

CITY OF ANCHORAGE

1963

BUDGET

SECTION F

WATER UTILITY

DEPARTMENT OF PUBLIC WORKS  
WATER UTILITY  
SUMMARY OF REVENUE

<u>Code</u>	<u>Description</u>	<u>Actual Revenue 1960</u>	<u>Actual Revenue 1961</u>	<u>Original Approved Budget 1962</u>	<u>Adjusted Budget 1962</u>	<u>Department Budget Estimate 1963</u>	<u>City Manager Budget Recommendation 1963</u>	<u>Council Approved Budget 1963</u>
<u>SALES OF WATER</u>								
4602	Flat Rate Sales	\$ 728,439	\$ 873,215	\$ 982,850	\$1,000,000	\$1,238,000	\$1,238,000	
4605	Public Fire Protection	15,292	28,383	30,000	30,000	31,600	31,600	
4607	Inter-Fund Sales	6,470	7,629	8,000	12,000	13,200	13,200	
4613	Miscellaneous	7,018	7,563	9,000	9,000	9,000	9,000	
	TOTAL OPERATING REVENUE	\$ 757,219	\$ 916,790	\$1,029,850	\$1,051,000	\$1,291,800	\$1,291,800	
<u>NON-OPERATING REVENUE</u>								
4231	Interest	\$ 9,154	\$ 6,729	\$ 5,000	\$ 5,000	\$ 4,000	\$ 4,000	
4241	Depreciation Reserve	166,368	193,679	206,400	206,400	258,310	258,310	
4251	Contributions in Aid of Construction	213,215	253,859	170,000	190,000	132,000	132,000	
4250	Surplus Appropriations	0	200,000	65,390	58,530	174,660	174,660	
	TOTAL NON-OP. REVENUE	\$ 388,737	\$ 654,267	\$ 446,790	\$ 459,930	\$ 568,970	\$ 568,970	
	TOTAL OPERATING AND NON-OPERATING REVENUE	\$1,145,956	\$1,571,057	\$1,476,640	\$1,510,930	\$1,860,770	\$1,860,770	

## WATER UTILITY REVENUE INFORMATION

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### Operating Revenues:

Although operating revenues of the water utility in 1963 would be slightly over the 1962 revenue at the existing rates, this will not meet expected expenditures in view of the large debt service we now carry. The covenants of the water revenue bonds require rates sufficient to return 1.4 times the debt service after operating expenses are subtracted. The original bond proposal for the water treatment plant anticipated \$1.50 a month rate increase for residences and a 30% increase for other types of service.

In order to meet estimated expenditures for 1963 and the next few years, a 25% increase in all rates is recommended effective March 1, 1963. A long range study is being made which will define the impact in future years of existing debt and anticipated future financing requirements, identify the normal increase of maintenance and operation costs and relate these factors to revenue requirements. In addition, rates will be equalized among various types of water customers.

New means must be found to entice more property owners to connect to City-owned water mains and utilize City water. Under present policy, lines inside the City are built by assessment methods and outside the City by at least 50% immediate repayment, both of which are financially feasible. However, our past practice of deferring payment until the people wish to connect has caused a large debt service without sufficient customers to carry the burden.

We are anticipating 400 connections during 1963 for a total of 10,400 by the end of 1963.

There are now 843 fire hydrants throughout the system, 687 of which are inside the City limits. No charge is made directly for fire hydrant maintenance in the areas outside the City other than through flat rate sales, and this expense is carried by the General Fund Fire Department budget. An operating revenue factor of \$31,600 for public fire protection is included by a charge of \$46 per hydrant within the City. This charge is equivalent to the total maintenance cost of all fire hydrants.

### Non-Operating Revenues:

Contributions in aid of construction will include service connection fees collected as payments in lieu of assessments for connections to lines constructed in areas prior to the adoption of the assessment district policy. This is at the rate of four cents per square foot of lot area inside the City, and \$6.50 per lot front foot outside the City. Approximately \$390,000 will be billed including assessment districts, of which \$97,000 will be paid for during 1963 for contributions in aid of construction. Other revenues in this category include contract payments from various consumers.

Depreciation reserve has increased because of new construction. This reserve will be used in lieu of bond funding to build new improvements. Prior year earned surplus equaling \$174,660 is budgeted as a non-operating revenue.

DEPARTMENT OF PUBLIC WORKS  
 WATER UTILITY  
 1963 BUDGET SUMMARY

	Actual Cost 1960	Actual Cost 1961	Original Approved Budget 1962	Adjusted Budget 1962	Department Budget Request 1963	City Manager Budget Recommendation 1963	Council Approved 1963
<u>Total Expenditures</u>							
Source of Supply	\$ 25,706	\$ 18,277	\$ 13,830	\$ 18,680	\$ 13,000	\$ 13,000	
Pumping Expense	20,911	34,063	25,610	38,730	37,850	37,850	
Purification Expense	23,445	19,025	84,680	69,980	73,490	73,490	
Transmission & Distribution	73,461	69,499	99,800	84,400	105,095	105,095	
General Expense	101,505	155,742	154,380	168,380	159,213	159,213	
Other Expense	657,306	926,859	1,018,340	1,024,760	1,213,812	1,213,812	
Construction Fund (Capital)	<u>107,411</u>	<u>165,716</u>	<u>80,000</u>	<u>106,000</u>	<u>258,310</u>	<u>258,310</u>	
WATER UTILITY NET	\$1,009,745	\$1,389,181	\$1,476,640	\$1,510,930	\$1,860,770	\$1,860,770	

## Maintenance Division &amp; Water Utility

<u>No.</u>	<u>Description</u>	<u>Total</u>	<u>Maintenance Division</u>	<u>Water Utility</u>	<u>Projects</u>
1	P. W. General Foreman	\$ 11,062	\$ 11,062		
6	P. W. Foremen	58,025	34,496	\$ 20,542	\$ 2,987
1	Water System Operator	9,077		9,077	
16	P. W. IV	134,860	74,782	53,128	6,950
3	P. W. III	24,797	11,316	13,481	
17 1/2	P. W. II	135,061	95,018	33,054	6,989
7	P. W. I	48,215	44,646	1,298	2,271
51 1/2 Total		\$421,097	\$271,320	\$130,580	\$19,197
Less Charge to State of Alaska		(5,000)	(5,000)		
Less Charge to Leave Reserve		(15,938)	(10,432)	(4,768)	(738)
TOTAL SALARIES		\$400,159	\$255,888	\$125,812	\$18,459

Maintenance by Account Distribution

<u>Account No.</u>	<u>Amount</u>
1231	\$ 14,985
1232	36,175
1234	98,906
1240	21,914
1241	16,390
1242	24,646
1244	38,182
1245	4,690
	<u>\$255,888</u>

Water by Account Distribution

<u>Account No.</u>	<u>Amount</u>
4701	\$ 7,503
4717	4,985
4731	33,055
4741	43,487
4743	11,294
4744	17,813
4320.115	<u>7,675</u>
	\$125,812

Note: This summary includes all personnel in Water Utility and Maintenance Division.

Based on the 1963 method of allocating personnel, 52 persons were authorized in this labor pool in 1962. Since one person on the rolls in 1962 is assigned 1/2 time to the Mechanical Maintenance Division, 51 1/2 personnel are accounted for in 1963.

DEPARTMENT OF PUBLIC WORKS  
WATER UTILITY  
APPROPRIATION DETAIL

<u>Code</u>	<u>Description</u>	<u>Original Estimated Budget 1962</u>	<u>Adjusted Budget 1962</u>	<u>Department Budget Request 1963</u>	<u>City Manager Budget Recommendation 1963</u>	<u>Council Approved 1963</u>
<u>Source of Supply</u>						
4701	Supervision & Labor					
.11	Salaries of Employees			\$ 7,503	\$ 7,503	
.12	Overtime			1,297	1,297	
.13	Accrued Leave			<u>1,200</u>	<u>1,200</u>	
	TOTAL ACCOUNT 4701	\$11,280	\$ 9,280	\$10,000	\$10,000	
4703	Repairs					
.25	City Equipment Rental			\$ 1,100	\$ 1,100	
<del>.27</del>	<del>Repairs</del>			<del>1,400</del>	<del>1,400</del>	
	TOTAL ACCOUNT 4703	\$ 1,400	\$ 600	\$ 2,500	\$ 2,500	
4702	Supplies & Expense					
.30	Misc. Supplies			<u>\$ 500</u>	<u>\$ 500</u>	
	TOTAL ACCOUNT 4702	\$ 1,150	\$ 550	\$ 500	\$ 500	
4704	Dredging Expense	<u>0</u>	<u>\$ 8,250</u>	<u>0</u>	<u>0</u>	
	TOTAL SOURCE OF SUPPLY	\$13,830	\$18,680	\$13,000	\$13,000	
<u>Pumping Expense</u>						
4714	Repairs to Steam Pumping Plant	0	\$ 280	0	0	

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WATER UTILITY  
APPROPRIATION DETAIL

<u>Code</u>	<u>Description</u>	<u>Original Estimated Budget 1962</u>	<u>Adjusted Budget 1962</u>	<u>Department Budget Request 1963</u>	<u>City Manager Budget Recommendation 1963</u>	<u>Council Approved 1963</u>
4717	Supervision & Labor					
.11	Salaries of Employees			\$ 4,985	\$ 4,985	
.12	Overtime			517	517	
.13	Accrued Leave			798	798	
	TOTAL ACCOUNT 4717	\$ 1,860	\$ 4,900	\$ 6,300	\$ 6,300	
4718	Power Purchased					
.23	Power	\$21,000	\$25,800	\$25,000	\$25,000	
	TOTAL ACCOUNT 4718	\$21,000	\$25,800	\$25,000	\$25,000	
4719	Supplies & Expense					
.30	Supplies	\$ 2,350	\$ 2,350	\$ 2,350	\$ 2,350	
	TOTAL ACCOUNT 4719	\$ 2,350	\$ 2,350	\$ 2,350	\$ 2,350	
4720	Repairs					
.22	Contracted Labor & Equipment	0	0	\$ 2,400	\$ 2,400	
.25	City Equipment Rental			800	800	
.27	Repairs			1,000	1,000	
	TOTAL ACCOUNT 4720	\$ 400	\$ 5,400	\$ 4,200	\$ 4,200	
	TOTAL PUMPING EXPENSE	\$25,610	\$38,730	\$37,850	\$37,850	

DEPARTMENT OF PUBLIC WORKS  
 WATER UTILITY  
 APPROPRIATION DETAIL

<u>Code</u>	<u>Description</u>	<u>Original Estimated Budget 1962</u>	<u>Adjusted Budget 1962</u>	<u>Department Budget Request 1963</u>	<u>City Manager Budget Recommendation 1963</u>	<u>Council Approved 1963</u>
<u>Purification Expense</u>						
4731	Supervision & Labor					
.11	Salaries of Employees			\$33,055	\$33,055	
.12	Overtime			1,656	1,656	
.13	Accrued Leave			5,289	5,289	
	TOTAL ACCOUNT 4731	\$32,380	\$33,380	\$40,000	\$40,000	
4732	Supplies & Expense					
.30	Misc. Supplies			\$ 5,000	\$ 5,000	
	TOTAL ACCOUNT 4732	\$ 4,500	\$ 4,800	\$ 5,000	\$ 5,000	
4733	Repairs					
.22	<i>Contracted Labor Equip (Minn. Highway)</i>			4,890	4,890	
.25	City Equipment Rental			\$ 1,100	\$ 1,100	
.27	Repairs			2,000	2,000	
	TOTAL ACCOUNT 4733	\$ 2,000	\$ 1,000	\$ 3,100	\$ 3,100	
4734	Flouridation					
.31	Flouride	\$ 1,800	\$ 2,300	\$ 3,700	\$ 3,700	
	TOTAL ACCOUNT 4734	\$ 1,800	\$ 2,300	\$ 3,700	\$ 3,700	
4735	Chlorination					
.31	Chlorine	\$ 6,400	\$ 2,400	\$ 1,710	\$ 1,710	
	TOTAL ACCOUNT 4735	\$ 6,400	\$ 2,400	\$ 1,710	\$ 1,710	



DEPARTMENT OF PUBLIC WORKS  
WATER UTILITY  
APPROPRIATION DETAIL

<u>Code</u>	<u>Description</u>	<u>Original Estimated Budget 1962</u>	<u>Adjusted Budget 1962</u>	<u>Department Budget Request 1963</u>	<u>City Manager Budget Recommendation 1963</u>	<u>Council Approved 1963</u>
4736	Treatment Chemicals					
.31	Chemicals	<u>\$26,000</u>	<u>\$16,000</u>	<u>\$ 7,280</u>	<u>\$ 7,280</u>	
	TOTAL ACCOUNT 4736	\$26,000	\$16,000	\$ 7,280	\$ 7,280	
4737	Power Purchased					
.23	Electricity (Power)	<u>\$ 7,400</u>	<u>\$ 5,900</u>	<u>\$ 5,500</u>	<u>\$ 5,500</u>	
	TOTAL ACCOUNT 4737	\$ 7,400	\$ 5,900	\$ 5,500	\$ 5,500	
4738	Heating					
.34	Fuel	<u>\$ 4,200</u>	<u>\$ 4,200</u>	<u>\$ 7,200</u>	<u>\$ 7,200</u>	
	TOTAL ACCOUNT 4738	\$ 4,200	\$ 4,200	\$ 7,200	\$ 7,200	
	TOTAL PURIFICATION EXPENSE	\$84,680	\$69,980	\$73,490	\$73,490	
<u>Transmission and Distribution</u>						
4741	Supervision & Labor					
.11	Salaries of Employees			\$43,487	\$43,487	
.12	Overtime			3,137	3,137	
.13	Accrued Leave			<u>5,921</u>	<u>5,921</u>	
	TOTAL ACCOUNT 4741	\$51,800	\$41,800	\$52,545	\$52,545	
4742	Supplies & Expense					
.30	Misc. Supplies	<u>\$ 1,800</u>	<u>\$ 1,800</u>	<u>\$ 1,800</u>	<u>\$ 1,800</u>	
	TOTAL ACCOUNT 4742	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	

DEPARTMENT OF PUBLIC WORKS  
WATER UTILITY  
APPROPRIATION DETAIL

<u>Code</u>	<u>Description</u>	<u>Original Estimated Budget 1962</u>	<u>Adjusted Budget 1962</u>	<u>Department Budget Request 1963</u>	<u>City Manager Budget Recommendation 1963</u>	<u>Council Approved 1963</u>
4743	Repairs to Mains					
.11	Salaries of Employees			\$11,294	\$11,294	
.12	Overtime			2,000	2,000	
.13	Accrued Leave			1,806	1,806	
.25	City Equipment Rental			2,000	2,000	
.30	Misc. Supplies			1,000	1,000	
	TOTAL ACCOUNT 4743	<u>\$13,550</u>	<u>\$15,150</u>	<u>\$18,100</u>	<u>\$18,100</u>	
4744	Repairs to Hydrants					
.11	Salaries to Employees			\$17,813	\$17,813	
.12	Overtime			3,987	3,987	
.13	Accrued Leave			2,850	2,850	
.25	City Equipment Rental			6,000	6,000	
.30	Misc. Supplies			2,000	2,000	
	TOTAL ACCOUNT 4744	<u>\$32,650</u>	<u>\$25,650</u>	<u>\$32,650</u>	<u>\$32,650</u>	
	TOTAL TRANSMISSION & DISTRIBUTION	\$99,800	\$84,400	\$105,095	\$105,095	
<u>General Expense</u>						
4751	Accounting & Collecting	\$88,290	\$97,290			
	Accounting & Auditing			\$10,680	\$10,680	- 9480
	Utility Billing			38,530	38,530	
	Data Processing			11,076	11,076	
	City Treasurer			22,846	22,846	- 20,460
	TOTAL ACCOUNT 4751	<u>\$88,290</u>	<u>\$97,290</u>	<u>\$83,132</u>	<u>\$83,132</u>	79,546

DEPARTMENT OF PUBLIC WORKS  
WATER UTILITY  
APPROPRIATION DETAIL

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<u>Code</u>	<u>Description</u>	<u>Original Estimated Budget 1962</u>	<u>Adjusted Budget 1962</u>	<u>Department Budget Request 1963</u>	<u>City Manager Budget Recommendation 1963</u>	<u>Council Approved 1963</u>
4752	Uncollectible Expense	\$ 2,000	\$ 2,000	\$ 2,500	\$ 2,500	
4764	Other General Expense	\$57,090	\$60,090			
	City Manager			\$ 3,333	\$ 3,333	5000
	Council & Mayor			2,000	2,000	
	City Hall Rental			2,160	2,160	
	Social Security			10,150	10,150	
	Workman's Compensation			3,000	3,000	
	Liability Insurance			1,048	1,048	
	Fire Insurance			400	400	
	Independent Audit			925	925	
	Public Works Adm. & Eng.			40,750	40,750	38950
	TOTAL ACCOUNT 4764	\$57,090	\$60,090	\$63,766	\$63,766	63,533
4796	Legal Expense	\$ 7,000	\$ 9,000	\$ 9,815	\$ 9,815	
	TOTAL GENERAL EXPENSE	\$154,380	\$168,380	\$159,213	\$159,213	
<u>Other Expense</u>						
4503	Depreciation	\$206,400	\$206,400	\$258,310	\$258,310	
4505	Payment in Lieu of Taxes	159,070	159,760	218,257	218,257	
4521	Interest on Long Term Loan	191,100	204,840	218,030	218,030	
4210	Bond Retirement	365,000	365,000	410,000	410,000	
4113.12	Bond Retirement Reserve	12,000	1,000	0	0	
4232	Long Term Contracts Payable	3,340	2,880	0	0	
4126	Contribution to General Fund	81,430	84,880	109,215	109,215	
	TOTAL OTHER EXPENSE	\$1,018,340	\$1,024,760	\$1,213,812	\$1,213,812	
4100.3	Capital Expenditures*	80,000	106,000	258,310	258,310	
	WATER FUND NET	\$1,476,640	\$1,510,930	\$1,860,770	\$1,860,770	

\* Capital Expenditures detailed on page 11F.

DEPARTMENT OF PUBLIC WORKS  
WATER UTILITY  
DETAIL OF CAPITAL IMPROVEMENTS  
. 1963

<u>Designation</u>	<u>Department Budget Request 1963</u>	<u>City Manager Recommendation 1963</u>	<u>Council Approved 1963</u>
<u>Water Main Projects</u> (from Capital Improvement Budget)			
14th, A - C	\$ 8,500	\$ 8,500	
Wharton Subdivision	5,600	5,600	
Bering and Eureka St.	39,000	39,000	
Lois St.	7,500	7,500	
Broadmoor Estates	3,800	3,800	
West Turnagain No.2	40,000	40,000	
Westchester Urban Renewal	35,000	35,000	
Block 119, Original Townsite	2,500	2,500	
K/L Alley, 8th - 9th	4,200	4,200	
N/O Alley, 8th - 9th	4,200	4,200	
Terrance Park Estates	12,500	12,500	
Park Lane Subdivision	6,000	6,000	
Ship Creek Relief	<u>8,500</u>	<u>8,500</u>	
	\$177,300	\$177,300	
Water Main (vicinity of Northern Lights and Glenwood to Project Center)	\$ 22,500	\$ 22,500	
Water Connections	<u>30,000</u>	<u>30,000</u>	
	\$229,800	\$229,800	
Available for Miscellaneous Improvements	<u>\$ 28,510</u>	<u>\$ 28,510</u>	
TOTAL CAPITAL EXPENDITURES BUDGETED	\$258,310	\$258,310	

This budget follows the same accounting system as used in the past. In order to implement better internal cost accounting, however, this year each account is divided into sub-accounts, as has been the practice for General Fund expenditure accounts.

Source of Supply:

The City obtains water from two basic sources to supply the distribution system. The primary source is the surface supply from Ship Creek which has a capability of delivery to the Water Treatment Plant of 12 million gallons per day. The secondary source is the deep well system which is supplied from the four wells constructed by the City and supplemented by three additional wells purchased from the Spenard Utility System in 1960. The seven wells have a total combined capacity estimated to be approximately 10 million gallons per day, however, it is somewhat questionable whether the full supply could be obtained due to the effect on the underground water table with all seven wells in operation simultaneously.

The Ship Creek surface supply will continue as the primary source and the Water Treatment Plant was constructed to process the full capacity of the transmission line from the intake reservoir to the plant site. Although the plant is designed for future expansion, in order to make this practical for peak periods, additional water must be available in the Ship Creek basin.

The well system will be used to supplement the primary source when necessary at periods of high demand, or in the event of a break in the main supply line. It will be used also on a supplementary basis during the winter months at periods when the surface supply is extremely cold, since injecting the slightly warmer underground water in the distribution system has prevented many freeze-ups both in mains and individual services. During the winter, the wells are operated on a rotating basis with the exception of the well at 30th and Arctic which is operated automatically through the use of a hydro-pneumatic system at the well-house. The remaining wells are manually controlled and are cut into the system as required.

Construction of the Water Treatment Plant was completed in 1962 and we hope to be able to flush the entire distribution system during 1963. This will eliminate all dirt from the system and the complaints caused thereby.

Pumping Expense:

This account provides for the operation of the seven wells on the system, the utilization of which is described above.

Purification Expense:

The water treatment plant is now fully operational and the staff consists of the Chief Operator and operators on a two shift, seven day per week basis. Chemical treatment is applied as necessary. Cost of flocculation chemicals is lower than originally anticipated and are used only during periods of turbid water, primarily in the spring and fall. Water is processed through the filters at all times.

Both chlorine and fluoride are introduced into the City water supply at the treatment plant and the wells. Fluoride was introduced at the wells for the first time in 1962. This treatment enables us to keep the proper fluoride content in the distribution system at all times. It has been planned for five men to operate the treatment plant. If additional personnel are needed for security reasons, this account budget will have to be increased. The construction of the house at the plant site for the Chief Operator may eliminate the need for any increase.

Transmission and Distribution:

Our distribution system consists of 131.4 miles of water mains. The 843 fire hydrants are maintained also under this account. Cost of annual maintenance is approximately \$40 per hydrant. A charge of \$46 per hydrant within the City is made to the general fund through the Fire Department account to cover the entire cost.

Hydrants in areas of high water table require regular pumping and inspection because if any water is in the barrel, freezing and breakage may occur.

General Expense:

Account 4751: This is the pro-rated share of the billing and collection charges from the Finance Department.

Account 4764: Other general expense includes expenses incurred by other City Departments for the benefit of the Water Utility.

Capital Expenditures:

Approximately 400 water service connections are contemplated, and \$30,000 has been allocated for this purpose. This amount represents the cost by City forces in tapping the main and extending the service line and key box to the property line. The balance of the connection fee collected from the customer will represent the contract price for excavation and backfill. This sum will be determined in the spring by competitive bid. Any variation in the actual number of connections will be offset by the increase or decrease in revenue as the applications are received. There is no money remaining from existing bond sales for new construction. We do not anticipate requesting the sale of any of the remaining \$1,200,000 in authorized bonds, because the budget does not provide for debt service on additional bond sales. Assignment of capital budgeted funds to specific contracts will be made by City Council.