

***Comprehensive Management Audit of
New Jersey-American Water Company***

Case File No. WA95120650

*conducted for the
New Jersey Board of Public Utilities
by Davies Associates, Inc.*

August 5, 1997



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August 5, 1997

Mr. Walter P, Szymanski, Director
Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

Dear Mr. Szymanski:

Davies Associates is pleased to present this final report of our comprehensive management audit of New Jersey-American Water Company, conducted on behalf of the Board of Public Utilities. As agreed, we are providing a set of 25 bound copies and one unbound camera-ready copy to the BPU and a similar set to the New Jersey-American Water Company.

We appreciate the opportunity to conduct this audit, and would especially like to express our appreciation to both the BPU and the Company for their support, cooperation, and helpful contributions throughout the process.

Attached following this transmittal letter is a letter from the Company expressing its response to the audit. The Company generally concurs in all of the recommendations.

We trust that the analyses and recommendations in this report will help the already well-managed company to further improve its performance.

Yours Sincerely,

Davies Associates, Inc.

Davies Associates, Inc.



New Jersey-American Water Company

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August 4, 1997

Mr. Walter P. Szymanski
Director, Division of Audits
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Two Gateway Center
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Dear Mr. Szymanski:

On behalf of New Jersey-American Water Company, I would like to take this opportunity to thank you and the Division of Audit staff for the professional manner in which the Company's latest Management Audit was conducted. I would also like to thank Davies Associates for providing an enlightening perspective on the management and operations of the Company. The audit team conducted over 115 interviews and reviewed responses to over 400 data requests through the course of the audit.

The Company is in general agreement with the recommendations of the Audit. We are pleased that Davies Associates finds the Company "effective, efficient, and well managed." We are also pleased that Davies recognized the "comprehensive and well thought out engineering and facilities planning" process. Recommendations for improvements in other areas of corporate planning are noted, and will enhance the Company's ability to achieve our mission. As you are aware, New Jersey-American has made many changes since the 1988 Management Audit. Many of the findings and recommendations contained in this audit affirm the direction we have chosen for New Jersey-American, and as a result, a number of the recommendations already have been or are soon to be implemented by the Company.

The insights provided by Davies Associates should prove to be a valuable asset as New Jersey-American plots its course for the twenty-first century. We look forward to working with you and your staff in the implementation of the recommendations contained in this report.

Sincerely,

Daniel L. Kelleher

DLK/slb
szymans

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The findings and recommendations contained in this management audit report are the findings and recommendations of the consultant, Davies Associates, Inc., only and as such are not necessarily agreed to by New Jersey-American Water Company or the Board of Public Utilities.

We wish to commend both the New Jersey-American Water Company management and the Board staff for their excellent cooperation in this difficult undertaking. It is never easy to undergo a detailed assessment. To be able to cooperate meaningfully and contribute substantially to the results of such a review is a considerable achievement for which we commend NJAWC's management. We thank you both.

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Introduction

On behalf of the New Jersey Board of Public Utilities, Davies Associates, Inc. conducted a comprehensive management audit of New Jersey-American Water Company.

This introduction discusses the manner in which the audit of New Jersey-American Water Company (NJAWC or the Company) was performed, provides a brief overview of the Company, and summarizes the recommendations. It is presented in the following sections:

- A. The Audit Process
- B. Overview of the Company
- C. Summary of Recommendations.

A The Audit Process

Background of Management Audits in New Jersey

The New Jersey Board of Public Utilities (BPU) conducts or commissions management audits of utilities under its jurisdiction as one method of ensuring that New Jersey utilities are well-managed and provide high quality, cost-effective services to their customers.

Objectives of This Management Audit

As specified by the BPU's Request for Proposal, the audit is to determine if any of the audited operating procedures or any other internal workings of the Utility are inefficient, improvident, unreasonable, negligent or in abuse of discretion, and the results of the audit will be used by the Board in ordering the Utility to adopt new or altered practices and procedures as the Board shall find necessary to promote efficient and adequate service to meet the public convenience and necessity.

Scope of the Audit

The audit was a comprehensive review of all areas of the utility's operations.

Approach

The audit commenced on October 7, 1996, and most of the interviews and data gathering were completed by mid-December, 1996.

By prior agreement between the Company and the BPU, essentially all interviews were attended by a representative of Company management and a representative of the BPU audit staff, as well as a Davies Associates consultant and the interviewee.

The audit team gave particular attention to issues of effectiveness, rather than just efficiency, because we find that the greatest payout usually comes from ensuring that employees concentrate on doing what is most important, not just on doing things at lowest cost. The company as a whole achieves its greatest efficiency when

all of its components concentrate on doing the things that matter and don't waste resources on unessential activities.

Throughout the audit, an effort was made to identify and analyze patterns of behavior that are repeated, sometimes in differing form, in the various parts of the organization. Both the strengths and the problems of an organization tend to be relatively few in number, but pervasive in their manifestation. The same kinds of strengths, and the same kinds of problems, tend to show up again and again throughout the operations of the organization. By recognizing and dealing with such consistent patterns, a company can make a real improvement in the way it does business instead of merely responding to specific symptoms.

Since the bulk of the management audit is devoted to opportunities and recommendations for improvements, readers might incorrectly assume that the utility as a whole is seriously deficient. In fact, we found this to be a well-managed company.

B Overview of the Company

New Jersey-American Water Company (New Jersey-American, the Company, or NJAWC) is a wholly-owned subsidiary of American Water Works Company (AWWC), along with other water utilities and non-utility subsidiaries that are collectively known as the American Water System (AWS). One non-utility company of particular importance is the American Water Works Service Company (Service Company), which provides various management and technical services to NJAWC and the other operating utilities.

New Jersey-American benefits significantly from its affiliation with the other AWS companies, primarily through the economies of scale that the AWS as a whole can provide in certain functional areas. The audit team found no significant disadvantages of the AWS affiliation.

Overall, we found the Company to be effective, efficient, and well-managed with generally superior performance, especially in the “technical” functions, by which we mean water production, purification, transmission, and distribution. Water quality and reliability are both excellent. The cost of production and purification is relatively high, however, while the cost of transmission and distribution is relatively low. The high cost of purification is at least partly attributable to the Company’s high standards of water quality.

Most of the major improvement opportunities we found were in nontechnical areas, and even in most of those areas the quality of performance is generally high. There are a number of deficiencies noted, however, in various aspects of nontechnical planning, business analysis, documentation, and nontechnical training.

It is part of the culture of the Company and AWS as a whole that management relies somewhat heavily, for coordination and control, on informal communications and long-standing working relationships. There is remarkably little evidence of any bureaucratic overdependence on formal rules and procedures, and a commendable adaptability and flexibility—certainly within senior management and to a considerable degree throughout the Company. It is to the credit of the Company and

the way it selects, manages, and motivates its people that we found virtually no evidence of the kind of narrow-minded bureaucratic thinking that some utilities must deal with. As the industry moves into the twenty-first century and confronts accelerating changes, this quality of the management to bend and adapt will probably serve the Company well.

There are some drawbacks to this style of management, however, that can impair effectiveness. The informal, unwritten communication of plans and priorities may work well within a small circle of senior managers, but lower-level managers and non-managers, who are not privy to these communications, require a more-formally articulated set of plans and priorities. These plans should be specifically tailored to their functional area and clearly relate their goals to higher-level goals.

The recommended solution is *not* to change the non-bureaucratic culture of the Company or to abandon its traditions of collegiality among senior management. The culture and collegiality are strengths that should be preserved. The better solution, as reflected in many recommendations in this report, is to augment the informal oral communications with written communications where the message should penetrate deeply into the organization with high fidelity. In this way, the sense of collegiality might be extended even more fully throughout the Company, and corporate effectiveness, which is already high, might be further improved.

Some of the deficiencies noted in our report derive at least in part from the lack of adequate documentation in planning and analysis. The deficiencies in planning, for example, consist mainly of a lack of certain formal planning documents, especially relating to corporate planning, human resource planning, and information systems planning, but also including most functional areas. (Acquisitions planning is also not well documented, but that is justifiable for reasons of confidentiality in a competitive arena.) It is not clear in some cases whether the actual planning is deficient, although a failure to document the planning process and results on paper usually leads to a less satisfactory result.

Deficiencies in formal business analysis do not necessarily imply that the business decisions themselves were wrong, although, again, decisions on complex matters that are made without benefit of written analysis sometimes suffer from that lack. The need for more analysis has been noted in a number of areas. These include the analysis of computer hardware and software acquisition and other capital

acquisitions, purchasing decisions, vehicle replacement timing, training needs, complaints, meter reading costs, project ranking, pipe break history, and resolution of priorities for Information Systems work.

The Company is still in the process of completing a reorganization and consolidation, and the benefits of what has already been accomplished are mixed with the pains that always accompany change. There are clear benefits evident in both efficiency and uniformity in many areas of system operations, customer services, and several support services such as materials management, facilities management, and computer systems. The newly-centralized Human Resources function, on the other hand, is still in need of further staffing and development to achieve the goal of a fully-equipped centralized operation. And the organization structure of operating centers appears to be top-heavy, having not yet fully adapted to the shifting of some functions to headquarters.

The Company is implementing some technological changes that will pay off in future years. Most importantly, perhaps, is the adoption of new externally-developed software packages that will provide significant new capabilities and reduce the on-going cost of program maintenance. The financial software package is now being implemented, and a new customer accounting system will be implemented in the near future. Less dramatic, but also very important for operational efficiency, is the replacement of existing inside meters with encoding meters that can be read from the outside of the building.

Overall, the audit team finds an excellent quality of management and performance in the technical areas of system operations, and good-to-very-good performance in the business aspects of company management. We found no major functional areas that were seriously deficient, although the Human Resources function is in need of significant strengthening in some areas.

C Summary of Recommendations

The following table presents the 79 recommendations of this audit. The Company generally concurs in all of the recommendations.

Because NJAWC is a subsidiary of a holding company and has existing relationships with other entities of the holding company system, the wording of some of the recommendations reflects certain limitations in NJAWC management's authority for unilateral action that would affect these other entities. Some recommendations suggest several alternative means of achieving an objective, for example, depending upon the degree and character of the support from other entities that are not subject to this audit.

The emphasis throughout the audit was on identifying the most important opportunities for lasting improvement, which generally derive from fundamental changes that will have pervasive and long-term benefits. In some cases the Company participated in developing specific recommendations.

These recommendations, in combination with NJAWC's experience of participating in the development of many of them, should position the Company to continue to improve the effectiveness and efficiency of its service to its New Jersey customers.

Two recommendations are expected to produce substantial cost reductions. The first is Recommendation R3B-1, to convert customer meter change-out from a 10-year life cycle to a 15-year life cycle. It is expected to save approximately \$1 million per year and require only very small costs by comparison. The analysis is presented in the discussion of the recommendation in Chapter 3. The second is Recommendation R7E-3, to develop a more reliable set of criteria for indicating probable need for vehicle replacement. It is expected to save \$30,000–\$100,000 per year. One-time development costs are estimated at \$4,000–\$15,000, depending on the level of sophistication and automation, while on-going costs will likely be very small. The analysis is presented in the discussion of the recommendation in Chapter 7.

The other recommendations will either improve the general effectiveness of the Company or will provide cost savings that are impossible to quantify with any

reasonable degree of reliability, and no quantitative assessment of those costs has therefore been attempted. While the total cost savings identified are substantial—between \$1,030,000 and \$1,100,000 per year with associated one-time costs of only \$4,000 to \$15,000 and negligible annual costs—the number of such quantifiable savings opportunities is only two.

There are at least two explanations for the small number of recommendations leading to readily quantifiable cost reductions. One is that the Company has done a good job in cost management, and additional opportunities for unambiguous cost savings are therefore rare. Most of the improvement opportunities found by the audit team will improve the long-term effectiveness of general management functions such as corporate planning, communications, management information, management analysis, and human resource development. While improved effectiveness and efficiency, and therefore reduced cost, is a probable long-term result of implementing many of these recommendations, it is impossible to reliably forecast the cost reduction resulting from, for example, establishing clearly-understood productivity measurements for each work area in the Company.

The other explanation for the small number of recommendations leading to readily quantifiable cost reductions is that the audit team found that it was preferable, in many instances, to leave the Company some flexibility in the manner of implementing audit recommendations, and therefore the trade-off between cost of implementation and projected cost savings cannot be predetermined.

The full set of recommendations presented on the following pages are classified into three priority categories (A, B, C) based on their assessed importance and the ability to accomplish them quickly:

- A High Priority—Implementation should begin within three months, either because the recommendation will produce major benefits or because the implementation can be accomplished quickly with little investment of resources.
- B Medium Priority—Implementation should begin within nine months, because the recommendation will produce important benefits.
- C Low Priority—Implementation should begin within eighteen months, because the recommendation will produce only modest benefits or there are other reasons for deferring their implementation.

The first column contains a sequential Recommendation Number from 1 up, while the second column shows the Recommendation Number that is used elsewhere throughout the report, numbered from 1 up within each section of each chapter. The priority of each recommendation is shown in the last column.

Chapter 1: Executive Management			
1A (Board of Directors)			
1	R1A-1	Appoint another Director to fill the Board's vacancy. In doing so management may want to consider strengthening the Board's consumer perspective.	A
1B (Officers)			
2	R1B-1	Take more aggressive steps to educate lower management in the implications of changes taking place in the utility industry, and expose them to the experience of recently deregulated industries such as airlines, telecommunications, and banks. Also focus on creating an open environment to ensure that senior management is receiving the full range of advice and counsel from the staff.	A
1C (Organization Structure)			
There are no recommendations in this section.			
1D (Corporate Planning & Acquisitions)			
3	R1D-1	Develop a NJAWC Corporate Plan and a full set of interrelated functional plans that identify and support the attainment of Corporate and functional missions and goals through the implementation of strategies.	A
1E (Corporate Communications & Administration)			
4	R1E-1	Improve the written planning documentation that managers and other employees below the senior management level need in order to self-direct their activities in a way that best serves the needs of the Company.	A
5	R1E-2	Continue the process of revising and updating the current policies and procedures to conform to the current organization structure and procedures, and assign responsibilities for the process.	B
6	R1E-3	In concert with the Service Company, clarify and document the purposes and responsibilities of the various task forces and committees, and identify and eliminate overlaps and gaps.	C
7	R1E-4	Reexamine and, as necessary, redesign the full set of management reports to ensure that all important information needs of all levels of management are met. Examine all related reports "side-by-side" as a comprehensive and coordinated exercise, not as a set of isolated and disconnected reviews.	C
1F (Corporate Ethics)			
There are no recommendations for this section.			
1H (Regulatory Compliance)			
8	R1H-1	The Company should communicate more effectively to its customers the impact of complying with various laws and regulations.	C

		1I (Executive Compensation and Benefits)	
9	R1I-1	With the accumulation of experience, urge the Service Company to reassess the new compensation program, and commission a follow-up executive compensation study in 1997 or 1998 as is presently planned.	C
		1J (External Relations)	
10	R1J-1	Develop a formal plan for achieving the Company's public relations mission of building its reputation as a reliable provider of quality water.	B
		Chapter 2: Relationships With Affiliated Companies	
		2A (Inter-Company Transactions)	
		There are no recommendations in this section.	
		2B (Allocation of Resources, Costs, and Services)	
11	R2B-1	Allocate Service Company employees' holiday, vacation, and sick pay consistent with other basic payroll overheads.	C
12	R2B-2	Perform a study to determine the best cost allocation method for allocating to Resources the cost of services received from New Jersey-American.	C
		2C (Documentation)	
		There are no recommendations in this section.	
		2D (Effect on Utility)	
		There are no recommendations in this section.	
		Chapter 3: System Operations	
		3A (System Production, Transmission, and Distribution)	
13	R3A-1	Review the organization structure of the Operating Centers to determine if the span of control can be increased.	C
14	R3A-2	Strengthen the feedback mechanism for the Work Management System (WMS) to support quick, easy and accurate information to upgrade workforce productivity and management control.	C
15	R3A-3	Raise the limit on purchase orders that may be signed by first line supervisors, probably to \$1,000.00.	B
16	R3A-4	Give increased support to cross connection control and related customer education.	C
17	R3A-5	Implement a formalized risk analysis program to aid in the repair or replace decision for transmission and distribution pipe.	C
		3B (System Operation and Maintenance)	
18	R3B-1	Convert customer meter change-out from a 10-year life cycle to a 15-year life cycle, except for problem meters such as inside meters that lack an outside register, and other non-encoding meters if that is determined to be an economic decision.	A
19	R3B-2	Review the need for one additional person at the meter shop, especially if the 10-year meter change-over cycle continues.	A
20	R3B-3	Develop a policy, manual, or other guide for the sizing of large meters.	C
21	R3B-4	Review the valve inspection program in all operating centers to assure compliance with Title 14.	A

		3C (System Reliability and Planning)	
22	R3C-1	Evaluate the staffing of Engineering, and add staff if necessary.	C
23	R3C-2	Consolidate existing engineering policies and procedures into a recognized quality assurance (QA) program.	C
24	R3C-3	Evaluate the priority of the replacement of the Canoe Brook facility relative to the other capital projects within the Company.	B
		3D (System Construction and Bidding Practices)	
25	R3D-1	Improve the feedback mechanism for tracking and comparing final construction costs back to the original conceptual costs in the CPS and other original documents.	C
		3E (Unaccounted-For Usage)	
		There are no recommendations in this section.	
		3F (Work Force Management)	
		There are no recommendations in this section.	
		Chapter 4: Finance	
		4A (Cash Management)	
26	R4A-1	Update and streamline the processing and posting of customer payments to improve efficiency in the remittance processing area as well as in the computer operations area.	C
27	R4A-2	Study and review the feasibility of increasing utilization of electronic banking features through the use of the automated clearing house for payment of vendors and Zip Check for receipt of customer payments.	C
		4B (Accounting)	
		There are no recommendations in this section.	
		4C (Taxes)	
		There are no recommendations in this section.	
		4D (Budgeting and Cost Control)	
28	R4D-1	Develop and implement a more formal analytical process to evaluate capital projects.	B
		4E (Internal Auditing)	
29	R4E-1	Study assigning internal audit engagements based on risk assessment rather than a standard rotation to provide more thorough audit coverage of areas where the risk of errors, omissions, fraud and theft are greater.	C
30	R4E-2	More fully document the audit findings, including a determination of the causes, and classify the findings in categories in relation to their severity.	B
31	R4E-3	Continue to monitor Service Company billings to ensure that they are reasonable.	C
		4F (Corporate Financing)	
		There are no recommendations in this section.	
		4G (Rate Structure and Design)	
		There are no recommendations in this section.	

Chapter 5: Human Resources			
(Human Resources, Overall)			
32	R5-1	Develop a human resources plan that is rooted in the projections of the Company's Strategic Business Plan, and that addresses the implications of staff increases and resultant compensation planning.	A
5A (Wage and Salary Practices)			
There are no recommendations in this section.			
5B (Compensation and Benefits)			
33	R5B-1	Encourage the Service Company to conduct triennial comprehensive salary surveys for all nonbargaining employees below executive level and to restructure salary grades and rates in accordance with Towers-Perrin recommendations.	C
34	R5B-2	Gather and maintain turnover statistics annually and enter them into the HRIS system or its replacement. Continue to conduct a standardized exit interview each time an employee leaves the company, voluntarily or otherwise, but also analyze the statistical results and search for indications of problems.	B
35	R5B-3	Provide employees, especially supervisors and managers, with periodic refreshers on benefits issues, to ensure that their knowledge of benefits such as EAP is current and complete.	B
5C (Development, Training and Evaluation)			
36	R5C-1	Perform a training needs analysis for the Company. Prepare a training plan to fill the gaps not filled by the Service Company training function. Add a training and development professional to the Human Resources staff in accordance with current plans and provide that person with a budget and dedicated training space appropriate for a company of 500 or more employees. Provide workers at all levels with business information in an understandable format, to enable them to understand management decisions and comprehend the trends that affect their lives and futures.	A
37	R5C-2	Establish a regular communication channel between executive management, nonbargaining employees and bargaining unit workers.	B
38	R5C-3	Screen the use of outside vendors of training programs, in consultation with department managers, for quality and applicability to the professional development of workers.	B
39	R5C-4	Develop a more aggressive program for encouraging employee self-development, including making the average employee aware of training opportunities for which he or she may apply, both inside and outside the Company.	C
40	R5C-5	Install a formal leadership succession planning process.	C
5D (Productivity and Utilization)			
41	R5D-1	Establish clearly understood productivity measurements for each work area in the Company and train managers and supervisors in productivity improvement and effective employee utilization techniques.	C

5E (Employee and Labor Relations)			
42	R5E-1	Perform a comprehensive employee opinion survey at least every two years, using an outside, neutral party to gather, compile and analyze results.	C
5F (Safety)			
43	R5F-1	Maintain a data base on employees who cause accidents to determine if a behavior pattern exists.	C
44	R5F-2	Develop collaboration between Human Resources and the Loss Control staff in employee safety and health promotion activities.	B
5G (Employment and EEO/AA)			
45	R5G-1	Flowchart the human resources selection, hiring and orientation process and identify opportunities for procedural improvements that might streamline the hiring process.	C
46	R5G-2	Provide periodic refreshers for managers and supervisors in human resources legal issues.	C
Chapter 6: Customer Services			
6A (Meter Reading)			
47	R6A-1	Continue with plans to establish a regular practice of tracking and comparing meter reading costs and productivity based on J.D. Edwards data, and analyzing the data to develop standard costs and labor productivity for reading meters.	B
6B (Billing, Credit, and Collections)			
48	R6B-1	Continue the process of establishing and distributing a comprehensive and usefully-organized set of collections policies, and identify which are mandated by the BPU or other state authority and which are company policies and therefore more amenable to modification.	C
49	R6B-2	Document who is/are responsible for establishing collections policies and for deciding individual cases as exceptions.	A
50	R6B-3	Develop formal performance and productivity measures for Billing, Credit, and Collections for comparisons over time, among operating centers, and between NJAWC and other water utilities and even gas and electric utilities. Compile a monthly management report, manually until it can be done by computer, that presents in convenient format the information needed for assessing and tracking the performance and productivity of the Billing and Collections functions.	B
51	R6B-4	Accelerate the encoder meter replacement program with respect to inside meters.	A
52	R6B-5	Initiate calls to all delinquent customers every month after the second month unless the amounts involved are trivial.	A

6C (Complaints and Inquiries)			
53	R6C-1	Tally complaints, commendations, suggestions, and other quality-related comments, classified in some useful level of detail for providing quality improvement guidance, and distribute the tallies to management quarterly with analytical comments.	B
54	R6C-2	Adopt, as a feature of periodic general management meetings, a brief quarterly discussion of the useful information that can be drawn from the latest batch of customer complaints, and the corrective responses that should be taken.	B
55	R6C-3	Conduct a customer satisfaction survey to determine the level of customer satisfaction in a variety of areas, to explore the strengths and weaknesses of the Company's customer relations, and to identify areas for improvement.	C
56	R6C-4	Institute an expanded formal training program for new Customer Service Representatives to supplement the existing program of call monitoring and on-the-job training. As a part of a general improvement of employee training, also develop a strong linkage, through organization structure or otherwise, between Customer Services training and other Company training programs.	C
6D (Conservation)			
57	R6D-1	Seek out new opportunities for promoting conservation and be alert for opportunities (such as water shortages or merely a decline in reservoir levels) to publicize the need for conservation through press releases or just a phone call to a newspaper or TV station. Appoint an individual to develop, promote, and coordinate all water conservation efforts, or at least all customer-use conservation efforts, as a part of a related job.	C
6E (Marketing)			
58	R6E-1	Assign the responsibility for acquisition-oriented marketing to one person.	B
6F (Service Theft)			
59	R6F-1	Develop a program to detect and control theft of service. Assess the feasibility of instituting a systematic, and preferably at least semi-automated, process for detecting service theft through billing records. Also develop a method and a periodic schedule for estimating service theft, differentiated geographically and in other ways that are both useful and feasible.	C
Chapter 7: Support Services			
7A (Insurance and Claims)			
There are no recommendations in this section.			
7B (Legal)			
60	R7B-1	Prepare written guidelines for allocating work to inside or outside counsel, with a rationale for them.	B
7C (Facilities Management)			
61	R7C-1	Define clearly, in writing, the separate functions of building and grounds services, office services, purchasing, and materials management, and then continue to assign personnel accordingly.	B

62	R7C-2	Develop a documented policy governing the use of outside building and office services contractors.	C
63	R7C-3	Analyze the present and future space requirements at the headquarters location, and, in cooperation with the Corporate Counsel's Real Estate function, develop a plan to provide for them.	C
7D (Materials Management)			
64	R7D-1	Consolidate all purchasing and materials management functions throughout the Company into the Purchasing and General Services Department, and either develop or hire additional professional materials management capabilities for that department.	A
65	R7D-2	Conduct analytical studies to determine economic order quantities and inventory minimums and maximums for all major inventory items.	B
66	R7D-3	Combine purchasing and materials management for meters with the same functions for other Stock E items.	A
67	R7D-4	Continue to plan for the inclusion of materials management features in the J.D. Edwards software, and ensure that purchasing and materials management personnel are closely involved in the implementation of J.D. Edwards.	A
7E (Transportation)			
68	R7E-1	If interest can be generated among other operating companies of the American system, study, in concert with them and the Service Company, the pros and cons of a national contract for purchase and/or lease of vehicles, together with lease management software and services, and prepare a written analysis and recommendation.	C
69	R7E-2	Reassign the fleet management function to the recently-created Purchasing and General Services Department that reports to the Vice President and Comptroller.	A
70	R7E-3	Develop a more reliable set of criteria for indicating probable need for vehicle replacement, perhaps based on a calculated point value, and consider developing software to calculate the point value for each vehicle. Also consider instituting a program of vehicle condition assessment, emphasizing the anticipated cost of future problems, by a designated contract mechanic as an input to each replacement decision.	A
7F (Real Estate and Land Management)			
71	R7F-1	Develop a Real Estate Management Plan.	B
7G (Computer Systems and Services)			
72	R7G-1	Urge the Service Company to take a stronger role in leading the development of information technology within AWS.	C
73	R7G-2	Consider adding a new Systems Integration Administrator within the Applications Development branch.	B
74	R7G-3	Keep IS staff informed of matters of concern to them unless there is good reason not to, and especially keep liaisons informed of matters of concern to their designated users.	A

75	R7G-4	Clarify the present and future role of liaisons. If there is a role, then encourage liaisons to work more closely with their designated user departments. If those departments will be converting to J.D. Edwards or Orcom, either involve the liaisons in the implementation of the new software in order that they may learn, teach, contribute, and share the experience in preparation for providing continuing support for users, or else prepare them now for a different IS responsibility.	A
76	R7G-5	Develop a formal, but flexible, process for priority resolution among competing demands on the resources of Information Systems. Consider the use of a charge-back system to foster considerations of cost-effectiveness on the part of users requesting services from IS.	C
77	R7G-6	Establish and adhere to a policy that outlines general analysis requirements to justify the acquisition of major hardware and software. Keep it simple, relying more on management oversight than on detailed rules to ensure that an adequate analysis and justification is provided.	C
78	R7G-7	Document security procedures as a more-detailed supplement to the "Policy for Computer Security."	C
7H (Records Management)			
79	R7H-1	Designate one employee to function as a records management specialist as a part of his or her job. As an outgrowth of the first review of departmental records, develop a Company records management policy and departmental versions.	C

Chapter **1**

Executive Management

Davies Associates, Inc.

Final Report of a Management Audit of New Jersey-American Water Company, Case File WA95120650

Chapter 1

Executive Management

This chapter presents the results of Davies Associates' evaluation of the executive management function of New Jersey-American Water Company (NJAWC). The executive management function includes the following ten elements:

- A. Board of Directors
- B. Officers
- C. Organization Structure
- D. Corporate Planning
- E. Corporate Communications and Administration
- F. Corporate Ethics
- G. Unused Section Number (See Section E)
- H. Regulatory Compliance
- I. Compensation and Benefits
- J. External Relations

1A Board of Directors

This evaluation assesses the Board of Directors of NJAWC. It covers:

- The roles of the Board, the communication of these roles to management, and their implementation
- The division of responsibilities between the NJAWC Board and the Service Company Board
- The Board's ability to maintain effective oversight and control and to exercise responsibility for management actions and outcomes.

As part of a major holding company New Jersey's Board of Directors must be considered in context with the Boards of Directors of the parent company (the American Water Works Company or AWWC) and the American Water Works Service Company (Service Company).

However, the context in which the boards of AWWC, the Service Company and the operating companies work has changed since the new CEO of AWWC took office in 1991. For instance, instead of providing top management to the operating companies and controlling policies and procedures, the Service Company now provides professional services and coordinates policies and procedures. Policy for the American Water Works System (AWS) is set by the AWWC Board of Directors while the Service Company Board of Directors coordinates the development of common policies and procedures. NJAWC is represented on the Service Company Board, and members of its Board are also members of the AWWC Board.

Since taking office the CEO of AWWC has appointed 75% of the top 80 management positions in AWWC, the Service Company and the operating companies with people who meet his requirements for a combination of decisive management, strategic thinking and planning and consensus building. After making these appointments the CEO, over the last several years, has moved to decentralize authority to the operating companies. Along with the strategy of decentralizing authority, AWWC has implemented a pay-for-results compensation plan that has annual and long term components.

American Water Works Company Board of Directors

The AWWC Board of Directors has eleven members, of which one is an officer of the company and ten are outside directors. Four of the outside directors are related to the family that founded AWWC.

The AWWC Board meets monthly in Voorhees, NJ, except in August and December. One meeting is usually held at an operating company to familiarize the Board with some aspect of company operations. The Board annually approves the AWS system-wide operating and construction plan.

The Board also approves the strategy of AWWC, which, in part, encourages the acquisition by the operating companies of water systems within their operating areas.

American Water Works Service Company

The Service Company provides all of the operating water companies of the AWS with some professional and staff services such as engineering, operations, water quality, accounting and finance, information systems, human resource services, purchasing, insurance, safety and legal. It provides New Jersey-American with professional support to human resources and insurance. The Service Company is headquartered in Voorhees, New Jersey and has one regional office responsible for eight subsidiaries. New Jersey is the second largest subsidiary.

The Service Company Board of Directors is composed of the Presidents of the Operating Companies and the senior officers of the Service Company. The Service Company Board of Directors coordinates the development of common policies and procedures throughout the American Water Works system.

New Jersey—American Water Company Board of Directors

NJAWC is a New Jersey company and operates under the laws and statutes of New Jersey. Its Board of Directors consists of seven directors, of whom three are outside directors and four are inside directors. The outside directors consist of a member of the founding family, an attorney who is a former BPU Commissioner, and a professor of management at the University of Pennsylvania's Wharton School. The

inside directors are an officer of the Company and three Service Company officers who are also directors of the Service Company.

Within the AWS structure, the NJAWC Board, like the boards of most wholly-owned subsidiaries, is not fully independent, in that it is constrained from establishing policies or procedures for the Company that would set precedents for the American Water Works System. Furthermore, there are certain decisions that are reserved to the boards of AWWC and/or the Service Company. For example:

- NJAWC's corporate strategy must conform to the strategies of AWWC and the Service Company. Policies and actions affecting strategic direction are developed by the NJAWC Board from those set by the Boards of AWWC and the Service Company.
- Top management selection and assurance of succession is guided by AWWC and the Service Company.
- Dividend policy conforms to the guidelines set by AWWC.

The NJAWC Board exercises independence for the particular needs of New Jersey and is responsible to act on specific New Jersey issues except where such action would set precedents for AWS as a whole. NJAWC's interests are also represented on the Service Company Board, and the Service Company Headquarters staff solicits, listens to, considers and acts on the views of NJAWC management.

The NJAWC Board meets quarterly. The December meeting is devoted to a thorough review of the next year's annual business plan, interrelations with the strategic business plan, and a detailed operating review. After the plan is approved, the subsequent quarterly meetings review operating results.

Davies Associates interviewed five of the seven directors of NJAWC. The directors are satisfied with the amount and quality of the information provided to them, and believe that it allows them to make informed decisions. They are also satisfied with the opportunities presented to them to express their opinions, and with the actions taken by the Board. This level of satisfaction may reflect the close involvement of the Board members with the Company. For example:

- The internal directors are officers of the Company, the Service Company and/or AWWC, and therefore in a position to have routine access to all NJAWC information in the course of their jobs.
- One external director is a member of the founding family.

The minutes of the Boards of Directors indicate that the Board concentrates on the important issues. We feel that much discussion of the issues takes place outside of the Board meeting because three of the Board members are also officers of AWWC and the Service Company. Similarly we did not find anyone in management or amongst the directors who was in doubt regarding the Board's role. However, as stated elsewhere, we found little discussion in the minutes of recognition of the policy decisions which would have the greatest impact on the achievement of the corporate mission such as acquisitions, etc.

The division of responsibilities between the various Boards of Directors appears to protect the legitimate interests of New Jersey-American and its ratepayers. We found no adverse impact or effect on the independence of the utility, on its decision-making processes, on its internal operations and external transactions, and on its revenues, costs, and rates from any of its relations with affiliated companies. (The many ethical issues pertaining to relations with affiliated companies are discussed under Relationships with Affiliated Companies).

Findings and Conclusions

(Board of Directors)

C1A-1 The directors of NJAWC have extensive access to the information needed to perform their governance functions.

This is an informed, able and committed Board with a variety of talents and abilities. The internal directors hold senior management positions in AWWC and the Service Company. They have access to the information necessary to reveal any major problems.

The Board receives detailed, timely, and quality information on the activities and circumstances of the Company and on important emerging issues.

C1A-2 The Board has a vacant Director's position.

There are eight seats on the Board but only seven Directors.

Recommendations

(Board of Directors)

R1A-1 Appoint another Director to fill the Board's vacancy. In doing so management may want to consider strengthening the Board's consumer perspective. (Refer to Conclusion C1-2)

This is a generally well-balanced, informed, able and committed Board with a variety of talents and abilities. For instance, it consists of seven Directors, of whom three are outside directors (a member of the founding family, an attorney who is also a former BPU Commissioner, and a professor of management at the University of Pennsylvania's Wharton School) and four are inside directors (an officer of the Company and three Service Company officers who are also Directors of the Service Company).

However, there is no one whose primary role is to speak out for the consumer. This could be remedied with the appointment of a consumer-oriented director to the vacant position.

1B Officers

This evaluation assesses NJAWC officers. It covers how the top officers coordinate and work together and how they direct and delegate to the rest of the organization.

We were particularly interested in the methods used by top executives to manage their own areas of functional specialty and the way they work with the Board. Each of the consultants assessed this as they reviewed the functional areas and also discussed their observations in our daily and weekly reviews.

Our impression is that NJAWC is a work in progress. The top levels of management have been improved with the new team assembled by the President but this revamping has not yet reached down to the successive layers of management.

During this transition, management has directed NJAWC on "a tight rein." This is neither good nor bad unless it stifles the participation of lower levels of management from expressing alternate viewpoints and honing their skills, to the long term detriment of the company. However, the senior managers in charge of functional areas are free to establish their own style of communication with their subordinates.

Findings and Conclusions (Officers)

C1B-1 The skills mix of the officers appears appropriate to the areas of responsibility, and a sufficient mix of skills and experience is available among the officers. The officers apply their abilities well in the service of the company.

The available skills mix provides essential skills at the highest level of management. The senior officers were selected and appointed by the President. These officers have experience outside NJAWC in the electric utility, the EPA, and engineering consulting. The officers are continuously trying to improve quality and reduce costs. They appear to understand the pressure points for both cost reduction and quality improvement.

C1B-2 Interaction and communication with and delegation from the Board to the Officers appears satisfactory.

There is adequate communication between the Board and top management. Board members know and work with the Officers in their functional area of responsibility.

Executives in charge of major functional areas have the latitude to shape their own means of communicating and working with their subordinates.

Management communications and controls appear adequate and NJAWC operates in a coordinated manner with sufficient flexibility to sense and respond to obstacles. Information is communicated with “high fidelity”—free of distortion and filtering.

C1B-3 Managers appear to have the latitude to determine the means by which they will communicate with their subordinates. However, the Company has standards in certain areas such as performance appraisal, media contacts, financial reporting and operations with which managers must conform.**C1B-4 Management has been leading the Company on a “tight rein” as it moves through the transition to more competition and centralization, because many lower-level managers tend to be too wedded to typical water utility thinking.**

While top management recognizes and accepts the need to change and adopt new paradigms, not all managers are quite ready to move into the new style of management.

C1B-5 In general, managers appear to be committed to cost reduction.

All or nearly all managers manage to the budget and will trim the budget as financial and industry circumstances dictate.

C1B-6 The top management group of NJAWC is now rewarded in part on the performance of NJAWC. The President is rewarded based upon the results of NJAWC and AWWC.

This focuses the top management group's attention on NJAWC's performance in terms of revenues, costs, customer satisfaction, goal achievement, quality, etc.

Recommendations (Officers)

R1B-1 Take more aggressive steps to educate lower management in the implications of changes taking place in the utility industry, and expose them to the experience of recently deregulated industries such as airlines, telecommunications, and banks. Also focus on creating an open environment to ensure that senior management is receiving the full range of advice and counsel from the staff. (Refer to Conclusion C1B-4)

Conduct group brainstorming and similar exercises to explore the potential for change, examine the need for cultural change, and devise possible responses. Consider outside courses.

If some lower managers are excessively wedded to old ways and in need of management development to stimulate creativity, governing them by a "tight rein" is exactly the wrong approach to achieve that development. Give them a loose rein and help them to learn new ways to manage. Or, if that is not regarded as possible in some cases, replace them promptly. (Replaced managers may, in some cases, continue to contribute in another position.)

As the Company progresses through this evolution, it needs to focus on creating an environment that provides employees an opportunity to express alternative viewpoints and let the weight of the ideas carry the argument. Management needs to be told when its baby is ugly, and must not shoot the messenger. Experience clearly shows that managers who do seek participation make much better decisions. Criticism, honest and sincere, is a great privilege from which much can be gained. **Feedback is the breakfast of champions.**

The company must do everything in its power to foster an atmosphere in which employees feel confident both in offering unpopular or contrarian opinions and in devising unusual or innovative solutions.

1C Organization Structure

This evaluation examines the external and internal organizational structure of NJAWC and how well it:

- Supports the achievement of the mission, goals, and objectives of NJAWC and each of its major functional components
- Uses resources efficiently,
- Facilitates effective coordination,
- Balances centralization/cost-reduction against responsiveness, and
- Focuses accountability.

We examine both the external and the internal structure.

External Structure

NJAWC is part of the American Water System (AWS), which consists of the American Water Works Company (AWWC) and its subsidiaries. The three entities within AWS that are of particular interest in this chapter are the American Water Works Company, the American Water Works Service Company, and the New Jersey-American Water Company.

American Water Works Company (AWWC) is the holding company, the principal business of which is the ownership of common stock of water companies. AWWC has 26 subsidiaries, of which 22 are operating water companies providing water service to about 7 million people in 21 states. AWWC owns all of the common stock in its subsidiaries, directly or indirectly. It is headquartered in Voorhees, New Jersey, and its staff consists only of a President, a General Counsel/Corporate Secretary, and administrative support personnel.

American Water Works Service Company (Service Company) provides the AWS operating water companies with professional and staff services such as engineering, operations, water quality, accounting and finance, information systems, human resource services, purchasing, insurance, safety and legal. It is headquartered in Voorhees, New Jersey. The Service Company Board consists of the Presidents of the

operating companies, the CEO of AWWC and the Senior Vice Presidents of the Service Company. The Service Company develops strategy, policy and procedures for the American Water System in the areas outlined above.

NJAWC, a New Jersey Corporation, is one of twenty-two operating water companies, located in twenty-one states, that are owned by AWWC. NJAWC is the second largest subsidiary behind Pennsylvania-American Water Company.

Internal Structure

Before 1988, three separate American Water Works Company operations in New Jersey worked with the Service Company to achieve uniformity of supply and customer service. However, the variety in tariffs, work force organizations and other resources limited the extent to which these three companies could achieve the same performance standards.

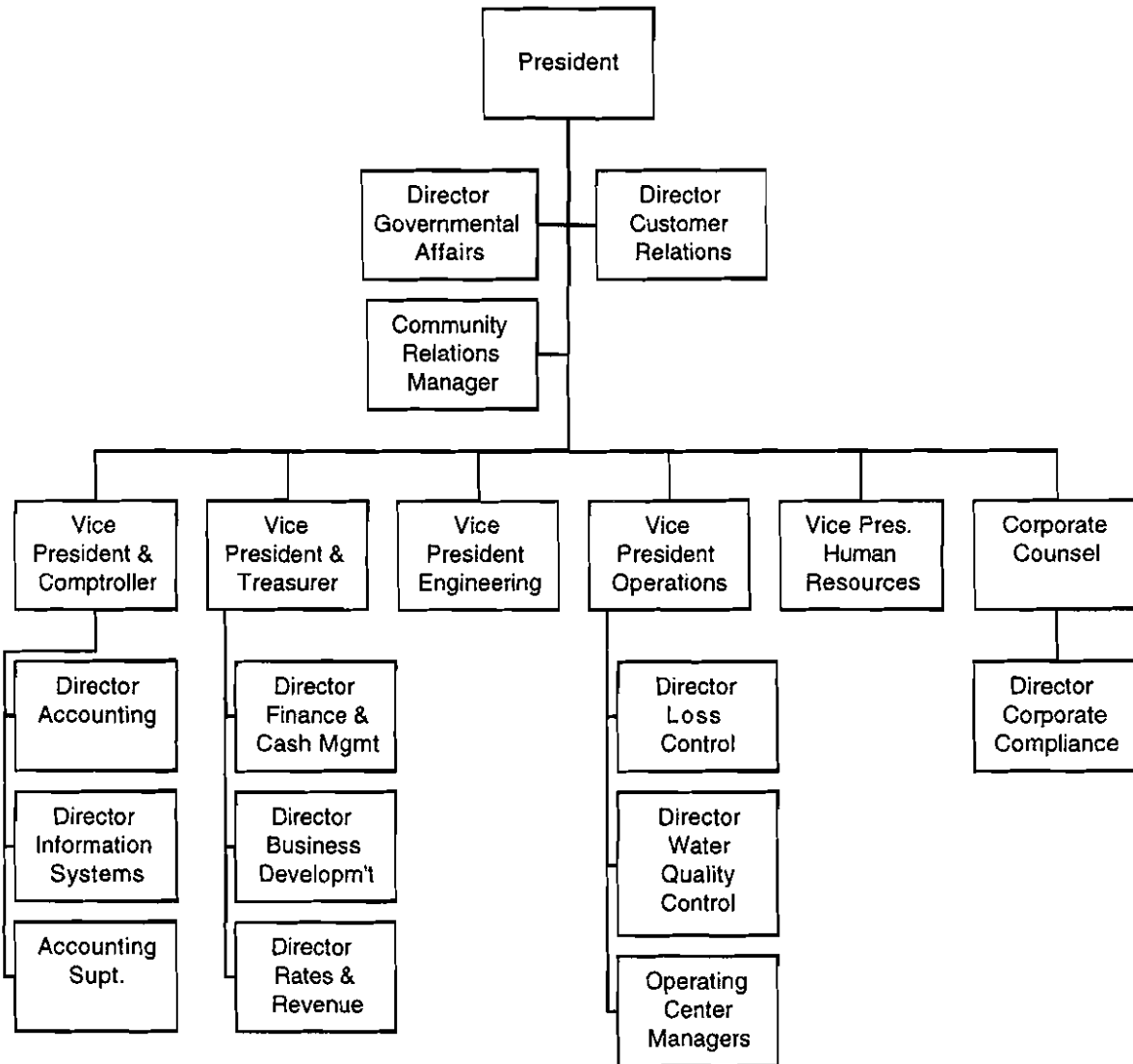
The consolidation of the three companies in 1988 positioned the NJAWC to have a more uniform presence in New Jersey. Over the period since 1988, NJAWC has equalized rates, consolidated information systems, centralized budgeting and improved the coordination of professional services such as water quality and community relations. The recent centralization of the NJAWC headquarters functions at Haddon Heights together with these other improvements has provided important economies of scale and resource efficiency. However, the most valuable benefit created by New Jersey-American Water Company's consolidation and centralization is the increased ability to manage New Jersey's operations as a single company, and thereby promote equal performance standards throughout the state.

As an example, prior to Customer Service consolidation, the five different office staffs performing customer service performed exactly the same functions, faced the exact same problems but made different decisions regarding the treatment of customers. By centralizing the Customer Service function NJAWC was able to improve the quality and consistency of its customer service.

The internal structure of NJAWC, after the three year reorganization to centralize the headquarters, is shown in Exhibit 1-1 below. Reporting to the President are five Vice Presidents, the General Counsel, the Directors of Customer Relations and Governmental Affairs, and the Community Relations Manager. Operations are

conducted from four offices: Haddon Heights, Shrewsbury, Atlantic City/
 Lakewood, and Short Hills.

**Exhibit 1-1
 Organization Structure: New Jersey-American Water Company**



Upon centralizing the structure at Haddon Heights the Company downsized and hired more professional staff, especially in the Finance and Accounting areas. This is evidence of a management taking the steps necessary to remain competitive in the future. One undesirable aspect of the centralization is the current situation at the Headquarters building. It is clear that the company is “shoehorned” into the building at Haddon Heights. Such working conditions are not conducive to efficient operations and the Company would be well advised to review its space needs.

Findings and Conclusions

(Organization Structure)

C1C-1 NJAWC benefits from its affiliation with the American Water System.

Such benefits include:

- Economies of scale in the centralized purchasing of materials, supplies, and services.
- Ability to provide senior staff support in Voorhees that might not be feasible for NJAWC on its own.
- Ability to attract and retain capable employees because of enhanced career path opportunities, higher remuneration ceilings, and increased stability of employment.
- Standardization of operating methods and procedures in water quality, operations, distribution, accounting, etc. Such standardization has apparently contributed to the relative ease and low cost with which NJAWC is able to meet SDWA standards.
- Some improvement to NJAWC's ability to finance, although NJAWC is of sufficient size to finance its own capital and operating needs.

C1C-2 Centralization within NJAWC has provided the opportunity to reduce costs, improve the quality of performance, enhance responsiveness and deliver services that could not otherwise be provided cost effectively.

The jury is still out as to the extent to which the potential benefits of centralization will be realized. The company has made, and is making the right moves. For instance, it has improved the skill sets of the Finance and Accounting staff, it is improving the use of telecommunications in its Customer Services area, and it is developing a new financial and management reporting capability.

C1C-3 The structure supports the attainment of some of the objectives of the Strategic Plan; others may require changes.

The current structure was developed to reduce costs, improve operations and services and promote smooth functioning, contributing to both effectiveness and efficiency.

However, one of NJAWC's main objectives now is growth, primarily through the acquisition of other water companies in New Jersey. To do this it has to promote its image as a "good corporate citizen" and its perception or position in the minds of the stakeholders—public, politicians, managers and shareholders—of the target companies. (The "home rule" in New Jersey requires an election before municipal facilities can be sold.)

The focal point for marketing in NJAWC is the Business Development function. NJAWC's efforts to market itself appear to require more formal coordination, particularly with government affairs and the Operations Managers in the four offices, who concentrate on community relations.

Other utilities are also chasing acquisitions and this is the real competitive area in the water industry. As such NJAWC can expect, and is experiencing, fierce competition. NJAWC will have to guard against misinformation/disinformation and be zealous in doing so. It is for these reasons that a more unified organizational approach to marketing and acquisitions may prove beneficial. Such an approach would be necessary if there were to be changes in the regulations governing the acquisition of water companies in New Jersey, as discussed in the section on acquisitions.

CIC-4 The typical span of control is within acceptable limits.

The span of control generally ranges from 2 to 8 or more in NJAWC. The smaller numbers generally occur where managers also function as individual contributors.

The span of control is defined as the number of nonclerical employees who report directly to a manager. A large span of control produces a flat organization structure with relatively few levels of management. This is generally conducive to low-cost operations and effective, unfiltered communications. A small span of control is most effective, however, (1) if the subordinates require close supervision, (2) if the manager is responsible for overseeing a variety of creative, nonstandardized

functions, or (3) if the manager must spend a substantial amount of time functioning as an individual contributor.

C1C-5 There is no organizational planning function per se. That role appears to be performed by the President.

The current structure was not adapted to the particular strengths of the current incumbents. Rather a new team has been assembled by the President over the last several years to undertake the centralization of the Company and to meet the coming challenges in the water industry. This reorganization is not complete and for this reason NJAWC is a work in progress.

Lack of an organizational planning function is not a disadvantage at the present but could be if NJAWC were to experience an increased number of acquisitions.

C1C-6 NJAWC is deliberately changing its culture to be able to adapt to the challenges emerging in the utility industry. The structure was designed to operate with this new culture.

The new management team is adapting to change and the demands for improved customer service, greater responsiveness, and cost reduction. NJAWC has recently undertaken a "rightsizing" effort in part to better align its resources with the desired culture.

Recommendations

(Organization Structure)

There are no recommendations in this section.

1D Corporate Planning & Acquisitions

This evaluation assesses the Corporate Planning function at both NJAWC and the Service Company and the Acquisition process. In this evaluation we assess:

- The corporate planning and strategy development processes
- The quality of the plans developed
- The strategy implementation
- The integration of plans and resource allocations/budgeting
- The bases on which acquisitions are made including the adequacy of studies made prior to the acquisition
- The impact of each of the last several acquisitions on ratepayers — both existing and acquired.

Corporate Planning

The corporate planning process should be designed to ask and answer two kinds of questions:

- What should be done?
- How should it be done?

The first type of question deals with directions and priorities; the second deals with methods and processes. Both kinds of questions need to be addressed not only at the top of the corporation, but at all functional and operational levels as well. The MIS Department, for example, needs to determine what it should be doing and how best to do it. So should Accounting, Budgeting, Customer Service, Engineering, Operations, Human Resources, and all other functions and subfunctions.

All of these plans, furthermore, must link together vertically (to higher- and lower-level organizations) and coordinate horizontally (with related functions). They must also provide a smooth transition from the initial consideration of the mission all the way through to the final expression of the plan as a budget. This ensures that all parts of the organization are working together and focusing on what is most

important, that resources are allocated according to priorities through the budgeting process, and that all processes are designed for maximum effectiveness and efficiency.

However, the only certainty about strategic plans is that the assumptions will probably prove erroneous. The danger is that managers assume that plans are forecasts rather than scenarios. As has been shown in recent plans the real world holds great uncertainties.

Managers must be taught how best to react when the worst happens. Strategic plans are difficult to convert into strategic management usually because planners are remote from managers, and managers are seldom good at envisioning circumstances that differ greatly from those existing at present. The answers to this dilemma are:

- Involve managers in the planning so that they realize what plans can and cannot tell them.
- Change the focus from how the economy will develop to how managers' responses to developments affect corporate profits.

Planning developments that assist companies to improve managers ability to implement plans and cope with future upheavals include:

- Microworlds, which are computer games that provide feedback to managers as to how macro-economic change affects their scope of action and how their actions will affect profits.
- Consultants to shift emphasis from "what if . . ." to "How should we react to . . .?"
- Communication improvements where planning presentations are giving way to planning workshops in which planners and managers get together to test projections against experience, thereby reducing the danger of managers becoming so enamored with a particular plan that their ability to react swiftly, if things turn out differently, is impaired.
- Plans are becoming more complex as competition increases. Thus typical strategic plans are now awash in "competitive position" and "comparative advantage" as managers are encouraged to think of themselves as providers of services rather than product providers.
- Removing the division between managers and planners. Full time planners are being replaced by managers on temporary assignment in the planning department.

Our examination of the corporate planning process looked for all the above qualities.

Service Company Corporate Planning

The Service Company Headquarters in Voorhees prepares a Comprehensive Planning Study (CPS) every five years. The CPS, which is discussed in Chapter 3, Engineering and Construction, is an engineering and facilities planning document that assesses the need for capacity expansion in order to satisfy expected demand and meet reliability and quality standards, and that outlines engineering strategies for accomplishing these goals. The CPS is a fifteen-year plan that is updated every five years.

Other than the CPS, the Service Company does not produce formal system-wide planning documents, nor does it have a planning department.

NJAWC Corporate Planning

NJAWC develops annually a five-year plan which is now being called a Strategic Business Plan. This plan contains:

- Statement of Corporate mission.
- Statements of strategic objectives including financial operating employee resources and business expansion.
- Identification of Corporate strengths and Corporate challenges.
- An identification of specific Company initiatives to address the identified challenges.
- An identification of major planned assumptions.

The NJAWC planning process now revolves around capital requirements as identified in the CPS and changes in operations required over the next five years to support the business plan. Starting with the CPS, NJAWC management prioritizes construction projects according to benefits and needs, and develops NJAWC's five-year facilities-development plan. NJAWC also contributes to the formulation of the CPS itself. Over the last five years NJAWC's planning began considering operating changes required to fulfill the business plan. These changes, such as consolidation, are included in the planned results but are not communicated, or explained, in the plan.

Besides the five-year plan, NJAWC develops an annual budget containing the operating and investment budgets for each year. These are detailed statements projecting the financial operations and investment requirements of NJAWC.

Formal functional planning is generally limited at NJAWC, except for engineering and construction.

Budgeting is a mixed “bottom-up/top-down” system. This allows participation by lower level managers who are closer to the action. Budgeting is discussed in more detail in Chapter 5 on Finance, whilst Construction, Planning and Budgeting is also discussed in Chapter 3, System Operations. The engineering and construction plan is closely linked to the initial twelve months of the five-year engineering plan. The operating and maintenance budgets would benefit from more complete documentation of functional strategic objectives and the development of formal functional plans.

The existing corporate plan is probably close to “state of the art” as an engineering and construction and facilities plan, but it is lacking as a corporate strategic plan. Its strategic content is limited to a mission or vision statement and a situation analysis.

A full strategic plan would, in addition:

- Facilitate and guide the development of functional plans and the day to day actions of managers to achieve the corporate and functional missions, goals and objectives,
- Allow managers to understand how their actions and responses to developments affect corporate profits,
- Serve as a communications statement to foster understanding by employees of the company’s strategy and allow employees to “buy in” to this strategy.

Consider, for example, the following possible mission statement for NJAWC:

Possible Mission:

Be New Jersey’s water utility of choice for consumers and investors.

Such a mission statement could be supported by Critical Success Factors—those things that, done well, are necessary and collectively sufficient to achieve the mission—such as the following:

Possible Critical Success Factors

Deliver the best quality water with no interruptions or problems caused by factors within NJAWC's control.

Keep the delivered cost of water to our customers within 10% of the median cost of all other companies in New Jersey delivering a similar quality of water,

Deliver the highest level of customer service.

Maximize long-term Return on Equity.

Achieve profitable growth through acquisitions and other means (both to improve ROE and to achieve the prominence and financial stability associated with size).

Communicate a favorable perception of NJAWC to its many stakeholders.

Such a mission statement and critical success factors, with supporting objectives, allows managers to identify and assess the obstacles of reaching the mission, goals and objectives, to develop strategies and tactics for surmounting them, and to match day-to-day activities to the implementation of the strategies and tactics.

Unfortunately, in a publicly regulated company such as a utility, such a mission statement and the strategies and tactics to achieve it would become a public document. While the mission and critical success factors could be broadly communicated, the specific strategies might be controversial and invite confrontation with regulators, intervenors, and other assorted stakeholders, or might have proprietary competitive value. It is understandable that NJAWC's management would want to restrict some elements of the plan to company personnel and company advisors.

The real opportunity is to harness the "employee power" of the corporation to implement the strategy and achieve the mission. This is achieved through the setting of goals and objectives, tied to the strategic plan, for everyone in the organization. For instance, the Vice President-Finance would have goals and objectives necessary to fulfill part of the strategy. The Vice President-Finance would work with his subordinates to generate their goals and objectives that will assist him to achieve his part of the Company's goals and objectives. And so on down through the corporation. These goals are set at the beginning of the year, as are the resource requirements—budgets—necessary to achieve them. Thus, the budget and the goals and objectives are a "contract for performance" between the individual executive/manager/professional and the Company.

Under these circumstances performance evaluation becomes a discussion of the achievement of goals and objectives within budgets and the hows, whys and wherefores, etc. Such a dispassionate and fair goal-orientated system increases effectiveness by:

- Developing a close correlation between the corporate strategy and the day-to-day behavior of employees.
- Focusing employees on goals and objectives and rewarding their achievement.
- Reducing or eliminating the “yes person” syndrome by breaking the tie between the manager’s subjective opinion of the employee and the employee’s pay.

It is a simply stated theory, “Show me how you reward employees and I can tell you what their behavior will be.”

The important question under such a system is—Do the employees have the skills necessary to achieve the goals and objectives? If not, can the employees be trained and developed. This in turn places a premium on training and development—an area in which NJAWC needs to improve substantially.

In addition, if NJAWC were to adopt such a mission, a benchmarking system to compare its performance relative to other private and public utilities would be necessary. Without such a system it would be difficult to measure NJAWC’s relative performance and its improvements in relative performance, and it is the relative performance that is important in a competitive market situation.

Sales forecasts are developed in NJAWC using trend analysis and knowledge of local activities to estimate customer growth and a five year average of customer usage by customer class within operating centers. The five year average is used to average out the impact of weather variations, i.e. weather normalization. Sensitivity analysis is performed around key variables. Scenario analysis is performed but only for acquisitions. Contingency plans are not formally developed and written.

Modern analytical techniques such as regression analysis are used in some areas and the company has investigated the impact of demand/conervation management. Environmental trends, such as customer usage, are monitored and are currently being studied for long term changes.

The company monitors actual usage and sales carefully against the usage and sales forecasted in the strategic plan. A significant difference between the actual and the forecast causes the Company to adjust the plans and budgets, where possible, during the year to try to achieve the desired financial goals and objectives.

As a strategy has not been articulated it was not possible to properly assess the strategy formulation and implementation processes, beyond the preceding comments. As there is no timetable or specific budgets tied to objectives it has also not been possible to assess the effectiveness of recent planning. However, in the facilities plan the projects are completed on time and within budget

Acquisitions

New Jersey-American Water Company has a long history of merging and acquiring small to medium sized water companies. NJAWC was formed from the merger of three operating companies in 1988.

Prior to and since its formulation NJAWC has methodically combined the operations of the three individual companies to achieve the economies of scale and enhanced quality of service presented by the opportunity to centralize common services, including:

- Improving management control and reducing reporting requirements for the three separate operating companies in New Jersey by forming a single entity.
- Streamlining management structure and operating facilities by reducing the number of separately staffed units.
- Simplifying rate case filings and their management by adopting uniform state-wide tariffs .
- Increasing financial strength and reducing potential rate shocks by spreading capital and operating costs across a larger customer base.
- Improving compliance at lower cost with the new Safe Drinking Water Act, which added new compliance laws and created extensive additional capital requirements. Many smaller operations are unable to meet these requirements without having a severe cost impact upon their customers. Because NJAWC already has the staffing and procedures in place to monitor and implement SDWA standards, there is little incremental cost when a smaller operating company is acquired.

All New Jersey operations are now incorporated within a single corporate structure and provided from four offices. NJAWC is now a major water company within the US water industry in organization and financial capacity. As such, NJAWC has significant advantages to offer potential acquisitions and their customers. These include:

- Increased security of an adequate supply of potable water, and in some cases much improved quality of water
- Reduced cost of achieving adequate quality, and therefore reduced rates in the long term.

A number of factors contribute to the achievement of those benefits:

- Improving security of water quality and supply by:
 - removing bacterial, parasitic and chemical pollutants
 - improving treatment and disposal of residuals
 - enhancing the ability to meet present and future demand while complying with the requirements of the Safe Drinking Water Act and other state and federal requirements.
- Achieving efficiencies of scale and centralization by:
 - eliminating duplicate facilities
 - reducing management personnel
 - Improving the ability to attract and retain good managers because of the larger scale of operations and enhanced career paths
 - improving financial operations through:
 - better control of expenses and disbursements as check processing and banking are centralized
 - faster cash collection as collection centers and banks are centralized
 - Instituting better financial and customer service software and systems
 - Improving financial strength and staying power through larger size and lower cost financings
 - simplifying rate/tariff filings — one filing for all New Jersey versus many individual filings previously.

Acquiring companies is one of the riskiest activities managers perform—one that has crippled many large and small American and European companies. However, the acquisition risk/benefit profile for utilities is different than for non-regulated

companies. On the one hand utilities can earn on the net book value of the acquisition which puts a floor to the downside; on the other hand the upside is limited by the “authorized return on equity.”

In the future, we expect NJAWC to have many offers and opportunities to purchase relatively large investor and publicly owned systems. NJAWC’s management recognizes this and wants to acquire systems since its predicted growth is insufficient to offset cost increases without rate increases. In such an environment the processes for assessing, acquiring and absorbing other water companies is of great importance.

In this sense NJAWC’s strategy is actually highly responsive to the real competition in the industry, which is the market for the purchase of other water companies, the supply of water for resale and the operation of other water companies. There is limited competition in the market for selling more water to customers. As such, before one can develop a rational strategy one needs to understand the:

- Impacts of regulatory and ratemaking policies of the BPU, the NJDEP, etc. on acquisitions and the acquisition process.
- Competitive drivers and the determinants of success. Does the “best” offer win? Are there regulatory/political factors which play a major role? What or who determines the “best” offer?

An explicit determination of these factors would go a long way towards assisting NJAWC to formulate and implement a successful acquisition strategy.

AWWC is responsible for acquiring large water systems (investor-owned or municipals) and NJAWC is responsible for acquiring small water systems, many of which are not meeting SDWA requirements.

Public officials of municipally owned water utilities are often reluctant to present acquisition offers to the voters. Thus, in effect, the politicians and not the citizens determine if and when to sell the municipal water company. Many of these systems are not meeting the SDWA requirements and the municipalities must soon face rate increases in order to fund the necessary upgrades.

There are several possible solutions to this situation. Amongst them are to:

- Require all water utilities to satisfy the SDWA requirements, with heavy penalties for non-compliance.

- Develop a mechanism to require local public officials and municipal water company managers to present a bona fide offer of acquisition to the voters for their evaluation and vote.

Acquisition Process

In response to the market situation described above, acquisition activities at NJAWC are both planned and opportunistic. The planning takes place during the Comprehensive Planning Study cycle which occurs every five years. In this study, performed by the American Water Works Service Company, the needs of NJAWC's operating centers for supply and service improvement are determined and the opportunities for satisfying these needs through acquisitions identified. The plan specifies the criteria to be used in selecting acquisition opportunities and identifies specific, preferred, acquisition targets. For instance, acquisitions are considered that:

- Can be served by extending an existing NJAWC service area or can be operated effectively as an automated satellite from one of NJAWC's divisions through the installation of remote monitoring equipment for operations and the installation of automatic meter reading systems.
- Increase the potential for further acquisitions
- Enhance supply, add supply options, or reduce costs
- Require management expertise rather than capital infusions.

The unannounced criteria are those relating to financial returns and existing and future growth. In addition the plan calls for the continued work in development of sound policies and programs to promote acquisitions in New Jersey, such as construction standards for new developer-built water systems and small system takeover regulations.

NJAWC's 1996 Strategic Business Plan lists the following objectives for acquisitions:

- Seek opportunities to expand our sale for resale customer base.
- Expand our customer base by attracting new customers in areas currently served or in proximity to existing company facilities.
- Expand into new areas by acquiring additional water and wastewater systems when it is possible to do so at a price that will create shareholder and customer value.

Also, in the Strategic Business Plan the Company included the “continuance of projects necessary for regionalization and acquisition of smaller water systems, whenever feasible” as a specific investment goal.

Examination of Board of Directors minutes shows that proposed acquisitions and mergers are considered and discussed at the Board meetings. However, we found no evidence of formal, written, explicit and specific plans and actions regarding NJAWC acquisition goals for the planning period, nor did we find evidence that NJAWC developed and implemented the specific strategies, tactics or actions necessary to acquire companies, or that NJAWC identified and implemented the actions necessary to achieve the policies to promote acquisitions in New Jersey. We are not saying there was no activity but that plans for implementing the activities were not documented. The exception is capital expenditures. This indicates that strategic planning needs to penetrate deeper into NJAWC’s functions. NJAWC is no different in this respect from the majority of other utilities or Fortune 1000 companies.

NJAWC uses a team approach in assessing the economic and operational viability of acquiring other water companies or municipal facilities. An extensive acquisition checklist has been developed to ensure that all important and relevant factors are considered and analyzed in sufficient depth to permit structuring and making an informed offer beneficial to all parties.

The teams are brought together on an ad hoc basis. This reflects the number of opportunities available to NJAWC, the size of the acquisitions (usually small), the knowledge within NJAWC of the company or system to be acquired and the amount of resources (cash) available to NJAWC for acquisitions. Davies Associates concurs with the expectation by NJAWC and the Service Company that the number of acquisition opportunities will increase, not only to NJAWC but throughout the AWS, as the difficulties and financial burden of complying with the SDWA are realized and enforcement action becomes more vigorous.

The current organization—processes, structure, resources and culture—is adequate for a small volume of acquisitions but would be quickly overloaded if a number of opportunities became available.

- The current process is a mixture of planning, formal approval and informal analysis. At the planning stage the Comprehensive Planning

Study (CPS) acknowledges the potential for acquisitions. However, detailed action plans for the targeted acquisitions or for promoting legislation and regulation conducive to acquisitions are not included.

- Resources (staff) are provided on an as-needed basis.
- The structure is informal. The acquisition process is directed by the Vice President-Finance and the Business Development Director. Staff is assigned as needed and available.

The company has a financial model that evaluates the target company first on a stand alone basis, and then as consolidated into NJAWC, to determine the benefits. From these benefits a purchase price is developed.

If equity financing is needed, control is exercised by AWWC. Otherwise, control is exercised by NJAWC. However, wherever control rests, NJAWC and its management are intimately involved in the decision making and the analysis of the acquisition.

Since 1990 New Jersey-American has acquired nine water systems serving approximately 15,500 customers, including Howell Township. However, NJAWC was unsuccessful in obtaining Belmar Township Municipal Water System.

Rates do not appear to be a factor in the acquisition of municipal systems that have not made the capital investments required to meet water quality standards and critical area supply restrictions. Customers of these systems seem to realize that their rates would exceed New Jersey-American's regular rates when the municipality makes the capital investments required to comply with the various environmental laws and regulations.

A Benchmarking system would be helpful in comparing water rates. It should be possible to demonstrate the increase in capital and operating costs to comply with water quality standards and critical area supply restrictions and compare the resulting rates to NJAWC's on a going forward basis. Whilst Benchmarking is not easy such a system would provide benefits to NJAWC, the ratepayers, municipalities and regulators and legislators.

Since 1988 NJAWC has entered into negotiations to acquire ten small systems and been offered other opportunities. Of these, NJAWC has acquired nine, had one offer rejected and, with the rest, has either withdrawn from negotiations or not pursued

the opportunity. Specifics on the acquisitions are shown in Exhibit 1-2. The Company believes that these were “good” deals for everyone concerned because:

- The consumers obtained greater security of supply and improved quality water at less cost than if they had tried to meet the SDWA as a stand alone system.
- The investment required to bring these systems into compliance with SDWA and other federal and state regulations was known and met NJAWC’s criteria of not exceeding investment required in the previously existing NJAWC system.
- Each of the systems met or exceeded NJAWC’s growth rate or provided further opportunities for system expansion.
- Employees obtained greater job security, improved opportunities and better conditions and benefits.

**Exhibit 1-2
 Rate Analysis - New Residential Customers**

Acquired Company	Year	Total Customers	Average Monthly Residential Bill		Change in Bill	
			Before (\$)	After (\$)	\$	%
Aberdeen	1991	2,732	184.67	116.32	(68.35)	-37.0
Union Beach	1992	2,165	218.93	118.09	(100.84)	-46.1
Mendham	1992	1,928	98.75	98.75 ¹		
Allenhurst	1993	394	240.33	118.09	(122.24)	-50.9
Highlands	1994	1,630	117.41	117.41 ²		
Brookside	1994	90	251.00	95.00	(156.00)	-62.2
SMCMUA	1994	278	75.88	75.88 ³		
Sunbury Village	1996	279	65.49	65.49 ⁴		
Howell	1996	6,000	179.48	170.48	(9.00)	-5.0

1. The Borough of Mendham adopted New Jersey-American rates immediately prior to the acquisition. Using pre-adoption rates results in a 23.9% increase.
2. The Borough of Highlands had previously passed a 50.8% rate increase that would be necessary if New Jersey-American did not acquire the system. The net effect of the acquisition was a 17.9% decrease to Highland customers.
3. From the date of acquisition on 10/31/94 until 04/01/96, SMCMUA customers were billed at the SMCMUA tariff rates. Beginning 04/01/96, NJAWC was authorized to implement a five-year phase-in plan to raise rates to New Jersey-American's statewide tariff rates.
4. From the date of acquisition on 1/17/96 until 04/01/96, Sunbury Village customers were billed at the Sunbury Village tariff rates. Beginning 04/01/96, New Jersey-American was authorized to implement a five-year phase-in plan to raise rates to New Jersey-American's statewide tariff rates.

The companies analyzed but not purchased, together with the reasons for not purchasing, are shown in Exhibit 1-3.

**Exhibit 1-3
 Companies Analyzed But Not Purchased**

Company	Reasons For Not Purchasing
Borough of Belmar 1995	Public Referendum on sale of water system defeated by voters
Borough of Mount Ephraim 1996	Borough Council withdrew bid documents
Borough of Lavallette 1994	Borough Council withdrew bid documents

**Findings and Conclusions
 (Corporate Planning & Acquisitions)**

C1D-1 NJAWC corporate plan and functional plans, except for the CPS five year Engineering and Construction plans, require improvement.

The Service Company's Comprehensive Planning Study is a comprehensive and well-thought-out engineering and facilities planning document, and it is further expressed in NJAWC's five-year and one-year facilities plans, which are similarly limited to engineering and construction matters.

NJAWC's strategic business plan is inadequate as a document to guide the actions of managers and there is no strategy developed for implementing the mission, goals and objectives of the plan. The plan does contain a mission statement, objectives, strengths, concerns and challenges.

Neither NJAWC nor the Service Company prepares any other functional plans for NJAWC similar to the Comprehensive Planning Study. There is no documentation of functional missions, goals and objectives, critical success factors, and strategies. Without such functional plans, resource allocation is less than optimal and depends excessively upon subjective rather than objective criteria.

Without the strategic direction provided by functional plans, the budgeting process, which allocates resources to fulfill plan objectives,

cannot be as clearly focused on the products, services and processes necessary to achieve the corporate mission. Process efficiency also suffers because teamwork, coordination, communication and control are less effective.

C1D-2 NJAWC has limited resources for planning studies and management analysis, and neither NJAWC nor the Service Company has a corporate planning department or any group providing planning assistance to a broad array of functional areas.

The Company is in a period of transition, reorganization, and development. It needs good planning, which must be based on solid analysis. While planning is generally best performed by those responsible for implementing the plan, the assistance and direct involvement of specialists in planning and analysis is important, as is access to a formalized and structured process. A good process begets a good product.

C1D-3 NJAWC's acquisitions have been beneficial to acquired and existing customers.

NJAWC's acquisitions have benefited acquired customers, had a beneficial impact on existing customers — increases in supply at lower cost than new investment in facilities by NJAWC — and presented the Company with new growth opportunities.

C1D-4 NJAWC used innovative pricing based on the "real worth" of the acquisition to NJAWC and its customers in setting the purchase price of the Howell Township Acquisition. This economic and successful acquisition is leading to other profitable acquisitions.

A rule of thumb for the upper limit of the acquisition price is the embedded system investment cost per customer. There may be times when it is advantageous to NJAWC and its existing and future customers to exceed this upper limit. For example, if a potential acquisition provided a water source or treatment facilities needed by existing NJAWC Districts, the acquisitions cost could be higher than the embedded system cost and still be lower than the cost to construct or acquire new facilities. Indeed this happened in the recent purchase of Howell Township.

The purchase price of this acquisition was based upon the value of the supply capacity offered to NJAWC and the opportunity for NJAWC to avoid adding planned capacity at greater expense than the acquisition. Other water companies proximate to Howell Township are now negotiating to be acquired by NJAWC.

Such situations will probably reoccur in the future, requiring the regulators to set economic and social guidelines for acquisitions.

Recommendations

(Corporate Planning & Acquisitions)

- R1D-1 Develop a NJAWC Corporate Plan and a full set of interrelated functional plans that identify and support the attainment of Corporate and functional missions and goals through the implementation of strategies. (Refer to Conclusion C1D-1)**

Also designate responsibility for providing assistance and education in planning, planning analysis, budgeting, and budgetary control, to all organizational levels from senior management down to the lowest level of management. (Refer to Conclusion C1D-2)

The Comprehensive Planning Study, which is updated every five years, is a good start for the facilities requirements, except that it is not based on a Corporate strategic plan.

Every function should articulate its mission in terms of what it is supposed to accomplish, not in terms of what activities it engages in. It should identify its critical success factors, or in some comparable way determine the necessary preconditions for its success. It should then develop a plan and allocate its resources to satisfy those conditions and to achieve its mission.

Setting goals and objectives for everyone in the organization tied to the strategic plan harnesses the "employee power" of the corporation to implementing the strategy and achieving the mission. For instance, the Vice President-Finance would have goals and objectives necessary to

fulfill part of the strategy. The Vice President-Finance would generate the goals and objectives for his subordinates which assist him to achieve his goals and objectives. And so on down through the corporation. These goals are set at the beginning of the year as are the resource requirements—plans and budgets—necessary to achieve them. Thus the plan and budget and the goals and objectives are a “contract for performance” between the individual executive/manager/professional and the Company.

1E Corporate Communications and Administration

This section assesses both the Company's communications and its administration. Because communications and administration are so interdependent, and because in this company, especially, they are both highly influenced by the same informal, anti-bureaucratic style, the two topics are treated together in this one section. Section G of this chapter is not used.

Certain important communications and administration mechanisms, both within NJAWC and between the AWS companies, are quite informal. Specifically, planning, planning analysis, and directions are often not fully documented. To understand how the communications work, it is helpful to consider first the larger network encompassing all of AWS.

Communications and administration at the senior management level are accomplished very effectively in AWS in spite of the many separate corporations that make up the AWS family. This success is due in part to the interlocking of positions that span corporate boundaries. Many senior officers of the Service Company are also officers of AWWC and board members of NJAWC. The effect is to break down the barriers between companies at the senior management level and to replace them with mere "ripples" in what is otherwise a smooth transition from the senior management of the holding company through the senior management of the Service Company to the senior management of each operating company. Both the flow of information and the administration are able to bridge these "ripples" with ease.

The system is managed much like a small, closely-held company in spite of its size and geographic dispersion. There is very little tolerance of bureaucracy. Loyalty, decisiveness and ability are highly valued. Decision-making can be somewhat decentralized without fear of losing administrative control, because the senior executives can be trusted to be team players.

The danger with an informal style of communications and administration arise at the middle and lower levels of New Jersey-American, where effectiveness can be impaired. At the top, collegiality and interlocking appointments of senior management among AWS companies assure frequent and effective communications and coordination of activities. But in the absence of a fully-developed set of written functional plans at all levels that are linked together and ultimately based on corporate strategy and critical success factors, middle and lower management and non-management employees lack an adequate basis for understanding how their efforts can best contribute to the achievement of the corporate strategy and help in addressing the Company's primary needs. To some degree, direct supervisors can and will convey that kind of information to their employees, but a chain of oral communications is not a substitute for the high fidelity and precise articulation of written communications. Findings and Conclusions in Chapter 5, on Human Resources (Sections 5C and 5E), for example, point out that some employees feel a need for a better understanding of the corporate priorities and directions and how they can best contribute in their jobs.

New managers and employees are particularly in need of formalized guides, plans, and policies because they have not been a part of the team for the number of years required to internalize the undocumented rules.

The Company and the AWS are aware of the need for broad and consistent communication and have developed specific procedures to meet this need. For instance, policies and procedures exist for operations, human resources, water quality, service levels, performance evaluations, media relations which provide guidance and standards of operations for managers' actions. Both NJAWC and the Service Company utilize a wide array of functional committees to foster direct interpersonal communication at the middle and lower levels and to assist in administration, coordination and control.

In fact, NJAWC routinely uses committees and task forces to address issues and problems. As a result many *ad hoc* committees are formed and disbanded once their mission is completed. At present the following committees are active:

- A committee on meter reading and operations in the offices,
- A committee on financial and management reporting systems for the J. D. Edwards project,

- A workflow automation study group to identify specific technologies and applications that could improve or streamline the workflow process,
- A customer information systems committee whose purpose is to ensure that the systems and applications used by the call center and the Customer Relations Department meet their needs, and to recommend any modifications or enhancements that can improve the customer service process.

NJAWC has developed and issued Policies and Procedures which provide standards and guidance on matters of import to NJAWC that are either not covered, or are not covered adequately, in the System Policies and Procedures.

The AWS committees have produced a number of policies and procedures for AWS, although some are out-of-date. At present AWS has three general levels of policies and procedures.

- Service Company System and Functional Policies and Procedures Manuals provide overall guidance and standards for Service Company functional and operating companies actions. Functional Manuals cover the following:
 - Human Resources
 - Operating Procedures
 - Risk Management
 - Materials Management
 - Engineering
 - Accounting
 - Communications
 - Water Quality.
- Regional Service Company Policies and Procedures define the impact of System Policies on operating companies and guide them on issues that are not included in the System and Functional Policies and Procedures.
- Specific operating company policies and procedures as stated above.

The President recognizes the importance of communications, at this juncture, when NJAWC is consolidating its operations. As such, he has moved the communications function making it report directly to him. In addition, the Company uses modern automation capabilities to improve the effectiveness of its communications—E-mail, etc. both within NJAWC and between AWS companies.

Findings and Conclusions

(Corporate Communications & Administration)

C1E-1 For some purposes, NJAWC uses an informal style of communication and administration that is compatible with its existing culture, but that can impair effectiveness at the middle and lower levels of the organization.

NJAWC does not emphasize the use of formal written procedures and documents either for communication, for control or administration, and particularly for planning. There is very little tolerance of bureaucracy. Loyalty, decisiveness, ability and consensus development are highly valued.

The collegiality and interlocking appointments of senior management among AWS companies allows the companies to operate in a coordinated manner, but the absence of a fully-developed set of written functional plans makes it difficult for personnel below the senior management level to understanding how their efforts can best contribute to the achievement of the corporate strategy and help in addressing the Company's primary needs.

C1E-2 The Company is in the process of revising its policies and procedures to conform to changes in its organization structure and procedures.

New J.D. Edwards and Orcom software will require extensive changes in certain written procedures, as will changes in the organization structure and the increased emphasis on acquisitions. The Company has accordingly embarked on a program of updating.

C1E-3 It is not always clear how the various NJAWC and AWS committees relate to one another, and where there might be gaps or overlaps in their responsibilities.

The roles and responsibilities need to be clarified and documented.

C1E-4 Management reports reflect the culture of informality and minimal documentation.

Reports are often not well designed for management control, and generally lack useful performance measures.

Recommendations

(Corporate Communications & Administration)

R1E-1 Improve the written planning documentation that managers and other employees below the senior management level need in order to self-direct their activities in a way that best serves the needs of the Company. (Refer to Conclusion C1E-1)

Except where there are *clearly* overriding needs for confidentiality, provide not just clear and simple directives but, even more importantly, thoughtful background information and explanations that allow managers and employees to exercise judgment and creativity in establishing their own job practices and priorities. Of particular importance are documents that describe and discuss strategies and plans, the reasons for them, the critical success factors, and the most challenging obstacles to be overcome.

R1E-2 Continue the process of revising and updating the current policies and procedures to conform to the current organization structure and procedures, and assign responsibilities for the process. (Refer to Conclusion C1E-2)

As the organization moves forward, it is important to document the changes in workflow through the revision of the policies and procedures of the Company. This is necessary in order to capture the efficiencies gained by the reorganization, and will allow for the new corporate structure to develop and mature.

Assign responsibilities and deadlines for the update process. Authority and responsibility need to be assigned to one or more individuals. The individuals assigned should have sufficient stature and authority to ensure timely completion of the task and must be given target completion dates and sufficient resources.

The program relating to manuals should identify and describe all the manuals required in terms of:

- Major topics to be included in each manual
- Standard formats, layout and organization
- Schedules for completing each manual and the major topics/sections of each
- Resource requirements and budgets for completion and development.

R1E-3 In concert with the Service Company, clarify and document the purposes and responsibilities of the various task forces and committees, and identify and eliminate overlaps and gaps. (Refer to Conclusion C1E-3)

Review the committees and task forces to ensure that they are coordinated and focused on common and worthwhile issues important to the attainment of corporate objectives, and that there are no troublesome gaps or overlaps in their responsibilities. If the effort to clarify and document reveals opportunities to reorganize or streamline the committee roles, then such improvements should be made.

R1E-4 Reexamine and, as necessary, redesign the full set of management reports to ensure that all important information needs of all levels of management are met. Examine all related reports "side-by-side" as a comprehensive and coordinated exercise, not as a set of isolated and disconnected reviews. (Refer to Conclusion C1E-4)

The Company is too large to be effectively managed without a more complete and better-designed set of management reports. High quality management reporting is necessary for NJAWC Headquarters to oversee and coordinate the management of the offices.

There should be reports suitable for every level of management. The reports should provide performance measurements that shall have been identified in advance as necessary or useful for the monitoring and analysis of performance, and should present the information in a format suitable for convenient use.

The analysis of needs and the design or redesign of reports should consider, together, all related reports to ensure that the important information is presented in a convenient format and conveniently associated so that common management needs do not require the assembly of data from a variety of reports.

1F Corporate Ethics

This evaluation assesses corporate ethics. It covers:

- Policies, procedures, and practices regarding corporate ethics
- The involvement of the Board of Directors in ensuring that relationships with other companies, suppliers, management, directors and employees are consistent with the legitimate interests of NJAWC's stakeholders.

The Board of Directors is involved in the ethical management of NJAWC, and Board members indicated their commitment to ensuring the highest standards of ethical conduct. The objective is to ensure that relationships with affiliated companies, employees, management, suppliers, and other companies are ethical, proper, above-board, and fully consistent with the legitimate interests of society, the utility's ratepayers, and other stakeholders.

Since 1986, there has been an AWS policy and procedure requiring each president to obtain from his/her direct reports a certification as to the conduct of business in accordance with the Company's Code of Ethics, and to disclose any knowledge of activities or practices during the calendar year that may be in violation of that Code of Ethics. Each individual throughout the management chain is required to obtain, from their direct reports, similar certifications as to the compliance with the Company's Code of Ethics.

The President of NJAWC then prepares a report to the President and Senior Vice President of the Service Company, either certifying that there have been no violations of the Code of Ethics or identifying where there may have been a violation, and describing the activities and follow-up actions that were taken to investigate and resolve any violations.

New Jersey-American also applies the Code of Ethics to certain consulting firms that have involvement with government officials on behalf of the Company. These consultants are required to read the Code of Ethics and certify to the Company that their activities on behalf of the Company will be conducted in strict accordance with the spirit and intent as well as the letter of the Code of Ethics.

Last year the Company designated an ombudsman who can be contacted by anyone in the organization who feels that there may have been a violation of ethical standards. The ombudsman is empowered to investigate any allegations of unethical behavior and has direct access to the President, the Vice President of Human Resources, and the Corporate Secretary.

It may be appropriate for the Company to initiate a more formal communication of the ethics commitment through the employee newsletter "Aqualines," and also through periodic discussions with employees. In our interviews with Board members at least one mentioned the importance placed on ethical behavior and the ethics policy, asserting that the policy would effectively preclude any Board member from offering services to the Company.

Findings and Conclusions

(Corporate Ethics)

C1F-1 Ethics appears to be a concern and priority of the CEO of the AWWC, and this concern roles downhill to the Presidents of the operating companies and their Boards of Directors. There are written and widely-disseminated ethical policies and procedures and routine discussions of ethical problems and briefings of the NJAWC Board by the President.

All directors have personal ethics statements on file with the Board. There are detailed reports to the Board of Directors regarding litigation and internal ethical problems as they arise.

C1A-2 We did not find any inappropriate or unethical transactions or relationships.

Recommendations

(Corporate Ethics)

There are no recommendations for this section.

1G Unused Section Number

The topic of Administration, which would normally be covered in this section, has been combined with Corporate Communications in Section 1E.

1H Regulatory Compliance

As a regulated public utility providing water and sewer service, New Jersey-American is subject to laws and regulations related to all aspects of its operations. Compliance with water quality and environmental laws and regulations is discussed in Chapter 3, System Operations. By far the greatest regulatory oversight is by the New Jersey Board of Public Utilities. Since the BPU regulates the rates charged the Company's customers, it is critical to maintain an effective working relationship with the BPU staff. The Company is subject to various federal, state, and local laws and regulations.

New Jersey-American utilizes frequent bill inserts to communicate to customers regulatory compliance and other issues affecting them and their rates. Annually the Company prepares a report on water quality detailing water test results for the four operating centers. There is no mention in this report, however, of the cost of achieving a high level of water quality and the impact of this on the customer's rates.

The management of New Jersey-American maintains an open line of communication with the BPU and the Ratepayer Advocate, discussing potential problems and issues on a regular basis. Company officials will frequently meet with BPU and Ratepayer Advocate staffs to discuss emerging issues and ensure that the Company's compliance procedures are fulfilling the Board's requirements. Representatives of both the BPU staff and the Ratepayer Advocate have indicated that the Company has been very good to work with and very cooperative and open in the past.

After a final order is issued in a rate case the Company's Rates and Tariff Department has a meeting with senior management to assign responsibility for implementing requirements contained in the order. The rate department will also inform the accounting department by letter of all issues that impact accounting related to amortizations or deferrals allowed or required as a result of the Board order.

Data requests from various external parties related to a rate case or some other regulatory mandate are coordinated by the rate department. The rate department will review the requests and assign responsibility for responding to the request to the proper department within the Company. Requests are logged into and tracked in a data base program. The responses are then accumulated by the rate department and distributed to the appropriate parties.

The service contract between the Company and the Service Company has been approved by the BPU as required by law. These contracts are discussed in greater detail in Chapter 2 of this report. A schedule detailing transactions with affiliates is required to be filed as part of a request for an increase in rates.

New Jersey-American's legislative and governmental relations activities are planned and coordinated by the Director of Governmental Affairs. The Director is responsible for monitoring legislation, assessing the impact of particular legislation on the Company and its ratepayers, and informing legislators of the Company's position on proposed bills and the reasons behind the position. In addition to the legislative efforts of New Jersey-American on its own behalf, the Company is a member of the National Association of Water Companies (NAWC) as well as the New Jersey Chapter of NAWC and the New Jersey Business and Industries Association. These organizations also engage in legislative activities at the federal and state level on behalf of their members. Through these various legislative activities the Company is able to lobby against what it believes to be unnecessary regulations that would increase costs with no real benefits to the ratepayer, and for laws that ensure enforcement of needed regulations. For example, the Company supported legislation to amend the Water Supply Management Act to grant authority to the Department of Environmental Protection (DEP) to manage the water supply in the state. This will allow DEP to force water systems to cut back on groundwater usage and thereby protect the State's aquifers from depletion and contamination.

New Jersey-American is a member of the New Jersey Utilities Association. This Association represents its members on generic regulatory matters affecting all utilities in the state. By joining with other utilities the Company is able to lower the cost of regulation to its customers.

The Director of Governmental Affairs is responsible for developing and maintaining a good working relationship with state and local officials. This is accomplished through frequent communication with these officials by letter and phone calls. Local managers also work closely with local government officials in their operating area.

Findings and Conclusions

(Regulatory Compliance)

C1H-1 New Jersey-American generally complies promptly and fully with regulatory and legislative requirements.

The Company has many years of experience in operating in a regulated environment. This experience provides New Jersey-American with a thorough understanding of the additional requirements placed on it as a result of the regulatory process. (Note, however, an exception pointed out in the discussion under Conclusion C3B-5.)

C1H-2 The Company effectively monitors proposed laws and regulations and participates in the regulatory or legislative process on its own and through membership in industry associations to insure that the interests of the industry, the Company, and the customers are fairly represented.

New Jersey-American monitors all proposed laws and regulations, assesses the impact of the proposed law on the Company and its ratepayers, and communicates to legislators the Company's position on the law or regulation, as well as suggesting amendments to the proposed law when appropriate.

C1H-3 New Jersey-American has developed and maintained a good working relationship with regulators and legislators and has effectively communicated its position on various issues to these authorities.

Open lines of communication and frequent meetings bring New Jersey-American words of commendation from representatives of both the BPU and the Ratepayer Advocate.

C1H-4 The Company does not effectively communicate to its customers the cost of complying with various mandates and the impact of those costs on rates.

Most regulatory compliance requirements result in increased operating and capital costs which must be recovered from the customers in rates. The impact of compliance with various laws and regulations is an increase to the cost of serving customers beyond the Company's control.

Recommendations (Regulatory Compliance)

R1H-1 The Company should communicate more effectively to its customers the impact of complying with various laws and regulations. (Refer to Conclusion C1H-4)

New Jersey-American's rates are high in comparison with other water systems in the state. The Company needs to inform the ratepayers that this is caused in part by the Company's excellent record of complying with regulatory mandates. New Jersey-American distributes an annual report on water quality to customers detailing test results for a long list of contaminants, but there is no mention of the cost incurred to achieve this high level of water quality. This would be an excellent opportunity to explain to customers the large capital investment and the operating expenses required to ensure that the water meets all regulatory standards.

11 Executive Compensation and Benefits

Executive compensation programs can provide an effective incentive to attract, retain and motivate valuable executives, especially if tied to individual and corporate performance. There is, however, the potential for abuse, since executive compensation is generally set by the executives themselves. Executive compensation programs, therefore, must be compared with similar programs in other corporations.

The design and implementation of the executive compensation and benefits program is handled entirely by AWWC. In recent months, the executive compensation and benefits program has been redesigned, using an external consulting firm to develop an incentive-based compensation program, bringing it more in line with standard executive compensation practices in American industry in general.

Since the redesign of the program is so recent, it is too early to judge its effectiveness. We can comment, however, on the "trickle down" effects of the program, since the compensation program impacts the top stripe of executive management in most, if not all, the operating companies, including this one.

The executive compensation committee of AWWC is composed of external (non employee) members of the board.

The redesign began in 1993 and was completed with an executive salary survey conducted by Towers Perrin in 1995. The plan calls for subsequent surveys to take place every 2-3 years.

The top 20 executives, which includes the President of NJAWC, are in what is called the "long term" program, which is based upon the performance of AWWC stock. The 70 executives who report to the top 20 are in the annual incentive-based program which had its first payout in January, 1997. At the time of the audit this group of 70 included the officers of NJAWC.

The Towers Perrin study, dated November 10, 1995, concluded as follows:

- The midpoints for the American Water System (AWS), which includes NJAWC, reasonably represent competitive base salary levels (i.e., plus or minus 10% of the market level).
- Base salaries for AWS, which includes NJAWC, are generally above the midpoints, but are also aligned with the competitive base salary levels.
- Generally, salary levels for AWS, which includes NJAWC, roughly approximate the competitive market for long-term incentive plan participants, but a competitive shortfall exists for those not eligible to participate in the long-term plan.

Towers Perrin recommended a short-term incentive plan which would incorporate the following features:

- Each participant would have a target incentive level defined as a multiple of base salary.
- The plan would have three weighted performance components:
 - Financial goals (50%)
 - Net income to Common Stock
 - Operating Income
 - Customer service goals (25%)
 - Water Quality
 - Reliability
 - Responsiveness
 - Operational goals (25%)
 - Individual/Operational Goals by Company

The maximum award would be 120% of target award.

AWWC has elected to follow the recommendations of Towers Perrin throughout the system including NJAWC and has implemented the new executive compensation program effective in 1996. A comparable study on the executive benefits side has not been accomplished.

Findings and Conclusions

(Executive Compensation and Benefits)

- C1I-1** Although it is too soon to judge with any degree of certainty, it appears that the existing executive compensation and benefits program is sufficient to enable corporate leadership to attract, recruit, retain and motivate the caliber of executives they need to effectively run the Company.

Because AWWC's executive compensation and benefits program was in need of reassessment and redesign, it hired an outside consulting firm which specializes in such work (Towers-Perrin) to help it with the effort. This has produced an executive compensation and benefits program that is patterned after industry standards. The new incentive-based compensation program for more junior executives meets the need to tie motivation, performance, and compensation together. It was developed in response to a recommendation by Towers-Perrin associated with its study of AWS executive compensation in 1995. The plan is to conduct such a study every 2-3 years.

Recommendations

(Executive Compensation and Benefits)

- R1I-1** With the accumulation of experience, urge the Service Company to reassess the new compensation program, and commission a follow-up executive compensation study in 1997 or 1998 as is presently planned. (Refer to Conclusion C1I-1).

The program is new and there has been only one payout thus far. It is advisable to assess its effectiveness early and often as it becomes part of the Company practice.

1J External Relations

It is increasingly important for utility management to maintain favorable relationships with its various constituencies, both because regulatory authorities place a growing emphasis on the quality of those relationships and because a utility is a quasi-public institution that must always serve, and be perceived as serving, the public interest. A utility's monopoly status makes it particularly vulnerable to the public's anger because it can be accused of taking advantage of its captive market.

The best way to maintain good relationships is to provide consistently high quality service at low cost. But the relationships are also affected by the quality of the Company's contact and communications with its constituencies. The external relations function seeks to manage the relationship between the water utility and these publics wherever possible. To do so it needs a well developed, coordinated, company-wide external relations strategy as a critical element of success.

To a large extent, the quality of a company's external relations is a barometer of its internal (employee) relations and its management philosophy. When the management and employees respect and support one another and are proud to be a part of the company, these positive attitudes tend to be manifested in all external relations. The other side of that coin is that internal dissension will also find expression in external relations. This chapter will address the New Jersey-American program for managing external relations. The analysis has two sections, the first dealing with Investor Relations and the second with Public Affairs.

Investor Relations

As a wholly owned subsidiary of American Water Works Company, the Company's investors other than American hold preferred stock and debt. Relations with the American Water Works' stockholders is the responsibility of the Service Company and AWWC. In addition to an Annual Report, stockholders receive quarterly reports relating the current financial and operating results and other noteworthy news

concerning the various operating companies. New Jersey-American benefits from the investor relations activities of the Service Company since existing and potential investors in American Water Works are potential investors in New Jersey-American.

Officers of the Service Company and AWWC frequently make presentations to various members of the investment community. These investor relations efforts of the Service Company and AWWC have resulted in six investment banking firms conducting research analysis and issuing periodic reports on AWWC. American Water Works is now included in the Standard & Poor's MidCap 400 Index. These activities bring greater name recognition and broader exposure to the investment community. This is a result of the in-house investors relations activities. As a subsidiary of AWWC, New Jersey-American benefits from this increased exposure in the investment community. Investors in securities issued by a subsidiary company certainly look to the strength of the parent company in deciding to invest in the subsidiary.

A key indicator of the success of the investor relations function is the ability of the Company to generate investor interest in security offerings. As discussed in the corporate financing section in Chapter 4 of this report, New Jersey-American's debt issues are very well received in the financial community. Four underwriting syndicates representing 48 underwriters bid on the Company's latest debt issue. The winning bid was from a syndicate headed by Merrill Lynch. Despite a large ongoing construction program in recent years, New Jersey-American has been able to raise the capital requirements on favorable terms.

Investor relations activities are conducted by officers of AWWC, the Service Company, and the individual operating companies. Most of the activities are conducted on a system level which benefits the parent company and all the operating subsidiaries. This provides the most bang for the buck since all companies benefit. New Jersey-American officers also conduct investor relations activities to promote the Company to rating agencies and potential investors. New Jersey-American issues an annual report for its investors and in 1995 the Company began having the report professionally designed and printed.

Public Relations

This section evaluates how adequately the public relations function:

- Manages the perception of the public so New Jersey-American is viewed favorably as a company, as a corporate citizen, as an employer, and as a supplier of water to the community.
- Guides the activities of the public relations function with a conscious and well-conceived plan.

To make this evaluation the investigation includes the following topics and issues:

- Community relations support of corporate objectives
- Methods for gaining feedback from customers and community members on the activities of the Company
- Community service projects and their congruency with Company objectives
- Formal procedures and strategies for determining and achieving the Company's desired public image
- Openness and honesty in public relations activities
- Methods for coordinating the public affairs efforts with those of other groups performing external relations functions to avoid duplication and resolve conflicts
- Public perception of the Company.

The mission of the public relations function at New Jersey-American, as described by the Company, is to present an accurate picture of the water industry to the customers and the general public plus build the Company's reputation as a provider of high-quality water service.

The Company recognizes that public perception leads to public opinion, which leads to public policy, Therefore, it is important to influence public perceptions. There are a variety of publics, including:

- The general public
- Existing and potential customers
- Local governments
- Regulatory agencies.

A favorable public opinion of New Jersey-American is critical to achieving one of the Company's stated goals for success, growth. The Company's looks to grow the business in four ways:

- Acquisitions of other water systems
- Economic development and customer growth in existing service territory
- Increasing wholesale sales to other water systems
- Agreements to operate other water systems.

The Company's success in acquiring new systems is especially sensitive to public opinion since a large majority of the systems available to buy are owned by municipalities. In New Jersey the sale of a municipal water or sewer system requires voter approval in a referendum. Therefore a positive public image as well as the ability to communicate the long term advantages of selling to New Jersey-American are essential to a successful campaign to acquire a municipal system. The Company was successful in gaining voter approval of the sale of the Howell Township water system, but the citizens of Belmar Borough voted not to sell their water and sewer system to the Company. Since 1990 New Jersey-American has acquired nine water systems serving approximately 15,500 customers. The other growth opportunities also require that the Company have a favorable public image.

A major public relations problem is the Company's relatively high rates when compared to many other water systems, particularly small municipal systems that have not made the capital investments required to meet water quality standards and critical area supply restrictions. Customers of these systems have to be informed of the fact that their rates will exceed New Jersey-American's rates when the municipality makes the capital investments required to comply with the various environmental laws and regulations. Another potential discrepancy in rates results from the decision by some municipalities to subsidize water and sewer rates with tax revenue, distorting the true cost of providing the service to their customers. These factors contribute to the unfavorable comparisons with New Jersey-American's rates by customers served by other systems.

The public relations function is coordinated by the Director of Governmental Affairs. This department is responsible for media relations, government, regulatory, legislative, and community affairs. In addition to a director there are two community relations managers and a communications specialist in the department.

During our audit one of the Community Relations Manager positions was vacant and the Director resigned to accept a position with another company. The Director reports directly to New Jersey-American's President. In order to coordinate the public relations function with other departments who contact the public, the Director attends all senior staff meetings and deals with all the Company's vice presidents on a daily basis.

The Company desires to build its reputation as a reliable provider of quality water that brings value to its customers and investors. There was no analysis of how this public relations objective was selected and there is no formal plan to accomplish this goal. Most public relations efforts have been in reaction to or in anticipation of specific problems or opportunities that required communication with the public. Most community relations activity is a continuation of participation and support of past projects and organizations. The Company does communicate its objectives of high quality service to its employees through its monthly employee newsletter.

New Jersey-American plans to conduct a written survey of customers and meet in focus groups with customers in order to better understand customers' perceptions of the Company. The results of referendums on the sale of water systems to the Company provides feedback on the Company's image as a provider of water service. As mentioned previously the Company has been successful in acquiring municipal water systems in recent years. Most individuals having an external relationship with the Company had a positive overall impression of the New Jersey-American and were particularly impressed with the Company's quality of service. In 1994 New Jersey-American received a certificate of commendation from the National Association of Water Companies for its public information efforts for the Tri-County Water Supply Project.

New Jersey-American actively participates and contributes to many community service organizations including the United Way, volunteer fire and rescue squads, civic and business groups, and youth activity organizations. This participation helps to develop the Company's reputation as a good corporate citizen and gain a favorable public image.

The Company has also had to deal with public relations problems and communicate openly and effectively with the public. One problem the Company and other utilities have had to address is individuals posing as utility employees in order to conduct

criminal activities on unsuspecting customers. The Company has had to inform and educate its customers on its procedures requiring visits to customer premises by employees. Another topic that requires communication with the public is water line construction and relocation. These activities are a necessary inconvenience that need up front communication to inform public officials, customers, and the general public of the location and length of the project.

Findings and Conclusions

(External Relations)

- C1J-1 The investor relations activities conducted by AWWC, the Service Company, and New Jersey-American have been successful in promoting both the parent company and NJAWC to potential investors.**

The investor relations function has generated greater exposure of the American Water system and its subsidiaries in the investment community. This exposure along with steady earnings have resulted in the Company's securities offerings being well received by investors.

- C1J-2 New Jersey-American has a favorable image as a company, as a corporate citizen, as an employer, and as a supplier of water to the communities it serves.**

Discussions with individual both within and outside the organization confirmed that New Jersey-American has a reputation as a quality provider of water.

- C1J-3 Currently there is no formal plan for achieving the Company's public relations goals and objectives but one is being developed.**

Most of the focus of the Director of Governmental Affairs has been reacting to public relations issues that develop rather than implement a plan for improving the Company's image. While the Company is active in community relations activities currently there does not appear to be any coordination of these activities with the Company's public relations objectives. The public relations effort has also been hampered by unavoidable employee turnover.

However the Company appears to be developing coordinated activities to meet the Company's public relations objectives.

C1J-4 The mission of the public relations function as articulated by the Company did not address the issue of competitive rates.

One of the major public relations problems New Jersey-American is faced with at the present time is justifying its rates to the public. The average consumer is not familiar with or particularly interested in the regulations and restrictions that have caused the Company's rates to increase to their current level. This creates a challenge for the public relations function to communicate all the environmental requirements being placed on the water industry and the cost of complying with these requirements.

Recommendations

(External Relations)

R1J-1 Develop a formal plan for achieving the Company's public relations mission of building its reputation as a reliable provider of quality water. (Refer to Conclusion C1J-3.)

Incorporate in the public relations mission statement the need to improve not only the Company's reputation as a provider of quality water but also at a competitive price. (Refer to Conclusion C1J-4.)

The Company needs to develop a formal written plan to guide its public relations activities to assist in attaining its stated objectives. The establishment of such a plan should be a priority of the new Director of Governmental Affairs.

If the Company is to be successful in winning voter approval for the sale of municipal systems it has to deal with the issue of its rates being higher than the rates of many of the systems offered for sale. The reasons for the rate disparity have to be communicated to the public as well as offering rate comparisons after their system has made all the capital investments necessary to comply with all applicable environmental regulations. A good way to do this would be through a benchmarking capability.

Chapter **2**

***Relationships With
Affiliated Companies***

Davies Associates, Inc.

Final Report of a Management Audit of New Jersey-American Water Company, Case File WA95120450

Chapter 2

Relationships With Affiliated Companies

This chapter examines the relationships between New Jersey-American and its affiliated companies and considers whether the inter-company relationships contribute to sound management of the Company and are in the best interests of New Jersey-American and its ratepayers.

The affiliate relations task is divided into the following four sub-tasks:

- A. Inter-Company Transactions
- B. Allocation of Resources, Costs, and Services
- C. Documentation
- D. Effect on Utility.

The evaluation of affiliated relationships requires a determination of whether New Jersey-American's conduct with affiliates is:

- Beneficial or neutral to the Company and its ratepayers
- Equitable in the allocation of costs and transfer of assets between affiliates
- Fully and accurately disclosed to management, regulators, and investors
- Consistent with its conduct with nonaffiliated companies dealing at arms-length.

New Jersey-American is a subsidiary of American Water Works Company (AWWC), the parent company that owns all the operating companies, the American Water Works Service Company, Occoquan Land Corporation, three sub-holding companies, and a part ownership in American Commonwealth Management Services Company. The majority of New Jersey-American's stock is owned by AWWC with some stock owned by one of the sub-holding companies, American Commonwealth Company (not the same as American Commonwealth Management Services Company).

Prior to 1993 all of the officers of the Company as well as all the corporate support personnel located at the Haddon Heights office were employed by the Eastern Region office of the Service Company. In 1993 the corporate support personnel were transferred to New Jersey-American and the Service Company established a New England regional office. All the officers of the Company have now been transferred from the Service Company and are now employees of New Jersey-American. This has resulted in a significant reduction in the Service Company billing to the Company. New Jersey-American now operates on a stand alone basis providing internally all the functions that had previously been provided by the regional office.

2A Inter-Company Transactions

This section examines the various relationships with affiliated companies, both regulated and non-regulated, and the transactions that occur with the affiliates. The affiliated relationships should contribute to cost savings from utilization of economies of scale and improved quality of management.

With the exception of printing and mailing bills for Connecticut-American Water Company and New York-American Water Company, seldom if ever does New Jersey-American have transactions with any of the other operating companies other than through the sharing of joint costs allocated from the Service Company. For example, all the operating companies have jointly selected and agreed to use and share the cost of a new integrated software package and a new customer information system. The cost of this software is allocated to the operating companies based on each company's number of customers to the total customers of all the operating companies. This allocation methodology appropriately shares the cost among the affiliated companies. None of the other American operating companies are interconnected with the Company and there are no purchases or sales of water between the other regulated water companies and New Jersey-American. The only major asset transfer during the past five years was the sale of the Haddon Heights corporate office to the Company by Occoquan Land Company. This transaction was reviewed by the BPU as part of a rate case filing and was not examined as part of this audit.

Because most of the inter-company transactions involve the sharing of joint costs allocated from the Service Company, most of the discussion of those transactions will be found in the next section, Section 2B: Allocation of Resources, Costs, and Services.

New Jersey-American has transactions with the following affiliated companies:

- American Water Works Company (AWWC)
- American Commonwealth Company (ACC)
- American Water Works Service Company (Service Company)

- New Jersey-American Resources Company (Resources)
- Occoquan Land Corporation (Occoquan).

As the holding company that owns the stock of the 22 regulated operating water companies, American Water Works Company provides the common equity financing for all the American System companies. Generally a dividend payment of 75% of earnings is paid by the operating companies to the parent. Currently AWWC has five employees: the president, the general counsel, and three administrative assistants. None of the costs of AWWC or its employees is allocated to the operating companies or the Service Company.

American Commonwealth Company is a subsidiary of AWWC that also owns stock in New Jersey-American. The only transactions between New Jersey-American and ACC is the payment of dividends, which are passed through to AWWC. ACC was created and used as a financing vehicle that issued debt and then provided debt financing to other companies. The debt has now been repaid and the only activity is its investment in various operating companies' stock and the pass through of the dividends paid on that stock.

The Service Company provides various services to all the operating companies at its Voorhees, New Jersey office. In addition, the Service Company maintains three regional offices that provide management services to certain operating companies. A regional office that was recently relocated from Mount Laurel to Voorhees, New Jersey provides services to a number of smaller regulated companies. An office in San Diego, California provides services to three companies located in the western part of the country. A New England regional office provides services to four companies located in New England. The Service Company has a regional data processing center in Richmond, Indiana and a water quality laboratory in Belleville, Illinois. The laboratory does water testing for all the operating companies.

New Jersey-American receives services only from the Belleville water quality lab and Voorhees. The Belleville lab does certain compliance testing and research work and is certified for the various tests in all the states in which the regulated water companies operate. This lab is equipped to perform the more unique tests and eliminates the need for each operating company to acquire and maintain this equipment or send water samples to an outside lab for testing.

The Voorhees office of the Service Company provides a number of management services to New Jersey-American:

- Accounting and Financial:
 - Taxes
 - Information systems
 - Financial reporting
 - Equity financings
 - Internal auditing.
- Engineering:
 - Comprehensive planning studies
 - Major project design
 - Construction project management
 - Advisory/consulting services.
- Centralized Purchasing:
 - Stock E materials purchasing: pipe, meters, hydrants, brass goods, etc.
 - Specification development
 - Contract administration.
- Human Resources:
 - Benefit program development
 - Management compensation administration
 - Managerial (non-technical) training program development and delivery.
- Investor Relations:
 - Annual meeting
 - Shareholder inquires
 - Investor inquiries.
- Risk Management:
 - Insurance coverage

The management services performed at Voorhees include tasks required directly by a particular operating company or jointly for all the operating companies, tasks required by the holding company organizational structure, and tasks required for the internal administration of the Service Company. Some examples of tasks required directly are researching tax questions, maintaining and reporting employee benefits, conducting comprehensive planning studies, and negotiating national purchasing contracts. Tasks required by the holding company include preparing the annual report to stockholders, financial reports to the Securities and Exchange

Commission, and the consolidated tax return. Examples of tasks required for the administration of the Service Company include maintaining the information systems network at Voorhees, general accounting and payroll, billing the operating companies for services, and preparing the Service Company's tax return.

New Jersey-American Resources Company was formed in 1996 as a separate subsidiary of AWWC. While in the formal organizational structure Resources is a direct subsidiary of AWWC, in substance Resources is under the direct control of New Jersey-American. Resources and New Jersey-American have contracts to operate other water and sewer systems owned primarily by municipalities located in the State of New Jersey. As discussed more fully in section 2D: Effects on Utility, Resources was formed to isolate New Jersey-American and its ratepayers from the risks of this non-regulated activity. Eventually all contracts for operating services that New Jersey-American has will be transferred to Resources.

Resources has no employees, equipment, or other fixed assets. The contracts were bid or negotiated by New Jersey-American employees with the contractual agreement to perform the services handled by New Jersey-American's legal department. All the contract work is performed by New Jersey-American employees using New Jersey-American equipment and vehicles. Costs related to the various contracts are allocated below the line with the costs associated with the Resources contracts billed to Resources and the revenues and expenses allocated to the New Jersey-American contracts booked below the line. At the present time the Service Company does not allocate any of its charges to Resources, with the billing for Resources left to the discretion of New Jersey-American. Resources is billed monthly by the Company for costs charged to the Resources contracts. In addition to the bill, the Company provides Resources with monthly financial statements and prepares all required tax returns. Certain officers of New Jersey-American serve as an officer of Resources in the same capacity. These officers are the President, Vice President of Operations, Secretary, Vice President and Treasurer, and Vice President and Comptroller.

Occoquan Land Corporation owns office buildings and equipment that are leased to the Service Company. Occoquan recovers the costs related to ownership of these assets along with any accounting and administrative costs billed by the Service Company through its lease charge. The Service Company passes along the lease

charges billed by Occoquan as part of the overhead billed monthly to all the AWWC affiliates.

In 1992 the Service Company compared the cost of leasing from Occoquan with other leasing alternatives available. That study found that the cost of leasing office space from Occoquan was less expensive than leasing space from third party real estate companies. The leasing arrangement with Occoquan isolates the risks of ownership in commercial real estate from the regulated operating companies and their ratepayers while providing office space at a lower cost than is available through outside providers.

Findings and Conclusions

(Inter-Company Transactions)

- C2A-1 The management functions provided by the Service Company are necessary and beneficial to the operation of New Jersey-American and the other American Water System companies.**

By centralizing these functions at the Service Company, New Jersey-American avoids the cost of staffing or contracting these management specialists and benefits from sharing the cost of these services with all the operating companies. The management functions provided by the Service Company are necessary to the operation of New Jersey-American and do not duplicate the management functions performed internally by the Company.

- C2A-2 The transfer of the Service Company's Eastern region office to New Jersey-American eliminated an unnecessary affiliate arrangement.**

Since the Eastern region office worked almost exclusively on New Jersey-American management functions, there was no reason to have the office structurally separated in an affiliated company. New Jersey-American is of sufficient size to operate on a stand-alone basis, unlike many of the smaller operating companies that share the cost of performing certain management functions at a Service Company regional office. The elimination of the Eastern region significantly reduced the Service Company billings to New Jersey-American.

Recommendations

(Inter-Company Transactions)

There are no recommendations in this section.

2B Allocation of Resources, Costs, and Services

This section presents the results of the analysis of the allocation of fees and other costs to New Jersey-American from affiliated companies and the allocation of fees and other costs from the Company to New Jersey-American Resources Company. The objective of this task is to determine the justification and appropriateness of any allocated costs. The analysis evaluates the process, logic and results of cost allocations and considers whether the allocations are:

- Reasonable and fair
- Incurred for a necessary purpose
- Advantageous to the utility and its rate payers
- Justifiable on an “arms length” basis.

The organization of the Service Company is designed to provide essential services cost-effectively to the operating companies by taking advantage of the diversity of demand for these services between the operating companies and the advantages available through centralization. In this respect, by forming the Service Company, AWWC has ensured the operating companies the availability of essential services at levels of quality and cost which would not be available to these companies on a stand-alone basis.

However, in a regulated monopoly industry the organization that provides such obvious benefits affords equally obvious opportunities for abuse. Such opportunities for the abuse of affiliated interests raise many substantive issues and unflattering perceptions, underlying which are two questions:

- Has the Company acted prudently and with appropriate concern for the interests of its customers and the requirements of the BPU?
- Has there been an abuse of the affiliated relationships to the detriment of the customers?

The issues of prudence are heightened by the involvement of an affiliated company in a role that presents the potential for a conflict of interest. Prudence issues in

purchasing services that involve business relations only with unaffiliated suppliers typically presume that any failure of prudence is the result of an honest error, and the question therefore becomes whether management's record is consistent with good judgment and competence. The potential for a conflict of interest should never be overlooked, of course, but it is not normally the central focus of a management audit.

When a regulated company is supplied by an unregulated affiliate, the presumptions must change and the focus of the audit must also change. It becomes inappropriate to accept *prima facie* that all relations between the affiliates are at arms length. By the same token it becomes the obligation of management to recognize the loss of its *prima-facie* defense, and therefore to strictly avoid even the appearance of a conflict of interest. Regulators and their agents should demand, and expect to find, that company management has taken special care to preserve both the fact and the appearance of propriety with affiliated companies. Anything less would indicate at least a failure of good judgment.

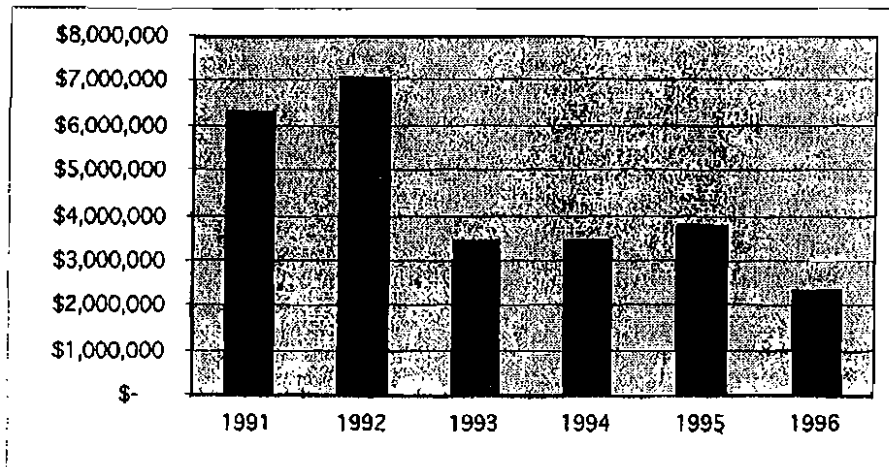
The only affiliate allocating fees and other costs to New Jersey-American directly is the Service Company. Occoquan allocates costs indirectly through its lease charges to the Service Company that are then passed through on the Service Company bill. The allocation is for services provided at the Service Company's headquarters in Voorhees and the water quality lab in Belleville. The authority for the allocation of costs, from the Service Company, is an affiliated interest contract that the Company and the Service Company renewed in January 1989. Each operating company and each non-operating company has a contract with the Service Company. Prior to this contract the Service Company provided administrative and operating services to predecessors of the Company for 17 years under an agreement dated January, 1971.

Under the current agreement all costs related to personnel services that can be identified as relating exclusively to New Jersey-American are charged directly to the Company. Costs of professional staff services that are common to all operating companies are allocated among all operating companies based on the number of customers served at the immediately preceding calendar year. Costs related to a particular group of operating companies is allocated based on the number of customers served by that group of companies. All vacation, holiday, and sick pay is allocated on the number of customers formula regardless of how the remainder of the employees' time is charged or allocated. The cost of support personnel is

allocated in proportion to the costs allocated for personnel services. General overhead including pension, payroll taxes, office supplies and other fees and benefits are allocated based on the total payroll allocated. Office and equipment costs are allocated based on the total payroll and general overhead allocated.

A monthly invoice is provided to the operating companies, and payments are made prospectively based on the estimated charges for next month. The estimated charge for next month is the actual charges for the current month. The payment equals the estimated charge for next month plus the difference in the actual charges for the current month and the estimated payment made in the preceding month. The Company is provided a detailed invoice monthly that breaks down the charges by direct hours and payroll, formula hours and payroll, support hours and payroll, basic and office overhead, and expenses by functional category and by employee.

Exhibit 2-1
Total Fees and Expenses Allocated From the Service Company



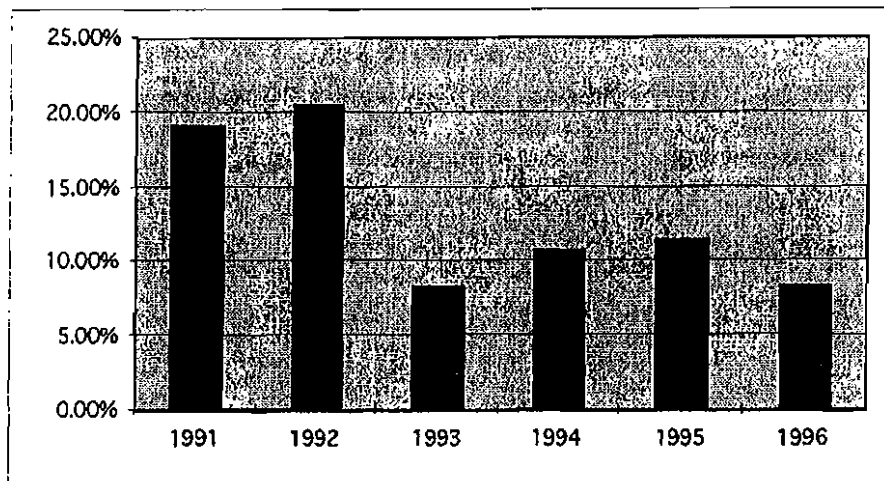
1991	\$6,334,929
1992	\$7,075,307
1993	\$3,441,874
1994	\$3,466,988
1995	\$3,783,137
1996	\$2,370,168

Exhibit 2-1 shows the total fees and expenses allocated to the Company since 1991. Prior to 1993 management services were provided to New Jersey-American through the Eastern region office of the Service Company. The elimination of the regional office resulted in a significant reduction in charges from the Service Company since

the majority of the cost of the Eastern region office was charged directly to New Jersey-American.

The Service Company costs allocated to the Company include both ongoing operating charges, as well as charges to construction accounts that are ultimately capitalized. Therefore the level of construction activity affects the total amount of charges from the Service Company. Total billings to the Company decreased in 1996 in large part due to the completion of a large water treatment plant construction project, resulting in fewer charges for project management.

**Exhibit 2-2
 Amount Charged to NJAWC as a Percent of
 Total Service Company Billings**



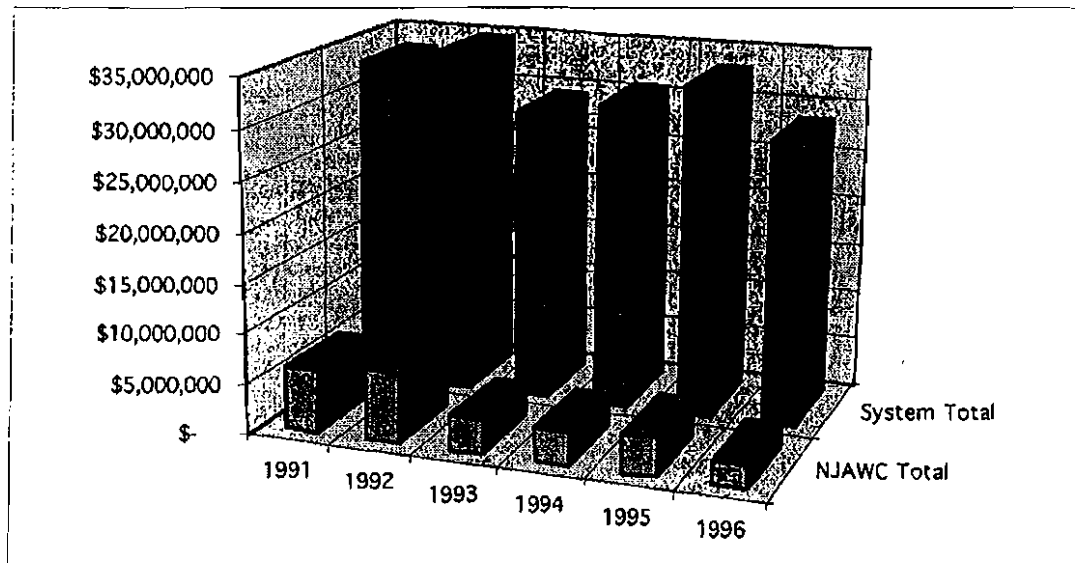
1991	19.16%
1992	20.41%
1993	8.36%
1994	10.68%
1995	11.40%
1996	8.33%

Exhibit 2-2 above displays the charges allocated to the Company as a percent of those allocated throughout the American Water System by the Service Company. As in the previous Exhibit 2-1, the percent charged to the Company decreased significantly in 1993 due to the elimination to the Eastern region office and the transfer of the duties and responsibilities of that office to New Jersey-American.

The present contract with the Service Company provides for the allocation of common charges according to the percentage that New Jersey-American customers

are of the total number of customers in the American Water System. At the beginning of 1996 the customer allocation factor for New Jersey-American was 18.28%. The actual amount charged to the Company is considerably less each year than the factor. This is due in part to the fact that since 1993 New Jersey-American is no longer allocated costs from a Service Company regional office while many of the system companies are provided services and allocated costs from a regional office. In addition, the Service Company is directly billing more to other operating companies than is being directly billed to the Company.

Exhibit 2-3
Comparison of Service Company Billings:
New Jersey-American Versus Total System Billings



	NJAWC Total	System Total	Percent
1991	\$ 6,334,939	\$ 33,068,859	19.16%
1992	\$ 7,075,342	\$ 34,661,161	20.41%
1993	\$ 3,452,098	\$ 29,317,277	8.36%
1994	\$ 3,267,049	\$ 30,588,542	10.68%
1995	\$ 3,783,137	\$ 33,186,281	11.40%
1996	\$ 2,370,188	\$ 28,438,786	8.33%

Exhibit 2-3 shows the total amounts billed by the Service Company to all operating companies compared to the total amount billed to the Company. Service Company billings reflect the trend in the Service Company costs because all costs are billed to the various other American Water System companies without a markup for profit. Internal audit did an audit of the Service Company billings about three years ago and verified that the billings are at cost. The elimination of the Eastern region office