

AUGUST 19, 1980

The regular monthly meeting of the Metropolitan Sewerage District Board was held in the Boardroom of MSD's Administration Building at 2 p.m., Tuesday, August 19, 1980.

Vice-Chairman Williams called the meeting to order, and Mrs. Crowe called the roll. In addition to the Vice-Chairman, the following members were present: Messrs. Boggs, Clark, Griffith, Hyatt, Pope, and Smith.

In addition to the Board members, the following attorneys, consultants, and staff members were present: Messrs. Anthony Redmond and John S. Stevens; Mr. Dean Huber and Mr. L. E. Hoffmann; Mr. W. H. Mull and Mrs. Jan Crowe.

Mr. Clark moved that the Minutes of the July 15 meeting stand approved as written. Mr. Smith seconded the motion, and voice vote was unanimous.

Vice-Chairman Williams then introduced Mr. Robert E. Turner, Chairman of the Economic Development Committee of the Asheville Area Chamber of Commerce. Mr. Turner told the Board that the purpose of the committee he chairs is to encourage new business to locate here and existing businesses to expand in this area. He announced that one of MSD's Board members, Mr. Frank Smith, would be serving on that committee this year. Further, he stated that his purpose in coming before the Board was to encourage the MSD Board to move ahead as quickly as possible with the two proposed interceptor sewer projects (South Buncombe and Hominy Valley) and offered any assistance the Chamber of Commerce could give toward this effort.

Mr. W. H. Mull, Engineer-Manager, reported on the following:

- (a) Approval of appraisals, Hominy Valley and South Buncombe Interceptor Sewer Projects: After a brief review of new and revised appraisals, Mr. Clark moved that the Board accept the appraisers' estimated fair compensation due owners for taking and the nominal compensation figures for those parcels listed for both projects. Mr. Boggs seconded the motion, and roll call vote was unanimous. The appraisals as approved are: LH #77 (R), Moores Super Stores (nom.); LH #95-A (R), Czarnecki (nom.); LH #95-B (R), Duquenne (nom.); AC #24, Double J (nom.); AC #25 (R), Autrey (nom.); AC #26, Cole & Southern (nom.); AC #26-A, Fullam (nom.); AC #35 (R), Fisher (\$300); AC #36 (R), Angel (\$1,080); AC #41 (R), Tompkins (\$700); HC #60 (R), Pinner (nom.); HC #77-A (R), Consolidated Properties (nom); and AC #89, Fraternal Order of Firefighters (nom.).
- (b) Ratification of actions taken by Right-of-Way Review Committee: Mr. Redmond requested that this item be postponed until the end of the meeting, at which time he would request that the Board enter Executive Session.

Mr. Smith then inquired as to the status of the two interceptor sewer projects, to which Mr. Mull replied that contact had been made with every property owner on the proposed Hominy Valley project and that approximately one-half had signed Deeds of Easement, with perhaps another 20 percent having been authorized for condemnation. He also stated that about 20 of the 131 property owners on the South Buncombe project had signed, with contact having been made with some 90 percent.

- (c) Phase I SSES grant increase: After a brief discussion of this letter contract with Harry Hendon and Associates, Mr. Smith moved that the Board accept the proposal as submitted with an amendment in (7a) that this provision also includes receipt of a State grant in the amount of 12½ percent. Mr. Griffith seconded the motion, and roll call vote was unanimous. A copy of that contract is attached hereto and thereby made a part of these Minutes.

- (d) Finalized budget for FY '79-80 (balancing of line items): Mr. Mull told the Board that this was strictly a balancing of line items in order to comply with the State's Financial Act. After discussion, Mr. Smith moved that considering the fact that MSD has not overrun the budget for FY '79-80 and has not used much of the Contingency funds within the budget that these adjustments be made and approved by the Board. Mr. Hyatt seconded the motion, and roll call vote was unanimous.
- (e) Consulting Engineers' annual report on sewer service charges: After presenting the report, Mr. Huber recommended that new industrial rates (Flow, \$0.082/CCF; BOD, \$0.056/lb.; SS, \$0.024/lb.) be adopted by the Board, retroactive to July 1, 1980, for the Fiscal Year 1980-81 and that domestic rates remain at 32¢/CCF. He further recommended that rebates of approximately \$53,000 to industries be held pending a final audit to verify the report figures. Mr. Boggs then moved that the Board accept the recommendation of Mr. Huber's relative to industrial and domestic rates and that these rates be adopted and imposed as charges for the current fiscal year, retroactive to July 1, 1980, and to hold rebates pending a final audit. Mr. Smith seconded the motion, and roll call vote was unanimous. A copy of that report is attached hereto and thereby made a part of these minutes.

Under unfinished business (resolution of Quorum Knitting Mills situation), Mr. Redmond requested that the Board go into Executive Session for the purpose of dealing with people and involved possible litigation and for the purpose of discussing privileged information between attorney and client. Mr. Smith then moved that the Board enter Executive Session, and Mr. Hyatt seconded the motion. Voice vote was unanimous; the Board entered Executive Session at 2:38 p.m.

At 3:12 p.m., Vice-Chairman Williams reconvened the regular meeting.

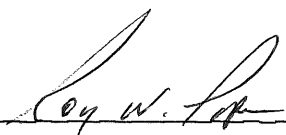
Mr. Smith then moved that due to an interest of the MSD Board that the Board have the consulting engineers and the MSD staff and attorney to investigate the new federal regulations of the Department of Energy as they might apply to the MSD. Mr. Hyatt seconded the motion, and roll call vote was unanimous.

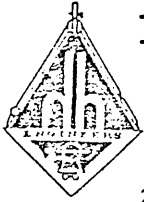
Mr. Pope moved that the MSD Board let their attorney settle the Quorum matter for \$2,000. Mr. Clark seconded the motion, and roll call vote was unanimous.

Further, Mr. Clark moved that the MSD continue to negotiate with the property owners within the limits set and recommended by the Right-of-Way Review Committee. Mr. Hyatt seconded the motion, and roll call vote was unanimous.

Date of the next regular meeting of the MSD Board will be September 16, 1980.

There being no further business, the meeting was adjourned at 3:17 p.m.


Secretary



Harry Hendon and Associates

INCORPORATED

ENGINEERS

Phone 704 - 274-7711

Address reply to P. O. Box 5176

25 REED STREET • ASHEVILLE, NORTH CAROLINA 28803

March 24, 1980

HARRY H. HENDON (1904-1973)
L. E. HOFFMANN
A. B. JOWERS
H. D. HUBER

Metropolitan Sewerage District
of Buncombe County
P. O. Box 7157
Asheville, North Carolina 28807

Attention: Mr. W. H. Mull, Engineer-Manager

Gentlemen:

That certain amendment dated May 31, 1977, and accepted by you on June 8, 1977, to our contract with you dated June 17, 1974, and accepted by you on June 18, 1974, is hereby further amended as follows:

Paragraph (4) is hereby expanded to include Paragraph (4a) as follows:

(4a) For providing inspection, coordination and summary reports for the work described in Exhibit B-1, the OWNER shall pay the ENGINEER all allowable and allocable costs that are incurred in the performance of this amendment up to a cost ceiling of \$59,972 which will not be exceeded without formally amending the contract (exclusive of fixed fee). The OWNER will also pay the ENGINEER a fixed fee of \$12,962. Such sums will be paid to the ENGINEER in accordance with the Payments clause of this contract.

Pending establishment of final overhead rates for any period, the ENGINEER shall be reimbursed for allowable indirect cost, not claimed elsewhere, at the provisional rates listed below. Such provisional rate(s) may, at the request of either party, be revised by mutual consent.

| <u>Period</u> | <u>Cost Center</u> | <u>Rate</u> | <u>Basis for Allocation</u> |
|--|--------------------|-------------|-----------------------------|
| Effective date of contract until amended | General Overhead | 109.2% | Direct Labor Dollars |

Paragraph (7) is hereby expanded to include Paragraph (7a) as follows:

*(7a) It is specifically agreed and understood that this amendment shall be of no force and effect as between the parties hereto unless approved by the Environmental Protection Agency and unless a Federal grant equal to at least 75 percent of the total cost of the work to be done hereunder; to wit, \$367,899.00 or such other amount as may be determined to be the final cost thereof.

Except as hereinabove amended, the original contract dated June 17, 1974, and amendments thereto dated March 10, 1977, May 31, 1977, and December 14, 1979, between the parties thereto shall be and remain in full force and effect.

Respectfully submitted,

HARRY HENDON AND ASSOCIATES, INC.

By



L. E. Hoffmann

*This provision also includes receipt of a State grant in the amount of 12½%.

Attachments:

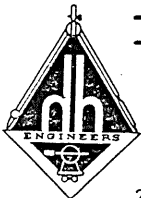
Exhibit B-1.

Accepted:

Date: August 19, 1980

THE BOARD OF COMMISSIONERS OF THE
METROPOLITAN SEWERAGE DISTRICT OF
BUNCOMBE COUNTY, NORTH CAROLINA

By M. Leon Williams
Vice-Chairman



Harry Hendon and Associates

INCORPORATED

ENGINEERS

Phone 704 - 274-7711

Address reply to P. O. Box 5176

25 REED STREET • ASHEVILLE, NORTH CAROLINA 28803

HARRY H. HENDON (1904-1973)
L. E. HOFFMANN
A. B. JOWERS
H. D. HUBER

August 8, 1980

Mr. W. H. Mull
Engineer - Manager
Metropolitan Sewerage District
P. O. Box 7157
Asheville, North Carolina 28807

Re: User Charge Analysis
Fiscal Year 1979-80

Dear Mr. Mull:

Transmitted herewith is our report on the Industrial User Charges for FY 1979-80. This report is based on unaudited accounting data and, therefore, should be verified or adjusted after completion of your annual audit. However, the report should be adequate to set revised industrial user charges for FY 1980-81


This report also presents data that generally evaluates the sufficiency of the current domestic user rates. The calculations indicate that income from domestic users was approximately four percent less than the domestic share of expenses. However, during several prior years, you have collected more than required from domestic users.

Taking the past several years into account, I see no need to increase the domestic user charges at this time; however, if the current trends continue, an increase in domestic user charges may be in order next fiscal year.

We would like to express our appreciation for the fine assistance of your staff in the preparation of this report.

Very truly yours,

HARRY HENDON AND ASSOCIATES, INC.

By: 
Dean Huber

DH:njb

INDUSTRIAL USER CHARGE REPORT
(FISCAL YEAR 1979-80)

1.0 Introduction

In accordance with the Resolution Adopting Charges for the Discharge of Wastewater and Industrial Wastes to the Sanitary Sewerage System of the Metropolitan Sewerage District of Buncombe County and Providing for the Recovery of Portions of Federal Grants from Industry, Section 2.3, Determination of Charges Annually, this report is prepared for calculation of actuals for FY 1979-80 and for establishing recommendations for industry rates for FY 1980-81.

This report is based on the accounting records of the MSD which have not been verified by the annual audit; however, the data is considered adequate for establishing rates for FY 1980-81. The data presented herein should be reviewed after the annual audit is completed and before adjustments to industry are made for FY 1979-80.

2.0 Allocation of Loads to User Groups

The total annual average waste loads received by the MSD plants are given in the following Table 2-A:

Table 2-A (1)
System Loads FY 1979-80 (2)

| | Quantity MGD | BOD | | SS (4) | |
|---------------------------------|-----------------|----------|--------|--------|--------|
| | | MG/L (5) | #/Day | MG/L | #/Day |
| Metropolitan Plant | 23.88 | 168 | 33,459 | 304 | 60,544 |
| Weaverville Plant | 0.25 | 186 | 388 | 211 | 440 |
| Crescent Hills Plant | 0.15 | 122 | 153 | 126 | 158 |
| | 24.28 | | 34,000 | | 61,142 |
| Less Return Sludge Strength (6) | | | 4,380 | | 12,280 |
| | | | 29,620 | | 48,862 |

The industrial waste loads were taken from the records of the MSD which are summarized on Table 2-B. Table 2-C is included as supplemental information so a comparison can be made with the original report prepared by Greeley and Hansen.

- (1) Based on Plant Operating Reports
- (2) Annual Average Quantities
- (3) Biochemical Oxygen Demand
- (4) Suspended Solids
- (5) Milligrams Per Liter
- (6) Based on Sampling and Analysis by MSD Lab

Table 2-B

Industrial Waste Loads - FY 1979-80 (1)

| | | Annual Quantities | | | |
|---------------|-------------------------|-------------------|-----------------|-----------|-----------|
| | | Q | Q | BOD | SS |
| | | 100 Cu. Ft. | Million Gallons | Lbs. | Lb. |
| 1 | Asheville By-Products | 37,814 | 28.361 | 43,647 | 29,958 |
| 2 | Ball Corporation | 40,845 | 30.634 | 11,440 | 39,551 |
| 3 | Beacon Mfg. Company | 200,634 | 150.476 | 447,726 | 96,632 |
| 4 | Biltmore Dairy | 62,439 | 46.829 | 360,415 | 79,455 |
| 5 | Blue Ridge Plating (2) | 2,937 | 2.203 | 919 | 1,837 |
| 6 | Chemtronics | 24,865 | 18.649 | 83,299 | 2,881 |
| 7 | Coca-Cola | 24,577 | 18.433 | 68,178 | 8,665 |
| 8 | CTS of Asheville | 8,371 | 6.278 | 2,447 | 6,344 |
| 9 | Cutler-Hammer | 7,019 | 5.264 | 6,865 | 6,714 |
| 10 | Dotson Metal | 13,278 | 9.959 | 93 | 2,409 |
| 11 | Essex | 16,261 | 12.196 | 12,698 | 4,488 |
| 12 | Flynt Dyeing | 220,039 | 165.029 | 446,538 | 53,773 |
| 13 | Gerber | 158,517 | 118.888 | 775,753 | 316,912 |
| 14 | Girmes | 136,089 | 102.067 | 64,061 | 36,630 |
| 15 | Kraft | 14,555 | 10.916 | 167,342 | 59,353 |
| 16 | Mission Hospital | 90,768 | 68.076 | 86,300 | 47,124 |
| 17 | Mutual Services | 8,287 | 6.215 | 10,202 | 5,114 |
| 18 | National Linen | 34,001 | 25.501 | 113,281 | 83,555 |
| 19 | Owen Mfg. Company | 88,130 | 66.098 | 129,860 | 15,098 |
| 20 | Quorum Finishing (3) | 86,738 | 65.054 | 76,267 | 65,598 |
| 21 | Quorum Knitting | 2,659 | 1.994 | 8,044 | 3,066 |
| 22 | Royal Crown | 7,115 | 5.336 | 35,603 | 4,450 |
| 23 | St. Joseph's Hospital | 9,071 | 6.803 | 12,360 | 7,609 |
| 24 | Sayles | 176,823 | 132.618 | 327,718 | 140,197 |
| 25 | Seven-Up | 2,648 | 1.986 | 10,328 | 1,178 |
| 26 | Singer-Kearfott | 32,154 | 24.116 | 15,769 | 8,574 |
| 27 | Square D | 104,832 | 78.624 | 27,111 | 36,240 |
| 28 | Southern Railway | 2,324 | 1.743 | 611 | 959 |
| 29 | Stratford Metal | 2,639 | 1.979 | 561 | 2,839 |
| 30 | Swannanoa Laundry | 2,965 | 2.224 | 6,849 | 4,732 |
| 31 | Taylor Sybron | 21,618 | 16.214 | 18,912 | 13,633 |
| 32 | Uniform Rental | 3,590 | 2.693 | 6,446 | 7,381 |
| 33 | VA Hospital | 80,052 | 60.039 | 113,455 | 77,244 |
| 34 | Walker Mfg. Company | 3,466 | 2.600 | 5,269 | 3,937 |
| 35 | Western Carolina Center | 2,872 | 2.154 | 3,452 | 1,277 |
| 36 | Westinghouse (4) | 2,829 | 2.122 | 140 | 618 |
| 37 | Winston Dyeing | 210,638 | 157.979 | 169,935 | 65,332 |
| Total | | 1,944,459 | 1,458.350 | 3,669,894 | 1,341,357 |
| Daily Average | | | 4.00 | 10,055 | 3,675 |

(1) Based on Industrial Billing Records

(2) Industry added in April 1980

(3) Industry added in August 1979

(4) Industry added in February 1980

Table 2-C

Industrial Waste Loads - Average Quantities
FY 1979-80

| | | Annual Average Quantities (1) | | | | |
|----|-------------------------|-------------------------------|-------|--------|------|-------|
| | | Q | BOD | | SS | |
| | | MGD | MG/L | #/D | MG/L | |
| | | | | | #/D | |
| 1 | Asheville By-Products | .078 | 185 | 120 | 127 | 82 |
| | Ball Corporation | .084 | 95 | 31 | 79 | 108 |
| | Beacon Mfg. Company | .412 | 351 | 1,227 | 73 | 265 |
| 4 | Biltmore Dairy | .128 | 921 | 987 | 202 | 218 |
| 5 | Blue Ridge Plating (2) | .024 | 50 | 10 | 100 | 20 |
| 6 | Chemtronics | .051 | 536 | 228 | 18 | 8 |
| 7 | Coca-Cola | .051 | 445 | 187 | 62 | 24 |
| 8 | CTS of Asheville | .017 | 57 | 7 | 118 | 17 |
| 9 | Cutler-Hammer | .014 | 157 | 19 | 153 | 18 |
| 10 | Dotson Metal | .027 | 1 | 0 | 29 | 7 |
| 11 | Essex | .033 | 128 | 35 | 44 | 12 |
| 12 | Flynt Dyeing | .452 | 321 | 1,223 | 39 | 147 |
| 13 | Gerber | .326 | 785 | 2,125 | 321 | 868 |
| 14 | Girmes | .280 | 75 | 176 | 44 | 100 |
| 15 | Kraft | .030 | 1,841 | 458 | 648 | 163 |
| 16 | Mission Hospital | .187 | 152 | 236 | 83 | 129 |
| 17 | Mutual Services | .017 | 198 | 28 | 100 | 14 |
| 18 | National Linen | .070 | 528 | 310 | 388 | 229 |
| 19 | Owen Mfg. Company | .181 | 233 | 356 | 28 | 41 |
| 20 | Quorum Finishing | .178 | 140 | 209 | 116 | 180 |
| 21 | Quorum Knitting | .005 | 480 | 22 | 185 | 8 |
| 22 | Royal Crown | .015 | 800 | 98 | 100 | 12 |
| 23 | St. Joseph's Hospital | .025 | 220 | 34 | 133 | 21 |
| 24 | Sayles | .363 | 293 | 898 | 121 | 384 |
| 25 | Seven-Up | .005 | 620 | 29 | 71 | 3 |
| 26 | Singer-Kearfott | .066 | 78 | 43 | 40 | 23 |
| 27 | Square D | .215 | 66 | 74 | 111 | 99 |
| 28 | Southern Railway | .005 | 42 | 2 | 66 | 3 |
| 29 | Stratford Metal | .005 | 34 | 2 | 172 | 8 |
| 30 | Swannanoa Laundry | .006 | 370 | 19 | 258 | 13 |
| 31 | Taylor Sybron | .044 | 140 | 52 | 101 | 37 |
| 32 | Uniform Rental | .007 | 287 | 18 | 328 | 20 |
| 33 | VA Hospital | .164 | 226 | 311 | 154 | 212 |
| 34 | Walker Mfg. Company | .007 | 244 | 14 | 183 | 11 |
| 35 | Western Carolina Center | .006 | 200 | 9 | 76 | 3 |
| 36 | Westinghouse (3) | .014 | 15 | 1 | 35 | 4 |
| 37 | Winston Dyeing | .433 | 130 | 466 | 50 | 179 |
| | Total | 4.025 | | 10,064 | | 3,690 |

(1) Normalized to yearly average for 365 days except as noted

(2) Average for 90 days of operation

(3) Average for 150 days of operation

The distribution of the waste loads to user groups for fiscal year 1979-80 is given in Table 2-D. For the purpose of this study, no increase is projected for fiscal year 1980-81.

3.0 Distribution of Capital Costs

The present capital investment for which bond service funds are collected is distributed in accordance with the Greeley and Hansen Report (Report on Wastewater Service Charges, February, 1975 revision by Greeley and Hansen).

3.1 Scheduled Capital Improvements

For the FY 1978-79 User Charge Analysis a revised Capital Improvement Schedule was developed taking into account revised cost estimates and funds accumulated over the several years for this purpose. Based on that evaluation it was recommended that \$334,800 per year be calculated into the user charges. Since that evaluation, there has been no significant events that would warrant a change for this report and, therefore, the amount of \$334,800 is recommended to be included in the proposed rate structure for FY 1980-81.

A copy of the Capital Improvement Schedule developed for the FY 1979-80 User Charge Analysis is included in this report as Table 3-A.

Table 2-D

Allocation of Loads to User Group

| | Average Annual Quantities (1) | | | | | 1980-81 (Estimate) | Percent 1979-80 |
|---------------------------|-------------------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|--------------------|
| | 1975-76 (Actual) | 1976-77 (Actual) | 1977-78 (Actual) | 1978-79 (Actual) | 1979-80 (Actual) | | |
| <u>Flow - MGD</u> | | | | | | | |
| Domestic Billable | 7.5 | 7.34 | 7.55 | 8.25 | 8.24(2) | | |
| Non-billable (Inf.) | 7.2 | 6.58 | 5.08 | 9.60 | 12.04 | SAME | 83.5 |
| Total | 14.7 | 13.92 | 12.63 | 17.85 | 20.28 | | |
| Industry | 4.1 | 3.76 | 3.95 | 4.02 | 4.00 | SAME | 16.5 |
| Total | 18.8 | 17.68 | 16.58 | 21.87 | 24.28 | | 100.0 |
| <u>BOD - Lbs. per Day</u> | | | | | | | |
| Domestic | 10,800 | 16,100 | 13,950 | 13,537 | 19,565 | SAME | 66.0 |
| Industry | 10,800 | 9,450 | 11,900 | 11,684 | 10,055 | | 34.0 |
| Total | 21,600 | 25,550 | 25,850 | 25,221 | 29,620(3) | | 100.0 |
| <u>SS - Lbs. per Day</u> | | | | | | | |
| Domestic | 21,400 | 27,650 | 24,000 | 29,971 | 45,187 | SAME | 92.5 |
| Industry | 3,700 | 3,850 | 4,100 | 3,650 | 3,675 | | 7.5 |
| Total | 25,100 | 31,500 | 28,100 | 33,621 | 48,862(3) | | 100.0 |
| <u>Customers</u> | | | | | | | |
| Domestic | 26,600 | 26,600 | 26,200 | 27,350 | 27,454 | SAME | 99.9 |
| Industry | 29 | 31 | 32 | 34 | 37 | | 0.1 |
| Total | 26,629 | 26,631 | 26,232 | 27,384 | 27,491 | | 100.0 |

(1) Includes remote plants

(2) Sewer rent income - industry income + rebate = domestic wastewater income

\$1,615,946 - \$420,800 + \$88,029 = \$1,283,175

\$1,283,175 ÷ \$0.32/CCF = 4,009,922 CCF or 8.24 MGD

(3) Based on influent sampling (Plant operating records)

TABLE 3-A

Allocation of Projected Capital Improvements (3)

| System | Total Cost | MSD Share (1) | Q | BOD | SS | Customers |
|-------------------------------------|---------------------|----------------------------|-----------------------------|---------------------------|-----------------------------|--------------------------|
| Rehabilitation | \$10,887,200 | \$ 30,500 | \$ 30,500 | \$ -0- | \$ -0- | \$ -0- |
| Tominy Valley Interceptors | 5,788,700 | 252,300 | 252,300 | -0- | -0- | -0- |
| South Buncombe Interceptors | 3,942,500 | 122,100 | 122,100 | -0- | -0- | -0- |
| Metro Plant Expansion | 12,066,000 | 1,508,300 | 241,300 | 603,300 | 663,700 | -0- |
| Weaverville P.S. & Force Main | 727,200 | 103,700 | 103,700 | -0- | -0- | -0- |
| Carrier Bridge P.S. Expansion | 247,800 | 31,000 | 31,000 | -0- | -0- | -0- |
| Relief Interceptors | 29,128,500 | 1,957,700 (2) | 1,957,700 | -0- | -0- | -0- |
| Remote Flow & pH Monitors | 182,000 | 35,000 | 35,000 | -0- | -0- | -0- |
| Sludge Handling | 2,668,900 | 333,600 | -0- | -0- | 333,600 | -0- |
| Administration Building | 191,500 | 191,500 | -0- | -0- | -0- | 191,500 |
| Misc. Improvements & Contingency | 200,000 | 200,000 | 100,000 | 50,000 | 50,000 | -0- |
| TOTAL | \$66,030,300 | \$4,765,700 100% | \$2,873,600 60.3% | \$653,300 13.7% | \$1,047,300 22.0% | \$191,500 4.0% |

(1) Assumes 75% EPA Grant and 12½% State Grant

(2) Relief Interceptors for Existing MSD Interceptors, 1/3 Participation in Swannanoa Relief Interceptor and 50% Participation in Other Relief Interceptors

(3) Based on Best Estimates as of July, 1979.

4.0 Distribution of Operation and Maintenance Costs

During fiscal year 1979-80 O & M costs were allocated to parameters (Q, BOD, SS, Customers, and Industrial Waste Monitoring) in all cases where the costs were identifiable. In cases where the costs were not identifiable to parameters, the percentage allocations developed by the Greeley and Hansen Report were generally utilized to distribute costs except where a more equitable distribution has been developed.

The O & M costs were allocated as they were incurred, where possible, and entered in a special bookkeeping system. The distribution of the actual O & M expenditure is given in Table 4-A.

TABLE 4-A

Distribution of O & M Costs
FY 1979-80

| Acct. No. | Administrative | Q -1 | BOD -2 | SS -3 | CUST -4 | IWM(2) | Total(1) |
|--------------|-------------------------|--------------|--------------|--------------|---------------|--------------|---------------|
| 200 | Administration Salaries | \$ 8,999.93 | \$ 9,000.03 | \$ 4,499.95 | \$ 55,606.45 | \$ -0- | \$ 78,106.36 |
| 210 | Billing & Collection | -0- | -0- | -0- | 48,543.70 | -0- | 48,543.70 |
| 220 | T & T | 367.48 | 459.36 | 91.83 | 918.73 | -0- | 1,837.40 |
| 230 | Travel & Conventions | 674.71 | 843.40 | 168.66 | 1,686.78 | -0- | 3,373.55 |
| 240 | Office Supplies | 1,120.03 | 1,400.01 | 279.97 | 2,800.11 | -0- | 5,600.12 |
| 250 | Rent | -0- | -0- | -0- | -0- | -0- | -0- |
| 251 | Power & Water | -0- | -0- | -0- | 2,020.81 | -0- | 2,020.81 |
| 260 | Director Expense | 1,020.00 | 1,275.00 | 255.00 | 2,550.00 | -0- | 5,100.00 |
| 270 | Insurance | 5,914.64 | 6,316.50 | 2,722.15 | 9,097.94 | 1,862.59 | 25,913.82 |
| 280 | Dues & Subscriptions | 304.06 | 380.08 | 75.99 | 760.14 | -0- | 1,520.27 |
| 290 | Accounting | 647.97 | 809.96 | 161.97 | 1,619.94 | -0- | 3,239.84 |
| 300 | Consulting Engineers | 6,444.74 | 4,283.14 | 3,569.32 | -0- | -0- | 14,297.20 |
| 310 | Legal | 3,032.32 | 3,790.44 | 758.03 | 7,580.79 | -0- | 15,161.58 |
| 320 | Trustee Fee | 1,092.06 | 1,365.08 | 273.01 | 2,730.16 | -0- | 5,460.31 |
| 330 | Auditor | 470.00 | 587.50 | 117.50 | 1,175.00 | -0- | 2,350.00 |
| 340 | Postage & Cash | 275.44 | 344.30 | 68.81 | 688.60 | -0- | 1,377.15 |
| 350 | Repairs | 61.48 | 76.85 | 15.37 | 153.70 | -0- | 307.40 |
| 360 | Social Security | 4,742.79 | 3,983.94 | 3,225.10 | 3,225.10 | 3,794.23 | 18,971.16 |
| 370 | Retirement | 6,268.25 | 5,265.33 | 4,262.41 | 4,262.41 | 5,014.61 | 25,073.01 |
| 380 | Vehicle Expense | 600.00 | 600.00 | 300.00 | 2,400.00 | -0- | 3,900.00 |
| 390 | Capital | 316.75 | 395.94 | 79.18 | 791.87 | -0- | 1,583.74 |
| 400 | Contingency | 1,423.65 | 1,779.57 | 355.91 | 3,559.14 | -0- | 7,118.27 |
| | Sub-Total | \$ 43,776.30 | \$ 42,956.43 | \$ 21,280.16 | \$ 152,171.37 | \$ 10,671.43 | \$ 270,855.69 |

(1) Not verified by FY 1979-80 audit

(2) Industrial waste monitoring

Table 4-A (Continued)

Distribution of O & M Costs
FY 1979-80

| Acct. No. | Operation & Maintenance | Q -1 | BOD -2 | SS -3 | CUST -4 | IWM | Total (1) |
|--------------|----------------------------|---------------|---------------|---------------|---------------|--------------|------------------|
| 500 | Salaries | \$ 71,144.79 | \$ 58,131.75 | \$ 51,259.22 | \$ -0- | \$ 61,442.89 | \$ 241,978.65 |
| 510 | Chemicals | 36,097.12 | 98.10 | 2,190.97 | -0- | -0- | 38,386.19 |
| 520 | T & T | 458.93 | 590.02 | 262.22 | -0- | -0- | 1,311.17 |
| 530 | Power & Lights | 64,663.11 | 134,051.98 | 21,278.09 | -0- | -0- | 219,993.18 |
| 540 | Maintenance Supplies | 1,616.83 | 1,665.26 | 811.89 | -0- | 342.24 | 4,436.22 |
| 550 | Water | 3,513.30 | 3,513.30 | 1,756.69 | -0- | -0- | 8,783.29 |
| 560 | Vehicle Expense | 3,160.10 | 2,370.10 | 2,370.10 | -0- | 1,158.28 | 9,058.58 |
| 571 | Lab Supplies | 654.83 | 680.37 | 293.83 | -0- | 2,253.59 | 3,882.62 |
| 580 | Uniform Service | 667.34 | 858.00 | 381.32 | -0- | 114.48 | 2,021.14 |
| 590 | Small Tools | 511.92 | 658.17 | 292.52 | -0- | 21.65 | 1,484.26 |
| 600 | B & G Maintenance | 5,750.99 | 3,070.39 | 5,006.90 | -0- | 35.00 | 13,863.28 |
| 610 | Pipe Line Maintenance | 941.14 | -0- | -0- | -0- | -0- | 941.14 |
| 620 | Maintenance Equipment | 19,565.72 | 39,112.16 | 33,464.62 | -0- | 183.00 | 92,325.50 |
| 630 | Capital | 5,323.13 | 3,548.77 | 2,957.31 | -0- | 38.65 | 11,867.86 |
| 640 | Equipment Replace | 13,056.41 | 3,474.43 | 1,690.75 | -0- | 296.38 | 18,517.97 |
| 650 | Contingency | -0- | -0- | -0- | -0- | -0- | -0- |
| | Sub-Total | \$ 227,125.66 | \$ 251,822.80 | \$ 124,016.43 | \$ -0- | \$ 65,886.16 | \$ 668,851.05 |
| | Administrative | 43,776.30 | 42,956.43 | 21,280.16 | 152,171.37 | 10,671.43 | 270,855.69 |
| | Total | \$ 270,901.96 | \$ 294,779.23 | \$ 145,296.59 | \$ 152,171.37 | \$ 76,557.59 | \$ 939,706.74(2) |
| | Percent | 29% | 31% | 16% | 16% | 8% | 100% |

(1) Not Verified By FY 1979-80 Audit

(2) \$5,164.39 Adjustment for Refunds

5.0 Distribution of Total Annual Costs

Fiscal year 1979-80 actual flows and expenditures were developed in previous sections of this report. Table 5-A gives the combined functional distribution of the total annual costs for FY 1979-80. The reduction of the functional distribution of costs to unit costs are given on Table 5-B. The resultant unit charges to industry are given in the following Table 5-C:

Table 5-C
Unit Charges to Industry (FY 1979-80) (1)

| <u>Cost Parameter</u> | <u>Est. Annual Discharge</u> | <u>Total Annual Cost Allocated to Industry</u> | <u>Unit Charges</u> |
|-----------------------|------------------------------|--|---------------------|
| Quantity | 1,944,459 CCF | \$ 151,351 | \$0.07784/CCF |
| BOD | 3,669,894 lbs. | 187,058 | 0.05097/lb. |
| SS | 1,341,357 lbs. | 29,564 | 0.02204/lb. |
| | | \$ 367,973 | Avg/ \$0.18924/CCF |

Charges

| | |
|----------|---------------|
| Quantity | \$ 0.0778/CCF |
| BOD | 0.0510/lb. |
| SS | 0.0220/lb. |

(1) Not Verified by FY 1979-80 Audit

TABLE 5-A

Distribution of Total Annual Cost (FY 1979-80)

| | Quantity \$ | BOD \$ | SS \$ | Customers \$ | IWM \$ | Total \$ |
|---|----------------|------------|------------|-----------------|-----------|--------------|
| <u>Allocation to Parameters</u> | | | | | | |
| O & M | \$ 270,902 | \$ 294,779 | \$ 145,297 | \$ 152,171 | \$ | \$ 863,149 |
| Industrial Waste Monitoring | -0- | -0- | -0- | -0- | 76,558 | 76,558 |
| Debt Service | 262,535 | 94,685 | 73,165 | -0- | -0- | 430,385 |
| Debt Coverage & Scheduled Capital Improvements | 201,884 | 45,868 | 73,656 | 13,392 | -0- | 334,800 |
| Total | \$ 735,321 | \$ 435,332 | \$ 292,118 | \$ 165,563 | \$ 76,558 | \$ 1,704,892 |
| <u>Allocation to User Groups</u> | | | | | | |
| <u>O & M</u> | | | | | | |
| Domestic | \$ 226,203 | \$ 194,554 | \$ 134,400 | \$ 152,019 | \$ -0- | \$ 707,176 |
| Industry | 44,699 | 100,225 | 10,897 | 152 | -0- | 155,973 |
| Total | \$ 270,902 | \$ 294,779 | \$ 145,297 | \$ 152,171 | \$ -0- | \$ 863,149 |
| <u>Industrial Waste Monitoring</u> | | | | | | |
| Industry | \$ 29,858 | \$ 39,045 | \$ 7,655 | \$ -0- | \$ -0- | \$ 76,558 |
| <u>Debt Service</u> | | | | | | |
| Domestic | \$ 219,217 | \$ 62,492 | \$ 67,678 | \$ -0- | \$ -0- | \$ 349,387 |
| Industry | 43,318 | 32,193 | 5,487 | -0- | -0- | 80,998 |
| Total | \$ 262,535 | \$ 94,685 | \$ 73,165 | \$ -0- | \$ -0- | \$ 430,385 |
| <u>Debt Coverage & Scheduled Capital Improvements</u> | | | | | | |
| Domestic | \$ 168,573 | \$ 30,273 | \$ 68,131 | \$ 13,379 | \$ -0- | \$ 280,356 |
| Industry | 33,311 | 15,595 | 5,525 | 13 | -0- | 54,444 |
| Total | \$ 201,884 | \$ 45,868 | \$ 73,656 | \$ 13,392 | \$ -0- | \$ 334,800 |
| <u>Total Annual</u> | | | | | | |
| Domestic | \$ 613,993 | \$ 287,319 | \$ 270,209 | \$ 165,398 | \$ -0- | \$ 1,336,919 |
| Industry | 151,186 | 187,058 | 29,564 | 165 | -0- | 367,973 |
| Total | \$ 765,179 | \$ 474,377 | \$ 299,773 | \$ 165,563 | \$ -0- | \$ 1,704,892 |

TABLE 5-B

Unit Cost Distribution of Annual Costs (3)
FY 1979-80

| | <u>Quantity</u> <u>CCF/YR</u> | <u>BOD</u> <u>Lbs/YR</u> | <u>SS</u> <u>Lbs/YR</u> | <u>Customers</u> | <u>Total</u> |
|----------------------------------|----------------------------------|-----------------------------|----------------------------|------------------|----------------|
| <u>Annual Loads at</u> | | | | | |
| <u>Treatment Plant</u> | | | | | |
| Domestic | 9,869,389(1) | 7,141,225 | 16,493,255 | 27,454 | |
| Industry | <u>1,944,459</u> | <u>3,669,894</u> | <u>1,341,357</u> | <u>37</u> | |
| Total | 11,813,848 | 10,811,119 | 17,834,612 | 27,491 | |
| <u>Unit Costs - Gross</u> | | | | | |
| <u>Quantities (2)</u> | | | | | |
| Domestic | \$ 0.06221 | \$ 0.04023 | \$ 0.01638 | \$ 6.0246 | \$ 0.13546 |
| Industry | <u>0.07775</u> | <u>0.05097</u> | <u>0.02204</u> | <u>4.4595</u> | <u>0.18924</u> |
| Total | \$ 0.06477 | \$ 0.04388 | \$ 0.01681 | \$ 6.0224 | \$ 0.14431 |
| <u>Unit Costs - Billable</u> | | | | | |
| <u>Quantities</u> | | | | | |
| Domestic | \$ 0.19437(4) | \$ 0.04023 | \$ 0.01638 | \$ | \$ 0.33340(5) |
| Industry | <u>0.07784(4)</u> | <u>0.05097</u> | <u>0.02204</u> | | <u>0.18924</u> |
| Total | \$ 0.15631(4) | \$ 0.04388 | \$ 0.01681 | | \$ 0.28633(6) |

(1) Includes 5,859,467 CCF Infiltration Attributed to Domestic Users

(2) Based on Total Wastewater Loads Received at the Treatment Works

(3) Minor Discrepancies Due to Rounding out Distribution Percentages and Amounts

(4) Includes Costs Allocated to Customers

(5) Based on Net Metered Water - "Billable Quantity" for Domestic Users = 4,009,922

(6) Based on Net Metered Water - "Billable Quantity" for Domestic and Industry Users = 5,954,381 CCF

Fiscal year 1980-81 estimates are based on no flow changes and on the operation and maintenance budget data. The operation and maintenance budget is allocated to parameters on the same percentage basis as the total FY 1979-80 actuals. Table 5-D gives the combined functional distribution of the estimated total annual costs for FY 1980-81. The reduction of the functional distribution of estimated costs to estimated unit costs are given on Table 5-E. The resultant estimated unit charges to industry are given in the following Table 5-F:

Table 5-F

Unit Charges to Industry
Estimate - FY 1980-81

| <u>Cost Parameter</u> | <u>Est. Annual Discharges</u> | <u>Total Annual Cost Allocated to Industry</u> | <u>Unit Charges</u> |
|-----------------------|-------------------------------|--|---------------------|
| Quantity | 1,944,459 CCF | \$ 159,902 | \$ 0.08224/CCF |
| BOD | 3,669,894 lbs. | 205,177 | 0.05591/lb. |
| SS | 1,341,357 lbs. | 32,005 | 0.02386/lb. |
| | | <hr/> | <hr/> |
| Total | | \$ 397,084 | Avg. \$ 0.20421/CCF |

Charges

| | |
|----------|--------------|
| Quantity | \$ 0.082/CCF |
| BOD | 0.056/lb. |
| SS | 0.024/lb. |

TABLE 5-D

Distribution of Total Annual Cost (FY 1980-81 Estimate)

| | Quantity \$ | BOD \$ | SS \$ | Customers \$ | IWM \$ | Total \$ |
|---|----------------|------------|------------|-----------------|-----------|--------------|
| <u>Allocation to Parameters</u> | | | | | | |
| O & M | \$ 308,706 | \$ 338,580 | \$ 169,290 | \$ 179,249 | \$ -0- | \$ 995,825 |
| Industrial Waste Monitoring | -0- | -0- | -0- | -0- | 83,500 | 83,500 |
| Debt Service | 259,988 | 93,766 | 72,456 | -0- | -0- | 426,210 |
| Debt Service Coverage & Scheduled Capital Improvements | 201,884 | 45,868 | 73,656 | 13,392 | -0- | 334,800 |
| Total | \$ 770,578 | \$ 478,214 | \$ 315,402 | \$ 192,641 | \$ 83,500 | \$ 1,840,335 |
| <u>Allocation to User Group</u> | | | | | | |
| <u>O & M</u> | | | | | | |
| Domestic | \$ 257,770 | \$ 223,463 | \$ 156,593 | \$ 179,070 | \$ -0- | \$ 816,896 |
| Industry | 50,936 | 115,117 | 12,697 | 179 | -0- | 178,929 |
| Total | \$ 308,706 | \$ 338,580 | \$ 169,290 | \$ 179,249 | \$ -0- | \$ 995,825 |
| <u>Industrial Waste Monitoring</u> | | | | | | |
| Industry | \$ 32,565 | \$ 42,585 | \$ 8,350 | \$ -0- | \$ -0- | \$ 83,500 |
| <u>Debt Service</u> | | | | | | |
| Domestic | \$ 217,090 | \$ 61,886 | \$ 67,022 | \$ -0- | \$ -0- | \$ 345,998 |
| Industry | 42,898 | 31,880 | 5,434 | -0- | -0- | 80,212 |
| Total | \$ 259,988 | \$ 93,766 | \$ 72,456 | \$ -0- | \$ -0- | \$ 426,210 |
| <u>Debt Service Coverage & Scheduled Capital Improvements</u> | | | | | | |
| Domestic | \$ 168,573 | \$ 30,273 | \$ 68,132 | \$ 13,379 | \$ -0- | \$ 280,357 |
| Industry | 33,311 | 15,595 | 5,524 | 13 | -0- | 54,443 |
| Total | \$ 201,884 | \$ 45,868 | \$ 73,656 | \$ 13,392 | \$ -0- | \$ 334,800 |
| <u>Total Annual</u> | | | | | | |
| Domestic | \$ 643,433 | \$ 315,622 | \$ 291,747 | \$ 192,449 | \$ -0- | \$ 1,443,251 |
| Industry | 159,710 | 205,177 | 32,005 | 192 | -0- | 397,084 |
| Total | \$ 803,143 | \$ 520,799 | \$ 323,752 | \$ 192,641 | \$ -0- | \$ 1,840,335 |

TABLE 5-E

Unit Cost Distribution of Annual Costs (3)
 Estimate - FY 1980-81

| | Quantity CCF/YR | BOD Lbs./YR | SS Lbs./YR | Customers | Total |
|--|--------------------|------------------|------------------|---------------|----------------|
| <u>Annual Loads at Treatment Plant</u> | | | | | |
| Domestic | 9,869,389(1) | 7,141,225 | 16,493,255 | 27,454 | |
| Industry | <u>1,944,459</u> | <u>3,669,894</u> | <u>1,341,357</u> | <u>37</u> | |
| Total | 11,813,848 | 10,811,119 | 17,834,612 | 27,491 | |
| <u>Unit Costs - Gross</u> | | | | | |
| <u>Quantities(2)</u> | | | | | |
| Domestic | \$ 0.06520 | \$ 0.04420 | \$ 0.01769 | \$ 7.0099 | \$ 0.14624 |
| Industry | <u>0.08214</u> | <u>0.05591</u> | <u>0.02386</u> | <u>5.1892</u> | <u>0.20421</u> |
| Total | \$ 0.06798 | \$ 0.04817 | \$ 0.01815 | \$ 7.0074 | \$ 0.15578 |
| <u>Unit Costs - Billable</u> | | | | | |
| <u>Quantities</u> | | | | | |
| Domestic | \$ 0.20845(4) | \$ 0.04420 | \$ 0.01769 | \$ -0- | \$ 0.35599(5) |
| Industry | <u>0.08224(4)</u> | <u>0.05591</u> | <u>0.02386</u> | <u>-0-</u> | <u>0.20421</u> |
| Total | \$ 0.16724(4) | \$ 0.04817 | \$ 0.01815 | \$ -0- | \$ 0.30907(6) |

(1) Includes 5,859,467 CCF Infiltration Attributed to Domestic Users

(2) Based on Total Wastewater Loads Received at the Treatment Works

(3) Minor Discrepancies Due to Rounding out Distribution Percentages and Amounts

(4) Includes Costs Allocated to Customers

(5) Based on Net Metered Water - "Billable Quantity" for Domestic Users = 4,009,922 CCF

(6) Based on Net Metered Water - "Billable Quantity" for Domestic & Industry Users = 5,954,381

6.0 Charges to Industry

The unit charges from previous reports and developed herein are shown in the following Table 6-A:

Table 6-A
Industrial User Charge Comparison

| | Q (\$/CCF) | BOD (\$/lb.) | SS (\$/lb.) | Average (\$/CCF) |
|--------------|---------------|-----------------|----------------|---------------------|
| FY 1975-76 | | | | |
| Adopted Rate | 0.090 | 0.041 | 0.021 | 0.184 |
| Actual | 0.078 | 0.048 | 0.030 | 0.193 |
| FY 1976-77 | | | | |
| Adopted Rate | 0.090 | 0.041 | 0.021 | 0.184 |
| Actual | 0.083 | 0.042 | 0.024 | 0.182 |
| FY 1977-78 | | | | |
| Adopted Rate | 0.090 | 0.049 | 0.027 | 0.203 |
| Actual | 0.1004 | 0.0485 | 0.0324 | 0.235 |
| FY 1978-79 | | | | |
| Adopted Rate | 0.105 | 0.055 | 0.036 | 0.258 |
| Actual | 0.0749 | 0.0513 | 0.0260 | 0.205 |
| FY 1979-80 | | | | |
| Adopted Rate | 0.084 | 0.059 | 0.030 | 0.232 |
| Actual (1) | 0.0778 | 0.0510 | 0.0220 | 0.189 |
| FY 1980-81 | | | | |
| Estimate (2) | 0.082 | 0.056 | 0.024 | 0.204 |

(1) Not Verified by FY 1979-80 Audit

(2) Based on FY 1980-81 Budget and FY 1979-80 Wasteloads and Flows

7.0 Domestic User Charges

This report has established that domestic rates for FY 1979-80 were lower than required to meet the domestic share of the obligation outlined herein. The following table is provided to show trends of the domestic rate structure:

Table 7-A

Charges to Domestic Users

| <u>Cost Parameter</u> | <u>Flow 100 Cu. Ft.</u> | <u>Cost Allo- cated to Domestic</u> | <u>Actual Unit Costs (Per CCF)</u> | <u>Adopted Rate (Per CCF)</u> |
|----------------------------------|-----------------------------|---|--|---------------------------------------|
| <u>FY 1975-76 (Actual)</u> | | | | |
| Q (Total) | 3,650,000 | \$ 1,095,352 | \$ 0.299 | \$ 0.320 |
| <u>FY 1976-77 (Actual)</u> | | | | |
| Q (Total) | 3,573,020 | \$ 1,199,699 | \$ 0.336 | \$ 0.320 |
| <u>FY 1977-78 (Actual)</u> | | | | |
| Q | 3,675,819 | \$ 549,572 | | |
| BOD | | 219,230 | | |
| SS | | 251,399 | | |
| Customers | | 150,020 | \$ 0.318 | \$ 0.320 |
| Total | | \$ 1,170,221 | | |
| <u>FY 1978-79 (Actual)</u> | | | | |
| Q | 4,013,240 | \$ 554,863 | | |
| BOD | | 225,467 | | |
| SS | | 242,365 | | |
| Customers | | 152,414 | \$ 0.293 | \$ 0.320 |
| Total | | \$ 1,175,109 | | |
| <u>(1) FY 1979-80 (Actual)</u> | | | | |
| Q | 4,009,922 | \$ 613,993 | | |
| BOD | | 287,319 | | |
| SS | | 270,209 | | |
| Customers | | 165,398 | | |
| Total | | \$ 1,336,919 | \$ 0.333 | \$ 0.320 |
| <u>(2) FY 1980-81 (Estimate)</u> | | | | |
| Q | 4,009,922 | \$ 643,433 | | |
| BOD | | 315,622 | | |
| SS | | 291,747 | | |
| Customers | | 192,449 | | |
| Total | | \$ 1,443,251 | \$ 0.356 | \$ 0.320 |

(1) Not Verified by FY 1979-80 Audit

(2) Based on FY 1980-81 Budget - Allocated to User Groups at Same Ratio as Actuals for FY 1979-80

8.0 Recommendations

This report has shown that the FY 1978-79 adopted rates for industry produced approximately \$53,000 more than the calculated actual amount required to cover the industry share of the costs. This can be attributed basically to three factors as follows:

- 1) The O & M Budget was underrun by approximately \$65,000;
- 2) The total flow at the plant was approximately 11% higher than the previous year, most of which was infiltration or non-billable flows; and
- 3) The total BOD and SS (waste strength) was up significantly at the plant but there was no significant change to the total industry related strength.

This report also considered industry rates for FY 1980-81 based on the current adopted budget and assuming no change in the average annual flow and wasteloads from the previous fiscal year. The proposed industrial rates for FY 1980-81, which should be made retro-active to July 1, 1980 for bookkeeping purposes, are as follows:

| | |
|----------|--------------|
| Quantity | \$ 0.082/CCF |
| BOD | \$ 0.056/lb. |
| SS | \$ 0.024/lb. |

This report also recommends that appropriate adjustments be made to the industry charges for FY 1979-80 after the figures are verified and/or adjusted by the annual audit report. The adjustments should be applied over appropriate billing periods in FY 1980-81

Supplemental Data
to
Industrial User Charge Analysis - FY 1979-80

Industrial Rate - Allocation to Cost Centers

| | Annual Cost | Unit Costs | | | | |
|---|-------------|-------------|---------------|--------------|-----------------|--------|
| | | Q \$/CCF | BOD \$/lb. | SS \$/lb. | Total \$/CCF | |
| <u>FY 1979-80 (Actual)</u> | | | | | | |
| Operation & Maintenance | \$ 155,973 | \$ 0.0230 | \$ 0.0273 | \$ 0.0081 | \$ 0.0802 | 42% |
| Industrial Waste Monitoring | 76,558 | 0.0154 | 0.0106 | 0.0057 | 0.0394 | 21% |
| Debt Service | 80,998 | 0.0223 | 0.0088 | 0.0041 | 0.0416 | 22% |
| Debt Service Coverage & Scheduled Capital Imp. | 54,444 | 0.0171 | 0.0043 | 0.0041 | 0.0280 | 15% |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| Total | \$ 367,973 | \$ 0.0778 | \$ 0.0510 | \$ 0.0220 | \$ 0.1892 | 100% |
| <u>FY 1980-81 (Estimate)</u> | | | | | | |
| Operation & Maintenance | \$ 178,929 | \$ 0.026 | \$ 0.031 | \$ 0.009 | \$ 0.092 | \$ 45% |
| Industrial Waste Monitoring | 83,500 | 0.017 | 0.012 | 0.006 | 0.043 | 21% |
| Debt Service | 80,212 | 0.022 | 0.009 | 0.004 | 0.041 | 20% |
| Debt Service Coverage & Scheduled Capital Imp. | 54,443 | 0.017 | 0.004 | 0.005 | 0.028 | 14% |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| Total | \$ 397,084 | \$ 0.082 | \$ 0.056 | \$ 0.024 | \$ 0.204 | 100% |