

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 8672

457 SCOMM13: JOINT COMM. ON GAS PIPELINE IMPACT 1974-76

Operations Impact.

Public Safety.

Valdez anticipates problems with law enforcement similar to other cities, however, perhaps aggravated by the 4,350 camp workers that will be within a few miles of town. The police force will need to be expanded. The following Table shows the impact costs for this department.

TABLE 17-2

Police Department Impact Costs (\$000)

<u>Year</u>	<u>Officers</u>	<u>Support Personnel</u>	<u>Personnel Costs</u>	<u>Equipment and Supplies</u>	<u>Total</u>	<u>Impact*</u>
1973	4	0	64	-	64	-
1974	4	2	141	26	167	99
1975	8	4	270	36	306	234
1976	8	4	270	40	310	234

* Assuming that under normal conditions wages would increase @ 6% annually.

The present fire protection is done by a volunteer department, with a token payment, it is believed, to the Chief. The City believes that a small full-time force will be required. Following is a Table showing estimated costs.

TABLE 17-3

Fire Department Impact Costs (\$000)

<u>Year</u>	<u>Firemen</u>	<u>Chief, Dispatch Marshall</u>	<u>Personnel Costs</u>	<u>Equipment and Supplies</u>	<u>Total</u>	<u>Impact</u>
1973	-	-	-	-	-	-
1974	6	3	210	7	217	217
1975	6	3	210	2	212	212
1976	6	3	210	2	212	212

The City collects a sales tax of 4%. A projection of the assessed valuation for future years is difficult, however, an attempt will be made below under Projected Revenues.

Debt.

The City of Valdez has very little debt of any kind. General obligation bonds outstanding on June 30, 1973 were in the sum of \$46,000, which was only 0.33% of assessed valuation. Other debt amounted to an additional \$97,859. The nature of this debt was not defined.

Impact - General.

Valdez, being situated at the terminus of the pipeline, will receive the greatest impact of any community, percentage-wise. This is because of the present small economic base and the large expected increase of both service workers living in town and camp workers located nearby. As shown in Table 17-1, the resident population is expected to increase almost 200% in only a year or so. The permanent population following the completion of the pipeline is expected to be over 100% of the present figure.

Services, trade and commerce, shipping, and government services, both State and Federal, will expand rapidly in order to meet the demands. The City will be faced with the many problems of providing facilities for new housing, new commercial facilities, and the services necessary for a comparatively large transient population. All these will put a strain on the present government structure and its' ability to finance the public improvements called for.

Valdez is fortunate that it has a fairly solid base to start with in respect to community facilities, and practically no debt.

Following are the areas of concern expressed by the City government and their specific requests for financial assistance.

Because of an increase in both housing and commercial structures, building inspection will need to be done on a full-time basis. Heretofore, this work has been done on a professional fee basis, at a cost of about \$5,000/year.

Following is an estimate of the impact need, including camp ground maintenance and supervision.

TABLE 17-4

Building Inspection Costs Induced By Impact (\$000)

<u>Year</u>	<u>Building Inspector</u>	<u>Camp Custodian</u>	<u>Personnel Costs</u>	<u>Equipment & Supplies</u>	<u>Total*</u>	<u>Impact</u>
1973	0	1/2	5	-	5	-
1974	1	1	50	14	64	59
1975	1	1	50	2	52	46
1976	1	1	50	2	52	46

* Assuming a 6% annual increase under normal conditions.

Public Works.

Streets, sewers, water, refuse, and snow removal operations and maintenance costs will rise in proportion to the population increase and the itinerants, and recreation seekers. The following Table depicts the estimates of costs of these activities.

TABLE 17-5

Impact Costs of Public Works (\$000)

<u>Year</u>	<u>Personnel</u>	<u>Personnel Costs</u>	<u>Equipment & Supplies</u>	<u>Total</u>	<u>Impact*</u>
1973	5	58	-	58	-
1974	6	160	51	211	150
1975	8	211	30	241	171
1976	10	261	12	273	203

* Assuming normal personnel cost rise @ 6% a year.

Dock and Small Boat Harbor.

The dock and boat harbor operations to date have required together about one full-time person. The City estimates three full-time people will be needed to cover these functions. The next Table shows the impact costs.

TABLE 17-6

Estimated Dock and Small Boat Harbor Impact Costs (\$000)

<u>Year</u>	<u>Personnel</u>	<u>Personnel Costs</u>	<u>Equipment & Supplies</u>	<u>Total</u>	<u>Impact*</u>
1973	1	10	0	10	-
1974	3	82	8	90	79
1975	3	82	22	104	93
1976	3	82	9	91	79

* Assuming normal personnel costs will rise 6% annually.

The City anticipates administrative costs will rise as government services increase. The following Table shows the estimated increases in costs.

TABLE 17-7

Estimated Administrative Impact Costs (\$000)

<u>Year</u>	<u>Personnel</u>	<u>Personnel Costs</u>	<u>Equipment & Supplies</u>	<u>Total</u>	<u>Impact*</u>
1973	2	46	-	46	-
1974	5	137	53	190	141
1975	6	158	46	204	152
1976	7	179	46	225	170

* Assuming 6% increase in normal personnel costs annually.

The Finance Department heretofore has consisted of a billing clerk and a bookkeeper. The City contemplates a large increase in work-load. There is no City Attorney full-time, and this function is obtained on a contractual basis. No additions are included in the Valdez statement. Impact costs of the Finance Department are shown in the following Table.

TABLE 17-8

Estimated Impact Costs of Finance Department (\$000)

<u>Year</u>	<u>Personnel</u>	<u>Personnel Costs</u>	<u>Equipment & Supplies</u>	<u>Total</u>	<u>Impact*</u>
1973	2	25	-	25	-
1974	4	117	44	161	135
1975	5	142	36	178	150
1976	6	167	36	203	174

* Based upon a 6% annual increase in normal personnel costs.

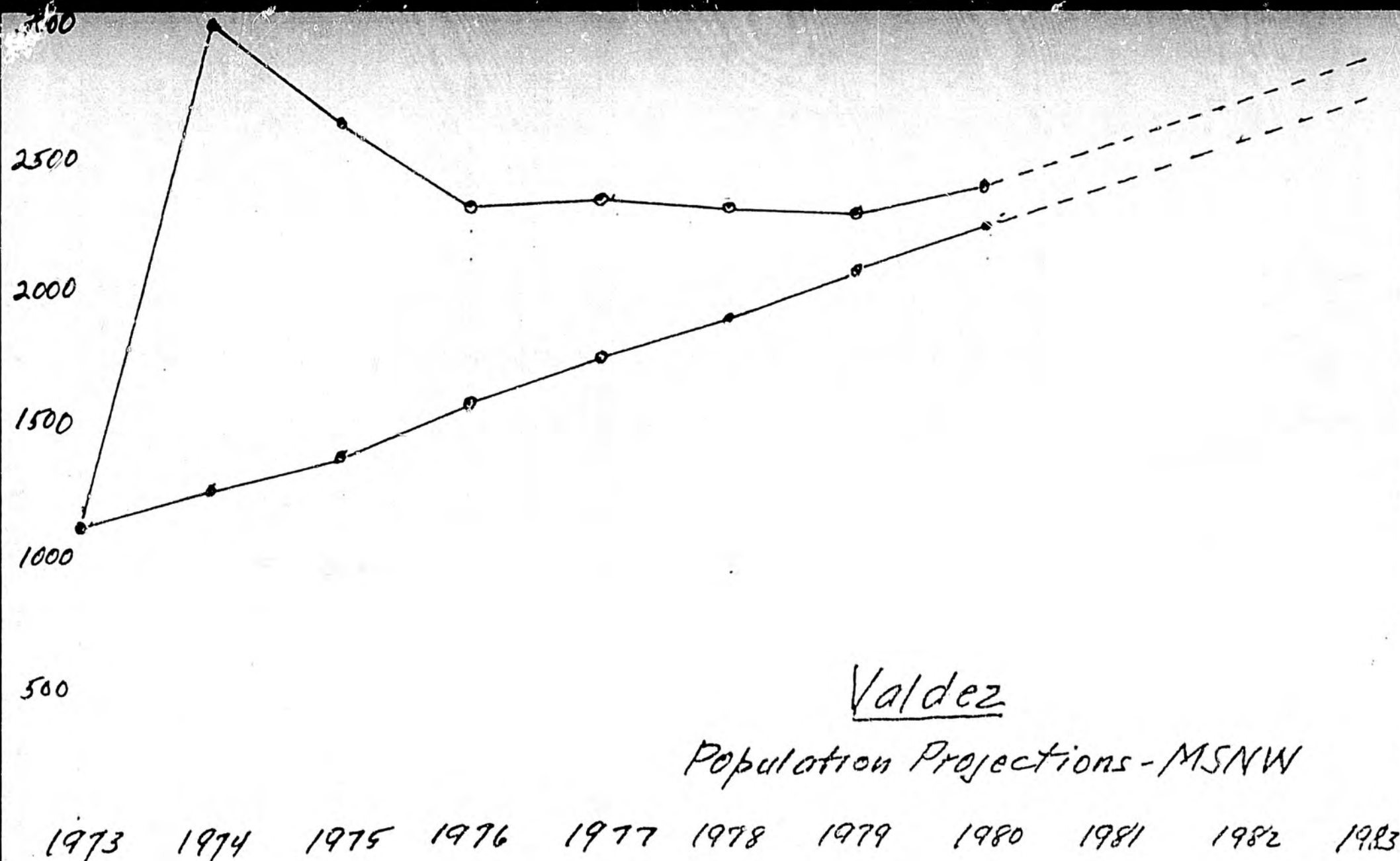
The seven categories of operational costs listed in the above seven Tables are not all-inclusive of the City's operational functions, but are those that they feel will be heavily impacted. The impact costs will be further analyzed in the Summary Section.

Schools.

The Valdez school system has three schools at present. There is a school population of 310 and only 51 additional students can be accommodated without increasing classrooms or going to double-shifting, or year-round schools. (They do not show year-round schools as an alternative.)

The 1973-74 budget recommended a mill rate for school purposes of 5.51 mills for the local contribution. Local contribution covers about 10% of the costs and amounts to \$246.46 per pupil in the 1973-74 budget.

The schools of Valdez estimate the operational costs for the first



year of the pipeline construction to be as follows. They did not project beyond 1974.

TABLE 17-9

Estimated Impact Costs of School Operations (\$000)

<u>Year</u>	<u>School Population</u>	<u>Local Contribution</u>	<u>Per Pupil Contribution</u>	<u>State Contribution</u>	<u>Additional Needed</u>
1973	310	76.4	246.46	687.6	-
1974	600*	108.5*	180.83	976.5*	546*
1975	750	Not Projected			
1976	700	"	"		

* Based upon Valdez school administration projections.

Capital Improvements.

The capital improvements needed to meet the pipeline induced needs are covered below. The City of Valdez is concerned about making improvements that may not be needed if the population drops significantly following pipeline construction. It may be noted that Valdez is somewhat unique among the impacted communities in that the relatively large population projected in the first year or so will be a number of years ahead of the time when that population figure would be reached under normal conditions. Please refer to the graph attached and note that the population projected for 1974 would probably not be reached before 1985 under normal growth. The graph would indicate that, even after the population stabilizes in 1976, no significant growth starts again until 1979, when apparently a normal growth curve is resumed.

If these projections can be relied upon, it would seem to be wise for Valdez to make public improvements based upon a population of not more than 2,300 until the picture becomes a little clearer as to what

really is going to happen. The following analysis of the capital improvements will reflect this thinking.

Housing.

Valdez presently has 192 residential lots with conventional housing. In addition, it has 112 mobile home park spaces occupied. Land for additional housing is available, but rather limited. Following is an inventory of the potential.

55 Residential lots serviced with streets, sewers and utilities.

10 Residential, multi-family, serviced with streets, sewers and utilities -- 52 units could be built on these lots.

34 Residential lots need streets, sewers and utilities.

19-1/2 Acres of City land could be subdivided, and improvements to streets extended. This could make 160 additional family units.

The above unimproved properties could be improved for: 34 lots, \$175,000, and 160 lots, \$600,000.

There are six mobile-trailer parks within the City, three near town with 68 spaces, and three, 4 miles out with 118 spaces. One-hundred twelve spaces were filled in August, 1973.

The U.S. Army Recreation Camp can accomodate 33 trailers, the spaces being served with facilities and utilities. The City is attempting to trade land for the trailer park. It has room for 66 more units, however, utilities would cost an estimated \$250,000.

Thus the picture is as follows:

Conventional Housing

107 - ready for building.

194 - need streets, sewers and utilities.

Mobile Homes

74 - ready for moving in homes.

Trailer Spaces (assuming trade goes through)

33 - ready for use.
66 - need facilities.

374

With an average occupancy of three persons per unit, the above, if needed improvements were made, would handle 1,122 of the new population. If the temporary population goes up to 3,000, more temporary housing space will be needed. There are two alternatives.

1. There is University of Alaska land in the downtown area that is adjacent to utilities, sewers, et cetera, and which is suitable for housing. If the University could lease it for temporary housing, if it becomes necessary, it could help solve the problem.

2. By the extension of Egan Avenue to the west, it would open up new land for development. The extension of this street is also needed, according to the City, to provide access to their proposed site of a new State ferry dock (more later on this).

It would appear that the City should arrange for the funding of the costs of developing the 194 potential home sites as soon as possible at the total estimated cost of \$775,000. If the trade with the Army is successful, the additional 66 trailer spaces should be developed at the cost of \$250,000.

Water Utility.

The City operates the Water Utility and obtains its' supply from two wells capable of producing 1,100 gallons per minute. In addition, they have a 700,000 gallon storage tank. The daily per capita consumption is estimated at 150 gallons. The system capacity is large enough for a much larger population than is expected during the next few years.

In the previous discussion of housing, it was stated that new

residential lots not being served by utilities would need water extensions, and the amounts needed were there estimated and included in development costs.

Sewers and Sewage Treatment Plant.

The City advises that the existing sewer system is adequate to serve the established townsite. Sewage is treated in a treatment plant and the effluent goes into the Bay. The plant is inadequate for the present population, although it was designed for a population of about 1,500. It seems water in-flow to the sewer system overloads the treatment plant. No method has been found to stop the infiltration of water, so the treatment plant must be enlarged.

The City says that the cost of a new treatment plant is \$1,500,000. Based upon an analysis of the report filed with ASHA, who managed the urban renewal project when Valdez was moved, the 150 gallons per capita per day design criteria, Valdez will need another 300,000 gallons per day of treatment capacity. At an estimated cost of \$200 per capita, the additional treatment unit would cost \$600,000. The City agrees that this might be considered the impact costs, providing it meets all EPA requirements.

Public Buildings.

Presently, the whole City government occupies the City Hall. This includes the administrative staff, police, fire department, city council, and State Magistrate. The building is completely filled. With the new personnel in all functions, more space will be necessary. There have been alternatives considered.

1. Build a new wing to house the police.
2. Rent or build a new administration building and turn the old building over to the police and fire departments.

3. Move in temporary mobile space.

Building the new wing would cost an estimated \$150,000. This plan has not been selected, or dropped, so it is included in the capital improvements impact.

Fire Station.

As the City builds out beyond the reasonable response time for the fire trucks located in the center of town, a new station should be located away from the center. The City has on order a new pumper, but they need a structure to house it and believe it could best be located near the airport. The new structure is estimated to cost \$150,000.

The City believes also that because of the expected new State government personnel that will be stationed in Valdez during and after the pipeline construction, that more State offices will be needed. The State has land in the central area.

Small Boat Harbor.

With the new resident population and the thousands of workers in the area, the present small boat harbor will be entirely inadequate, according to the City of Valdez. The harbor at present can accomodate 176 boats, ranging from 10-foot skiffs to 60-foot fishing boats. They expect that the demand will require doubling this capacity.

The work necessary to expand the harbor is estimated to cost as follows:

Excavation	\$405,000
Drive new piles	70,200
Re-locate ramps	25,000
Total cost	<u>\$500,200</u>

The value of the small boat harbor to Valdez, not only as an economic factor, but as a recreational facility, cannot be overestimated.

Solid Waste Disposal.

Refuse disposal is provided by the City with one truck which is adequate for projected populations. The disposal site will need to be relocated, however, to handle the larger volumes expected. Estimated costs of covering the present site and relocating to a new site is \$20,000.

Schools.

As stated above, the City has three schools, with space capacity (November, 1973) of 51 students. The school administration estimates they will have approximately 600 students the first year of pipeline construction.

Based upon a permanent population of about 2,300 for a few years, this figure seems to be reasonable. Based upon 20 pupils per classroom, the additional classrooms needed would be about 12.

The school administration is considering the following alternatives:

1. Rent available space on a temporary basis.
2. Provide modular classrooms.
3. Double-shift grades K - 8.
4. Double-shift grades 9 - 12.

They do not consider year-round schools as an alternative.

There has been consideration given to adding five classrooms to the elementary, ^{and} expanding related facilities, including the heating plant. The cost is estimated at \$570,000.

Also under this possible plan, the existing high school building would be used for the lower grades and a new high school would be constructed. It is believed these construction plans would serve over a longer range than just the pipeline construction period.

Assuming 12 classrooms were needed for the impact period and based

upon the alternatives considered above, costs could be estimated as follows (Staff estimate):

Alternative 2 above:

12 relocatable units	\$ <u>600,000</u>
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Alternative: New construction

Classrooms needed - 12

Assume 6 elementary @ \$130,000 per unit-----	780,000
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Assume 6 secondary @ \$175,000 per unit-----	<u>1,050,000</u>
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Total	\$1,830,000
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Electrical Utility.

The electric utility is operated by the Copper River Valley Cooperative and has a peak capacity of about 3,600 KW and a firm capacity of 1,800 KW. With the new B & B Freezer-Storage Plant going on the line recently, additional generating capacity will be needed to serve any new population. From the information I can get, it appears that the Cooperative may be unable to obtain additional funds for expansion of this utility.

The following courses of action have been discussed.

1. Arrange for the Cooperative to borrow money under some State program.
2. The City set up a temporary generating unit.
3. The Cooperative be aided in their attempt to purchase power from Alyeska.

From the standpoint of ease of implementation, the first alternative seems the most logical, even if the unit provided were only a temporary unit.

The second alternative would be only a last resort and would have

to be worked into the Copper Valley system. It should be resorted to only if the Copper Valley directors refused to take the appropriate steps.

The third alternative has been attempted. Alyeska was approached and the result was a firm negative -- they don't want to get into the power business. However, I believe the legal barriers, if they exist, could be overcome. Such a solution would necessitate the construction of a transmission line to Valdez from the pipeline terminal site, and in itself would be costly, but would eliminate other capital expenditures at this time. The feasibility of this alternative would depend upon the cost of power to the utility, the cost of the transmission line as compared to the amount of power that could be purchased and over what periods, and the extent to which transformers were needed at both ends of the line, and their cost. (See Appendix G, Valdez Power.)

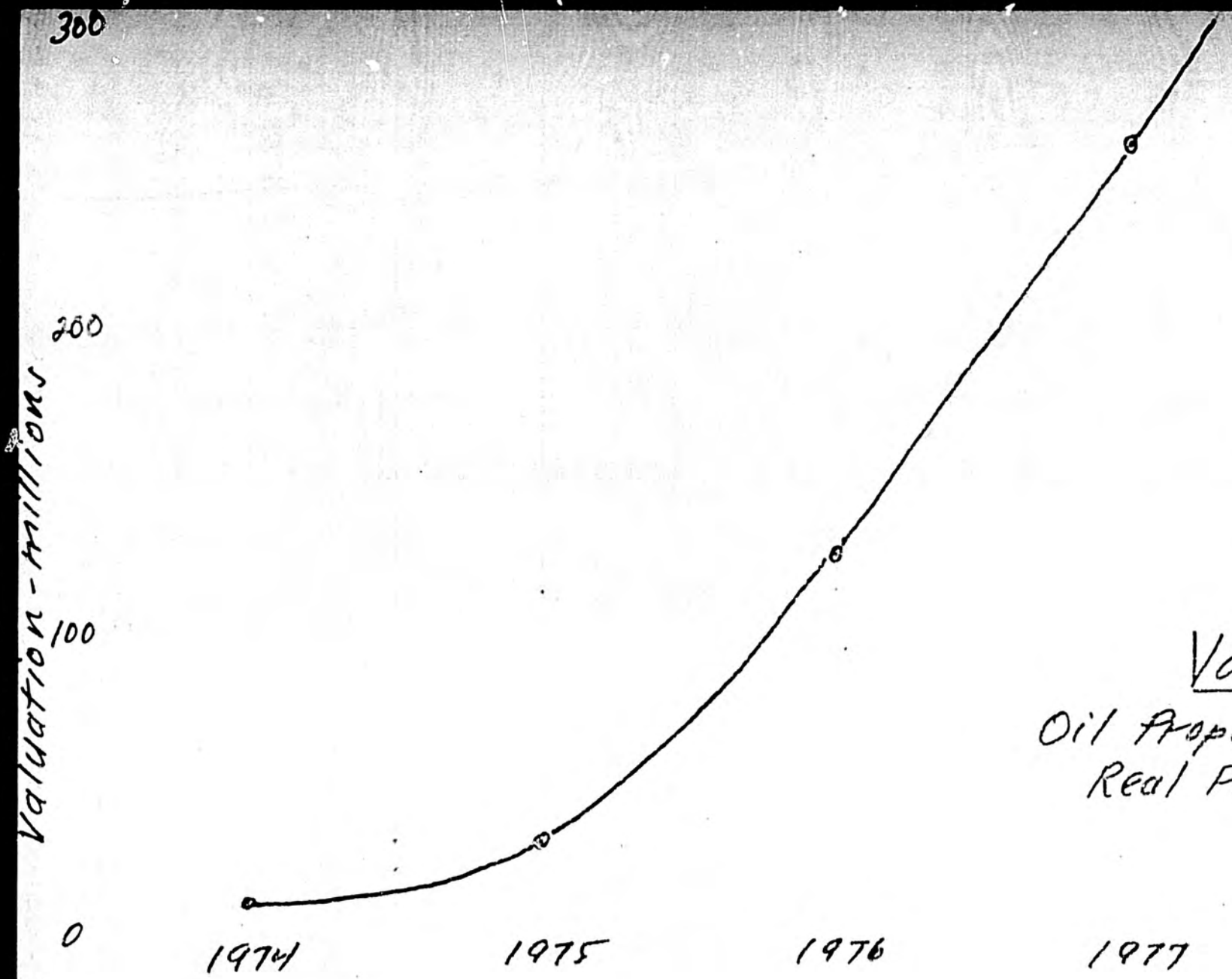
State Ferry Terminal.

The City says the State Ferry Terminal is presently at a poor location because passenger traffic on and off the ferry is in constant conflict with other port activities. This situation is expected to be aggravated by the larger volumes of marine traffic that will be moving over the dock during the construction period.

The City proposes that the Ferry Terminal be relocated to the Mouth of Mineral Creek and that the present dock be turned over to the City to help service the marine traffic.

The cost of the new Ferry Terminal is estimated at \$300,000.

In order to relocate the new terminal, Egan Avenue would have to be extended west. The right-of-way has not yet been acquired, the City says, and the project should be undertaken as a part of the State's primary road system. No estimate of cost is made.



Valdez
Oil Property Values
Real Property Only

Revenue Projections.

The following projections of property tax revenues for the City include those made by the City Manager prior to the passage of the new State ad valorem legislation.

Also included are my own projections that were made after discussion with the State Department of Revenue.

The Department projects real and personal oil property as \$131 million in 1975; \$279 million in 1976 and \$540 million in 1977. They estimate the personal property to be \$100 million. By deducting this, they get \$31 million in 1975, \$179 million in 1976, and \$440 million in 1977. I have chosen lower figures for my projections, allowing almost 50% of the State real and personal projections for personal property during the construction years. The attached graph and the Table show these projections.

TABLE 17-9

Property And Sales Tax Revenue Projections (\$000)

Year	City* Projections	Oil Real Property	Tax** @ 7 Mills	Other Prop. Values	Tax @ 13.5 Mills	Sales Tax	Totals
1973	320	-	-	-	-	160	-
1974	570	10,000	70	11,500	155	232	457
1975	813	30,000	210	17,500	236	305	751
1976	1,165	125,000	875	21,800	294	363	1,532
1977	1,400	260,000	1,820	27,300	369	435	2,624

* City projections include sales and other taxes.

** 7 mills used only as a shot in the dark. No decision has been made by the City as to making a new tax zone for oil properties.

It will be noted that my projections are lower in 1974 and 1975 than those of the City, but are higher after those years.

State Shared Revenue.

The following projections cover only those revenue sharing categories dependent upon population.

TABLE 17-10

State Revenue Sharing Projections

<u>Year</u>	<u>Populations Projections*</u>	<u>Police</u>	<u>Fire</u>	<u>Parks</u>	<u>Totals</u>
1973	1,100	11	5.5	5.5	22
1974	1,600	16	8.0	8.0	32
1975	2,100	21	10.5	10.5	42
1976	2,500	25	12.5	12.5	50

* City projections.

It should be noted that the property tax picture would change radically if Valdez should assess and levy taxes on personal property.

SECTION XVIII

VILLAGES

The following relates to the impact of the pipeline on the native villages. Specific reference here is to the people living in the Copper River Valley and along the Yukon near the route of the pipeline. It was believed that their opinions should be sought regarding the way pipeline construction would affect them and what they were most concerned with.

It is reported that there are about 1,000 natives in the Ahtna Corporation. Rampart Village has 68 inhabitants, and Stevens Village about 74. The latter two are in the Doyon Corporation.

Generally, the people seem to know much about what the construction job is, and how it will be built, and they are aware of how it may affect their way of life.

Although there is a desire to have the opportunity to work on the line, there is the feeling that for most natives the work should be such that they will have to train only for short periods, 30 to 60 days. They want to work near home, or close enough so they can return home periodically. Instead of being transported to the point of hire, they would want the contractors to return them to their village.

The natives would like to register with their own native corporations for work, rather than go to the large cities.

Many of the native people would prefer permanent employment rather than short-term construction work, even though the pay would be lower.

Other pipeline-associated jobs for which some native people feel they can qualify, or be trained for are as follows:

1. Contract with Alyeska, or its' contractors, for providing gravel

needed for pipeline construction and associated road work. There is some question about their having the authority to use such gravel. First, it has not been determined if gravel is a surface or sub-surface resource. They do not know if they can use or sell gravel in their townships of selection before they have title to the land.

2. The natives believe some of them, or their corporations, can contract for security patrol, both during construction and after.

3. They believe native corporations could salvage timber in the pipeline right-of-way if it has any value.

4. They would like the opportunity of contracting for reclamation projects after the pipeline is completed.

5. There is some thought being given to groups or individuals entering business or offering services that would be needed during the pipeline construction.

6. They would like the State to train natives for auxiliary police work and employ them in the villages to maintain order during the construction period.

An important part of the pipeline construction project of great importance to the natives along the line is the effect of the corridor withdrawal upon the village's selection of land. Several of the villages are either adjacent to the line, or the line runs through townships which they want to select for the village.

It is their opinion that in the areas where there is conflict, the right-of-way be designated and the remainder of the corridor be released. The Secretary of Interior promised to consider this problem.

The native people are much interested in the education of their

children. They see education as the way for them to improve their way of life. Even though there seems to be resistance to changing their ways, they see change coming.

Because of the distances involved in going to school, most would prefer lower quality, temporary classrooms and be able to maintain regular school hours rather than double-shifting.

The quality of housing in the villages is not high. Most have no running water. The belief is that many of the younger generation who are now in Anchorage and Fairbanks will return to the villages during pipeline construction. New housing will be needed and any housing finance program should help them, too, since most programs will not.

There are several other matters that the native people are thinking about in connection with the construction period and the large number of people that will be "invading" their home territory.

1. Despite the fact that the pipeline may provide jobs, many native people are skeptical about their being able to depend upon full time employment, from here on out, for their livelihood. They fear that they may still have to depend upon subsistence living sometime in the future. Therefore, they are worried about what will happen to fish and game with the thousands of workers along the pipeline, and with the new road opening up the country to north of the Yukon.

They claim that game is already scarce and that a native family needs at least one, preferably two moose or caribou to survive the Winter. They find they must travel further away each year from the areas where sports hunters go to get their game. They believe that subsistence hunting should have some State protection.

The fish spawning streams in the path of the pipeline should be protected, since these streams are a source of livelihood for the subsistence hunters.

2. State health services should be improved to the villages.

3. The village governments should have the right to review liquor license applications for dispensary or package outlets near the village.

4. The State should pass and enforce laws along the pipeline and highway to prohibit junk, other discarded material, and waste from being dumped.

5. Firefighting training in the villages and the distribution of fire extinguishers should be expanded.

6. Any measure that is possible should be taken to protect the native gravesites.

7. An improvement program for the native village airstrip should be initiated.

8. As soon as possible, telephone communications should be made available to villages that do not have them -- at the very least, a public phone that could be accessible for emergencies.

APPENDIX A

CITIES AND GOVERNMENT AGENCIES ASKED FOR IMPACT STATEMENTS

Cities and Boroughs

Anchorage *BALPOW*
Cordova
Delta Junction
Fairbanks
Fairbanks North Star Borough
Greater Anchorage Area Borough
Haines
Juneau
Kenai
Kenai Peninsula Borough
Matanuska Valley Borough
North Pole
Palmer
Seward
Valdez
Whittier

Other Agencies

Fairbanks Schools
Anchorage Schools

APPENDIX B

POPULATION AND EMPLOYMENT

EMPLOYMENT AND POPULATION PROJECTIONS

Mathematical Sciences Northwest did a study of the economic and sociological impact of construction and initial operation of the Trans Alaska Pipeline. Their report is available in our office for any Committee member who hasn't seen it.

Generally, it is believed that their projections of employment are low for the State and most of the communities for which separate projections were made. Consequently, the population projections are considered low, with the exception of Fairbanks. It is believed their population figures for Fairbanks are probably high because it appears they used a population/employment ratio higher than presently exists in Fairbanks. The ratio they use averages about 1.4 additional persons in the population for each worker; therefore, a multiplier of 2.4. My calculations of this ratio, based on the population/employment figures for the past few years indicate a present multiplier of about 1.8 exists, and it probably will drop during the pipeline construction period.

However, to maximize the possible impact, we have kept in mind MSNW population figures for Fairbanks in analyzing the impact statements from that area.

EMPLOYMENT PROJECTIONS -- METHODS AND ASSUMPTIONS

1. The employment figures are for civilian employment and, therefore, exclude uniformed military personnel. The base figures used are those published monthly by the State Department of Labor, "Alaska Workforce Estimates."

2. No attempt has been made in this effort to project beyond 1976, because of many unknowns and the time required to develop such information. Several other studies have been made and they indicate some slowing of employment growth after 1976, if no new large projects are started.

Regardless of whether the economy continues at an increased pace after 1976 or not, the accelerated growth picture, as seen at present, will probably not change radically. If the impact is faced by assuming an adjustment period after 1976, the consequences of over-building can better be accounted for and avoided.

3. A "Basic" industry, as used here, means the project which creates the new demand for workers. Examples would be military construction during the Korean War; the construction following the Alaska earthquake; and the North Slope oil activity in 1968, 1969 and 1970.

4. Employment figures are annual averages. Peak annual figures may be 12% (or more) higher or lower than shown in the peak or off-seasons, respectively.

5. The 1960 - 1970 employment in the State increased at an annual average of 4.65. This includes two "boom" periods. The earthquake reconstruction period and the beginning of the North Slope oil exploration.

6. Population figures are all calculated on the exclusion of all persons living on military bases. These figures are:

Statewide	45,800
Anchorage	23,339
Fairbanks	15,246

as per 1970 United States census figures.

7. Eliminating large employment increases generated by large, short term projects, civilian employment in the period 1960 to 1970 increased about 3.4% annually, on the average. This rate of increase would appear to be close to the increase that would occur due to the natural increase of our population and an accompanying expansion of the economy to accomodate it.

8. The relationship between population and employment shows a decreasing ratio and varies from city to city, and statewide. Recent statistics, from 1970 to 1973, show a slight increase, probably due to the slowdown of the North Slope oil activity and the consequent lower number of single workers. However, the ratio is very close to 1.40 "dependents" for each person employed statewide. It is expected that with the influx of many single workers, or workers who do not bring their families, this ratio will drop.

The ratio in Anchorage is a little lower: about 1.24. Fairbanks is even lower: about 0.8, indicating a higher ratio of single people among the workers there than elsewhere.

In my projections, I use lower ratios all the way through in projecting population figures, because of the probable influx of a high percentage of workers without families during the construction phase.

9. An analysis of employment experience during the two "boom" periods in the 1960 - 1970 period indicates the following:

a. For each job in a "basic" industry, sustained for two to three years, approximately 2.4 "other" jobs were created, with some lag time (1 to 2 years).

b. Of the "other" new jobs created, roughly 50% or more, have been created in Anchorage, about 15 - 17% in Fairbanks (if Fairbanks is involved, such as in the North Slope activity) and the remainder scattered, being weighted to other areas in relationship to the location of the "basic" job location. Since Fairbanks has not grown dramatically in the 1960 - 1970 period, and since there has been considerable fluctuation, I have chosen to use Mathematical Sciences Northwest report impact figures for Fairbanks for 1974, 1975 and 1976. The new jobs, however, will be in the neighborhood of 15 to 20% of the statewide increase, but apparently will be associated more directly with pipeline work.

Because Valdez growth will be relatively large and closely related to the pipeline and terminal construction, other employment was difficult to project without much more research. Therefore, it was decided to base these projections on the MSMW report also.

c. Because of the preponderance of camp workers, and because it is presently not known to what extent Alyeska included their own transportation and other logistic workers in their "direct" pipeline employment, I have chosen the following to derive the multipliers for total statewide employment:

1st year: 1.0 additional job for each pipeline job
2nd year: 1.4 additional job for each pipeline job
3rd year: 1.8 additional job for each pipeline job

10. Methods used are as follows:

a. Determine the normal annual employment increase in the various categories of employment, as normally used: construction, manufacturing, mining, non-categorized, Federal Government, state and local governments, communications and utilities, retail trade, wholesale trade, finance, insurance and real estate, transportation and services.

b. Determine the increase in each category which has been generated by a surge in a "basic" employment activity.

c. Add the increases in all the categories of employment for the year or period under study. Divide this total figure by the increase in the employment of the "basic" activity to give the ratio, or the number of "other" jobs created by the "basic" employment.

d. Perform the above steps for both the statewide employment and the local area employment to get the multipliers which may be used for future projections.

e. Use Alyeska projections for direct employment on the pipeline, and the British Petroleum and ARCO projections for North Slope employment for the years 1974, 1975 and 1976, to derive statewide employment projections and local area projections.

f. Using the employment projections, calculate the population projections for the State and local areas.

11. Alyeska has projected direct pipeline employment as follows:

1974	5,000 - 6,000
1975	10,000 - 13,000
1976	10,000 - 12,000

I have used the figures in the third column shown above. If lower employment is realized, my employment and population projections will be high.

Atlantic-Richfield and British Petroleum have estimated employment on the North Slope in production drilling operations and in construction of the oil-gathering system as follows:

	<u>Construction Contractors</u>	<u>Company Personnel</u>	<u>Non-construction Contractors</u>	<u>Totals</u>
1974	235	72	155	462
0 - 2 years	690	130	245	1065
0 - 1 years	670	220	390	1280
0 + 2 years	320	660	330	1320

"0" year is the year of beginning of pipeline operation.

It has been implied that the employment will be fairly level between 0 - 1 years and 0 + 2 years. These people are in addition to pipeline workers and do not include further exploration work, if any is done in this period.

CALCULATION
OF
EMPLOYMENT & POPULATION PROJECTION

1974 - State

New pipeline and Slope jobs----- 6,462
Multiplier----- 2.0 x 6,462 = 12,924 jobs above normal

Normal increase @ 3.4%
1973 employment: 118,700 x 1.034 = 122,800
1974 projection: 122,800 + 12,924 = 135,724

Anchorage

1974 State-----	135,724
1973 State-----	118,700
Additional jobs-----	17,024
Less new "basic" jobs-----	6,462
New "other" jobs-----	10,562
50% of above-----	<u>5,281</u> new Anchorage employment

Fairbanks

20% of 10,562 = 2,112 new Fairbanks employment

1975 - State

1974 pipeline/Slope jobs----- 6,462
1975 added pipeline/Slope jobs----- 7,603

6,462 x 2.4 = 15,509
7,603 x 2.0 = 15,206
Jobs above
normal----- 30,715

Normal increase 122,800 x 1.034 = 126,975
1975 projection: 126,975 + 30,715 = 157,690

Anchorage

1975 State-----	157,690
1974 State-----	135,724
Additional jobs-----	21,966
Less new "basic" jobs-----	7,603
	<u>14,363</u>
50% of above-----	<u>7,182</u> new Anchorage employment

Fairbanks

20% of 14,363 = 2,872 new Fairbanks employment

1976 - State

1974 pipeline & Slope jobs-----	5,677
1975 pipeline & Slope jobs-----	7,603

5,677 x 2.8 = 15,896

7,603 x 2.4 = 18,247

Jobs above

normal----- 34,143

Normal increase 126,975 x 1.034 = 131,292

1976 projection: 131,292 + 34,143 = 165,435

Anchorage

1976 State-----	165,435
1975 State-----	<u>157,724</u>
Additional jobs-----	7,711

50% of above----- 3,856 new Anchorage employment

Fairbanks

20% of 7,711 = 1,542 new Fairbanks employment

PRELIMINARY
EMPLOYMENT/POPULATION PROJECTIONS
1974, 1975, & 1976

STATE
(Less 45,800 Military)

	<u>Employment</u>	<u>%</u>	<u>Population</u>	<u>%</u>	<u>With Military</u>
1972	117,600		278,481		324,281
1973	118,700	1.0	273,000	1.75	327,119
1974	135,700	14.0	298,500	6.0	344,300
1975	157,700	16.0	347,000	16.0	392,800
1976	165,400	5.0	363,880	5.0	409,680

(Population increases include pipeline workers.)

ANCHORAGE BOROUGH
(Less 23,339 Military)

1972	54,000		120,800		144,139
1973	55,700	3.0	124,200	2.75	147,539
1974	61,000	9.5	134,200	8.0	157,539
1975	68,200	12.0	150,040	11.5	173,379
1976	72,000	5.5	158,400	5.5	181,739

FAIRBANKS BOROUGH
(Less Military Est. 8,100)

	<u>Employment</u> <u>My Projection</u>	<u>MSNW</u>	<u>My Projection</u>	<u>Population</u> <u>MSNW</u>
1972	17,325			
1973	17,325		32,900	34,220
1974	19,400	16,275	36,860	39,125
1975	22,300	17,748	42,370	42,306
1976	23,850	17,907	45,300	42,172

VALDEZ

	<u>Employment</u>	<u>%</u>	<u>Population</u>	<u>%</u>
1973	500		1,200	
1974	1,000	100.0	3,000	150.0
1975	1,250	25.0	2,600	-13.0
1976	1,000	-20.0	2,300	-11.5
1977	1,100	10.0	2,300	0.

POPULATION PEAKS

Population figures used in this report are based on employment only and do not include those looking for work or temporary visitors for any reason. It is assumed that those that can't find work in a reasonable time will go back to where they came from and that other transients will not affect schools, normal housing or capital intensive public services.

However, those looking for work and other transients will definitely affect public safety costs, certain health services, recreation and transportation, and must be accounted for in the impact in respect to additional costs in these services.

Also, as pointed out earlier, seasonal employment will increase the average population figures by around 12% in the summer months and decrease the average by about the same during the winter months, if past experience is repeated. These people added during the annual peaks will be employed and probably need housing and normal government services, except schools, and they will be here when the electrical demand is not at the peak.

Therefore, when calculating the need for police services and some health services, the average population should be borne in mind. For Anchorage, the additional people here looking for work, their families, and summer seasonal workers could be as high as almost 35,000 persons in the peak year, 1975. (See attached calculation.)

PEAK ANNUAL POPULATION

A = Employment, annual average.

K = Population/employment factor (off-base population and civilian employment)

R = Percentage of annual average employment added during peaks. Assume these employees are single and will leave after employment terminates in the fall.

E = Unemployment percentage, of the total work force.

AK = Population derived from annual employment average.

AR = Seasonal employment figure.

$\frac{EA}{1-E}$ = Unemployment figure.

$K\left(\frac{EA}{1-E}\right)$ = Unemployed and families.

Pmax = Total peak population due to seasonal peaks and unemployed and families.

$$= AK + AR + K\left(\frac{EA}{1-E}\right)$$

$$= A\left(K + R + K \times \frac{E}{1-E}\right)$$

$$P_{max} = A\left[\left(1 + R + \frac{E}{1-E}\right)\right]$$

$$\begin{aligned} P_{max} \text{ for Anchorage} &= A\left[2.21 + .12 + \frac{.10}{(1-.1)}\right] \\ &= A(2.7082) \end{aligned}$$

APPENDIX C

INCREASED COSTS DUE TO INFLATION

INCREASED COSTS DUE TO INFLATION

For a number of years we have faced the consequences of inflation. It has become customary to think in terms of everything costing more next year than it does now. Understandably, those who are responsible for government administration need to consider the effects of inflation.

Even though we believe that costs will rise and have seen them do so for years, we know there are compensations and adjustments that go along with inflation which somewhat balances out the effects.

One factor is that of increased productivity. Theoretically, if the inflationary and productivity factors are equal, the effects of the inflation of costs are supposed to be minimal or non-existent. However, this has not been the case in recent years; costs have increased faster than productivity.

But other adjustments are made, though. If they weren't, we would all be out of business, including government agencies. Costs would have increased to the point where income would have been entirely inadequate. In other words, we would all be bankrupt.

Fortunately, compensating adjustments are made, even though the process may be disturbing and painful. Wages rise, government receipts increase and total income and receipts rise to meet the rise in costs. The real question then is, how long does an inflation of costs affect the person, business or government that is called upon to meet the increases, before adjustment takes place?

The answer is, only long enough to be able to pass the increase along to the sources of income. For an individual it means a salary increase, for business it means increased prices for commodities or services, and for governments it means increased revenues in one form or another.

These increased revenues could be in the form of increased tax rates or increases which are caused by the inflated prices themselves, such as increased sales taxes or an increase in property taxes because of an increase in the value of property caused by the inflation.

The significance to the individual, business or government is the length of the period after the inflation of prices begins to the time when the increase in the income take place. If it is a long period, some belt-tightening is necessary; if it is a short period, the inflation of prices and costs has little effect.

Based upon a recent article in Fortune (July, 1973), real estate values are increasing faster than the cost-of-living index. In Alaska, where property assessments are made on full market values, such increases should be reflected in increased property taxes, and, therefore, compensate, for the inflation on that portion of costs paid from property taxes. The only problem here is the lag of the increased revenues because property re-evaluation is not done yearly. If it were, there would only be a one year lag.

To counter inflationary costs, other government revenue sources do go through periodic increases in rates. Therefore, over-time, inflationary costs to government agencies are balanced by increased revenues. The experience has been that the revenue increasing process has been evolutionary and is almost concurrent with the inflation.

In Alaska, since 1970, revenue sharing has helped the communities. Originally, I believe the program was intended to reduce local taxes, however, it appears that it has done little more than help reduce the effects of inflation. Without the revenue sharing, the local communities

would have relied more heavily upon passing the increases along to the citizens in more current up-dating of property values and in the costs of other services, thereby increasing revenues sufficiently to meet inflated costs.

Without advocating an increase in taxes, one could point to the fact that increasing wages and increases in property values will probably have to support the increases in government costs caused by inflation. The only answer is a lower level of government services (or a large increase in efficiency).

No legislative body wants to increase tax rates and usually does so as a last resort. The usual increases in revenues come from new property added to the tax rolls, more people paying taxes, and, of course, increases due to the rise in property values and the cost of services. Such increases, although just as painful to the taxpayer, seem to be more acceptable than tax rate increases.

If State funds during the next three years are going to be limited, and many communities of the State in a boom economy, it would appear that the people of a community should bear their share of local government costs by contributing in amounts commensurate to existing wage levels and current property values, rather than on wages and property values that were in force prior to the inflation caused by the boom.

This will mean annual adjustments of property values and keeping current the rates and prices of all services and fees, so that the inflation of costs to government are fully passed on to the beneficiaries of government, without the normal lag. If this is done, we could practically ignore the inflationary effects, as far as considering aid to the local government is concerned.

HYPOTHETICAL DEBT ISSUE FOR CAPITAL IMPROVEMENT

1973 Cost of project - \$1,000,000

Interest rate 7%, 20 year maturity.

Annual debt service \$94,300., 20-year cost \$1,885,000. at an inflation rate of 10% (used by some).

1974 Cost would be 1,100,000.

1975 Cost would be 1,210,000.

1976 Cost would be 1,330,000.

Debt service on these issues would be:

1974 issue \$103,700 -- 20-year cost \$2,080,000

1975 issue \$114,000 -- 20-year cost \$2,280,000

1976 issue \$125,700 -- 20-year cost \$2,550,000

Thus, if a community was required to provide capital improvements in 1973 which, under normal growth, would not be needed until 1976 the following cost picture would prevail:

1976 construction -- 20-year cost \$2,550,000

1973 construction -- 20-year cost \$1,885,000

Additional cost for waiting----- \$ 665,000

APPENDIX D

CAPITAL IMPROVEMENTS, FINANCING, AND INFLATIONARY FACTORS

CAPITAL IMPROVEMENTS, FINANCING AND INFLATIONARY FACTORS

Several communities face the probability of the need for capital investments to meet the accelerated growth because of pipeline construction. In most cases the improvements will be needed in a few years because of expected normal growth. Under these circumstances, what is the extent of the burden on the local governments because of early construction?

If the community were to pay cash for the improvement, the additional cost to the community would be either the loss of investment revenue which could have been earned until the money was needed under normal growth, or the loss of benefits which could have accrued to the community if the money had been spent for other immediate needs.

However, if cash is not available and the improvement requires considerable capital, the community will resort to debt financing. Under these circumstances, and if the investment will need to be made in a few years anyway, the only money that the community must furnish, prior to the date when it will be needed under normal growth, is the debt service payments. For long-term debt these amounts will be small compared to a cash investment. Therefore, loss of investment interest or benefits from other uses will be comparatively small.

The bonding capacity of the community, or the ability to sell bonds at reasonable rates, will be an important factor in whether the community will, or can, resort to this kind of debt financing.

If cash is not available or bonds cannot be sold, other means of financing should be available, and the Legislature should consider State programs aimed to do this, alternative methods will be discussed later.

If costs of capital improvements are expected to be higher in the future because of inflation, there are advantages, cost-wise, to the community to build now and pay later, within certain limitations. These limitations are quite wide, however, and mainly are concerned with the interest rates which would apply if the funds were invested instead of used for the improvements; also with interest rates paid on indebtedness; and with the rates of inflation currently existing and expected in the period from now until the capital improvements would normally be needed.

Computations (see Appendix C for details) show that savings are considerable if there is any significant inflation of costs over time. For example, at inflationary rates of 7.5%, bond interest rates at 6% and surplus capital investment rates at 7% a \$3,000,000 capital investment project built now would cost the local government \$1,219,000 more if built three years from now. Their debt service payments over the 20-year life of bonds would be \$63,500 less per year by building now. In the above example the rate of inflation would have needed to drop to less than 1/2 of 1% a year before savings would not have been realized. Some people are saying that construction costs are inflating as much as 10% a year. It can be seen that, at this rate, very substantial savings would result if capital improvements were undertaken as early as possible.

Despite assured savings, it is assumed that a local government would not undertake capital improvements unless there was a reasonable assurance that they were needed or that benefits would accrue to the community now. They would also want assurance that the benefits would be commensurate with the expenditures and further that an increase in revenues would pay the added debt service. In other words, capital improvements would not be made before needed just to reduce costs.

If pipeline construction creates demands now for facilities which cannot wait, the local community must weigh all factors and select the method of financing which will reduce the short term and long term burden to the community and also meet the long term service needs of the community.

Savings formula:

$$\text{Savings} = P \left[\frac{(1+r)^n}{(1+r)^n - 1} \right] \left\{ n \left[(1+i)^N - 1 \right] - \left[\frac{(1+R)^N - 1}{R} - N \right] \right\}$$

P = Amount of improvement (bond sale or debt).

n = Number of years to bond maturity.

r = Interest rate on bonds.

i = Rate of inflation per year.

N = Number of years from now until improvement would normally be built.

R = Interest rate realizeable for surplus funds investments.

If the community were to pay cash from surplus or reserve funds for an improvement needed for accelerated growth caused by pipeline construction, the above does not apply. The future value of this money would depend upon the investment rate and if it was as high as the rate of inflation, there would be no savings. If it were higher, there would be a loss.

Under present conditions, a community impacted by the pipeline construction will not be burdened by accelerated construction of public works, provided the improvements will be needed at a future date and the community has bonding capacity now and the ability to make debt service payments.

Not the need for money at a date earlier than normal, but its' impact on the community's ability to fund the project and to meet debt service payments earlier than normal, should be the determinants in whether to provide aid, or how to do so.

APPENDIX E

INTEREST RATE LIMITATION

INTEREST RATE LIMITATION

Businesses in Alaska often find it necessary to resort to some debt financing when making substantial purchases of services or equipment. This usually is accomplished by arrangements with local banks. However, local financing has not always been possible and some method of financing with outside money has been used.

Some national manufacturers have found it advantageous to provide financing for sales of their products, through local dealers. At interest rates that prevailed in the other states and in Alaska such financing, if it wasn't profitable to the manufacturer or his banker, it didn't lose him money. Presently, interest rates prevailing in the other states, vis-a-vis legal rates in Alaska, are such that financing sales here is not a good investment.

In the past, some manufacturers sold goods and financed them on a "time sales" basis, with the understanding that such sales were not loans of money in Alaska. Therefore, the interpretation was that Alaska usury laws were not applicable. When interest rates started rising in general, the interest on the "time sales" financing rose to a point above the Alaska limit.

It is understood that a number of other states have usury laws similar to Alaska in respect to interest rate limitations. A recent court case in one or more of these states ruled that "time sales" financing was legally a loan of money, and therefore, came under the state's usury laws, and interest rates applying to such loans must be within the legal limitations.

I find that time sales agreements in Alaska are being looked at by

national suppliers with disfavor and in one case, at least, a large manufacturer of electrical and other equipment has advised dealers in Alaska that they will not in the future finance sales in Alaska because of the court decisions, and because the limitation on the interest rate would amount to actual loss of money.

The pipeline construction period will mean large demands for money by Alaskan business firms. Because of the high general interest rates, the flow of money to Alaska will not increase and is likely to decrease. Unless Alaskan banks can sell paper outside or get participation by outside banks, it is very unlikely they can meet the demands for money in the next two or three years. Interest rates could drop radically in the other states, however, this is not expected.

Some say, let foreign banks come in and they will bring capital. This is extremely unlikely unless interest rates in Alaska are two or three percent higher than anyplace else. Money goes where the rate is best, so these banks could actually drain off Alaskan capital to be invested elsewhere.

APPENDIX F

STATE INCOME TAX PROJECTION

STATE INCOME TAX PROJECTION
(Pipeline Construction Created Jobs)

One of the impacts of the pipeline construction will be on the magnitude of the State income tax revenues. Using even a conservative figure for the average salary for workers on jobs created by the pipeline construction, a modest amount of revenue will accrue to the State on a current basis during the construction period.

The following figures were derived using these assumptions:

(a) The average annual salary of all new jobs created by the pipeline construction is \$15,000. It is expected that pipeline workers themselves will earn much more than this amount, however, the 1970 census indicates the average salary to lie between \$10,000 and 15,000 per year, and this was during fairly heavy oil-related activities.

(b) The per worker income tax figure is based upon three exemptions and a total of \$1,000 deductions.

(c) The average worker in the above category will pay \$350 State income tax.

Additional State Income Tax Revenue

<u>Year</u>	<u>Jobs Above Normal</u>	<u>Individual Tax</u>	<u>Revenue</u>
1974	12,900	\$350.	\$4,515,000
1975	30,700	350.	10,745,000
1976	34,000	350.	<u>11,900,000</u>
Total - three years			\$27,160,000

APPENDIX G

VALDEZ ELECTRIC POWER

Several proposals have been made which would increase the electric power generating capability for Valdez.

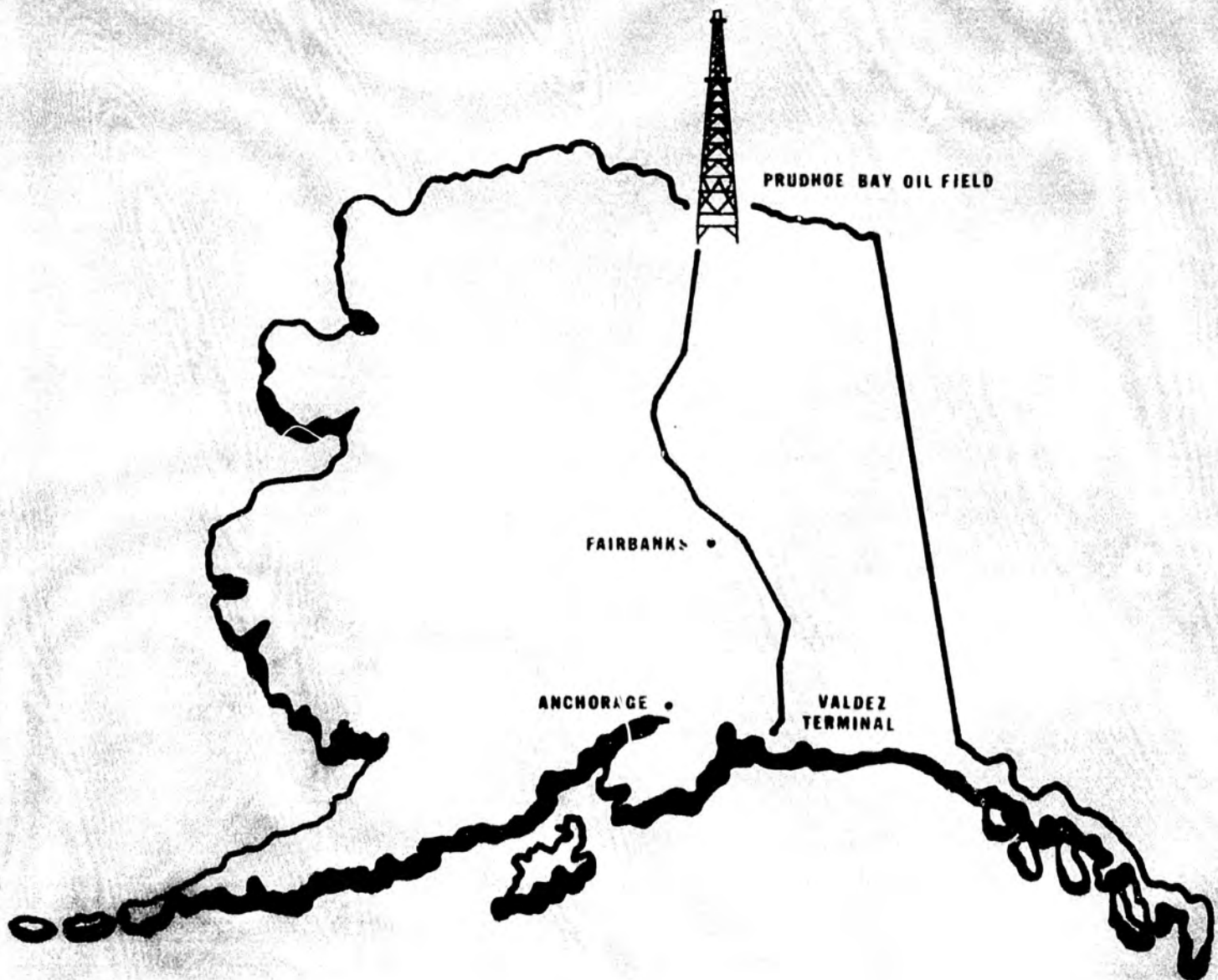
One would be to construct a hydro-electric plant across the Bay from Valdez which could serve Valdez, and Alyeska if they desired. Generating equipment already is in Alaska which could be used for such an installation and could be done quite rapidly.

The second proposal would require the cooperation of Alyeska, and is quite an intriguing method of producing power. The oil that arrives at the pipeline terminal is at high pressure. The pressure must be dissipated before the oil can go into the terminal tanks. The way Alyeska proposes to do this is by routing the oil through several pressure reducing units. The power generating proposal would have the oil flow through one or more turbines. The turbines would use the energy of pressure to turn electric generators and thereby produce power much like hydro-power is produced. These turbines would necessarily need to present a constant load to the flowing oil and therefore the electrical loads on the generators would have to be fairly constant. This could be accomplished by using the excess electrical energy for pumping water to the hydro-electric water impoundment area for use in peaking requirements.

The size of the latter project would envision the construction of a transmission line to Glennallen, Alyeska using part of the generated power for their terminal needs and also using power for their service needs only at pump stations south of Glennallen.

The beneficiaries in both cases would be Valdez, and in the second proposal Glennallen and points in between.

CITY OF ANCHORAGE, ALASKA



TRANS-ALASKA OIL PIPELINE IMPACT STATEMENT

Prepared by Office of the City Manager
Revised December 18, 1973



International

Polar air crossroads of the world

**CITY OF
ANCHORAGE**



ALASKA

POST OFFICE BOX 400
ANCHORAGE, ALASKA
99510

December 17, 1973

Mr. Bernard E. Kelly, Chairman
Northwest Federal Regional Council
1321 Second Avenue
Seattle, Washington 98101

Dear Mr. Kelly:

We appreciate this opportunity to present on behalf of the City of Anchorage the enclosed statement concerning the impact from the construction of the Trans-Alaska Oil Pipeline and related petroleum industry activities.

This statement contains an overview of the additional demands that we feel will be placed on the City of Anchorage for governmental and public utility services and facilities from pipeline and related construction based on the information and studies completed to date. There are many areas on which very little information has been developed or made available to us. For example, there could develop a grave shortage of professional and skilled personnel essential to the provision of additional services and facilities. No attempt to our knowledge has been made to measure the inflationary impact from such a large construction job or to develop counter measures to minimize it.

We urge the Northwest Federal Regional Council to use its considerable resources in providing financial and other assistance to the City of Anchorage and other impacted local governments in Alaska. We particularly urge the council to consider and favorably act at an early date on the following:

A. Criminal Justice - Approve adequate LEAA grants to fund the additional costs for law enforcement personnel shown in Attachment "D". In this connection, an LEAA application is being submitted in a few days. It is being coordinated with the District Attorney's Office and the Alaska Court System.



Mr. Bernard E. Kelly, Chairman
Northwest Federal Regional Council

Page Two
December 17, 1973

B. Water System - Approve a grant of \$5,562,500 for water source improvements to be made to the City of Anchorage Water Utility. This represents one-half of the estimated capital improvement costs listed in Attachment "F". The balance of the funding is planned from a twenty-five (25%) per cent State of Alaska grant and City of Anchorage Water Utility Revenue Bonds. We feel there is an urgent need to firm up this financing so engineering can be completed and initial construction contracts let in 1974.

C. Port of Anchorage - Approve a grant of \$2,894,000 for providing one-half the funding to complete the construction of the dock at Terminal No. 3, Port of Anchorage. The City of Anchorage will provide the other half of construction costs from approved General Obligation Bonds. It is essential that this construction be completed in 1974; and to do so requires a firm funding plan now.

We need financial assistance in all areas of operation and maintenance and capital improvement programs cited in this statement, but the foregoing are the most urgent.

We suggest the Council, and the State of Alaska, develop as soon as possible manpower data and take affirmative action to avoid shortages of professional and skilled personnel.

We feel that inflation is a real threat to the impacted communities and that counter measures must come from the Federal and State governments.

We appreciate that conventional grant and other programs may not be designed or funded to allow immediate approval of the requests for financial and other assistance contained herein. In that event we ask that authority and funding be immediately requested and obtained at the earliest practicable date.

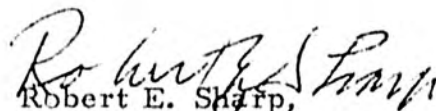
Mr. Bernard E. Kelly, Chairman
Northwest Federal Regional Council

Page Three
December 17, 1973

In view of the wide public interest in this matter copies of this letter and statement are being distributed as indicated below.

Again, we appreciate your having invited us to make this presentation and the interest of the council in providing assistance to local governments in Alaska.

Sincerely yours,


Robert E. Sharp,
City Manager

RES:py

cc: Mayor and Council
Governor of Alaska
Washington, D. C. Delegation
Anchorage Area Legislators
All Anchorage Media

CITY OF ANCHORAGE, ALASKA

TRANS-ALASKA OIL PIPELINE IMPACT STATEMENT

GENERAL

The City of Anchorage, and the surrounding environs, has felt the impact from the petroleum industry development for the past decade, and more. This impact was generally well within manageable limits, but since 1969 the growth effect on both the private and public sectors has accelerated.

Following the State oil lease sale on September 10, 1969, the private sector economic activity showed a marked increase which inevitably increased the demand for governmental facilities and services in the City of Anchorage, and the surrounding area in which municipally-owned public utility services are provided. A few of the economic indicators listed below demonstrate this point:

<u>POPULATION</u>	<u>1970</u>	<u>1973</u>
City of Anchorage	65,973*	76,610**
Greater Anchorage Area Borough	126,333	154,610**

*Includes Military Bases annexed in 1973.

**Percent Increase - City 16.12%, GAAB 19.21%

<u>CITY BUILDING PERMITS ISSUED</u>	<u>(Values in Millions of Dollars)</u>				
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Issued	\$34.8	\$52.2	\$55.2	\$70.2	\$78.0 (Est.)*

*Percent increase in 1973 over 1969 - 124.16%

CITY OF ANCHORAGE TELEPHONE UTILITY

	<u>1970</u>	<u>1973</u>
Number of Telephones	56,607	79,000 (Est.)*

*Percent increase - 39.55%

CITY OF ANCHORAGE MUNICIPAL LIGHT AND POWER

	<u>1970</u>	<u>1973</u>
Peak Demand	56.472	80.000 MW (Est.)*
Kilowatt Hours Sold	267,756,305	417,188,507 (Est.)*
*Percent increase - Peak Demand	41.7%	KW Hours 55.8%

CITY OF ANCHORAGE WATER UTILITY

	<u>1969</u>	<u>1973</u>
Millions of gallons of water delivered	4,525	5,560 (Est.)*
*Percent increase		23%

<u>CITY OF ANCHORAGE COMBINED GOVERNMENT AND UTILITY EXPENDITURES (In Millions of Dollars)</u>	<u>1969</u>	<u>1972</u>
Operating	\$29.2	\$50.8
Capital	<u>11.5</u>	<u>18.8</u>
Totals	\$40.7	\$69.6
*Percent increase - Operating	Capital	

These economic indicators are cited to show what has already happened before the recent Congressional action allowing the issuance of the Trans-Alaska Oil Pipeline permit by the Secretary of Interior and before the construction of this multi-billion dollar project is commenced. They are impressive, and have already caused a strain on the governmental and utility financial capability of the City of Anchorage. However, with the issuance of the permit and commencing of construction of this project, the impact in the next few years will be many times greater. It is the purpose of this statement to discuss this future impact and the need for federal and state financial assistance.

The City of Anchorage and environs is the transportation, financial, cultural and population center of the state. The pipeline construction will not come through this vicinity, but because of existing facilities and services and climate, it is and will remain the headquarters for oil firms and

petroleum related operations. It will also serve as the major rest and recreation center for pipeline employees, and the residence of their dependents. The economic impact on municipal services will come almost immediately, and will be felt primarily in the people-oriented services and facilities, such as police, fire, street and road maintenance, traffic, parking, housing and public utilities. These types of services (except utilities) are generally tax supported, and as such, the expansion created by the pipeline activity will impose a definite hardship on permanent residents unless assistance is provided by the Federal and State governments.

EMPLOYMENT AND POPULATION

The key to an analysis of the impact lies in the employment and population generated from the pipeline construction. The City of Anchorage has used the Anchorage Area estimates prepared by the Department of Interior and published in the Pipeline Environmental Impact Statement in December of 1971. Attachment "A" summarizes this data which we feel is still valid for general planning purposes. It should be noted that we have also assumed a gas pipeline will be under construction by the third year of oil pipeline construction. This data includes direct, associated, and indirect employment, which ranges from 4,400 in the build-up year to 7,200 at the peak in the second year of construction, and down to 2,800 after the first year of operation of the oil pipeline. Alyeska Pipeline Company has recently increased the peak year estimate to 10-20,000. Similarly, the population will increase by 13,400 in the build-up year to 24,000 in the second year of construction, and down to 15,700 after the first year of operations of the oil pipeline.

The Anchorage area has approximately 125,000 people residing off of the two military installations. The increase of 24,000 by the second year of construction means a population growth of almost 20 percent in two years time. Obviously, this tremendous growth will create many problems for both

the government and private sectors. To compound the problem, we see little, if any, slacking in the previous annual growth pattern of about four percent. Combined, then, the annual rate will be in the magnitude of 12 to 14 percent per year in each of years 1974 and 1975. This is an increase of about 12,000 people a year, which is greater than the population of all but two or three communities in the state. To provide the facilities and services for this number of people poses a great challenge to all levels of government.

HOUSING

The City of Anchorage, earlier this year, analyzed the existing and projected housing needs based on the population assumptions in Attachment "A", and the results are summarized in Attachment "B". This forecast of housing requirements was made on the further assumption that 4,000 to 6,000 units were vacant in mid-1973. 1974 is the year of peak demand, requiring almost 6,000 new starts to meet the increased cumulative population growth of over 30,000 people in the area by the first year of construction (22,700 pipeline and 10,000 normal growth at end of first year of construction as reflected in attachment "A"). The prime responsibility to meet this need rests with the private sector, particularly lending institutions, but the FHA insurance program will be required to play a key roll. The housing construction industry is capable of meeting this demand for housing if the subdivision and utility improvements are provided by the responsible governmental and public utility agencies. There are sizeable areas in the City of Anchorage either vacant or occupied by single family residences that are improved with streets and public utilities on which multifamily units could be constructed with a minimum of capital outlay for public and utility improvements.

GOVERNMENTAL OPERATIONS AND MAINTENANCE

The impact will affect all City governmental services and capital improvement programs, with the public safety and public works areas receiving the greatest initial impact. In fact, this impact has already started, and it is particularly noticeable in police activity (See Attachment "C" - Police Statistics 1970 - 1973).

Attachment "D" is a summary of the impact on operations and maintenance activities of the City of Anchorage in 1974. A total of 111 additional employees and an annual expenditure of \$2.2 million is required to maintain a reasonable level of governmental services.

POLICE SERVICES

During the pipeline construction, a "boom" situation in Anchorage is inevitable. With it will come criminal elements looking for a fast buck. The size of this boom will make potential vice operations big enough to attract the professional criminal capable of organizing these operations. We must provide adequate manning for the Police Department (as well as the District Attorney's Office and the Trial Courts) if the people of the City of Anchorage are to be safe in their persons and property. This impact, coupled with the already heavy crime rate, causes us a great deal of concern. Attachment "C" demonstrates the great increase in Part I crimes already experienced in 1973. Forty-one (41) commissioned and support personnel should be hired early in 1974 by the City of Anchorage. This will bring the total force to 186, which is over two police personnel per thousand of population. An additional sixteen commissioned and support personnel are needed in the Spenard Service Area of the Greater Anchorage Area Borough which has a population of about 28,000 and is policed by the City of Anchorage under contract. This will bring the Spenard Force up to a total of fifty-five commissioned and support personnel. This increase in police manpower will not be fully effective

unless the presently understaffed State District Attorney's Office and Trial Courts are also adequately manned. It does little good for the police to make an arrest unless there is vigorous prosecution and a trial court that can hear the cases. Otherwise, violators of the law that otherwise would be convicted will continue to prey on society.

FIRE SERVICES

Two additional engine companies and twenty-five men are needed for fire prevention and suppression. These engine companies would be housed in existing fire stations, and they are needed to protect additional residential, commercial and industrial properties. The Port of Anchorage and adjacent industrial park with its petroleum tank farms is a critical area requiring increased protection. Early funding of these two fire engines and hiring and training of personnel is ranked high in our priorities.

TRAFFIC SERVICES

The population growth, coupled with the increased industrial and commercial activity to provide logistical support for the pipeline construction companies, will bring a rapid increase in motor vehicle traffic requiring increased traffic engineering services. The present street system, and the signal system, is inadequate with considerable traffic congestion already evident. Substandard streets, particularly intersections, cannot accommodate the increased traffic without immediate improvement. The accident rate is already among the highest in the country. The need for immediate improvement of high accident intersections will be further discussed in the capital improvement section.

PARKS AND RECREATION AND LIBRARY SERVICES

Anchorage will be the principal rest and recreation center for oil pipeline construction workers and workers in related activities.

This will cause a great increase in the useage and need for parks and recreation, library and related facilities. An additional nineteen employees are needed for operation and maintenance of these facilities. The need for new facilities will be discussed later in this statement.

OTHER SERVICES

Other operations and maintenance personrel needs include one in street maintenance and six 'n support activities.

EXISTING SERVICE LEVELS

For statistical purposes Attachment "E" has been prepared to show the existing manning and expenditures for governmental services of the City of Anchorage. The City has 927 employees and a budget of \$18.6 million to provide a broad, comprehensive range of governmental services. Per capital expenditure for governmental services will amount to \$296 during 1973.

CAPITAL IMPROVEMENT PROGRAMS

The City of Anchorage's regular capital improvement program for 1974 totals about \$45 million for governmental and public utility improvements. The impact from the projected population will increase the demand for all types of capital improvements. The impact can be absorbed initially in some cases without financial assistance, and in others it cannot. The impact also has the effect of advancing the need for capital facilities from one to seven years. We have selected the capital improvements of greatest concern at this time and which require the early provision of funding and construction. There will be other capital improvements

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requirements developed in 1974 and 1975 which will be addressed at a later date. Attachment "F" summarizes the selected capital improvement program needs related to the impact of the oil pipeline construction.

HIGH ACCIDENT STREET INTERSECTIONS

Increased population brings more motor vehicles which will add to the problem on those streets that are already congested. We are not going into the overall problem at this time except to point out a critical problem at over fifty high accident street intersections. These intersections involve City, State, and Borough streets and highways. We feel it is mandatory to start construction in 1974 to improve these substandard intersections. To do so the engineering, right of way, and other work to let this important work to contract cannot be handled in a routine manner. All agencies will have to give special handling to these projects. An estimated \$1.2 million in funding is required, with most of it needed in 1974. The amount is not too great but the expeditious handling may pose a challenge to the agencies concerned.

SUBDIVISION IMPROVEMENTS

Subdivision improvements will require an additional \$3,070,000 during 1974 and 1975 if the housing needs are to be met. These improvements include street and storm drainage facilities. This additional engineering and contract administration can be accomplished by the Department of Public Works if its present professional staff can be retained. Public agencies do not have the flexibility when competing for salaries and other benefits offered by the private sector. This may be a serious problem area.

PORT OF ANCHORAGE

The Port of Anchorage has one petroleum terminal, one combination petroleum and general cargo terminal, and one general cargo terminal, and a third general cargo terminal under partial construction. There is an immediate need to complete the dock at Terminal No. 3 at an estimated cost of just under \$6 million. The City has funding approved for one-half of this amount but must obtain financial assistance for the balance. Another POL terminal is needed, and it is estimated to cost about \$6.2 million. No funding is available and it should be built no later than 1975. We feel

the Port of Anchorage is an essential facility for the logistical support of the oil pipeline construction. The Port of Anchorage serves South-central Alaska and the North Slope. The new Anchorage area population must be served along with the Interior Alaska areas served through the Port of Anchorage. These latter areas will place an increased demand on the marine trade and port facilities at Anchorage. The largest tank farm capacity is at Anchorage and served through the Port's facilities. We must have federal and/or state financial assistance during the next two years.

LIBRARY

The City of Anchorage operates a headquarters library and two major branches. The headquarters library also serves the three GAAB libraries. The headquarters library should be expanded immediately if this important service is to be maintained at a reasonable level. It is estimated \$4.5 million will be required to build the needed space for this facility and it should be built no later than 1975. No local funding has been approved.

ADMINISTRATIVE OFFICE SPACE

The added personnel that must be hired to handle the impact will require at least \$300,000 in expansion of administrative office space in 1974. No funding has been approved for this project.

CITY OF ANCHORAGE WATER UTILITY

The Water Utility has consistently been concerned with the ability to meet the projected demands that would be placed upon its system and water source studies have periodically been made to insure an adequate supply for our citizens. A comprehensive study made by the U. S. Geological Survey, begun in 1965 and completed in 1972, indicated the Anchorage Bowl area would need a source of water around the 1980's, depending upon the

demands that new industry would place upon the system. Upon the completion of the U.S.G.S. report, a local engineering firm was commissioned to prepare a more detailed report leading to definite recommendations for development of Anchorage's future water source, and to prepare cost estimates of the capital expenditures necessary with associated time tables to adequately meet this need.

As a result of the impact created by the pipeline, we now find ourselves unable to enjoy a comfortable lead time to plan, finance, and develop a new source, but instead suddenly find ourselves in the position of having to accelerate this time table to 1974, some six years ahead of the original U.S.G.S. prediction.

Attachment "G" depicts the demands placed upon our system on a normal peak day and indicates the projected water needs based on a normal growth pattern, and also shows the effect of the pipeline impact in accelerating the development of new sources of water. As is shown on the graph, under normal conditions the Water Utility would have needed to provide a 30 MGD supply around 1980. Because of the demand created by the pipeline, this 30 MGD supply will have to be on line in 1975. In addition, another 10 MGD will have to be provided to meet fire protection requirements.

Our consulting engineer's report is presently being drafted in final form and is due within several weeks. Even though this information is not presently published, sufficient data has been developed and furnished to us to determine the course of action recommended to supply this additional water. To meet this demand will require the capital expenditures of \$4,625,000 in 1974, \$1,000,000 in 1975, and \$5,500,000 in 1976. A detail of these requirements is shown in Attachment "H" enumerating the need to immediately begin a well exploration program in logical areas to determine the amount of ground water available, followed by the installation and development of a minimum of six wells capable of producing at least one million gallons of water per day. This must be followed by an expansion of the water treatment plant, construction of a second main water transmission line and installation of a 5-million gallon storage tank for

treated water. In 1975 work on off-stream storage would have to begin and also modification of an existing diversion structure to permit additional water withdrawal. Construction of an addition to the Water Treatment Plant to increase its capacity to 30 MGD along with more treated water storage and additional off-stream storage reservoirs would have to commence in 1976.

Because of the magnitude of these expenditures, the Water Utility cannot absorb the financial impact of such a construction program at this time. In addition, we have the added problem, even without pipeline impact, of trying to recover from the recent loss of funding by deletion of Department of Housing and Urban Development's program for Basic Water and Sewer Grants. It was our original planning, even prior to pipeline impact, to finance any new water development source expenditures by receiving assistance in the form of 25% from the State from authorized bonds for this purpose, and 50% from D.H.U.D.

The sudden demise of that grant program has in itself left us in a precarious financial position. In most cities of the Lower 48 which incorporated a sanitary sewer program within their scope of services the sudden termination of the Basic Water and Sewer Grant program was not as significant because at about the same time the Environmental Protection Agency increased its participation in the cost of providing sanitary sewer facilities from approximately 30% to approximately 75% within a relatively short period of time. Since most of these cities operated water and sewer programs from the same department the loss of the water grant program was absorbed through the increase in the sanitary sewer grant program. Unfortunately here in the City of Anchorage the sanitary sewer system is not operated by the City but rather is a function of the Borough and the loss of the Water Grant program has had significant impact on our water utility operations.

Because of these facts we feel that there is merit in the Federal Government considering a restoration of either the Basic Water and Sewer

Grant program or some other special program of Federal grant for Alaska in meeting the impact of the proposed construction of the Alaska oil pipeline. This is considered the most critical funding problem confronting the City because there is no question an adequate supply of water for domestic and fire requirements is mandatory.

MUNICIPAL LIGHT AND POWER

The Municipal Light and Power Department operates four gas-fired turbines, with 80 MW firm capacity and 92 MW peak capacity. A fifth unit is under construction and a waste heat boiler and turbine on order which will add approximately 75 MW in additional firm capacity by 1975. However, demand projections indicate another unit will have to be placed under contract in 1976. The lead time for manufacture and construction is some 18 months before added revenue results from the capital outlay. This utility may require financial assistance for this accelerated construction program, particularly in the light of increased labor and material costs.

C. I. P. SUMMARY

In summary, the selected capital governmental needs for 1974-76 total \$21.8 million; and the utility needs total \$16.3 million. Combined, over \$38 million will be needed, and this figure could increase considerably from inflation.

INFLATION COSTS

There is no doubt that the rapid growth expected will cause additional inflation in Anchorage and elsewhere in the State. This, coupled with the spiral already experienced this year, poses a serious threat to the economy of the Anchorage area. We have seen no forecasts of what the inflationary impact will be. To demonstrate the effect of assumed ten per cent impact, Attachment "I" has been prepared. This shows over \$4.2 million in 1974 in regular capital and operating budgets, and rising to \$8.6 million in 1975; \$10.2 in 1976; and \$13.2 million in 1977. We hope the impact is not this high but this is obviously a cost factor that must be considered in federal and state financial assistance programs.

REVENUES

For statistical purposes Attachment "J" has been prepared to show the 1973 General Fund Revenue sources. This indicates total revenues of just over \$18.5 million, or approximately \$296 per capita.

We have closely analyzed new revenues likely to be generated by the added impact population. (See Attachment "K") It will be noted that 1974 will produce very little in new revenues because of the lag in new construction becoming taxable. In 1975 just under \$1 million will be generated; in 1976, \$1.5 million, and in 1977 about \$1.8 million. These new revenues will help but they will not begin to finance the impact costs.

CONCLUSION

We believe this statement demonstrates the very substantial challenges and problems confronting the City of Anchorage on what we believe is the eve of construction of the trans-Alaska pipeline. We believe the development of the petroleum reserves in Alaska is in the national interest as stated many times by the President of the United States, Congressional leaders, and the Governor of Alaska. This development has become even more critical as the energy crisis unfolds day by day.

This is the largest private construction job ever undertaken. Any multi-billion dollar job to be accomplished in four short years in a relatively isolated, small population area will have an abnormal impact on local government, particularly since it supplies so many services directly to people. Local government in Alaska must have financial and other assistance if this project is built on a timely basis and if Alaska cities are not to be left in financial chaos.

This statement does not cover many services and facilities (for example, health and social services) provided by other units of local or State government. It does not cover all City services affected but only those which we believe require immediate attention. New problems come to light daily as new information or more studies are completed. Our staff is already burdened with a heavy workload which made this analysis difficult and it will no doubt be modified many times in the next few years.

Office Budget (Feds)
says there is precedent for fed loan &
grants. - check into

Ask
\$75 mil is what
compact will cost

CITY OF ANCHORAGE

EMPLOYMENT AND POPULATION PROJECTIONS

The following assumptions were made based on oil pipeline impact studies by the State of Alaska and the Department of Interior:

Employment in the Anchorage Area

	Build Up Year	First Year Constr.	Second Year Constr.	Third Year Constr.	Final Year Constr.	First Year Operation	Then
Direct	2,200	3,300	3,300	3,300	2,200	1,200	700
Associated	200	400	400	400	200	100	100
Indirect	<u>2,000</u>	<u>3,000</u>	<u>3,500</u>	<u>3,000</u>	<u>2,100</u>	<u>2,100</u>	<u>2,000</u>
TOTALS	4,400	6,700	7,200	6,700	4,500	3,400	2,800

Direct - Attributed to Arctic Slope oil in mining, construction, transportation, communications, public utilities, finance, insurance, real estate, services, trade, self-employed; and Federal, State, and local government employees.

Indirect - Additional employment can be expected due to new areas being opened up for mining and mineral exploration, etc. This also includes the effect of the Native income from North Slope oil.

Effects on Population in the Anchorage Area

	Build Up Year	First Year Constr.	Second Year Constr.	Third Year Constr.	Final Year Constr.	First Year Operation	Then
Direct Employees	2,200	3,300	3,300	3,300	2,200	1,200	700
Dependents	3,100	4,600	4,600	4,600	3,100	2,200	1,600
North Slope Dependents	1,200	3,800	3,800	3,800	2,500	1,200	400
Workers on Leave from North Slope	300	500	500	400	400	300	200
Unemployed	200	400	400	400	400	100	100
Families Unemployed	300	700	700	700	700	200	200
Associated Employees	200	400	400	400	200	100	100
Families of Associated	400	700	700	700	400	200	200
Indirect Employees	2,000	3,000	3,500	3,000	2,100	2,100	2,000
Families of Indirect	<u>3,500</u>	<u>5,300</u>	<u>6,100</u>	<u>5,300</u>	<u>3,700</u>	<u>3,700</u>	<u>3,500</u>
TOTALS	13,400	22,700	24,000	22,600	15,700	11,300	9,000
Alaska Gas Pipeline Adjustment*				1,400	8,300	11,300	6,700
				24,000	24,000	22,600	15,700

* The assumption is that the gas pipeline will utilize the proposed oil pipeline right-of-way. If the gas pipeline is routed through Anchorage, the impact would be greater.

Revised December 18, 1973.

ATTACHMENT "A"

CITY OF ANCHORAGE

HOUSING UNIT STARTS NEEDED*

<u>Year</u>	<u>City</u>	<u>Outside City</u>	<u>Total GAA Borough</u>
1974	1,725	4,025	5,750
1975	1,325	1,325	2,650
1976	1,230	820	2,050
1977	440	110	550
1978	875	375	1,250
1979	1,175	1,175	2,350

* Assumes 4,000 to 6,000 units were vacant in mid-1973.

Revised December 18, 1973.

ATTACHMENT "B"

CITY OF ANCHORAGE
FIVE YEAR STUDY
ANCHORAGE POLICE DEPARTMENT REPORTED PART ONE CRIMES

	1969		1970		1971		1972		1973 (Projected)		
	Number Offenses Reported	Per Cent Variation From Previous Year	Number Offenses Reported	Per Cent Variation From Previous Year	Number Offenses Reported	Per Cent Variation From Previous Year	Number Offenses Reported	Per Cent Variation From Previous Year	Number Offenses Reported	Per Cent Variation From Previous Year	1973 Compared To 1969 Per Cent Variation
Murder	7	0.0%	7	0.0%	5	(-28.6%)	9	80.0%	7	(-22.2%)	0.0%
Manslaughter	3	50.0%	4	33.3%	1	(-75.0%)	7	600.0%	0	(-100.0%)	(-100.0%)
Forcible Rape	35	59.1%	26	(-25.7%)	53	103.8%	40	(-24.5%)	69	72.5%	97.1%
Robbery	100	11.1%	150	50.0%	105	(-30.0%)	98	(-6.7%)	109	11.2%	9.0%
Aggravated Assault	116	52.7%	146	25.9%	191	30.8%	158	(-17.3%)	191	20.9%	64.7%
Burglary	707	1.0%	688	(-2.7%)	643	(-6.5%)	698	8.6%	1,072	53.6%	51.6%
Larceny	2,337	9.8%	2,648	13.3%	2,640	(-0.3%)	2,827	7.1%	3,077	8.8%	31.7%
Auto Theft	511	23.0%	513	0.4%	565	10.1%	539	(-4.6%)	554	2.9%	8.4%
Total Part One	3,816	9.7%	4,182	9.6%	4,203	0.5%	4,376	4.1%	5,079	16.1%	33.1%
Traffic Accidents Investigated	2,991	13.9%	3,429	14.6%	4,023	17.3%	4,340	7.9%	4,471	3.0%	49.5%
Total Calls & Requests for Service	20,183	10.7%	23,257	15.2%	32,461	39.6%	34,231	5.5%	36,701	7.2%	81.8%

CITY OF ANCHORAGE -- OPERATION AND MAINTENANCE PIPELINE IMPACT REQUIREMENTS - 1974

	1 9 7 3			1 9 7 4		1 9 7 4		
	<u>Revised Budget</u>			<u>Pipeline Impact</u>		<u>Required Budget</u>		
	<u>Personnel</u>	<u>Budget</u>	<u>Per Cent of Total</u>	<u>Personnel</u>	<u>Budget</u>	<u>Personnel</u>	<u>Budget</u>	<u>Per Cent of Total</u>
<u>Public Safety</u>								
Police-City	160	2,768,932	14.9	41	793,160	201	3,562,092	17.2
Police-Spenard (1)	41	920,240	4.9	16	312,900	57	1,233,140	5.9
Fire-City	78	2,114,490	11.4	25	511,200	103	2,625,690	12.6
Civil Defense	3	56,560	.3	0	-0-	3	56,560	.3
Traffic Engineering	19	792,910	4.3	1	23,723	20	816,633	3.9
Building Safety (2)	22	440,920	2.4	2	39,087	24	480,007	2.3
	323	7,094,052	38.2	85	1,680,070	408	8,774,122	42.2
<u>Parks & Recreation</u>	120	1,574,985	8.5	16	217,080	136	1,792,065	8.6
<u>Library</u>								
City	29	464,380	2.5	1	56,050	30	520,430	2.5
GAAB (3)	23	277,768	1.5	2	65,800	25	343,568	1.7
	52	742,148	4.0	3	121,850	55	863,998	4.2
<u>Public Works-Street Mtce.</u>	53	2,186,810	11.8	1	44,620	54	2,231,430	10.7
<u>Other City</u>	379	6,996,618	37.5	6	121,090	385	7,117,708	34.3
TOTALS	927	18,594,613	100.0	111	2,184,710	1,038	20,779,323	100.0
Per Capita Cost (4)		296.26			29.29		311.46	

	<u>Population: July 1, 1973</u>		<u>Population: Jan. 1, 1974</u>		<u>Population: Jan. 1, 1975</u>	
	<u>City</u>		<u>Borough</u>	<u>City</u>	<u>Borough</u>	<u>City</u>
Normal Civilian Population	48,350		122,500	48,350	128,100	50,700
Military	24,500		24,500	24,500	24,500	24,500
Pipeline Impact	3,760		13,400	6,700	22,700	11,350
TOTALS	76,610		160,400	79,550	175,300	86,550

- (1) Funded by Spenard Service District.
- (2) The 1973 budget for Building Safety is funded with \$85,843 Pipeline Impact.
- (3) Funded by Greater Anchorage Area Borough - Non-Areawide Service Library.
- (4) Per Capita costs exclude the 17,892 military annexed in 1973 and Spenard Police and GAAB Library.

Revised December 18, 1973.

CITY OF ANCHORAGE
REVISED APPROPRIATIONS 1973 AS OF SEPTEMBER 30, 1973

	<u>Employees</u>	<u>Amount</u>	<u>Per Cent Total Budget</u>	<u>Per Capita Costs (1)</u>
<u>Mayor and Council</u>	<u>1</u>	<u>\$ 78,660</u>	<u>.4</u>	<u>\$ 1.34</u>
<u>City Manager</u>				
Administration	12	145,125	.8	
Personnel	7	98,900	.5	
Internal Audit	4	40,405	.2	
Community Promotion		99,579	.5	
Human Relations	4	62,590	.4	
Data Processing	39	-0-		
	<u>66</u>	<u>446,599</u>	<u>2.4</u>	<u>7.61</u>
<u>City Clerk</u>	<u>10</u>	<u>127,552</u>	<u>.7</u>	<u>2.17</u>
<u>Law</u>				
City Attorney	15	249,870	1.3	
Property Management	7	31,060	.2	
	<u>22</u>	<u>280,930</u>	<u>1.5</u>	<u>4.78</u>
<u>District Court</u>	<u>12</u>	<u>160,334</u>	<u>.9</u>	<u>2.73</u>
<u>Finance</u>	<u>114</u>	<u>451,030</u>	<u>2.4</u>	<u>7.68</u>
<u>Public Safety</u>				
Police-City	160	2,768,932	14.9	
Police-Spenard	41	920,240	4.9	
Fire	78	2,114,490	11.4	
Civil Defense	3	56,560	.3	
Traffic Engineering	19	792,910	4.2	
Building Safety	22	440,920	2.4	
	<u>323</u>	<u>7,094,052</u>	<u>38.1</u>	<u>105.14</u>
<u>Public Works</u>				
Administration	5	32,850	.2	
Engineering	15	148,290	.8	
Engineering Projects	70	1,305,690		
Engineering Projects		(1,305,690)		
Building Maintenance	52	211,940	1.1	
Street Maintenance	53	2,186,810	11.8	
Merrill Field	6	99,060	.5	
	<u>201</u>	<u>2,678,950</u>	<u>14.4</u>	<u>45.62</u>
<u>Library</u>				
City	29	464,380	2.5	7.91
GAAB	23	277,768	1.5	
	<u>52</u>	<u>742,148</u>	<u>4.0</u>	
<u>Parks & Recreation</u>	<u>120</u>	<u>1,574,985</u>	<u>8.5</u>	<u>26.82</u>
<u>Museum</u>	<u>6</u>	<u>177,728</u>	<u>1.0</u>	<u>3.03</u>
<u>Miscellaneous</u>	<u>0</u>	<u>511,348</u>	<u>2.7</u>	<u>8.71</u>
<u>Debt Service</u>	<u>0</u>	<u>4,144,574</u>	<u>22.3</u>	<u>70.58</u>
<u>Cash Match Federal & State Grants</u>		<u>125,723</u>	<u>.7</u>	<u>2.14</u>
TOTALS	<u>927</u>	<u>\$18,594,613</u>	<u>100.0</u>	<u>\$296.26</u>
Federal & State Grants		<u>1,580,996</u>		
		<u>\$20,175,609</u>		

(1) Per Capita Costs are based on a population of 58,718 and do not include military annexation of 17,892. The costs for Spenard Police and Greater Anchorage Area Borough Library Services are not included.

Revised December 18, 1973.

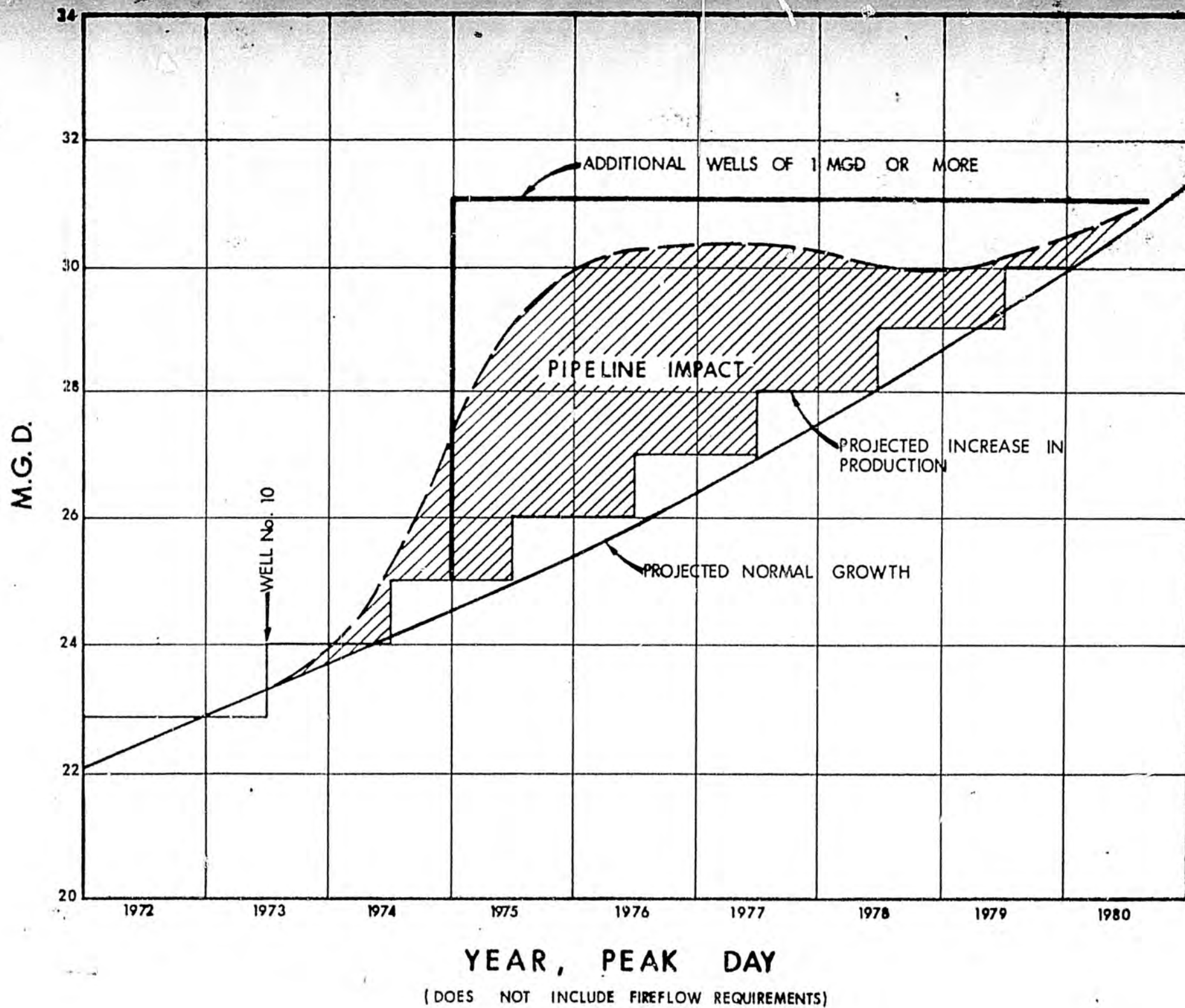
ATTACHMENT "E"

CITY OF ANCHORAGE

IMPACT OF OIL PIPELINE ON SELECTED CAPITAL IMPROVEMENT PROGRAMS

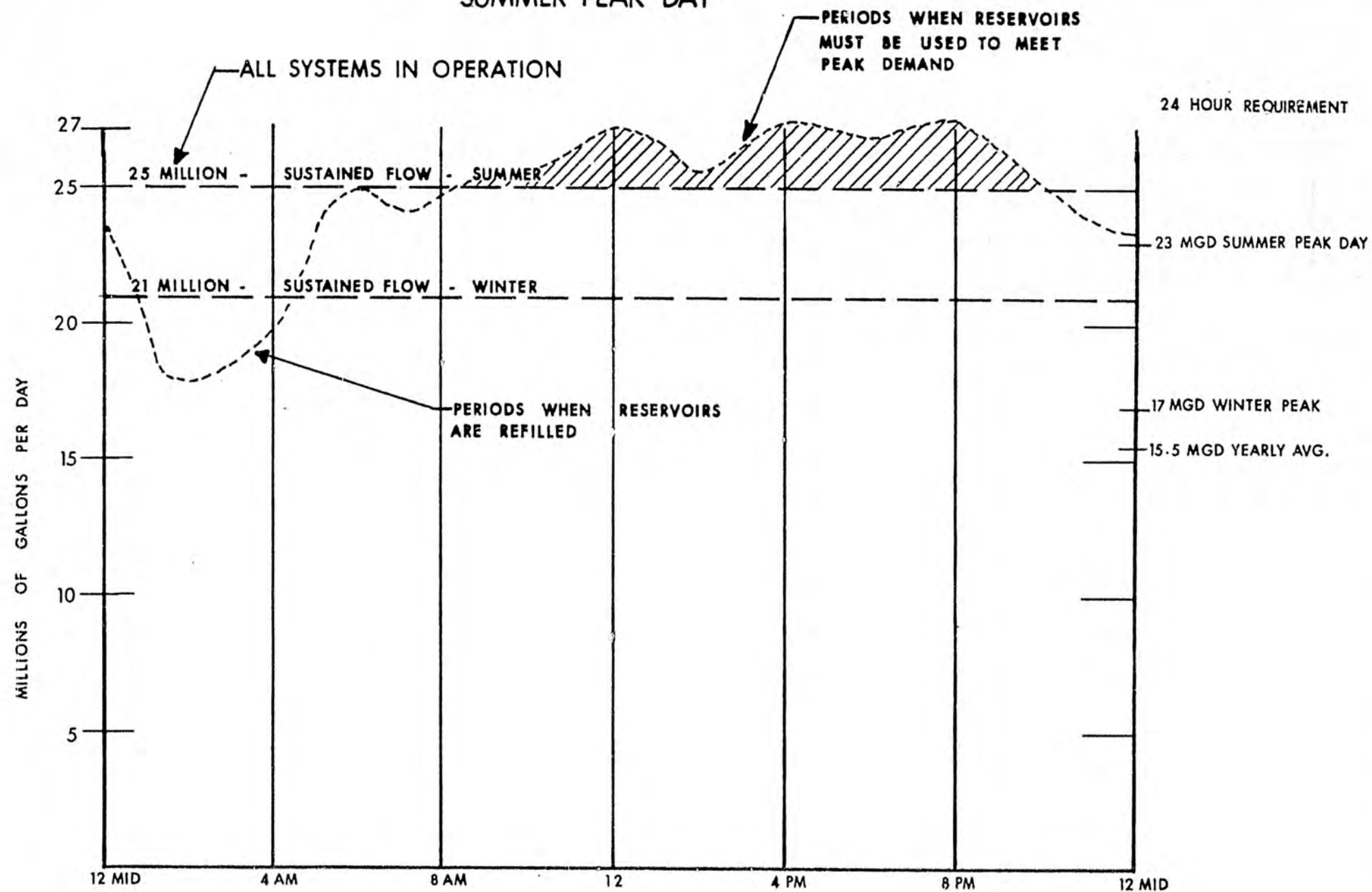
	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Total</u>
High Accident Street Intersections	\$ 740,000	\$ 250,000	\$ 200,000	\$ 1,190,000
Subdivision Paving	2,092,500	187,500	-0-	2,280,000
Storm Sewer System	727,500	62,500	-0-	790,000
Port	5,788,000	6,245,000	553,000	12,586,000
Headquarters Library		4,500,000		4,500,000
Administrative Office Space	300,000			300,000
Fire Apparatus	<u>150,000</u>			<u>150,000</u>
TOTAL GENERAL FUND	\$9,798,000	\$11,245,000	\$ 753,000	\$21,796,000
Water Utility	4,625,000	1,000,000	5,500,000	11,125,000
Municipal Light & Power			<u>5,200,000</u>	<u>5,200,000</u>
	\$ 4,625,000	\$ 1,000,000	\$10,700,000	\$16,325,000
GRAND TOTAL IMPACT	\$14,423,000	\$12,245,000	\$11,453,000	\$38,121,000

Revised December 18, 1973.



24 HOUR DEMAND CURVE

SUMMER PEAK DAY



FIRST PHASE - 1974

Drill 6 or 7 Exploratory Wells	\$ 90,000
Drill and Develop Production Wells and Connect to System	
2 on North Fork of Campbell	220,000
2 on South Fork of Campbell	525,000
1 on Old Seward Highway	190,000
1 Near Recharge Pit	350,000
1 East of Muldoon	250,000
	1,535,000
Modification to Water Treatment Plant New Influent Setup Including Controls, Trashrock Chemical Feeds and Rapid Mix - Increase Capacity to 20M6D	1,000,000
New Line to Diversion Dam 36"	1,250,000
Additional 5 MG Treated Water Storage	750,000
	\$ 4,625,000

SECOND PHASE - 1975

Modify Diversion Dam for Additional Outlets	500,000
Construct Offstream Storage Pit with Pump and Piping	500,000
	\$ 1,000,000

THIRD PHASE - 1976

Additional Supply Line to T.P.	1,000,000
Construct Offstream Storage Pit with Pump and Piping	1,000,000
Construct Additional Storage (Treated)	1,000,000
Modify Water Treatment Plant to 30M6D Add Additional Filters	250,000
	\$ 5,500,000

FUTURE

Add Additional Offstream Storage as Required
Double Existing T.P. to 60M6D - 8 million

ATTACHMENT "H"

General Government Capital and Operating Budgets
Inflation Increase 10% Per Year

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>Total</u>
Population*	61,650	68,150	70,570	72,110	272,480
CIP	21,529,600	19,470,400	8,519,780	5,192,560	54,712,340
Inflation	2,152,960	4,088,784	2,820,046	2,409,867	11,471,657
Per Capita Increase	35	60	40	33	42
Operations	20,779,323	21,558,495	22,420,834	23,317,667	88,076,319
Inflation	2,077,932	4,527,283	7,421,294	10,821,727	24,848,236
Per Capita Increase	34	66	105	150	91
Total Inflation	4,230,892	8,616,067	10,241,340	13,231,594	36,319,893
Per Capita Increase	69	126	145	183	133

*Population excludes 17,892 military annexed in 1973.

CITY OF ANCHORAGE
Revised Revenues 1973 As Of 9/30/73

	Amount	Per Cent	Per Capita Value (1)
<u>Taxes - Real & Personal</u>			
Real	\$ 5,398,360	29.0	
Personal	1,467,580	7.9	
Penalty & Int. Delinquent Taxes	50,000	.3	
	<u>6,915,940</u>	<u>37.2</u>	\$117.78
<u>Taxes - Other</u>			
Payment in Lieu City Utilities	1,398,826	7.6	
Franchise Tax - Gas	135,743	.7	
Franchise Tax - Electric	40,757	.2	
	<u>1,575,326</u>	<u>8.5</u>	26.83
<u>Licenses and Permits</u>	350,860	1.9	5.98
<u>Fines and Forfeitures</u>	861,100	4.6	14.67
<u>Intergovernmental Revenues</u>			
State of Alaska Business License	1,191,213	6.4	
State of Alaska Liquor License	105,000	.6	
State of Alaska Aviation Fuel	19,680	.1	
State of Alaska Cannery Tax	4,351		
State of Alaska Shared Revenues	1,478,323	8.0	
Federal Civil Defense	28,280	.1	
Federal Revenue Sharing	<u>1,337,529</u>	<u>7.2</u>	
	<u>4,164,376</u>	<u>22.4</u>	70.92
<u>Contributions from City Utilities</u>	1,240,173	6.7	21.12
<u>Charges for Services</u>			
State Highway Maintenance	250,000	1.3	
GAAB Libraries	312,240	1.7	
Spenard Police	1,034,890	5.6	
School Crossing Guards	53,820	.3	
Emergency Communication 911 State	9,030	.1	
Emergency Communication 911 GAAB	53,060	.3	
Recreational Activities	222,720	1.2	
Traffic Electronics	52,210	.3	
Public Works-Misc. Work Orders	59,690	.3	
Other Misc. Receipts	<u>101,050</u>	<u>.5</u>	
	<u>2,148,710</u>	<u>11.6</u>	16.18
<u>Cost Recoveries</u>			
Bond Principal	409,775	2.2	
Bond Interest	254,567	1.3	
Port Crane Insurance	<u>14,100</u>	<u>.1</u>	
	<u>678,442</u>	<u>3.6</u>	11.55
<u>Miscellaneous Revenues</u>			
Interest	38,000	.2	
Rental Revenues	263,200	1.4	
Loussac Foundation	25,000	.1	
Other Misc. Revenues	<u>305,882</u>	<u>1.7</u>	
	<u>632,082</u>	<u>3.4</u>	10.76
<u>Appropriation Year End Surplus</u>	27,604	.1	.47
	<u>18,594,613</u>	<u>100.0</u>	<u>\$296.26</u>
<u>Federal & State Grants</u>	<u>1,580,996</u>		
	<u>\$20,175,609</u>		

(1) Per Capita value is based on a population of 58,718 and does not include military annexation of 17,892. The costs for Spenard Police and GAA Borough Library Services are not included.

ATTACHMENT "J"

CITY OF ANCHORAGE
New Revenues Generated by Pipeline

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>Total</u>
<u>Property Taxes (7.9 mills)</u>					
Real		408,825	762,350	1,093,350	2,264,535
Personal (25%)		102,206	190,588	273,340	566,134
<u>Taxes - Other</u>					
Gas & Elec. (% incr. Prop. Tax)		13,500	25,000	36,500	75,000
<u>Licenses & Permits</u> <u>(% incr. Population)</u>	13,500	45,500	40,000	15,000	114,000
<u>Fines & Forfeitures</u> <u>(% Population)</u>	33,000	111,500	98,000	36,500	279,000
<u>Business Licenses</u> <u>(% Population)</u>		46,000	154,500	136,000	336,500
<u>Aviation Fuel Tax</u>		2,000	2,500	2,500	7,000
<u>State Shared Revenue</u>	73,500	189,750	206,000	188,500	657,750
<u>Federal Shared Revenue</u>					
<u>Recreational</u>	8,500	29,000	25,000	9,500	72,000
 Totals	 128,500	 948,281	 1,503,938	 1,791,200	 4,371,919
Population	2,940	7,590	8,240	7,540	26,310
Per Capita	44	125	182	238	166

INTERIM REPORT
OF THE
JOINT GAS PIPELINE IMPACT COMMITTEE

Legislative Reference Library
Legislative Affairs Agency
Pouch Y State Capital
Juneau, Alaska 99811

This Committee, through public hearings and staff investigation, has become convinced that immediate action by the State of Alaska is essential if the citizens of this State are to receive maximum benefit from the State's natural gas resource.

The Committee will issue a full and complete report on its findings and recommendations at a later date, but is impelled to submit this interim report to the Legislature and the people of the State of Alaska because of the urgency of the present situation.

The Committee finds and concludes the following:

1. A federal decision authorizing the transportation of North Slope natural gas across Canada would be inimical to the interests of the State of Alaska. The State's resource would be drained, its people denied access to a premium fuel and raw material, its work force deprived of employment opportunities, and productive economic growth would be thwarted.
2. A federal decision authorizing the transportation of North Slope natural gas across the State of Alaska to an open port will serve the best interests of the State.
3. The level of benefits, and burdens reasonably to be expected by the State as a consequence of any decision on a North Slope gas transportation system are of such magnitude that the routing decision must be regarded as critical to the future of the State. Action to secure a Trans-Alaska routing must be pursued as expeditiously as possible; no reasonable step should be left untaken.
4. The position of the state as owner of a one-eighth royalty in natural

gas and natural gas liquids produced from State-owned lands on the North Slope creates an immediate opportunity for effective State action which can assist in securing a Trans-Alaska transportation system.

5. Affirmative, aggressive action by the Governor, the Commissioner of Natural Resources, the State Royalty Board, and the Legislature with respect to the State's royalty gas is imperative.
6. Effective use of the State's royalty gas, to serve the best interests of the State, requires:
 - a. The State must elect to take its royalty share of natural gas natural gas liquids in kind.
 - b. The State must commit a portion of its royalty gas to purchasers who will assist in securing approval of a Trans-Alaska transportation system, and who will thereafter utilize such a Trans-Alaska system.
7. Present levels of natural gas demand in Alaska permit a commitment of a portion of the State's royalty gas to purchasers outside the State; while every effort must be made to retain a substantial part of Alaska's gas for present and future in-state needs, it is in the overall best interests of the State to offer for sale outside the State, a substantial portion of the State's royalty gas to purchasers who can, and will, assist in securing authorization of a Trans-Alaska transportation system.
8. Those persons and firms interested in the construction and operation of a Trans-Alaska transportation system can materially alleviate State unemployment problems, and the State should, in striking a bargain for the commitment of State resources to a Trans-Alaska