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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Baren E. Dorf
Executive Secretary

November 29, 1993

To: Board of Directors (Special Budget Committee--Information)
(Finance and Insurance Committee--Information)
(Engineering and Operations Committee--Info.)

From: General Manager

Subject: Accounting for Overhead and Contingency Allocations

Report

In response to a request by the Board of Directors for a review of Metropolitan's contingency and administrative overhead costs, this report provides a summary of each component based on current methods and calculations. The current method of calculating administrative overhead expense is based on a consultant-assisted study of the District's overhead costs conducted in 1987, which was reported to your Board in October of that year (copy attached).

Administrative overhead expense is defined as costs not directly associated with and chargeable to a specific capital improvement, reimbursable, or O&M activity. They are centralized support services that benefit the District as a whole; which include personnel, finance, administrative services, portions of information systems and environmental compliance, legal and audit functions, expenses of the Board of Directors, Office of the General Manager, and the Executive Secretary. These expenses are also referred to as "General and Administrative" costs because of their nature. Overhead expense is allocated to capital, reimbursable, and O&M activities in order to properly account for both the direct and indirect costs of these activities.

There is a base overhead rate and an engineering overhead rate which combine to make up the total overhead rate. The total of these costs is allocated to capital, reimbursable, and O&M accounts in proportion to the non-overhead labor charged to these categories. This is accomplished by multiplying the labor costs in these categories by an overhead rate. The specific method of calculating the District's overhead rate with illustration is contained in Attachment A.

Initial planning cost estimates are considered to be order of magnitude estimates and are based on cost-capacity curves, scale-up or scale-down factors, and approximate ratios. These estimates include contingencies of 20 to 30 percent. When the preliminary design is complete, which includes preliminary layouts and equipment requirements, a contingency of 15 percent is applied to all budget cost estimates. This contingency is used to cover inaccuracies in estimating due to preliminary information available. After the project is better defined, the contingency is usually reduced to 10 percent to cover unforeseen design and construction problems. The actual contingency for an appropriation varies from 10-15 percent depending on the complexity of the projects, the amount of detail available when making the estimates, and the number of projects under that appropriation.

On the O&M side of the budget the contingency account usually varies between one and two percent of the total O&M budget. This amount is set aside to meet any unknown new requirements that occur during the year.

Board Committee Assignments

This report is referred for information to:

The Special Budget Committee pursuant to its authority to review budgets under Administrative Code Section 2531.

The Finance and Insurance Committee pursuant to its authority to study, advise, and make recommendations with regard to preparation of budgets under Administrative Code Section 2441(a).

The Engineering and Operations Committee pursuant to its authority to study, advise, and make recommendations with regard to the initiation, scheduling, contracting, and performance of construction programs and work, and the equipment or materials to be used, replaced, disposed of, or salvaged.

Recommendation

For information only.


J. R. Wodraska

MCF/AMA:jg

Attachment

ovrhead

Attachment A

The total of all centralized support services is allocated to capital, reimbursable, and operation and maintenance accounts in proportion to the non-overhead labor charged to these categories. This is accomplished by multiplying the labor costs in these categories by an overhead rate which is computed as follows:

$$\text{Overhead Rate} = \frac{\text{Overhead Expense}}{\text{District Payroll less Overhead Payroll}}$$

To alleviate any large fluctuations in the rate, a 12-month moving average of overhead expense and payroll costs is used.

Added to the base overhead rate shown above, is a rate (Engineering overhead rate) for charges associated with capital and reimbursable accounts. This component includes costs associated with engineering management (the Chief Engineer, the Assistants, and branch managers) attributable to capital and reimbursable projects. The cost allocation is handled in the same way as the base overhead expense. The calculation is as follows:

$$\text{Engineering Overhead Rate} = \frac{\text{Capital Portion of Engineering Management Payroll}}{\text{Capital and Reimbursable Payroll}}$$

Here again, a 12-month moving average is used to alleviate any large fluctuations in the rate. Shown below is an illustration of the above calculations for November 1993, based on the financial data for the twelve months ended October 31, 1993. The current overhead rate is 65.51 percent and the engineering overhead rate is 10.30 percent.

$$\text{Overhead Rate} = \frac{\text{12-Months of District Overhead Expense}}{\text{12-Months of District Payroll less Overhead Payroll}}$$

$$\text{Overhead Rate} = \frac{\$55,274,082}{\$84,369,246} = 65.51\%$$

$$\text{Engineering Overhead Rate} = \frac{\text{12-Months of Capital Portion of Engr. Mgt. Payroll}}{\text{12-Months of Capital and Reimbursable Payroll}}$$

$$\text{Engineering Overhead Rate} = \frac{\$2,409,411}{\$23,398,605} = 10.30\%$$

$$\text{Total Overhead Rate} = 75.81\%$$

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

October 26, 1987

(Finance and Insurance Committee--Action)
To: Board of Directors (Audit Subcommittee--Action)
From: General Manager
Subject: Accounting For Overhead Costs

Summary

A study of the District's procedures for determining and allocating overhead costs has been completed. As a result, revisions are being proposed which, if approved and implemented, will affect the classification of certain costs between overhead and capital or operations and maintenance (O&M), and, accordingly, the amount of overhead expense which is ultimately charged to capital and reimbursable projects.

It is proposed that the costs of the Public Affairs Division, a portion of the costs of the Planning and Resources Divisions, lobbying expense, and association dues be excluded from the overhead cost pool. Instead, these costs would be charged directly to capital or O&M accounts in the future.

The proposed changes to the overhead cost pool will result in a reduction in the overhead rate applied to capital and reimbursable projects of approximately 27 percent (from the current rate of 108 percent to a proposed rate of about 81 percent). As a result, it is estimated that approximately \$1.3 to \$1.5 million will be charged to O&M expense this year which otherwise would have been charged to capital and reimbursable projects.

Staff has also determined that no useful benefit is served by allocating the undistributed overhead to O&M work orders. It is proposed that this practice be discontinued. The overhead costs not allocated to capital or reimbursable accounts will instead be reflected in the District's accounting records and financial reports as a separate line item, in aggregate.

Although the Board has delegated to the General Manager discretion as to methods of accounting, your Board's concurrence with these changes is being sought due to the interest expressed by Directors in the overhead rate applied to reimbursable projects.

The proposed changes were reviewed by the Auditor and the external auditor, Ernst and Whinney, who found them to be acceptable. Implementation of the changes would be effective July 1, 1988.

Recommendation

That the Board of Directors approve the revisions to the method of accounting for overhead, as outlined in this letter.

Detailed Report

Background

In response to questions raised by Directors concerning the District's overhead rates, as well as staff's belief that this area warranted analysis, a study of this subject was initiated. The historical and current accounting policies were examined as well as the procedures used in calculating and applying indirect costs (overhead) to capital, reimbursable, and operations and maintenance accounts. Background on the historical and current overhead practices is contained in Attachment A.

To assist in the study, a consultant was employed who is experienced in developing overhead cost allocation plans for public agencies. The consultant conducted extensive interviews with staff throughout the District regarding the nature and scope of each function or activity for the purpose of classifying and allocating costs.

Using the data gathered by the consultant as a guide, staff evaluated the work functions currently included in the pool of overhead costs. This evaluation disclosed that the nature of several units' work assignments had changed over time, and that it would be preferable from an accounting standpoint to charge such costs directly to O&M or capital accounts instead of including them in the overhead pool. Specifically, staff believes that the costs of the Public Affairs Division, portions of the costs of the Planning and Resources Divisions, lobbying expenses, and association dues should be excluded from the overhead category, and that these costs should be directly charged to O&M or capital. The reasons for these changes are described in the following paragraphs.

Revisions to the Overhead Cost Pool

The general work effort in the Public Affairs Division has changed substantially in the areas of community and governmental relations, with more emphasis being placed on communicating the need for additional future water supplies as well as conservation of current resources. Since these activities are of an ongoing operational nature, staff believes the costs of these programs should be charged directly to O&M.

The Planning Division's functions have evolved from primarily providing support to the Engineering Division to, among other things, reviewing water service standards and objectives, preparing capital facility requirements studies, evaluating the treatment needs of various communities in the service area, developing long-range demand models, examining groundwater quality, preparing environmental documentation, and implementing conservation programs. With the expanded scope and reorganization of work performed by the Planning Division, staff believes that the identified programs should be charged directly to capital or O&M accounts.

With the increased emphasis on managing existing resources, the activities of the Resources Division have gradually changed and now include on-going analysis of Colorado River and State Water Project supplies, negotiating water transfer and exchange agreements, and the monitoring of local and regional water supplies. Since these functions are operational in nature, staff believes these costs should be charged to O&M instead of the overhead pool.

The minor costs associated with lobbying expense and association dues are currently part of the overhead base. However, these functions primarily support operational objectives of the District, and, accordingly, should be expensed as O&M.

The expenses of the Board of Directors, and the offices of the General Manager, General Counsel, Auditor, and Executive Secretary, and the Personnel, Finance, and Administrative Services divisions would continue to be included in the District's overhead pool. These functions generally benefit all District activities, including capital and reimbursable projects.

Overall, staff considers the proposed changes to be preferable to the current classification of overhead, O&M, and capital costs. Attachment B shows the proposed changes to the classification of costs, and an explanation for each change.

Cost Effects of Overhead Revisions

A reduction in overhead costs, accompanied by offsetting charges directly to applicable O&M or capital accounts will result in a somewhat faster recognition of costs each year, since less cost will be deferred to capital and reimbursable accounts through the allocation of the reduced overhead pool. The cost shift to O&M expense is estimated to be approximately \$1.3 to \$1.5 million this year. The effect on water rates would be less than one dollar per acre-foot. Tax rates would be unaffected. The revenue reduction for reimbursables due to the reduced overhead burden is estimated at approximately \$300,000 per year. Most of this amount is attributable to work for member agencies, with only a small portion of the amount attributable to other entities. The impact of the reduced revenues on the District's water rate is negligible.

Attachment C shows the recalculated overhead burden based on budgeted costs and the proposed reclassification of costs described herein for fiscal year 1987-88. The revised overhead rate chargeable to capital and reimbursable projects would be approximately 81 percent, as compared to the current rate of 108 percent shown on Attachment A. This revised rate will, of course, vary somewhat when actual rather than budgeted costs are used to compute the allocable overhead burden each month.

Allocation of Overhead Costs

The procedure for allocating overhead on the basis of direct payroll costs is not being revised. Staff believes that this procedure is reasonable and practical. The consultant proposed a variety of allocation bases which, if implemented, would result in various overhead rates. The consultant's method is inordinately complex and would be difficult and costly to implement. A cursory analysis indicates that the less complex procedure used by staff results in an overhead burden being allocated to capital and reimbursable projects that is substantially the same as the burden allocated under the consultant's method. Staff believes its proposed revisions

represent a reasonable alternative overhead cost allocation methodology which can be simply and economically implemented.

Overhead Accounting for Grant Programs

The District received, as a subgrantee, a federally funded grant of up to \$300,000 in fiscal year 1986-87 to study trihalomethane standards for drinking water. An additional federally funded grant is anticipated to study matters pertaining to disinfection by-products in 1987-88. While the proposed revisions for determining overhead costs are in accordance with generally accepted accounting principles, the revisions do not fully satisfy the prescribed guidelines for cost allocation plans for federal cost reimbursement purposes. Additional reductions in the District's overhead pool would most likely be required. These adjustments pertain to portions of the costs of the Executive Offices which may not be allowable as overhead. However, staff believes that the occasional receipt of federal or State funds does not justify a revision to the overhead pool beyond that proposed in this letter. Instead, appropriate adjustments should be made to meet guidelines on a case-by-case basis.

Distribution of Overhead to O&M Work Orders

The final area of revision in accounting for overhead pertains to the practice of distributing a portion of the total overhead expense to individual O&M work orders. This practice was implemented in fiscal year 1980-1981. Prior to that time, the unallocated overhead (the portion remaining after distributing overhead cost to capital and reimbursable projects) was identified as a separate line item, i.e. general and administrative expense.

Staff has concluded that the procedure of distributing overhead to individual O&M work orders does not provide any useful benefit in managing the O&M functions, nor does the procedure have any bearing on charges to reimbursable or capital accounts. Therefore, it is proposed that this practice be discontinued. The overhead expense not distributed to O&M will be identified in total in the District's accounting records and financial reports under a separate category of expense as was staff's earlier practice.

Approval of Changes

Although the Board has delegated to the General Manager discretion as to methods of accounting, your Board's concurrence with these changes is being sought due to the interest expressed by Directors in the overhead rate. The proposed changes have been reviewed by the Auditor and the District's external auditor, Ernst and Whinney, who found them to be acceptable. Implementation of the changes would be effective July 1, 1988.


Carl Boronkay

GDL/RRC/MCF/MWH:lg

Attachments

Attachment A

Background on Overhead Costs and Rates

Accounting Change Order No. 25, which was enacted in 1964 and revised in 1969, defines what expenses shall be classified as overhead and how overhead is to be allocated. Overhead expense is defined as costs not directly associated with and chargeable to a specific capital improvement, reimbursable, or O&M program or activity. They are costs that generally benefit the District as a whole and are collected in numerous work orders assigned throughout the District's organizational structure. These include all costs associated with the central support services of the personnel, finance, administrative services, legal and audit functions. Also included in overhead are all costs of the Public Affairs Division, portions of the costs of the Planning and Resources Divisions, expenses of the Board of Directors, Office of the General Manager and Executive Secretary, lobbying activities, insurance, and association dues. The total of these costs is allocated to capital, reimbursable, and O&M accounts in proportion to the non-overhead labor charged to these categories. This is accomplished by multiplying the labor costs in these categories by an overhead rate computed as follows:

$$\text{Overhead rate} = \frac{\text{Overhead Expense}}{\text{District Payroll less Overhead Payroll}}$$

A 12-month moving average of overhead expense and payroll costs is used to alleviate large fluctuations in the rate.

There is added to the base overhead rate shown above a second rate for charges associated with capital and reimbursable accounts. This component includes costs associated with engineering management (the Chief Engineer, the Assistant, and the branch managers) attributable to capital and reimbursable projects. These costs are allocated in the same way that the base overhead expense is applied and is calculated as follows:

$$\text{Engineering Overhead Rate} = \frac{\text{Capital Portion of Engineering Management Payroll}}{\text{Capital and Reimbursable Payroll}}$$

Again, a 12-month moving average is used. Shown below is an example of the above calculations for June 1987 using financial data for the twelve months ended May 31, 1987. The current base overhead rate is 83.39% and the engineering overhead rate is 24.22% for a total overhead rate of about 108%.

$$\text{Overhead Rate} = \frac{\text{12-Months of District Overhead Expense}}{\text{12-Months of District Payroll Less Overhead Payroll}}$$

$$\text{Overhead Rate} = \frac{\$29,874,106}{\$35,823,872} = 83.39\%$$

$$\text{Engineering} = \frac{\text{12-Months of Capital Portion of Engineering Management Payroll}}{\text{12-Months of Capital \& Reimbursable Payroll}}$$

$$\text{Engineering} = \frac{\$1,303,898}{\$5,383,559} = 24.22\%$$

$$\text{Total Overhead Rate} = 107.61\%$$

SUMMARY OF OVERHEAD AND O&M ACCOUNTS AND PROPOSED RECLASSIFICATIONS

CATEGORY	CURRENT CLASSIFICATION		PROPOSED TRANSFERS FROM OVERHEAD TO O&M/CAPITAL	REASON FOR CHANGE
	OVERHEAD	O&M		
EXECUTIVE OFFICES				
BOARD OF DIRECTORS	X			
GENERAL MANAGER	X			
LEGISLATIVE ACTIVITIES (LOBBYING)	X		X	SUPPORTS ACTIVITIES OF AN OPERATIONAL NATURE
LEGAL DEPARTMENT	X			
AUDIT DEPARTMENT	X			
EXECUTIVE SECRETARY	X			
RESOURCES DIVISION				ACTIVITIES INCLUDE (1) ON-GOING ANALYSIS OF SWP, CVP FACILITIES, AND LOCAL FACILITIES INCLUDING DELTA FACILITIES. CONSIDERATION IS GIVEN TO WATER QUALITY, FINANCING NEEDS, LITIGATION SUPPORT, CONTRACTUAL AGREEMENTS (ETC.) (2) INVESTIGATING AND MONITORING WATER SUPPLIES IN THE REGIONAL AREA; (3) ON-GOING ANALYSIS OF COLORADO RIVER RESOURCES, INCLUDING GENERATING CONCEPTS LEADING TO NEW POLICIES AND SPECIAL ADMINISTRATIVE AND TECHNICAL ASSIGNMENTS; (4) INVESTIGATING, MONITORING, AND CONTRACT ADMINISTRATION OF LOCAL PROJECTS.
STATE WATER PROJECT CONTRACT		X		
STATE WATER PROJECT LIAISON		X		
STATE WATER RESOURCES	X		X	
STATE WATER CONTRACTORS (ASSO. DUES)	X		X	
POWER RESOURCES		X		
REGIONAL WATER RESOURCES	X		X	
COLORADO RIVER RESOURCES	X		X	
LOCAL PROJECTS ADMINISTRATION	X		X	
ENGINEERING DIVISION				
OFFICE OF CHIEF OF ENGINEERING		X		
CIVIL ENGINEERING		X		
ELECTRICAL ENGINEERING		X		
MECHANICAL ENGINEERING		X		
STRUCTURAL ENGINEERING		X		
SAFETY OF DAMS		X		
OFFICE ENGINEERING		X		
GROUNDWATER INVESTIGATIONS		X		
MATERIAL QUALITY CONTROL SURVEY		X		
OPERATIONS DIVISION				
OFFICE OF CHIEF OF OPERATIONS		X		
SUPERVISION AND ADMINISTRATION		X		
CIVIL MAINTENANCE		X		
WATER TRANSPORTATION		X		
WATER TREATMENT		X		
HYDROELECTRIC PLANT OPERATIONS		X		
MAJOR MAINTENANCE		X		
TRANSPORTATION		X		

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SUMMARY OF OVERHEAD AND O&M ACCOUNTS AND PROPOSED RECLASSIFICATIONS

PAGE 2

CATEGORY	CURRENT CLASSIFICATION		PROPOSED TRANSFERS FROM OVERHEAD TO O&M/CAPITAL	REASON FOR CHANGE
	OVERHEAD	O&M		
PLANNING DIVISION				ACTIVITIES INCLUDE (1) PLANNING FOR THE EXPANSION OF THE DISTRIBUTION SYSTEM TO MEET FUTURE NEEDS, INCLUDING SPECIFIC PROJECTS TO BE ADDED OR MODIFIED AND THE TIMING FOR ACTIVITIES; (2) COORDINATING ALL WATER CONSERVATION ACTIVITIES WHICH MAY AFFECT THE DISTRICT OR ITS MEMBER AGENCIES; (3) PREPARING STUDIES ON FUTURE POPULATION GROWTH AND DETERMINING SUPPLY NEEDS; (4) EVALUATING LOCAL GROUNDWATER QUALITY CONDITIONS; (5) PREPARING EXTENSIVE REPORTS DEALING WITH POLICY POSITIONS INCLUDING HISTORICAL IDENTIFICATION AND ENGINEERING AND POLICY ANALYSIS, AND SUPPORT WORK WHICH RELATES TO CENSUS DATA AND ASSOCIATED DEMOGRAPHICS.
PLANNING DIVISION ADMINISTRATION	X		X	
ADVANCE PLANNING	X		X	
ENVIRONMENTAL PLANNING		X		
WATER CONSERVATION	X		X	
WATER SUPPLY & DEMAND	X		X	
POLICY ANALYSIS AND SPECIAL PROJECTS	X		X	
DRAFTING SERVICES	X		X	
PERSONNEL DIVISION				
OFFICE OF DIRECTOR OF PERSONNEL	X			
LABOR RELATIONS	X			
RECRUITMENT	X			
AFFIRMATIVE ACTION	X			
HUMAN RESOURCES & DEVELOPMENT	X			
RISK MANAGEMENT	X			
INDUSTRIAL HYGIENE & SAFETY	X			
SECURITY	X			
ADMINISTRATIVE SERVICES DIVISION				
OFFICE OF DIRECTOR OF ADMIN. SERVICES	X			
ANNUAL REPORT	X			
OFFICES SYSTEMS	X			
TEXT PROCESSING	X			
OFFICE SYSTEMS USER GROUPS	X			
APPLICATIONS PROGRAMS	X			
DATA PROCESSING	X			
PURCHASING	X			
CENTRAL STORES	X			
RECORD SERVICES	X			
REPROGRAPHICS	X			
GRAPHIC SERVICES	X			
HEADQUARTERS BUILDING SERVICES	X			
RIGHT OF WAY AND LAND DIVISION				
OFFICE OF DIRECTOR OF ROW & LAND		X		
PROPERTY MANAGEMENT		X		
ENGINEERING		X		

SUMMARY OF OVERHEAD AND O&M ACCOUNTS AND PROPOSED RECLASSIFICATIONS

CATEGORY	CURRENT CLASSIFICATION		PROPOSED TRANSFERS FROM OVERHEAD TO O&M/CAPITAL	REASON FOR CHANGE
	OVERHEAD	O&M		
FINANCE DIVISION				
OFFICE OF DIRECTOR OF FINANCE	X			
FINANCIAL SERVICES	X			
CONTROLLER	X			
TREASURER	X			
WATER QUALITY DIVISION				
OFFICE OF DIRECTOR OF WATER QUALITY		X		
LABORATORY OPERATIONS		X		
PROCESS DEVELOPMENT & COORDINATION		X		
PUBLIC AFFAIRS DIVISION				THESE FUNCTIONS DO NOT REPRESENT CENTRAL SERVICE FUNCTIONS. EMPHASIS IS TO INFORM PUBLIC ABOUT WATER ISSUES. ACTIVITIES WOULD BE MORE APPROPRIATELY CLASSIFIED AS OPERATING PROGRAMS.
OFFICE OF DIRECTOR OF PUBLIC AFFAIRS	X		X	
MEDIA RELATIONS	X		X	
INSPECTION TRIPS	X		X	
PUBLICATIONS	X		X	
EDUCATION PROGRAM	X		X	
EXHIBITS	X		X	
COMMUNITY RELATIONS	X		X	
GOVERNMENTAL AFFAIRS	X		X	
INSURANCE	X			
DEPRECIATION OF MINOR EQUIPMENT	X			
ASSOCIATION DUES	X		X	PARTICIPATION IN THESE ASSOCIATIONS BENEFIT SPECIFIC OPERATING PROGRAMS.
COST OF WATER		X		
TAXES		X		

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Proposed Changes in Overhead Cost Pool
and Resultant Overhead Rate

PAYROLL

Budgeted Payroll for 1987-88 \$63,524,805

Proposed Overhead Payroll:

Executive Offices	2,624,192
Personnel Division	1,444,539
Administrative Services Division	5,901,179
Finance Division	2,295,244

Total 12,265,154

O&M and Capital Payroll	51,259,651
Less Leaves	7,176,351

Estimated Direct Payroll \$44,083,300
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OVERHEAD

Budgeted Overhead Costs for 1987-88 \$35,067,900

Proposed Exclusions:

Public Affairs Resources	4,316,700
SWP Resources	237,100
SWC Contractors, Inc. (assoc. dues)	201,200
Regional Resources	489,900
Colorado Resources	394,400
Local Projects	195,800
Planning	
Administration	796,800
Advance Planning	357,000
Water Conservation	478,800
Water Supply/Demand	583,300
Policy Analysis	284,100
Drafting Services	21,500
Association Dues	400,000
Sacramento Office - Administration	61,900
Lobby Expenses	
Headquarters	77,300
Benefits	28,000
Sacramento	148,500
Washington D.C.	102,000

Total Exclusions 9,174,300

Revised Overhead Cost Pool for 1987-88 \$25,893,600
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Base Overhead Rate for 1987-88
(Revised Overhead Divided by Direct Payroll) 59%

Engineering Overhead Rate 22%

Total Overhead Rate 81%