SCOMM

#9:115

STATE OF ALASKA
THE LEGISLATURE

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

September 15, 1977

MEMORANDUM

SUBJECT: Updated Revenue Impacts of Pump Station No. 8 Explosion.

TO: The Honorable Clark Gruening, Chairman
House Permanent Fund Committee

The Honorable Russ Meekins

FROM: Richard G. Haggart
Research Analyst

This memorandum is in response to your request that we update our memorandum of July 15, 1977 discussing potential impacts on state revenues arising from the explosion at Pump Station No. 8. Since July 15 two major changes have occurred in the underlying assumptions used to calculate the revenue impacts contained in that memorandum:

1. The length of the delay in getting Pump Station No. 8 back on line is now known with greater precision. According to both industry and government officials with whom we have spoken, it now seems most likely that Pump Station No. 8 will go back into service about March 1, 1978, and that as a result, fiscal 1978 average daily production from the North Slope will be about 720,000 bbl/d - down from the pre-explosion estimate of 940,000 bbl/d.

2. Wellhead values for Prudhoe Bay oil, which had to be estimated in July, are now available for the months of June and July. For a variety of reasons which will be discussed below, these actual values are significantly lower than those previously estimated.

Pump Station No. 8 Impacts

Assuming that Pump Station No. 8 is back on line by March 1, the total delay entailed in terms of Prudhoe Bay production will have totaled approximately 8 months. As a result, Prudhoe Bay production for fiscal 1978 will be approximately 23% lower than it would have been if Pump Station No. 8 were to have been in operation. While further delays are clearly possible, we found no indications in our conversations with either industry or state officials that Alyeska's March 1, 1978 start-up estimate for Pump Station No. 8 is unreasonable.

Prudhoe Bay Wellhead Values

Prior to the start-up of actual production at Prudhoe Bay, most revenue forecasts assumed wellhead values in the $7.25 to $8.00 per barrel range, for purposes of calculating state royalty and severance tax revenues. Based on company returns filed for the months of June and July (the only returns available at this writing), wellhead values will be significantly lower than those previously forecast.

There are three primary reasons for these differences between actual and estimated wellhead values:

1. The companies are claiming field gathering and treatment costs as deductible against the state's royalty payments.

2. Tanker charges to all markets are higher than previously estimated.

3. Sales prices in all markets are lower than previously forecast.

All of these issues are currently in litigation. On September 2, 1977, the state filed Civil Action No. 77-847 against 18 North Slope companies and lease-holders requesting relief in regard to the matters outlined above. According to the Attorney General's office the state has a "good" case, although many of the issues are "close". Regardless of the eventual outcome of the suit, however, it seems likely that the state cannot avoid suffering at least the short-term revenue losses outlined above - even if the revenues are recouped, by court order, in later years. The specific areas effecting the state's wellhead values are discussed in more detail below.

Table I contains the wellhead values which were asserted by the three largest North Slope producers in June and July.

As can be seen from Table I, there are in essence two wellhead values. The value under the first column (LACT meter value per-barrel value) is the basis on which state severance taxes are calculated. The amount in the third column (net value per-barrel) is used by the producers as the basis for computing state royalties. The difference between the two values is contained in the second column of Table I - representing so-called field gathering and treatment costs.

The question of which of the two values to use for calculating state royalties (the recently enacted severance tax clearly sets forth the point of taxation at the LACT meter, and consequently that issue is not in dispute) essentially centers around the definition of the phrase "at the well" as used in both the state royalty statute and in the Prudhoe Bay leases. The companies contend that gathering and treatment costs which occur after the oil physically emerges from the ground should be deducted before calculating the royalty value, while the state contends that such costs should be borne by the companies and that royalties should be based on the value of oil in "good and merchantable" condition.

Table II contains the tanker charges claimed by the companies for the month of June, 1977, as compared to previous estimates of the level of such charges. As can be seen from Table II, in all cases these charges are significantly in excess of those forecast previously, and according to Department of Revenue officials, are well above "reasonable" levels. Obviously, the level of tanker charges effects both state royalties and severance taxes.

Table III contains imputed West Coast sales prices for North Slope crude oil for the month of June, again, as compared to previously estimated levels. These values are calculated by adding the Trans-Alaska Pipeline tariff and the tanker charges onto the LACT meter wellhead values contained in Table I - a sort of reverse "net-back" process. As with the tanker charges, the sales prices for North Slope crude are lower than those previously forecast, and affect both royalties and severance taxes.

The net effect of these lower-than-expected wellhead values and of the pipeline explosion on state revenues and Permanent Fund contributions in fiscal 1978 are set forward in Table IV.

It should be noted that the figures contained in Tables I-IV are preliminary in the sense that only two months of production data from the Prudhoe Bay field are currently available. Data for August should be available approximately the first week in October, and monthly thereafter. As can be seen from Table I, shifts in wellhead values occurred between the months of June and July - Exxon's wellhead value declined marginally, while Sohio's increased significantly. Such shifts are likely to continue, as different mixes of tankers and destinations for Alaska oil occur in the months ahead. Likewise, some price fluctuations in lower-48 markets can be expected as the North Slope companies seek to market increasing volumes of crude oil at varying prices and discounts.

In sum, we expect that it will be necessary to revise and update the fiscal 1978 revenue forecast each month, at least until such time as overall cost and price patterns for North Slope crude oil stabilize to a greater degree than is presently the case. We do believe, however, that such changes will tend to be smaller than those which have already occurred. This is because the largest effect on fiscal 1978 revenues arises from the Pump Station No. 8 explosion. In addition, the variations in wellhead value that can reasonably be expected to occur for the remainder of the year are likely to be substantially smaller than was the difference between the estimated price in July, and the actual prices which have been posted.

DH:dh

Table I

Prudhoe Bay Wellhead Values and Field Costs for Three Companies
June - July 1977

Company and Month	Value at LACT* Meter[1]	Field Costs	Net Value Per Barrel[2]
ARCO			
June	$7.55	$0.636	$6.914
July	$7.55	$0.636	$6.914
Exxon			
June	$6.954	$0.528	$6.426
July	$6.954	$0.528	$6.411
Sohio			
June	$6.24	$0.66	$5.52
July	$6.65	$0.66	$5.93

* Lease Automatic Custody Transfer; i.e., the measuring device used as a transfer point for the oil from the unit operators to the Alyeska Pipeline Company.

1 This value is used for calculating state severance taxes.

2 This value is used for calculating state royalty payments.

Prepared by:
Legislative Affairs Agency
Research Division
15 September 1977

Table II

Actual vs. Estimated North Slope Oil Tanker Charges
for Three Companies
June 1977

Company	($/bbl) June Charges[1]	($/bbl) Estimated Charges[2]
ARCO	$0.88	$0.60
Exxon	$1.10	$0.75
Sohio		
West Coast	$0.89	$0.75
Gulf Coast	$3.47	$2.00

1 It should be noted that tanker charges for June are likely to be higher in most cases than they will be in subsequent months. This is due to the fact that some companies are engaged in short-term chartering as the oil flow builds--a process which is likely to be more expensive than utilizing either long-term charters or the company's own tanker capacity.

2 Based on Department of Revenue, Legislative Affairs Agency Research Division and miscellaneous private sector estimates.

Prepared by:
Legislative Affairs Agency
Research Division
15 September 1977

Table III

Imputed and Estimated Sales Price for North Slope Crude
by Three Companies
June 1977

Company	Imputed Sales Price[1]	Estimated Sales Price[2]
ARCO	$13.34	$13.50-14.00
Exxon	$13.15	$13.25-13.75
Sohio[3]	$13.05	$13.25-13.75

1 Calculated by adding the LACT meter value contained in Table I, the tanker charges contained in Table II, and the Interstate Commerce Commission's interim Trans-Alaska Pipeline tariffs.

2 Based on estimated tanker charges contained in Table II and representative West Coast prices of imported crudes of similar quality to Prudhoe Bay.

3 Sohio's imputed sales price represents a weighted average received for crude oil sold on the West Coast and the Gulf Coast. Sohio's weighted average tanker charges for both destinations (not included in Table II) was $2.11 per barrel.

Prepared by:
Legislative Affairs Agency
Research Division
15 September 1977

TABLE IV

Revenue and Permanent Fund Impacts of TAPS Thru-Put Delays and Revised Wellhead Values
Fiscal 1978 ($Million)

Production or Wellhead Value Assumptions	Total Revenue[1]	Expenditures[2]	Permanent Fund Contribution[3]	Permanent Fund Balance[4]	General Fund Balance[5]
Based on memo of 7/15/77 (940,000 bbl/d)	$978.5	$853.8	$87.2	$89.6	$690.2
Pump Station Restart 3/1/78, Revised Wellhead Values (720,000 bbl/d)	$822.7	$853.8	$60.0	$62.4	$593.6
Pump Station Restart 3/1/78, Revised Wellhead Values and Modified Tariff[6] (720,000 bbl/d)	$813.9	$853.8	$58.4	$60.8	$587.2

[1] Basic revenue data taken from memorandum of July 15, 1977, and adjusted to reflect differing throughput and wellhead values.

[2] Expenditures taken from July 15, 1977 memorandum.

[3] Permanent Fund contribution level is set at 25% of state royalties from Prudhoe Bay and Cook Inlet oil and gas production.

[4] Permanent Fund balance includes previous year's carry-forward.

[5] General Fund balance includes previous year's carry-forward and reflects any deficit in the year. Also deducted are payments to the Native Claims Fund equal to 2% of the gross value of royalties, leases and bonuses.

[6] Tariff effects due to Pump Station No. 8 explosion have been estimated to be approximately $0.19 per barrel. North Slope companies have not filed for any such revision however.

Prepared by:
Legislative Affairs Agency
Research Division
15 September 1977

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

August 5, 1977

MEMORANDUM

SUBJECT: Proposed Arthur D. Little Contract With the State of Alaska.

TO: The Honorable Clark Gruening, Chairman
House Permanent Fund Committee

FROM: Richard G. Haggart
Research Analyst

As you requested, we have reviewed the proposal from Arthur D. Little Inc. of July 7, 1977, and, in general, believe that their proposed analysis of Alaska's economy, its sectoral components, and its overall relationship with national and international trends, is likely to prove to be an invaluable resource in developing a coherent and well-targeted policy for permanent fund investments and management.

However, in view of testimony which has been given before your committee, specifically by Mssrs. Tussing and Daniels, we believe it will be desirable that the ADL study focus somewhat more heavily on two points raised by consultant testimony and which if amplified by ADL will permit a better melding of all the research and recommendations before the Committee. Specifically, we believe that:

1) The Sectoral Analysis section of the ADL proposal needs to be rewritten to insure full consideration of factors other than capital adequacy in terms of the Alaska economy. Such an analysis would permit the legislature to make important distinctions in terms of permanent fund policy where economic problems within the State arise from shortages of adequately skilled labor, high transportation costs, overall operating costs differentials between Alaska and competing economic areas, and those situations where actual capital shortages or inavailability have constrained otherwise economically viable operations.

2) In this same light we believe a shift in emphasis would be appropriate in the ADL proposal regarding their Task Five - Intersectoral Comparison and Development of Investment Criteria. Specifically on page 17 of their proposal they state:

> "The fund strategy is initially determined. This includes identifying the mix of projects desired in the fund, and their risk, return, and capital

> requirements. The choice of various projects will determine the financial structure of the fund and will define the overall level of risk the fund will be able to support. A "hurdle rate" refers to this risk level whenever a project is considered as a potential investment.
>
> In the evaluation process of choosing among projects one key assumption is that investment decisions will most likely be made under a capital rationing situation. This means that the fund itself will be limited in size and that if presented with several "attractive" investment opportunities, the selected process must decide upon only a subgroup of the total array of possibilities."

It seems that the ADL proposal, by postulating investment requirements in excess of fund capacities, is based on one of two possible, and, somewhat restrictive, assumptions.

1. Either the fund will be fully competitive with private sector markets, in which case it will have access to numerous investment opportunities of relatively high quality in a manner similar to current commercial lenders, or,

2. The fund will provide capital for a variety of activities which are not now served by the private capital markets, either due to inherent riskiness of such projects or because of blanket institutional constraints (i.e. "redlining" of investments in rural areas).

Since it seems unlikely that the legislature (or the people of Alaska) intend the Permanent Fund to go into competition with existing commercial lenders within the state, it seems likely to us that the ADL study contains assumptions similar to those contained in point number 2 above, viz., that existing capital markets have, in some fashion, failed to adequately serve the Alaskan economy. Since this question appears to be a central concern of any attempt to develop Permanent Fund (and as was noted, consultant testimony indicates that this presumed inadequacy of the private markets may, in fact, not exist) policy we believe tacit acceptance of the negative proposition unnecessarily limits the usefulness of the ADL study.

Consequently, we believe that the proposal should be expanded somewhat to include, if not an outright study of capital markets efficiency in Alaska, at least some discussion and analysis of the problems inherent in investment selection criteria where capital rationing is <u>not</u> a problem. Specifically, we believe consideration should be given to situations where demand for capital from the fund is significantly less than fund balances. Pertinent questions under such assumptions would be:

1. What statutory and administrative measures should be taken to insure that fund investments are not simply supplanting potentially available private sector capital?

2. Under what sets of assumptions might it be appropriate for the fund to make investments that <u>are</u> in competition with private sector sources?

3. What investment and risk evaluation criteria might be appropriate if a fund policy were adopted which limits project selection only to those projects considered unacceptable by the private sector?

4. Depending on the investment criteria established, what would be the aggregate and sectoral economic effects on the state of such a range of fund policies?

5. Finally, in view of the expanded consideration of non-capital economic development constraints recommended earlier, what investment policy mix in the judgment of ADL would seem to yield the most advantageous economic and/or social results for the state?

With the requisite modifications contained in this memorandum, we would recommend that the Arthur D. Little proposal of July 7, 1977 be accepted by the Committee.

DH:dh

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

STATE OF ALASKA
THE LEGISLATURE
LEGISLATIVE AFFAIRS AGENCY

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

MEMORANDUM November 17, 1977

SUBJECT: State Revenue Outlook Through 1985

TO: The Honorable Clark Gruening, Chairman
House Permanent Fund Committee

FROM: Richard G. Haggart
Research Analyst

This memorandum is in response to your request that we prepare an analysis of potential state revenues, and associated Permanent Fund and Renewable Resources Fund balances, through 1985. The key assumptions involved in the development of these revenue scenarios are set forth below.

As you requested, we have divided the revenue outlook into three cases--a "worst" case, a "median" case and a "best" case. For each of these cases we have calculated fund balances and expenditures based on 25%, 30% and 50% contributions to the Permanent Fund. In all cases, Renewable Resource Fund contributions total 5% annually beginning in 1979. And, as you requested, each Permanent Fund contribution level within each case study has been calculated twice--once assuming that earnings from the Permanent Fund are placed in the General Fund and may be spent, and once assuming that 50% of Permanent Fund earnings are reinvested in the Permanent Fund.

The following system was used in assigning names to the above variables contained in the cases:

1. All Case I tables are "worst" case assumptions.

2. All Case II tables are "median" case assumptions.

3. All Case III tables are "best" case assumptions.

4. All Cases lettered A, B, and C assume that Permanent Fund earnings are returned to the General Fund and are available for expenditure. Thus, Case I-A is a "worst" case analysis, which assumes Permanent Fund earnings are returned to the General Fund.

5. All Cases lettered D, E and F assume that 50% of Permanent Fund income is reinvested in the Permanent Fund each year. The remaining 50% is available for General Fund expenditures. Thus, Case I-D is a "worst" case analysis, which assumes 50% reinvestment of Permanent Fund income back into the Fund.

6. Finally, all cases (IA-IIIF) have Permanent Fund contribution levels calculated at 25%, 30% and 50% for each separate case.

Case I-A Through I-F: Assumptions

Basic assumptions utilized in developing the "worst case" scenarios were:

1. Wellhead values increasing 2.5% annually.

2. Expenditures increasing at a 15% annual rate, unless constrained by insufficient revenues or General Fund balances to finance such growth. (The minimum allowable General Fund balance is assumed to be $100 million.)

3. Current tariff levels of about $6.25/bbl are assumed to stay in effect through 1985.

4. The State is assumed to lose the present dispute over deduction of treatment costs for royalty calculations.

5. The "floor" price for calculating state severance taxes is assumed to remain at the present level of $0.80 per barrel (equivalent to a wellhead value of about $6.53/bbl).

With some exceptions, other variables used in calculating these revenue scenarios remain the same as those used in our estimates of June 15, 1977. We are currently preparing detailed background material on this series of estimates, which will outline the specific assumptions used in all cases.

Cases II-A Through II-F: Assumptions

Basic assumptions used in developing the "median" case scenarios were:

1. The State was assumed to be successful in its suit to halt deduction of field treatment costs on royalty oil.

2. It was assumed that the tariff dispute was resolved by "splitting the difference" between the I.C.C. interim tariff of $4.90 per barrel and the company tariff of $6.25 per barrel.

3. With the above additions to wellhead value, 1979 and subsequent years' oil prices were increased 3.75% annually.

4. The floor price for state severance tax calculations was assumed to remain at its present level.

5. State expenditures were escalated at 10% annually, unless constrained by insufficient revenues or General Fund balances. As in Case I, the minimum allowable General Fund balance was assumed to be $100 million.

As with Case I, most other assumptions used in Case II were the same as those contained in our revenue estimates of June 15, 1977. Similarly, more detailed information on the specific assumptions is being prepared.

<u>Cases III-A Through III-F: Assumptions</u>

Basic assumptions used in developing the "best" case scenarios were:

1. The State was assumed to prevail in both the treatment costs dispute and the tariff dispute--increasing 1979 wellhead values approximately $1.97 per barrel over current levels. Oil prices, generally, were escalated 5% annually.

2. Expenditures were assumed to increase 7.5% annually.

3. The floor price for severance tax calculations was assumed to remain at its present level.

Finally, as with previous cases, most other Case III assumptions were the same as those contained in our revenue projections of June 15, 1977, and differences are presently being documented.

<u>Native Fund Payments and Permanent Fund Earnings</u>

Two important points should be noted when reviewing the materials contained in Tables IA - IIIF, which will serve to avoid possible confusion:

1. Payments to the Native Fund are automatically deducted from each year's General Fund balance by the Agency's revenue estimating model--however, they do not appear directly in the projections. For the Case I scenarios, cumulative Native Fund payments through 1985 total about $439.9 million. For the Case II scenarios, the full liability of approximately $500 million is discharged in FY 1985. And, in Case III, the full amount payable to the Fund is paid in by FY 1983.

2. In all cases lettered D, E and F, 50% of Permanent Fund earnings are assumed to be reinvested back into the Fund itself. Hence, each year's Permanent Fund balance includes not only the previous year's carry forward and the yearly contribution,

but earnings on these amounts, as well. As with other areas of the estimates, state balances are assumed to earn a return of 7% annually.

RGH:jm
Enclosures

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 25% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 336.0	$ 847.4	$ 853.8	$ 51.4	$ 53.8	$ 0.0	$ 0.0	$ 593.5
1979	678.7	47.4	357.2	1,083.3	981.9	83.4	137.2	16.7	16.7	546.6
1980	783.3	44.5	390.7	1,218.5	1,129.2	96.8	234.0	19.4	36.0	462.7
1981	841.9	42.0	396.8	1,280.7	1,298.6	98.8	332.8	19.8	55.8	267.9
1982	1,041.6	39.2	373.8	1,454.7	1,441.7	100.7	433.5	20.1	75.9	100.0
1983	1,058.2	44.0	378.8	1,480.9	1,294.9	103.9	537.4	20.8	96.7	100.0
1984	1,073.2	46.6	407.6	1,527.4	1,336.3	106.7	644.1	21.3	118.1	100.0
1985	1,123.8	44.9	442.4	1,611.1	1,415.8	109.0	753.2	21.8	139.9	100.0
TOTAL	$7,061.2	$ 359.5	$3,083.2	$10,504.0	$9,752.2	N/A	$ 753.2	N/A	$ 139.9	$ 100.0

Case I-A: Low Income, High Expenditure Model (All Permanent Fund Income Allocated to General Fund Revenue)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 30% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$460.6	$50.8	$336.0	$847.4	$853.8	$61.7	$64.1	$0.0	$0.0	$583.3
1979	678.7	47.4	357.2	1,083.3	981.9	100.1	164.2	16.7	16.7	519.7
1980	783.3	44.5	390.7	1,218.5	1,129.2	116.2	280.4	19.4	36.0	416.5
1981	841.9	42.0	396.8	1,280.7	1,298.6	118.5	398.9	19.8	55.8	201.9
1982	1,041.6	39.2	376.8	1,457.7	1,358.6	120.9	519.8	20.1	75.9	100.0
1983	1,058.2	44.0	385.5	1,487.7	1,280.9	124.6	644.4	20.8	96.7	100.0
1984	1,073.2	46.6	415.8	1,535.6	1,323.2	128.1	772.5	21.3	118.1	100.0
1985	1,123.8	44.9	452.2	1,620.9	1,403.7	130.8	903.3	21.8	139.9	100.0
TOTAL	$7,061.2	$359.5	$3,111.0	$10,531.8	$9,629.9	NOT APPL.	$903.3	NOT APPL.	$139.9	$100.0

CASE I-B: Low Income High Expenditure Model (All Permanent Fund Income Allocated to General Fund Revenue)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 50% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 336.0	$ 847.4	$ 853.8	$ 102.9	$ 105.3	$ 0.0	$ 0.0	$ 542.1
1979	678.7	47.4	357.2	1,083.3	981.9	166.8	272.1	16.7	16.7	411.8
1980	783.3	44.5	390.7	1,218.5	1,129.2	193.6	465.7	19.4	36.0	231.1
1981	841.9	42.0	401.4	1,285.3	1,140.7	197.5	663.2	19.8	55.8	100.0
1982	1,041.6	39.2	394.6	1,475.5	1,193.9	201.5	864.7	20.1	75.9	100.0
1983	1,058.2	44.0	412.6	1,514.8	1,224.9	207.7	1,072.5	20.8	96.7	100.0
1984	1,073.2	46.6	448.7	1,568.6	1,270.8	213.5	1,286.0	21.3	118.1	100.0
1985	1,123.8	44.9	491.1	1,659.9	1,355.5	218.1	1,504.0	21.8	139.9	100.0
TOTAL	$7,061.2	$ 359.5	$3,232.4	$10,653.1	$9,150.7	N/A	$1,504.0	N/A	$ 139.9	$ 100.0

Case I-C: Low Income, High Expenditure Model (All Permanent Fund Income Allocated to General Fund Revenue)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 25% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$ 51.4	$ 53.9	$ 0.0	$ 0.0	$ 593.5
1979	678.7	47.4	355.3	1,081.4	981.9	83.4	139.1	16.7	16.7	544.7
1980	783.3	44.5	38[illegible].8	1,213.6	1,129.2	96.8	240.8	19.4	36.0	456.0
1981	841.9	42.0	388.4	1,272.3	1,298.6	98.8	348.0	19.8	55.8	252.7
1982	1,041.6	39.2	362.6	1,443.4	1,415.3	100.7	460.9	20.1	75.9	100.0
1983	1,058.2	44.0	365.1	1,467.3	1,281.3	103.9	580.9	20.8	96.7	100.0
1984	1,073.2	46.6	391.0	1,510.8	1,319.8	106.7	707.9	21.3	118.1	100.0
1985	1,123.8	44.9	423.0	1,591.7	1,396.3	109.0	841.8	21.8	139.9	100.0
TOTAL	$7,061.2	$ 359.5	$3,007.1	$10,427.8	$9,676.1	N/A	$ 841.8	N/A	$ 139.9	$ 100.0

Case I-D: Low Income, High Expenditure Model (50% of Permanent Fund Income Reinvested in Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 30% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$ 61.7	$ 64.2	$ 0.0	$ 0.0	$ 583.2
1979	678.7	47.4	355.0	1,081.1	981.9	100.1	166.5	16.7	16.7	517.4
1980	783.3	44.5	384.8	1,212.7	1,129.2	116.2	288.5	19.4	36.0	408.3
1981	841.9	42.0	386.7	1,270.6	1,298.6	118.5	417.1	19.8	55.8	183.6
1982	1,041.6	39.2	363.4	1,444.2	1,326.9	120.9	552.6	20.1	75.9	100.0
1983	1,058.2	44.0	369.2	1,471.3	1,264.5	124.6	696.6	20.8	96.7	100.0
1984	1,073.2	46.6	395.9	1,515.7	1,303.4	128.1	849.1	21.3	118.1	100.0
1985	1,123.8	44.9	428.8	1,597.5	1,380.4	130.8	1,009.7	21.8	139.9	100.0
TOTAL	$7,061.2	$ 359.5	$3,019.7	$10,440.4	$9,538.7	N/A	$1,009.7	N/A	$ 139.9	$ 100.0

Case I-E: Low Income, High Expenditure Model (50% of Permanent Fund Income Reinvested in Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 50% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$ 102.9	$ 105.4	$ 0.0	$ 0.0	$ 542.0
1979	678.7	47.4	353.5	1,079.6	981.9	166.8	275.9	16.7	16.7	408.0
1980	783.3	44.5	381.0	1,208.8	1,129.2	193.6	479.2	19.4	36.0	217.7
1981	841.9	42.0	385.7	1,269.6	1,111.5	197.5	693.5	19.8	55.8	100.0
1982	1,041.6	39.2	373.3	1,454.1	1,172.6	201.5	919.2	20.1	75.9	100.0
1983	1,058.2	44.0	385.4	1,487.5	1,197.6	207.7	1,159.1	20.8	96.7	100.0
1984	1,073.2	46.6	415.7	1,535.5	1,237.7	213.5	1,413.2	21.3	118.1	100.0
1985	1,123.8	44.9	452.3	1,621.0	1,316.6	218.1	1,680.7	21.8	139.9	100.0
TOTAL	$7,061.2	$ 359.5	$3,082.8	$10,503.5	$9,001.0	N/A	$1,680.7	N/A	$ 139.9	$ 100.0

Case I-F: Low Income, High Expenditure Model (50% of Permanent Fund Income Reinvested in Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 25% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 336.0	$ 847.4	$ 853.8	$ 51.4	$ 53.8	$ 0.0	$ 0.0	$ 593.5
1979	762.3	47.4	361.6	1,171.3	939.2	104.3	158.1	20.9	20.9	638.9
1980	893.3	44.5	405.8	1,343.7	1,033.1	122.9	281.0	24.6	45.4	728.2
1981	985.4	42.0	429.4	1,456.8	1,136.4	127.0	408.0	25.4	70.8	819.7
1982	1,202.8	39.2	431.5	1,673.5	1,250.1	131.2	539.2	26.2	97.1	1,006.3
1983	1,243.5	44.0	454.7	1,742.3	1,375.1	136.6	675.7	27.3	124.4	1,127.3
1984	1,283.8	46.6	491.6	1,822.0	1,512.6	141.9	817.6	28.4	152.8	1,181.0
1985	1,355.0	44.9	530.7	1,930.6	1,663.9	146.7	964.4	29.3	182.1	1,196.5
TOTAL	$8,186.7	$ 359.5	$3,441.3	$11,987.5	$9,764.2	N/A	$ 964.4	N/A	$ 182.1	$1,196.5

Case II-A: Medium Income, Medium Expenditure Model (Permanent Fund Income Allocated to General Fund Revenues)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 30% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 336.0	$ 847.4	$ 853.8	$ 61.7	$ 64.1	$ 0.0	$ 0.0	$ 583.3
1979	762.3	47.4	361.6	1,171.4	939.2	125.2	189.3	20.9	20.9	607.8
1980	893.3	44.5	405.8	1,343.7	1,033.1	147.5	336.8	24.6	45.4	672.6
1981	985.4	42.0	429.4	1,456.8	1,136.4	152.4	489.1	25.4	70.8	738.7
1982	1,202.8	39.2	431.5	1,673.5	1,250.1	157.4	646.5	26.2	97.1	899.1
1983	1,243.5	44.0	454.8	1,742.3	1,375.1	163.9	810.4	27.3	124.4	992.7
1984	1,283.8	46.6	491.6	1,822.0	1,512.6	170.3	980.7	28.4	152.8	1,018.1
1985	1,355.0	44.9	530.7	1,930.6	1,663.9	176.1	1,156.8	29.3	182.1	1,004.3
TOTAL	$8,186.7	$ 359.5	$3,441.3	$11,987.5	$9,764.2	N/A	$1,156.8	N/A	$ 182.1	$1,004.3

Case II-B: Medium Income, Medium Expenditure Model (Permanent Fund Income Allocated to General Fund Revenues)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 50% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 336.0	$ 847.4	$ 853.8	$ 102.9	$ 105.3	$ 0.0	$ 0.0	$ 542.1
1979	762.3	47.4	361.6	1,171.4	939.2	208.6	313.9	20.9	20.9	483.2
1980	893.3	44.5	405.8	1,343.7	1,033.1	245.8	559.8	24.6	45.4	449.6
1981	985.4	42.0	429.4	1,456.8	1,136.4	253.9	813.7	25.4	70.8	414.1
1982	1,202.8	39.2	431.5	1,673.5	1,250.1	262.3	1,076.0	26.2	97.1	469.6
1983	1,243.5	44.0	454.8	1,742.3	1,375.1	273.2	1,349.2	27.3	124.4	454.0
1984	1,283.8	46.6	491.6	1,822.0	1,512.6	283.8	1,633.0	28.4	152.8	365.8
1985	1,355.0	44.9	530.7	1,930.6	1,663.9	293.5	1,926.4	29.3	182.1	234.7
TOTAL	$8,186.7	$ 359.5	$3,441.3	$11,987.5	$9,764.2	N/A	$1,926.4	N/A	$ 182.1	$ 234.7

Case II-C: Medium Income, Medium Expenditure Model (Permanent Fund Income Allocated to General Fund Revenues)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 25% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$ 51.4	$ 53.9	$ 0.0	$ 0.0	$ 593.5
1979	762.3	47.4	359.7	1,169.5	939.2	104.3	160.1	20.9	20.9	637.0
1980	893.3	44.5	400.2	1,338.1	1,033.1	122.9	288.6	24.6	45.4	720.7
1981	985.4	42.0	419.3	1,446.7	1,136.4	127.0	425.7	25.4	70.8	802.1
1982	1,202.8	39.2	416.6	1,658.6	1,250.1	131.2	571.8	26.2	97.1	973.9
1983	1,243.5	44.0	434.7	1,722.3	1,375.1	136.6	728.3	27.3	124.4	1,074.8
1984	1,283.8	46.6	466.1	1,796.5	1,512.6	141.9	895.7	28.4	152.8	1,103.0
1985	1,355.0	44.9	499.4	1,899.2	1,663.9	146.7	1,073.8	29.3	182.1	1,087.3
TOTAL	$8,186.7	$ 359.5	$3,331.9	$11,878.1	$9,764.2	N/A	$1,073.8	N/A	$ 182.1	$1,087.3

Case II-D: Medium Income, Medium Expenditure Model (50% of Permanent Fund Income Reinvested in Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 30% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$ 61.7	$ 64.2	$ 0.0	$ 0.0	$ 583.2
1979	762.3	47.4	359.4	1,169.1	939.2	125.2	191.6	20.9	20.9	605.5
1980	893.3	44.5	399.1	1,337.0	1,033.1	147.5	345.8	24.6	45.4	663.5
1981	985.4	42.0	417.3	1,444.7	1,136.4	152.4	510.3	25.4	70.8	717.5
1982	1,202.8	39.2	413.6	1,655.6	1,250.1	157.4	685.6	26.2	97.1	860.1
1983	1,243.5	44.0	430.8	1,718.3	1,375.1	163.9	873.4	27.3	124.4	929.7
1984	1,283.8	46.6	461.0	1,791.4	1,512.6	170.3	1,074.3	28.4	152.8	924.5
1985	1,355.0	44.9	493.1	1,893.0	1,663.9	176.1	1,287.9	29.3	182.1	873.1
TOTAL	$8,186.7	$ 359.5	$3,310.2	$11,856.4	$9,764.2	N/A	$1,287.9	N/A	$ 182.1	$ 873.1

Case II-E: Medium Income, Medium Expenditure Model (50% of Permanent Fund Income Reinvested in Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 50% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$ 102.9	$ 105.4	$ 0.0	$ 0.0	$ 542.0
1979	762.3	47.4	357.9	1,167.7	939.2	208.6	317.7	20.9	20.9	479.4
1980	893.3	44.5	394.7	1,332.6	1,033.1	245.8	574.7	24.6	45.4	434.7
1981	985.4	42.0	409.3	1,436.7	1,136.4	253.9	848.7	25.4	70.8	379.1
1982	1,202.8	39.2	401.8	1,643.8	1,250.1	262.3	1,140.7	26.2	97.1	404.9
1983	1,243.5	44.0	414.8	1,702.3	1,375.1	273.2	1,453.8	27.3	124.4	349.3
1984	1,283.8	46.6	440.7	1,771.1	1,512.6	283.8	1,788.5	28.4	152.8	210.3
1985	1,355.0	44.9	472.4	1,872.3	1,584.7	293.5	2,144.5	29.3	182.1	100.0
TOTAL	$8,186.7	$ 359.5	$3,227.6	$11,773.7	$9,685.0	N/A	$2,144.5	N/A	$ 182.1	$ 100.0

Case II-F: Medium Income, Medium Expenditure Model (50% of Permanent Fund Income Reinvested in Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 25% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 336.0	$ 847.4	$ 853.8	$ 51.4	$ 53.8	$ 0.0	$ 0.0	$ 593.5
1979	827.0	47.4	364.7	1,239.1	917.8	116.0	169.8	23.2	23.2	706.5
1980	1,029.6	44.5	417.8	1,491.9	986.6	147.2	317.0	29.4	52.6	945.8
1981	1,238.9	42.0	458.7	1,739.6	1,060.6	153.9	471.0	30.8	83.4	1,346.3
1982	1,491.2	39.2	486.7	2,017.1	1,140.2	170.6	641.5	34.1	117.5	1,914.0
1983	1,631.2	44.0	544.2	2,219.4	1,225.7	189.6	831.1	37.9	155.5	2,564.4
1984	1,780.7	46.6	627.3	2,454.6	1,317.6	209.8	1,040.9	42.0	197.4	3,449.6
1985	1,890.4	44.9	732.5	2,667.8	1,416.4	219.7	1,260.6	43.9	241.4	4,437.4
TOTAL	$10,349.7	$359.5	$3,967.8	$14,676.9	$8,918.8	NOT APPL.	$1,260.6	NOT APPL.	$241.4	$4,437.4

CASE III-A: High Income Low Expenditure Model (Permanent Fund Earnings Allocated to General Fund Revenue)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 30% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 336.0	$ 847.4	$ 853.8	$ 61.7	$ 64.1	$ 0.0	$ 0.0	$ 583.3
1979	827.0	47.4	364.7	1,239.1	917.8	139.2	203.3	23.2	23.2	673.1
1980	1,029.6	44.5	417.8	1,491.9	986.6	176.7	380.0	29.4	52.6	883.0
1981	1,238.9	42.0	458.7	1,739.6	1,060.6	184.7	564.7	30.8	83.4	1,252.7
1982	1,491.2	39.2	486.7	2,017.1	1,140.2	204.7	769.4	34.1	117.5	1,786.2
1983	1,631.2	44.0	544.2	2,219.4	1,225.7	227.5	996.9	37.9	155.5	2,398.7
1984	1,780.7	46.6	627.3	2,454.6	1,317.6	251.7	1,248.6	42.0	197.4	3,242.0
1985	1,890.4	44.9	732.5	2,667.8	1,416.4	263.6	1,512.2	43.9	241.4	4,185.9
TOTAL	$10,349.7	$359.5	$3,967.8	$14,676.9	$8,918.8	NOT APPL.	$1,512.2	NOT APPL.	$241.4	$4,185.9

CASE III-B: High Income Low Expenditure Model (Permanent Fund Earnings Allocated to General Fund Revenue)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 50% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 336.0	$ 847.4	$ 853.8	$102.9	$ 105.3	$ 0.0	$ 0.0	$ 542.1
1979	827.0	47.4	364.7	1,239.1	917.8	232.1	337.4	23.2	23.2	539.1
1980	1,029.6	44.5	417.8	1,491.9	986.6	294.4	631.8	29.4	52.6	631.2
1981	1,238.9	42.0	458.7	1,739.6	1,060.6	307.8	939.6	30.8	83.4	877.8
1982	1,491.2	39.2	486.7	2,017.1	1,140.2	341.1	1,280.8	34.1	117.5	1,274.9
1983	1,631.2	44.0	544.2	2,219.4	1,225.7	379.2	1,660.0	37.9	155.5	1,735.7
1984	1,780.7	46.6	627.3	2,454.6	1,317.6	419.5	2,079.5	42.0	197.4	2,411.2
1985	1,890.4	44.9	732.5	2,667.8	1,416.4	439.3	2,518.9	43.9	241.4	3,179.3
TOTAL	$10,349.7	$359.5	$3,967.8	$14,676.9	$8,918.8	NOT APPL.	$2,518.9	NOT APPL.	$241.4	$3,179.3

CASE III-C: High Income Low Expenditure Model (Permanent Fund Earnings Allocated to General Fund Revenue)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 25% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$ 51.4	$ 53.9	$ 0.0	$ 0.0	$ 593.5
1979	827.0	47.4	362.8	1,237.2	917.8	116.0	171.8	23.2	23.2	704.6
1980	1,029.6	44.5	411.7	1,485.9	986.6	147.2	325.0	29.4	52.6	937.9
1981	1,238.9	42.0	447.3	1,728.2	1,060.6	153.9	490.3	30.8	83.4	1,327.0
1982	1,491.2	39.2	469.5	1,999.9	1,140.2	170.6	678.1	34.1	117.5	1,877.6
1983	1,631.2	44.0	520.5	2,195.7	1,225.7	189.6	891.4	37.9	155.5	2,504.2
1984	1,780.7	46.6	596.1	2,423.4	1,317.6	209.8	1,132.4	42.0	197.4	3,358.3
1985	1,890.4	44.9	692.9	2,628.2	1,416.4	219.7	1,391.7	43.9	241.4	4,306.5
TOTAL	$10,349.7	$359.5	$3,836.7	$14,545.9	$8,918.8	NOT APPL.	$1,391.7	NOT APPL.	$241.4	$4,306.5

CASE III-D: High Income Low Expenditure Model (50% of Permanent Fund Earnings are Reinvested in the Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 30% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$ 61.7	$ 64.2	$ 0.0	$ 0.0	$ 583.2
1979	827.0	47.4	362.4	1,236.9	917.8	139.2	205.7	23.2	23.2	670.7
1980	1,029.6	44.5	410.6	1,484.7	986.6	176.7	389.5	29.4	52.6	873.4
1981	1,238.9	42.0	445.0	1,726.0	1,060.6	184.7	587.9	30.8	83.4	1,229.5
1982	1,491.2	39.2	466.1	1,996.5	1,140.2	204.7	813.1	34.1	117.5	1,742.5
1983	1,631.2	44.0	515.8	2,191.0	1,225.7	227.5	1,069.1	37.9	155.5	2,326.5
1984	1,780.7	46.6	589.9	2,417.2	1,317.6	251.7	1,358.3	42.0	197.4	3,132.4
1985	1,890.4	44.9	685.0	2,620.3	1,416.4	263.6	1,669.4	43.9	241.4	4,028.7
TOTAL	$10,349.7	$359.5	$3,810.7	$14,519.8	$8,918.8	NOT APPL.	$1,669.4	NOT APPL.	$241.4	$4,028.7

CASE III-E: High Income Low Expenditure Model (50% of Permanent Fund Earnings are Reinvested in the Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978 - 1985 @ 50% PERMANENT FUND
(Figures in $ Millions)

F/Y	North Slope Revenue	Other Petroleum Revenue	Other Income	Total Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Balance	RRD Fund Contribution	RRD Fund Balance	General Fund Balance
1978	$ 460.6	$ 50.8	$ 335.9	$ 847.3	$ 853.8	$102.9	$ 105.4	$ 0.0	$ 0.0	$ 542.1
1979	827.0	47.4	361.0	1,235.4	917.8	232.1	341.1	23.2	23.2	535.3
1980	1,029.6	44.5	405.8	1,480.0	986.6	294.4	647.5	29.4	52.6	615.4
1981	1,238.9	42.0	436.0	1,716.9	1,060.6	307.8	978.0	30.8	83.4	839.4
1982	1,491.2	39.2	452.4	1,982.9	1,140.2	341.1	1,353.4	34.1	117.5	1,202.2
1983	1,631.2	44.0	496.9	2,172.1	1,225.7	379.2	1,780.0	37.9	155.5	1,615.7
1984	1,780.7	46.6	565.0	2,392.3	1,317.6	419.5	2,261.8	42.0	197.4	2,228.9
1985	1,890.4	44.9	653.4	2,588.7	1,416.4	439.3	2,780.3	43.9	241.4	2,917.8
TOTAL	$10,349.1	$359.5	$3,706.4	$14,415.5	$8,918.8	NOT APPL.	$2,780.3	NOT APPL.	$241.4	$2,917.8

CASE III-F: High Income Low Expenditure Model (50% of Permanent Fund Earnings are Reinvested in the Permanent Fund)

Prepared by:
Legislative Affairs Agency
Research Division
16 November 1977

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

MEMORANDUM July 7, 1977

SUBJECT: Permanent Fund and Revenue Forecasts

TO: Hon. Clark Gruening, Chairman, House Permanent Fund Committee

FROM: Richard G. Haggart
Research Analyst

Enclosed are five (5) copies of our analysis of the State of Alaska's revenue outlook, and associated effects on the Permanent Fund. As you requested, the analysis is divided into three "cases": Case I which postulates low petroleum income coupled with high state expenditure levels, Case II which postulates moderate or "concensus" levels of petroleum income and expenditures, and Case III, which postulates relatively high petroleum income and relatively low state expenditure levels.

Each of the three Cases has four separate sheets -- one each for Permanent Fund contribution levels of 25%, 50%, 75% and 100% respectively. Because the computer print-outs and the Case titles are somewhat unobtrusive you should caution anyone reproducing the material to be sure they are assembled in the proper order, to avoid any potential confusion.

Obviously, a number of assumptions went into the three case studies. These assumptions are contained in a supplemental memorandum which is now being prepared and which will be forwarded to you as soon as it is complete. Because of the complex nature of these forecasts, as well as the numerous assumptions that went into them, we believe it would be very desireable to include the supplemental material when the forecasts are distributed, at least as appendices. The objective here would be to allow those who are interested to reconstruct our work and satisfy any curiousity that might exist regarding methodology.

If you have any further questions let us know. In the meantime, Gregg, John and I look forward to seeing you and the Committee in Anchorage on the 15th.

RGH:dh
Enclosures

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 [illegible]

(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$81.0	$83.4	$726.0
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$90.3	$173.8	$747.9
1980	$618.7	$44.5	$193.2	$59.0	$302.4	$1,217.9	$1,033.1	$96.1	$269.9	$836.7
1981	$741.0	$41.9	$226.7	$72.2	$322.0	$1,403.9	$1,136.4	$100.6	$370.6	$1,003.6
1982	$803.2	$39.2	$251.8	$87.2	$315.2	$1,496.7	$1,250.1	$107.7	$478.3	$1,142.5
1983	$839.3	$43.9	$257.0	$99.9	$324.5	$1,564.7	$1,375.1	$116.7	$595.1	$1,215.4
1984	$894.2	$46.6	$261.4	$109.8	$349.4	$1,661.5	$1,512.6	$122.5	$717.5	$1,241.8
1985	$918.3	$44.8	$295.9	$116.8	$379.3	$1,755.2	$1,663.8	$127.7	$845.3	$1,205.6
TOTAL	$5,791.0	$359.5	$1,824.9	$640.1	$2,478.8	$11,094.4	$9,764.1	NOT APPL.	$845.3	$1,205.6

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 50% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$162.1	$164.5	$644.9
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$180.6	$345.2	$576.5
1980	$618.7	$44.5	$193.2	$59.0	$302.4	$1,217.9	$1,033.1	$192.2	$537.5	$569.1
1981	$741.0	$41.9	$226.7	$72.2	$322.0	$1,403.9	$1,136.4	$201.3	$738.8	$635.4
1982	$803.2	$39.2	$251.8	$87.2	$315.2	$1,496.7	$1,250.1	$215.5	$954.3	$666.6
1983	$839.3	$43.9	$257.0	$99.9	$324.5	$1,564.7	$1,375.1	$233.4	$1,187.8	$622.7
1984	$894.2	$46.6	$261.4	$109.8	$349.4	$1,661.5	$1,512.6	$245.1	$1,432.9	$526.5
1985	$918.3	$44.8	$295.9	$116.8	$379.3	$1,755.2	$1,663.8	$255.4	$1,688.3	$362.6
TOTAL	$5,791.0	$359.5	$1,824.9	$640.1	$2,478.8	$11,094.4	$9,764.1	NOT APPL.	$1,688.3	$362.6

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 [illegible]

(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$243.2	$245.6	$563.9
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$271.0	$516.6	$405.1
1980	$618.7	$44.5	$193.2	$59.0	$302.4	$1,217.9	$1,033.1	$288.4	$805.0	$301.6
1981	$741.0	$41.9	$226.7	$72.2	$322.0	$1,403.9	$1,136.4	$301.9	$1,107.0	$267.2
1982	$803.2	$39.2	$251.8	$87.2	$315.2	$1,496.7	$1,250.1	$323.2	$1,430.2	$190.6
1983	$839.3	$43.9	$257.0	$102.3	$324.5	$1,567.1	$1,307.5	$350.2	$1,780.5	$100.0
1984	$894.2	$46.6	$261.4	$123.8	$349.4	$1,675.5	$1,307.8	$367.6	$2,148.1	$100.0
1985	$918.3	$44.8	$295.9	$146.3	$379.3	$1,784.8	$1,401.6	$383.1	$2,531.3	$100.0
TOTAL	$5,791.0	$359.5	$1,824.9	$686.1	$2,478.8	$11,140.4	$9,229.7	NOT APPL.	$2,531.3	$100.0

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$324.3	$326.7	$482.8
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$361.3	$688.0	$233.7
1980	$618.7	$44.5	$193.2	$58.8	$302.4	$1,217.7	$966.9	$384.5	$1,072.6	$100.0
1981	$741.0	$41.9	$226.7	$82.4	$322.0	$1,414.1	$1,011.5	$402.6	$1,475.2	$100.0
1982	$803.2	$39.2	$251.8	$107.4	$315.2	$1,516.9	$1,085.9	$431.0	$1,906.2	$100.0
1983	$839.3	$43.9	$257.0	$134.3	$324.5	$1,599.1	$1,132.2	$466.9	$2,373.2	$100.0
1984	$894.2	$46.6	$261.4	$163.1	$349.4	$1,714.8	$1,224.5	$490.2	$2,863.4	$100.0
1985	$918.3	$44.8	$295.9	$193.1	$379.3	$1,831.6	$1,320.6	$510.9	$3,374.3	$100.0
TOTAL	$5,791.0	$359.5	$1,824.9	$834.3	$2,478.8	$11,288.5	$8,534.9	NOT APPL.	$3,374.3	$100.0

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 [illegible]

(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$482.8	$50.8	$168.3	$45.4	$225.8	$973.2	$853.8	$86.3	$83.7	$751.3
1979	$678.0	$47.4	$170.6	$57.5	$260.2	$1,213.8	$917.8	$119.8	$208.6	$927.5
1980	$917.1	$44.5	$193.2	$82.2	$302.4	$1,539.5	$986.6	$140.4	$349.1	$1,340.0
1981	$1,107.0	$41.9	$226.7	$120.4	$322.0	$1,818.2	$1,060.6	$153.2	$502.3	$1,944.4
1982	$1,205.6	$39.2	$251.8	$166.9	$315.2	$1,978.8	$1,140.2	$166.4	$668.7	$2,616.6
1983	$1,348.3	$43.9	$257.0	$219.5	$324.5	$2,193.4	$1,225.7	$186.7	$855.5	$3,397.6
1984	$1,421.0	$46.6	$261.4	$278.0	$349.4	$2,356.4	$1,317.6	$197.1	$1,052.6	$4,239.3
1985	$1,535.6	$44.8	$295.9	$342.6	$379.3	$2,598.3	$1,416.4	$212.6	$1,265.3	$5,208.6
TOTAL	$8,695.7	$359.5	$1,824.9	$1,313.0	$2,478.8	$14,671.9	$8,918.7	NOT APPL.	$1,265.3	$5,208.6

CASE II: Medium Income-Medium Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 50% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$482.8	$50.8	$168.3	$45.4	$225.8	$973.2	$853.8	$172.7	$175.1	$664.9
1979	$678.0	$47.4	$170.6	$57.5	$260.2	$1,213.8	$917.8	$239.7	$414.9	$721.2
1980	$917.1	$44.5	$193.2	$82.2	$302.4	$1,539.5	$986.6	$280.9	$655.8	$993.2
1981	$1,107.0	$41.9	$226.7	$120.4	$322.0	$1,818.2	$1,060.6	$306.4	$1,002.3	$1,444.4
1982	$1,205.6	$39.2	$251.8	$166.9	$315.2	$1,978.8	$1,140.2	$332.8	$1,335.1	$1,550.2
1983	$1,348.3	$43.9	$257.0	$219.5	$324.5	$2,193.4	$1,225.7	$373.4	$1,708.6	$2,544.5
1984	$1,421.0	$46.6	$261.4	$278.0	$349.4	$2,356.4	$1,317.6	$394.2	$2,102.8	$3,199.1
1985	$1,535.6	$44.8	$295.9	$342.6	$379.3	$2,598.3	$1,416.4	$425.3	$2,528.2	$3,945.7
TOTAL	$8,695.7	$359.5	$1,824.9	$1,313.0	$2,478.8	$14,671.9	$8,918.7	NOT APPL.	$2,528.2	$3,945.7

CASE II: Medium Income-Medium Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING [illegible]
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$482.8	$50.8	$168.3	$45.4	$225.8	$973.2	$853.8	$345.4	$347.8	$492.2
1979	$678.0	$47.4	$170.6	$57.5	$260.2	$1,213.8	$917.8	$479.5	$827.4	$308.7
1980	$917.1	$44.5	$193.2	$82.2	$302.4	$1,539.5	$986.6	$561.9	$1,389.3	$299.2
1981	$1,107.0	$41.9	$226.7	$120.4	$322.0	$1,818.2	$1,060.6	$612.8	$2,002.2	$444.5
1982	$1,205.6	$39.2	$251.8	$166.9	$315.2	$1,978.8	$1,140.2	$665.7	$2,667.9	$617.4
1983	$1,348.3	$43.9	$257.0	$219.5	$324.5	$2,193.4	$1,225.7	$746.8	$3,414.8	$838.2
1984	$1,421.0	$46.6	$261.4	$278.0	$349.4	$2,356.4	$1,317.6	$788.4	$4,203.3	$1,088.6
1985	$1,535.6	$44.8	$295.9	$342.6	$379.3	$2,598.3	$1,416.4	$850.7	$5,054.1	$1,419.8
TOTAL	$8,695.7	$359.5	$1,824.9	$1,313.0	$2,478.8	$14,671.9	$8,918.7	NOT APPL.	$5,054.1	$1,419.8

CASE II: Medium Income-Medium Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 75% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$482.8	$50.8	$168.3	$45.4	$225.8	$973.2	$853.8	$259.1	$261.5	$578.6
1979	$678.0	$47.4	$170.6	$57.5	$260.2	$1,213.8	$917.8	$359.6	$621.1	$515.0
1980	$917.1	$44.5	$193.2	$82.2	$302.4	$1,539.5	$986.6	$421.4	$1,042.6	$646.5
1981	$1,107.0	$41.9	$226.7	$120.4	$322.0	$1,818.2	$1,060.6	$459.6	$1,502.2	$944.5
1982	$1,205.6	$39.2	$251.8	$166.9	$315.2	$1,978.8	$1,140.2	$499.3	$2,001.5	$1,283.8
1983	$1,348.3	$43.9	$257.0	$219.5	$324.5	$2,193.4	$1,225.7	$560.1	$2,561.7	$1,691.3
1984	$1,421.0	$46.6	$261.4	$278.0	$349.4	$2,356.4	$1,317.6	$591.3	$3,153.1	$2,138.8
1985	$1,535.6	$44.8	$295.9	$342.6	$379.3	$2,598.3	$1,416.4	$638.0	$3,791.2	$2,682.7
TOTAL	$8,695.7	$359.5	$1,824.9	$1,313.0	$2,478.8	$14,671.9	$8,918.7	NOT APPL.	$3,791.2	$2,682.7

CASE II: Medium Income-Medium Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 25% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$523.2	$50.8	$168.3	$46.6	$225.8	$1,014.8	$853.8	$93.5	$95.9	$785.7
1979	$769.5	$47.4	$170.6	$61.7	$260.2	$1,309.4	$954.1	$136.1	$232.1	$1,004.9
1980	$1,172.6	$44.5	$193.2	$95.2	$302.4	$1,808.0	$1,012.5	$173.2	$405.4	$1,627.2
1981	$1,355.6	$41.9	$226.7	$147.6	$322.0	$2,094.0	$1,091.2	$187.3	$592.3	$2,442.6
1982	$1,542.0	$39.2	$251.8	$211.6	$315.2	$2,359.9	$1,163.7	$212.4	$805.3	$3,426.3
1983	$1,882.6	$43.9	$257.0	$296.0	$324.5	$2,804.1	$1,103.7	$260.0	$1,065.3	$4,866.7
1984	$2,149.3	$46.6	$261.4	$406.3	$349.4	$3,213.1	$1,126.4	$297.0	$1,362.4	$6,656.4
1985	$2,325.9	$44.8	$295.9	$536.7	$379.3	$3,582.8	$1,191.4	$320.9	$1,683.3	$8,726.9
TOTAL	$11,721.1	$359.5	$1,824.9	$1,802.0	$2,478.8	$18,186.4	$8,4[illegible].8	NOT APPL.	$1,683.3	$2,726.9

CASE III: High Income-Low Expenditure Model
(See Notes for Explanation of Assumptions)

Prepared by:

Legislative Affairs Agency
Research Division
July 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 50% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$523.2	$50.8	$168.3	$46.6	$225.8	$1,014.8	$853.8	$187.1	$189.5	$692.2
1979	$769.5	$47.4	$170.6	$61.7	$260.2	$1,309.4	$954.1	$272.3	$461.9	$775.2
1980	$1,172.6	$44.5	$193.2	$95.2	$302.4	$1,808.0	$1,012.5	$346.4	$808.4	$1,224.2
1981	$1,355.6	$41.9	$226.7	$147.6	$322.0	$2,094.0	$1,091.2	$374.7	$1,183.2	$1,852.2
1982	$1,542.0	$39.2	$251.8	$211.6	$315.2	$2,359.9	$1,163.7	$424.9	$1,608.2	$2,623.4
1983	$1,882.6	$43.9	$257.0	$296.0	$324.5	$2,804.1	$1,103.7	$520.0	$2,128.3	$3,803.3
1984	$2,149.3	$46.6	$261.4	$406.3	$349.4	$3,213.1	$1,126.4	$594.1	$2,722.4	$5,296.4
1985	$2,325.9	$44.8	$295.9	$536.7	$379.3	$3,582.8	$1,191.4	$641.9	$3,364.3	$7,045.9
TOTAL	$11,721.1	$359.5	$1,824.9	$1,802.0	$2,478.8	$18,186.4	$8,496.8	NOT APPL.	$3,364.3	$7,045.9

CASE III: High Income-Low Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ [illegible] PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$523.2	$50.8	$168.3	$46.6	$225.8	$1,014.8	$853.8	$280.7	$283.1	$598.6
1979	$769.5	$47.4	$170.6	$61.7	$260.2	$1,309.4	$954.1	$408.5	$691.7	$545.4
1980	$1,172.6	$44.5	$193.2	$95.2	$302.4	$1,808.0	$1,012.5	$519.7	$1,211.4	$221.2
1981	$1,355.6	$41.9	$226.7	$147.6	$322.0	$2,094.0	$1,091.2	$562.1	$1,773.6	$1,261.8
1982	$1,542.0	$39.2	$251.8	$211.6	$315.2	$2,359.9	$1,163.7	$637.4	$2,411.1	$1,820.5
1983	$1,882.6	$43.9	$257.0	$296.0	$324.5	$2,804.1	$1,103.7	$780.1	$3,191.2	$2,740.8
1984	$2,149.3	$46.6	$261.4	$406.3	$349.4	$3,213.1	$1,126.4	$891.2	$4,082.4	$3,936.3
1985	$2,325.9	$44.8	$295.9	$536.7	$379.3	$3,582.8	$1,191.4	$962.8	$5,045.3	$5,364.9
TOTAL	$11,721.1	$359.5	$1,824.9	$1,802.0	$2,478.8	$18,186.4	$8,496.8	NOT APPL.	$5,045.3	$5,364.9

CASE III: High Income-Low Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 100% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$523.2	$50.8	$168.3	$46.6	$225.8	$1,014.8	$853.8	$374.3	$376.7	$505.0
1979	$769.5	$47.4	$170.6	$61.7	$260.2	$1,309.4	$954.1	$544.7	$921.4	$315.6
1980	$1,172.6	$44.5	$193.2	$95.2	$302.4	$1,808.0	$1,012.5	$692.9	$1,614.4	$418.1
1981	$1,355.6	$41.9	$226.7	$147.6	$322.0	$2,094.0	$1,091.2	$749.5	$2,364.0	$671.4
1982	$1,542.0	$39.2	$251.8	$211.6	$315.2	$2,359.9	$1,163.7	$849.9	$3,214.0	$1,017.6
1983	$1,832.6	$43.9	$257.0	$296.0	$324.5	$2,804.1	$1,103.7	$1,040.1	$4,254.2	$1,677.9
1984	$2,149.3	$46.6	$261.4	$406.3	$349.4	$3,213.1	$1,126.4	$1,188.3	$5,442.5	$2,576.3
1985	$2,325.9	$44.8	$295.9	$536.7	$379.3	$3,582.8	$1,191.4	$1,283.8	$6,726.3	$3,683.9
TOTAL	$11,721.1	$359.5	$1,824.9	$1,802.0	$2,478.8	$18,186.4	$8,496.8	NOT APPL.	$6,726.3	$3,683.9

CASE III: High Income-Low Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

STATE OF ALASKA
THE LEGISLATURE

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

Dick Haggert

M E M O R A N D U M July 15, 1977

SUBJECT: Revenue & Permanent Fund Impacts of Pipeline Throughput Delays

TO: The Honorable Clark Gruening, Chairman
House Permanent Fund Committee

FROM: Richard G. Haggart RGH
Research Analyst

This memorandum is in response to a request from Mr. Brian Rogers of your staff that we prepare an analysis of the financial impact on the state of Alaska resulting from the recent trans-Alaska pipeline system explosion. A series of possible effects, depending on the length of the delay are set forward in the attached tables. However, after discussions with both oil and government officials concerned with the pipeline, we believe the most likely outcome will be a delay of between 3 and 6 months in getting Pump Station No. 8 back in service. Consequently, the impact on state revenues is likely to fall somewhere between the 3 and 6 month delay cases contained in the tables.

Tables I-IV are based on assumed Permanent Fund contribution levels of 25%, 50%, 75% and 100% respectively, and show the effects of 3, 6 and 9 month delays in getting Pump Station No. 8 back into service, as compared with a "no delay" base case. Impact of the delay on state revenue will be twofold:

(1) throughput in FY 1978 will decline over previously forecast levels, thus reducing state revenues, and

(2) because of increased costs due to the explosion, as well as lowered throughput rates, the North Slope companies are eligible to request tariff relief from the Interstate Commerce Commission (ICC). Such relief would adversely affect the wellhead value of North Slope oil for Alaska royalty and tax purposes.

According to the Alyeska Pipeline Company, it will be at least "several months" before the pump station is repaired. Until then, pipeline capacity will be limited to 800,000 bbl/d. We have also assumed a 2 week delay in restarting production, after which production will buildup at previously forecast rates of about 150,000 bbl/d per month. For purposes of analysis the "delay period" is assumed to begin on August 1, 1977 and overall through-put levels are effected depending on the length of the delay.

Average daily production under the 4 scenarios during FY 1978 is assumed to be:

No Delay:	940,000 bbl/d
3 Month Delay:	881,670 bbl/d
6 Month Delay:	819,167 bbl/d
9 Month Delay:	719,167 bbl/d

It should be noted that the "no delay" scenario production level is somewhat higher than that contained in our Revenue and Permanent Fund Forecast of July 7, 1977 (production was estimated to be approximately 929,000 bbl/d for 1978). This is a result of updated data from the Department of Revenue.

While the North Slope companies <u>may</u> file for revised tariff rates, it is by no means certain that they <u>will</u> actually do so, nor is the ICC obligated to approve such revised rates. According to ICC personnel there will probably be some minor adjustment of the final tariff rate reflecting the increased costs of building a new pump station. They estimate this to be about $0.02 per barrel, and could be included in a revised interim tariff if the companies apply, or in the long term tariff which the ICC will set after consideration of the current case. Likewise, the impact of lower throughput rates due to the delay could appear either in a revised interim tariff or in the final ICC approved tariff. According to the ICC a "fair" adjustment to the tariff for this factor would account for the difference in throughput resulting from the explosion over about a 5-year period. Under our three delay scenarios, 5 year production would decline from previously forecast levels about 2.5% for a 3 month delay, 5.0% for a 6 month delay, and about 9.0% for a 9 month delay.

As was stated earlier, it is not yet possible to determine if short-term tariff rate adjustments will result from the explosion. However, for purposes of this analysis, such adjustments were assumed to occur only in fiscal 1978 although there is a good possibility that the financial effects for the state (due to lower wellhead values) may occur, toward the end of fiscal 1978 and/or in fiscal 1979.

Using the production decline rates outlined above, the following tariffs were calculated (including the $0.02 per barrel increase in equipment valuation): $5.04 per barrel for a 3 month delay, $5.17 per barrel for a 6 month delay, and $5.40 per barrel for a 9 month delay.

The impact of these revised tariff rates on wellhead values was calculated using data from Case II (Medium Income-Medium Expenditure Model) provided to you on July 7, 1977. The resulting wellhead prices for Prudhoe Bay are $7.21 per barrel for a 3 month delay, $7.08 per barrel for a 6 month delay and $6.85 per barrel for a 9 month delay.

Other data and assumptions contained in Tables I-IV were taken from Case II of our July 7 memorandum with the following exceptions:

1) State income tax collections from the North Slope companies were assumed to be the same percentage lower than forecast levels as is oil production for the year. Hence, with oil production with a 3 month delay estimated to be 6.0% lower than previously forecast, state income taxes collections from the North Slope are likewise lowered about 6.0%.

2) State collections from the oil and gas property tax are assumed to be about $1 million lower in case of either 6 or 9 month delays, reflecting the fact that Pump Station No. 8 will not be in service as of the January assessment date for such properties.

RH:dh
Attachments

Table I

Pipeline Thru-Put Delay Scenarios FY 1978: 25% Permanent Fund
($ Million)

Delay Period	Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Bal.	General Fund Bal.
No Delay:	$978.5	$853.8	$87.2	$89.6	$755.7
3 Months:	$939.3	$853.8	$80.9	$83.3	$722.8
6 Months:	$897.2	$853.8	$74.6	$77.0	$687.1
9 Months:	$835.9	$853.8	$64.6	$67.0	$635.7

Table II

Pipeline Thru-Put Delay Scenarios FY 1978: 50% Permanent Fund
($ Million)

Delay Period	Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Bal.	General Fund Bal.
No Delay:	$978.5	$853.8	$174.4	$176.8	$668.5
3 Months:	$939.3	$853.8	$161.8	$164.2	$641.9
6 Months:	$897.2	$853.8	$149.2	$151.6	$612.5
9 Months:	$835.9	$853.8	$129.2	$131.6	$571.1

Prepared by:
Legislative Affairs Agency
Research Division
14 July 1977

Table III

Pipeline Thru-Put Delay Scenarios FY 1978: 75% Permanent Fund
($ Million)

Delay Period	Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Bal.	General Fund Bal.
No Delay:	$978.5	$853.8	$268.8	$271.2	$576.5
3 Months:	$939.3	$853.8	$249.9	$252.3	$556.2
6 Months:	$897.2	$853.8	$231.0	$233.4	$533.1
9 Months:	$835.9	$853.8	$193.8	$196.2	$506.5

Table IV

Pipeline Thru-Put Delay Scenarios FY 1978: 100% Permanent Fund
($ Million)

Delay Period	Revenue	Expenditures	Permanent Fund Contribution	Permanent Fund Bal.	General Fund Bal.
No Delay:	$978.5	$853.8	$348.8	$351.2	$494.1
3 Months:	$939.3	$853.8	$323.6	$326.0	$480.1
6 Months:	$897.2	$853.8	$298.4	$300.8	$463.3
9 Months:	$835.9	$853.8	$258.4	$260.8	$441.9

Prepared by:
Legislative Affairs Agency
Research Division
14 July 1977

STATE OF ALASKA
THE LEGISLATURE
LEGISLATIVE AFFAIRS AGENCY

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

MEMORANDUM

SUBJECT: Underlying Data for Revenue and Permanent Fund Forecasts

TO: The Honorable Clark Gruening, Chairman
House Permanent Fund Committee

FROM: Richard G. Haggart RGH
Research Analyst

This memorandum contains the supplemental material outlining the assumptions and data which were used to calculate the revenue and Permanent Fund forecasts contained in our memorandum of July 7, 1977.

The information is set forward in four tables with accompanying footnotes. Table I contains that information and data which is common to all three cases studied. Tables II-IV contain information and data which are unique to Cases I-III respectively.

As you may have noted, the revenue and Permanent Fund estimates transmitted to you on July 7, 1977 contained no specific references to the Renewable Resources Development Fund. This was intentional and reflects considerable uncertainty regarding legal and management prospects for the Fund. In Cases II and III, the existance of the Fund is subsumed in the large General Fund balances which exist. In Case I, in instances where revenue demands deplete the General Fund balance to the $100 million minimum limit established in the model, further reductions in state expenditures would be necessary if contributions to the Renewable Resources Development Fund were to be maintained. In all other Case I instances, the effects of payments to the Fund would also be subsumed in large General Fund balances.

DH;dh
Attachments

Table I

Variable Inputs Common to Cases I-III

	1978	1979	1980	1981	1982	1983	1984	1985
Floor Price for Oil Severance Taxes[1] ($/Bbl.)	$6.53	$6.53	$7.18	$7.18	$7.90	$7.90	$8.69	$8.69
Oil & Gas Property Tax[2] ($MM)	$168.3	$170.6	$193.2	$226.7	$251.8	$257.0	$261.4	$295.5
Other Revenue[3] ($MM)	$225.8	$260.2	$302.4	$322.0	$315.2	$324.5	$349.4	$379.3
Natural Gas Sales[4] (MM/Mcf)	17.0	20.4	26.4	34.0	37.6	111.6	117.4	122.0
Weighted Average Price[5] (¢/Mcf)	39.8	39.8	41.6	44.2	46.8	50.9	73.1	77.1
Cook Inlet Oil Royalties[6] ($MM)	$33.1	$31.3	$29.5	$27.9	$26.4	$24.6	$22.9	$21.2
Cook Inlet Oil Severance Taxes[7] ($MM)	$16.3	$14.4	$12.7	$10.9	$ 9.1	$ 7.3	$ 5.5	$ 3.7

Prepared by:
Legislative Affairs Agency
Research Division
14 July 1977

Table II

Variable Inputs to Case I

	1978	1979	1980	1981	1982	1983	1984	1985
Annual North Slope Oil Production[1] (MM/Bbls.)	339.1	438.0	438.0	438.0	438.0	438.0	438.0	438.0
Los Angeles Refinery Price[2] ($/Bbl.)	$13.75	$13.91	$14.26	$14.61	$14.98	$15.35	$15.74	$16.13
Trans-Alaska Pipeline Tariff[3] ($/Bbl.)	$ 4.90	$ 5.40	$ 5.30	$ 5.20	$ 5.10	$ 5.00	$ 4.90	$ 4.90
Lower-48 Transportation Charges[4] ($/Bbl.)	$ 2.00	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50
Wellhead Value[5] ($/Bbl.)	$ 6.85	$ 6.01	$ 6.46	$ 6.81	$ 7.35	$ 7.95	$ 8.34	$ 8.73
North Slope Related Income Tax Receipts[6] ($MM)	$46.0	$50.0	$51.0	$52.0	$53.0	$54.0	$55.0	$56.0
State Expenditures[7] ($MM)	$853.8	$939.2	$1033.1	$1136.4	$1250.1	$1375.1	$1512.6	$1663.8

Prepared by:
Legislative Affairs Agency
Research Division
14 July 1977

Table III

Variable Inputs to Case II

	1978	1979	1980	1981	1982	1983	1984	1985
Annual North Slope Oil Production[1] (MM/Bbls.)	339.1	474.5	547.5	547.5	547.5	547.5	547.5	547.5
Los Angeles Refinery Price[2] ($$/Bbl.)	$13.75	$14.44	$15.16	$15.92	$16.71	$17.55	$18.43	$19.35
Trans-Alaska Pipeline Tariff[3] ($/Bbl.)	$ 4.90	$ 4.90	$ 4.90	$ 4.90	$ 4.90	$ 4.90	$ 4.90	$ 4.90
Lower-48 Transportation Charge[4]	$ 1.50	$ 2.00	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50
Wellhead Value[5]	$ 7.35	$ 7.54	$ 7.76	$ 8.52	$ 9.31	$10.45	$11.03	$11.95
North Slope Related Income Tax Receipts[6] ($MM)	$46.0	$51.0	$54.0	$55.0	$56.0	$58.0	$59.0	$60.0
State Expenditures[7] ($MM)	$853.8	$917.8	$986.6	$1060.6	$1140.2	$1225.7	$1317.6	$1416.4

Prepared by:
Legislative Affairs Agency
Research Division
14 July 1977

Table IV

Variable Inputs to Case III

	1978	1979	1980	1981	1982	1983	1984	1985
Annual North Slope Oil Production[1] (MM/Bbls.)	339.1	474.5	584.0	584.0	620.5	657.0	693.5	693.5
Los Angeles Refinery Price[2] ($/Bbl.)	$14.07	$14.97	$15.83	$16.74	$17.70	$18.72	$19.79	$20.94
Trans-Alaska Pipeline Tariff[3] ($/Bbl.)	$ 4.90	$ 4.90	$ 4.90	$ 4.90	$ 4.90	$ 4.90	$ 4.90	$ 4.90
Lower-48 Transportation Charge[4]	$ 1.14	$ 1.43	$ 1.86	$ 1.98	$ 2.14	$ 1.54	$ 1.57	$ 1.61
Wellhead Value[5]	$ 8.03	$ 8.64	$ 9.07	$ 9.86	$10.59	$12.28	$13.32	$14.43
North Slope Related Income Tax Receipts[6] ($MM)	$46.0	$51.0	$54.0	$57.0	$60.0	$63.0	$66.0	$69.0
State Expenditures[7] ($MM)	$853.8	$954.1	$1012.5	$1091.2	$1163.7	$1103.7	$1126.4	$1191.4

Prepared by:
Legislative Affairs Agency
Research Division
14 July 1977

Footnotes to Table I

(Variables unique to Cases I-III)

[1]The floor price for oil severance tax purposes is assumed to be raised 10% every two years, by legislative action.

[2]Oil and gas property taxes are taken from the Department of Revenue study, Alaska's Oil and Gas Tax Structure: A Study With Recommendations, assuming construction of the Alcan natural gas pipeline by 1983.

[3]Ibid.

[4]Natural gas production estimates are taken from Department of Revenue data provided to the Legislative Affairs Agency.

[5]Ibid.

[6]Cook Inlet royalties were calculated by the Legislative Affairs Agency's Severance Tax Simulation Model.

[7]Ibid.

Footnotes to Table II

(Variables unique to Case I)

[1]North Slope oil production is assumed to average 929,000 bbl/d. in 1978 (or 339.1 million barrels annually). This production is taken from Department of Revenue sources. Production beyond 1978 is assumed to rise to 1.2 million bbl/d in 1979 and remain at this level (483.0 million barrels annually) through 1985. This level of production assumes that the North Slope companies choose not to develop additional (and more expensive) reservoir capacity in and around Prudhoe Bay.

[2]The Los Angeles refinery price in 1978 is assumed to be $13.75 per barrel. This price is about $0.25 to $0.50 below the refiner acquisition price for imported crude oil of similar quality, reflecting the assumed necessity of the North Slope companies to offer discounts on Alaskan oil in order to penetrate west coast markets. Beyond 1978, the Los Angeles refinery price is assumed to rise at a rate of 2.5% annually, reflecting the possibility of a low rate of price increase by the Organization of Petroleum Exporting Countries (OPEC).

[3]The Trans-Alaska pipeline tariff in 1978 is set at $4.90 per barrel, based on the recent decision by the Interstate Commerce Commission (ICC). In 1979, however, the tariff rate is increased to $5.40 per barrel, assuming a partial reversal of position by the ICC. In subsequent years, the tariff declines at a rate of $0.10 per barrel annually, until the "long-term" rate of $4.90 per barrel is reached in 1984. The tariff remains at that level through 1985.

[4]Lower-48 transportation charges are assumed to be $2.00 per barrel in 1978, and $2.50 per barrel in subsequent years. These charges represent an aggressive attempt by the North Slope companies to transfer income and profits away from the wellhead (where Alaska taxes are imposed) and into transportation or other areas which are less heavily taxed.

[5]The wellhead values are calculated by subtracting the Trans-Alaska pipeline tariff and the lower-48 transportation charges from the Los Angeles sales price.

[6]North Slope related income tax receipts for 1978 are taken from the Department of Revenue's study, Alaska's Oil and Gas Tax Structure: A Study With Recommendations. Receipts are assumed to increase to $50.0 million in 1979, and increase $1.0 million annually in subsequent years. These rates of increase are below those forecast by the Department of Revenue, and reflect the lower production and wellhead price assumptions contained in Case I.

[7]State expenditures for 1978 are assumed to be $853.8 million and are taken from the Department of Revenue, *loc. cit.* In subsequent years, expenditures are assumed to increase at 10% annually. However, in instances where such increased expenditure levels would result in either a Permanent Fund contribution less than the specified amount, or in a General Fund

Footnotes to Table II cont.

balance of less than $100 million, expenditures are revised downward to meet these criteria. Thus, in Case I, with Permanent Fund contribution levels of 75% and 100%, <u>actual</u> expenditure levels in the model are, in some cases, <u>below</u> those <u>projected</u> in Table II.

Footnotes to Table III

(Variables unique to Case II)

[1]North Slope oil production is assumed to average 929,000 bbl/d in 1978 (or 339.1 million barrels annually), and 1.3 million bbl/d (474.5 million barrels annually) in 1979. These production levels are taken from Department of Revenue sources. Production in 1980 and subsequent years is assumed to be 1.5 million bbl/d (547.5 million barrels annually). This level of production assumes that some additional development of the Prudhoe Bay reservoir occurs, but that very deep and expensive drilling and development does not take place.

[2]The Los Angeles refinery price in 1978 is assumed to be $13.75 per barrel. As in Table II, this price is somewhat below the current price for imported crude oil of similar quality and reflects some discounting of Alaska oil to penetrate U.S. markets. Beyond 1978, Los Angeles sales prices are escalated at 5% annually, reflecting a rate of price increase by OPEC that is approximately equal to the general inflation rate.

[3]The Trans-Alaska pipeline tariff is assumed to be $4.90 per barrel over the entire period, assuming that the I.C.C. does not modify its recent decision.

[4]Lower-48 transportation charges in 1978 are $1.50 per barrel. This level represents a modest attempt by the North Slope companies to transfer profits away from the wellhead. In 1979, the charge is assumed to be $2.00 per barrel, reflecting increased volumes of Alaskan oil moving to U.S. Gulf Coast markets. For 1980 and subsequent years, the tariff is assumed to be $2.50 per barrel as a result both of company attempts to minimize the Alaskan wellhead price, and as a result of long-haul transportation charges to more distant markets.

[5]The wellhead values are calculated by subtracting the Trans-Alaska pipeline tariff and the lower-48 transportation charges from the Los Angeles sales price.

[6]North Slope related income tax receipts for the period 1978-1980 are taken from the Department of Revenue study, Alaska's Oil and Gas Tax Structure: A Study With Recommendations. Beyond 1980, receipts are assumed to increase $1 million annually in each year except 1982 when the increase is $2 million (the additional increase represents the beginning of North Slope natural gas sales). These increases are, however, below those contained in the Revenue study, reflecting the lower production and price assumptions contained in Case II.

[7]State expenditures for 1978 are assumed to be $853.8 million and are taken from the Department of Revenue, loc. cit. In subsequent years, expenditures are assumed to increase at 7.5% annually.

Footnotes to Table IV

(Variables unique to Case III)

[1]The annual production estimates contained in Table IV are taken from Department of Revenue sources.

[2]The Los Angeles sales prices contained in Table IV are taken from the Department of Revenue study, Alaska's Oil and Gas Tax Structure: A Study With Recommendations.

[3]The Trans-Alaska pipeline tariff is based on the recent I.C.C. decision.

[4]Lower-48 transportation charges are taken from the Department of Revenue, *loc. cit.*

[5]The wellhead values are calculated by subtracting the Trans-Alaska pipeline tariff and the lower-48 transportation charges from the Los Angeles sales price.

[6]The Prudhoe Bay related state income tax receipts in Table IV are taken from the Department of Revenue, *loc. cit.*

[7]Ibid.

LAA Research memos

STATE OF ALASKA
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POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

M E M O R A N D U M June 16, 1977

SUBJECT: Permanent Fund - Analysis of "Fiscal Tools"

TO: The Honorable Clark Gruening
Chairman
House Special Committee on the Alaska Permanent Fund

FROM: Richard Haggart
Research Analyst

This memorandum is in response to your request that we prepare:

1. A listing of the existing "fiscal tools"--state fiscal programs and debt instruments issued by the state--which are (or with minor modification could be made) eligible for investment of the Permanent Fund principal under the "income producing" criterion; and

2. An analysis of the "strengths and weaknesses" of each in terms of their appropriateness as components of a Permanent Fund strategy.

Basic to the problem presented us in making this analysis is the use of the term "fiscal tool" in the general outline prepared by the Division of Policy Development and Planning (DPDP), in their memorandum of May 6, 1977. Implicit in the concept of a "fiscal tool" is some idea of a job to be accomplished--clearly, a hammer is a "tool" but its utility--its "strengths and weaknesses"--can vary considerably, depending on whether the task at hand is brain surgery or house building.

Through this memorandum we have assumed that the "task at hand" for the Permanent Fund will be structured around some more or less explicit effort to shape the state's growth path. Consequently, we have used the terms "growth strategy" and "Permanent Fund strategy" interchangeably . In addition, many of our comments and observations regarding the "Permanent Fund" policy objectives are also applicable to the more general question of General Fund surpluses in years to come. And, in one sense, the "growth" impact effects of such General Fund surpluses may prove to be ever more critical in terms of state policy, because fewer constraints exist on how such money may be used.

Inescapable in this approach are some judgments about the sorts of growth strategies that are feasible (and thus worth analyzing) and the state's potential for general and sectorial economic development. The result is basically a "scenario" approach, based on a number of hopefully explicit assumptions. Obviously the analysis contained in Appendix II is only of limited usefulness if these judgments diverge significantly from those of the committee. The assumptions are as follows:

> Assumption No. 1: We assume that Alaska's long-run ability to sustain growth is limited, and that exclusive of Prudhoe Bay revenues, that limit is below growth rates which have occurred over the last decade.
>
> Assumption No. 2: We assume that uncontrolled investment of oil revenues in Alaska will result in economic growth that will not be wholly self-sustaining if and when petroleum-related revenue begins to decline in the mid-1980's.
>
> Assumption No. 3: Even if Alaska's non-oil economic potential were capable of being developed rapidly enough to replace oil revenues by the mid-to-late 1980's, such accelerated economic development would be undesirable from the standpoint of implicit social and quality-of-life objectives which are shared by most Alaskans.
>
> Assumption No. 4: Within the limitations set forth above, we assume that the objective of the Permanent Fund will be to (a) promote that economic development which is self-sustainable after oil revenues begin to decline, and (b) which is not inimical to quality-of-life objectives shared by Alaskans (i.e. wilderness, enviromental and recreational values).
>
> Assumption No. 5: Finally, we assume that to the degree that either Permanent Fund and/or General Fund revenues are in excess of the development objectives set forth in No. 4 above, that the excess revenues will be invested in a diversified and relatively riskless investment portfolio with the income accruing unencumbered to the General Fund.

The remainder of the memorandum consists of Appendices I and II attached. Appendix I provides a brief "laundry-list" of state programs which are eligible for Permanent Fund investment. Where possible, the descriptions and outline follow the format of the Executive Budget of the Governor. Appendix II contains a discussion of these programs by broad category, assuming that more specific programmatic analysis will be dependent on the assignment of more precise goals and objectives to Permanent Fund policy generally.

RGH:mo
Attachments

APPENDIX I

Specific State Programs Eligible for Permanent Fund Investment

In this part of the memorandum we briefly describe and comment on the state programs and activities which are potentially eligible for Permanent Fund investment support (i.e., they are "income producing"). A more generalized discussion of these program areas by type of activity appears in Appendix II of this memorandum.

For fairly obvious reasons, the outline of this discussion follows the Executive Budget--hence, debt service activities appear in several areas, depending on the program area being discussed. Finally, for purposes of this analysis no programs were included that would require major legislative modification in order to make Permanent Fund participation possible.

Category 1: Education

1. The Scholarship Loan Program provides loans to Alaskan residents for post-secondary vocational and academic training. The purpose of the program is to assist qualified Alaskans to secure a post-secondary education and to encourage them to remain in Alaska after completing their schooling. Up to \$2,500 per year is available to undergraduates and up to \$5,000 per year to graduate students. Loans must be repaid within six years of the termination of studies, and a maximum of 40 percent of a loan can be forgiven for five years' residence in Alaska after graduation. In fiscal 1976, 2,087 loans were made totaling \$3.8 million.

2. Debt service for education-related state bonding in fiscal 1976 totaled \$13.0 million, and is estimated to be \$17.2 million in fiscal 1977. Debt service costs under this category include payments on University of Alaska projects, general education which includes rural schools built with state funds, and payments on library facilities. Of the associated costs of debt service for education programs, all funding comes from the general fund with the exception of dedicated revenues from the cigarette tax which totaled \$475,000 annually through fiscal 1976 and is estimated to increase to \$500,000 in fiscal 1977.

Category 2: Social Services

1. Debt service on Pioneer Homes totaled \$765.9 thousand in fiscal 1976 and is estimated to increase to \$900.7 thousand in fiscal 1977.

Category 3: Health

1. Debt service for health care facilities for fiscal 1976 totaled $705.8 thousand. For fiscal 1977, debt service costs are estimated to be $1,170.9 thousand and to increase in fiscal 1978 to $1.7 million.

Category 4: Natural Resources Management and Environmental Conservation

1. The Fisheries Enhancement Revolving Loan Fund is designed to support loans to non-profit organizations or individuals for the development of hatcheries. The Department of Revenue is required to purchase all loans made under this program. To date, the program has made only one loan, to a regional organization, totaling $1.4 million. In addition, officials in the Department of Commerce and Economic Development indicate that "prospective" loans (meaning loans which have been extensively discussed, but have not necessarily been applied for) total about $3.5 million--two individual loans totaling about $500,000 and one large regional loan of $3 million--and that the FY 1978 total could go as high as $10 million.

2. Debt service for this category totaled $3.5 million in fiscal 1976 and is estimated to increase to $4.7 million in fiscal 1977 and $5.8 million in fiscal 1978. Sub-categories under this category of debt service include fish and game facilities, water and sewer, parks and recreation, and forest fire protection.

Category 5: Public Protection

1. Flood control and national guard facilities debt service under this category totaled $629,000 in 1976, and is estimated to increase to $737.5 thousand in fiscal 1977 and $743.8 thousand in fiscal 1978.

Category 6: Administration of Justice

1. Correctional facilities debt service under this category totaled $888.6 thousand in fiscal 1976, and is projected to increase to $959.5 thousand in fiscal 1977 and $953.1 thousand in fiscal 1978.

Category 7: Development

1. The Municipal Bond Bank Authority is an independent public corporation established by the 1975 legislature to assist communities in Alaska to develop needed public facilities by marketing general obligation bonds. The bond bank will purchase these bonds and offer its own revenue bonds to the public bond market. The revenue bonds will be secured by the credit of the municipality as well as by a bond reserve fund appropriated by the legislature. In fiscal 1977 it was estimated that the authority will sell bonds in the amount of $25 million.

2. The Division of Business Loans has the responsibility of administering five revolving loan funds and two public corporations: the Small Business Revolving Loan Fund; the Tourism Revolving Loan Fund; the Commercial Fishing Revolving Loan Fund; the Child Care Facilities Revolving Loan Fund; the Water Resources Revolving Loan Fund; the Alaska State Development Corporation; and the Small Business Development Corporation. The five loan funds enable qualified businesses and public utilities in their respective areas to obtain long-term financing for the primary purposes of developing, expanding or modernizing their operations. The Department of Revenue must purchase all loans made by the division. In addition to this, the division maintains for the Alaska State Development Corporation a loan portfolio in excess of $3 million as well as an investment portfolio exceeding $3.5 million. This corporation, however, is inactive and will dissolve in 1983. Finally, the Small Business Development Corporation grants loans in participation with the federal Small Business Administration under the "502" programs. These loans are high risk development loans and the SBDC portion is five percent of the total loan. According to state officials, the SBDC has not made a loan for two years, although one for "about $50,000" is now under consideration.

3. The Department of Commerce and Economic Development through their Division of Veterans Affairs maintains a Veterans Affairs Revolving Loan Fund for the purpose of making loans to qualified Alaska national guardsmen and veterans in the State of Alaska. These loans may be used to purchase, refinance, build and remodel homes, farms, businesses and multiple dwellings. In addition, a qualified veteran may be granted a loan for education, fishing, mining or personal use. At the present time, the program has about 3,200 outstanding loans. In fiscal 1976, 1,500 loan applications were approved, totaling $55 million. It is projected that 1,160 loans with a value of $54 million will be approved in fiscal 1977, and a total of 1,480 loans valued at $30 million is projected for fiscal 1978.

4. The Department of Commerce and Economic Development through its Agriculture Division maintains the Agricultural Revolving Loan Fund which provides a source of long-term, low interest loans to promote a rapid development of agriculture as an industry throughout the state. Sources of credit usually available to farm enterprises are not available in Alaska due to the generally unproven potential for profitable operation. In fiscal 1976, 67 loans were made from this fund for a total of $700,000. It is projected that 92 loans totaling $1,500,000 will be made in fiscal 1978. As of fiscal 1976, the program had outstanding 222 loans to 126 separate clients.

5. The senior citizen housing development program provides loans and grants to municipalities, housing authorities and other non-profit local sponsors to stimulate new housing construction and for rehabilitation of existing units for senior citizens. Fund revenues are provided from a $7.5 million general obligation bond issue approved in November, 1976. To date, no loans have been approved, and program activity is limited to grants.

6. Debt service items in the development category cover remote housing bonds, water and harbor facilities bonds, natural disaster recovery bonds, and port facilities bonds. Total debt service costs for these categories in fiscal 1976 total $826,000 and are expected to increase to $2.7 million in fiscal 1977.

Category 8: Transportation

1. Debt service costs of the transportation category include general obligation bonds for highways, marine transportation, and aviation. In addition, revenue bond debt costs for fiscal 1977 will be accruing on international airports. Total debt service costs for the general obligation bond categories in fiscal 1976 totaled approximately $16.6 million. These are projected to increase to $19.3 million in fiscal 1977.

Category 9: Housing

The state of Alaska maintains housing programs in two major areas: state owned and operated public and low cost housing programs, operated by the Alaska State Housing Authority (ASHA), and a program of state supported financing for low- and moderate-cost private sector housing development via the Alaska Housing Finance Corporation (AHFC).

The ASHA was established in the late 1940's to provide increased availability of low- and moderate-cost housing for Alaskans, with specific reference to veterans and persons engaged in "national defense activities". In addition, ASHA is authorized to construct public buildings for the state or federal government. The low-cost housing program and the public buildings construction program are financed via bonds or other debt securities which the Authority is authorized to issue. The debt is totally secured by the properties involved, and involves no pledge of the state's credit.

While ASHA's activities in the state were at one time substantial, the Authority now is concentrating virtually exclusively on the development of public housing programs. Consequently, ASHA officials estimate that urban renewal activities will be entirely phased out by the end of 1977, and the Authority has also requested a termination of its public buildings program. While ASHA has the authority to issue bonds and notes on its own credit (no state guarantee of the loans is made), in fact, little of this type of financing has occurred (with the exception of the public buildings program which involved approximately $108 million in bond issues between 1966 and 1974). Currently, ASHA receives over 99 percent of its funding from the federal government, chiefly from the Department of Housing and Urban Development. The Authority has borrowed from the state in the past, but according to Authority officials, the Department of Revenue will not make short-term loans to ASHA except where federal guarantees exist. The lack of bonding activity of the Authority for housing construction reflects the lack of credit-worthiness of public housing projects. In the judgment of the Authority, such bonds would be essentially unmarketable. At the present time the ASHA is responsible for management of 1,970 housing units in the state, including 747 units of remote housing constructed via a special 1971 legislative appropriation and general obligation bond issue--the only significant increment of state funding other than short-term Department of Revenue loans, in recent years.

Housing other than public housing is primarily the responsibility of the Alaska Housing Finance Corporation created in 1971. The Corporation makes or buys mortgages on low- or moderate-income housing, insures mortgages, makes home improvement loans, and makes loans for other associated costs of home ownership for qualified persons, or developers, including downpayments. To finance its activities, the Corporation is authorized to issue bonds and notes. In addition, income from the Corporation's activities (interest payments and insurance fees) is retained for operations. As of November 30, 1976, the Corporation had approximately $166.9 million in outstanding bonds and notes, and an additional $9.2 million in notes payable to the state of Alaska (as with ASHA, these short-term loans are made by the Department of Revenue to the Corporation). Of the bonded indebtedness outstanding, the Corporation issued $50 million in FY 1976, and anticipates issuing a further $75 million in bonds during FY 1977 and FY 1978. As of November 30, 1976, the Corporation's activities had assisted approximately 4,000 people obtain home financing, and they estimate that the FY 1977-78 bonding program will assist an additional 1,500.

Finally, the state has established 13 regional native housing authorities with powers essentially similar to those of the ASHA. They do not, however, have the authority to engage in the public buildings program or to participate in urban renewal activities. Like ASHA, virtually all money for these activities is provided by the federal government, and state participation is minimal and limited to insured short-term loans. According to state officials, none of the corporations have sold bonds.

Category 10: Energy and Power Development Authorities

A recently enacted, and still nascent, program is the Alaska Power Authority. The Authority is an independent body, designed to promote development of hydroelectric and fossil fuel power sources for domestic Alaskan usage. The Authority is generally empowered to issue bonds and notes to finance power development activities in the state, with the debt being secured by the projects themselves or by the earnings of these projects.

The Alaska Power Authority's funding sources are the Power Project Revolving Fund, appropriated initially by the legislature, as well as receipts from the sale of bonds or notes, which are not subject to legislative appropriation. As currently constituted, it appears that the legislature could appropriate money directly from the Permanent Fund (or allocate Fund resources by legislative direction) to the Revolving Fund, or could legislatively direct the Fund to purchase some or all of the debt securities issued by the Authority. Obviously, the greater the contribution made by the legislature to the Revolving Fund, the less the requirement for the Authority to issue debt. Conversely, minimal appropriations to the Fund would necessitate issuance of debt securities by the Authority.

Presently, the Authority is still in the formative stages and has, as yet, issued no bonds. Power Authority officials estimate that initial organizational work will be complete by October 1, 1977, and that the Authority will then be able to evaluate specific projects and financing proposals.

The state also has authorized the creation of regional electrical authorities to develop adequate, safe, and reliable electric power sources in rural or economically depressed areas. The authorities have the authority to sell bonds, but according to state officials none have done so due to poor credit ratings of the prospective facilities. One association (Tlingit-Haida) has secured long-term financing from the Rural Electrification Administration, U. S. Department of Agriculture.

Category 11: Toll Bridge Authority

The Alaska Toll Bridge Authority, created to provide for the analysis of feasibility and establishment of toll bridges upon public highways, is inactive. There are, to the knowledge of the Department of Highways, no toll bridges in the state of Alaska.

APPENDIX II

This portion of the memorandum contains a general analysis of the use of fiscal mechanisms in conjunction with overall Permanent Fund policy, and where possible, analyzes the strengths and weaknesses of various approaches.

The General Fund:

In our judgment, the General Fund is a relatively inefficient mechanism, generally, for dealing with projected short-term revenue surpluses. This criticism is apart from any specific problems which may exist for individual program areas. We believe this to be true because:

1. The political process tends to allocate total available revenues regardless of marginal utility and without systematic consideration of longer term economic and social consequences.

2. Existing fiscal mechanisms now funded through the General Fund were virtually all enacted during periods of revenue scarcity. Hence, these programs have an innate bias towards maximizing their share of fiscal resources, vis-a-vis competing programs (or, viewed in another context, the programs compete for available resources on behalf of their various constituencies within the state). In short, these programs and their managers in the state bureaucracy can be expected to seek the greatest slice of the available revenue "pie" that they can get, notwithstanding any constraints imposed by generalized "growth" or Permanent Fund policy objectives.

3. We do not believe it particularly sanguine to expect that future legislatures will constrain their own fiscal actions if surplus General Fund revenues exist. Again, we believe the pressures will be virtually insurmountable to distribute available revenues. The experience with the Prudhoe Bay lease sale revenues may be illustrative. In this instance, the state was able to "bail" itself out of an untenable revenue position with the in-place reserves tax. No such alternative is visible on the fiscal horizon, once oil production related revenues begin to decline.

Consequently, we believe that holding large revenue surpluses in the General Fund is likely to prove to be the least effective method of managing the state's short-term revenue surplus, if there exists in the minds of the committee an alternative long-range goal towards which these funds should be committed.

Should this line of reasoning be accepted, then it follows that the General Fund should be the recipient of only those funds which will not be detrimental to the long-run growth objective as set forward in Permanent Fund policy. Clearly, the more ambitious the eventual objective of the Permanent Fund, the less will be the year-to-year contributions to the General Fund from oil revenues, and the greater will be the contributions to the Permanent Fund, or other specific objectives.

Specific Programs Within the General Fund:

Loan Programs: The state maintains loan programs to promote a variety of interests, ranging from promotion of business enterprise to Senior Citizen Housing and Child Care Facilities. Before considering the potential effectiveness of these programs, several points emerge concerning loan programs generally:

1. Unlike most other programs contained in the General Fund, loans are interest bearing investments, and hence, potentially eligible for backing by the Permanent Fund directly. Therefore, the question of what division should be between the Permanent and General Funds in terms of the overall revenue "surplus" is not directly applicable.

2. However, under current law there is no requirement that the Permanent Fund purchase such securities, nor is there any provision allowing Permanent Fund monies to be used for funding such programs directly (assuming this mechanism were legal).

3. Finally, there is no current provision of law requiring any coordination between ongoing state objectives (as exemplified in the loan programs and their statutory objectives) and the investment objectives of the Permanent Fund. The matter of coordination will be discussed further below.

While investments of Permanent Fund money in state loan programs is superficially attractive (and in fact is attractive in some aspects), several problems exist which should be considered:

1. Since state loan programs are intentionally subsidized to promote the specific areas covered by the programs, the Permanent Fund would earn a lower return on invested capital then would otherwise be the case.

2. One answer to the problem of differential rates of return between state issued loans and market rates has been suggested within the Department of Revenue. This approach would involve using the State Treasury as a secondary market for state sponsored notes or mortgages which were financed at the subsidized rate by the Permanent Fund. The Treasury would then repurchase the notes at a discount rate that recognizes the difference between the subsidized rate and the market, thus effectively reimbursing the Permanent Fund for the differential. In essence, then, the capital resources of the Permanent Fund would be available for support of state sponsored loan funds, while the interest subsidy burden would continue to be borne by the state. In any event, some provision making up the interest rate differential would seem to be appropriate.

3. Such a program as outlined in No. 2 above, however, could easily result in growth impacts that are not easily predictable, or controllable. Currently, the amount of state loan monies are rather closely controlled by the appropriations process--in FY 1976 the state issued loans totalling only $56.8 million. Unless controlled by Permanent Fund legislation, access to the Permanent Fund as a capital vehicle could result in a ballooning of state loans, at only marginal increases in carrying costs (because the only appropriated cost to the state would be the interest differential subsidy payable to the Permanent Fund).

Consequently, if the committee chooses to utilize any or all of the state's existing loan programs as investment vehicles for Permanent Fund money, we believe adoption of a policy which would make such investment levels contingent on annual appropriations would be appropriate. It is also possible that some absolute limit or percentage limit be placed on the amount of Permanent Fund money invested in state loan programs. Without such limitations, the loan programs are likely to emerge as sources of "easy money", siphoning large and very possibly inappropriate amounts of Permanent Fund money into the programs.

A final and extremely significant point should be addressed if the committee chooses to allow use of some Permanent Fund money to support state loan programs: the matter of coordination between existing state programs, and prospective investment and development activities of the Fund. An obvious example would be the Fisheries Enhancement Loan Fund (a current state loan program) and any prospective fisheries development investments which might be made by the Permanent Fund itself (either independently, or as a reaction to some legislative direction in the Permanent Fund legislation). Since the two programs (one actual, the other prospective) are seeking the same ends, it would seem to be in the best interest of the state to insure that investment and development decisions regarding the state's fisheries be made in a coordinated manner--which potentially would not be the case, since at least some of the Permanent Fund investments may well take place outside of direct legislative review. This problem may become even more severe if the impact of such impending programs as the Renewable Resources Fund are included in the considerations--it is entirely conceivable that prospective investors in Alaska could have at least three, and possibly more, major state funding sources available to them, only one of which would be accountable to the legislature in terms of appropriations.

Capital Improvements Projects and State Bonds

One alternative fiscal vehicle that must be considered is utilizing the Permanent Fund as a major purchasing agent of state bonds, and thus financing at least portions of the state's capital improvements via the

Fund. This course of action has the advantage of internalizing the state's bonding activity, and turning long-term repayment obligations (if the bonds are sold in the open market) into long-term revenue sources (as repayments are made to the Permanent Fund). In our judgment, however, this is a relatively inefficient form of fiscal self-discipline--which is not to say that inefficient self-discipline may not be better than no self-discipline at all under some sets of assumptions.

However, there are clear inefficiences and dis-economies associated with setting up the Permanent Fund as a state or municipal bond purchasing authority. Chief among these is the differential in the rate of return that the Permanent Fund would earn under such a system. Thus, the choice would essentially be between purchasing tax exempt state or municipal debts at lower rates (due to their tax exempt status), and forgoing the higher rates that are attainable in high grade corporate or even federal securities. Since the Permanent Fund is a state entity that pays no taxes, the advantage of investing in tax exempt debt is lost. At the present time, high grade tax exempts are paying about 5.5%, while similar grade corporates yield about 8.15%--the difference, if the Fund were to invest in state debt instruments, would be a clear loss to the state.

Perhaps the best argument in favor of avoiding Permanent Fund purchase of state tax exempt debt lies in the area of avoiding distorting effects on the state's growth rate. Put most simply, reliance on the national capital markets provides ongoing discipline of the state's fiscal affairs that is relatively immune to short-term political considerations. Major purchasers of the state debt instruments are fully capable of analyzing the state's ability to repay debts, especially in the light of declining oil revenues beyond 1986 or 1987. Hence, any temptation the state government might have to issue excessive amounts of debts will be tempered by the market's reluctance to accept such debts, in the form of rising interest charges as such relatively risky indebtedness increased. Conversely, of course, utilization of the Permanent Fund as a debt purchaser would run the very real risk of having the state issuing debt in excess of the non-Permanent Fund economy's ability to adequately service and retire. Under such circumstances, the Fund or portions thereof, could be dissipated by inefficiently overdeveloping the state's capital improvements sector, beyond that level which the national debt markets would normally permit. This situation differs from potential misuse of excess money in the General Fund only because the principal and some interest will be repaid to the Permanent Fund--however, the potentially distorting effects on the state's economy and growth rate would be very similar. And, as was noted earlier, some real impact on the value of the fund would occur because of the interest rate penalty the Fund would suffer if forced to finance state and municipal debts.

STATE OF ALASKA
THE LEGISLATURE
LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

M E M O R A N D U M   July 7, 1977

SUBJECT: Permanent Fund and Revenue Forecasts

TO: Hon. Clark Gruening, Chairman, House Permanent Fund Committee

FROM: Richard G. Haggart
Research Analyst

Enclosed are five (5) copies of our analysis of the State of Alaska's revenue outlook, and associated effects on the Permanent Fund. As you requested, the analysis is divided into three "cases": Case I which postulates low petroleum income coupled with high state expenditure levels, Case II which postulates moderate or "concensus" levels of petroleum income and expenditures, and Case III, which postulates relatively high petroleum income and relatively low state expenditure levels.

Each of the three Cases has four separate sheets -- one each for Permanent Fund contribution levels of 25%, 50%, 75% and 100% respectively. Because the computer print-outs and the Case titles are somewhat unobtrusive you should caution anyone reproducing the material to be sure they are assembled in the proper order, to avoid any potential confusion.

Obviously, a number of assumptions went into the three case studies. These assumptions are contained in a supplemental memorandum which is now being prepared and which will be forwarded to you as soon as it is complete. Because of the complex nature of these forecasts, as well as the numerous assumptions that went into them, we believe it would be very desireable to include the supplemental material when the forecasts are distributed, at least as appendices. The objective here would be to allow those who are interested to reconstruct our work and satisfy any curiousity that might exist regarding methodology.

If you have any further questions let us know. In the meantime, Gregg, John and I look forward to seeing you and the Committee in Anchorage on the 15th.

RGH:dh
Enclosures

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 25% PERM. FUN.
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$81.0	$83.4	$726.0
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$90.3	$173.8	$747.9
1980	$618.7	$44.5	$193.2	$59.0	$302.4	$1,217.9	$1,033.1	$96.1	$269.9	$836.7
1981	$741.0	$41.9	$226.7	$72.2	$322.0	$1,403.9	$1,136.4	$100.6	$370.6	$1,003.6
1982	$803.2	$39.2	$251.8	$87.2	$315.2	$1,496.7	$1,250.1	$107.7	$478.3	$1,142.5
1983	$839.3	$43.9	$257.0	$99.9	$324.5	$1,564.7	$1,375.1	$116.7	$595.1	$1,215.4
1984	$894.2	$46.6	$261.4	$109.8	$349.4	$1,661.5	$1,512.6	$122.5	$717.6	$1,241.8
1985	$918.3	$44.8	$295.9	$116.8	$379.3	$1,755.2	$1,663.8	$127.7	$845.3	$1,205.6
TOTAL	$5,791.0	$359.5	$1,824.9	$640.1	$2,478.8	$11,094.4	$9,764.1	NOT APPL.	$845.3	$1,205.6

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 50% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$162.1	$164.5	$644.9
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$180.6	$345.2	$576.5
1980	$618.7	$44.5	$193.2	$59.0	$302.4	$1,217.9	$1,033.1	$192.2	$537.5	$569.1
1981	$741.0	$41.9	$226.7	$72.2	$322.0	$1,403.9	$1,136.4	$201.3	$738.8	$635.4
1982	$803.2	$39.2	$251.8	$87.2	$315.2	$1,496.7	$1,250.1	$215.5	$954.3	$666.6
1983	$839.3	$43.9	$257.0	$99.9	$324.5	$1,564.7	$1,375.1	$233.4	$1,187.8	$622.7
1984	$894.2	$46.6	$261.4	$109.8	$349.4	$1,661.5	$1,512.6	$245.1	$1,432.9	$526.5
1985	$918.3	$44.8	$295.9	$116.8	$379.3	$1,755.2	$1,663.8	$255.4	$1,688.3	$362.6
TOTAL	$5,791.0	$359.5	$1,824.9	$640.1	$2,478.8	$11,094.4	$9,764.1	NOT APPL.	$1,688.3	$362.6

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 75% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$243.2	$245.6	$563.9
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$271.0	$516.6	$405.1
1980	$618.7	$44.5	$193.2	$59.0	$302.4	$1,217.9	$1,033.1	$288.4	$805.0	$301.6
1981	$741.0	$41.9	$226.7	$72.2	$322.0	$1,403.9	$1,136.4	$301.9	$1,107.0	$267.2
1982	$803.2	$39.2	$251.8	$87.2	$315.2	$1,496.7	$1,250.1	$323.2	$1,430.2	$190.6
1983	$839.3	$43.9	$257.0	$102.3	$324.5	$1,567.1	$1,307.5	$350.2	$1,780.5	$100.0
1984	$894.2	$46.6	$261.4	$123.8	$349.4	$1,675.5	$1,307.8	$367.6	$2,148.1	$100.0
1985	$918.3	$44.8	$295.9	$146.3	$379.3	$1,784.8	$1,401.6	$383.1	$2,531.3	$100.0
TOTAL	$5,791.0	$359.5	$1,824.9	$686.1	$2,478.8	$11,140.4	$9,229.7	NOT APPL.	$2,531.3	$100.0

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 100% PERM. FUND (FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$324.3	$326.7	$482.8
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$361.3	$688.0	$233.7
1980	$618.7	$44.5	$193.2	$58.8	$302.4	$1,217.7	$966.9	$384.5	$1,072.6	$100.0
1981	$741.0	$41.9	$226.7	$82.4	$322.0	$1,414.1	$1,011.5	$402.6	$1,475.2	$100.0
1982	$803.2	$39.2	$251.8	$107.4	$315.2	$1,516.9	$1,085.9	$431.0	$1,906.2	$100.0
1983	$839.3	$43.9	$257.0	$134.3	$324.5	$1,599.1	$1,132.2	$466.9	$2,373.2	$100.0
1984	$894.2	$46.6	$261.4	$163.1	$349.4	$1,714.8	$1,224.5	$490.2	$2,863.4	$100.0
1985	$918.3	$44.8	$295.9	$193.1	$379.3	$1,831.6	$1,320.6	$510.9	$3,374.3	$100.0
TOTAL	$5,791.0	$359.5	$1,824.9	$834.3	$2,478.8	$11,288.5	$8,534.9	NOT APPL.	$3,374.3	$100.0

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 25% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$482.8	$50.8	$168.3	$45.4	$225.8	$973.2	$853.8	$86.3	$83.7	$751.3
1979	$678.0	$47.4	$170.6	$57.5	$260.2	$1,213.8	$917.8	$119.8	$208.6	$927.5
1980	$917.1	$44.5	$193.2	$82.2	$302.4	$1,539.5	$986.6	$140.4	$349.1	$1,340.0
1981	$1,107.0	$41.9	$226.7	$120.4	$322.0	$1,818.2	$1,060.6	$153.2	$502.3	$1,944.4
1982	$1,205.6	$39.2	$251.8	$166.9	$315.2	$1,978.8	$1,140.2	$166.4	$668.7	$2,616.6
1983	$1,348.3	$43.9	$257.0	$219.5	$324.5	$2,193.4	$1,225.7	$186.7	$855.5	$3,397.6
1984	$1,421.0	$46.6	$261.4	$278.0	$349.4	$2,356.4	$1,317.6	$197.1	$1,052.6	$4,239.3
1985	$1,535.6	$44.8	$295.9	$342.6	$379.3	$2,598.3	$1,416.4	$212.6	$1,265.3	$5,208.6
TOTAL	$8,695.7	$359.5	$1,824.9	$1,313.0	$2,478.8	$14,671.9	$8,918.7	NOT APPL.	$1,265.3	$5,208.6

CASE II: Medium Income-Medium Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 50% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$482.8	$50.8	$168.3	$45.4	$225.8	$973.2	$853.8	$172.7	$175.1	$664.9
1979	$678.0	$47.4	$170.6	$57.5	$260.2	$1,213.8	$917.8	$239.7	$414.9	$721.2
1980	$917.1	$44.5	$193.2	$82.2	$302.4	$1,539.5	$986.6	$280.9	$695.8	$993.2
1981	$1,107.0	$41.9	$226.7	$120.4	$322.0	$1,818.2	$1,060.6	$306.4	$1,002.3	$1,444.4
1982	$1,205.6	$39.2	$251.8	$166.9	$315.2	$1,978.8	$1,140.2	$332.8	$1,335.1	$1,950.2
1983	$1,348.3	$43.9	$257.0	$219.5	$324.5	$2,193.4	$1,225.7	$373.4	$1,708.6	$2,544.5
1984	$1,421.0	$46.6	$261.4	$278.0	$349.4	$2,356.4	$1,317.6	$394.2	$2,102.8	$3,189.1
1985	$1,535.6	$44.8	$295.9	$342.6	$379.3	$2,598.3	$1,416.4	$425.3	$2,528.2	$3,945.7
TOTAL	$8,695.7	$359.5	$1,824.9	$1,313.0	$2,478.8	$14,671.9	$8,918.7	NOT APPL.	$2,528.2	$3,945.7

CASE II: Medium Income-Medium Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 75% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$482.8	$50.8	$168.3	$45.4	$225.8	$973.2	$853.8	$259.1	$261.5	$578.6
1979	$678.0	$47.4	$170.6	$57.5	$260.2	$1,213.8	$917.8	$359.6	$621.1	$515.0
1980	$917.1	$44.5	$193.2	$82.2	$302.4	$1,539.5	$986.6	$421.4	$1,042.6	$646.5
1981	$1,107.0	$41.9	$226.7	$120.4	$322.0	$1,818.2	$1,060.6	$459.6	$1,502.2	$944.5
1982	$1,205.6	$39.2	$251.8	$166.9	$315.2	$1,978.8	$1,140.2	$499.3	$2,001.5	$1,283.8
1983	$1,348.3	$43.9	$257.0	$219.5	$324.5	$2,193.4	$1,225.7	$560.1	$2,561.7	$1,691.3
1984	$1,421.0	$46.6	$261.4	$278.0	$349.4	$2,356.4	$1,317.6	$591.3	$3,153.1	$2,138.8
1985	$1,535.6	$44.8	$295.9	$342.6	$379.3	$2,598.3	$1,416.4	$638.0	$3,791.2	$2,682.7
TOTAL	$8,695.7	$359.5	$1,824.9	$1,313.0	$2,478.8	$14,671.9	$8,918.7	NOT APPL.	$3,791.2	$2,682.7

CASE II: Medium Income-Medium Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 100% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$482.8	$50.8	$168.3	$45.4	$225.8	$973.2	$853.8	$345.4	$347.8	$492.2
1979	$678.0	$47.4	$170.6	$57.5	$260.2	$1,213.8	$917.8	$479.5	$827.4	$308.7
1980	$917.1	$44.5	$193.2	$82.2	$302.4	$1,539.5	$986.6	$561.9	$1,389.3	$299.8
1981	$1,107.0	$41.9	$226.7	$120.4	$322.0	$1,818.2	$1,060.6	$612.8	$2,002.2	$444.5
1982	$1,205.6	$39.2	$251.8	$166.9	$315.2	$1,978.8	$1,140.2	$665.7	$2,667.9	$617.4
1983	$1,348.3	$43.9	$257.0	$219.5	$324.5	$2,193.4	$1,225.7	$746.8	$3,414.8	$838.2
1984	$1,421.0	$46.6	$261.4	$278.0	$349.4	$2,356.4	$1,317.6	$788.4	$4,203.3	$1,088.6
1985	$1,535.6	$44.8	$295.9	$342.6	$379.3	$2,598.3	$1,416.4	$850.7	$5,054.1	$1,419.8
TOTAL	$8,695.7	$359.5	$1,824.9	$1,313.0	$2,478.8	$14,671.9	$8,918.7	NOT APPL.	$5,054.1	$1,419.8

CASE II: Medium Income-Medium Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 25% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$523.2	$50.8	$168.3	$46.6	$225.8	$1,014.8	$853.8	$93.5	$95.9	$785.7
1979	$769.5	$47.4	$170.6	$61.7	$260.2	$1,309.4	$954.1	$136.1	$232.1	$1,004.9
1980	$1,172.6	$44.5	$193.2	$95.2	$302.4	$1,808.0	$1,012.5	$173.2	$405.4	$1,627.2
1981	$1,355.6	$41.9	$226.7	$147.6	$322.0	$2,094.0	$1,091.2	$187.3	$592.8	$2,442.6
1982	$1,542.0	$39.2	$251.8	$211.6	$315.2	$2,359.9	$1,163.7	$212.4	$805.3	$3,426.3
1983	$1,882.6	$43.9	$257.0	$296.0	$324.5	$2,804.1	$1,103.7	$260.0	$1,065.3	$4,866.7
1984	$2,149.3	$46.6	$261.4	$406.3	$349.4	$3,213.1	$1,126.4	$297.0	$1,362.4	$6,656.4
1985	$2,325.9	$44.8	$295.9	$536.7	$379.3	$3,582.8	$1,191.4	$320.9	$1,683.3	$8,726.9
TOTAL	$11,721.1	$359.5	$1,824.9	$1,802.0	$2,478.8	$18,186.4	$8,496.8	NOT APPL.	$1,683.3	$8,726.9

CASE III: High Income-Low Expenditure Model
(See Notes for Explanation of Assumptions)

Prepared by:

Legislative Affairs Agency
Research Division
July 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 50% PERM. FUND
(FIGURES IN MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$523.2	$50.8	$168.3	$46.6	$225.8	$1,014.8	$853.8	$187.1	$189.5	$692.2
1979	$769.5	$47.4	$170.6	$61.7	$260.2	$1,309.4	$954.1	$272.3	$461.9	$775.2
1980	$1,172.6	$44.5	$193.2	$95.2	$302.4	$1,808.0	$1,012.5	$346.4	$808.4	$1,224.2
1981	$1,355.6	$41.9	$226.7	$147.6	$322.0	$2,094.0	$1,091.2	$374.7	$1,183.2	$1,852.2
1982	$1,542.0	$39.2	$251.8	$211.6	$315.2	$2,359.9	$1,163.7	$424.9	$1,608.2	$2,623.4
1983	$1,882.6	$43.9	$257.0	$296.0	$324.5	$2,804.1	$1,103.7	$520.0	$2,128.3	$3,803.8
1984	$2,149.3	$46.6	$261.4	$406.3	$349.4	$3,213.1	$1,126.4	$594.1	$2,722.4	$5,296.4
1985	$2,325.9	$44.8	$295.9	$536.7	$379.3	$3,582.8	$1,191.4	$641.9	$3,364.3	$7,045.9
TOTAL	$11,721.1	$359.5	$1,824.9	$1,802.0	$2,478.8	$18,186.4	$8,496.8	NOT APPL.	$3,364.3	$7,045.9

CASE III: High Income-Low Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 75% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$523.2	$50.8	$168.3	$46.6	$225.8	$1,014.8	$853.8	$280.7	$283.1	$598.6
1979	$769.5	$47.4	$170.6	$61.7	$260.2	$1,309.4	$954.1	$408.5	$691.7	$545.4
1980	$1,172.6	$44.5	$193.2	$95.2	$302.4	$1,808.0	$1,012.5	$519.7	$1,211.4	$821.2
1981	$1,355.6	$41.9	$226.7	$147.6	$322.0	$2,094.0	$1,091.2	$562.1	$1,773.6	$1,261.8
1982	$1,542.0	$39.2	$251.8	$211.6	$315.2	$2,359.9	$1,163.7	$637.4	$2,411.1	$1,820.5
1983	$1,882.6	$43.9	$257.0	$296.0	$324.5	$2,804.1	$1,103.7	$780.1	$3,191.2	$2,740.8
1984	$2,149.3	$46.6	$261.4	$406.3	$349.4	$3,213.1	$1,126.4	$891.2	$4,082.4	$3,936.3
1985	$2,325.9	$44.8	$295.9	$536.7	$379.3	$3,582.8	$1,191.4	$962.8	$5,045.3	$5,364.9
TOTAL	$11,721.1	$359.5	$1,824.9	$1,802.0	$2,478.8	$18,186.4	$8,496.8	NOT APPL.	$5,045.3	$5,364.9

CASE III: High Income-Low Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 100% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$523.2	$50.8	$168.3	$46.6	$225.8	$1,014.8	$853.8	$374.3	$376.7	$505.0
1979	$769.5	$47.4	$170.6	$61.7	$260.2	$1,309.4	$954.1	$544.7	$921.4	$315.6
1980	$1,172.6	$44.5	$193.2	$95.2	$302.4	$1,808.0	$1,012.5	$692.9	$1,614.4	$418.1
1981	$1,355.6	$41.9	$226.7	$147.6	$322.0	$2,094.0	$1,091.2	$749.5	$2,364.0	$671.4
1982	$1,542.0	$39.2	$251.8	$211.6	$315.2	$2,359.8	$1,163.7	$849.9	$3,214.0	$1,017.6
1983	$1,882.6	$43.9	$257.0	$296.0	$324.5	$2,804.1	$1,103.7	$1,040.1	$4,254.2	$1,677.9
1984	$2,149.3	$46.6	$261.4	$406.3	$349.4	$3,213.1	$1,126.4	$1,188.3	$5,442.5	$2,576.3
1985	$2,325.9	$44.8	$295.9	$536.7	$379.3	$3,582.8	$1,191.4	$1,283.8	$6,726.3	$3,683.9
TOTAL	$11,721.1	$359.5	$1,824.9	$1,802.0	$2,478.8	$18,186.4	$8,496.8	NOT APPL.	$6,726.3	$3,683.9

CASE III: High Income-Low Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977

STATE FINANCIAL AND OPERATING OUTLOOK, 1978-1985 @ 25% PERM. FUND
(FIGURES IN $MILLIONS)

F/Y	NORTH SLOPE REVENUE	OTHER PETROLEUM REVENUE	OIL AND GAS PROPERTY TAX	INTEREST INCOME	OTHER INCOME	TOTAL REVENUE	EXPENDITURES	PERMANENT FUND CONTRIBUTION	PERMANENT FUND BALANCE	GENERAL FUND BALANCE
1978	$453.1	$50.8	$168.3	$44.5	$225.8	$942.6	$853.8	$81.0	$83.4	$726.0
1979	$522.8	$47.4	$170.6	$50.4	$260.2	$1,051.4	$939.2	$90.3	$173.8	$747.9
1980	$618.7	$44.5	$193.2	$59.0	$302.4	$1,217.9	$1,033.1	$96.1	$269.9	$836.7
1981	$741.0	$41.9	$226.7	$72.2	$322.0	$1,403.9	$1,136.4	$100.6	$370.6	$1,003.6
1982	$803.2	$39.2	$251.8	$87.2	$315.2	$1,496.7	$1,250.1	$107.7	$478.3	$1,142.5
1983	$839.3	$43.9	$257.0	$99.9	$324.5	$1,564.7	$1,375.1	$116.7	$595.1	$1,215.4
1984	$894.2	$46.6	$261.4	$109.8	$349.4	$1,661.5	$1,512.6	$122.5	$717.6	$1,241.8
1985	$918.3	$44.8	$295.9	$116.8	$379.3	$1,755.2	$1,663.8	$127.7	$845.3	$1,205.6
TOTAL	$5,791.0	$359.5	$1,824.9	$640.1	$2,478.8	$11,094.4	$9,764.1	NOT APPL.	$845.3	$1,205.6

Low/High 25

CASE I: Low Income-High Expenditure Model
(See Notes for Explanation of Assumptions)

prepared by:

legislative affairs agency
research division
july 6, 1977