



WATER UTILITY



The primary object of the Water Utility is to provide quality water to all existing and new customers for domestic, commercial, industrial and fire protection needs within the service area certified to the Water Utility by the Alaska Public Utilities Commission.

The Capital Improvements Program, as prepared, covers the development of additional sources of water, additional storage, new mains to serve new customers, and upgrading the existing system to meet the expanding demands within the service area. No funds have been included to expand service beyond our existing boundaries or to acquire other water systems. The CIP also contemplates that the Water Utility will continue to finance source developments, transmission facilities, oversizing costs, and replacements. More emphasis is being placed on developers financing their own distribution system and turning it over to the Utility upon completion.

The major item in the capital budget for the Water Utility is for expanded sources of water supply including additional wells, treated water storages, expansion of the water treatment plant, and off-stream storage. This item accounts for \$16,765,000 over the next six years or 45% of the total capital budget. The next major item is the construction of additional transmission mains toward completion of a grid system and the upgrading of the older transmission mains to provide ample water at all portions of the service area and more particularly in the high value area (i.e. CBD) for fire protection.

Approximately 1.5 million dollars will need to be expended in the next 6 years to relocate existing facilities and to stub mains out from under the paving projects of the State, City and Borough. A telemetry system is proposed in 1977 to provide more automated controls of the various sources of water and to monitor the system.

The Water Utility presently has \$11,000,000 in authorized but unsold revenue bonds. These bonds were approved by the voters in 1974 to fund the 1975 CIP. None have been issued due to coverage problems. To finance 1975 essential construction, a short-term note of \$1,500,000 was obtained and secured by the future sale of revenue bonds. To retire the note and to provide funds for the 1976 CIP program \$9.4 million will have to be issued.

Last year the CIP developed by the Utility for 1975 totaled \$4,123 million and \$7,070 million for 1976. The actual amount in 1975 was trimmed to the bare bone and totaled \$2,100 million. The new estimate for funds required in 1976 is \$10,207 to fund the program as envisioned one year ago and those projects that were deferred due to lack of funds.

WATER UTILITY REVENUE REQUIREMENTS (in thousands of dollars)

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1980</u>	<u>Total</u>
Revenue Bonds Authorized	7,856	1,644	-0-	-0-	-0-	-0-	9,500
Revenue Bonds Not Authorized	-0-	4,488	3,375	2,765	2,085	2,867	15,580
State of Alaska	1,201	383	265	450	235	558	3,092
Operational Const. Depreciation	800	1,175	1,375	1,475	1,575	1,675	8,075
Contributions	<u>350</u>	<u>350</u>	<u>200</u>	<u>150</u>	<u>150</u>	<u>150</u>	<u>1,350</u>
	10,207	8,040	5,215	4,840	4,045	5,250	37,597

CITY OF ANCHORAGE

DATE _____

DEPARTMENT OF WATER UTILITY (1)

CAPITAL IMPROVEMENT PROGRAM

SUMMARY OF CAPITAL IMPROVEMENTS Projects (2)

DESCRIPTION (3)	TOTAL PROJECT COST (4)	TO BE FUNDED IN THOUSANDS (5)						(6)	(7)	(8)	(9)	(10)	(11)
		G/O BONDS	REVENUE BONDS	FEDERAL	STATE	DEPR.	CONTR.	1976	1977	1978	1979	1980	1981
Distribution	3400		3400					500	500	600	600	600	600
Transmission	5500		4125		1375			2300	1200	500	500	500	500
Upgrade Distr.	1650		175			1475		275	275	275	275	275	275
Upgrade Trans.	3750		412		338	3000		1350	800	400	400	400	400
New Connects	1200						1200	200	200	200	200	200	200
Meters	750		750					250	250	100	50	50	50
USGS Water Study	360		360					60	60	60	60	60	60
Auxiliary Power	160		160					40	40	40	40		
New Equipment	532		532					142	60	60	60	150	60
Dist. Reservoir	3200		2400		800			850		200	900		1250
Wells	2315		1736		579			300	330	360	400	440	485
Telemetry	1120		1120					40	1000	20	20	20	20
St. Hwy. Projects	835		835					400	75	75	85	100	100
Heating Water	75		75							75			
Resource Dev.	11250		8250			3000		3250	3000	2000	1000	1000	1000
Reloc. Facilities	600					600		100	100	100	100	100	100
Miscellaneous	900		900					150	150	150	150	150	150
TOTAL	37597		25230		3092	8075	1200	10207	8040	5215	4840	4045	5250
OTHER SOURCE OF FUNDS (12)		COMMENTS (13)											

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			DISTRIBUTION				76-1
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Noveable)		3400		500	500	600	600	600	600
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	3400		500	500	600	600	600	600
	TOTAL								
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code					
(21) Architectural and Engineering Fees: <u>9%</u>		(22) Percent of Building Cost <u>N/A</u>		(23) Estimated Start Date <u>January 1, 1976</u>		(24) Estimated Completion Date <u>12-31-76</u>			
(25) Effect on Budget		Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues		
List Programs(s) Affected		First Year							
		Full Year							
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
<p>This item provides for the design and construction of distribution mains (8" to 12") throughout the service area. Included are Improvement Districts, Water Main Extension Agreements, and Subdivision Agreements which may be financed by the City in whole or part, if the agreement covers only oversizing costs.</p>									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			TRANSMISSION				76-2
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		5500		2300	1200	500	500	500	500
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	4125		1725	900	375	375	375	375
	State of Alaska	1375		575	300	125	125	125	125
	TOTAL	5500		2300	1200	500	500	500	500

(18) Gross Floor Area N/A Sq. Ft. (19) Building Cost Per Sq. Ft. \$ N/A (20) Project Status Code PE
 (21) Architectural and Engineering Fees: 9% (22) Percent of Building Cost N/A %
 (23) Estimated Start Date January 1, 1976 (24) Estimated Completion Date 12-31-76

(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues
	List Programs(s) Affected	First Year				
	Full Year					

(26) Project Description and Justification (Continue on Additional Sheets, Same size)

This item includes design and construction of transmission mains (12" and larger) to complete the Water Utility transmission system grid.

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			UPGRADE DISTRIBUTION				76-3
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirements in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		1650		275	275	275	275	275	275
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds		175 1475		175 100	275	275	275	275	275
Code	Fund Title								
	Revenue Bonds								
	Depreciation O.C.								
TOTAL									
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code					
(21) Architectural and Engineering Fees: <u>9%</u>		(22) Percent of Building Cost <u>N/A</u>		<u>PE</u>					
(23) Estimated Start Date <u>January 1, 1976</u>		(24) Estimated Completion Date <u>12-31-76</u>							
(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues			
List Programs(s) Affected	First Year								
	Full Year								
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
<p>This item covers various loop-ties and distribution system upgrading to include the replacement of wood stave pipe throughout the distribution system.</p>									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			UPGRADE TRANSMISSION				76-4
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Movable)		3750		1350	800	400	400	400	400
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	412		412					
	State of Alaska	338		338					
	Depreciation O.C.	3000		600	800	400	400	400	400
	TOTAL	3750		1350	800	400	400	400	400
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code <u>PE</u>					
(21) Architectural and Engineering Fees: <u>9%</u>		(22) Percent of Building Cost <u>N/A</u>		(24) Estimated Completion Date <u>12-31-76</u>					
(23) Estimated Start Date <u>January 1, 1976</u>									
(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues			
List Programs(s) Affected	First Year								
	Full Year								
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
<p>This item includes the design and purchase of the 42" pipe for the replacement of the 24" wood stave on Fifth Avenue from the Chrysler Center to Orca and an additional tie line from the Treatment Plant to Valve Vault #4.</p> <p>1. 42" Transmission Main (Chrysler Center to Orca) Desing and Construction - \$700,000 2. Tie from Treatment Plant to Vault #4 - 200,000</p>									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title			(3) Priority Number	
		WATER UTILITY ENGINEERING			NEW CONNECTIONS			76-5	
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirements in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Movable)		1200		200	200	200	200	200	200
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title	1200		200	200	200	200	200	200
	Contributions								
TOTAL									
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code					
(21) Architectural and Engineering Fees: <u>N/A</u>		(22) Percent of Building Cost <u>N/A</u> %		<u>No</u>					
(23) Estimated Start Date <u>In Progress</u>		(24) Estimated Completion Date <u>Continuing</u>							
(25) Effect on Budget		Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues		
List Programs(s) Affected		First Year							
		Full Year							
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
(16) This project provides a contribution in aid of construction to furnish material and labor for service connects to be made in the coming year. We are estimating making 1,000 connections of various sizes. The number cannot be estimated at this time.									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			METERS				76-6
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		750		250	250	100	50	50	50
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	750		250	250	100	50	50	50
	TOTAL								

(18) Gross Floor Area N/A Sq. Ft. (19) Building Cost Per Sq. Ft. \$ N/A (20) Project Status Code No
 (21) Architectural and Engineering Fees: N/A (22) Percent of Building Cost N/A %
 (23) Estimated Start Date In Progress (24) Estimated Completion Date Continuing

(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues
List Programs(s) Affected	First Year					
	Full Year					

(26) Project Description and Justification (Continue on Additional Sheets, Same size)

Purchase of water meters to complete metering policy of all commercial, 4-plex units and larger, and industrial buildings. This is in accordance with the Tariff now on file with the Alaska Public Utilities Commission.

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			USGS				76-7
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		360		60	60	60	60	60	60
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	360		60	60	60	60	60	60
	TOTAL								

(18) Gross Floor Area N/A Sq. Ft. (19) Building Cost Per Sq. Ft. \$ N/A (20) Project Status Code No
 (21) Architectural and Engineering Fees: N/A (22) Percent of Building Cost N/A %
 (23) Estimated Start Date In Progress (24) Estimated Completion Date Continuing

(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues
List Programs(s) Affected	First Year					
	Full Year					

(26) Project Description and Justification (Continue on Additional Sheets, Same size)

This project is a continuation of the monitoring program that has been in progress for the past ten (10) years. The projects to be studied next year will encompass the study of both underground and surface water resources in the Ship Creek and Campbell Creek watersheds, as well as assistance in development of wells as outlined in the 1974 Water Source Study.

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title			(3) Priority Number	
		WATER UTILITY ENGINEERING			AUXILIARY POWER			76-8	
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		160		40	40	40	40	0	0
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	160		40	40	40	40	0	0
	TOTAL								

(18) Gross Floor Area N/A Sq. Ft. (19) Building Cost Per Sq. Ft. \$ N/A (20) Project Status Code PE
 (21) Architectural and Engineering Fees: N/A (22) Percent of Building Cost N/A
 (23) Estimated Start Date January 1, 1976 (24) Estimated Completion Date 12-31-76

(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues
List Programs(s) Affected	First Year					
	Full Year					

(26) Project Description and Justification (Continue on Additional Sheets, Same size)

This item consists of purchasing and installing auxiliary generators for Well #2, #3, #6, and #8. Standby power assures a continuous power source for periods of power failure to insure an adequate water supply for fire protection.

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			NEW EQUIPMENT				76-9
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirements in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		532		142	60	60	60	150	60
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	532		142	60	60	60	150	60
	TOTAL								
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code					
(21) Architectural and Engineering Fees: <u>N/A</u>		(22) Percent of Building Cost <u>N/A</u> %		00					
(23) Estimated Start Date <u>January 1, 1976</u>		(24) Estimated Completion Date <u>12-31-76</u>							
(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues			
List Programs(s) Affected	First Year								
	Full Year								
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
Replacement and purchase of new equipment as existing equipment is worn out or new equipment is needed to upgrade existing fleet. Also included is purchase of smaller tools and equipment used by the maintenance section for a replacement and addition basis.									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			DISTRIBUTION RESERVOIR				76-10
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		3200		850		200	900		1250
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	2400		637		150	675		938
	State of Alaska	800		213		50	225		312
	TOTAL	3200		850		200	900		1250

(18) Gross Floor Area N/A Sq. Ft. (19) Building Cost Per Sq. Ft. \$ N/A (20) Project Status Code PPE
 (21) Architectural and Engineering Fees: 9% (22) Percent of Building Cost N/A %
 (23) Estimated Start Date January 1, 1976 (24) Estimated Completion Date 12-31-76

(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues
	List Programs(s) Affected	First Year				
	Full Year					

(26) Project Description and Justification (Continue on Additional Sheets, Same size)

This item covers the design and construction of distribution reservoirs for additional storage of treated water to meet the peak distribution system demands and fire protection.

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			PRODUCTION WELLS				76-11
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirements in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		2315		300	300	360	400	440	485
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds		1736		225	247	270	300	330	364
Code	Fund Title								
	Revenue Bonds								
	State of Alaska								
	TOTAL	579		75	83	90	100	110	121
		2315		300	330	360	400	440	485
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code					
(21) Architectural and Engineering Fees: <u>9%</u>		(22) Percent of Building Cost <u>N/A</u>		PE					
(23) Estimated Start Date <u>January 1, 1976</u>		(24) Estimated Completion Date <u>12-31-76</u>							
(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues			
List Programs(s) Affected	First Year								
	Full Year								
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
<p>This item consists of the design and construction of test wells, production wells, well houses, and transmission pipelines. The Water Source Study done by Tryck, Nyman & Hayes recommends development of production wells to supplement present water supply sources.</p>									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			TELEMETERING				76-12
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)									
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL		1120		40	1000	20	20	20	20
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	1120		40	1000	20	20	20	20
TOTAL									

(18) Gross Floor Area N/A Sq. Ft. (19) Building Cost Per Sq. Ft. \$ N/A (20) Project Status Code PPC
 (21) Architectural and Engineering Fees: N/A (22) Percent of Building Cost N/A
 (23) Estimated Start Date January 1, 1976 (24) Estimated Completion Date 12-31-76

(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues
List Programs(s) Affected	First Year					
	Full Year					

(26) Project Description and Justification (Continue on Additional Sheets, Same size)

This item consists of the design and installation of a monitoring system for all the wells, reservoirs, pressure reducing stations, booster stations and valve pits in the water system from the Treatment Plant.

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			STATE HIGHWAY PROJECTS				76-13
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirements in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		835		400	75	75	85	100	100
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds		835		400	75	75	85	100	100
Code	Fund Title								
	Revenue Bonds								
TOTAL									
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code					
(21) Architectural and Engineering Fees: <u>9%</u>		(22) Percent of Building Cost <u>N/A</u> %		<u>PE</u>					
(23) Estimated Start Date <u>In Progress</u>		(24) Estimated Completion Date <u>Continuing</u>							
(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues			
List Programs(s) Affected	First Year								
	Full Year								
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
<p>This item covers the design and construction of utility relocation, adjustments, and system upgrading prior to future Department of Highways road construction.</p>									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			HEATING WATER				76-14
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirements in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		75				75			
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds		75				75			
Code	Fund Title								
	Revenue Bonds								
TOTAL									

(18) Gross Floor Area N/A Sq. Ft. (19) Building Cost Per Sq. Ft. \$ N/A (20) Project Status Code PPP
 (21) Architectural and Engineering Fees: N/A (22) Percent of Building Cost N/A %
 (23) Estimated Start Date January 1, 1978 (24) Estimated Completion Date 12-31-78

(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues
List Programs(s) Affected	First Year					
	Full Year					

(26) Project Description and Justification (Continue on Additional Sheets, Same size)

This item provides funding to connect the Water Utility Transmission System to the head exchanger which will be financed and built by ML&P.

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			RESOURCE DEVELOPMENT				76-15
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirments in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Noveable)		11250		3250	3000	2000	1000	1000	1000
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title								
	Revenue Bonds	8250		3250	3000	1400	300	200	100
	Depreciation (O.C.)	3000				600	700	800	900
	TOTAL	11250		3250	3000	2000	1000	1000	1000
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code					
(21) Architectural and Engineering Fees: <u>9%</u>		(22) Percent of Building Cost: <u>N/A</u> %		<u>PPP</u>					
(23) Estimated Start Date <u>In Progress</u>		(24) Estimated Completion Date <u>Continuing</u>							
(25) Effect on Budget		Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues		
List Programs(s) Affected		First Year							
		Full Year							
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
<p>This item provides for design and construction of facilities necessary to meet the growing demand for treated water. Includes is the modification of the Diversion Dam for additional outlets and the construction of off-stream storage ponds and appurtenances.</p>									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			RELOCATION OF UTILITIES				76-16
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirements in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		600		100	100	100	100	100	100
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds		600		100	100	100	100	100	100
Code	Fund Title								
	Depreciation (O.C.)								
TOTAL									
(18) Gross Floor Area <u>N/A</u> Sq. Ft.		(19) Building Cost Per Sq. Ft. \$ <u>N/A</u>		(20) Project Status Code <u>PE</u>					
(21) Architectural and Engineering Fees: <u>9%</u>		(22) Percent of Building Cost <u>N/A</u> %		(24) Estimated Completion Date <u>Continuing</u>					
(23) Estimated Start Date <u>In Progress</u>									
(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues			
List Programs(s) Affected	First Year								
	Full Year								
(26) Project Description and Justification (Continue on Additional Sheets, Same size)									
<p>This item covers the relocation and adjustment of utility appurtenances prior to City of Anchorage and Greater Anchorage Area Borough paving projects.</p>									

CAPITAL PROJECT ESTIMATE		(1) Department and Division			(2) Project Title				(3) Priority Number
		WATER UTILITY ENGINEERING			MISCELLANEOUS REQUIREMENTS AND CONTINGENCIES				76-17
Estimated Cost by Object		Estimated Total Cost (4)	Approp. Prior Years (5)	New Appropriation 1976 (6)	Estimated Requirements in Thousands				
					1977 (7)	1978 (8)	1979 (9)	1980 (10)	1981 (11)
(12) Equip. (Moveable)		900		150	150	150	150	150	150
(13) Land									
(14) Buildings									
(15) Other Improvements									
(16) Other									
TOTAL									
(17) Estimate Cost by Source of Funds									
Code	Fund Title	900		150	150	150	150	150	150
	Revenue Bonds								
	TOTAL								

(18) Gross Floor Area N/A Sq. Ft. (19) Building Cost Per Sq. Ft. \$ N/A (20) Project Status Code No
 (21) Architectural and Engineering Fees: N/A (22) Percent of Building Cost N/A %
 (23) Estimated Start Date In Progress (24) Estimated Completion Date Continuing

(25) Effect on Budget	Years	Man Years	Salaries & Wages	Other Objects	Total Cost	Revenues
List Programs(s) Affected	First Year					
	Full Year					

(26) Project Description and Justification (Continue on Additional Sheets, Same size)

This item covers emergency situations unforeseen at this time, such as rescheduled projects and the unscheduled replacement of equipment.