal year 1995-96 is approximately \$844 million, with its primary revenue source, water sales, representing approximately 73 percent of the budget. In addition, Metropolitan expects to spend approximately 72 percent of the operating budget on costs associated with importing water supplies from the State Water

Project, meeting bonded debt and reserve requirements, and paying salaries for its approximately 2,150 employees.

Metropolitan has developed a long-range capital improvement program to determine the revenue requirements and the impact that planned capital expenditures would have on its investments and indebtedness. The anticipated capital expenditures over a 10-year period, which are estimated at a cost of \$4.1 billion, have been divided into two categories: supply, distribution, and storage projects; and water treatment projects. The primary components of the long-range capital program are the supply, distribution, and storage projects, specifically, the Eastside Reservoir Project (formerly the Domenigoni Reservoir Project) and the Inland Feeder Project, which together account for approximately 50 percent of the total capital improvement program budget.

To assist with the financing of its long-range capital improvement program, Metropolitan adopted two new charges in its rate structure. Specifically, Metropolitan adopted the Readiness-To-Serve Charge and the New Demand Charge, which are fixed charges allocated to the member agencies. These charges are intended to recover the debt, not paid for from taxes, of the expenditures for capital projects needed to meet the existing and anticipated demands on Metropolitan to provide a reliable source of high-quality water to its member agencies.

Scope and Methodology

This audit determined the extent to which Metropolitan has implemented recommendations included in recent audits and evaluations conducted by other entities. In addition, we assessed the scope and methodology of the audits and evaluations. Finally, we determined whether there were any issues that were not adequately addressed by other entities or any recommendations that were not adequately addressed by Metropolitan that merit further review.

During our audit, we identified six reports issued by either independent auditors or outside entities during the period of February 1992 through February 1996. Four of the six reports were reviews of Metropolitan's operations that were requested by either the board of directors or Metropolitan's management, and two were the most recent annual reports prepared by independent auditors. The reports are as follows:

- Organizational Review of the Operations Division, issued February 1992;
- Engineering and Operations Peer Review Committee Report, issued November 1993;
- Blue Ribbon Task Force Report, issued January 1994;
- Organization Study of the Engineering Division, issued June 1995;
- Management Letter for Fiscal Year Ended June 30, 1995, issued January 1996; and
- Single Audit Report for Fiscal Year Ended June 30, 1995, issued February 1996.

We reviewed and assessed the scope and methodology for each of the reports and found that they varied significantly. Information on each review and audit is presented in the Appendix.

During our review of the reports, we identified 264 recommendations. The Blue Ribbon Task Force concluded that seven issues, which included concerns regarding the high level of equipment losses and labor relations, merited further attention but did not fully develop the issues. We included four of those issues in our 264 recommendations because they addressed Metropolitan's operating efficiency. The remaining three issues expressed concerns with Metropolitan's board selection process, board membership allocation, and changes to the current structure of its member agencies. Since these areas are either governed by statute or are outside the scope of Metropolitan's authority, we have excluded them from our total. Of the 264 recommendations compiled from the various reports, we determined that 83 were duplicative in nature. The elimination of these duplicative recommendations resulted in 181 discrete, organizationwide recommendations.

***Status of Organizationwide
Recommendations***

We met with Metropolitan’s staff to discuss the status of the 181 discrete, organizationwide recommendations. Metropolitan’s staff reported that they had fully implemented 136 recommendations, partially implemented 36 recommendations, and not implemented 9 recommendations. For purposes of our analysis, we separated the recommendations into 17 categories based on their subjects. Table 1 presents the status of the 181 recommendations by category, as reported by Metropolitan.

Table 1
Implementation Status of
Organizationwide Recommendations
as Reported by Metropolitan

Category	Fully Implemented	Partially Implemented	Not Implemented	Total
Rates	29	0	2	31
Human resources	20	4	2	26
Information systems	14	6	2	22
Organizational structure	14	0	0	14
Policies and procedures	9	4	0	13
Value engineering ^a	6	4	1	11
External relations	7	3	0	10
Project management	8	2	0	10
Salary expense	8	2	0	10
Training	5	5	0	10
Compliance	5	1	1	7
Accounting	3	0	1	4
Contracts	4	0	0	4
Strategic plan	1	3	0	4
Board-related issues ^b	1	1	0	2
Investments	2	0	0	2
Facilities	0	1	0	1
Total	136	36	9	181

^a Value engineering—Recommendations require that a value-engineering program be established and value-engineering studies be conducted to identify areas for reducing costs while the quality of the project is maintained.

^b Board-related issues—Recommendations address functions of Metropolitan’s board of directors.

We then evaluated the 181 organizationwide recommendations to identify those key recommendations having a direct effect on Metropolitan’s compliance with laws and regulations, equitable determination of rates, and

operating efficiency. To determine key recommendations related to operating efficiency, we focused on those that we concluded would have a direct effect in terms of either a reduction in expenditures or an increase in revenue. We limited the choice of key recommendations even though we recognize that various recommendations could potentially have a positive effect on Metropolitan's operating efficiency. For example, reorganizing the existing structure, providing training to its employees, achieving diversity among its employees, and improving external and interdepartmental relations are all actions that may have a positive effect on Metropolitan's operating efficiency but were not chosen because they would not directly reduce expenditures or increase revenue. We identified 81 key recommendations that we determined would have a direct effect on compliance with laws and regulations, equitable determination of rates, or operating efficiency.

For each recommendation deemed as "key," we reviewed documentation related to Metropolitan's implementation efforts in addition to interviewing staff. For example, we reviewed the following:

- Policies and procedures affecting Metropolitan's operations;
- Long-range planning documents, such as the Strategic Plan, Integrated Water Resources Plan (IRP), and the Long-Range Finance Plan;
- Interdepartmental correspondence;
- Minutes of the board of directors and IRP Workgroup meetings; and
- Other documents deemed necessary, such as Metropolitan's labor agreements and the fiscal year 1995-96 annual budget.

We considered a recommendation to be fully implemented if Metropolitan had established appropriate policies and procedures to address the recommendation; however, in several instances, it is too early to conclude whether Metropolitan is consistently complying with its established policies and procedures. We considered a recommendation to be partially implemented if Metropolitan was developing policies and procedures and strategic plans or was in the pilot

study stage of installing software that would address the recommendations. Further, in a few instances, Metropolitan’s method of implementing the recommendation varied from that of the reviewers; however, we determined that in those instances the methods addressed the concerns of the recommendation.

Status of Key Recommendations

We determined that Metropolitan has fully implemented 62 of the 81 recommendations, has partially implemented 15 recommendations, and has not implemented 4 recommendations. Of the 81 key recommendations, 39 (48 percent) originated from the Blue Ribbon Task Force Report. Table 2 presents the status of the 81 key recommendations by category.

Table 2
Implementation Status of Key Recommendations

Category	Fully Implemented	Partially Implemented	Not Implemented	Total
Rates	29	0	2	31
Value engineering	6	4	1	11
Project management	8	2	0	10
Salary expense	8	2	0	10
Compliance	5	1	1	7
Information systems	3	3	0	6
Strategic plan	1	3	0	4
Investments	2	0	0	2
Total	62	15	4	81

Fully Implemented Recommendations

Metropolitan has fully implemented 62 (76 percent) of the 81 key recommendations. The following are examples of Metropolitan’s implementation efforts.

Twenty-nine of the 62 (47 percent) fully implemented recommendations are directly related to Metropolitan’s Integrated Water Resources planning and participatory processes and its resulting IRP. The IRP summarizes

Metropolitan's approach in arriving at a comprehensive long-term water resources strategy to meet the needs of southern California. Specifically, Metropolitan began Phase I of its IRP planning process in June 1993. During this phase, which lasted approximately a year, Metropolitan defined its issues and objectives, developed evaluation criteria (including the regional supply reliability goal), identified potential resource options, and developed resource strategies and mixes of the potential resource options.

In conjunction with its Phase I planning process, Metropolitan began its IRP participatory process. This process, which consisted of three regional assemblies, six public forums, and the creation of the IRP Workgroup, spanned a period of a year and a half, from October 1993 to March 1995. In addition, the IRP Workgroup, which is composed of member agencies, groundwater basin agencies, and Metropolitan staff, remains involved in Metropolitan's planning decisions. The purpose of the IRP participatory process was to allow member agencies, groundwater basin agencies, other resource agencies, and the public an opportunity to provide input, guidance, and technical expertise in shaping the outcome of the "preferred resource mix." The preferred mix is based on the selection of the most cost-effective local and imported resources. Examples of local resources are conservation, water recycling, and groundwater programs. Examples of imported resources are the water supplies received from the Colorado River Aqueduct, State Water Project, and storage and water transfers.

During Phase II of the IRP planning process, which began in June 1994, Metropolitan incorporated the results of Phase I of the planning process and input from the participatory process to arrive at its preferred resource mix. This preferred mix was incorporated into Metropolitan's IRP plan, which was approved by the board of directors in January 1996.

Of the 29 fully implemented recommendations discussed above, 27 are recommendations from the Blue Ribbon Task Force Report. It is important to note that the Blue Ribbon Task

Force convened for the first time in late July 1993, as discussed in the Appendix. During this period, Metropolitan was in the early implementation stages of its Phase I planning and participatory process. Our review indicates that Metropolitan considered the recommendations made by the Blue Ribbon Task Force and incorporated them into the

development of its
IRP plan.

In another example, in response to 6 (10 percent) of the 62 fully implemented recommendations, Metropolitan created a value-engineering program in April 1995. This program is intended to improve the overall value of Metropolitan's projects and requires that a value-engineering study be performed on the planning and design documents of all projects meeting the criteria for project selection. Metropolitan uses a combination of in-house staff and outside consultants to conduct the value-engineering studies.

Partially Implemented Recommendations

Metropolitan has partially implemented 15 (19 percent) of the 81 key recommendations. Of this 15, 6 (40 percent) addressed the Operations Division's long-range planning tools and its maintenance management activities. Specifically, the Operations Division was to develop and publish a strategic operating plan. Further, the recommendations advised the Operations Division to develop an effective work planning system to address areas such as documenting procedures, developing time standards for routine work, and improving controls for work authorizations.

The Operations Division is reengineering its operations. In October 1995, it met with consultants to assist in developing a Strategic Integrated Business/Technology Plan (plan). The purpose of the plan is to use technology to manage operations and maintenance costs effectively and in a manner consistent with Metropolitan's overall strategic plan. The plan is expected to contain sections discussing the Operations Division's vision and goal statements, conceptual framework, technical framework, performance benchmarks, prioritized recommendations, and an implementation plan with costs allocated over successive fiscal years. The plan is scheduled to be completed by May 24, 1996.

Further, the Operations Division is conducting a pilot study of its MAXIMO software package at the Mills Filtration Plant. The software package is designed to provide an effective work planning system by simplifying and standardizing maintenance management activities. Specifically, the

MAXIMO software package has the following modules: work-order management and planning and scheduling. These modules will cover many of the areas discussed in the recommendation, such as providing work-order tracking and prompt reporting of maintenance work, as well as facilitating the scheduling of preventive maintenance and resources. After it completes the pilot study, the Operations Division plans to install the software at its remaining facilities.

In another example, 4 (27 percent), of the 15 partially implemented recommendations required the Engineering Division to complete value-engineering studies. Specifically, the division was required to conduct value-engineering studies comparing filtration processes, water treatment alternatives, and costs associated with the Eastside Reservoir (formerly Domenigoni) and Inland Feeder projects. According to its Value Engineering Status Report, Metropolitan is conducting value-engineering studies for the Mills Filtration Plant and the Eastside Reservoir and Inland Feeder projects. Further, Metropolitan is negotiating with an outside consultant to conduct a value-engineering study at the Jensen Filtration Plant. It is Metropolitan's intent to conduct value-engineering studies on future projects as a standard operating practice. Therefore, we recognize that implementation of the recommendations is a long-term process.

Recommendations Not Implemented

Metropolitan has not implemented 4 (5 percent) of the 81 key recommendations; however, of the 4, Metropolitan disagreed with only one recommendation.

Two of the four recommendations addressed Metropolitan's rate structure. One stated that if a comprehensive Readiness-To-Serve (RTS) Charge and New Demand Charge (NDC) pricing scheme was implemented, Metropolitan should establish secondary markets to allow the transfer of member-agency excess water entitlements, created by the RTS charge and NDC, to other users that may need additional water supplies. The RTS charge is a service charge intended to recover the debt, not paid from taxes, of expenditures for projects needed to meet the reliability and quality needs at **existing demand levels**. The NDC is a service charge intended to recover the debt service expenditures for projects needed to satisfy **anticipated new demands**. Metropolitan adopted both the RTS charge and

NDC within its new rate structure. However, it disagrees with the recommendation and contends that these charges do not create water entitlements; therefore, a secondary market has not been created. Specifically, Metropolitan states that it has not entered into a contractual relationship with the membership agencies to provide water. Rather, as stated in the Metropolitan Water District Act (act), each member agency has a preferential right to purchase water from Metropolitan. Further, the act allows the board to impose an availability service charge, such as the RTS charge and NDC, within its district and allocate these charges among member agencies.

The second recommendation related to the rate structure stated that Metropolitan's proposed water-peaking charge should recover the actual economic costs generated by peaking behavior and not be set by political consideration. Metropolitan agrees with this recommendation; however, it has postponed adopting the water-peaking charge. Specifically, the board of directors has assembled a rate refinement task force charged with reaching a rate structure consensus that will meet the goals of both member agencies and Metropolitan. According to the Planning and Resources Division, the necessity for a water-peaking charge will be reevaluated at the conclusion of the rate refinement process, which is expected to be completed by the second half of May 1996.

The third of the four recommendations not implemented addresses Metropolitan's First Responder Program (FRP), which is designed to address the emergency response operations for the release of, or threatened release of, hazardous substances. Specifically, the recommendation required Metropolitan to modify the composition of its responder team to include a water treatment plant certified operator as shift supervisor. Subsequent to this recommendation, the federal regulations governing the procedures for handling emergency responses were revised. The revised regulations outlined the minimum composition of the FRP team and its training requirements. Metropolitan revised its FRP team composition and training program accordingly to comply with the federal regulations and optimize staff efficiency. We reviewed the federal regulations and Metropolitan's FRP and concluded that Metropolitan was in compliance with the federal regulations.

Finally, the fourth recommendation directs the Operations Division to develop criteria for deciding what fabrication should be handled by the LaVerne Plant machine shop and what work should be procured outside. Metropolitan agrees with this recommendation but states that as a result of turnover in the operations and maintenance manager position at the LaVerne Plant and the inability to hire a permanent replacement, the recommendation has not been implemented. According to the chief of the Operations Division, this task will be a priority for the incoming manager.

Conclusion

During our review of the issues addressed in the audits and evaluations and of Metropolitan's implementation of the recommendations they contained, nothing came to our attention that would merit further review at this time.

We conducted this review under the authority vested in the state auditor by Section 8543 et seq. of the California Government Code and according to generally accepted governmental auditing standards. We limited our review to those areas specified in the audit scope section of this report.

Respectfully submitted,

KURT R. SJOBERG
State Auditor

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Appendix

Evaluations and Audits Conducted by Other Entities on the Operations of the Metropolitan Water District of Southern California

The following reports represent evaluations and audits issued by other entities of the operations of Metropolitan Water District of Southern California (Metropolitan) during the period of February 1992 through February 1996. The first report presented below addressed Metropolitan's overall operations. The remaining reports appear in chronological order with the oldest report first.

Blue Ribbon Task Force Report

In April 1993, Metropolitan's board of directors authorized the formation of the Blue Ribbon Task Force to conduct a review of its operations in the areas of business practices and operational policies. The committee was composed of 27 members representing both public and private organizations. The committee was not charged with the responsibility of performing a detailed management consulting analysis or audit of Metropolitan; rather, it was to provide a fresh perspective on Metropolitan's business practices. The task force convened for the first time in late July 1993 and established the following subcommittees: Business Practices, Processes, and Programs; Integrated Resources Plan, Rate Structure, and Long-Term Revenues; Human Resources and Diversity; and External Relations/Organizational Governance. These four subcommittees were responsible for evaluating Metropolitan's existing procedures and future plans for accounting operations; reviewing its integrated resources planning process, rate structure, and financial management practices; reviewing its human resources program, including personnel, affirmative action, and minority, women, and disadvantaged business enterprise programs; and reviewing its external relations programs, its relationship with member agencies, and its organizational structure.

The task force reviewed numerous reports and policies relating to Metropolitan's operations, such as its strategic

plan, integrated resources planning documents, rate structure study, capital budget, investment policies, and personnel and affirmative action policies. In addition, it visited 19 member agencies and conducted group session interviews with representatives from the agricultural, environmental, and building trade communities. Further, the task force contracted with various consultants to assist with its evaluation of Metropolitan's operations. The Blue Ribbon Task Force Report, issued January 1994, contains 105 recommendations.

Organizational Review of the Operations Division

Metropolitan's management requested a study to examine and analyze the organization of its Operations Division and contracted with R.W. Beck and Associates, a management consulting firm. The review, conducted between July and November 1991, required R.W. Beck and Associates to conduct a thorough study of the reporting relationships; titles and salary structure; supervisory span of control; regulatory issues in the areas of water treatment, delivery, and environmental matters; and employees' training and career development plans.

R.W. Beck and Associates conducted interviews with management and staff, conducted field observations, and collected and analyzed employee questionnaires. Further, it reviewed water maintenance systems, power operations, Operations Division policies and procedures, management information systems, staffing efficiency and sufficiency, and current and anticipated regulatory issues.

The Organizational Review of the Operations Division report, issued in February 1992, contains 68 recommendations.

Engineering and Operations Peer Review Committee Report

The Engineering and Operations Peer Review Committee (committee) was formed at the request of Metropolitan's management. The nine-member committee was composed of individuals with varying backgrounds and who represented such organizations as the U.S. Bureau of Reclamation, Central Arizona Water Conservation District, East Bay Municipal Utility District, California Department of Water Resources, and Metropolitan's member agencies. The

committee was charged with conducting a technical review of the Engineering and Operations Divisions' philosophies, practices, procedures, and project management. The committee convened for the first time in August 1993.

The committee met with the management of the Engineering and Operations Divisions; participated in tours of Metropolitan's facilities; interviewed staff on their working relationships with management and other personnel issues; and reviewed numerous documents, such as the Organizational Review of the Operations Division, operational policies and procedures, and engineering standards.

The Engineering and Operations Peer Review Committee Report, issued in November 1993, contains 18 recommendations.

Organization Study of the Engineering Division

Metropolitan's management requested a study to examine and analyze the organization of the Engineering Division, and the board of directors approved the request in September 1994. Metropolitan contracted with KPMG Peat Marwick (KPMG)

to conduct a comprehensive analysis of the division's organizational and management structure, reporting relationships, work flow, distribution of assignments, project management program, training needs, and use of value engineering.

KPMG contracted with three subcontractors to assist in evaluating the Engineering Division. KPMG and its subcontractors performed the following procedures:

- Reviewed reports, such as Metropolitan's Strategic Plan, and Blue Ribbon Task Force Report;
- Reviewed organizational charts for Metropolitan's Engineering Division;
- Conducted interviews with management and staff to determine reporting relationships and compared these results with those of three similar organizations;

- Conducted a work flow analysis to track the progress of a typical engineering project from the planning phase to the final construction and startup phase; and
- Compared the Engineering Division's value-engineering procedures with those of three similar organizations.

The Organization Study of the Engineering Division report, issued in June 1995, contains 59 recommendations.

KPMG Management Letter Comments

The annual audit of Metropolitan's financial statements for the fiscal year ended June 30, 1995, conducted by KPMG, identified matters involving Metropolitan's internal control structure and other operational areas that required further attention. Specifically, KPMG presented 13 recommendations in the areas of accounting operations and information systems that were reported to Metropolitan in January 1996.

KPMG Single Audit Report

The annual audit, required by the 1984 Single Audit Act, of financial assistance received by Metropolitan from the federal government for the fiscal year ended June 30, 1995, was issued by KPMG in February 1996. This report identifies one item that requires further attention.