# City of Ashland

# WATER AND SEWER RATE STUDY

January 14, 1994



HILTON FARNKOPF & HOBSON



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Fremont Newport Beach

January 14, 1994

Ms. Jill Turner
Director of Finance
City of Ashland
20 East Main Street/City Hall
Ashland, OR 97520

Subject:

Water and Sewer Rate Study

Dear Ms. Turner:

Hilton Farnkopf & Hobson is pleased to submit this Water and Sewer Rate Study. The report reflects the Council's comments from the work session and the December Council meeting. In particular, we re-evaluated the rankings of the water rate alternatives. Previously, we ranked Alternative III, the seasonal rate alternative, the highest. Based on comments received from the Council and City Manager, we adjusted the ratings somewhat and, as a result, Alternative II, the modified increasing block alternative, is ranked highest. We believe this more accurately reflects the relative importance of each of the six rating criteria. This report also contains an adjustment to sewer rates, which phases in the commercial rate increase.

The scope encompassed by this report is truly comprehensive. Both water and sewer rates have been studied. For both funds, operating and capital costs are projected for the 1994 through 1998 period. The projection for 1994, the upcoming rate year, indicates overall revenue requirement increases of 5 percent and 22 percent for the respective water and sewer funds.

Cost of service analyses were performed to allocate revenue requirements to the residential and non-residential customer classes. Costs were allocated among water customers on the basis of their average and peak water demands and on the basis of meter size, which are the conventional measures of the burdens that water customers place on water systems. By comparison with the City's current practice, this cost of service analysis increased residential revenue requirements by 8 percent and decreased non-residential revenue requirements by 1 percent. In other words, the effect of the cost of service analysis is to allocate the majority of the projected

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revenue requirement increase to residential customers because of the demand characteristics of the customer classes.

Costs were allocated among sewer customers on the basis of estimated volumes of sewage discharges and on the strengths of these discharges. By comparison with the City's current practice, this cost of service analysis increased unadjusted residential revenue requirements by 0 percent and unadjusted non-residential revenue requirements by 76 percent. The cost of service analysis revealed that, under the City's current system of sewer rates and charges, residential customers have been heavily subsidizing non-residential customers. An inter-class adjustment is proposed to phase in the commercial rate increase. This adjustment would increase residential revenue requirements by 15 percent and commercial revenue requirements by 39 percent.

Finally, alternative rate structures were designed to recover the customer class revenue requirements from individual customers. Three alternative water rate structures were studied: the existing increasing block water rates, a modified version of the existing structure, and a seasonal rate structure. The objective was to design alternatives to the existing rate structure that would reward customers who conserve water and deter customers from wasting water. Generally, under the modified and seasonal alternatives, low water using customers will pay less and high water using customers will pay more than they would under the existing rates.

Two alternative sewer rate structures were studied: the existing structure, which is a combination of flat and variable charges (depending on customer class), and an alternative that consists of fixed and variable charges for all customers. The objective was to design an alternative to the existing structure that bases each customer's sewer bill on estimated sewage discharge. Generally, most average residential customers will experience decreases in their bills and non-residential customers will experience increases, which in some cases may be quite significant on a percentage basis.

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It should be noted that the revenue requirement analysis, cost of service allocation, and rate design were modified to transfer multi-family water and sewer customers from the commercial customer class to the residential customer class.

Very truly yours,

W. Farnkoof

HILTON FARNKOPF & HOBSON

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#### **ACKNOWLEDGMENTS**

Hilton Farnkopf & Hobson expresses its gratitude to the City of Ashland's staff and elected officials for their contributions during the preparation of this report. We wish to extend special thanks to the following people:

Brian Almquist, City Manager Jill Turner, Finance Director Steve Hall, Public Works Director Dick Wandersheidt, Conservation Manager

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## CITY OF ASHLAND, OREGON

# WATER AND SEWER RATE STUDY

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PROJECT BACKGROUND
HISTORICAL RATES
RATE-MAKING PROCESS
COMPUTER MODEL AND ASSUMPTIONS

## CHAPTER I. INTRODUCTION

### PROJECT BACKGROUND

Ashland's existing water supplies come from flows in Ashland Creek, water stored in four reservoirs on Ashland Creek (e.g., Reeder Reservoir), and water purchased from the Talent Irrigation District (TID). In the winter months, Ashland Creek provides more than ample water flows for the City's needs. In the summer season, on the other hand, Ashland Creek flows typically subside as a result of dry, warm weather. In addition, water demands dramatically rise in the summer from increased tourism and irrigation demands. Therefore, Ashland must heavily rely on water stored in its reservoirs and from TID purchases during these months. With growing population and water demands, however, Ashland's ability to reliably provide water to its customers from these existing supplies will diminish, particularly toward the end of the irrigation season.

A recent water supply report conducted for Ashland by R.W. Beck and Associates (April 1989) concluded that Ashland would have to construct new water supply facilities by 1998. The report identified water supply options that included building Winburn Dam on Ashland Creek and constructing a pipeline to the Rogue River. Although the cost of these options has not been precisely determined, water from these sources would undoubtedly be much more expensive compared with the current costs of producing water from Ashland's existing supplies.

An alternative way of responding to impending water deficiencies is to use demand management options. Ashland contracted with Synergic Resources Corporation to conduct a water demand-side resource study in 1991 to identify the most promising demand management options. Because of the nature of Ashland's water supply deficiency, water pricing was identified as the most cost-effective alternative. As a result, Ashland contracted with Hilton Farnkopf & Hobson to conduct an independent evaluation of Ashland's water rates and assist in developing water rate structures that promote water conservation.

In addition, Hilton Farnkopf & Hobson was asked to review Ashland's sewer rates. Sewer rates can be part of the price signal transmitted to customers regarding water use. Therefore, there are benefits in looking at both water and sewer rates simultaneously. Ashland is also in the planning stages of upgrading the sewage plant to comply with higher waste water quality discharge standards. The sewer rate analysis assists the City in assessing future increases in sewer rates from this project.

Regarding sewer rates, Ashland's current rate schedule (included in Appendix A) assesses a fixed monthly charge of \$12.30 for each single family and condominium unit and \$9.70 for each multiple family and mobile home/trailer unit. All other users are charged a fixed monthly charge of \$12.30 and a quantity charge of \$1.10/Ccf for all water use exceeding 10 Ccf/month. The outside City rates are 2.0 times inside City rates. The City has encouraged commercial customers to apply for irrigation water meters when irrigation is a significant factor. Water used for irrigation is not returned to the sewer system, and, hence, should not be assessed sewage charges. In some cases where an irrigation meter is not practical and outdoor irrigation is a significant factor, such as with some bed and breakfast customers, the City has entered into special agreements limiting the water assessed the sewer charge. Historical sewer rates for single family units are listed in Exhibit I-2.

Exhibit I-2
Historical Sewer Rates for Single Family Customers

	MONTHLY CHARGE		
EFFECTIVE DATE	\$/Month	% Increase	
June 1982	\$6.95	•	
June 1984	\$7.50	8 %	
June 1989	\$8.00	7 %	
June 1991	\$8.10	1 %	
June 1992	\$9.00	11 %	
January 1993	\$12.30	37 %	

#### RATE-MAKING PROCESS

Calculation of both water and sewer rates consists of three steps. First, the expected future revenue requirements to be collected from rates must be determined. These revenue requirements are then allocated into base and peak functional cost categories. Lastly, the allocated revenue requirements are divided by the expected customer characteristics (i.e., number of accounts or water usage) to obtain rates.

In the water rate analysis, the future prices associated with three alternative rate structures were calculated. All three alternatives have fixed and variable charges. The fixed charges are related to meter size. Alternative I, which corresponds to Ashland's current rate structure, maintains the same relationship between fixed charge and meter size. Alternatives II and III contain service charges that relate the service charge to meter size in proportion to the nominal capacities of meters.



#### COMPUTER MODEL AND ASSUMPTIONS

The rate analyses presented in this study were accomplished using a spreadsheet computer program. The program provides a convenient means for re-calculating rates when certain assumptions change. Ashland staff were very involved with the formulation of the model and provided financial, customer characteristic, and background data. The model has a five-year planning horizon, currently spanning calendar years 1994 to 1998. In future years, the model can be updated with new data to get a new five-year projection.

The model makes two assumptions regarding future growth rates in Ashland. First, the model assumes cost inflation in both the water and sewer enterprises over the next several years will be at an annual 4.0 percent rate. The second assumption regards growth in number of customers served. The model assumes a 1.02 percent annual growth rate as projected by Fregonese and Reid (described in Ashland's Comprehensive Plan), which was also used by Synergic Resources Corporation in their study.

Another set of assumptions concerns financial projections. The model includes the best estimates made by Ashland staff as of October 1993. One large item that will have a significant impact on sewer rates involves the timing and the cost of the upcoming sewage disposal project. Currently, it is assumed that the project will be operational in 1998 and will cost \$23.5 million.

The next two chapters describe the water and sewer rate analyses respectively. The chapters present summary data and focus on policy issues, especially with respect to the design of the rate structures. Appendices B and C contain printouts of the rate models, which document the analysis in greater detail.

REVENUE REQUIREMENTS COST OF SERVICE ALLOCATIONS RATE DESIGN

## CHAPTER II. WATER RATE ANALYSIS

This chapter describes the water rate analysis. The process consists of identifying revenue requirements and customer water use characteristics, allocating revenue requirements into cost categories, and then calculating rates that recover the allocated requirements over the customer characteristics (i.e., number of meters and water use). Three alternative rate structures are presented, including Ashland's existing increasing three-block rate structure, a modified increasing block rate structure, and a seasonal rate structure. All three rate structures have relative advantages. The last two sections in this chapter summarize these advantages and discusses how each rate structure could impact customers.

#### REVENUE REQUIREMENTS

Revenue requirements are the annual costs incurred in providing water service, which are to be recovered through monthly service and quantity charges. Revenue requirements for calendar years 1993 through 1998 are shown in Exhibit II-1. Because Ashland operates on a fiscal year basis starting July 1, calendar year figures are derived by averaging fiscal year estimates.

Revenue requirements equal expenses minus non-rate revenues. Expenses include costs for operations and maintenance, capital outlays/debt service, and transfers to reserve funds. The reserve funds are used for capital improvement projects and for operating reserves. Non-rate revenues, which are estimated to be \$90,000/year over the planning period, are collected from new service installations and other miscellaneous fees. A detailed itemization of costs is shown in Appendix B.

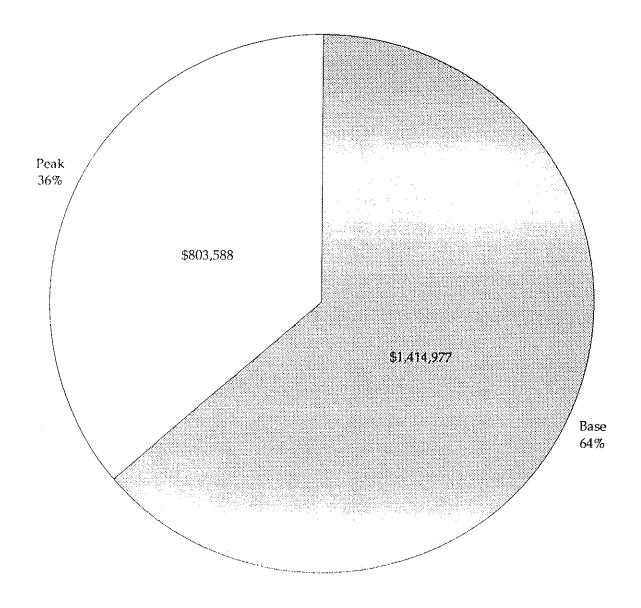
The projections show the need for a 5 percent revenue requirement increase in 1994, followed by even greater increases in 1995 and 1996, with a leveling off thereafter.

#### **COST OF SERVICE ALLOCATIONS**

Annual revenue requirements are divided into base and peak cost categories. Base costs comprise general costs incurred in producing water on an average annual basis, including administrative costs. The cost of service analysis determined that base costs account for 64 percent of revenue requirements. Peak costs, the remaining 36 percent of revenue requirements, pertain to costs related solely to the peak season. They include capacity costs (water system components designed on maximum day or hour criteria) and the costs of the water conservation program. Exhibit II-2 shows the allocation of revenue requirements for 1994.

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Exhibit II-2
Water Fund Revenue Requirement
(1994)



Total \$2,218,565

Exhibit II-3
Water Sales and Accounts

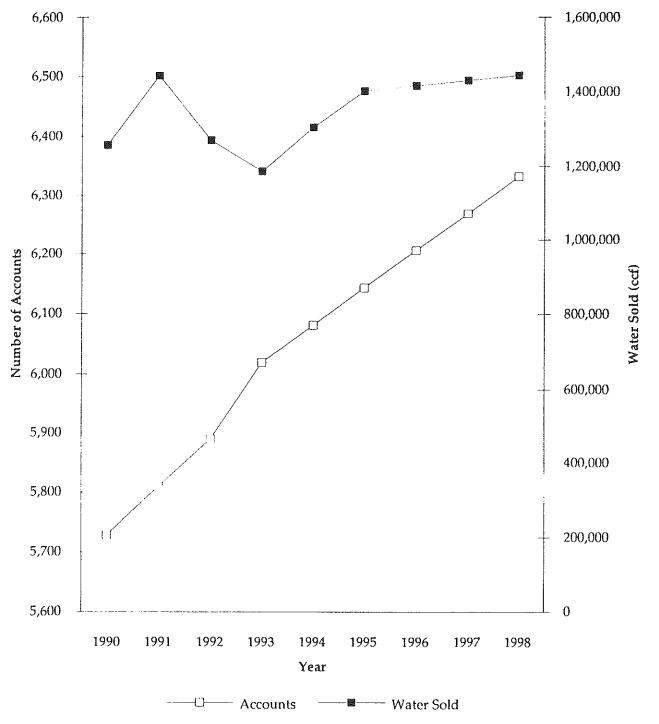
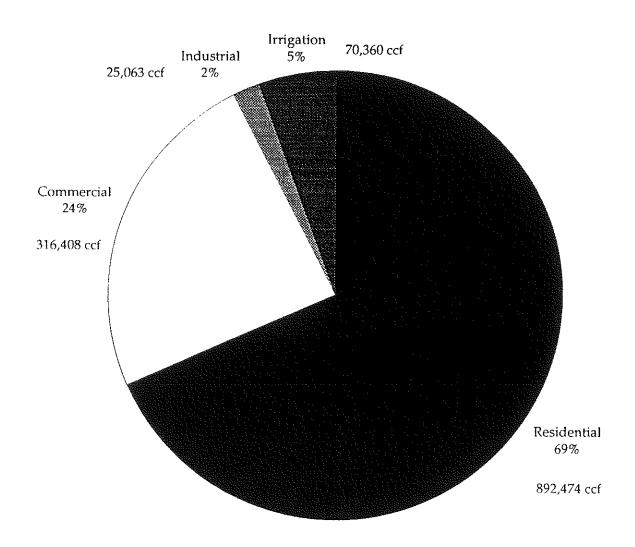


Exhibit II-5
Projected Water Use by Customer Class (1994)



Total 1,304,305 ccf

Exhibit II-7

# Commercial Bill Frequency (September 1992 - August 1993)

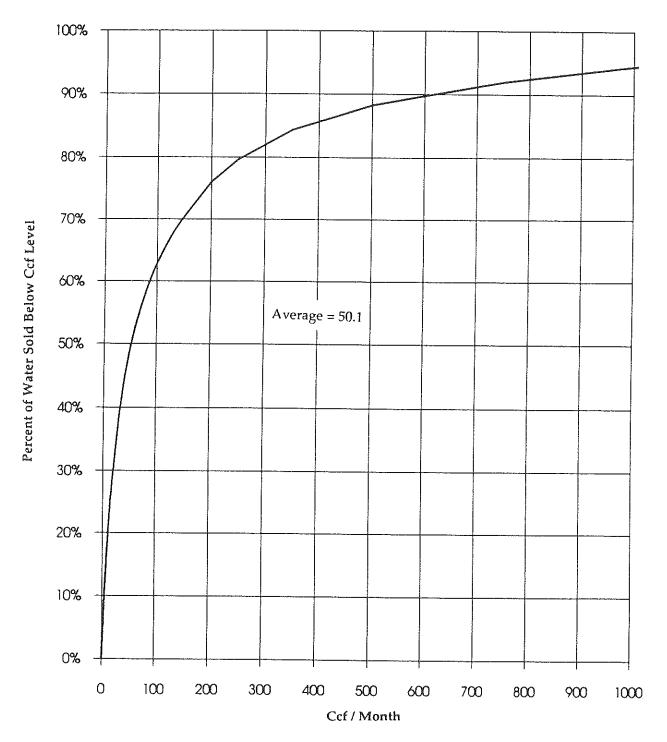


Exhibit II-8

Revenue Requirement Allocated to Customer Classes (1994)

	Rate			
	Revenue			Non-
	Required	Total	Residential	Residential
Base Component	\$1,414,977		\$998,904	\$416,073
Peak Component	\$803,588	-	\$543,342	\$260,246
Subtotal	\$2,218,565		\$1,542,245	\$676,320
Share of revenue requirement		100%	70%	30%
Revenue paid under current rates Share of revenue paid	\$2,110,469	100%	\$1,429,146 68%	\$681,322 32%
Increase compared to current rates	5%		8%	(1%)

Exhibit II-10

Summary of Alternative Rates (1994)

	Alternative I	Alternative II	Alternative III
Monthly Service Charge			* To the territorial and t
3/4"	\$8.73	\$8.30	\$8.30
1"	\$9.46	\$11.20	\$11.20
1.5"	\$11.88	\$15.77	\$15.77
2"	\$12.61	\$20.75	\$20.75
3"	\$25.23	\$41.50	\$41.50
4"	\$35.64	\$66.39	\$66.39
6"	\$61.60	\$124.49	\$124.49
8"	\$83.68	\$207.48	\$207.48
Quantity Charge (per Ccf)			
Residential Consumption			
Up to 36 ccf per month	\$1.11		
37 to 72 ccf per month	\$1.35	<del></del>	
Over 72 ccf per month	\$1.62		
0 to 3 ccf per month		\$1.04	<b>=</b> v-#
4 to 10 ccf per month	~~ n	\$1.16	*******
11 to 25 ccf per month	40-40+ 40	\$1.53	
Over 25 ccf per month	<del></del>	\$1.94	
Winter Season			\$0.79
Summer Season	Armenta	**************************************	\$1.58
Non-Residential Consumption			
Block Size Varies	\$1.11		
by Meter	\$1.35		***
Size	\$1.62	mana up	
0 to 50 ccf per month	ante a	\$1.21	****
Over 50 ccf per month		\$1.25	
Winter Season	remain dar	40 to	\$0.79
Summer Season	~10 d	70.0	\$1.58
			HII TON FARNIKO

Exhibit II-12

Basic Service Charge Multipliers
for Alternatives II and III

Meter Sizes (inches)	Nominal Capacities (gpm)	Capacity Multiplier (EMUs*)	Multiplier Used for 1994 Rates	Multiplier Used in Current Rates
3/4"	10	1.00	1.00	1.00
1"	25	2.50	1.35	1.08
1.5"	50	5.00	1.90	1.36
2"	80	8.00	2.50	1.45
3"	160	16.00	5.00	2.89
4"	250	25.00	8.00	4.08
6"	500	50.00	15.00	7.06
8"	800	80.00	25.00	9.59

To generate 30 percent of the revenue from these meters, the 3/4 inch basic service charge should be \$6.70, which results in basic service charges of as much as \$536.33 for 8 inch meters. These basic service charges have not been recommended because they represent radical departures (percentage-wise) from the existing basic service charges. It is recommended in this report that capacity-based multipliers for the basic service chargers should be phased in. It is recommended that the current 3/4 inch rate of \$8.30 should be maintained and the rates for the larger meters should be partially increased. Over time, the rates for the larger meters can be increased until the full capacity multipliers are reached. For 1994, basic service charges for Alternatives II and III increase from \$8.30/month for a 3/4 inch meter to \$207.48/month for a 8 inch meter in 1994.

<sup>\*</sup> EMUs are equivalent 3/4" meters

Exhibit II-13

Alternative II - Residential Increasing Block Rates
(Single and Multi-Family Residential)

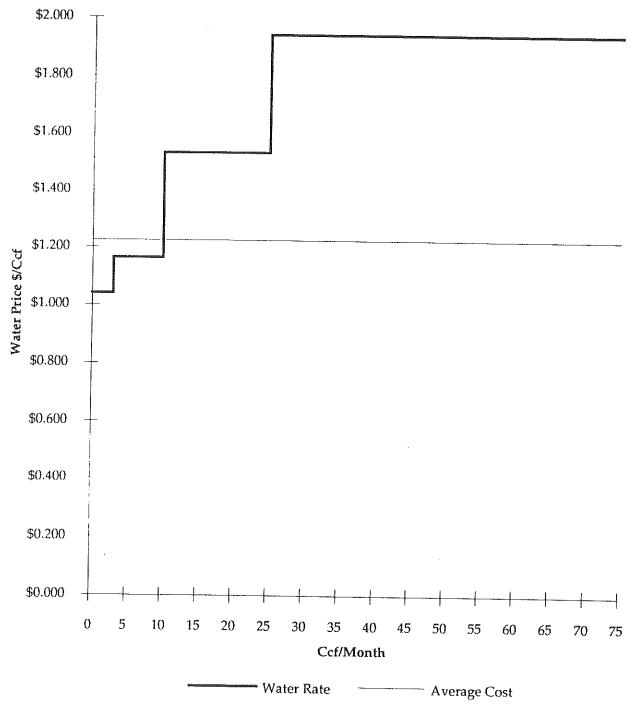


Exhibit II-15

Alternative III - Seasonal Block Rates

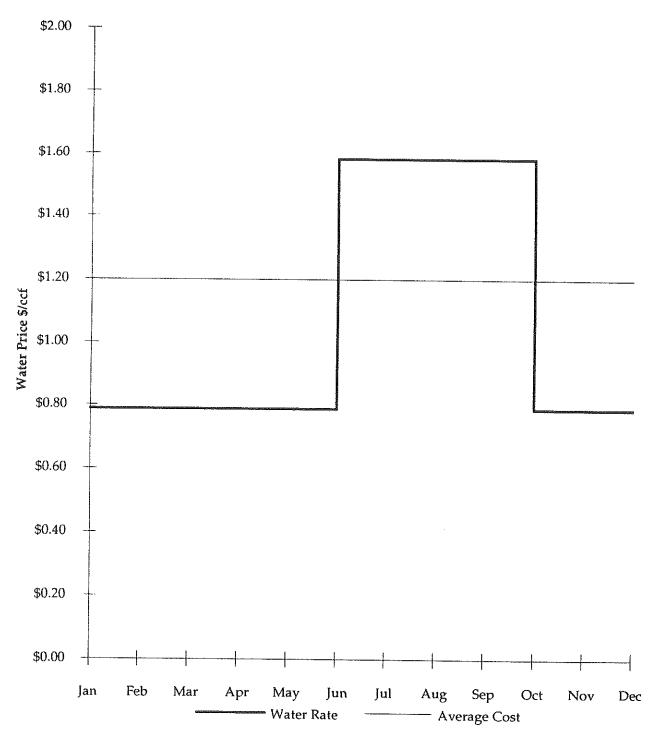


Exhibit II-16

Water Rate Structure Evaluation

Evaluation Criteria	Total Possible Points	Alternative I (Existing increasing blocks)	Alternative II (Modified increasing blocks)	Alternative III (Seasonal uniform)
Revenue Stability	20	15	12	5
Cost of Service Equity	20	10	18	20
• Conservation				
- Residential	15	5	15	12
- Non-residential	15	5	10	13
Customer Understanding	5	4	4	4
Administration	5	4	3	5
• Affordability	20	15	15	10
• Total Points	100	58	77	69

#### **DEFINITION OF RATING CRITERIA**

- Revenue Stability -- The ability to generate sufficient revenues year-to-year in order to meet financial obligations.
- <u>Cost of Service Equity</u> -- The ability to have each customer's bill equal the costs incurred in providing that service.
- <u>Water Conservation</u> -- The ability to efficiently reduce water consumption by discouraging wasteful, low-value uses of water.
- Customer Understanding -- The ability of customers to clearly understand and accept rates.
- Administration -- The ease of administering the rate structure.
- Affordablity -- The ability of low-income customers to purchase waer for essential indoor uses.

each percentage change in price. Price elasticity, although difficult to study in isolation, can be appreciable. Research suggests that, for water rates in the range being proposed in this report, price elasticities of -0.3 and -0.2 for residential and non-residential customers, respectfully, can be expected. This means, for example, a flat 10 per cent increase in residential rates could yield a 3 percent decrease in long-term residential water use. In the short-run, price elasticity should be somewhat less because it takes time for customers to adjust to new price levels and to change water related investments such as landscaping and bathroom fixtures. The rate model assumes that only a third of the long-run price adjustment will occur over a year. Exhibit II-17 shows the estimated long-run reductions in peak season water use resulting from the different pricing alternatives.

Exhibit II-17

Peak Season Long-Run Water Reductions from Pricing Alternatives

CONTRACTOR CONTRACTOR CONTRACTOR AND		Alternative II	The state of the s
	Alternative I	Modified Increasing	Alternative III
Class	Existing Rates	Block Rates	Seasonal Rates
Residential	-0.3 %	-13.0 %	-11.6 %
Non-Residential	-0.2 %	-2.2 %	-7.8 %
Total	-0.3 %	-7.8 %	-9.8 %

Under Alternative I, water rates increase only slightly faster than inflation leading to a very modest -0.3 percent reduction in total water use. Alternative II, where higher block users face higher prices, has residential users reducing 13.0 percent. On the other hand, because the non-residential price differential between the first and second blocks is small, non-residential customers are expected to reduce consumption by only 2.2 percent. Alternative III is the best at the water conservation objective. Single family customers are expected to save 11.6 percent, non-residential customers 7.8 percent, for an overall savings of 9.8 percent.

Customer Understanding. The success of implementing any rate structure depends on customers understanding and accepting rates. If a rate structure is too complicated, for example, customers may find it difficult to rationally respond to price signals. Confusion can lead to a lack of confidence in the equity underlying rates. Therefore, simplicity is advantageous. In this report, all three alternatives are regarded as relatively easy for customers to understand.

Administration. The existing rate structure is administratively appealing because it is the incumbent rate structure. There are no additional administrative duties added. The seasonal rate option would require some programming changes in the

EFF. C

Exhibit II-18

Residential Water Bills

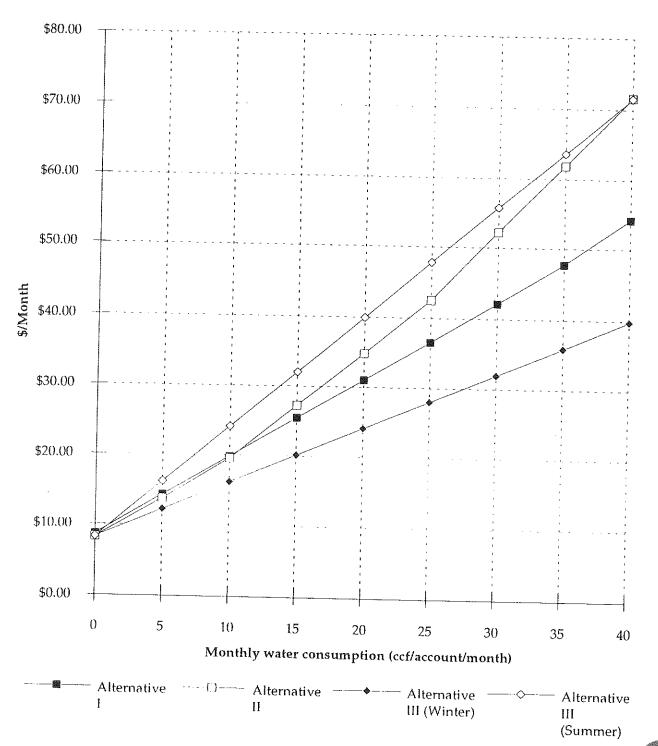


Exhibit II-20
Estimated Average Annual
Non-Residential Customer Bills

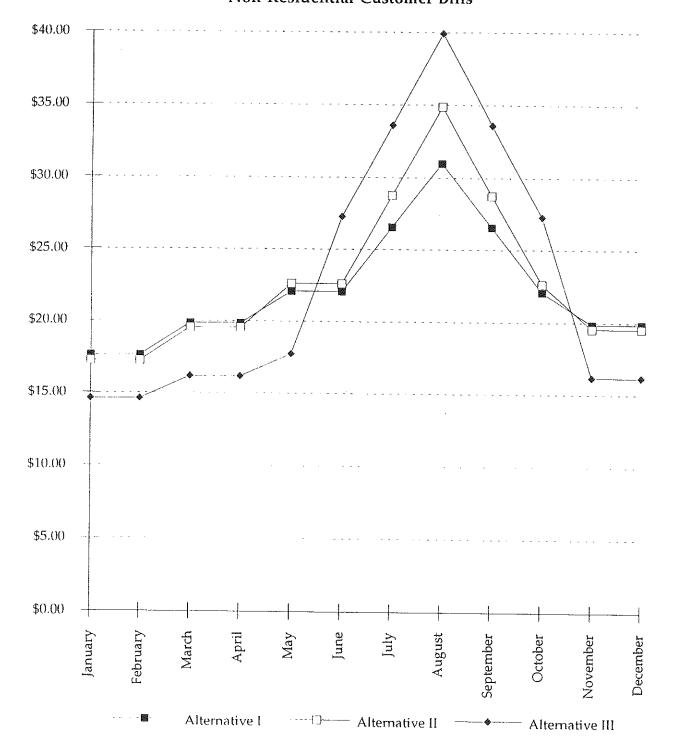
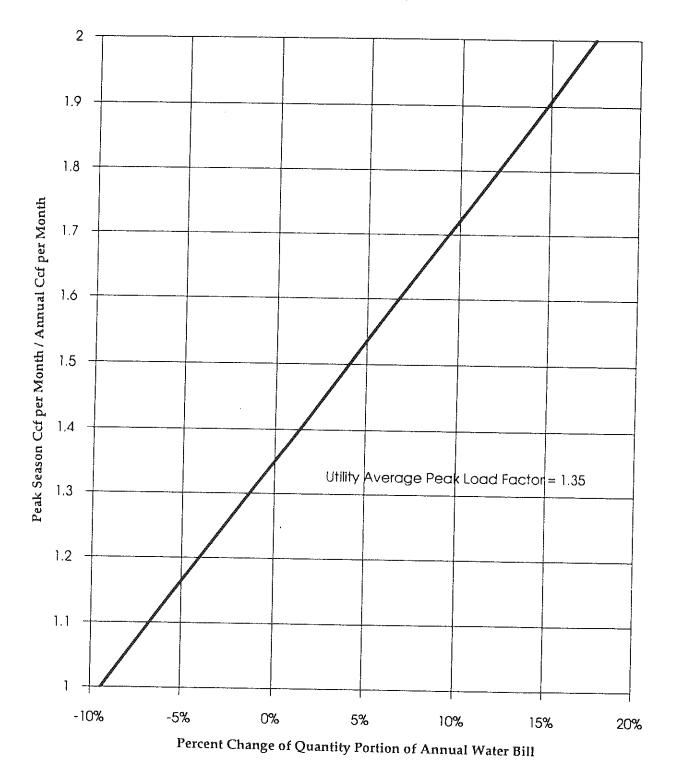


Exhibit II-21
Impact of Seasonal Rates vs.
Peak Load Factor

	Consumption			
	(CCF)	Alt. I	Alt. II	Alt. III
t	4.0			
January	40	\$53.30	\$56.78	\$39.81
February	45	\$58.87	\$62.84	\$43.75
March	45	\$58.87	\$62.84	\$43.75
April	45	\$58.87	\$62.84	\$43.75
May	45	\$58.87	\$62.84	\$43.75
June	55	\$70.01	\$75.17	\$95.26
July	60	\$75.58	\$81.44	\$103.17
August	60	\$75.58	\$81.44	\$103.17
September	60	\$75.58	\$81.44	\$103.17
October	55	\$70.01	\$75.17	\$95.26
November	45	\$58.87	\$62.84	\$43.75
December	45	\$58.87	\$62.84	\$43 <i>.7</i> 5
TOTAL	600	\$773.28	\$828.44	\$802.37
Compared to A	Alternative I		7%	4%

Exhibit II-23

# Impact of Seasonal Rates vs. Peak Load Factor





REVENUE REQUIREMENTS COST OF SERVICE ALLOCATIONS RATE DESIGN

## CHAPTER III. SEWER RATE ANALYSIS

This chapter describes the sewer rate analysis. The general process for calculating sewer rates is similar to the water rate analysis. Annual revenue requirements and customer discharge characteristics are determined, revenue requirements are allocated into cost categories, and rates are calculated to recover the allocated revenue requirements over the customer characteristics (i.e., number of accounts and sewer flow). Some differences, however, exist between developing water and sewer rates. For example, water rates are concerned primarily with water quantity and rates of delivery. Sewer rates, on the other hand, depend both on the quantity and quality of water discharged.

Two alternative sewer rate structures are presented. The first is Ashland's existing rate structure. The second aims at setting user chargers so that they enhance the water conserving price signal sent to customers. This is accomplished by linking each residential customer's sewer bill to average winter water use and by reducing the monthly minimum for commercial customers. As with the water rate structures, each structure has relative advantages. The last section in this chapter summarizes these advantages and discusses how each rate structure could impact customers.

#### REVENUE REQUIREMENTS

Revenue requirements are the annual costs incurred in providing sewer service to customers that are to be recovered through monthly charges. Revenue requirements for the calendar years 1993 through 1998 are shown in Exhibit III-1. Because Ashland operates on a fiscal year basis starting July 1, calendar year figures were estimated by averaging fiscal year estimates.

Revenue requirements equal expenses minus non-rate revenues. Expenses include costs for operations and maintenance, capital outlays/debt service, and transfers to reserve funds. The reserve funds are used for capital improvement projects and for operating reserves. Non-rate revenues are collected from new service connections and other miscellaneous fees. Ashland's Prepared Food and Beverage Tax provides a significant source of non-operating revenue to the Sewer Fund. Revenue from this tax, which was recently upheld by the voters, is collected by commercial sewer customers and is not available to the Water Fund. A more detailed itemization of costs is shown in Appendix C.

The projections indicate the need for significant revenue requirement increases throughout the five-year planning period as a result of the impending sewage treatment/discharge project. These rate increases continue for at least two years more until 2000.

III-1

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#### COST OF SERVICE ALLOCATIONS

Annual revenue requirements are divided into the three cost categories of flow, biological oxygen demand (BOD), and suspended solids (SS). Based on analysis of waste water facility design criteria, 70, 15 and 15 percent of costs are allocated to flow, BOD, and SS, respectively, as shown in Exhibit III-2.

Annual revenue requirements are also divided into residential and non-residential customer classes. Exhibit III-3 shows the sewer flow and strength assumptions and Exhibit III-4 shows the split of the 1994 revenue requirements by class and cost category.

The allocations in Exhibit III-4 show that 59 percent and 41 percent of the revenue requirement is attributable to residential and non-residential customers, respectively. Under current sewer rates, it is estimated that residential customers would pay 72 percent and non-residential customers 28 percent. The cost of service analysis indicates how much the current rates subsidize non-residential customers at the expense of residential customers.

For purposes of calculating rates for Alternative II, it is recommended that an adjustment should be made to these cost of service allocations to avoid rate shock with the non-residential customers. This is justified not only because it is inadvisable to impose rate shock on a customer class but also because the residential customers will experience rate relief from that portion of the Prepared Food and Beverage Tax revenue that is allocated to them. It seems reasonable that non-residential customers should initially receive a greater share of this tax revenue to mitigate rate shock, because it is non-residential customers alone that are burdened with collecting the tax revenue.

Over time, this inter-class subsidy can be phased out until non-residential rates reflect the full cost of service. The manner by which the subsidy could be implemented will be explained in the rate design section of this chapter. The result is that the percentage amount of the non-residential revenue requirement increase is halved to 39 percent and the residential revenue requirement is increased 15 percent. In view of the fact that the overall revenue requirement increase is 22 percent, these adjustments are viewed as reasonable.

#### **Customer Characteristics**

The next step is to project the number of sewer accounts and volume of waste water processed over the five-year planning horizon. The number of sewer accounts for 1994 is projected to be 5,705 (fewer than water accounts because irrigation accounts are not included). Growth in the number of accounts assumes an annual 1.02 per



#### Exhibit III-3

#### **Customer Class Allocation Factors**

- Flow factors are derived from projected annual discharges to plant:
  - Residential (based on annualized average winter-water demand)

63%

Non-residential (based on annual water demand, excluding irrigation accounts)

37%

100%

- BOD factors are derived from strength concentrations multiplied by projected discharges:
  - Residential (185 mg/liter times discharge)

48%

- Non-residential (286 mg/liter times discharge)

\_\_52%

100%

- SS factors are derived from estimated concentrations multiplied by projected discharges:
  - Residential (185 mg/liter times discharge)

53%

- Non-residential (247 mg/liter times discharge)

47%

100%

cent growth rate. The water use estimates and projections presented in Chapter II are used to estimate sewer flows.

The second rate structure alternative requires an analysis of residential winter water use. Winter is defined by metered water consumption in the three months of January through March. The frequency of customers that exceed threshold amounts of water during a billing period in the winter is shown in Exhibit III-5. For example, it was found that 76 percent of water sold was at or under 6 Ccf a month.

#### RATE DESIGN

This section describes the two rate structure alternatives. Exhibit III-6 lists the features and Exhibit III-7 shows the 1994 rates calculated for the two structures. The first alternative is the existing sewer rate structure. The second makes two major adjustments that improve equity and the conservation signal sent to customers.

For residential customers, Alternative II switches from a residential flat rate (independent of flow) to a fixed service charge and a rate dependent on average winter water use. During the winter, when outdoor irrigation is minimal, a customer's water use and sewer flow are closely correlated. Therefore, cost of service equity can be improved by having customers with large sewer flows pay more than customers with small sewer flows.

For non-residential customers, Alternative II also adds a fixed service charge (\$10.00/month in 1994) and eliminates the 10 Ccf/month minimum. Eliminating the minimum assists small users that may use under 10 Ccf in some months. In addition, this rate structure is simpler to understand and is more in line with standard rate-making practices.

Alternative II was adjusted in the following way to phase in the non-residential rates: (1) the non-residential quantity charge was held at the same \$1.34 as in Alternative I, which produced an estimated \$143,000 shortfall; (2) the residential 6 Ccf minimum flow threshold was lowered to 4 Ccf, which means that residential customers pay a quantity charge on 2 Ccf/month more, thereby offsetting the shortfall.

### Rate Structure Comparison

Each of the sewer rate structures has advantages. Exhibit III-8 shows the relative strengths of each with respect to the rate objectives listed in Chapter I. From this evaluation, Alternative II is clearly the preferred structure. A discussion of how each rate structure achieves each rate objective is described below.

## Exhibit III-6

## Sewer Rate Structure Alternatives

Rate Structure	Alternative I (Existing structure)	Alternative II (Discharge based structure)
I. Fixed Monthly Charges		
A. Basic service charges		
1. Flat rate (independent of discharge)		
a. Residential		
- Single family (per account)	Existing	Replaced
- Condominiums (per unit)	Existing	Replaced
- Multi-family, mobile homes (per unit)	Existing	Replaced
b. Commercial (per account)	Existing	Replaced
- Communal sleeping facilities	Existing	Replaced
- Other	Existing	Replaced
2. Service charge (per account or dwelling unit)		New
B. Pumping Charge	Existing	Eliminated
II. Variable Charges		
A. User charge (excluding irrigation accounts)		
1. Uniform charge		
a. Commercial (for monthly water use exceeding 10 hcf)	Existing	Replaced
2. Uniform charge		
a. Single and multi-family residential		New
(for avg winter water use exceeding 6 hcf)		
b. Commercial (based on monthly water use)		New

Exhibit III-8
Sewer Rate Structure Evaluation

Evaluation Criterion	Total Possible Points	Alternative I (Existing structure)	Alternative II (Discharge based)
• Revenue Stability	20	15	10
Cost of Service Equity	20	10	15
• Conservation			
- Residential	15	o	15
- Non-residential	15	5	10
Customer Understanding	5	3	3
• Administration	5	5	3
• Affordability	20	10	15
• Total Points	100	48	71

## **DEFINITION OF RATING CRITERIA**

- Revenue Stability -- The ability to generate sufficient revenues year-to-year in order to meet financial obligations.
- <u>Cost of Service Equity</u> -- The ability to have each customer's bill equal the costs incurred in providing that service.
- Water Conservation -- The ability to efficiently reduce water consumption by discouraging wasteful, low-value uses of water.
- Customer Understanding -- The ability of customers to clearly understand and accept rates.
- Administration -- The ease of utility to administer rate structure.
- Affordability -- The ability of low-income customers to purchase water for essential indoor use.



## Bill Analysis

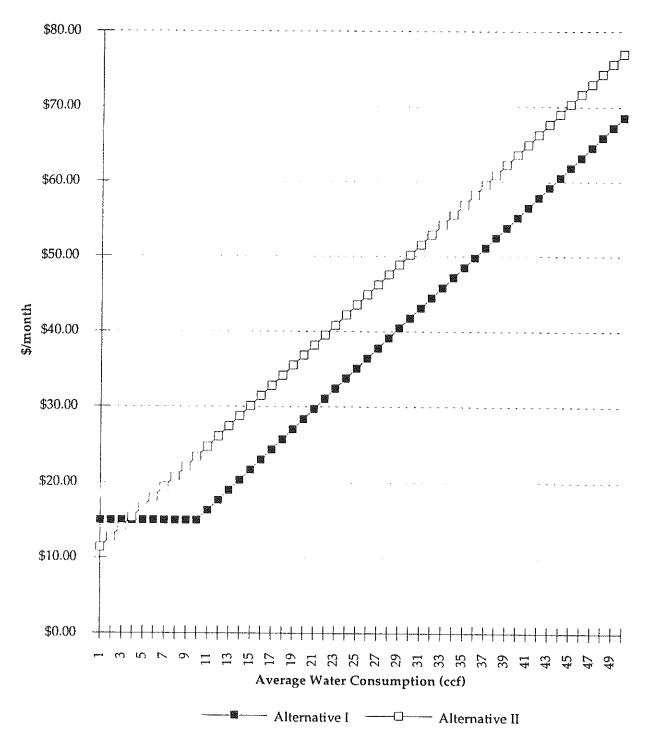
The previous section discussed the advantages of each rate structure with respect to the six rate-making objectives. This section shows what types of customers will gain and lose under the alternatives.

Exhibit III-9 plots the residential sewer bill against the average number of Ccf used per month in the winter for the two rate structure alternatives. It is clear that all customers using less than 9 Ccf/month in the winter will have lower bills under Alternative II compared with Alternative I. Exhibit III-10 plots the non-residential sewer bills under the two alternatives up to 50 Ccf per month.



Exhibit III-10

# Commercial (Non-Residential) Sewer Bills



- A. CURRENT WATER AND SEWER RATE SCHEDULES
- B. WATER RATE MODEL
- C. SEWER RATE MODEL

CURRENT WATER RATES CURRENT SEWER RATES

# RESOLUTION NO. 92-58

A RESOLUTION ADOPTING WATER RATE SCHEDULES PURSUANT TO SECTION 14.04.030 OF THE ASHLAND MUNICIPAL CODE.

THE MAYOR AND CITY COUNCIL OF THE CITY OF ASHLAND DO RESOLVE AS FOLLOWS:

SECTION 1. The "Water Rate Schedule" marked Exhibit "A" and attached to this Resolution is adopted as the water rates for use and sale of water inside and outside the City limits from the municipal water system.

SECTION 2. Three (3) copies of this Resolution and Exhibit "A" shall be maintained in the office of the City Recorder and shall be available for public inspection during regular business hours.

SECTION 3. The rates adopted on Exhibit "A" shall be increased annually on July 1st based on the Engineering News Record Construction Cost Index (ENR). The City Administrator will provide the City Council with a review of the rate structure with the 1995-1996 budget. The initial ENR is established at 4927.

<u>SECTION 4.</u> The rates adopted pursuant to this Resolution shall be effective with water meter readings taken on or after January 1, 1993.

SECTION 5. Resolution 91-48 is repealed on the effective date of this Resolution.

The foregoing Resolution was READ and DULY ADOPTED at a regular meeting of the City Council of the City of Ashland on the 15th day of December, 1992.

Nan E. Franklin, City Recorder

SIGNED and APPROVED this

176

day of December,

Pat Acklin, Acting Mayor

## EXHIBIT "A"

# CITY OF ASHLAND, OREGON

## WATER RATE SCHEDULE

## RESOLUTION NO. 92-ADOPTED DECEMBER 15, 1992 EFFECTIVE DATE JANUARY 1, 1993

All water service provided by the City of Ashland will be in accordance with Chapter 14.04 of the Ashland Municipal Code.

#### I. WATER RATES WITHIN THE CITY LIMITS

A. BASIC SERVICE CHARGE. The basic service charge applies to all metered water services and does not include any water consumption.

0.75	Inch	Meter	\$ 8.30/month
1	Inch	Meter	\$ 9.00/month
1.5	Inch	Meter	\$11.30/month
2	Inch	Meter	\$12.00/month
3	Inch	Meter	\$24.00/month
4	Inch	Meter	\$33.90/month
6	Inch	Meter	\$58.60/month
8	Inch	Meter	\$79.60/month

For condominiums or planned unit developments that are master metered the basic charge will be \$8.30 per month per unit.

B. WATER CONSUMPTION CHARGE. All customers will be charged the following rates per 100 cubic feet of water used.

#### RESIDENTIAL METERS

All	sizes	\$ 1.06	up to	3600	cubic	feet
All	sizes	\$ 1.28	up to	7200	cubic	feet
All	sizes	\$ 1.54	over	7200	cubic	feet

## COMMERCIAL METERS

•									
0.75	Inch	Meter Meter Meter	\$	1.06 1.28 1.54	up	to	6400 c 12800 12800	cubic	feet
1 1 1	Inch	Meter Meter Meter	\$	1.06 1.28 1.54	up	to	18400	ubic f cubic cubic	feet
	Inch	Meter Meter Meter	\$	1.06 1.28 1.54	up	to		cubic cubic cubic	feet
2 2 2	Inch	Meter Meter Meter	\$	1.06 1.28 1.54	up	to	66000	cubic cubic cubic	feet
3 3 3	Inch	Meter Meter Meter	\$ \$ \$	1.06 1.28 1.54	up up	to to ≥r	43000 86000 86000	cubic cubic cubic	feet feet feet
4 4 4	Inch	Meter Meter Meter	\$	1.06 1.28 1.54	up	to	258000	cubic cubic cubic	: feet
6 6	Inch	Meter Meter Meter	\$	1.06 1.28 1.54	up	to	442000	cubic cubic cubic	: feet
8 8 8	Inch	Meter Meter Meter	\$	1.06 1.28 1.54	up	to	920000	cubio cubio cubio	: feet

In condominiums or planned unit developments that are master metered, the total water consumed during a billing period shall be apportioned equally among the active accounts during the same billing period.

C. BOOSTER PUMPING CHARGE. A surcharge of \$6.30 per month is required where booster pumping is provided by the city within the city limits.

#### D. TID IRRIGATION WATER RATES

Unmetered Service

\$46.00/acre or portion of

an acre

Metered Service

Base Service Charge Water Consumption Same as A, above.

\$0.18 per 100 cubic feet

E. BULK WATER RATE. For water provided on a temporary basis through a bulk meter on a fire hydrant the following charges apply.

Deposit\*

\$680.00

Basic Fee Cost of Water \$75.00/installation
Same as 2" Commercial

\* Deposit is refundable less basic fee, cost of water and any damage to the city meter, valve, wrench and/or hydrant.

#### III. RATES OUTSIDE THE CITY LIMITS

A. All rates and charges for water service provided outside the city limits will be 1.5 times the rates for water service provided within the city limits.

#### RESOLUTION NO. 92-55

A RESOLUTION ADOPTING A SEWER RATE SCHEDULE PURSUANT TO SECTION 14.08.035 OF THE ASHLAND MUNICIPAL CODE.

THE MAYOR AND CITY COUNCIL OF THE CITY OF ASHLAND DO RESOLVE AS FOLLOWS:

<u>SECTION 1.</u> The "Sewer Rate Schedule" marked Exhibit "A" and attached to this Resolution is adopted as the sewer rates inside and outside the city limits.

<u>SECTION 2.</u> Three (3) copies of this Resolution and Exhibit "A" shall be maintained in the office of the City Recorder and shall be available for public inspection during regular business hours.

SECTION 3. The rates adopted on Exhibit "A" shall be increased annually on July 1st based on the Engineering News Record Construction Cost Index (ENR). The City Administrator will provide the City Council with a review of the rate structure with the 1995-1996 budget. The initial ENR is established at 4927.

<u>SECTION 4.</u> The rates adopted pursuant to this Resolution shall be effective for billings on or after January 1, 1993.

<u>SECTION 5.</u> Resolution 92-16 is repealed upon the effective date of this Resolution.

The foregoing Resolution was READ and DULY ADOPTED at a regular meeting of the City Council of the City of Ashland on the <u>1st</u> day of <u>December</u>, 1992.

Nan E. Franklin

Franklin

City Recorder

SIGNED and APPROVED this Jan day of December, 1992.

Catherine M. Golden, Mayor

Reviewed as to Form

#### EXHIBIT "A"

#### CITY OF ASHLAND, OREGON

#### SEWER RATE SCHEDULE

ADOPTED December 1, 1992 EFFECTIVE DATE JANUARY 1, 1993

All sewer service provided by the City of Ashland will be in accordance with Chapter 14.08 of the Ashland Municipal Code.

#### 1. SEWER RATES WITHIN THE CITY LIMITS

A.B.C.D.E.	Single Family Residential Condominiums Conversions to Condominiums Multiple Family Residential Mobile Homes and Trailers Communal sleeping facilities	\$12.30 per month \$12.30 per month per unit \$12.30 per month per unit \$ 9.70 per month per unit \$ 9.70 per month per unit \$ 3.70 per month per unit \$ 3.70 per month per unit
		Dormitories, fraternities, sororities or boarding houses
G.	Commercial and Institutional	\$12.30 per month plus \$1.10 per 100 cubic feet of the current amount of water consumption in excess of 1,000 cubic feet.

2. <u>SEWAGE PUMPING CHARGE</u>. A surcharge of \$1.60 per month is required where sewage pumping is provided by the city within the city limits.

# 3. SANITARY DUMP STATIONS WITHIN THE CITY LIMITS

Units providing sanitary dumps

\$29.00 per month for recreational vehicles in addition to other regular fees.

# 4. INDUSTRIAL SEWER RATES WITHIN THE CITY LIMITS

- A. Industrial uses are defined in Section 35.905-18 of the Federal Register, Volume 38, Number 98.
- B. Rates will be calculated in accordance with Section 35.935-13 of the Federal Register, Volume 38, Number 98.
- C. An agreement shall be entered into between the industrial user and the City of Ashland for the recovery of capital costs in accordance with Section 35.938 of the Federal Register, Volume 38, Number 98.

# 5. MULTIPLE OR MIXED-USE SEWER RATES WITHIN THE CITY LIMITS

A. The monthly sewer user charge shall be the total of the several sewer user charges for each business or activity computed separately.

# 6. <u>ADJUSTMENTS AND EXEMPTIONS TO COMMERCIAL AND INDUSTRIAL SEWER</u> RATES

- A. If a commercial or industrial user can demonstrate that the volume of sewage discharged by the user is less than 50% of the water consumed, the City Administrator may adjust the sewer user charge accordingly.
- B. Water sold through an irrigation meter is exempt from sewer user charge.

# 7. SEWER RATES OUTSIDE THE CITY LIMITS

- A. The sewer user charge shall apply to those sewer users permitted under Section 14.08.030 of the Ashland Municipal Code.
- B. The sewer rates for outside the city limits shall be two (2) times the sewer charges for inside the city limits.

WATER RATE MODEL

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1	CITY OF ASHLAND													1
2	WATER RATE MODEL													
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5						Adopted	Estimated	Estimated						
6			Actual	Actual	Actual	Bud get	Budget	Budget						1
7			FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	CY 1993	CY 1994	CY 1995	CY 1996	CY 1997	CY 1998
B 9														
9	WATER DEMAND (CCF)													ŀ
1.0														
. 13	Residential*		625,481	717,501	772,705	849,976	934,973	981,722	811,340	892,474	958,348	9 <del>68</del> ,123	977,998	987,973
12	Commercial*		788,518	551,506	273,947	301,341	331,476	348,049	287,644	316,408	339,762	343,228	346,729	350,266
13	Industrial		0	37,400	21,700	23,870		27,569	22,785	25,063	26,913	27,187	27,465	27,745
14	Irrigation**		60,000		60,918			77,396	63,964	70,360	75,554	76,324	77,103	77,889
15		To	otai 1,473,999	1,408,930	1,129,269	1,242,196	1,366,416	1,434,737	1,185,733	1,304,306	1,400,576	1,414,862	1,429,294	1,443,873
16														1
1.7														- 1
18	NUMBER OF METERS													
19														
20	Meter size		_											
2 1	3/4" Meters		5,384		5,560			5732	5588	5645	5703	5761	5820	5879
22	i" Meters		156		202		206	208	203	205	207	209	211	214
2 3	1.5" Meters		100		113			116	114	115	116	117	118	119
24	2" Meters		64		88			91	68	89	90	91	92	93
2 5	3" Meters		11		13			13	13	13	13	13	14	14
26	4" Meters		9	10	9			9	9	9	9	9	9	10
27	6" Meters		2		2			2	2	2	2	2	2	2
28	8" Meters		2		2			2	2	2	2	2	2	2
29		To	ntai 5,728	5,890	5,989	6,050	6,112	6,174	6,020	6,081	6,143	6,206	6,269	6,333
30														
31														
3 2	NUMBER OF RESIDENTIA	L METERS CON	VERTED INTO	EQUIVALEN	IT METER U	NITS								
33														CY 1994
3 4						Adopted	Estimated					EMU		Equivalent
					Actual	Bud get	Budget					Conversion		Meter
35 36 37 38 39 40 41 42					FY 1992-93	FY 1993-94	FY 1994-95			CY 1994		Factor		Units
2.7	Meter Size			-					-		-		-	
3,					4,678	4726	4774			4,750		1.00		4,750
3.8	3/4" Meters				59					60		1.35		81
39	I" Meters									5		1.90		10
40	1.5" Meters				5									10
41	2" Meters				0					0		2.50		ď
42	3" Meters				0					0		5.00		U
43	4" Meters				0					0		8,00		0
44	6" Meters				0	0				0		15.00		٥
4.5	8" Meters				0		0		_	0		25.00	_	0
46	Total				4,742	4,790	4,839			4,815				4,840
47														
48												6,584		
49	NUMBER OF NON-RESIDI	ENTIAL METER	S CONVERTED	INTO EQUIV	ALENT ME	TER UNITS								
50				-										CY 1994
51						Adopted	Estimated					EMU		Equivalent
5 2					Actual	Bud get	Budget					Conversion		Meter
53					FY 1992-93	FY 1993-94	FY 1994-95			CY 1994		Factor		Units
	Mara - Fina			-	. 1 1/74-73	. 1 . / 7.5-74	/ / / / 30		-		-		-	2,415
5 4	Meter Size				0.00	901	000			ene		1.00		اړ.
5 5	3/4" Meters				882		900			896		1.00		896
5 6	1" Meters				143		146			145		1.35		196
57	1.5" Meters				108	109	110			110		1.90		208
58	2" Meters				88	89	90			89		2.50		223
59	3" Meters				13	13	13			13		5.00		66
60	4" Meters				9	9	9			9		8.00		73
61	6" Meters				2	2	2			2		15.00		30
62	8" Meters				2	2	2			2		25.00		51
63	Total			-	1,247	1,260	1,273		-	1,266			-	1,744
64							*							
65														- 1
66	* Prior to FY 1992-93 Multi-Fa	emily Recidential	consumption in	luded in comm	nercia) dase									
67		,	consumptioning	naced in contr.	,,, cam canage									
	™ FY 1990-91 value is estima	wu .												

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2	WATER RATE MODEL												- 1
3	THE RATE MODES												1
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4	Hilton Farnkopf & Hobson 1/13/94 14:39												1
6.8													1
69					Adopted	Estimated	Estimated						1
70		Actual	Actual	Actual	Bud get	Budget	Budget						1
71		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	CY 1993	CY 1994	CY 1995	CY 1996	CY 1997	CY 1998
72													
73	REVENUE REQUIREMENT												1
74	_												-
75	OPERATIONS & MAINTENANCE												
76													
77	Personnel Services												ļ
78		\$503,977	\$526,162	\$550,656	\$581,610	\$624,874	\$689,869	\$566,133	\$603,242	\$657,372	\$683,667	\$711,013	5739,454
	Regular Salaries and Wages	\$36,695	\$28,124	\$25,968	\$32,000	\$33,280	\$34,611	\$28,984	\$32,640	\$33,946	\$35,303	\$36,716	\$38,184
79	Overtime Pay			\$218,885	\$241,390	\$251,046	\$261,087	\$230,138	\$246,218	\$256,067	\$266,309		1
8.0	Fringe Benefits	\$216,660	\$204,600			D-D-0000000000000000000000000000000000						\$276,962	\$288,040
8 1	Subtotal	\$757,332	\$758,886	\$795,509	\$855,000	\$909,200	\$985,568	\$825,255	\$882,100	\$947,384	\$985,279	\$1,024,691	\$1,065,678
8 2													1
83	Materials and Services												1
8 4	Advertising and Publications	\$71	\$43	\$0	\$4,500	54,680	\$4,867	\$2,250	\$4,590	\$4,774	\$4,965	\$5,163	\$5,370
8.5	Central Service Charges	\$264,000	\$324,740	\$315,000	\$300,000	\$312,000	\$324,480	\$307,500	\$306,000	\$318,240	\$330,970	\$344,208	\$357,977
86	Chemical and Lab Fees	530,074	\$22,036	\$51,048	\$55,000	\$59,400	\$64,152	\$53,024	\$57,200	\$61,776	\$66,718	\$72,056	\$77,820
87	Dues and Subscriptions	\$4,042	\$4,309	\$5,674	\$5,000	\$5,200	\$5,408	\$5,337	\$5,100	\$5,304	\$5,516	\$5,737	\$5,966
8.8	Equipment Rental - City	\$75,226	\$98,299	\$128,146	\$112,430	\$116,927	\$121,604	\$120,288	\$114,679	\$119,266	\$124,036	\$128,998	\$134,158
89	Insurance	\$14,176	\$14,064	\$15,687	\$16,500	\$17,820	\$19,246	\$16,094	\$17,160	\$18,533	\$20,015	\$21,617	\$23,346
90	Licenses and Permits	\$2,028	\$1,793	\$1,531	\$800	\$840	\$900	\$1,166	\$2,000	\$2,080	\$2,163	52,250	\$2,340
		\$27,482	\$27,801	\$46,705	\$27,800	\$35,000	\$37,000	\$37,253	\$31,000	\$32,240	\$33,530	\$34,871	\$36,266
91	Maintenance		50	\$0,760	\$60,000	\$20,000	\$20,800	\$30,000	\$40,000	\$20,400	\$21,216	\$22,065	\$22,947
92	Maintenance - Reservoirs	50											1
93	Miscellaneous	\$1,287	\$3%	511,874	\$2,100	\$2,184	\$2,271	\$6,987	\$2,142	\$2,228	\$2,317	\$2,409	\$2,506
94	Professional Services	\$38,678	541,791	\$46,197	\$25,000	\$26,000	\$27,040	\$35,599	\$25,500	\$26,520	\$27,581	\$28,684	\$29,831
95	Safety Program	\$3,500	\$3,809	\$1,960	\$3,300	\$3,432	\$3,569	\$2,630	\$3,366	\$3,501	\$3,641	\$3,786	\$3,938
9.6	Watershed Management Program	\$2,998	\$93	\$15,556	\$10,500	\$10,920	\$11,357	\$13,028	\$10,710	\$11,138	\$11,584	\$12,047	\$12,529
97	Purchased Water	\$25,918	\$25,918	\$29,146	\$28,500	\$29,930	\$31,400	\$28,823	\$50,000	\$52,000	\$54,080	\$56,243	\$58,493
9.8	Small Tools	\$5,010	\$3,853	57,069	\$4,200	\$4,368	\$4,543	\$5,635	\$4,284	\$4,455	\$4,634	\$4,819	\$5,012
99	Supplies	\$5,302	57,776	\$10,035	\$6,900	\$7,176	\$7,463	\$8,468	\$7,038	\$7,320	\$7,612	\$7,917	\$8,233
100	Payment in Lieu of Franchise Tax	\$20,000	\$83,956	\$81,977	\$106,000	\$94,556	\$94,455	\$98,933	\$97,594	\$99,286	\$120,418	\$140,114	\$143,884
101		\$3,251	<b>\$6,510</b>	\$7,115	\$10,500	\$10,920	\$11,357	\$8,808	\$10,710	\$11,138	\$11,584	\$12,047	\$12,529
	Travel and Training	\$163	\$437	5327	\$200	5208	\$216	\$264	5204	\$212	\$221	5229	\$239
102	Uniform Allowance				560,300	\$65,124	\$70,334	\$53,581	\$62,712	\$67,729	\$73,147	\$78,999	\$85,319
103	Utilities	\$47,855	\$40,497	\$46,861									
104	Conservation	\$0	50	\$41,020	\$58,000	\$62,800	\$65,600	\$49,510	\$60,400	\$64,200	\$66,768	\$69,439	\$72,216
105	Subtotal	\$571,061	\$708,121	\$862,928	\$897,530	\$889,485	\$928,062	\$885,174	\$912,388	\$932,340	\$992,715	\$1,053,698	\$1,100,918
106													
107	O & M Subtotal	\$1,328,393	\$1,467,007	\$1,658,437	\$1,752,530	\$1,798,685	\$1,913,630	\$1,710,428	\$1,794,488	\$1,879,724	\$1,977,995	\$2,078,388	\$2,166,596
108													
109													
110	CAPITAL EXPENSES												
111													
112	Annual Outlays												
113		\$39,611	\$0	\$0	\$0	50	50	\$0	50	\$0	\$0	\$0	so
	Land	\$35,840	\$14,951	513,816	\$15,100	515,000	\$20,000	\$14,458	\$15,050	\$17,500	\$20,000	\$20,000	\$20,000
114	Equipment												
115	improvements other than buildings	\$134,883	\$154,300	588,427	\$109,000	\$114,000	\$117,000	598,714	\$111,500	\$115,500	\$116,678	\$117,868	\$119,070
116	Subtotal	\$210,334	\$169,251	\$102,243	\$124,100	\$129,000	\$137,000	\$113,172	\$126,550	\$133,000	\$136,678	\$137,868	\$139,070
117													1
118	Debt Service												1
119	Assessment Payments	50	\$16,907	\$4,723	\$4,200	\$1,200	\$0	\$4,462	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
120	GO Bonds	\$230,000	\$230,000	\$230,000	\$230,000	\$310,000	\$245,000	\$230,000	\$270,000	\$277,500	\$257,500	\$270,000	\$270,000
121	1994 Water Treatment Plant Bonds	\$0	\$0	50	\$0	\$90,000	\$180,000	\$0	\$45,000	\$135,000	\$180,000	\$180,000	\$180,000
121	Subtotal	\$230,000	\$246,907	5234,723	5234,200	\$401,200	\$425,000	\$234,462	\$317,500	\$415,000	\$440,000	\$452,500	\$4.52,500
123									•		• -		
124	Capital Expenses Subtotal	\$440,334	\$416,158	\$336,966	\$358,300	\$530,200	\$562,000	\$347,633	\$444,050	\$548,000	\$576,678	\$590,368	\$591,570
125	Capital Expenses Subtotal	\$1,10,10A			***************************************	**************************************	+						
	Revenue Requirement Subtotal	\$1 768 TO	\$1,883,165	\$1,995,403	\$2,110,830	\$2,328,885	\$2,475,630	\$2,058,061	\$2,238,538	\$2,427,724	\$2,554,673	\$2,668,756	\$2,758,167
126	vesseure redmement protocit	#1,700,727	31,000,110	\$1,2 X3,703	PE,110,000	JEAN-0,000	J2, 11 J,000	Jan 100 1	JE, ELO, JOS	JUTE // 64	JENNY VINE D		-4,50,100
127	1000-DOODONTO- 1000-D												

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1	CITY OF ASHLAND	<u> </u>		<u> </u>		L								
2	WATER RATE MODEL													
3	WATER RATE MODIL													
4	Hilton Farnkopf & Hobson 1/13/	DA 14-30												
128	HINOR PARISOCAL ROUSON 17137	74 (4.5)												
						Adopted	Estimated	Estimated						
129			Actual	Actual	Actual	Budget	Budget	Budget						
130			FY 1990-91	FY 1993-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	CY 1993	CY 1994	CY 1995	CY 1996	CY 1997	CY 1998
131		-	Lt 1330-31	F 1 1371-32	F1 1772~73	Lt 1230-54	11 1774-33	1-t 1993-9G	C1 1933	C1 1779	C1 1993	CI 1990	C1 199/	C 1 1990
132		T (CONT)	61 248 237	\$1,883,165	\$1,995,403	\$2,110,830	52,328,885	\$2,475,630	\$2,058,061	\$2,238,538	\$2,427,724	\$2,554,673	\$2,668,756	\$2,758,167
133	TOTAL REVENUE REQUIREMENT	I (CON1.)	\$1,268,727	\$1,663,163	\$1,990,403	32,110,030	32,320,003	\$2,475,030	\$2,000,001	32,230,330	\$2,427,724	\$2,334,673	\$2,000,730	32,/36,16/
134														
135	NON-OPERATING REVENUES													1
136														
137	MISCELLANEOUS REVENUES	OURCES												
138			****	FA 724	617.000		**	ra.	60 455	**				[
139	Account Maintenance Charge		\$19,105	\$9,334	\$16,910	\$0	\$0	50	\$8,455	\$0	\$0	\$0	\$0	\$0
140	First Service Installation		\$107,815	\$78,276	\$84,554	\$80,000	\$80,000	\$80,000	\$82,277	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000
141	Interest Farnings		\$0	50	\$0	\$0	50	\$0	\$0	\$0	\$0	\$0	\$0	\$0
142	Miscellaneous	w-	\$6,920	\$9,089	\$164,307	\$10,000	\$10,000	\$10,000	987,154	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
143	Subtotal		\$133,840	\$96,699	\$265,771	\$90,000	\$90,000	\$90,000	\$177,886	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000
144														1
1 4 5	TRANSFERS (TO) / FROM FUN	105												ļ
146				****		•		(84 100)	***		(en con)			
147	Operations Balance		521 <i>6</i> ,0 <del>69</del>	\$200,379	\$6,562	\$0	50	(\$6,180)	\$3,281	50	(\$3,090)	(\$5,311)	(\$211)	(\$5,816)
148	Debt Reserve		\$0	50	50	(\$32,440)	(\$109,411)	(\$14,663)	(\$16,220)	(\$70,926)	(\$62,037)	(\$15,308)	(\$17,858)	(\$19,829)
149	SDC Account		\$28,555	\$22,455	50	50	\$0	\$0	\$0	\$0 (\$35,000)	\$0	50	50	\$0
150	CIP - Ongoing Construction		\$0	50	\$0	\$0	(\$150,000)	(\$150,000)	50	(\$75,000)	(\$150,000)	(\$157,500)	(\$165,375)	(\$173,644)
151	CIP - Bond Construction	-	50	\$0	\$0	50	50	\$0	50	\$0	\$0	50	\$0	50
152	Subtotal		\$244,624	\$222,834	\$6,562	(\$32,440)	(\$259,411)	(\$170,843)	(\$12,939)	(\$145,926)	(\$215,127)	(\$178,119)	(\$183,444)	(\$199,288)
153														
154									****		/*****		(000)	
155	Non-Operating Reve	mue Subtotal _	\$378,464	\$319,533	\$272,333	\$57,560	(\$169,411)	(\$80,843)	\$164,947	(\$55,926)	(\$125,127)	(\$88,119)	(\$93,444)	(\$109,288)
156														
157	Revenue Requirem	nent Subtotal	\$1,390,263	\$1,563,632	\$1,723,070	\$2,053,270	\$2,498,296	\$2,556,473	\$1,893,115	\$2,294,464	\$2,552,851	52,642,791	\$2,762,200	\$2,867,455
158														
159														ŀ
160							/ma.a.a	(mann /f -*		Art no-	(*** a.o. ac. **	(A	(64% , 12**	(2.5 00.3)
161	Carryover from prior year surplus/	(shortfall)	_	\$0	\$0	\$0	(\$16,763)	(\$330,629)	\$0	\$75,899	(\$108,096)	(\$419,753)	(\$374,455)	(\$42,874)
162						** ***	en et e ac-	AB 445 465		FD 014 F/-			** ***	
163	NET REVENUE REQUIREMENT		\$1,390,263	\$1,563,632	\$1,723,070	\$2,053,270	\$2,515,059	\$2,867,102	\$1,893,115	\$2,218,565	\$2,660,947	\$3,062,544	\$3,136,656	\$2,910,329
164														1
165														-
186					4	en on c 505	en 101 100	60 00/ 811	er 0/0 m .	60.110.460		50 (00 600	en enn enn	
167	TOTAL RATE REVENUES		\$1,390,263	\$1,563,632	\$1,723,070	\$2,036,507	\$2,184,430	\$2,206,711	\$1,969,014	\$2,110,4 <i>6</i> 9	\$2,241,194	\$2,688,089	\$3,093,782	\$3,168,649
1 6 B						(64 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	(8440	(8/84 255	<b>695</b> 000	(et 00 00C	(eato peo)	(620 455	(#45 AB**	me
169	SURPLUS/(SHORTFALL)		\$0	\$0	\$0	(\$16,763)	(\$330,629)	(\$680,390)	\$75,899	(\$108,096)	(\$419,753)	(\$374,455)	(\$42,874)	\$258,321
170									50.00	r	-	(* ***	- 45-	,
171	RATE INCREASE INDICATED			_			-	_	20.00%	5.12%	18,73%	13.93%	1.39%	0,00%
172														
173														

2 3	BCDE F G	нI	i	j	к	L	M	N	0	Р	a	R	s
2 3 4	CITY OF ASHLAND		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·								
3 4	WATER RATE MODEL												
4	THE THE STATE OF T												
174	Hilton Famkopf & Hobson 1/13/94 14:39												
; 1 ( 9)	THIOT THE ROPE OF THE PARTY TO THE PARTY THE P				Adopted	Estimated	Estimated						
175		Actual	Actual	Actual	Budget	Budget	Budget						
		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	CY 1993	CY 1994	CY 1995	CY 1996	CY 1997	CY 1998
176		17 1330-31	( 1 1///1-/2	. , . , , , , , , , , , , , , , , , , ,	7								
	FUND BALANCES												
178													
179													
180	OPERATING BALANCE												
181													
182	Beginning Balance	\$825,788	\$642,627	\$45 <del>9</del> ,820	\$460,668	\$476,791	\$493,479	\$460,244	\$468,730	\$485,135	\$505,25 <del>9</del>	\$528,347	\$546,625
183	Transfers in	(\$216,0 <del>69</del> )	(\$200,379)	(\$6,562)	\$0	\$0	\$6,180	(\$3,281)	\$0	\$3,090	\$5,311	(\$211)	(\$5,816)
184	Interest	\$32,908	\$17,572	\$7,410	\$16,123	\$16,688	\$17,380	\$11,767	\$16,406	\$17,034	\$17,777	\$18,488	\$19,030
185	Ending Balance	\$642,627	\$459,820	\$460,668	\$476,791	\$493,479	\$517,039	\$468,730	\$485,135	\$505,259	\$528,347	\$546,625	\$559,839
186	•												
187													
188	DEBT RESERVE												
189													
190	Beginning Balance	\$44,417	\$55,063	\$61,565	\$77,268	\$112,980	\$228,260	\$69,417	\$95,124	\$170,620	\$239,714	\$263,680	\$291,079
		\$0	\$0	\$0	\$32,440	\$109,411	\$14,663	\$16,220	\$70,926	\$62,037	\$15,308	\$17,858	\$19,829
191	Transfers in	\$10,646	\$6,502	\$15,703	\$3,272	\$5,869	\$8,246	\$9,488	\$4,571	\$7,057	\$8,658	\$9,541	\$10,535
192	Interest	\$55,063	\$61,565	577,268	\$112,980	\$228,260	\$251,169	\$95,124	\$170,620	\$239,714	\$263,680	\$291,079	\$321,442
193	Ending Balance	دهان,دند	טסט, נטק	211,400	±114,70U	JE20,200	Jan. 1 1 1 1 1 1	4,0,127	-1.0,020	2007/1/19			
194													
195													
198	SDC ACCOUNT												
197												****	
198	Beginning Balance	\$0	\$0	\$63,447	\$217,230	\$280,796	\$238,731	\$140,339	\$249,013	<b>5</b> 259,763	\$237,6 <del>99</del>	\$249,584	\$262,063
199	Revenue Collected												
200	from System Development Fee - Water	\$28,555	\$2,455	\$0	\$0	50	50	\$0	\$0	\$0	\$0	\$0	\$0
201	from SDC-Supply	\$0	\$25,292	\$57,237	569,000	\$69,000	\$69,000	\$63,119	\$69,000	\$76,000	\$76,000	\$76,000	\$76,000
202	from SDC - Distribution/Collection	50	\$41,885	\$72,738	\$96,000	\$96,000	\$96,000	\$84,369	\$96,000	\$96,000	\$96,000	\$96,000	\$96,000
203	from SDC - Treatment	\$0	\$16,270	\$49,097	\$46,000	\$46,000	546,000	\$47,549	\$46,000	\$46,000	\$46,000	\$46,000	\$46,000
204	Subtotal:	528,555	\$85,902	\$179,072	\$211,000	\$211,000	\$211,000	\$195,036	\$231,000	\$218,000	\$218,000	5218,000	\$218,000
205	Transfers Out												
206	to O and M (Rates)	\$28,555	\$22,455	50	\$0	50	\$0	50	\$0	\$0	\$0	\$0	\$0
		\$0	\$0	\$0	\$111,000	\$76,000	\$76,000	\$55,500	\$93,500	\$76,000	\$76,000	\$76,000	\$76,000
207	to CIP Ongoing Construction	50	\$0	\$0	\$0	\$0	50	\$0	\$0	\$0	50	50	\$0
208	to CIP Bond Construction	50	50	\$30,000	\$45,000	\$186,000	\$159,000	\$37,500	\$115,500	\$172,500	\$142,000	\$142,000	\$142,000
209	to CO Bond Debt Service		\$22,455	\$30,000	\$156,000	\$262,000	\$235,000	\$93,000	\$209,000	\$248,500	\$218,000	\$218,000	\$218,000
210	Subtotai	\$28,555	\$22,455	\$30,000	\$156,000	\$202,000	\$230,000	393,000	\$209,000	\$240,200	3210,000	3210,000	\$2,10,000
2 1 1								55.630	ee ~E0	60.435	\$11,885	673.470	\$13,103
212	Interest	\$0	\$0	54,711	\$8,566	\$8,935	\$7,936	\$6,638	\$8,750	\$8,435		\$12,479	
213	Ending Balance	\$0	\$63,447	\$217,230	\$280,7%	\$238,731	\$222,666	\$249,013	\$259,763	\$237,699	\$249,584	\$262,063	\$275,166
214													
215													
216	WATER CIP - ONGOING CONSTRUCTION												
217													
218	Beginning Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	50	\$0	\$0
219	Transfers Out												
220	to Water Rights	\$0	\$0	\$0	\$111,000	\$76,000	\$76,000	\$55,500	\$93,500	\$76,000	\$76,000	\$76,000	\$76,000
221	Improvement Projects												
	Other Water Lines	\$0	\$0	\$0	50	50	so	\$0	\$0	\$0	\$157,500	\$165,375	\$173,644
222	Water Line Ashland St - Terrace	\$0	\$0	\$0	\$0	\$150,000	\$150,000	50	\$75,000	\$150,000	\$0	\$0	\$0
223	~	50	\$0	\$0	\$111,000	\$226,000	\$226,000	\$55,500	\$168,500	\$226,000	\$233,500	\$241,375	5249,644
224	Subtotal	₽U	,	<i>2</i> 0		+_10,000							
225	Revenue/Transfers in		***	***	\$0	\$150,000	\$150,000	\$0	\$75,000	\$150,000	\$157,500	\$165,375	\$173,644
226	Transfer from O & M (Rates)	\$0	<b>90</b>	\$0 50						\$76,000	\$76,000	\$76,000	\$76,000
227	Transfer from SDC Account	\$0	\$0	50	\$111,000	\$76,000	\$76,000	\$55,500	\$93,500		\$233,500		
2 2 B	Subtotal	\$0	\$0	\$0	\$111,000	\$226,000	\$226,000	\$55,500	\$168,500	\$226,000	3233,500	\$241,375	\$249,644
229													
230	Interest	50	50	\$0	\$0	50	50	\$0	50	\$0	\$0	\$0	\$0
231	Ending Balance	\$0	90	\$0	\$0	\$0	50	50	\$0	\$0	so	\$0	\$0
232													
233													
234	WATER CIP - BOND CONSTRUCTION												
235													
236	Beginning Balance	\$0	\$0	\$1,952,686	5846,200	50	\$0	\$1,399,443	\$423,100	\$0	\$1,000,000	<b>9</b> 0	\$0
237	Transfers Out												
	Improvement Projects												
	NW Reservoir Pump Station	\$0	\$162,840	\$1,170,793	\$400,000	\$0	\$0	\$785,397	\$200,000	\$0	50	\$0	\$0
238	CALL CASCLETOIL LULIUM JABUUM	50 50	\$100,040	\$0	\$0	50	\$0	\$0	\$0	\$1,000,000	\$1,000,000	\$0	\$0
23B 239		20	\$0	\$0	\$295,000	50	\$0	\$147,500	\$147,500	\$0	\$0	\$0	\$0
238 239 240	Water Treatment Plant Upgrade (Bond)	60	30	\$0	\$184,499	50 50	\$0 \$0	\$92,250	\$92,250	\$0	50	\$0	50
238 239 240 241	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox	\$0 \$0	en		₩ 1UT,477	50	\$0 \$0	\$1,025,146	\$439,750	\$1,000,000	\$1,000,000	50	\$0
238 239 240 241 242	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace	50	\$162.840		CR70 400		3 <b>U</b>	140 رسمان د					
238 239 240 241 242 243	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal		\$0 \$162,840	\$1,170,793	\$879,499	<b>5</b> Q						30	
238 239 240 241 242 243 244	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal Revenue/Transfers In	\$0 \$0	\$162,840	\$1,170,793			4						
238 239 240 241 242 243	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal	\$0 \$0 \$0	\$162,840 \$0	\$1,170,793 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
238 239 240 241 242 243 244	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal Revenue/Transfers In	\$0 \$0	\$162,840 \$0 \$2,060,000	\$1,170,793 \$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$2,000,000	\$0 \$0	\$0 \$0	\$0 \$0
238 239 240 241 242 243 244 245 246	Water Treatment Plant Upgrade (Boxid) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal Revenue/Transfers in Revenue from Property Tax	\$0 \$0 \$0	\$162,840 \$0	\$1,170,793 \$0	\$0	\$0		\$0	\$0 \$0 \$0	\$0 \$2,000,000 \$0	20 20 20	20 20 20	\$0 \$0 \$0
238 239 240 241 242 243 244 245 246 247	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal Revenue/Transfers in Revenue from Property Tax Revenue from Bond Sales	\$0 \$0 \$0 \$0	\$162,840 \$0 \$2,060,000	\$1,170,793 \$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$2,000,000	\$0 \$0	\$0 \$0	\$0 \$0 \$0
238 239 240 241 242 243 244 245 246 247 248	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal Revenue/Transfers in Revenue from Property Tax Revenue from Bond Sales Transfer from O & M (Rates) Transfer from SDC Account	\$0 \$0 \$0 \$0 \$0 \$0	\$162,840 \$0 \$2,060,000 \$0	\$1,170,793 \$0 \$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0	\$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0	\$0 \$2,000,000 \$0	20 20 20	20 20 20	\$0 \$0 \$0
238 239 240 241 242 243 244 245 246 247 248 249	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal Revenue/Transfers in Revenue from Property Tax Revenue from Bond Sales Transfer from O & M (Rates)	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$162,840 \$0 \$2,060,000 \$0 \$0	\$1,170,793 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$2,000,000 \$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0 \$0
238 239 240 241 242 243 244 245 246 247 248 249 250	Water Treatment Plant Upgrade (Boxid) Water Line N Main to Fox Water Line A shland St - Terrace Subtotal Revenue/Transfers in Revenue from Property Tax Revenue from Bond Sales Transfer from O & M (Rates) Transfer from SDC Account Subtotal	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$162,840 \$0 \$2,060,000 \$0 \$0 \$0 \$2,060,000	\$1,170,793 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$2,000,000 \$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0
238 239 240 241 242 243 244 245 246 247 248 249	Water Treatment Plant Upgrade (Bond) Water Line N Main to Fox Water Line Ashland St - Terrace Subtotal Revenue/Transfers in Revenue from Property Tax Revenue from Bond Sales Transfer from O & M (Rates) Transfer from SDC Account	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$162,840 \$0 \$2,060,000 \$0 \$0	\$1,170,793 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$2,000,000 \$0 \$0 \$2,000,000	\$0 \$0 \$0	80 80 80 80	\$0 \$0 \$0 \$0 \$0

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1	CITY OF ASHLAND												1
2	WATER RATE MODEL												1
3													1
4	Hilton Farnkopf & Hobson 1/13/94 14:39	<b>)</b>											
254													
255													
256													
257					Adopted	Estimated	Estimated						
258		Actual	Actual	Actual	Sud get	Budget	Budget						
259		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	CY 1993	CY 1994	CY 1995	CY 1996	CY 1997	CY 1998
260	FUND BALANCES (CONT.)				•								
251													
262													
202	ENDING FUND BALANCES												
203	EADING FOILD BYCYLCED												
264	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$642,627	\$459,820	\$460,668	\$476,791	\$493,479	\$517,039	\$468,730	\$485,135	\$505,259	\$528,347	\$546,625	\$559,839
265	Operating Balance	\$55,063	\$61,565	\$77,268	\$112,980	\$228,260	\$251,169	\$95,124	\$170,620	\$239,714	5263,680	\$291,079	\$321,442
265	Debt Reserve				\$280,796	\$238,731	\$222,666	\$249,013	\$259,763	\$237,699	\$249,584	\$262,063	\$275,166
267	SDC Account	\$0	\$63,447	\$217,230			\$2,000	\$245,013	\$2.17,703 \$0	\$0	\$0	\$202,000	\$0
268	Water CIP - Ongoing Construction	50	\$0	\$0	\$0	50					\$0 \$0	\$0 \$0	
269	Water CIP - Bond Construction	\$0	\$1,952,686	\$846,200	\$0	\$0	\$0	\$423,100	\$0	\$1,000,000			\$0
270	Total	\$ <del>69</del> 7,690	\$2,537,518	\$1,601,366	\$870,567	\$960,470	\$990,874	\$1,235,967	\$915,519	\$1,982,672	\$1,041,611	\$1,099,766	\$1,156,448
271													
272													
273													
254 255 256 257 258 260 261 262 263 264 265 267 268 269 270 271 273 274													
275													
2/3												······································	

	. Galalel E	· · · · · · ·	1 , 1	<u>и</u> 1	1 1	Ba N I	0	р	0 0
-	A B C D E F G CITY OF ASHLAND	<u> </u>	<u> </u>	к ј	<u> </u>	M N I	0	<u> </u>	O I R I S
2	WATER RATE MODEL								
3	MATERIALEMODEC								
4	Hilton Farnkopf & Hobson 1/13/94 14:39								
276	, ,								
277		CY 1994							
278		\$ to be	functional a	Allocation Fac	ctors	Fund	tionalized Co	osts	
279		Allocated	Base M	ax. Day M	ax. Hour	Base	Max. Day	Max. Hour	
280									
281	FUNCTIONAL ALLOCATION OF REVENUE	REQUIREMENT							
282									
283	OPERATIONS & MAINTENANCE								
284									
285 286	Personnel Services Regular Salaries and Wages	\$603,242	80%	20%	0%	\$482,594	\$120,648	\$0	
287	Overtime Pay	\$32,640	80%	20%	0%	\$26,112	\$6,528	\$0	
288	Frange Benefits	\$246,218	80%	20%	0%	\$196,974	\$49,244	\$0	
289	Subtotal	\$882,100				\$705,680	\$176,420	\$0	
290									
291	Materials and Services								
292	Advertising and Publications	\$4,590	100%	0%	0%	\$4,590	\$0	\$0	
293	Central Service Charges	\$306,000	63%	27%	10%	\$192,780	\$82,620	\$30,600	
294	Chemical and Lab Fees	\$57,200	38%	62%	0%	\$21,736	\$35,464	\$0	
295	Dues and Subscriptions	\$5,100	100%	0% 27%	0% 10%	\$5,100 \$72,748	\$0 \$30,9 <del>6</del> 3	\$0 \$11.468	
296	Equipment Rental - City	\$114,679 \$17,160	63% 100%	2/% 0%	10%	\$72,248 \$17,160	\$30,963 \$0	\$11,468 \$0	
297 298	Insurance Licenses and Permits	\$17,160 \$2,000	38%	62%	0%	\$17,180 \$760	\$1,240	\$0 \$0	
299	Maintenance	\$31,000	38%	62%	0%	\$11,780	\$19,220	50	
300	Maintenance - Resevoirs	\$40,000	28%	0%	72%	\$11,200	\$0	\$28,800	
301	Miscellaneous	\$2,142	100%	0%	0%	\$2,142	50	\$0	
302	Professional Services	\$25,500	100%	0%	0%	\$25,500	so	\$0	
303	Safety Program	\$3,366	100%	0%	0%	\$3,366	\$0	\$0	
304	Watershed Management Program	\$10,710	100%	0%	0%	\$10,710	\$0	\$0	
305	TID Water	\$50,000	38%	62%	0%	\$19,000	\$31,000	\$0	
306	Small Tools	\$4,284	100%	0%	0%	\$4,284	90	\$0	
307	Supplies	\$7,038	100% 100%	0% 0%	0% 0%	\$7,038 \$97,594	\$0 \$0	\$0 \$0	
308	Payment in Lieu of Franchise Tax	\$97,594 \$10,710	100%	0%	0%	\$10,710	50 50	50 50	
309	Travel and Training Uniform Allowance	\$204	100%	0%	0%	\$204	\$0 \$0	50	
311	Utilities	\$62,712	29%	47%	24%	\$18,186	\$29,475	\$15,051	
312	Conservation	\$60,400	0%	0%	100%	\$0	\$0	\$60,400	•
313	Subtotal	\$912,388				\$536,088	\$229,982	\$146,319	
314									
315	O & M Subtola	\$1,794,488				\$1,241,768	5406,402	\$146,319	
316									
317	O&M COMPOSITE ALLOCATION FACTORS					<del>69</del> %	23%	8%	
318									
319	CAPITAL EXPENSES								
320	10.4								
321	Annual Outlays	\$0	100%	0%	0%	\$0	so	\$0	
322	Land Equipment	\$15,050	100%	0%	0%	\$15,050	50	\$0	
324	Improvements other then buildings	\$111,500	28%	0%	72%	\$31,220	\$0	\$80,280	
325	Subtotal	\$126,550				\$46,270	50	\$80,280	
326									
327	Debt Service								
328	Assessment Payments	\$2,500	100%	0%	0%	\$2,500	50	\$0	
329	GO Bond	\$270,000	38%	62%	0%	\$102,600	\$167,400	\$0	
330	1994 Water Treatment Plant Bonds	\$45,000	38%	62%	0%	\$17,100 \$122,200	\$27,900 \$195,300	\$0 \$0	
331	Subtotal	\$317,500				3124200	JUNCAU .	3-0	
332	Capital Expenses Subtota	J 5444,050				\$168,470	\$195,300	\$80,280	
334	Capital Expenses Stitute	- 94149000				*******			
335	O&M and Capital Expenses Subtota	\$2,238,538				\$1,410,238	5601,702	\$226,599	
336									
337	REVENUE REQUIREMENT COMPOSITE ALL	OCATION FACTORS				63%	27%	10%	
338									
339									
340					AUX-2	44-44-MMM			

$\perp$	ABCDE F G	Н	1 1	К	L	M N	0	Р	Q	R	
	CITY OF ASHLAND										
]	WATER RATE MODEL										
]	Hilton Farnkopf & Hobson 1/13/94 14:39										
\$											
2		CY 1994									
3		\$ to be	funct	ional Allocation		J.	unctionalized (	Costs			
4	_	Allocated	Base	Max. Day	Max. Hour	Base	Max. Day	Max. Hour			
5											
16	NON-OPERATION REVENUES										
1 42 43 44 45 46 47											
4 8	MISCELLANEOUS REVENUE SOURCES										
49 50											
O	Account Maintenance Charge	\$0	1009			S		\$0			
5 1	First Service Installation	\$80,000	289			\$22,40		\$57,600			
52	Interest on Investments	\$0	639			s		\$0			
53	Miscellaneous	\$10,000	631	\$ 27%	10%	\$6,30	0 \$2,688	\$1,012			
5 4											
5 5	Miscellaneous Subtotal	\$90,000				\$28,70	0 \$2,688	\$58,612			
56											
57	TRANSFERS (TO) / FROM FUNDS										
58											
9	Operations Balance	\$0	699		8%	\$		\$0			
0	Debt Reserve	(\$70,926)	389		0%	(\$26,95					
1	SDC Account	\$0	699			5		\$0			
2	Water CIP - Ongoing Construction	(\$75,000)	725	6 28%	0%	(\$54,30					
3	Water CIP - Bond Construction	50				\$	0 \$0	\$0			
4											
5.5	Transfers to / (from) Funds Subtotal	(\$145,926)				(\$81,25	1) (\$64,671)	\$0			
6											
7											
8 6	Non-Operating Subtotal	(\$55,926)				(\$52,55	5) (\$61,983)	\$58,612			
70											
70	Carryover from prior year surplus/(shorifall)	\$75,899	639	27%	10%	\$47,83	5 \$20,401	\$7,683			
1											
72	NET REVENUE REQUIREMENT	\$2,218,565				\$1,414,97	7 \$643,284	\$160,304			
3		1000									
4	· · · · · · · · · · · · · · · · · · ·	100%				64	% 29%	7%			 _

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1	CITY OF ASHLAND			1	· · · · · · · · · · · · · · · · · · ·			•			•		
- 2	WATER RATE MODEL												
-3													
4	Hilton Farnkopf & Hobson 1/13/94 14:39												
2 3 4 375 376	7,000												
376		CY 1994											
377		\$ to be		Punctio	nal Allocation	Factors		Fun	ctionalized C	Costs			
378		Allocated		Base	Max. Day	Max. Hour		Base	Max, Day	Max. Hour	•		
379				-	-						-		
380	FUND BALANCES												
381													
382													
383	WATER CIP - ONGOING CONSTRUCTION												
384													
385	Beginning Balance	\$0											
386	Transfers Out												
387	to Water Rights	\$93,500		100%	0%	0%		\$93,500	\$0	\$0			
388	improvement Projects												
389	Other Water Lines	\$0		38%	62%	0%		\$0	\$0	\$0			
390	Water Line Ashland St - Terrace	\$75,000		38%	62%	0%		\$28,500	\$46,500	\$0			
391	Subtotal	\$168,500						\$122,000	\$46,500	\$0			
391 392													
393	ONGOING CONSTRUCTION COMPOSITE	ALLOCATION	FACTOR					72%	28%	0%			
394													
395													
395 396													
397	FUNCTIONAL ALLOCATION FACTORS CAL	CULATION											
390													
399	If Average Day Flow =1												
400	then Max Day Flow = 1.6												
401	and Max Hour Flow = 3.4												
402													
403													
404	Allocation Factors	Base	Max Day	Max Hour	-								
405		100=	^~	0.00									:
406	Base (1/1)	100%	0%										i
407	Max Day (1.6/2.6)	38%	62%										
408	Max Hour (24/3.4)	28%	c	72%									
409	71 - 41 - 111	20.0	470	24%									
407 408 409 410 411 412 413 414 415	For Utilities	29%	47%	2976									
411	Change to Max Hour (3.4-2.6) 0.8												
412	Base (1/3.4)												
413	Max Day (1.6/3.4) Max Hour (0.8/3.4)												
414	Max (IDUL (U.B/ 3.4)												
416													
416													

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1	CITY OF ASHLAND		1		- 1	· · · · · · · · · · · · · · · · · · ·	
2	WATER RATE MODEL						
3	THE WAS DE						
4	Hilton Farnkopf & Hobson 1/13/94 14:39						
417	Tallott / Million a control of the control						
418	RATE ALTERNATIVE I - (Existing Current I	Black Structure)					
419	TOTAL CALL CONTROL OF THE	3.544.34.44.4					
420		Rates	Projected				
421		Effective	Rates				
422		january 1	January 1				
423		1993	1994				
424	Service Charges						
425	Set Aire Cital Rea						
425	Meter Size						
427	3/4" Meters	\$8.30 per month	\$8.73 per month				
428	I" Meters	\$9,00 per month	\$9.46 per month				
429	1.5* Meters	\$11.30 per month	\$11.88 per month				
430	2" Meters	\$12.00 per month	\$12.61 per month				
431	3" Meters	\$24.00 per month	\$25.23 per month				
431	4" Meters	\$33.90 per month	\$35.64 per month				
433	6" Meters	\$58.60 per month	\$61.60 per month				
434	8" Meters	579.60 per month	583.68 per month				
435	OF THE PARTY	<b>f</b>	t				
436							
437	Quantity Charges						1
438							
439	Residential Consumption						
440	,						
441	Up to 36 ccf per month	1.06 \$/cd	1.11 <b>5/</b> cd				
442	36 cd to 72 cd per month	1.28 \$/cd	1.35 \$/ccf				
441 442 443 444 445 446 447	Over 72 cd per month	1.54 \$/cd	1.62 5/cd				
444	•						
445	Non-Residential Consumption						
446	·						
447	3/4" Meters						
448	Up to 64 ccf per month	1.06 \$/cd	1.11 \$/ccf				
449	64 ccf to 128 ccf per month	1.28 \$/ccf	1.35 \$/ccf				
450	Over 128 ccf per month	1.54 \$/ccf	1.62 \$/ccf				
451	1" Meters						
452	Up to 92 ccf per month	1.06 \$/ccf	1.11 \$/ccf				
453	92 cd to 184 cd per month	1.28 <b>\$</b> /cd	1.35 \$/ccf				
454	Over 184 ccf per month	1.54 \$/cd	1.62 \$/ccf				
4 5 5	1.5" Meters						
456	Up to 230 ccf per month	1.06 \$/ccf	1.11 \$/ccf				
457	230 ccf to 460 ccf per month	1.28 \$/ccf	1.35 \$/cd				ļ
458	Over 460 ccf per month	1.54 \$/cd	1.62 <b>5</b> /cd				
459	2" Meters						
460	Up to 330 cd per month	1.06 \$/cd	1.11 \$/cd				
461	330 cd to 660 cd per month	1.28 \$/cd	1.35 \$/cd				
462	Over 660 ccf per month	1.54 <b>\$</b> /cd	1.62 \$/cd				
463	3" Meters						
464	Up to 430 cd per month	1.06 \$/ccf	1.11 \$/cd				
465	430 ccf to 860 ccf per month	1.28 <b>5</b> /cd	1.35 \$/cd				
466	Over 860 cd per month	1.54 S/ccf	1.62 \$/cd				
467	4" Meters	) m( = 1 · 1					
468	Up to 1290 ccf per month	1.06 5/cd	1.11 \$/cd 1.35 \$/cd				
4 5 9	1290 cd to 2580 cd per month	1.28 \$/cd					1
470	Over 2580 cd per month	1.54 <b>\$</b> /cd	1.62 \$/ccf				
471	6" Meters	) DC E11	111 11-				
472	Up to 2210 ccf per month	1.06 5/cd	1.11 \$/cd				İ
473	2210 cd to 4420 cd per month	1.28 S/cd	1.35 \$/ccf				
474	Over 4420 cd per month	1.54 \$/cd	1.62 \$/ccf				
465 466 467 468 469 470 471 472 473 474 475 476 477	8" Meters	1.06 \$/cd	1.11 \$/ccf				
476	Up to 4600 ccf per month 4600 ccf to 9200 ccf per month	1.28 \$/cd	1.35 \$/cd				
477	Over 9200 ccf per month	1.54 \$/cd	1.62 \$/ccf				
479	Creation on pro-month						
7,3	- CANADA CONTRACTOR CO		MAXIMA DI SANDERI MANDELLI MAN				

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	CITY OF ASHLAND													-
2 3	WATER RATE MODEL													
-2	WATER RATE MODEL													į
3	105 E ( (11(3) = 1	(22 (04 24-20												
4 0 0	Hilton Famkopf & Hobson 1	13/34 14.37												
480														
481	RATE ALTERNATIVE I (CO	NT.) - (Existing Cu	ment Block 5	(Integrate)										
482														
483											Projected	Projected	Projected	Projected
484											FY 1993-94	FY 1994-95	CY 1993	CY 1994
485		Monthly	Monthly	Actual	Projected	Projected	Projected	Projected		Actual	Service	Service	Service	Service
486		Rates	Rates	FY 1992-93	FY 1993-94	FY 1994-95	CY 1993	CY 1994		FY 1992-93	Charges	Charges	Charges	Charges
487		Effective	Effective	Number of	Number of	Number of	Number of	Number of		Service	using rates	using rates	using rates	using rates
488		1/1/92	1/1/93	Meters	Meters	Meters	Meters	Meters		Charges	eff. 1/1/93	eff. 1/1/93	eff. 1/1/93	eff. 1/1/93
489	REVENUES	- Allero		· ·								700112		
490														-
491	From meters													
492	3/4" Meters	\$6.64	\$8.30	5,560	5,617	5,674	5,588	5,645		\$498,398	\$559,425	\$565,131	\$556,600	\$562,278
493	1" Meters	57.20	\$9.00	202	204	206	203	205		\$19,634	\$22,039	\$22,263	\$21,927	\$22,151
494	1.5" Meters	\$9.04	\$11.30	113	114	115	114	115		\$13,791	\$15,479	\$15,637	\$15,401	\$15,558
495	2" Meters	\$9.60	\$12.00	88	89	90	88	89		\$11,405	\$12,801	\$12,932	\$12,737	\$12,867
			\$24.00	13	13	13	13	13		\$3,370	\$3,782	\$3,821	\$3,763	\$3,801
496	3" Meters	\$19.20		9	9	9	9	9		\$3,295	\$3,699	\$3,736	\$3,680	\$3,717
497	4" Meters	\$27.12	\$33.90											
498	6" Meters	\$46.88	\$58.60	2	2	2	2	2		\$1,266	\$1,421	\$1,435	\$1,414	\$1,428
499	8" Meters	\$63.68	\$79.60	2	2	2	2	2		\$1,719	\$1,930	\$1,950	\$1,920	\$1,940
500	Total			5,989	6,050	6,112	6,020	6,081		\$552,878	\$620,575	\$626,905	\$617,442	\$623,740
501														1
502														- 1
503														j
504	Total rate revenue collected	in FY 1 <del>992-93</del>			\$1,723,070	100.0%								1
505	Rate revenue collected from	service charges in i	Y 1992-93		\$5.52,878	32.1%								1
506	Rate revenue collected from			-	51,170,192	67.9%								ļ
507		,												
508														
509	Rate revenue that would have	ve heen collected in	FY 1992-93											j
510	if 1/1/93 rates were in ef													-
511	(Water rate increase of		year											
512	Projected revenue of		co charner		\$608,166									-
	,				\$1,287,211									Ì
513	Projected revenue of		mry charges		\$1,287,211									
514	Total Projected Rev	enue			//درد۱۵٫۱۵									
5 1 5											EN 1002 04	FY 1994-95	CY 1993	CY 1994
516							nesten de				FY 1993-94			
517							rrojected rate	revenue from o	luantity cha	ges	\$1,415,932	\$1,557,526	\$1,351,572	\$1,486,729
518														
519														
520														
521								Projected Total	Rate Revent	168	\$2,036,507	\$2,184,430	\$1,969,014	\$2,110,469
522														
523														

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1	CITY OF ASHLAND															
2	WATER RATE MODEL															
3																
-	When Sombook F Hobson 1	/12/04 14:30														
2 3 4 524 525 526	Hilton Farnkopf & Hobson 1	1 13/24 13:32														
524																
525	RATE ALTERNATIVE II - (M	lodified Increasing	g Block Struct	hire)												
526																
527																
327																
528																
529	Calendar Year 1994 Revenues	from current service	æ charges	\$655,687	30%											
530	Calendar Year 1994 Revenues	from quantity char-	ges	\$1,562,878	70%											
531	Calendar Year 1994 Net Reven		-	\$2,218,565	100%											
	Calendar Feat 1774 . Ver Neven	ac maganement		*=,==,												
532																
533																
534	CALCULATION OF SERVICE	CHARGES														
535																
	Daniel Charles Campions Ch	sant (from about)		\$655,687												
536	Revenues from Services Chi	_														
537	Projected Number of EMUs	in CY 1994		6,584												
538																
539	Yearly charge per EMU			\$99.59												
540	Monthly charge per EMU			\$8.30												
	working charge per auto															
541																
5 4 2																
5 4 3						Projected	Projected	Percent								
5 4 4					Projected	CY 1994	CY 1994	Change in								
5 4 5			Monthly	Monthly	CY 1994	Service	Monthly	Monthly								
		77.411		•			,	•								
5 4 6		EMUs per	Charge	Charge	Number of	Charge	Charge	Charge								
5 4 7	Meter Size	meter	per EMU	per meter	Meters	Revenue	per Meter	per Meter								
548																
549	3/4" Meters	1.00	\$8.30	\$8.30	5645	\$562,214	\$8.73	(5%)								
550	1" Meters	1.35	\$8.30	\$11.20	205	\$2 <i>7,57</i> 5	\$9.46	18%								
			\$8.30	\$15.77	115	521,710	\$11.88									
5 5 1	1.5" Meters	1.90														
552	2" Meters	2.50	\$8.30	\$20.75	89	\$22,246	\$12.61	64 %								
553	3" Meters	5.00	\$8.30	\$41,50	13	\$6,573	\$25.23									
554	4" Meters	8.00	\$8.30	\$66.39	9	57,280	\$35.64	86%								
555	6" Meters	15.00	58.30	\$124.49	2	\$3,034	\$61.60	102%								
556	8" Meters	25.00	\$8.30	5207.48	2	\$5,056	\$83.68									
		1,5100	\$0.00		6081	\$655,687	*									
557	Total				0001	30,007										
558																
559																
560	ALLOCATION OF CY 1994 Q	JANTITY CHARG	E REVENUES	STO BASE AN	ND PEAK COM	MPONENTS										
561	-															
	Uses	Peak	Total													
562	Ваве			(N)-+ ()	. D	C	Onneine C									
5 6 3	64 %	36%		(iver Kevenue	Requirement	composite A	HOCKHOR PROLE	DIS)								
564	\$996,787	\$566,091	\$1,562,878													
565																
566																
567	ALLOCATION OF BASE AND	PEAK COMPONE	ENTS TO CH	STOMER CL4	ASSES											
	ALLOCA FIGHTOF BROK AND															
5 6 B								Fr 12		esser all a constitution of			and as Ar			
569	Functionalization of quantit	y charge revenue re	aquirement all	located to Bas	æ			Functionalizati	ion of quant	ury charge rev	enue require	ment allocat	ed to No	n-base		
570																
571								Estimated								
572		Projected						CY 1994								
		CY 1994		Base				Peak		Non-Base						
573																
574		Consumption		Revenue				Consumption	_	Revenue						
575		(CCF)	Percent	Requirement				(CCF)*	Percent*	Requiremen	<u>ıt</u>					
576	_															
577	Residential	892,474	68.4%	\$682,054				491,400	66.8%	6 \$378,149	,					
578	Non-Residential	411,832	31.6%					244,229	33.2%							
			31.07					735,629		\$566,091						
579	Total	1,304,306		\$996,787				/ 33,029		\$200,091						
580																
								* Peak months	are June, Ju	ıly, August, S	:ptember, and	d October				
580 581 582								* Peak months * Peak consum		, ,	•		on CY 19	92)		

	ABCDE F G H	1 ] ]	К		M	I N	0	Р	Q	R	- 5
1	CITY OF ASHLAND			•					——————————————————————————————————————		
2	WATER RATE MODEL										
3 4 583	Hilton Farnkopf & Hobson 1/13/94 14:39										
583	Hillon rankopi az riouson (7/13/34/14/33										
584	RATE ALTERNATIVE II (CONT.)- (Modified Increasing Bloc	k Structure)									
585	· ·										
586	CALCULATION OF QUANTITY CHARGES										
587	RESIDENTIAL										
588	Design Company										
589	Residential Quantity Charge Revenue Requirement Base	\$682,054									
591	Peak	\$378,149									
592	Total	\$1,060,202									
593											
594	Projected Residential consumption in CY 1994	892,474 (ccf)									
595	Projected reduction in consumption due to price elasticity	3%									
596 597	Projected Residential consumption in CY 1994										
598	adjusted for price elasticity	865,700 (ccf)									
599	,,	, (									
600	Average charge per ccf	\$1.225									
601											
602			Block 1	Block 2	Block 3	Block 4	mom · ·				
603	Residential Quantity Charge Revenue Requirement (Begin	ning Halancel	Lifeline	Conservation	rugh Use	Excessive Use	TOTAL				
605	Base Component	D B D	\$682,054	\$393,679	\$0	\$0					
606	Peak Component		\$378,149	\$378,149	\$328,663	\$50,360					
607	Total		\$1,060,202	\$771,827	\$328,663	\$50,360					
808											1
609	Monthly Consumption Range (ccf)		Up to 3		11 to 25	Over 25					ł
610	Average Consumption (gallons/day)		Up to 75	75 to 250	250 to 625	Over 625					- 1
612	Rate Compared to Average Cost		85%	95%	125%	158%					
613	Rate (S/ccf)		\$1.041	\$1.163	\$1.531	\$1.93 <del>9</del>					
614											
615	Percent of Annual Consumption in Consumption Range		32%	44%	21%						1
616	Consumption in Consumption Range (cd)		277,024	380,908	181,797	25,971	865,700				i
1.618	Revenue Conerated		\$288,375	\$443,165	\$278,303	\$50,360	\$1,060,202				
619	Revenue Surplus/(Shortfall)		(\$50,890)	(\$23,324)	\$55,661	\$18,554	50				
620											ļ
621	Residential Quantity Charge Revenue Requirement (Endin	g Balance)									ļ
622 623	Base Component Peak Component		\$393,679 \$378,149	50 \$328,663	\$0 \$50,360	\$0 \$0					
624	Total		\$771,827	\$328,663	\$50,360	\$0					
625				,	,	•-					1
626											l
627	NON - RESIDENTIAL										İ
629	Revenue to be generated by non-residential quantity charg.	es									
630	Base	\$314,733									1
631	Non-Base	\$187,942									Ţ
632	Total	\$502,675									
633 634	Projected non-residential in CY 1994	411,832 (cd)									- 1
635	Projected reduction in consumption due to price elasticity	1%									1
636											1
637	Projected Residential consumption in CY 1994										-
638	adjusted for price elasticity	407,713 (ccf)									
639 640	Average charge per ccf	\$1.233									,
641	arciage cauge per to	ال لنف ۽ ب									- 1
642			Block 1	Block 2							
643			Smali	Large	Total						-
644	Residential Quantity Charge Revenue Requirement (Beginn	ung Balance)									
645	Base Component		\$314,733	\$67,668							
647	Peak Component Total		\$187,942 \$502,675	\$187,942 \$255,610							1
6 4 8				,							1
649	Monthly Consumption Range (cd)		0 to 50	Over 50							.
650											. [
651 652	Rate Compared to Average Cost		98%	102%							
653	Rate (S/ccf)		\$1.212	\$1.254							
654	Percent of Annual Consumption in Consumption Range		50%	50%							
655	Consumption in Consumption Range (ccf)		203,857	203,857	407,713						1
656											
657	Revenue Cenerated		\$247,065 (\$4.373)	\$255,610	\$502,675						
658	Revenue Surplus/(Shortfall)		(\$4,273)	\$4,273	\$0						
660	Residential Quantity Charge Revenue Requirement (Ending	; Balance)									
661	Base Component		\$67,668	\$0							1
662	Peak Component		\$187,942	\$0							
663	Total		\$255,610	\$0			***************************************				

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1	CITY OF ASHLAND						<u> </u>	,		<u> </u>			, I , N	- 3
2	WATER RATE MODEL													
3	(7)(1)(2)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)													
4	Hilton Farnkopf & Hobson	1/13/94 14:39												
664	•													
	ATE ALTERNATIVE III - (Seat	sonal)												
666														
667														
668														
669	Calendar Year 1994 Revenues	from current service	e charges	\$655,687	30%									
670	Calendar Year 1994 Revenues		ges	\$1,562,878	70%									
671	Calendar Year 1994 Net Reve	nue Requirement		\$2,218,565	100%									1
672														
673	CHAIR ATTOM OF CURING	E COLLEGE C												
674 675	CALCULATION OF SERVIC	ECHARGES												
676	Revenues from Services Ci	arges (from above)		\$655,687										
677	Projected Number of EMU	_		6,584										
678	. repetite i territori or fatto			~,~~1										
679	Yearly charge per EMU			\$99.59										
680	Monthly charge per EMU			\$8.30										1
681														ĺ
682						Projected	Projected	Percent						
683					Projected	CY 1994	CY 1994	Change in						
684			Monthly	Monthly	CY 1994	Service	Monthly	Monthly						
685		EMUs per	Charge	Charge	Number of	Charge	Charge	Charge						-
686	Meter Size	meter	per EMU	per meter	Meters	Revenue	per Meter	per Meter						ł
687	3/4" Meters	1,00	\$8.30	\$8.30	5645	\$562,214	\$8.73	(5%)						
688	1" Meters	1.35	\$8.30	\$11.20	205	\$27,575	\$9.46							
690	1.5" Meters	1.90	\$8.30	\$15.77	115	\$21,710	\$11.88							
691	2" Meters	2.50	\$8,30	\$20.75	89	\$22,246	\$12.61							
692	3" Meters	5.00	\$8.30	\$41.50	13	\$6,573	\$25.23	64%						
693	4" Meters	8.00	\$8.30	\$66.39	9	\$7,280	235.64							İ
694	6" Meters	15,00	\$8.30	\$124.49	2	\$3,034	\$61.60							
695	8" Meters	25.00	\$8,30	\$207.48	2	\$5,056	\$83.68	148%						
695	Total				6081	\$655,687								
697														
698														
700	ALLOCATION OF QUANTTI	Y CHARGE REVEN	UE REOUIR	EMENT TO B.	ASE AND PEA	к сомром	IENTS							
701	ACCOCATION OF QUILLY	· ci iiiiios iia ii												-
702	Base	Peak	Total											- 1
703	64%	36%	100%	Net Revenue	Requirement (	Composite Al	location Fact	tors)						j
704	\$996,787	\$566,091	\$1,562,878											į
705														
706		B 101 - 17 200 - 1000 - 10	ta catalogical services	YEALVES CO. :	ce re									
707	ALLOCATION OF BASE AN	D PRAK COMPONE	1419 TO CUS	HOMBS CLA	2012									
709	Functionalization of quanti	ry charge revenue re	gurement all	ocated to Base				Functionalizati	on of quant	av charoe rec	епие гедиле	ment allocate	d to Non-hase	
710	. and a small part on or quanti	.,	7						q	.,				
711								Estimated						
712		Projected						CY 1994						1
713		CY 1994		Base				Peak		Non-Base				1
714		Consumption		Revenue				Consumption		Revenue				
715	_	(CCF)	Percent	Requirement				(CCF)*	Percent	Requiremen	<u>t</u>			
716				F400 0F1				,,,,,,,,		gama				
717	Residential	892,474	68.4%	\$682,054				491,400	66.8%					
718	Non-Residential Total	1,304,306	31.6%_	\$314,733 \$996,787				735,629	33.2%	\$187,942 \$566,091				Į
720	(034)	DOCHMEN		# 1 7 U / U I				, 00,027		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				ĺ
721								* Peak months	ire June, Ju	ly, August, Se	ptember, and	d October		
722										,				
										**************************************				

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1	CTTY OF ASHLAND	· · · · · · · · · · · · · · · · · · ·	·	· · · · · ·				,		· · · · · · · · · · · · · · · · · · ·		<u></u>		
2	WATER RATE MODEL						•							1
3														1
4	Hilton Farnkopf & Hobson	1/13/94 14:39												l
723	•													[
724	RATE ALTERNATIVE III (C	CONT.)- (Seasonal)												ŀ
725														t
726	CALCULATION OF QUANT	ITTY CHARGES												
727														1
728	WINTER RATES													- 1
729														
730	Base portion of revenue	•	quantity charg	es		\$996,787								- 1
731	Projected CY 1994 Cons					1,304,306	(ccf)							
723 724 725 726 727 728 729 730 731 732 733	Projected reduction in a	consumption due to	price elasticity	7		3%								
733														
734	Projected CY 1994 const	umption adjusted fo	r price elastici	ity		1,265,177	(ccf)							
735														
736	Quantity charge during	g winter months				\$0.788	(\$/ccf)							
737														
738														
739														
740	SUMMER RATES													-
741	-1.1. (5.16													l
742	Calculation of Peak Season	i Surcharge												
743	Peak portion of revenue	- saguramani fran	arrantii chass			\$566,091								
744	Projected consumption:			,es		735,629	(cd)							
745	Projected reduction in a					3%	,,							
740	1 rojected reduction are	arisminphon due to	price clasactly			0.2								
748	Projected consumption	in CY 1994 peak mu	nths adjusted	(or price el-	sticty	713,560	(o <del>d</del> )							
749	Trojected extouripment	in C.1 (55) peak ins		,_, <sub>F</sub>	,		,							
750														
751														
752	Peak Season Surcharge					\$0.793	(\$/ccf)							-
735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751	J													
754	Quantity charge during	g summer months				\$1.581	(\$/ccf)					_		

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SEWER RATE MODEL

A	IBICIDE F G	Н	1	J	К	L	М	N	0	Р	l o	R	S
1	CITY OF ASHLAND												1
]	WASTEWATER RATE MODEL												
]													
7	Hilton Farnkopf & Hobson												
٦	1/13/94 14:39												
1					Amended	Estimated	Estimated						
1		Actual	Actual	Actual	Budget	Budget	Budget						
1		FY 1990-91		FY 1992-93		FY 1994-95	FY 1995-96	CY 1993	CY 1994	CY 1995	CY 1996	CY1997	CY1998
1	REVENUE REQUIREMENT									31.170		G11777	C11370
1	VE 4 E 4 A 0 ME & STATE A STAT												
1	OPERATIONS & MAINTENANCE												
1	OPERATIONS & MARIATIES AFRICE												
	Personnel Services												
_		\$219,636	\$299,042	\$267,233	\$309,330	e231 702	\$334,571	£200.202	401 ** 510	****			
4	Regular Salaries and Wages		-	-		\$321,703		\$288,282	\$315,517	\$328,137	\$341,263	\$354,913	-
4	Overtime Pay	\$9,520	\$12,034	\$15,891	\$16,000	\$16,640	\$17,306	\$15,946	\$16,320	\$16,973	\$17,652	\$18,358	\$19,092
4	Fringe Benefits	\$80,033	\$109,381	\$102,382	\$128,670	\$133,817	\$139,169	\$115,526	\$131,243	\$136,493	\$141,953	\$147,631	\$153,53
_	Additional Costs-WWTP	50	\$0	50	50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,000
	Subtotal	\$309,189	\$420,457	\$385,506	\$454,000	\$472,160	\$491,046	\$41 <i>9,75</i> 3	\$463,080	\$481,603	\$500,867	\$520,902	\$991,738
	Materials and Services												
1	Advertising and Publications	\$467	\$70	\$936	\$3,000	\$3,120	\$3,245	\$1,968	\$3,060	\$3,182	\$3,310	\$3,442	\$3,580
1	Central Service Charges	\$210,000	\$250,300	\$245,000	\$257,300	\$267,592	\$278,296	\$251,150	\$262,446	\$272,944	\$283,862	\$295,216	\$307,025
1	Chemical and Lab Fees	\$7,281	\$12,816	\$13,816	\$15,000	\$16,200	\$17,496	\$14,408	\$15,600	\$16,848	\$18,196	\$19,652	
1	Contracted Services	\$0	50	\$3,000	\$15,000	\$10,200	\$17,450		-				\$21,224
1								\$1,500	\$0 5510	\$0	\$0	\$0	\$0
4	Dues and Subscriptions	\$160	\$230	\$658	\$500	\$520	\$541	\$579	\$510	\$530	\$552	\$574	\$597
ļ	Equipment Rental - City	\$66,250	\$85,789	\$72,281	\$80,380	\$98,595	\$101,939	\$91,331	\$96,988	\$100,267	\$103,678	\$107,225	\$110,914
ļ	Equipment Rental - Outside	\$495	\$1,291	\$650	\$1,000	\$1,040	\$1,082	\$825	\$1,020	\$1,067	\$1,103	\$1,147	\$1,193
1	nsurance	\$7,257	\$7,264	\$8,607	\$8,500	\$9,180	\$9,914	\$8,554	\$8,840	\$9,547	\$10,311	\$11,136	\$12,027
j	Licenses and Permits	\$4,373	\$11,261	\$9,440	\$12,000	\$12,480	\$12,979	\$10 <i>,7</i> 20	\$12,240	\$12,730	\$13,239	\$13,768	\$14,319
]	Maintenance	\$9,733	\$14,160	\$31,509	\$21,920	\$22,797	\$23,709	\$26,715	\$22,358	\$23,253	\$24,183	\$25,150	\$26,156
1	Miscellaneous	\$0	\$0	\$209	\$0	50	\$0	\$105	\$0	\$0	\$0	\$0	\$0
1	Professional Services	\$135,739	\$47,330	\$105,230	\$50,000	\$25,000	\$26,000	\$77,615	\$37,500	\$25,500	\$26,520	\$27,581	\$28,684
1	Safety Program	\$1,614	52,696	\$2,358	\$2,600	\$2,704	\$2,812	52,479	\$2,652	\$2,758	\$2,868	\$2,983	\$3,102
1	Small Tools	\$2,302	\$2,980	\$3,797	\$2,000	\$2,080	\$2,163	\$2,899	\$2,040	\$2,122	\$2,206	\$2,295	\$2,387
1	Office Supplies	\$1,314	\$483	\$472	\$1,300	\$1,352	\$1,406	\$886	\$1,326	\$1,379	\$1,434	\$1,492	\$1,551
ł	- ·	52,319	\$3,518	\$5,302	54,000	\$4,160	\$4,326	\$4,651	54,080	\$4,243			
1	Technical Supplies	\$20,000	\$45,337	\$59,341	\$65,000				-		\$4,413	\$4,589	\$4,773
4	Payment in Lieu of Franchise Tax				-	573,116	\$73,851	\$88,822	\$91,478	\$107,101	\$108,982	\$120,114	\$125,000
1	Travel and Training	\$2,293	\$2,470	\$1,148	\$3,500	\$3,640	\$3,786	\$2,324	\$3,570	\$3,713	\$3,861	\$4,016	\$4,176
1	Uniform Allowance	\$0	\$354	\$278	\$3,000	\$3,120	\$3,245	\$1,639	\$3,060	\$3,182	\$3,310	\$3,442	\$3,580
Į	Utilities	\$104,173	\$86,385	\$88,583	\$115,000	\$124,200	\$134,136	\$101,792	\$119,600	\$129,168	\$139,501	\$150,662	\$162,714
	Land Lease-Studge Application	\$0	\$0	\$0	\$5,000	\$5,200	\$5,408	\$2,500	\$5,100	\$5,304	\$5,516	\$5,737	\$5,966
	Subtotal	\$575,770	\$574,734	\$652,615	\$651,000	\$676,096	\$706,333	\$693,460	\$693,468	\$724,832	\$757,045	\$800,220	\$838,968
	O & M Subtotal	\$884,959	\$995,191	\$1,038,121	\$1,105,000	\$1,148,256	\$1,197,380	\$1,113,213	\$1,156,548	\$1,206,435	\$1,257,913	\$1,321,122	\$1,830,706
İ												•	•
İ													
	CAPITAL EXPENSES												
Ì													
	Annual Outlay												
	•	C1 0 000	**		**	**							
	Buildings	\$18,928	\$0 64 534	\$0	\$0	\$0	\$0	\$0	\$0	50	\$0	\$0	\$0
	Equipment	\$149,189	\$4,524	\$4,075	\$15,000	\$15,000	\$15,000	\$9,538	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
	Improvements other then buildings	\$23,874	\$75,951	\$6,605	\$138,400	\$78,000	\$147,800	\$72,503	\$108,200	5112,900	\$114,052	\$115,215	\$116,390
	Digester Roof	\$0	\$0	5416,286	\$70,000	\$0	\$0	\$243,143	\$35,000	\$0	\$0	<b>S</b> 0	\$0
	Subtotal	\$191,991	\$80,475	\$426,966	\$223,400	\$93,000	\$162,800	\$325,183	\$158,200	\$127,900	\$129,052	\$130,215	5131,390
	Debt Service												
	Assessment Payments	\$5,340	\$5,865	\$4,687	\$4,200	\$1,200	\$0	\$4,444	\$2,700	\$600	\$0	\$0	\$0
	Interest on Digester Roof	\$0	50	\$5,878	\$17,000	02	\$0	\$11,439	\$8,500	\$0	50	\$0 \$0	\$0 \$0
	Loan Repayment	\$0	s0	\$0	\$234,000	50	\$0 \$0	\$117,000	\$117,000	\$0	\$0	50 50	\$0 \$0
	Debt Service on 1996 WWTP Bond	50											
	-		\$0	\$0	50	\$0	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000	\$1,880,000
	Subtotal	\$5,340	\$5,865	\$10,565	\$255,200	\$1,200	\$0	\$132,883	\$128,200	\$600	\$1,000,000	\$1,000,000	\$1,880,000
	Capital Expense Subtotal	\$197,331	\$86,340	\$437,531	\$478,600	\$94,200	\$162,800	\$458,066	\$286,400	\$128,500	\$1,129,052	\$1,130,215	\$2,011,390
	—p												
	Revenue Requirement Subtotal	\$1,082,290	\$1,081,531	\$1,475,652	\$1,583,600	\$1,242,456	\$1,360,180	\$1,571,278	\$1,442,948	\$1,334,935	\$2,386,964	\$2,451,337	\$3,842,096

1 2 3 4 5 67	BCDE F G CITY OF ASHLAND WASTEWATER RATE MODEL	Н		L	K	L	М	N _	0	P	Q	Ř	S
3 4 5													
3 4 5	TADIETATER RATE MODEL												
5													
. 5	Hilton Farnkopf & Hobson												
67	1/13/94 14:39												
	17 137 74 14.37				Amended	Estimated	Estimated						
68		Actual	Actual	Actual	Budget	Budget	Budget						
69		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	CY 1993	CY 1994	CY 1995	CY 1996	CY1997	CY1998
70	-												
71	TOTAL REVENUE REQUIREMENT (CONT.)	\$1,082,290	\$1,081,531	\$1,475,652	\$1,583,600	\$1,242,456	\$1,360,180	\$1,571,278	\$1,442,948	\$1,334,935	\$2,386,964	\$2,451,337	\$3,842,096
72						.,,	, ,	, ,				·	,,
73	NON-OPERATING REVENUES												
74													
7.5	MISCELLANEOUS REVENUE SOURCES												
76													
77	First Service Installation	\$64,052	\$44,965	\$55,700	\$50,000	\$50,000	\$50,000	\$52,850	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
78	Interest Earnings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	SO	\$0	\$0	\$0
79	DEQ Grant - WWTP Study	\$120,000	\$47,330	\$93,425	\$0	\$0	\$0	\$46,713	\$0	\$0	\$0	\$0	\$0
80	Food and Beverage Tax	\$0	50	50	50	\$0	\$0	\$0	\$0	50	5650,000	\$650,000	\$650,000
81	Miscellaneous	5217	\$1,223	(\$1,416)	\$0	\$0	02	(\$708)	50	\$0	\$0	\$0	\$0
8 2	Subtotal	\$184,269	\$93,518	\$147,709	\$50,000	\$50,000	\$50,000	\$98,855	\$50,000	\$50,000	\$700,000	\$700,000	\$700,000
8.3													
8 4													
8 5	TRANSFERS (T0) / FROM FUNDS												
86					- 4								
87	Operations Balance	\$164,631	\$145,790	(\$46,047)	\$0	50	\$0	(\$123,024)	50	(\$360,000)	(\$310,000)	(\$570,000)	\$450,000
88	SIX: Account	50	50	\$0	\$10,500	\$0	\$0	\$5,250	\$5,250	\$14,000	\$14,000	\$14,000	\$14,000
8 9	Sewer Construction Account	\$0	\$0	\$0	50	50	50	\$0	50	50	\$0	\$0	50
90	Interfund Loan (inc. Interest payment)	\$0 \$164,631	\$0 \$145,790	\$250,000 \$203,953	50 \$10,500	50 50	\$0 \$0	\$0 (\$117,774)	\$0 \$5,250	(\$346,000)	\$0 (\$296,000)	(\$556,000)	\$0
91	Subtotal	\$164,631	3145,790	3203,933	\$10,500	50	20	(3117,774)	\$3,230	(\$346,000)	(\$296,000)	(\$556,000)	\$464,000
92	No. On anning Program Subtotal	\$348,900	5239,308	\$351,662	\$60,500	\$50,000	\$50,000	(\$18,919)	\$55,250	(\$296,000)	\$404,000	\$144,000	\$1,164,000
94	Non-Operating Revenue Subtotal	3340,900	3239,300	3331,002	\$60,500	\$30,000	\$30,000	(310,719)	\$55,250	(\$236,000)	\$404,000	\$144,000	\$1,184,000
9.5	Revenue Requirement Subtotal	\$733,390	5842,223	\$1,123,990	\$1,523,100	\$1,192,456	\$1,310,180	\$1,590,197	\$1,387,698	\$1,630,935	\$1,982,964	\$2,307,337	\$2,678,096
96	Neverlae Requirement Sources	מיב,טכיים	3012,223	31/120/270	21,020,100	31,172,400	\$1,510,100	31,070,177	21,000,000	\$1,000,100	\$1,70Z,704	92,AM	\$2,070,030
97													j
98													
99	Carryover from prior year surplus/(shortfall)	\$0	\$0	\$0	\$0	(\$136,737)	\$71,312	\$0	(\$275,341)	(\$295,098)	(\$246,031)	(\$283,317)	(\$338,922)
100	,· · · · · · · · · · · · · · · · · ·		•	,	•							,,	/
101	NET REVENUE REQUIREMENT	\$733,390	\$842,223	\$1,123,990	\$1,523,100	\$1,329,192	\$1,238,868	\$1,590,197	\$1,663,039	\$1,926,033	\$2,228,996	\$2,590,654	\$3,017,019
102	-												
103													
104													
105	RATE REVENUES	\$733,390	\$842,223	\$1,123,990	\$1,386,363	\$1,400,504	\$1,414,790	\$1,314,857	\$1,367,941	\$1,680,002	\$1,945,679	\$2,251,732	\$2,617,079
106													
107	SURPLUS/(SHORTFALL)	\$0	\$0	\$0	(\$136,737)	\$71,312	\$175,922	(\$275,341)	(\$295,098)	(\$246,031)	(\$283,317)	(\$338,922)	(\$399,940)
108													
109	RATE INCREASE INDICATED	_				-	~~	20.94%	21.57%	14.64%	14.56%	15.05%	15.28%
110													

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	ABCDE F G	Н	<u> </u>	J	К	L	M	N	0	<u>}</u> P	0	I R	s
1	CITY OF ASHLAND												
2	WASTEWATER RATE MODEL												
3													
5	Hilton Farnkopf & Hobson												
. 5	1/13/94 14:39												
111						F 2	F						
112					Amended	Estimated	Estimated						
113		Actual	Actual	Actual	Budget	Budget	Budget	CT1 +000	day 100.1	CD4 + 0.05			
114		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	CY 1993	CY 1994	CY 1995	CY 1996	CY1997	CY1998
115													
116	FUND BALANCES												
117	and the second second												
118	OPERATING BALANCE												
119	0	\$535,698	\$400,917	\$272,605	\$326,137	\$337,552	\$349,366	\$299,371	\$431,844	*442.450	6015 400	** ***	A- 700 000
120	Seginrong Balance	(\$164,631)	(\$145,790)	\$46,047	\$0	\$0 \$0	5349,365 \$0	\$123,024	\$0	\$443,459 \$360,000			\$1,780,002
121	Transfers In/(Out)	\$29,850	\$17,478	\$7,485	\$0 \$11,415	\$11,814	\$12,228	\$9,450				\$570,000	(\$450,000)
122	Interest	\$400,917	\$272,605	\$326,137	\$337,552	\$349,366	\$361,594	\$431,844	\$11,615 \$443,459	\$12,021 \$815,480	\$33,967	\$50,556	\$54,425
123	Ending Balance	\$400,917	3272,003	3320,137	332, 332	\$349,300	4450,1064	\$450,1044	\$443,439	2013,450	\$1,159,447	\$1,780,002	\$1,384,428
124													
125	SDC ACCOUNT												
127	ODC ACCOUNT												
128	Beginning Balance	\$0	90	\$13,091	\$46,130	557,411	\$102,155	\$29,611	\$51,770	\$76,783	\$102,363	\$128,331	\$128,456
129	Revenue Collected	,,,	~~	-10,071	210,150	-37,111	4.02,100	וויסקרבט	431,770	410,100	7.02,000	الحرانده	* (XU)******
130	from System Development Fee - Water	\$0	\$0	\$0	\$0	\$0	\$0	50	\$0	\$0	50	so	50
131	from SDC - Distribution/Collection	\$0	\$5,245	\$11,950	\$14,000	\$14,000	\$14,000	\$12,975	\$14,000	\$14,000		\$14,000	\$14,000
132	from SDC · Treatment	\$0	\$7,846	\$20,204	522,000	\$28,000	\$34,000	\$21,102	\$22,000	\$22,000	\$22,000	\$28,000	\$34,000
133	Subtotal	50	\$13,091	\$32,154	\$36,000	\$42,000	\$48,000	\$34,077	\$36,000	\$36,000	\$36,000	\$42,000	\$48,000
134	Transfers Out			•		, i	,	•	•		•	•	,
135	to Digester Roof	\$0	\$0	50	\$16,000	\$0	\$0	\$8,000	\$8,000	\$0	50	\$0	\$0
136	to Sewer O&M	\$0	\$0	\$0	\$10,500	\$0	\$0	\$5,250	\$5,250	\$14,000		\$14,000	\$14,000
137	to Sewer Construction Account	50	90	\$0	90	\$0	\$0	50	50	\$0	\$0	\$0	50
138	Subtotal	50	50	\$0	526,500	50	\$0	\$13,250	\$13,250	\$14,000	\$14,000	\$14,000	\$14,000
139													
140	Interest	50	\$0	\$885	\$1,781	\$2,744	\$4,415	\$1,333	\$2,263	\$3,580	\$3,9 <del>6</del> 8	\$4,982	\$5,091
141	Ending Balance	50	513,091	\$46,130	\$57,411	\$102,155	\$154,571	\$51 <i>,7</i> 70	\$76,783	\$102,363	\$128,331	\$128,456	\$128,581
142	·												
143													
144	SEWER CONSTRUCTION ACCOUNT												
145													į
145	Beginning Balance	\$0	\$0	\$0	\$0	\$661,375	\$1,345,898	50	\$193,325	\$861,466	(\$482,007)	\$10,439,247	(\$133,504)
147	Transfers In												
148	from Sewer O&M	\$0	90	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	s0	\$0
149	from SDC Account	\$0	50	\$0	50	\$0	\$0	\$0	\$0	\$0	\$G	\$0	\$0
150	from Bond Sale Proceeds	90	\$0	\$0	50	\$0	\$0	\$0	\$0		\$21,500,000	\$0	\$0
151	from Food & Beverage Tax			\$0	\$650,000	\$650,000	\$650,000	\$190,000	\$650,000	\$650,000	\$0	\$0	\$0
152	Subtotal	<b>S</b> 0	50	\$0	\$650,000	\$650,000	\$650,000	\$190,000	\$650,000	\$650,000	\$21,500,000	\$0	\$0
153	Transfers Out												
154	to Improvement Projects												
155	Wastewater Treatment Plant-Upgrade	-4							-	A9 ABA AF-			
156	Design	\$0 50	\$0	50	s0 s0	\$0	\$0	\$0	\$0	\$2,000,000	\$0	\$0	\$0
157	Construction	\$0 50	<b>9</b> 0	90	50	\$0 50	\$0	\$0 50	\$0 60		\$10,000,000		\$0
158	Construction Management	50 \$0	50 50	\$0 \$0	90 90	50 50	\$0 \$0	\$0 \$0	50 50	\$0	\$750,000 \$10,750,000	\$750,000	\$0 \$0
159	Subtotal	<b>3</b> 0	30	ÞŪ	30	20	DO.	<b>3</b> 0	<b>&gt;</b> 0	\$2,000,000	910,730,000	\$10,730,000	20
161	Interest	\$0	\$0	\$0	\$11,375	\$34,523	\$58,481	\$3,325	\$18,141	\$6,526	\$171,255	\$177,249	(\$4,673)
162	Ending Balance	60	\$0	\$0	\$661,375	\$1,345,898	\$2,054,380	\$193,325	\$861,466		\$10,439,247	(\$133,504)	(\$138,177)
163	Lienty Court	••	•		***************************************	V, pr 10,070	V#,000 1,000	***********	***************************************	(3102,007)	010,107,217	(4150,001)	(\$100)1777
164													
165													
166	ENDING FUND BALANCES												
167													
168	Operating Balance	\$400,917	\$272,605	\$326,137	\$337,552	\$349,366	\$361,594	\$431,844	\$443,459	\$815,480	\$1,159,447	\$1,780,002	\$1,384,428
169	SDC Account	\$0	\$13,091	\$46,130	\$57,411	\$102,155	\$154,571	\$51,770	\$76,783	\$102,363	\$128,331	\$128,456	\$128,581
170	Sewer Construction Account	\$0	\$0	50	\$661,375	\$1,345,898	\$2,054,380	\$193,325	\$861,4 <del>66</del>		\$10,439,247	(\$133,504)	(\$138,177)
170	Total	\$400,917	\$285,696	\$372,267	\$1,056,338	\$1,797,419	\$2,570,544	\$676,940	\$1,381,708	\$435,836	\$11,727,025	\$1, <i>7</i> 74,954	\$1,374,832
172	(CUP DOWN)												

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	CITY OF ASHLAND		<u>''</u>	<u> </u>			· <del>I</del>		1 ,-		<u> </u>		. <del></del>	
1														
2	WASTEWATER RATE MODEL													
3														
4	Hilton Farnkopf & Hobson													
5	1/13/94 14:39													
173														
174	NUMBER OF SEWER ACCOUN	ITS PROJECTI	ON											
175														
176		Estimated	Projected											
177		CY 1993*	CY 1994**											
178				-										
179	Residential	4,832	4,881											
180	Non - Residential	815	823											
		5,647	5,705	-										
181	Total	3,047	3,700											
182			4 D	d										
183	June 1993 (Assumes Multi-		nted as Kesi	gemiai)										
184	Projected population grow	vth 1.02%												
185														
186														
187														
188	TOTAL DISCHARGES TO SEW	ER CALCULA	TION											
189														
190					Projected									
191				Projected	CY 1994									
192		Projected		CY 1994	Average		Projected							
193		CY 1994	Winter	Winter	Winter		CY 1994							
194		Water	water use	Water	Month		Discharges							
195		Consumption	45 2 % Of	Consumption	Consumption	1	to Sewer							
196		(OCF)	total use**	(CCF)	(CCF)		(CCF)							
197						•								
198	Residential	892,474	16.1%	143,688	47,896		574,753							
199	Non - Residential*	341,471	102110	. 15,000	.,,,,,,,		341,471							
		1,233,945					916,224							
200	Total	1,230,740					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
201														
202	Excludes Irrigation Accoun													
203	"Winter months are Januar													
204	** Based on average of FY 19	991-92 and FY 1	992-93											
205														
206														
207														
208	NON-RESIDENTIAL BOD AND	SS CONCEN	TRATION	:ALCULATIO	אכ									
209														
210		Projected												
2 1 1		CY 1994			(		Von-Residentia							
212		Discharges _		ntration*			entration							
213		to Sewer	BOD	SS		BOD	SS							
214		(CCF)	(mg/l)	(mg/l)		(mg/l)	(mg/l)							
2 1 5														
216	Residential	574,753	185	185										
217	Non - Residential	341,471				34	3 282							
218	Total	916,224	244	221										
219														
220														
221														
222	" Residential Source = State Re	venue Program	Guidelines											
223	*Total Source = City of Ashlan			o August 100	3									
	i diai source = City of Astrian	no tor period ja		o riuguai 177	•									
224														
225	DENTEN CY STRANGE				-11-12-11-11	DAMPE TO THE PARTY OF THE PARTY								

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1	CITY OF ASHLAND														
2	WASTEWATER RATE MODEL														
3															
4	Hilton Farnkopf & Hobson														
5	1/13/94 14:39														
226															-
227	LOADING and UNIT RATE CAI	CULATION													
228															
229		Projected													
230		CY 1994													
231		Discharges	Concent	tration		Calculates	1 Loading								
231		to Sewer	BOD	SS		BOD	SS								
232		(CCF)	(mg/l)	(mg/l)		(lb/yr)	(lb/yr)								
233		(CC1)	(Ing/i/	1110/1/	_										
234		574,753	185	18	25	662,676	662,676		(Note 1g=0.	00221b and	11=0.09	353 cubic	c feet)		
235 236	Residential		343		32	730,608	599,274		(140tz 18-0.		71				
236	Non - Residential	341,471	343	20	14	CONTRACTOR OF THE PARTY OF THE	1,261,950								
237	Total	916,224				1,393,284	1,261,930								
238															
239															
240	Total Rate Revenue Required	\$1,663,039													
241						_									
242	Revenue Requirement	70%				15%	15%								
243	Allocation	\$1,164,127				\$249,456	5249,456								
244 245 246															
245															
246	Unit Rate	\$1.27				\$0.18	\$0.20								
247															
248															
249															
250	REVENUE REQUIREMENT ALL	OCATION													
251															
252		Projected													
253		CY 1994													
254		Discharges	Loadings												
255		to Sewer	BOD	SS											
		(CCF)	(lb/yr)	(lb/yr)		Total									
256	HClear	100.17	(103 )+1	(10) ) ( )	_										
257	User Class	574,753	662,676	662,67	76										
258	Residential		730,608	599,27											
259	Non - Residential	341,471	730,008	377,27											
260		** **	60.10	60.00	0										
261	Unit Rate	\$1.27	\$0.18	\$0.20	U										
262															
263	Revenue Requirement				_										
264	Residential	\$730,264	\$118,647	\$130,994		\$979,905									
265	Non - Residential	\$433,863	\$130,809	\$118,46		5683,134									
266		\$1,164,127	\$249,45 <del>6</del>	\$249,45	6	\$1,663,039									
267															
268	Residential	63%	48%	534		59%									
269	Non - Residential	37%	52%	47	_	41%	٧								1
270		100%	100%	1004	%	100%									
271						e4000000	140.000.0							 	

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. 1	CITY OF ASHLAND			·					<u> </u>				
2	WASTEWATER RATE MODEL												
	77,01 117,777												
3	Hilton Farnkopf & Hobson												
5	1/13/94 14:39												
272													
273	RATE ALTERNATIVE 1 - (Existing R	ate Structure)											
274						Projected				Projected			
275		Rates				Rates				Rates			
276		Effective				Effective				Effective			
277		January 1				January I				January !			
278	Customer Classification	1993				1994				1994*	_		
279							_'						
280	Single Family Residential	\$12.30	per month			\$14.95	per month				per month		
281	Condominiums	\$12.30	per month p	er unit		\$14.95	per month p	er unit			per month p	er unit	
282	Conversions to Condominiums	\$12.30	per month p	er unit		\$14.95	per month p	er unit			per month p	er unit	
283													
284	Multi-Family Residential	\$9.70	per month p	er unit		\$11.79	per month p	er ursit			per month p	er unit	
285	Mobile Homes and Trailers	\$9.70	per month p	er unit		\$11.79	per month p	er unit			per month p	er unit	i
286													
287	Commercial	\$12.30	per month p	er unit plus	<b>.</b>		per month p				per month p		
288		\$1.10	perocfofwa	ter consum	ption in	\$1.34	per ccf of wa		ion in		•	ter consumpti	lon in
289			excess of 10	ed			excess of 10	ccf			excess of 10 o	7년	
290													
291	Industrial	\$12.30	per month p	er unit plus			per month p	•			ber mouth b		
292		\$1.10	percciofwa	ter consum	ption in	\$1,34	per ccf of wa	•	ion in		•	ter consumpti	ion in
293			excess of 10	cof			excess of 10	ccí			excess of 10 o	xcf	
294													
295	Communal Sleeping Facilities		per month p				per monto p				per month pe		
296			percciolwa		ption in	\$1.34	per ccf of wa		ເດກ ເກ		•	ter consumpti	ion in
297			excess of 10 a	rd .			excess of 10	cd			excess of 10 a	xct	
298										• C		d to moreous 25	
299										Dervice cha	argres rounded	a to nearest 23	cents
300							o-ere-			10.40-07.			

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1	CITY OF ASHLAND													
2	WASTEWATER RATE MODEL													
3 4 5 301														
4	Hilton Farnkopf & Hobson													
5	1/13/94 14:39													
301														
302	RATE ALTERNATIVE I (CONT.) - (Existing Rate Structure)													
303														
304														
305	SERVICE CHARGE REVENUES CA	LCULATION	ON											
306											Projected	Projected		
307				Monthly							CY 1994	FY 93/94		
308				Service		Esturnated	Projected	Projected		Estimated	Service	Service		
309				Charge		Number of	Number of	Number of		CY 1993	Charges	Charges		
310				Effective		Accounts/Uni	Accounts	Accounts		Service	**	using 1/1/93		
311	PROJECTED REVENUES			1/1/93		CY 1993*	CY 1994™	FY 93/94***		Charges	Rates	Rates		
312	TROJECTED ARTERIOR			-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_									
313	Single Family Residential and C	ondos		\$12.30	l,	4,349	4,393	4,371		\$641,883	\$648,430	\$645,156		
314	Suigle cannay reside (gar and C	· · · · · · · · · · · · · · · · · · ·		2.2.0		٠,٠٠٠	.,570	.,_,,			,			
314	Multi Family Residential, Mobil	o Horner		\$9.70	1	2,742	2,844	2,793		\$319,122	\$331,049	\$325,086		
	and Trailers ****	e momea		99.70		2,742	2,011	2,773		4017,112	3001,043	3020,000		
316	and trailers													
317						010	823	819		6720.304	\$121,521	\$120,907		
318	Commercial, Industrial, and Cor	mmunai		\$12.30		815	643	519		\$120,294	ا عدرا عاد	\$120,907		
319						Z 0.05	0.044			** *** ***				
320	Total					7,905	8,061	7,983		\$1,081,299	\$1,101,000	\$1,091,150		
321														
322														
323	* June 1993													
324	Projected growth of 1.02%													
325	*** Average of CY 1993 and CY 199													
326	**** Mobile Homes and Trailers Est	timated to c	e 5% of total	residential	accounts. A	ьsumes 2,500 Mu	lu-Family Ur	vits in 1993 and	d 2,600 units	in 1994.				
327														
328														
329														
330														
3 3 1	QUANTITY CHARGE REVENUES CALCULATION								Projected	Revenue from	Quantity			
332	-							,		Charge	es using 1/1/9	3 Rates		
333						CY 1993	CY 1994	FY 93/94		CY 1993	CY 1994	FY 93/94		
334							<del>(1011)</del>							
335	Projected Industrial and Commerci	ial Consum	ption (cd)(fr	om water m	odel)	310,125	341,471	366,675						
336														
337	Projected Industrial and Commerci	ial Consum	ption over 10	cci per mor	nth (cof)	212,325	242,673	268,376		\$233,558	\$266,941	\$295,214		
338	(total consumption above - (ind)							•						
339	Hotel Collambach 20076 - (Hd)													
340														
341							Pierre	ected Total Ra	ta Ravenue	\$1.314.857	\$1 367 QA1	51 386 363		
							110	, 101EI N		المقارف مر ، د	4170007241	ممروس, .		
343														
i344														

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1	A B C D E F G H I I CITY OF ASHLAND	<u></u>	C L L	DM .	14			<u> </u>		
1 2	WASTEWATER RATE MODEL									
3	TEAU LITATON ANTO POURCE.									
4	Hilton Farnkopí & Hobson									
5	1/13/94 15:45									
345	17 101 77 10.10									
345	RATE ALTERNATIVE II - (Consumption with service charge)									
347	KATE ALTERIARITY En (Consumption with service charge)									
348										
349	CALCULATION OF RESIDENTIAL RATES									
350	CABCOLATION OF REMOVED AND AND AND AND AND AND AND AND AND AN									
351	Calendar Year 1994 Net Residential Revenue Requirement	\$979,905								
352	Residential Discharges to Sewer (based on winter average use)	574,753 (cd)								
353	Average Cost	\$1.70								
354										
355										
356	CY 1994 sewer accounts (not including Multi-Family units)	4,526								
357	CY 1994 number of multi-family units	2,600								
358	Total calendar Year 1994 number of sewer accounts/units	7,126								
359	Monthly Service Charge per sewer account	\$10.00								
350										
361	Annual service charge revenues	\$855,147								
362	Quantity Charge Revenue Requirement	\$124,759								
363										
364										
365	Residential Discharges to Sewer (based on winter average use)	574,753 (ccf)								
366	Percent of residential discharges due to water bills in excess of 7 ccf	20%								
367	(winter a verage use)									
368										
369										
370	Residential Discharges to Sewer (based on winter average use)	114,951 (cd)								
371	Projected reduction in discharges due to price elasticity	0%								
372										
373	Residential Discharges to Sewer (based on winter average use)	114,951 (cd)								
374	adjusted for price elasticity									
375		61.00								
376	Residential quantity charge*	\$1.09								
377										
378 379	' Monthly residential sewer bills will be calculated based on each custo	omer's water use du	mna the winter mouth	15.						
380	Residential quantity charge only applies to winter consumption of or									
381	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -									
382										
383										
384										
385										
386	CALCULATION OF NON-RESIDENTIAL RATES									
387										
388	Calendar Year 1994 Net Non-Residential Revenue Requirement	\$683,134								
389	Non-Residential Discharges to Sewer	341,471								
380	Average Cost	\$2.00								
391										
392										
393	Total calendar Year 1994 of sewer accounts	823								
394	Monthly Service Charge per sewer account	\$10.00								
395										
396	Annual service charge revenues	\$98,798								
397	Quantity Charge Revenue Requirement	\$584,336								
398										
399	N 0 1 1 1 1 1 1 2 2	241.479.70								
400	Non-Residential Discharges to Sewer	341,471 (ccf)								
401	Projected reduction in discharges due to price elasticity	3%								
402	No. Bandana Disabanas to Causa advasted (or major attentions	331,227 (cd)								
403	Non-Residential Discharges to Sewer adjusted for price elasticity	331,EE7 (CCI)								
	Non-Busidential quantity charges	\$1.76								
405	Non-Residential quantity charge*	₽1./U								
406										
407										
409										
410										
411										