

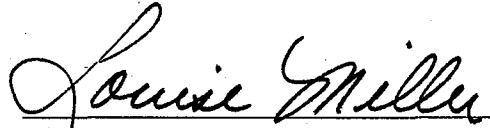
1 APPROVAL OF AMOUNT OF SEWAGE TREATMENT CAPACITY CHARGE FOR
2 1998. The amount of the sewage treatment capacity charge established by Ordinance
3 11034, Section 5, part O shall be \$10.50 per month per residential customer or equivalent
4 for fifteen years for sewer connections occurring between and including January 1, 1998
5 and December 31, 1998.

6 INTRODUCED AND READ for the first time this 1st day of

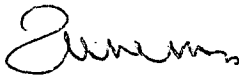
7 December, 1997.

8 PASSED by a vote of 12 to 0 on this 5th day of January, 1998

9 KING COUNTY COUNCIL
10 KING COUNTY, WASHINGTON

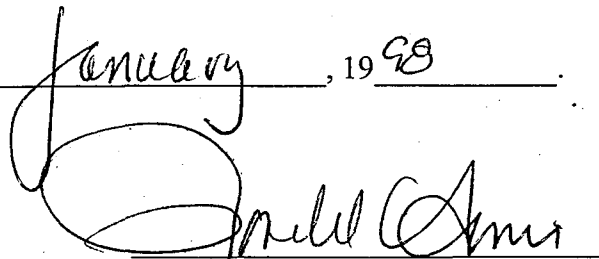
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Chair

18 ATTEST:

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24 Clerk of the Council

27 APPROVED this 15 day of January, 1998

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King County Executive

Attachments: King County's Sewage Treatment Capacity Charge: 1996-2000

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 This recommendation followed an audit finding that some of the original data was either unavailable or outdated.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 accommodate 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

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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)

EXHIBIT A
Cost of Excess Capacity (\$000)

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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