





WATER UTILITY BUDGET

ESTIMATED REVENUE

1961

<u>Code</u>		<u>Estimated 1960</u>	<u>Estimated 1961</u>
	<u>OPERATING REVENUES</u>		
4602	Flat Rate Sales	\$ 773,350	\$ 1,060,800
4605	Public Fire Protection	15,740	28,450
4607	Intra-Fund Sales	4,500	8,450
4613	Miscellaneous	<u>10,000</u>	<u>13,000</u>
	Total Operating Revenue . . . . .	\$ 803,590	\$ 1,110,700
	<u>NON-OPERATING REVENUES</u>		
4251	Contributions in Aid of Construction	\$ 100,000	\$ 120,000
4241	Depreciation Reserve	<u>183,379</u>	<u>200,000</u>
	Total Non-Operating Revenue . . . . .	\$ 283,379	\$ 320,000
	TOTAL BUDGET RESOURCES . . . . .	\$ 1,086,969	\$ 1,430,700

WATER UTILITY OPERATING REVENUE ESTIMATES

Operating revenues for the water utility for the year 1961 would, on the basis of the existing rate schedule, show a minor increase due primarily to the addition of approximately 550 new connections to the system during the year 1960. A slight increase will also be shown in public fire protection revenues through the addition of fire hydrants on the new lines constructed during 1960. It is expected that as of January 1, 1961, there will be approximately 8,100 customers being served on the system and it is anticipated that there will be approximately 600 new connections added to the system during 1961.

An analysis of the expected scope of service for 1961 based on the existing water rate schedule and compared with a summary of estimated total cost of operation for the coming year indicates that a substantial rate increase is absolutely essential in order to maintain a balanced budget. Several factors have influenced the necessity for a rate readjustment at the present time, most prominent

of which are the increased costs of doing business and the debt service obligations for the significant plant extensions, both for the construction of 12 miles of water mains and the scheduled construction of the water filtration plant. It should be pointed out that, under the present City policy, the cost of construction of new main extensions is not levied as an assessment. Payments-in-lieu-of-assessments are made at the time of connection to the system which is on a voluntary basis. This often results, particularly in some of the newer areas, in a low percentage of connections to the extended system during the first several years following construction. This has the effect of making it difficult to justify the economic feasibility of many of these extensions strictly on a revenue basis. Secondary benefits, such as increased fire protection and development of new areas are weighed heavily in the consideration for authorizing extensions to the system.

In order to balance the water utility budget for 1961 a 30% rate increase has been included in the estimated operating revenues for flat rate sales. Public fire protection revenues have been increased to equal the estimated maintenance cost for fire hydrants. There are a total of 748 fire hydrants in the system of which 617 are inside the City. Maintenance costs amount to approximately \$40 per hydrant throughout the system, however, no revenue is realized from the 131 hydrants outside the City thus requiring that the entire cost of fire hydrant maintenance be borne by those hydrants within the City limits. This amounts to a unit hydrant rental rate of \$46 per hydrant which is an increase of \$16 per unit over the rate charged in previous years.

Revenues from flat rate sales during 1960 apparently will not reach the estimated amount due primarily to the fact that the Spenard Utility system was not acquired until July 1, 1960, instead of at the start of the year.

#### ESTIMATED NON-OPERATING REVENUES

Contributions in aid of construction will include service connection fees collected for payments-in-lieu-of-assessments based on 2 1/2¢ per square foot of property being served. The estimate is based on an expected 600 new connections plus the balance payable from previous connections, however this may vary with the current housing market. Payments to be made by the new Methodist University and the Providence Hospital for connection to the Goose Lake water extension under agreements which are currently being negotiated are also included.

Another item that merits consideration is the factor of payments in lieu of assessment currently being charged at the rate of 2 1/2 cents per square foot of property being served. During the extremely heavy construction season of 1960, approximately 12 miles of water mains were constructed throughout various areas of the city and comprehensive grid systems were installed, including loop connections, fire hydrants, and minor transmission mains. These projects together with the APW project for water in North Mountain View has given us realistic and comprehensive cost data with which to analyze the actual and complete cost for service to any given area. The scope of this work includes the construction

of over 19 miles of water lines at a total cost of 1,114,300 dollars. Major transmission lines on Northern Lights Blvd. and the Goose Lake area have been excluded from this analysis since the nature of service in each case does not give a true picture for a neighborhood grid system. The projects analyzed serve an area comprising over 10,000,000 square feet. By comparing the total cost of the work with the total area served, it is found that it costs an average of slightly under six cents per square foot of property served in order to provide water service. Assuming that service would be provided on a one third-two third ratio as is done in the case with streets and sewers, it would appear that the 2 1/2 cent payment in lieu of assessment should more nearly approach four cents per square foot.

From the above analysis it would appear that the contributions in aid of construction are deficient in two respects: (1) Being the low percentage of connections, and (2) Being too low a percentage of property owner participation. Under the provisions of the city charter it is possible to assess for water service extensions as is done in the case of sewers, and this method might be considered as a remedy for the low percentage of connections since all property served would be assessed at the time of extension of the service rather than waiting until the individual properties are connected. Under this method there would be a more realistic return of the city's investments, and it would undoubtedly, result in the addition of more customers to the system since it reduces the property owner's incentive to delay in connection as long as possible. Obviously this would have no effect on previous capital improvements, however, it should provide a sound economic basis on which to construct future extensions.

Serious consideration should be given to increasing the 2 1/2 cent per square foot payment to four cents, however, it might be wise to set a date such as August 1, 1961, at which time the payment in lieu of assessment would be increased, thus providing additional incentive for properties in the new areas to connect prior to that date, and would encourage the payment of the assessment prior to connection on undeveloped properties. Setting this advance date for an increase in the connection charge would also have the effect of enabling properties who, because of the lateness of the season, were unable to connect during 1960 to make application prior to the deadline date, and it should increase the saleability of the increased connection fee to the public.

Depreciation reserve has been increased somewhat in order to allow for expansion to the system, however, there are serious economic limitations to a capital improvement program for 1961.

WATER UTILITY FUND EXPENDITURES

<u>Code</u>		<u>Estimated 1960</u>	<u>Estimated 1961</u>
	<u>SOURCE OF SUPPLY</u>		
4701	Operation & Maintenance	\$ 17,643	\$ 17,460
4702	Supplies	2,400	2,400
4703	Repairs	2,800	2,600
	Total . . . . .	\$ 22,843	\$ 22,460
	<u>PUMPING EXPENSE</u>		
4717	Operation & Maintenance	\$ 4,374	\$ 2,340
4718	Power Purchased	24,000	21,000
4719	Supplies	2,350	2,350
4720	Repairs	400	400
	Total . . . . .	\$ 31,124	\$ 26,090
	<u>PURIFICATION EXPENSE</u>		
4731	Operation & Maintenance	\$ 13,226	\$ 13,740
4732	Supplies	8,300	8,300
4733	Repairs	600	800
4734	Flouridation	3,200	2,200
	Total . . . . .	\$ 25,326	\$ 25,040
	<u>TRANSMISSION &amp; DISTRIBUTION</u>		
4741	Operation & Maintenance	\$ 49,600	\$ 63,500
4742	Supplies	1,200	2,400
4743	Repairs	8,960	13,550
4744	Hydrants	32,650	28,450
	Total . . . . .	\$ 92,410	\$ 107,900
	<u>GENERAL EXPENSE</u>		
4751	Accounting & Collection	\$ 43,821	\$ 69,090
4752	Uncollectible Expense	2,000	2,000
4764	Other General Expense	52,360	49,220
4796	Legal Expense	3,204	6,680
4805	Stores Expense	7,350	ϕ
4806	Transportation	1,700	ϕ
	Total . . . . .	\$ 110,435	\$ 126,990
	<u>OTHER EXPENSES</u>		
4241	Depreciation	\$ 183,379	\$ 200,000

<u>Code</u>		<u>Estimated 1960</u>	<u>Estimated 1961</u>
4505	Payment in lieu of taxes	\$ 115,089	\$ 159,090
4521	Interest on long term debt	139,336	185,780
4210	Bond Retirement	180,000	312,000
4113.12	Bond Retirement Reserve	12,000	12,000
4232	Long term Contracts Payable	9,306	9,280
4126.1	Contribution to General Fund	58,952	77,050
	Total . . . . .	\$ 698,062	\$ 955,200
4100.3	Capital Expenditures . . . . .	\$ 106,769	\$ 167,020
	TOTAL BUDGET . . . . .	\$ 1,086,969	\$ 1,430,700

1961 WORK PROGRAM - WATER UTILITY

Source of Supply:

The City presently obtains water from both the gravity water system drawing from Ship Creek and deep wells on the regular city system plus the addition of three wells acquired through the purchase of the Spenard utility system during 1961. With the completion of the Northern Lights transmission line during 1960 the small 120 gallon per minute stand-by well on the Spenard system was abandoned. The gravity supply line has a maximum capability of approximately 12 million gallons per day. The seven wells on the system have a total combined capacity of 10 million gallons per day, however the effects are somewhat questionable on the underground water table if all seven wells should be operated at the same time.

It is intended to draw the primary supply from the Ship Creek source, except during the fall freeze-up and spring break-up due to the high turbidity encountered during those periods. In order to counteract the affect of temperature on the surface supply source during the winter months it is intended to operate at least one well continuously during the freezing weather in order to raise the water temperature to help prevent freeze-ups. This practice was started in 1958 and has been found to materially reduce the number of frozen services occurring in the system. The wells are operated on a rotating basis and with the addition of the Spenard utility system it may be necessary to operate one of the three new wells in conjunction with the regular four city wells.

Construction of the water filtration plant should begin in the spring of 1961 and it is hoped that the plant will be in service prior to spring break-up of 1962.

Pumping Expense:

Funds are provided for the operation of the seven wells as stated above. The labor account includes an estimate of \$200 per month to pay for a monthly electrical inspection on all electrical equipment in the well houses. The pumping expense has been reduced somewhat from the estimated cost during 1960 since it was found that it was not necessary to operate the pumps on as long a cycle as was originally intended.

Purification Expense:

The Water Department both chlorinates and fluoridates the city water supply. Equipment required for this operation is inspected daily and samples are taken from various locations within the system three times per week. The samples are obtained by the city and tested by the State Department of Health. At the present time the wells acquired from the Spenard Utility System do not have chlorination or fluoridation equipment and it is intended to install these facilities under the contract for the water filtration plant.

Transmission and Distribution:

The major item of increase in the operating expenditures are anticipated to be in this account. This is due primarily to the anticipated cost of maintenance of the newly acquired Spenard Utility System together with the increased cost of labor. Operation of the Spenard Utility System will be for a full 12 months period during 1961 as opposed to the 6 months of operation during 1960.

25 miles of water mains were added to the system during 1960 by the acquisition of the Spenard Utilities System and an additional 12 miles were added by the 1960 construction program.

It should be noted that the supplies account is set primarily to carry expendable supplies such as fuel oil and repair parts to mechanical equipment. The total cost of labor, equipment, and supplies such as pipe and fittings are charged to the appropriate operation or repair accounts. This method is used primarily to segregate the total cost of repairs and maintenance to the system.

Regular maintenance on the 748 fire hydrants within the system will be performed as in previous years. Regular steam sets will be made on the system, however, steam lines are not provided on Spenard Utilities hydrants as anti-freeze had been used during their winter maintenance prior to the acquisition by the city. Most of these hydrants are in areas of high ground water however, and it is the intent of the water department to maintain them on a "dry" basis placing steam sets where necessary.



General Expense:

Account 4751 The accounting and collection expense is the pro-rated share of the billing and collection charges from the Controller and City Clerk offices.

Account 4752 Uncollectable expense is estimated at about one quarter of one percent of total revenues.

Account 4764 Other general expense includes a portion of the cost of Engineering and Public Works Administration which is calculated at approximately twenty-five percent of that budget. The rental for the city hall, social security and workmens compensation are also included.

Account 4796 Legal expense is a pro-rated share of the cost of the City Attorney's office.

Account 4805 Store's expense will be eliminated in 1961 since the purchasing and warehousing cost will be added as an overhead charge to the issue documents and charged directly to the expense or capital account concerned.

Capital Expenditures:

Anticipating a rate increase as described in the revenue estimate, a total of 167,020 dollars would be available for capital expenditures. No funds are provided for debt service for the 1 million dollar bond issue authorized during 1960 by the voters and these funds are not expected to be utilized during 1961 unless additional sources of revenue are found. It should be pointed out that in order to balance the budget the funds for capital expenditures are somewhat less than the depreciation reserve. The improvements recommended are as follows:

New Water Connections	\$ 50,000
Ground Water Study Contract	3,000
Miscellaneous Main Extensions	<u>114,020</u>
TOTAL . . . . .	\$ 160,020

The exact scope of water main extensions for 1961 has not as yet been determined due to the limitations of financing and since the requests for new service have not as yet been firmed up. It is expected that extensions will be constructed in the Alaska Industrial Subdivision and some new subdivisions together with minor extensions in the North Spenard area in which sewers were built during 1960.