05/21/98 clerk

Introduced By: Larry Phillips
Greg Nickels

Proposed No.: **98-332**

ORDINANCE NO. 13227

AN ORDINANCE determining the monetary requirements for the disposal of sewage for the fiscal year beginning January 1, 1999 and ending December 31, 1999; setting the sewer rate for the fiscal year beginning January 1, 1999 and ending December 31, 1999; amending Ordinance 12817, Section 2 and K.C.C. 4.90.010; approving the amount of the sewage treatment capacity charge for 1999, amending Ordinance 11398 and K.C.C. 28.84.055.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Monetary requirements for the disposal of sewage; establishment of the sewer rate for the fiscal year beginning January 1, 1999 and ending December 31, 1999. The council hereby determines the monetary requirements for the disposal of sewage as follows:

Administration, operating, maintenance repair and replace (net of other income); $64,980,000.

Establishment and maintenance of necessary working capital reserves: $1,248,210.

Requirements of revenue bond resolutions (not included in above items and net of interest income): $91,215,000.

TOTAL: $157,443,210.

SECTION 2. Ordinance No. 12353, Section 2, as amended and K.C.C. 4.90.010 are each hereby amended to read as follows:

A. Having determined the monetary requirements for the disposal of sewage, the council also hereby adopts a 199((~~8~~))9 sewer rate of $19.10. ((~~Prior to July 1, 1996, a copy of Ordinance 12817 shall be delivered to each agency having an agreement for sewage disposal with King County.~~))

SECTION 3. Ordinance 11398, Section 1 and K.C.C. 28.84.055 is each hereby amended as follows:

A. ((~~ESTABLISHING THE 1994 METROPOLITAN SEWAGE FACILITY CAPACITY CHARGE.~~)) The amount of the 1994 metropolitan sewage facility capacity charge ((~~adopted by ordinance 11034, Section 5, part O~~)) adopted by K.C.C. 28.84.050.O shall be $7.00 per month per residential customer or residential customer equivalent for ((~~15~~)) fifteen years.

B. ((~~ESTABLISHING THE 1995 METROPOLITAN SEWAGE FACILITY CAPACITY CHARGE.~~)) The amount of the 1995 metropolitan sewage facility capacity charge ((~~adopted by ordinance 11034, Section 5, part O~~)) adopted by K.C.C. 28.84.050.O shall be $7.00 per month per residential customer or residential customer equivalent for ((~~15~~))fifteen years.

C. ((~~APPROVAL OF AMOUNT OF SEWAGE TREATMENT CAPACITY CHARGE FOR 1996.~~)) The sewage treatment capacity charge shall be seven dollars ($7.00) per month per residential customer or equivalent for fifteen years for sewer connections occurring between and including January 1, 1996 and December 31, 1996.

D. ((~~APPROVAL OF AMOUNT OF SEWAGE TREATMENT CAPACITY CHARGE FOR 1997.~~)) The amount of the sewage treatment capacity charge ((~~established by Ordinance 11034, Section 5, part O~~)) adopted by K.C.C. 28.84.050.O shall be seven dollars ($7.00) per month per residential customer or equivalent for fifteen years for sewer connections occurring between and including January 1, 1997 and December 31, 1997.

E. ((~~APPROVAL OF AMOUNT OF SEWAGE TREATMENT CAPACITY CHARGE FOR 1998.~~)) The amount of the sewage treatment capacity charge ((~~established by Ordinance 11034, Section 5, part O~~)) adopted by K.C.C. 28.84.050.O shall be $10.50 per month per residential customer or equivalent for fifteen years for sewer connections occurring between and including January 1, 1998 and December 31, 1998.

F. The amount of the sewage treatment capacity charge adopted by K.C.C. 28.84.050.O shall be $10.50 per month per residential customer or equivalent for fifteen years for sewer connections occurring between and including January 1, 1999 and December 31, 1999.

INTRODUCED AND READ for the first time this 26th day of May, 1998.

PASSED by a vote of 12 to 0 this 22nd day of June, 19 98.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Louise Miller
Chair

ATTEST:

Edna Francis
Deputy Clerk of the Council

APPROVED this 30 day of June, 19 98

Gerald C. Sims
King County Executive

Attachments:
A: Water Quality Fund 1998-2003 Financial Forecast June, 1998
B: King County's Sewage Treatment Capacity Charge:1996 to 2000

ATTACHMENT A

KING COUNTY
Department of Natural Resources

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King County
Department of Natural Resources
Wastewater Treatment Division

Water Quality Fund

1998 - 2003 Financial Forecast June, 1998

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WATER QUALITY FUND
1998-2003 FINANCIAL FORECAST

KING COUNTY
Department of Natural Resources
Wastewater Treatment Division

INTRODUCTION

This document presents a multiyear financial plan and cash flow forecast for the period from 1998 through 2003 as required by the Water Quality Program Financial Policies. It is intended that this Forecast will be used by the Metropolitan King County Council (the Council) as the basis for policy decisions including the setting of the 1999 sewer rate and the preparation of the annual budget.

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Submitted by:

Ron Sims	King County Executive

Prepared by the following:

Pam Bissonnette	Director, Department of Natural Resources
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1999 Sewer Rate Proposal

The King County Wastewater Treatment program continues to maintain a monthly sewer rate of $19.10 per residential customer equivalent (RCE) for the fourth consecutive year ending in 1999. Current projections indicate the need for a rate increase beginning in the year 2000, when expenditures needed to implement the Regional Wastewater Services Plan (RWSP) will increase both the capital and operating expenses.

Focusing on 1999, it is possible to lower the sewer rate to $18.75, utilizing the 1996 Rate Normalization Reserve balance, 1997 operating and capital underexpenditures, and savings generated by the 1997 cancellation of the West Point solids handling contract. The use of the 1997 reserve fund balance contributes towards the decision to eliminate a previously planned $75 million bond issue in 1998. To minimize rate impacts of implementing the RWSP over the next several years, a a sewer rate of $19.54 is projected for 2000, which is $1.03 lower when compared to the prior year's forecast and will likely be followed by another modest rate hike for 2001 based on current projections.

In April, 1998, the King County Executive's recommended service strategy for the RWSP was presented. The RWSP will become the next phase of the Comprehensive Plan and is designed to meet the region's projected wastewater treatment capacity needs through 2030 while complying with regulatory mandates. The financial projections in this rate forecast are based upon the Executive's recommendation and result in capital expenditure increases with long-term borrowing needs starting in 2000.

Basis for Rate Proposal

Four factors contribute to the program's ability to maintain the sewer rate at $19.10 for 1999. These include:

1. Rate Normalization Reserve

The reserve was established in setting the 1997 King County Sewer Rate in June 1996 with the purpose of achieving rate stability on a multiple-year basis beginning with the 1998 Sewer Rate. This forecast assumes the use of the reserve balance to achieve a 19.10 rate for 1999, instead of relying on long-term borrowing to achieve this objective.

The reserve captures year-end fund balances in excess of the $5 million target and also allows the Executive to provide rate stability during 1996-1999, with a modest 2% rate increase projected for 2000. The reserve balance resulting from the 1997 program year is $30.7 million ($15.5 million through 1996 and $15.2 million for the year ended 1997) which is dedicated to the funding of capital expenditures in 1998.

2. 1997 Operating Results

The results of the 1997 operating program include a $4.3 million fund balance, of which $3.7 million results from the mid-year contract termination for solids handling at the West Point Treatment plant. The 1998 budget reflects savings of $3.9 million associated with the contract termination.

3. 1997 Capital Program Results and Reduced Capital Expenditures

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Capital expenditures during the 6-year period from 1998 through 2003 are projected to be substantially lower than shown in the 1997-2002 Financial Forecast (See discussion on pages 8-9 under CAPITAL PROGRAM.). Two major factors behind this decline in projected capital spending are (1) revised project spending plans, and, (2) the use of an 85% capital accomplishment rate assumption for rate-setting purposes for the years 1999-2003.

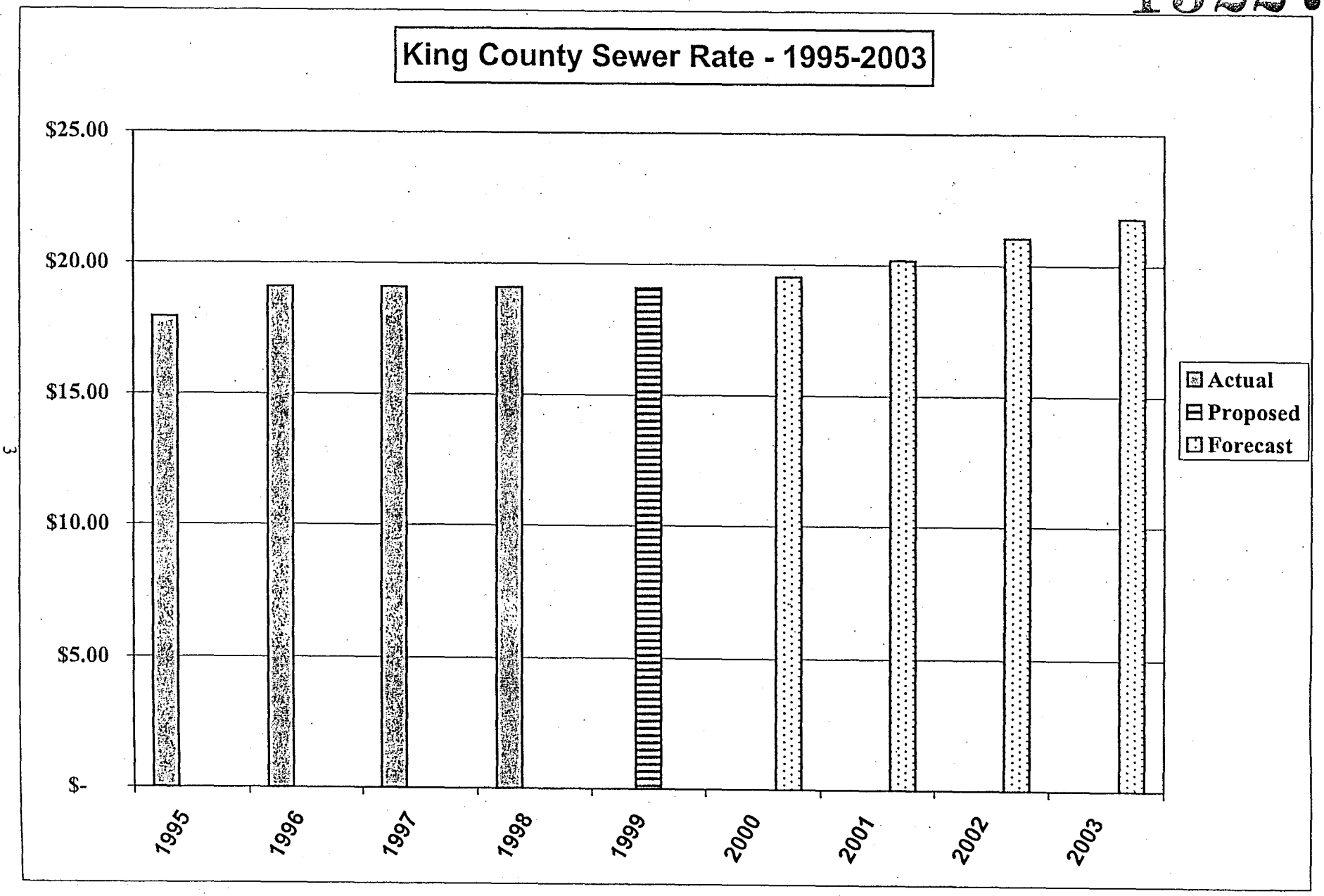
4. Projected Short-term and Long-term Borrowing

The ability to use the balance of the Rate Normalization Fund balance for 1998 capital expenditures avoids planned long-term borrowings of $75 million in 1998, and short-term borrowings of $30 million in 1999. Current projections replace these with long-term borrowing in 1999 in the amount of $56 million.

Future Rates

The projected sewer rates for the balance of the Forecast period are shown in the chart below. It shows that the expected increase in rates between 2001-2003 will be $1.59. The prior year's forecast identified a rate increase of $2.59 for the period 2000-2002.

It must be noted that the need for these projected increases beginning in 2000 is based on the assumed ramp-up of the capital expenditures associated with the system configuration selected under the RWSP. Any lowering or delay of such costs would act to moderate the rates needed for the period 2000-2003. These increases could also be mitigated if financial markets allow the additional refunding of the system's existing debt at lower interest rates.


King County Sewer Rate - 1995-2003
$25.00
$20.00
$15.00
$10.00
$5.00
$-
1995
1996
1997
1998
1999
2000
2001
2002
2003
Actual
Proposed
Forecast

(000 omitted)

OPERATING FUND	1997 Actuals	1998 Proposed	1999	2000	2001	2002	2003
CUSTOMER EQUIVALENTS	678.5	687.9	694.8	703.0	711.4	719.8	728.4
DEBT SERVICE COVERAGE RATIO	1.48	1.40	1.29	1.25	1.25	1.25	1.25
RATE	$ 19.10	$ 19.10	$ 19.10	$ 19.54	$ 20.19	$ 21.05	$ 21.79
BEGINNING OPERATING FUND	2,899	3,347	3,417	3,675	4,026	4,217	4,349
OPERATING REVENUE:							
Customer Charges	155,517	157,662	159,237	164,874	172,391	181,868	190,453
Investment Income	10,096	5,432	6,015	6,348	6,989	8,104	8,064
Capacity Charge	5,794	7,249	8,209	9,554	10,821	12,143	13,481
Other Income	8,974	8,293	7,328	8,094	8,049	7,468	7,692
TOTAL BASE REVENUES	180,381	178,636	180,790	188,870	198,249	209,583	219,690
OPERATING EXPENSE	(68,332)	(73,485)	(80,517)	(84,327)	(86,976)	(88,893)	(91,544)
DEBT SERVICE REQUIREMENT	(84,824)	(84,038)	(86,485)	(93,397)	(100,054)	(107,591)	(113,719)
TRANSFER TO CAPITAL	(26,777)	(21,044)	(13,531)	(10,794)	(11,029)	(12,967)	(14,331)
TOTAL BASE EXPENDITURES	(179,933)	(178,566)	(180,532)	(188,518)	(198,059)	(209,450)	(219,595)
ENDING BASE FUND BALANCE	3,347	3,417	3,675	4,026	4,217	4,349	4,445
OPERATING BOND RESERVE	3,347	3,417	3,675	4,026	4,217	4,349	4,445
ENDING UNDESIGNATED BALANCE	-	-	-	-	-	-	-

CONSTRUCTION FUND

BEGINNING FUND BALANCE	122,403	103,340	71,067	70,323	74,964	80,660	88,090
REVENUES:							
Bond Proceeds	-	-	56,000	66,293	77,924	105,018	85,123
Short Term Borrowing (net)	35,000	-	-	25,000	30,000	-	4,256
Grants	18,066	30,359	18,573	23,905	23,182	22,982	21,761
Other	6,998	6,922	3,055	3,165	2,859	2,122	2,185
Transfer From Operating Fund	26,777	21,044	13,531	10,794	11,029	12,967	14,331
TOTAL BASE REVENUES	86,840	58,325	91,159	129,157	144,994	143,088	127,657
Capital Expenditure	(104,162)	(85,026)	(91,016)	(123,311)	(137,850)	(133,833)	(120,068)
Other (Issuance & Bond Reserve Transactions)	(1,741)	(5,572)	(887)	(1,205)	(1,448)	(1,825)	(6,787)
TOTAL BASE EXPENDITURES	(105,903)	(90,598)	(91,903)	(124,516)	(139,298)	(135,658)	(126,855)
ENDING FUND BALANCE	103,340	71,067	70,323	74,964	80,660	88,090	88,893
Rate Normalization Reserve	30,677	1,180	-	-	-	-	-
Other Construction Fund Reserves	67,663	64,887	65,120	69,938	75,573	83,092	83,901
TOTAL RESERVES & DESIGNATIONS	98,340	66,067	65,120	69,938	75,573	83,092	83,901
ENDING UNDESIGNATED BALANCE	5,000	5,000	5,203	5,026	5,086	4,998	4,992

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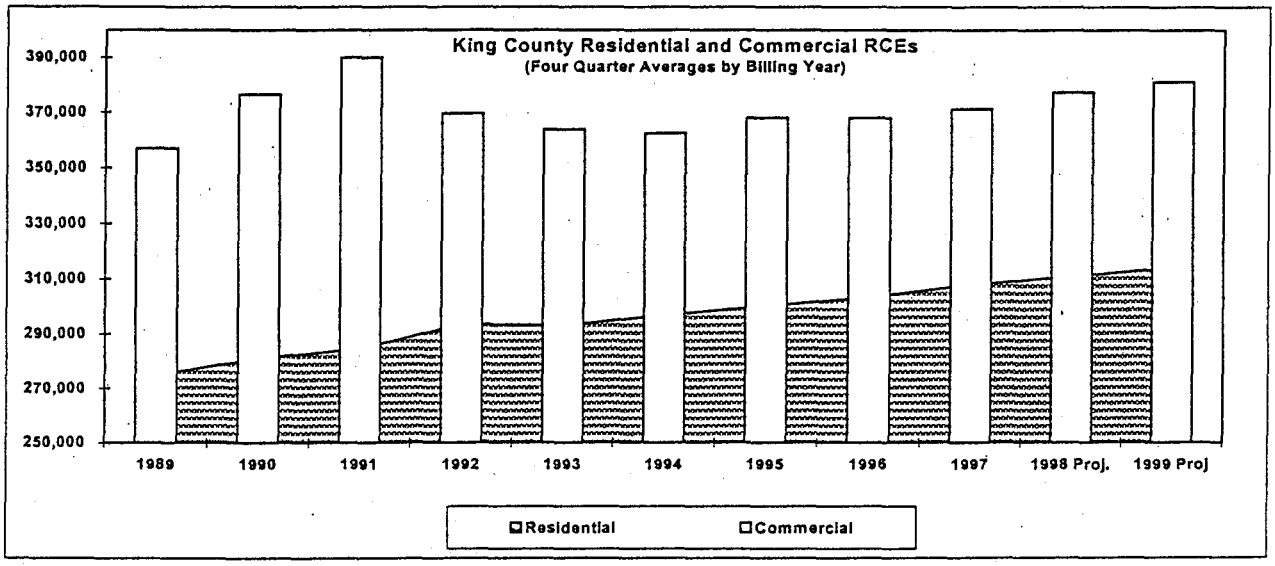
Residential Customers and Residential Customer Equivalents (RCEs)

Sewer system billings to the Component Agencies are based on the number of single-family households (residential customers) and on the water consumption of other users such as factories, offices, and apartment complexes (commercial customers). Water consumption for commercial customers is converted to residential customer equivalents (RCEs) using the value of 750 cubic feet and then averaged over four quarters. Each 750 cubic feet unit of water consumption therefore comprises one RCE.

While the number of residential customers typically exhibits steady growth, the RCEs actually declined during the period 1992-1994 (see chart). Although it is difficult to measure each factor's contribution, the decline in RCEs was attributable to a combination of drought conditions, reduced activity levels at many local companies especially those that are relatively heavy water users, and the continuing introduction of cost-saving water conservation devices.



Another factor that may have contributed to the decline was a change made in Metro's billing methodology in 1993 that effectively shifted more of the system costs to these large users from households (the previous 900 cubic feet standard used for residential equivalency was revised to the current 750 cubic feet standard described above).

Several factors suggest that the customer base will continue to grow steadily during the rate forecast period. Based on projections of regional economic growth over the next few years, RCEs are expected to grow at about 1.0% annually for 1999 through 2003. While there is not a strong correlation between regional population growth and RCEs, economists project the region's population growth to be 2.2% and 2.0% respectively in 1998 and 1999. Overall projections of single family and multi-family building permits are projected to decline between 1998 and 1999. In addition, snow-packs are projected to be normal, minimizing the likelihood of drought conditions and water rationing, and therefore not expected to be an issue for revised RCE projections therefore for 1999. The 1997 year-end sewer revenue results were 0.7% over the published 1997-2002 Forecast, which is consistent with recent years' modest and positive revenue variances.

Based on these assumptions, total residential customers and RCEs of 687,876 and 694,754 are projected for 1998 and 1999, respectively. This compares to the estimates of 678,750 and 685,540 in the 1998 Financial Forecast for these years respectively.

Capital Grants

In 1998, the Wastewater Treatment Division received an Environmental Protection Agency (EPA) grant for the "1 MW Molten Carbonate Fuel Cell Power Plant Demonstration Project". EPA has appropriated $2.5 million for the first year appropriation and this will continue annually over a six-year period. The overall project budget is $17.7 million, with federal funding estimated to be $12 million.

No other significant new capital grants beyond those already identified in the 1998 Budget appropriation are anticipated during the Forecast period. By the same token, however, the Forecast does not incorporate the possibility that certain grant receipts may be jeopardized as a result of recent audit findings associated with the Ft. Lawton Tunnel project.

PLANNING ASSUMPTIONS: EXPENSES

Inflation

This Financial Forecast includes an assumed annual inflation rate, as measured by the Consumer Price Index (CPI), of 3.0%.

This inflation rate is used as the basis for cost-of-living (COLAs) adjustments of 2.8 % or 90 % of CPI and for adjusting the costs of all non-salary line items identified in the 1998 Budget that do not warrant separate price projections by 2.5%. Beyond 1999, other sources of operating expenses are also assumed to increase broadly in line with this inflation rate.

Salaries

Salary expense is assumed to increase in line with inflation and as adjusted for labor contract provisions. Under existing pay practices, this would be sufficient to cover COLAs, which are calculated as 90% of appropriate year-over-year inflation measures, as well as merit and longevity increases.

Medical and Other Benefits

Using preliminary planning assumptions provided by the King County Office of Budget and Strategic Planning, the Forecast assumes the continuation of the historical pattern of increasing medical benefit costs. It is expected that the 1999 medical benefit costs will increase by about 10.4 % over 1998 levels. In addition, a 10% increase in Industrial Insurance is expected in 1999.

Electricity

Projections of electricity rates for 1998 and 1999 were based on forecast kilowatt consumption for the system and expected rates from Seattle City Light and Puget Sound Energy (PSE). Seattle City Light rates are expected to remain stable between 1998 and 1999, while the rate reductions negotiated with PSE in November 1996 are expected to result in a significant rate reduction in 1999. In addition, 1998 is the final year of a $1.8 million conservation grant from PSE.

Chemicals

Chemical costs are formally reviewed and revised every 6 months for both price and volume variances, and adjusted accordingly. The net effect of adjustments and projected 1999 requirements result in a overall 4.0% increase when comparing the 1998 and 1999 Forecasts. A portion of this increase is attributable to a 5 % rise in projected flows through the system in 1999.

OPERATING PROGRAM

Expenses in 1999 are projected at $80.5 million compared to the prior year's forecast of $76.7 million. The majority of the increases in projected costs for 1999 are described below:

1999 Operating costs – Projected Increases:

(1) Moving costs associated with relocating 288 employees and 3 months of operating, maintenance, and lease costs totalled $566,000;
(2) Wastewater's share of the County's Financial Replacement Project in the amount of $695,000. This was previously identified as a capital expenditure, but a recent accounting pronouncement requires that consultant costs associated with replacement projects be expensed;
(3) Costs associated with a recently negotiated labor contract for $892,000;
(4) Costs associated with Wastewater related projects included as part of the Regional Needs Assessment for $578,000;
(5) Participation in the County's vehicle replacement revolving fund and maintenance program of $343,000. Historically, this was identified as a capital expenditure;
(6) Costs anticipated in developing a Habitat Conservation Plan for the Wastewater Program required by a recent Environmental Protection Agency ruling for the Endangered Species Act of $1,150,000;
(7) Overall, plant processing costs are forecasted for a 11% increase of approximately $1,638,000. Revised processing costs for 1999 tonnage forecasts identify increased dry tons of approximately 8 %, and increased wet tons of approximately 13 %. Wet tonnage forecasts have increased due to changes in solids handling techniques at the West Point plant subsequent to the termination of the solids handling contract. The result is expected to produce a drier product at 25% solids, down from previous forecasts of 28%, and also due to expected impact of flows from the Alki plant. While most Puget Sound Energy rates are reduced which offsets the termination of a 3-year conservation grant. Otherwise, electricity rates have remained stable, usage is expected to increase, and contract costs for grit haul for example, have increased by an unanticipated 34% due to (a) new equipment features that allow increased grit capture and, (b) disposal fee increases;
(8) Salary and wages are expected to increase by $2,750,000 using the assumptions cited on page 6;
(9) Other miscellaneous and unanticipated costs totalling approximately $1.3 million include outfall inspection costs, restoration of the Edmonds Flow Swap program through 1999 to mitigate system issues resulting from severe 1997-8 winter storms, increase in employee bus subsidy, and central King County costs;
(10) Amortization expense associated with the Exchange Building lease in the amount of $1,055,000 will continue through 2001.

Significant Cost Decreases:

(1) The prior year's forecast included $6.5 million for the West Point Treatment Plant's solids handling process, which was operated by a private contractor. This contract was terminated subsequent to the passage of the 1998 sewer rate, in part because it was determined that the process could be operated in-house and accomplished with savings of approximately $3.9 million. In 1997, actual savings totalled $3.7 million;
(2) The expense and revenue portion of the Hazardous Waste Program directly funded by the Public Health Department for $2.8 million has been removed from the Water Quality Fund.

Together, these corrections and adjustments in operating expenses contribute significantly to the program's ability to avoid a sewer rate increase for 1999. Looking further ahead to the last three years of the Forecast period 2001-2003, the operating expenses of the Water Quality program are projected to keep pace with the underlying inflation assumptions and the start up costs associated with the RWSP. This projection therefore reflects an assumption that any significant new program initiatives, other than RWSP related, that are contemplated during this time frame will have to be driven directly by cost reductions or be accommodated by savings and revised workload in other cost areas.

CAPITAL PROGRAM

The 1998-2003 period will focus on completion of the fourth stage Comprehensive Plan projects and commencement of new projects under the Regional Wastewater Services Plan (RWSP). The final RWSP configuration is expected to be determined by the Council during the fourth quarter of 1998. For RWSP financial planning purposes, capital cashflow estimates have been revised from Service Strategy 1 to the Executive's Preferred Plan, Service Strategy 3. The change for the previous forecast period of 1997-2002 is a net reduction of approximately $3.3 million.

Capital expenditures for the forecast period 1998-2003 are reduced by $109 million from the prior year's forecast. The decrease was attributable to several factors: (1) lower than expected actual spending in 1997; (2) lifetime cost reductions in the Alki and North Creek Projects of approximately $15 million; (3) deferred schedules for several of the major capital projects, such as Alki, Renton Enlargement III, and the RWSP. The changes coupled with an assumed accomplishment rate of 85% for 1998-2003 have reduced overall capital forecasts by $140 million.

Accomplishment Rate Assumption

Projected annual capital expenditures have been reduced for rate setting below the level of total forecast capital expenditures for 1998-2003 because the long-term financing assumption identifies that 85% of total forecast expenditures will be spent in 1999-2003. The decision to apply a reduced accomplishment rate assumption of 85 % results from fiscal impacts of bid protests and permit delays which have consistently cause annual capital expenditures to fall short of projections used during the rate setting process. The 85% factor for 1998-2003 is lower than that the assumption used in developing the 1998 Sewer Rate, which utilized an 85 % for the years 1997-1998, with the balance made up during the 2000-2002 time frame.

WASTEWATER TREATMENT DIVISION CAPITAL FINANCIAL PLAN

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($s in Thousands)	Actuals 1987-96	1997 Actual	1998 Plan	1999 Plan	2000 Plan	2001 Plan	2002 Plan	2003 Plan	1999 Forecast Thru 2003	1998 Forecast Thru 2002	Change
Alki Stormweather/Transfer	82,143	13,420	9,468	6,805	2,995	1,094	0	0	115,925	126,000	(10,075)
North Creek Connection	7,909	7,794	10,782	4,790	2,176	2,627	3,319	0	39,396	45,684	(6,288)
Renton Enlargement III	145,550	15,644	11,031	17,651	17,707	12,578	12,575	5,029	237,765	236,113	1,652
University Regulator	16,761	355	193	674	834	783	0	0	19,601	19,405	195
Denny Way CSO	7,225	7,307	8,035	2,293	31,860	31,530	31,530	21,291	141,071	94,206	46,865
Other Secondary/CSO Projects (includes West Point)	674,287	24,978	3,107	1,045	1,617	1,804	1,029	1,029	708,896	705,768	3,128
Capital Assets Management	28,939	11,690	9,044	11,332	8,538	9,499	11,374	12,331	102,747	98,082	4,665
Biosolids Management Plan	8,148	2,001	6,156	1,014	1,068	766	669	536	20,358	17,708	2,650
Facilities Improvements	37,965	12,723	24,034	30,004	22,671	24,197	16,453	8,568	176,615	168,907	7,708
Transmission Improvements	23,104	6,090	12,157	19,133	21,854	23,065	10,334	9,954	125,690	111,887	13,803
South Interceptor	12,141	757	1,662	1,993	10,807	12,887	4,775	515	45,538	45,354	183
RWSP	140	1,403	4,362	10,346	22,944	41,347	65,393	82,003	227,937	149,074	78,863
Total Capital Program	1,044,312	104,162	100,031	107,078	145,072	162,176	157,450	141,257	1,961,538	1,818,189	143,350
Accomplishment Assumptions Note 1			(15,005)	(16,062)	(21,761)	(24,326)	(23,618)	(21,189)			
Total Financial Plan - 1999	1,044,312	104,162	85,026	91,016	123,311	137,850	133,833	120,068			

Note 1 - 85% accomplishment rate for capital spending assumed for 1998-2003

A significant factor behind the program's ability to maintain stable sewer rates through 1999 is the willingness to place somewhat greater reliance on short-term borrowing as a semi-permanent source of financing for the capital program. Beyond 1999, the Forecast assumes that short-term borrowing will be increased incrementally in 2000 and 2001 in line with management's goal of maintaining the ratio of such debt to outstanding long-term obligations in a range of somewhere between 10% and 12%. This target is lower than the 15% limitation proposed in the Water Quality Financial Policies because management also considers it important to reserve some unused short-term borrowing capacity as a safeguard to cover any unforeseen constraints on long-term debt issuance or other funding needs.

The Forecast still projects the need to issue a total of $122 million of long-term (35-year) bonds in 1999 and 2000. Given that the County's non-voted general obligation debt capacity is limited, however, the Financial Forecast assumes renewed reliance on traditional sewer revenue bonds for the long-term debt issues after 1999. The use of LTGO bonds helps reduce sewer rates since the interest costs are between 15 to 25 basis points lower than on traditional sewer revenue bonds and there is no requirement to contribute a portion of the proceeds into a reserve fund.

Interest Rate Assumptions

The interest rates on future long-term LTGO and revenue bond issues are assumed to be 5.8% and 6% respectively. These rates are approximately 50 basis points higher than current market levels, a cushion that is considered prudent for planning purposes to allow for some potential deterioration in financial market conditions. These have been decreased from last year's assumed 6.3% and 6.5%, respectively

The interest cost of commercial paper and other forms of short-term borrowing is assumed to be 4.25% (inclusive of remarketing and liquidity support fees) while the yield on new investments is assumed to average 5.0%.

FINANCING OPTIONS

As noted earlier, the Wastewater program's ability to utilize LTGO bonds has allowed significant savings in debt service costs associated with the funding of the capital program. While already substantially reduced, however, there are still some strategies that could be used to produce a lower sewer rate for 1999 and 2000. Two that are frequently suggested are the further lowering of the assumed accomplishment rate for capital expenditures and the greater use of short-term borrowing. The merits of these options are discussed below.

1. Reduction of Capital Expenditure Accomplishment Rate Assumption

One option would be to further reduce the assumed rate of capital expenditure accomplishment below the 85% rate used as the basis for the current proposal. For example, use of an 80% rate would permit a reduction of another 3 cents in the 1999 monthly sewer rates.

Such a proposal might be supported by the fact that the actual accomplishment rate has averaged just 80% over the past five years and was actually below 70% in 1996. In spite of this recent pattern of increasing under-performance, however, it does not seem prudent to reduce the accomplishment rate assumption below 85% since it seems likely that this recent average will be

exceeded over the next few years. The resolution of various contractor disputes should allow work on the Alki and Renton projects to progress quite rapidly.

2. Use of Additional short-term Financing

Another theoretical option would be to rely even more heavily on short-term debt to fund the capital program. Full utilization of the short-term debt capacity defined in the Water Quality Financial Policies would permit approximately $160 million of such debt by 1999 rather than the proposed $130 million. Issuance of this additional $30 million could lower the 1999 sewer rate by approximately 11 cents.

Management would not endorse such a recommendation, however, because retention of some unused short-term borrowing capacity provides a vital element of financial flexibility in the event that adverse events limit the ability to raise long-term debt or generate additional funding needs. The key reason for preserving such a significant volume of unused short-term debt capacity is that the projections that underpin the Forecast are still subject to a significant degree of uncertainty.

For example, it is estimated that approximately $45 million of additional short-term borrowing would be needed to offset the adverse financial impact of a 1% shortfall in total residential customers and RCEs relative to the level shown in this Forecast. To put this potential need in context, the program faced just such a situation in 1993 when the drop-off in RCEs caused a sharp decline in revenues and forced the issuance of $50 million of Bond Anticipation Notes in lieu of additional parity bonds. Similarly, preservation of some unused short-term borrowing capacity could be especially important if capital expenditures exceed the accomplishment rate assumption used for rate-setting purposes or interest rates rise sharply.

Management therefore believes that it is prudent to retain this flexibility by planning to borrow less than the full 15% limit. In addition, since investment funds on hand during 1999 average approximately $130 million, the rationale for short-term borrowing beyond this level as a tool for asset-liability management appears to weaken.

3. Rate Reduction in 1999

During the review of the rates for 1999, a reduction in the current rate of $19.10 to $18.75 was considered as achievable due to the savings previously mentioned. However, in subsequent years it would be necessary to increase the sewer rate, i.e., the reduction in rates could not be sustained and would result in larger increases in later years. The 1997 balance in the Rate Normalization Reserve provides the opportunity to maintain a multiple-year sewer rate, while lowering the amount of long-term borrowing required to meet the monetary requirements of the capital program during this period,

Appendix A

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Water Quality Program
Financial Goals and Policies

Introduction and Purpose

The mission of the Water Quality Program is to support an improved quality of life by protecting the public health and enhancing the quality of the aquatic environment. This is accomplished through programs that plan, operate and maintain wastewater treatment facilities, manage certain combined sewer overflows (CSO's), provide education and technical assistance regarding action leading to clean water, reduce generation and disposal of hazardous materials into collection systems, manage reuse of wastewater treatment products and provide regional environmental laboratory services. This mission is conducted through the exercise of powers granted by Chapter 35.58 RCW and in conformance with the agreements for sewage transport and treatment between King County and the cities and special purpose districts that it serves. The financial policies for the Water Quality Program provide a policy framework for financial planning of operating and capital programs. The purpose of these policies is to assure long term service integrity and stability by sound and prudent management of the Water Quality Program's financial resources.

Financial Policies

- **Multi-year Planning.** The Water Quality Program will maintain a multi-year financial plan and cash-flow projection of six years or more, estimating service growth, operating expenses, capital requirements, reserves and debt service. The financial plan will be reviewed and adopted by the Council and used as a policy basis for budget and related financial planning.

- **Prudent Budget Standards.** Bond covenants set requirements that ensure a prudent budget standard. Net operating income (operating income minus operating expense) must exceed parity bond debt service requirements by at least 15 percent. The resulting balance on operations is available along with bond proceeds to cover annual capital expenditures. Staff will advise Council if either operating or capital expenditures are expected to exceed adopted levels.

- **Alternative Financial Plan.** If the operations and maintenance component of the proposed annual budget increases by more than a reasonable cost of the addition of new facilities, increased flows, new programs authorized by the Council, and inflation, a feasible alternative spending plan shall be presented, identifying steps to reduce cost growth. An alternative spending plan shall also be available in the event that actual revenues drop below prudent estimates. A program of reviewing business practices for savings and efficiency potential shall be ongoing.

- **Future Claims and Liabilities.** Reserves needed for future liabilities, claims, and replacement will be reported in budget planning.

- **Minimum Fund Balance.** To maintain sufficient funds to meet bond convenants for betterment reserves, requirements for cash flow and potential future liabilities, the water quality program will maintain a minimum cash balance of $5 million each year. This amount may be changed in budget planning and will be included in the annual Sewer Rate Explanation Report.

- **Sewer Rates.** Sewer rates will be set at a level sufficient to meet the following financial policies:

  Debt Service Coverage. Bond covenants require the ratio of net operating income to debt service to be 1. 15. For rate-setting purposes, the policy is to target the ratio at a minimum of 1.25. Budgets will be planned and monitored against this 1.25 standard. This policy assures budgets are planned with a margin of error so that bond covenant agreements are met.

  Emergency Reserves. Bond covenants require three emergency funds. The Operating Reserve is required to have a balance the greater of $300,000 or five percent of total operating and maintenance costs and may be used for operating costs if sufficient revenues are not available. The Contingency Reserve is required to have a minimum balance of $2,000,000 and may be used for emergency repairs or unforeseen capital improvements. The Betterment Reserve is required to have a minimum deposit each year of $750,000 and may be used for emergency repairs, capital improvements in the Comprehensive Water Pollution Abatement Plan, replenishment of other reserves, and payment of outstanding parity bonds. Council approval shall be sought for any use of these funds.

  Maintenance of the System. Revenues will be sufficient to maintain capital assets in sound working condition, providing for maintenance and rehabilitation of facilities at a level intended to minimize total cost while continuing to provide reliable, high quality service and maintain high water quality standards.

  Sewer Bond Covenant Provisions. Covenants contained in Resolution No. 90 and subsequent resolutions authorizing issuance of bonds are hereby affirmed.

- **Capital Funding.** King County will attempt to structure the term of its borrowings to match the expected useful life of the assets to be funded. The water quality capital program will be financed predominately by annual staged issues of long-term general obligation or parity bonds backed by sewer revenues, provided that:

  All available sources of grants are utilized;

  The balance on operations available after reserve requirements are met will be used for the capital program; any excess reserves may also be used for capital;

  Consideration is give to competing demands for use of Wastewater Treatment Division's Overall general obligation debt capacity; and

Consideration is given to the overall level of debt financing that can be sustained over the long term given the size of future capital expenditures, potential impacts, credit ratings, and other relevant factors.

- **Short-term Borrowing.** To achieve a better maturity matching of assets and liabilities, thereby reducing interest rate risk, short-term borrowing will be used to fund a portion of the capital program, provided that:

  Short-term debt outstanding comprises no more than 15 percent of total outstanding parity and general obligation bonds;

  Appropriate liquidity is in place to protect to day-to-day operations of the agency.

- **Sewer Rate Explanation.** A report shall be prepared in support of the proposed annual sewer rates, including the following information:

  Key Assumptions. Key financial assumptions such as inflation, bond interest rates, investment income, size and timing of bond issues, and the considerations underlying the projection of future growth in residential customer equivalents;

  Significant Financial Projections. All key projections, including the annual projection of operating and capital costs, debt service coverage, cash balances, revenue requirements, revenue projections, and a discussion of significant factors that impact the degree of uncertainty associated with the projections; and

  Historical Data. A discussion of consistent over or under projections of costs and revenues from previous recent budgets, and;

  Policy Options. Calculations and/or analyses of the effect of certain policy options on the overall revenue requirement. These options should include alternative capital improvement accomplishment percentages (including a 90 percent, a 95 percent, and a 100 percent accomplishment rate), and that rate shall be selected which most accurately matches historical performance for capital projects and which will not negatively impair the bond rating.

- **Fees and Reimbursement.** Water quality services performed for a fee for other public or private organizations will be reimbursed to recover all direct and indirect costs of the service unless otherwise directed by Council. The Department Director may waive this policy in specific circumstances where recovery of all direct and indirect expenses may interfere in the wastewater program goals or mission.

- **Other Policy Items.**

  1. King County should periodically review the sewage treatment capacity charge to ensure that the true costs of system expansion are reflected in the assessed charge. All reasonable steps should be taken to coordinate fee assessments and accounting with local sewer service providers to reduce redundant program overhead costs.

2. Selective monitoring should be increased for inflow and infiltration system flows of component agencies. While this may not have an immediate financial impact, it could better identify long-term system operating and capital needs, and could aid in the equitable distribution of costs.

3. As a program policy, King County should continue its long standing commitment to research and development funding at least at current functional levels.

4. Expenditures from the Water Quality Program budget on behalf of septic systems shall be conducted only if financially beneficial to sewer ratepayers.

5. King County should attempt to adopt a multi-year sewer rate to provide stable costs to Wastewater Treatment Division customers. If a multi-year rate is established, a rate stabilization reserve account shall be created to ensure that adequate funds are available to sustain the rate through completion of the rate cycle. Funds shall not be removed from this rate stabilization account without prior review of the Regional Water Quality Committee.

6. King County should prepare explicit policies for the setting of customer rates, in consultation with the Regional Water Quality Committee, for adoption into future budget policies by the Metropolitan King County Council.

- **Pricing Policy.** The customers of the Wastewater Treatment Division sewer system shall pay their pro rata share of the cost of the system which serves them. To implement this policy:

  1. A capacity charge is levied against new connections, reconnections, or establishment of a new service. This charge is to pay for the capital cost of excess capacity that has already been built to serve future customers. The charge is currently set at the maximum amount permitted by state law.

  2. Based on an analysis of residential construction patterns, Wastewater Treatment Division currently uses a value of 750 cubic feet per month to convert water consumption of volume-based customers to residential customer equivalents for billing purposes. Wastewater Treatment Division will periodically review the appropriateness of this value to ensure that all accounts pay their fair share of the cost of the sewer system

- **Use of Funds not Directly Related to Sanitary Sewerage Function.** Water quality activities, programs and projects, in addition to those that are functions of sewage treatment, may be eligible for funding assistance from sewer rate revenues as may be recommended by the Regional Water Quality Committee after consideration of criteria and limitations suggested by the Metropolitan Water Pollution Abatement Advisory Committee, and shall be limited to 1.5 percent of the Water Quality Program's annual operating budget. The policy will remain in effect until such time as a financial plan for the Surface Water Regional Needs Assessment is developed.

The calculation of general government overhead to be charged to the wastewater fund shall be based on a methodology that provides for the equitable distribution of overhead costs throughout Metropolitan King County government. Estimated overhead charges shall be calculated in a fair and consistent manner, utilizing a methodology that best matches the estimated cost of the services provided to the actual overhead charge. The overall allocation formula and any subsequent modifications shall be reported to the Regional Water Quality Committee.

The assets of the water quality fund are pledged to be used for the benefit of the sewer system including operating expenses, debt service payments and capital improvements associated therewith. The fund will be fully reimbursed for the costs associated with any use or transfer of such assets for other county government purposes. The Executive will provide reports to the Regional Water Quality Committee pertaining to any significant transfers of assets for other county government purposes in advance of any subsequent to any such transfers.

Approved by Metropolitan King County Council
May 1996
Motion No. 9869

ATTACHMENT B

13227

King County's Sewage Treatment Capacity Charge: 1996 to 2000

Prepared by the Department of Natural Resources
May 21, 1996 and Revised October 7, 1996 and May 9, 1997

Introduction

The audit of King County's sewage treatment capacity charge submitted to the county council January 18, 1996 recommended a detailed review of the assumptions and data used to support the amount of the charge. This recommendation followed an audit finding that some of the original data was either unavailable or outdated. The Water Pollution Control Division (now Wastewater Treatment Division) addressed these audit findings and recommendations as it formulated the basis for the capacity charge for 1996 through 2000. Assumptions and data used as the basis for the charge as proposed for 1997 and 1998 are described in this report. The statute under which the charge is levied requires annual approval of the amount of the charge by the county council.

The facilities with excess capacity

State law that has governed the capacity charge since its inception requires that the charge be based on "the cost of the sewage facilities excess capacity that is necessary to provide sewage treatment for new users to the system". Facilities in the county's Water Pollution Abatement Plan that have been constructed ,or are under construction, that potentially include "excess capacity" as of 1995 have been identified. The list includes 16 projects and is somewhat different than the list of 11 projects identified when the charge was originally formulated in 1990. This report focuses on eight major projects. Documentation of the excess capacity in these eight projects has been established. Excess capacity in these projects justify a charge amount that exceeds what the county is able to charge under state law. These facilities/projects are as follows:

Renton Effluent Transfer System
Renton Expansion III from 72 mgd to 108 mgd
West Point Secondary Treatment Facilities
Redmond Connection
Sunset/Heathfield/Eastgate
South Interceptor
North Creek Connection
Richmond Beach Flow Transfer

Eight additional projects, generally smaller than those above, include some measure of excess capacity but are not included in this analysis.

The methodology

For the eight foregoing facilities wastewater flows were estimated for 1995 and 2000 using the wastewater flow estimates contained in the "existing conditions" report described under Sources. The incremental difference was then identified as the percentage of design capacity of the facility that would be used by customers projected to come "on line" from 1995 to 2000. This percentage applied to the cost of the facility is the cost of the facilities excess capacity necessary to serve customers connecting during this five year period (See Exhibit A). The cost of excess capacity in the foregoing facilities is then totaled and divided by the number of new customers projected from 1995 to 2000 to generate an amount to be compared to the statutory limit.

Estimating the number of new customers

Estimates of new customers can be derived from several sources. One methodology is to compare the actual number of customers in 1995 to estimated residential population and commercial and industrial employment for that same year. The resultant ratio can then be used to project a customer count from population and employment estimates for the year 2000. The difference would then be the estimated number of new customers for that time frame. That methodology, using Puget Sound Regional Council estimates developed from the 1990 census (as refined in 1995), would result in an estimate of 27,000 new customers from 1995 to 2000. This would be slightly higher than the 23,000 projected in the division's financial forecast used for rate forecasting and other financial planning purposes. This latter projection is based largely on historical rates of increase and is intended to be conservative.

The second methodology is to project the next five years from the actual annual number of new customers connected for the last five years. The average number of new customers per year from 1991 to 1995 is 6,588. There is no pattern of year to year increase. The 1991 and 1995 counts of actual new customers are almost identical. Using this average to project customers for the next five years results in an estimate of 33,000 new customers. We believe this is the more appropriate methodology, inasmuch as variations in consumption among existing non-residential customers can affect the calculation when using the first methodology. (Because of this possible variation, the total number of customers and equivalents in the system can actually decrease, even as population increases, which changes the ratio). For capacity charge purposes, the larger number of projected customers is also the more conservative projection.

The cost per customer

The per customer cost of the excess capacity identified in this report for the period 1995 to 2000, using the estimate of 33,000 new customers, is **$2243** (based on actual costs.) If grants are deducted from project costs the number is then **$1737**. The current charge of $7. per month for 15 years produces $1260 over a fifteen year period or **$823** present value. A charge set at the new statutory limit (effective January 1, 1996) of $10.50 per month for 15 years produces $1890 over the fifteen year period or **$1235** present value.

The proposed charge amount of $10.50 per month is justified by the cost of the excess capacity in the eight projects discussed in this paper. The charge as proposed will, depending on whether or not grants are deducted from project costs, recover 55% to 70 % of that cost.

The future

The Regional Wastewater Services Plan will identify additional system improvements that will be necessary to accomodate growth. The limitations in current state law will prevent the county from recovering costs associated with some of those improvements. In recognition of that fact, the council's Regional Water Quality Committee has already recommended that the county seek the necessary changes in state law that will enable local decision makers to more fully recover costs to serve new customers from new customers.

Sources

All flow projections used in this analysis, except for the Redmond Connection, are described in the Regional Wastewater Services Plan document entitled "Wastewater 2020 Plus Existing Conditions" dated August, 1994 and prepared by HDR Engineering, Inc. Flow projections for the Redmond Connection are

described in the "System Predesign Report Task 317 Technical Memorandum (Redmond Connection)" dated July, 1987 and prepared by HNTB, Inc. 1995 flows are interpolated from the 1990 and 2000 flows identified in those reports.

Population and employment forecasts used to project new customers from 1995 to 2000 were provided by the Puget Sound Regional Council in 1991. The forecasts were derived from 1990 census data and Washington State Employment Security Department commercial and industrial employment estimates. The forecasts were revised in 1995.

Exhibits (1)

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EXHIBIT A

Cost of Excess Capacity ($000)

Cost of Projects

Project	Costs Through 1995	Grants Through 1995	Cost Excluding Grants
Renton Expansion III	111,266	22,278	88,988
Renton ETS	195,364	73,710	121,654
West Point Secondary	537,563	100,000	437,563
Redmond Connection	22,308	4,873	17,435
Sunset/Heathfield/Eastgate	13,730	0	13,730
South Interceptor	11,145	0	11,145
North Creek Connection	4,527	0	4,527
Richmond Beach	29,760	9,686	20,074
TOTALS	**925,663**	**210,547**	**715,116**

Cost of Excess Capacity

Project	Percentage of Capacity for Growth 1995-2000	Apportioned Cost	Apportioned Cost Excluding Grants
Renton Expansion III	38.89%	43,271	34,607
Renton ETS	8.47%	16,547	10,304
West Point Secondary	0.90%	4,838	3,938
Redmond Connection	18.90%	4,216	3,295
Sunset/Heathfield/Eastgate	13.02%	1,788	1,788
South Interceptor	15.30%	1,705	1,705
North Creek Connection	11.30%	512	512
Richmond Beach	5.74%	1,174	1,174
TOTALS		**74,051**	**57,323**