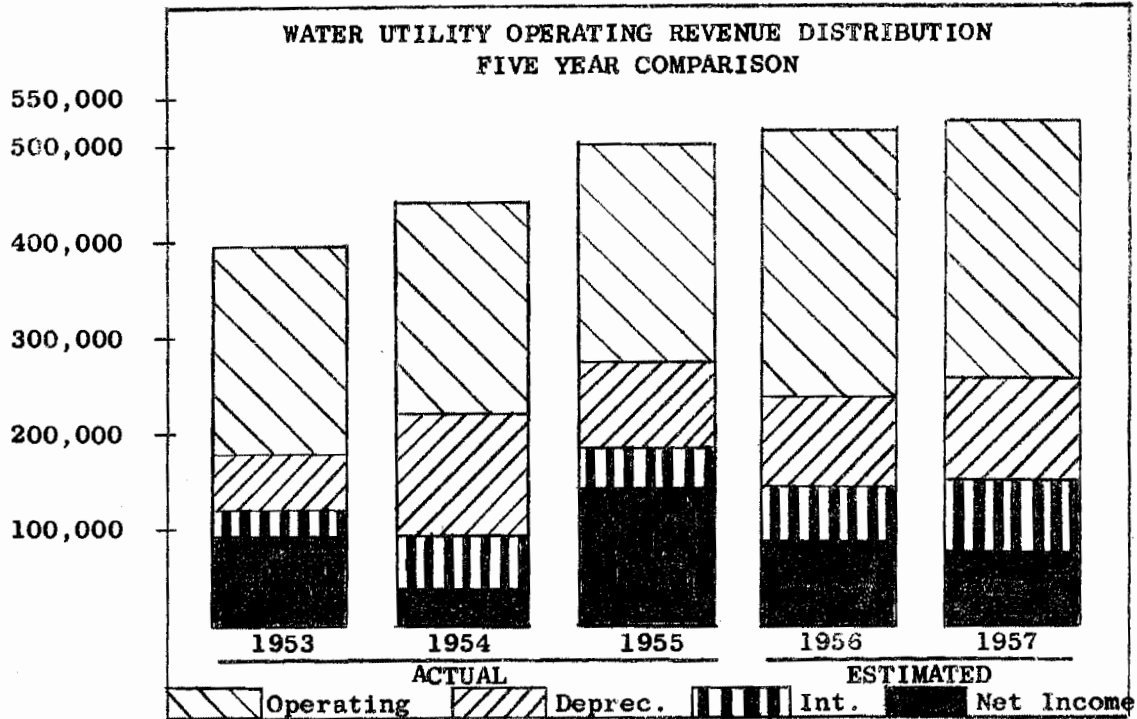
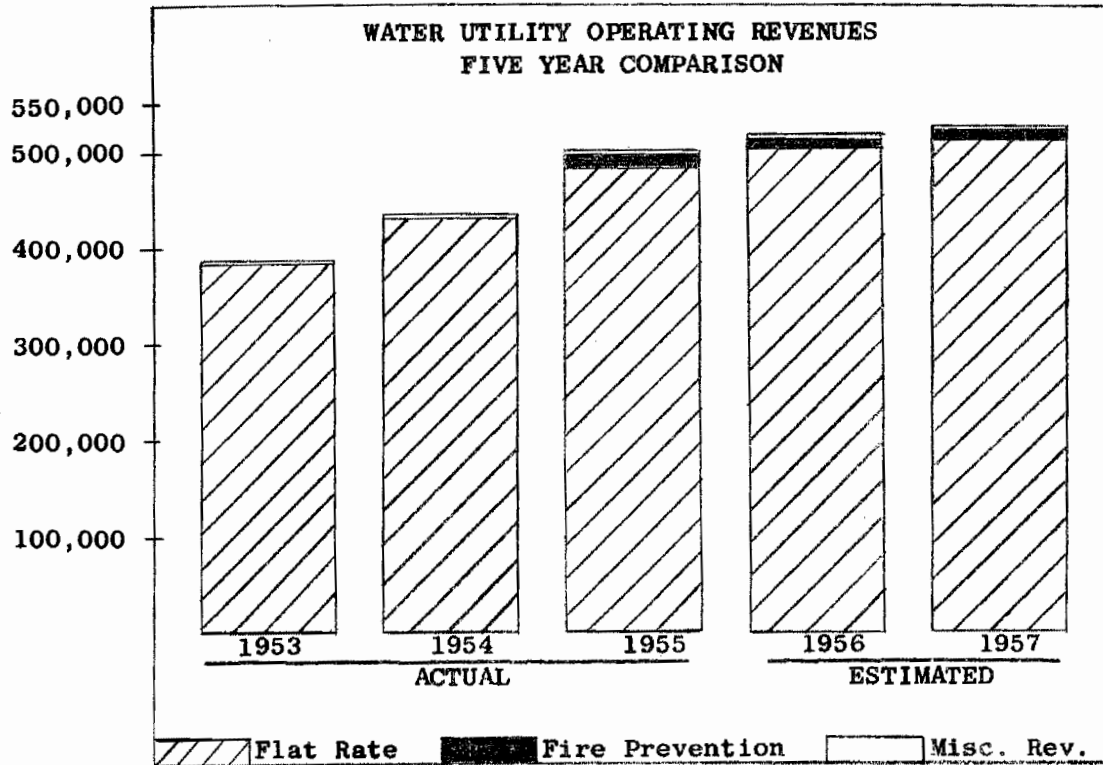


WATER UTILITY FUND BUDGET

City of Anchorage  
1957



WATER UTILITY BUDGET  
REVENUE ESTIMATED

<u>Code</u>		<u>Estimated 1956</u>	<u>Estimated 1957</u>
	<u>OPERATING REVENUES</u>		
W 602	Flat Rate Sales	\$ 500,392	\$ 508,734
W 605	Public Fire Protection	9,270	10,140
W 607	Inter-Fund Sales	2,872	3,624
W 613	Miscellaneous Revenue	<u>4,894</u>	<u>5,404</u>
	Total Operating Revenue . . . . .	\$ 517,428	\$ 527,902
	<u>NON OPERATING REVENUES</u>		
W 251	Contributions in Aid of Construction	\$ 35,038	\$ 14,520
W 241	Depreciation Reserve	96,846	105,348
W 250	1955 Unappropriated Surplus	<u>19,382</u>	<u>92,294</u>
	Total Non-Operating Revenue	<u>\$ 151,266</u>	<u>\$ 212,162</u>
	Total Budget Resources . . . . .	<u>\$ 668,694</u>	<u>\$ 740,064</u>

EXPLANATION OF WATER UTILITY REVENUE ESTIMATES:

The 1957 estimate for flat rate water sales are based on the revised 1956 estimate. The 1956 revenue will exceed the original estimate by approximately \$35,000. Provision for a slight increase in the number of customers is also included in the 1957 revenues. The increased occupancy of housing units served by the City water has accounted for the main portion of the increase in water billings during 1956. An estimated 6,500 monthly water billings will be rendered in 1957, producing an average revenue per customer of slightly over \$6.40 per month. The number of billings in 1957 also includes 200 new connections expected to be made to the City's water system during 1957. Water revenue will be affected to some degree in 1957 as customers in certain areas of the City, who have been paying \$7.00 per month for water service charge, will have completed their connection fee which will allow the rates to decrease to \$4.00 per month. Approximately 400 customers will be affected during 1957 by this decrease in rates.

Flat rate water rates presently in effect in the City are based on the types of establishments served. At the present time no scale for varying these rates with the size of these establishments exists. As a result, inequities exist in the water rate structure. For example: grocery stores are charged a base rate of \$6.35 per month regardless of size. However, since metered water service would greatly increase the operating expense of the water utility and be practically impossible in the residential areas, the few inequities that do exist, as a result of flat rate charges are more compatible than prohibitive water rates. In order to reduce to a minimum, some of the present inequities of our flat rate charges, it is recommended that a complete rate survey be made for the water utility by rate consultants during the early part of 1957.

The cost of fire protection in the General Fund Budget includes a charge of \$30.00 per year for each hydrant located inside the City limits. No charge is made by the water utility on hydrants located outside City Limits. The increase of public fire protection revenues is based on an increase in the number of hydrants from 307 in 1956, to 338 in 1957. Interfund sales are the rates charged for water used in the various City buildings and facilities. The water utility, in addition to supporting the large investment of plant required for fire protection, also furnishes water without charge for the City's dust prevention program. Miscellaneous revenue includes penalties on delinquent accounts, plus interest earned on redemption reserves and Security Deposit bonds. A contribution in aid of construction based on 2 1/2¢ per square foot of lot size is charged all customers connecting to the water system within City limits. In addition each new connection must pay for the labor and material costs of tapping the main and bringing the service to the customers property line.

The full depreciation cost for 1957 is available for replacements and improvements of the water system. Even though there is not sufficient net income available from the 1957 revenues for this purpose, the use of the 1955 unappropriated surplus allows this program to be accomplished in 1957. Unless the net income of the water utility greatly improves before 1958 by increased water rates, it will be necessary to use a major portion of the depreciation reserve for debt amortization in 1958 and subsequent years.

**WATER UTILITY FUND  
EXPENDITURES**

<u>Code</u>		<u>Estimated 1956</u>	<u>Estimated 1957</u>
	<u>Source of Supply:</u>		
W 701	Supervision and Labor	\$ 9,681	\$ 9,549
W 702	Supplies	1,975	1,200
W 703	Repairs	3,500	1,500
	Total . . . . .	<u>15,156</u>	<u>12,249</u>
	<u>Pumping Expense:</u>		
W 717	Supervision and Labor	50	2,017
W 718	Power Purchased	150	9,000
W 719	Supplies	620	875
W 720	Repairs	432	200
	Total . . . . .	<u>1,252</u>	<u>12,092</u>
	<u>Purification Expense:</u>		
W 731	Supervision and Labor	10,503	10,549
W 732	Supplies	5,200	5,400
W 733	Repairs	400	400
W 734	Flouridation	2,100	2,400
	Total . . . . .	<u>18,203</u>	<u>18,749</u>
	<u>Transmission and Distribution:</u>		
W 741	Supervision and Labor	79,614	39,352
W 742	Supplies	250	1,600
W 743	Repairs	35,957	26,432
	Total . . . . .	<u>115,821</u>	<u>67,384</u>
	<u>General Expense</u>		
W 751	Accounting and Collection	36,500	41,060
W 752	Uncollectible Expense	1,195	1,800
W 764	Other General Expense	22,577	35,525
W 796	Legal Expense	1,880	2,318
W 805	Stores Expense	7,200	9,000
W 806	Transportation Expense	5,000	- - -
	Total . . . . .	<u>74,352</u>	<u>89,703</u>

<u>Code</u>		<u>Estimated 1956</u>	<u>Estimated 1957</u>
	<u>Other Expense:</u>		
W 241	Depreciation	\$ 96,846	\$ 105,348
W 505	Payments in Lieu of Taxes	64,992	75,655
W 521	Interest on Long Term Debt	60,010	73,538
W 210	Bond Retirement	81,532	144,000
W 113.12	Bond Retirement Reserve	13,836	18,840
W 232	Long Term Contracts Payable	21,848	11,113
	Contribution to General Fund	8,000	6,045
	Total . . . . .	<u>347,064</u>	<u>434,539</u>
	Capital Expenditures	<u>96,846</u>	<u>105,348</u>
	TOTAL BUDGET . . . . .	\$ 668,694	\$ 740,064

Comparative Statement of Income and Expense

	<u>Actual 1955</u>	<u>Estimated 1956</u>	<u>Estimated 1957</u>
Operating Revenue	\$ 499,933	\$ 517,428	\$ 527,902
Less: Operating Expenditures	226,073	289,776	275,832
Depreciation	90,982	96,846	105,348
Net Operating Income	<u>182,878</u>	<u>130,806</u>	<u>146,722</u>
Less: Interest Expense	51,602	60,010	73,538
Net Income	<u>131,276</u>	<u>70,796</u>	<u>73,184</u>
Add: Service Connect Charges	27,062	35,038	14,520
Net Resources	<u>158,338</u>	<u>105,834</u>	<u>87,704</u>

Appropriation of Total Resources

Transfers to General Fund	-0-	8,000	6,045
City Equity Increase	46,198	117,216	173,953
Earned Surplus	112,140	( 19,382)	( 92,294)
Totals	<u>\$ 158,338</u>	<u>\$ 105,834</u>	<u>\$ 87,704</u>

## 1957 WORK PROGRAM - WATER UTILITY

Source of Supply: This account provides for the operation of 5.4 miles of 24" wood stave gravity water line, including maintenance and repair, running easterly from Fifth Avenue and Gambell to the control plant, and 2.8 miles of 20" steel line from the control plant to the Army diversion dam on Ship Creek. Operation also includes equipment at control plant other than the purification equipment and two pressure reducing stations along the 24" wood stave gravity line. Several leaks have shown up along the gravity line and must be repaired; however, the number is decreasing annually. The line was interrupted once during the season for a period of several hours when an electrical contractor, working in Mountain View, cut through the wood stave line. Daily inspection is made of all equipment and stations along the supply line. Two wells are planned to be in operation during spring breakup when waters in Ship Creek have a high turbidity and during the critical cold period to induce heat into the distribution system when the waters of Ship Creek are 32° minus. Two additional wells will be connected to the system during 1957 to give a total pumping capacity of between 5000 and 6000 gallons per minute.

Pumping Expense: Two wells, one located at 15th Avenue and Palmer St. and one along Airport Heights Road south of the Glenn Highway, are to be in operation for a period of two to five months depending upon conditions as mentioned above under Source of Supply. The capacity of the two wells is about 3500 gallons per minute which is equal to about 50% of the peak demand on the system. The old city pump plant has been abandoned and the building is to be removed. The Alaska Railroad Pump Plant is being maintained for use only in case of extreme emergency. Neither of these plants have been used during the past three years.

Purification Expense: Daily routine inspections are required in the operation of the Chlorinators, fluoridators and the chlorine residual recorder. Three water samples per week are taken at 15 locations throughout the system. Trouble is encountered in equipment operation during periods of high turbidity at breakup and after heavy rainfalls. Operators are working continuously during these periods. Emergency alarms will be installed in 1957 for warning of any equipment failure or low residual readings. Provisions are being made in the well pumphouses for chlorination and flouridation.

Transmission and Distribution: In addition to replacing approximately 3-1/4 miles of wood stave line in the business area, 2-1/2 miles of new extensions were made in 1956 bringing to a total of 63-1/2 miles of water main in the system. Included in the construction was a loop line in Mountain View to the Talkeetna School.

1956 was an extremely unusual year for both high snowfall and cold temperatures. Regardless of the amount of publicity, customers are very

negligent in locating and marking thaw wires so they can be found in the event of freezing of service connection. During February and March a special service was required with personnel available from 6:00 AM to 10:00 PM daily to give location of thaw wires and assist in locating same. This service for an eight-week period amounted to approximately \$3,500.

Several blocks of line were frozen and had to be replaced requiring numerous surface temporary services. Major replacements were on Nichols and Valarian Avenues in Grandview Gardens, Porter Avenue in Anchor Homes, Cordova between Sixth and Seventh Avenues, "E" Street between Sixth to Seventh Avenue and Eighth Avenue from "L" to "M". Major repairs were required at numerous street intersections and on the new line on Eleventh Avenue from "L" to "N" Streets. Many individual service connections were frozen repeatedly and as a result the council adopted the policy of furnishing thawing service to private service connections if the service had frozen previously and the owner had thawed same. This service cost approximately \$14,000 which together with the special service of location of thaw wires and replacement of mains cost about \$37,000 over the normal operating budget.

Hydrants are checked and serviced weekly in the residential area and daily in the business area during winter months. There is a total of 395 hydrants in the system, of which 56 are within Fairview P.U.D. where the utility receives no service cost. All valves in the system are checked and serviced before freeze-up in the fall and after breakup in the spring. New services in 1957 are estimated at 150 plus services where new extensions are made.

#### General Expense:

(1) The accounting and collection expense is the pro-rated share of the billing and collection charges of the Comptroller's and Clerk-Treasurer's office. Additional expense will be incurred in 1957 in analyzing those customer accounts (annexed in 1954) whose water rates have carried an additional monthly charge for the City's regular connection fee. Also included is one-half of the salary of the field water rate adjustor, plus his transportation costs.

(2) Uncollectible expense is estimated at slightly more than 1/4 of 1% of losses from water billings.

(3) Other general expense includes a portion of the costs of the Engineering and Public Works administration account and the salaries of the time-keeper and toolroom keeper. In addition, miscellaneous expense charges such as social security, Workman's Compensation Insurance are included in this account.



(4) Legal expense is for that portion of the costs of the City Attorney's office which is applied on legal work for the Water Utility.

(5) Stores expense is the water utility's share of the total purchasing and warehousing expense, plus a monthly rental charge for its use of the warehouse building

Other Expense:

Depreciation at normal commercial rates are charged as an operating expense account. The increase in 1957 over 1956 reflects the additions to plant in service made during the present year.

Payments in lieu of taxes to the general fund are equal to the taxes that would be levied against the utility, if it were privately owned. Interest expense in water utility represents the accrued interest cost during 1957 on all outstanding bonds including those issued for APW projects. The transfer of additional APW projects during 1956 and the issuance of \$450,000 in bonds through public sale have increased the interest costs of the Water Utility approximately 25% during 1957.

Bond retirements represent the repayments on the improvements and extensions of the water system which have been accomplished since 1949. The 1957 bond payments will increase 45% over the payments made during 1956. Most of the APW projects were in operation from 2 to 3 years before final transfer was accomplished and any repayments required on these lines. As a result, payments on certain APW projects were deferred even though some revenue has been derived from them. As a result of these deferred payments to APW and of the receipt of several large water payments in lieu of assessment charges, \$110,000 unappropriated surplus was in the Water Fund at the close of 1955. Part of this surplus was used in 1956 for payments on bond principal. The remaining amount of this 1955 surplus (\$92,940) must be applied on bond payments due in 1957.

The present revenue of the water utility does not produce sufficient net income to support the debt payments which will come due during the next few years. Much of the debt requirements due in 1958 will have to be paid for out of the depreciation reserves unless rates are increased. This problem of meeting debt requirement is created primarily because extensions of water mains into new areas are not utilized by the potential users because of private wells. Should a higher concentration of water customers connect to existing lines, the debt schedule can be met with little or no increase in future water rates.

Bond redemption reserves are cash reserves which are required by certain of the bond ordinances. Long term contracts payable represent the annual payments to the L & L Builders, Hollywood Vista Corporation and the Alaska Railroad. As a result of these firms installing water systems

and the City agreeing to repay the normal City's share of the cost of installation. Contribution to the General Fund is not computed on any fixed rate of return from the Water Utility. The 1957 contribution to the General Fund represents only the small balance available for transfer from revenues after provisions for all expenditures of the water utility have been made. For further explanation see General Fund Revenue section on Water Utility contributions.

Capital Expenditures:

Capital expenditures, as provided for in this budget estimate, are equivalent to the reserve for depreciation charges. Following is a list of improvements requested for 1957:

Water Connections	\$ 10,000
8" Extension South Side Glen Highway from Airport Heights Road to Unga Street	25,000
2" L/M Alley, 4th to 5th Avenues	1,500
Six fire hydrant replacements west Gov't. Hill	4,000
Replace key boxes West Gov't. Hill	2,500
Replace line from North 3rd & Cook Ave. to Bluff Rd. & North 6th; North 6th from Bluff Rd. to alley between Manor & Cook. Vacate line on North 5th from alley between Manor & Cook to alley North of Cook	3,000
2" Extension "N" Street, 5th to 6th	1,500
Tie line through Block 93, Original	6,000
8" Extension from 8th & Orca East to serve Airport leases in Merrill Field	25,000
Development of deep wells and miscellaneous extensions of mains	<u>26,848</u>
<b>TOTAL CAPITAL IMPROVEMENTS</b>	<b>\$ 105,348</b>