1/29/03 OVERVIEW: DEPT. OF REVENUE, ASTF

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Department of Revenue
Oil Price Forecast Summary

Fiscal Year	DOR Forecasted Price of ANS Crude Oil			
	Fall 2000	*Fall 2001*	*Spring 2002*	*Fall 2002*
2002	24.28	20.55	21.50	21.48
2003	22.06	18.81	20.50	25.94
2004	21.06	19.72	19.50	23.25
2005	20.38	19.61	19.50	22.00
2006	17.25	17.50	18.50	22.00
2007	17.25	17.50	17.50	22.00
2008	17.25	17.50	17.50	22.00
2009	17.25	17.50	17.50	22.00
2010	17.25	17.50	17.50	22.00

1/29/03
DOR

FALL 2002

REVENUE SOURCES BOOK

Forecast & Historical Data

STATE OF ALASKA
DEPARTMENT OF
REVENUE

Tax Division

Tony Knowles, Governor
Wilson L. Condon, Commissioner
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November 26, 2002

The Honorable Tony Knowles
Governor of Alaska
P.O. Box 110001
Juneau, AK 99811-0001

The Honorable Frank Murkowski
Governor-elect of Alaska
P.O. Box 110001
Juneau, AK 99811-0001

Dear Governor Knowles and Governor-elect Murkowski:

This is my last Revenue Sources Book after almost eight years as commissioner at the Department of Revenue. That means I have given you our best estimates, our wisest projections and our most knowledgeable forecasts 16 times since 1995. I would like to think we have been right more times than not in our semi-annual Revenue Sources Books, and I certainly hope this month's long-term change in our price forecast comes true.

The Department of Revenue believes the long-term average price for Alaska North Slope crude oil will be $22 a barrel, a significant boost from the $17 to $18 average of the 1980s and 1990s. We don't take this forecast lightly, and we know there are many who will disagree with our assessment of world oil prices. The Organization of Petroleum Exporting Countries has been successful the past three years in managing its oil production to hold average prices at the low end of its target price range of $22 to $28 a barrel. ANS prices closely track the price of seven different OPEC crudes, the so-called OPEC "basket" price, and North Slope crude has averaged about $22 a barrel during that time.

But even with a higher long-term outlook for ANS prices, the state still faces a large gap between its revenue and the cost of providing public services. That gap, which we cover by drawing down the Constitutional Budget Reserve, was $738 million in Fiscal 2002 and is estimated at $747 million in Fiscal 2003 and $896 million in Fiscal 2004. If our oil price and production forecast is correct, the $1.029 billion gap in Fiscal 2005 will empty out the Budget Reserve Fund.

It's not low oil prices that are causing the gap. Prices have been good, much better than the 1986-2000 average, coming in at $21.78 per barrel in Fiscal 2002 and projected at $25.94 in Fiscal 2003 (this year's price has averaged $26.45 year to date as of November 25). We expect prices to weaken, slipping to $23.25 in Fiscal 2004 and then settling in at around $22 a barrel as a long-term average.

North Slope production has fallen, however, adding to our money woes. After climbing back to the million-barrels-a-day level in Fiscal 2002, production is expected to stay below that level through Fiscal 2007 - slipping to a low of 956,000 barrels in Fiscal 2007 - after which we forecast a bump back above 1 million barrels a day through the pipeline. Future production is predicated on sufficient private investment, and reasonable public fiscal policies, to attract the exploration and development capital needed to find and produce more oil from Alaska's North Slope.

Knowing the importance of our production forecasts, we don't just take our own word for it - we review our projections with oil industry representatives, and we rely to a great extent on our contract petroleum engineer.

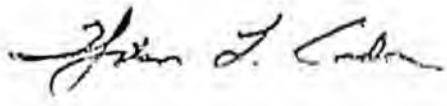
Putting it all together, as I stated earlier, we expect the Budget Reserve Fund to run out of money at the end of Fiscal 2005. Our price projections are based on the scenario that the world does not go to war with Iraq. If, however, we are wrong, and there is a war, we expect oil prices to spike at around $30 per barrel in 2003. Although that would produce additional revenue for Alaska, we also expect that prices will fall after a war as Iraq boosts its own production to raise needed cash to rebuild the country. We have included tables showing estimated state oil revenues under several scenarios, including war, no war, our new long-term average price of $22, and what would happen if the world reverts back to an average price in the $17 range.

And, although we all would like to avoid these options if we could, we have included a shortened version of our Fiscal Options section from the Spring 2002 Revenue Sources Book. Certainly, Alaska may need to consider the use of Permanent Fund earnings and/or broad-based taxes in the future, and we want everyone to have the information readily available.

Finally, I want to invite you to read our special section in this Revenue Sources Book in which we review the economic opportunities that lie ahead for oil and gas development in Alaska. Some may disagree with some of our analysis, which is OK. The purpose behind this section is to educate Alaskans on the issue and to explain the possibilities for new developments and the costs behind turning them into realities.

As I leave office, I wish you, Governor Knowles, well in whatever you pursue, and I wish you, Governor-elect Murkowksi, a successful career as Alaska's ninth governor. Although I will no longer be at my desk, I am confident that the entire staff at the Department of Revenue is ready to help the new administration and Legislature with any fiscal issue - please call on them.

Sincerely,



Wilson L. Condon
Commissioner

TABLE OF CONTENTS

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I. INTRODUCTION

Why Issue a Revenue Forecast?

The goal of the semi-annual Revenue Sources Book is simply to describe state revenue in specific and complete terms for anyone who wants to ask: "Where does the state get its money?" And while it does not advocate specific actions or policies, it clearly explains Alaska's potential for new resource development - and revenue - as it also explains some of the unpleasant realities of state finances. Thinking of life as a continuous lesson in school, this is a textbook for policy makers and others interested in Alaska's fiscal past, present and future.

Public finances have long been an issue of interest to Alaskans. How much does the state earn from its public resources? How much does the oil and gas industry pay to the treasury? And what about the fishing industry, mining, user fees and other taxes? How much are we earning on our investments, especially the Permanent Fund, and how much from our state endowments and public corporations? All good questions, and all are answered in this book.

Until two years ago, the Department of Revenue forecast books were all about oil. Sort of like the Harry Potter books, the storyline was the same in each volume. Our storyline was world oil prices, world oil supply and world oil demand. It wasn't as exciting as dragons and flying broomsticks, but oil prices captured Alaskans' interest just as strongly. However, there is much more to understanding Alaska's public finances than just the price of oil, even though oil revenues from production taxes, property taxes, royalties and corporate income taxes still pay most of the state's bills.

Although oil prices are still important, the state's dependence on the Constitutional Budget Reserve Fund - and our search for a long-term fiscal plan for the state - has brought a new element to our revenue forecasts. In addition to forecasting the price and production of Alaska North Slope oil, the department also tries to answer how much money will be needed from the Budget Reserve to balance state spending, when the savings account might run out, and what we can do to avoid running the reserve to empty.

As Alaskans' interest has expanded from wanting simply an oil price forecast to needing projections for investment earnings, the budget gap and Budget Reserve, and information on all state revenues, so too has the Department of Revenue's semi-annual forecast book expanded in size.

All of this information is helpful in answering the questions of how much is needed to pay for public services, where to get the money, and what we can do to ensure Alaska's fiscal health.

On the technical side, Sections V through X of the report include explanations of restricted funds (money restricted by the constitution, state statute, customary practice or federal designation) and explanations of unrestricted funds (money generally available for appropriation each year). The unrestricted revenue category is the focus of legislative and public debate each year, because it's this money that pays for many of our public services and the day-to-day operations of state government.

Revenue listed in the first table in the Executive Summary shows the new money available for appropriation each fiscal year, including oil revenue, non-oil revenue, federal revenue and investment earnings. This table does not include balances in existing funds such as the Constitutional Budget Reserve Fund or the Permanent Fund Earnings Reserve Account. The revenue that went into those funds was counted in previous years and should not be counted twice.

What's In This Report?

This Fall 2002 Revenue Sources Book is organized into 12 sections:

I. **Introduction**

II. **Oil and Gas Production Opportunities**
This special section examines opportunities available for new oil and gas production in Alaska.

III. **Executive Summary**

IV. **Fiscal Options**
This section briefly describes some revenue options for balancing the state's budget.

V. **Oil Revenue**
This section covers revenue from oil and gas production taxes, corporate income taxes, property taxes and royalties.

VI. **Non-Oil Revenue (Except Federal and Investment)**
This section summarizes revenue from alcohol, tobacco, fisheries, estate and motor fuel taxes, non-oil corporate income taxes, user fees, and several other revenue sources.

VII. **Federal Revenue**
This section describes federal spending in Alaska and federal revenue received by state government.

VIII. **Investment Revenue**
This section includes investment earnings from the Alaska Permanent Fund, the Constitutional Budget Reserve Fund, the General Fund and other state investments.

IX. **State Endowment Funds**
This section compares basic policies governing six of the state's endowment funds.

X. **Public Corporations and the University of Alaska**
This section summarizes information about the University of Alaska and eight public corporations treated as separate component units of state government for financial reporting purposes.

XI. **Rosetta Stone**
The purpose of this section is to reconcile three different documents published by three separate agencies — the Revenue Sources Book, published by the Department of Revenue; the Summary of Appropriations, published by the Legislative Finance Division; and the Comprehensive Annual Financial Report (CAFR), published by the Finance Division of the Department of Administration.

XII. **Appendices**
This section contains the General Fund Sensitivity Matrices, Unrestricted Petroleum Production and Royalty Revenue Forecast, Historical and Projected Crude Oil Prices and Production, and Historical General Fund Unrestricted Revenue and Petroleum Revenue.

Glossary

▪ General Fund Revenue: General Fund Revenue has different meanings in different contexts. In the state's official financial reports, General Fund Revenue is used to designate the sum of Unrestricted General Purpose Revenue, General Fund subaccount revenue (such as the Alaska Marine Highway System revenue) and federal dollars spent through the General Fund. See for example the Comprehensive Annual Financial Report at http://www.state.ak.us/local/akpages/ADMIN/dof/fin-afr.htm that shows General Fund Revenue of over $4 billion for FY 2001. However, for budgeting purposes, General Fund Revenue sometimes excludes both federal money or money earned in subaccounts of the General Fund. For example see the Legislative Finance Fiscal Summary, which shows General Fund Revenue of about $2.3 billion for FY 2001. The $1.7 billion difference is attributable in large measure to the treatment of federal money and General Fund subaccounts.

▪ General Fund Unrestricted Revenue: Revenue designated as General Fund in the state accounting system (AKSAS). This includes revenues we show as restricted in this report, such as shared taxes or Alaska Marine Highway System revenues.

▪ Unrestricted General Purpose Revenue: Revenue not restricted by the constitution, state or federal law, trust or debt restrictions or customary practice. Most legislative and public debate over the budget each year centers on this category of revenue. In deriving this figure from General Fund Unrestricted Revenues, we have excluded customarily restricted revenues such as shared taxes and Alaska Marine Highway System revenues.

▪ Restricted Revenue: Revenue restricted by the constitution, state or federal law, trust or debt restrictions or customary practice. The legislature can of course at any time remove restrictions that are solely imposed by either Alaska statute or customary practice. When these dollars are restricted General Fund revenues, they are either recorded in a restricted subaccount of the General Fund or are General Fund taxes customarily shared with other entities.

▪ Federal Revenue: When the federal government gives money to states, it restricts how that money can be used. Highway and airport construction funds, Medicaid and education funding cannot be used for other purposes. In addition to restricting how the money is spent, the federal government often requires states to put up matching funds to qualify for the federal funding.

▪ Dedicated Revenue: Restricted revenue recognized as such under the applicable provisions of the Alaska Constitution fits into this category. Other than the mineral revenue constitutionally dedicated to the Permanent Fund, all of the other revenue sources in this category were restricted by statute before statehood and therefore are not subject to the constitutional prohibition against dedicated funds. They include such funds as the Fish and Game Fund, Disabled Fisherman's Fund and Public School Fund.

▪ Restricted Program Receipts: This revenue is earmarked in state statute or by contract for specific purposes. Examples include University of Alaska tuition payments, marine highway receipts, payments to various revolving loan funds, airport revenues and public corporation receipts. Some of this revenue is actually dedicated as a consequence of the provisions of Article 18, Section 11 of the Alaska Constitution (airport revenues). The remainder, while statutorily earmarked, may be appropriated to purposes other than those reflected in the example if the legislature so chooses (marine highway receipts).

▪ Customarily Restricted Revenue: Though not specifically dedicated by statute, these revenue sources have historically been treated by the legislature as if they were restricted. The largest item in this category is Permanent Fund earnings in excess of what is needed each year for dividends and inflation proofing. Though the money could be spent as unrestricted revenue, the legislature has always chosen to retain it in the Permanent Fund's Earnings Reserve Account or appropriate it to the fund's principal.

▪ Permanent Fund Statutory Income: The annual Permanent Fund dividend is based on statutory income. This is the sum of realized gains and losses of all Permanent Fund investment transactions during the year, plus interest, dividends and rents earned by the fund. Though the legislature may appropriate the earnings for any purpose it chooses, the historical practice has been to restrict the use of realized income to dividends and inflation proofing, and then either leaving the excess in the Earnings Reserve Account or transferring it to the principal of the Permanent Fund.

▪ Permanent Fund GASB (or Market) Income: Under standards adopted by the Governmental Accounting Standards Board, the Permanent Fund's income - and that of any other government fund - is the difference between the purchase price of the investments and their market value at a given point in time, plus any dividends, interest or rent earned on those investments. Under GASB standards, the Permanent Fund does not have to sell the investment to count the gain or loss as it changes value. It's called "marking to market," that is, measuring the value of the fund's investments by the current market price. This can produce a much different picture than Permanent Fund Statutory Income, which does not reflect fluctuating investment values until the assets are sold.

▪ Constitutional Budget Reserve Fund: Created by voters in 1990, the Constitutional Budget Reserve Fund holds the proceeds from settlements of oil and gas and mining tax and royalty disputes since July 1, 1990. It generally requires a three-quarters majority vote of each chamber of the legislature to withdraw money from the fund.

II. OIL AND GAS PRODUCTION OPPORTUNITIES

Oil Production as an Economic Opportunity

Introduction

Promoting resource development was one of the major themes of Alaska's just-concluded election, which prompts several questions. What are the major opportunities for additional oil development over the next decade? What is needed to exploit these opportunities? And if these opportunities are successful, how will they affect Alaska's public finances? Finally, what can state government do to help or, if it makes a mistake, hinder that development?

Oil development in Alaska may someday occur outside the Cook Inlet and North Slope areas, but that is unlikely over the next 15 years. Though small when compared to the North Slope, the health of the Cook Inlet oil patch will continue to be important, especially for the livelihood of Kenai Peninsula residents. However, new oil development opportunities in Cook Inlet are unlikely to significantly contribute to Alaska's treasury. To find that kind of money, we must look north.

North Slope oil production commenced in 1977 and reached a peak rate of just over 2 million barrels per day in 1988. North Slope production then declined for 13 consecutive years to just over 990,000 barrels per day in Fiscal Year 2001. (See Figure 10, Page 37, and Appendix D.) In Fiscal 2002, it increased a small 1.4% to 1,003,343 barrels per day. We now believe that was a one-year exception, and we forecast a steady, modest decline in North Slope production to 955,000 barrels per day between Fiscal 2003 and 2007. On average, over this five-year period, this new forecast reflects a reduction of about 80,000 barrels per day from our spring estimate.

Much of this reduction comes in our lower forecast of heavy-oil production from the West Sak formation in the Kuparuk Unit and the Schrader Bluff formation in the Milne Point Unit. We had anticipated the producers would invest substantially more money to boost production in both fields.

Beginning in Fiscal 2008, new fields coming online should elevate total production back over the million-barrels-a-day level, and we project North Slope production to exceed 1 million barrels a day from Fiscal 2008 through 2012. Production could start down again after Fiscal 2013 unless producers have significant exploration success, which will require the commitment of substantial money to the exploration and development of new fields.

Is there a significant possibility for increases in North Slope oil production over what we have forecast? That's the positive question, but what about the negative? And what are the chances that production levels may fall short of our forecast? The answer to these questions depends in large part on the amount of money exploration and production companies spend to develop oil resources that have already been discovered on the North Slope and to discover additional oil. Those spending decisions depend — in great part — on world oil prices and government regulatory and fiscal policies. The key in all this is that producers need to spend money so that the state can make money from its oil resources.

There is no question that state government policy decisions will affect the level of investment in North Slope oil exploration and development. And state government decision-makers will have to decide what policies are most likely to maximize the public benefit from North Slope production. However, those decision-makers will not all agree upon what constitutes maximum public benefit. Some would no doubt seek to maximize public revenue, while others would favor an increase in the level of private economic activity — including jobs — in place of some potential public revenue.

Finally, state government's take could be set so high that exploration and production companies invest elsewhere than in Alaska. If this happened, an increased government take in the short run could actually reduce Alaska's total take from oil over the long term. On the other hand, a policy of encouraging development by diminishing the government share could also reduce total take. The balance, sought by the host government in every oil province of the world, is to take a healthy share of the profits derived from oil while remaining competitive in the world marketplace for oil and gas investment dollars.

Assumptions and Rules-of-Thumb

Some of the exploration and producing companies with interests on the North Slope announce their capital expenditure plans each year. What do those plans indicate about the likely amount of future production? To answer this question precisely we would need to be privy to internal company information and analysis not available to us. However, equipped with a few rules-of-thumb, an armchair analyst can make a rough translation of the producers' announced capital plans into likely future production.

Here are the assumptions and rules-of-thumb that we use: [1]

- **Prospectivity of the North Slope**. The producers we have talked with tell us the North Slope is still a "world class" geological basin to explore for oil.

- **Finding Costs**. We assume that on average it costs $1 to find a barrel of oil on the slope. [2] This is a weighted average of our estimate of the cost for finding new fields (just over $1 per barrel) and for finding new satellite accumulations near already discovered fields ($0.60 per barrel). Some North Slope producers have a policy to pursue only satellites. Some pursue both new fields and satellites.

- **Reserve Replacement**. Companies trying to maintain a constant level of worldwide production also try to maintain a constant reserve base. Consequently, if a company or group of companies want to maintain the production rate from a particular area (e.g. the North Slope), we would expect them to invest enough in exploration to maintain a relatively constant reserve base in that same area. Therefore, over time, a constant North Slope production level would require exploration expenditures of $1 for each barrel of newly found oil reserves to replace each barrel of production. Companies can also add to their reserves by spending on new technology to turn uneconomic oil into economically recoverable reserves, such as heavy oil.

(1) These rules-of-thumb come from our discussions with the North Slope producers and our review of available literature.
(2) According to Cambridge Energy Research Associates' (CERA's) "White Paper Outlook for Alaska" (November 1999) ("White Paper") at page 12, "The best performers' North Slope exploration costs are currently about $1.00 per barrel..." BP has recently stated it costs them $2.50 per barrel to find oil in Alaska, but they stated that as one reason why they are discontinuing their frontier exploration activity on the slope. Steve Marshall, President, BP Exploration Alaska, Inc. Speech to Fairbanks Chamber of Commerce, March 22, 2002.
(3) Exxon puts the cost of developing Point Thomson's 400 million barrels of reserves at $1.2 billion. BP puts the cost of developing 55 million barrels of Schrader Bluff heavy oil at $150 million. MIX, the enhanced oil recovery project at Prudhoe Bay, cost $160 million for 50 million barrels. There are other rules-of-thumb that some use to derive future production rates from current capital spending: (1) for greenfield development, $15 million to $20 million for every 1,000 barrels per day of peak-rate production; and (2) for infill drilling, $5 million to $7 million for 1,000 barrels per day. These rules-of-thumb are consistent with the $3 per barrel estimate we use in this analysis.

- Development Costs. Once found, we assume it costs an average of $3 per barrel to drill and build the facilities to produce North Slope oil. Cambridge Energy Research Associates (CERA), in its 1999 White Paper on Alaska's development prospects, stated that it costs $2.50 per barrel to develop North Slope oil. However, a survey of recent announcements regarding field developments indicate that the companies' target is close to $3 per barrel. [3]

- Affordable Development. A significant amount of the oil that has been found on the slope cannot be developed for $3 per barrel, but as technological advances are made more of this found oil can be developed economically at $3 per barrel. In the short term, a producer could maintain its current production level by spending just enough to develop found oil. Eventually, however, technological advances will run up against geologic constraints, and the company's $3 per barrel oil will decline unless new fields are discovered. This newly discovered oil will cost the companies' $4 per barrel - $1 to find the barrel and $3 to develop it.

- Minimum Capital Expense. There is a great deal of discovered oil on the slope that has been developed but not yet produced. Even after building the facilities needed to produce that oil, the companies still must spend additional capital over the years to keep those facilities operable and safe. This spending is often called LTO, or "License to Operate" capital, and is in addition to routine operating and maintenance expenses on the slope. An example of LTO capital would be installation of pollution control equipment to meet new government standards. Based on discussions with the North Slope operators, we estimate the annual LTO expense at about 2% of existing and planned total capital expense for the facility. Consequently, we used a North Slope LTO expense of $300 million per year for this analysis. This is a fixed cost, and it is the minimum amount of capital spending needed to recover the reserves already developed and slated for recovery. Companies view LTO as "non-rate" expenditures, or expenditures that are not made to increase proven reserves. Our LTO estimate may include more than some companies would characterize as LTO for accounting purposes.

In thinking about the cost of finding and developing new oil fields, it is important to remember that future oil prices are uncertain. What that means is even when oil prices are high, producers still make their capital expenditure decisions based on average or low prices — they do not go out and spend more money on high-cost projects just because today's prices may be high. The fact is they are reluctant to gamble investment dollars on high oil prices in the future. As a result, these rules-of-thumb, adopted in a low-oil price environment, seem to apply even in times of higher oil prices.

Department of Revenue Production Projections for Discovered Fields

The table on the next page reflects the following: (1) the Department of Revenue estimates of the amounts of original oil in place for all of the fields discovered on the North Slope; (2) the amounts of production from each of these fields through the end of June 2002; (3) our estimates of the amounts of additional oil recovery from each of these fields over the balance of their productive lives; and (4) our estimates of the total amounts of production from each of these fields.

Table 1 . **Projected ANS Production from Discovered Producing Fields**
Million Barrels

	Original Oil In Place	Production Through FY 2002	Currently Projected Additional Production	Total Estimated Production
Prudhoe Bay (Oil and NGLs)	23,700	10,670	3,400	14,070
Prudhoe Bay satellites (Midnight Sun, Aurora, etc.)	1,400	17	500	517
Lisburne	1,800	140	40	180
Point McIntyre	900	350	170	520
Greater Point McIntyre Area (Niakuk, etc.)	300	110	50	160
Kuparuk	6,000	1,820	1,140	2,960
Kuparuk satellites excl. heavy oil (Tabasco, Tarn, etc.)	400	40	140	180
West Sak [1]	12,000	6	370	376
Milne Point- Kuparuk and Sag River [2]	1,000	150	220	370
Milne Point- Schrader Bluff [1]	1,600	20	310	330
Duck Island Unit (Endicott, Eider, Sag Delta)	1,200	430	170	600
Badami	160	4	2	6
Alpine	1,100	30	460	490
Northstar	300	10	200	210
Subtotal	**51,860**	**13,797**	**7,172**	**20,969**
Discovered non-producing fields				
Alpine Satellites (Nanuq, Fiord, etc.)	395	0	180	180
Liberty	300	0	150	150
Point Thomson and Others (Sourdough, Yukon Gold)	1,400	0	560	560
Sandpiper	150	0	60	60
NPR-A (Rendezvous/Spark)	800	0	400	400
Ugnu [1]	7,000	0	0	0
OCS Offshore (Kuvlum, Hammerhead) [3]	1,000	0	0	0
Subtotal	**11,045**	**0**	**1,350**	**1,350**
Total	**62,905**	**13,797**	**8,522**	**22,319**

(1) These are heavy oil deposits.
(2) Kuparuk refers to the formation in the Milne Point Unit, not the Kuparuk River Unit.
(3) These fields' barrels were not economic to produce in the mid-1990s. For offshore stand-alone developments the minimum economic field size is 1 billion barrels, and each of these fields is smaller than this. However, these fields may become economic to produce if either technological advances allow for lower development costs or the fields can produce as satellites to larger fields.

Historically, North American oil production operations have recovered about 35 percent of the original oil in place from developed fields. Where modern technology, including water flooding and other means of pressure maintenance are employed, the typical recovery rate in the Lower 48 is 40 percent. But we're doing better than that in many fields in Alaska.

If the projections set forth in Table 1 are realized, about 35 percent of the original oil in place in the discovered North Slope fields will be produced. But if we eliminate the amounts attributable to the three heavy-oil accumulations presented in the table (West Sak, Ugnu and Milne Point–Schrader Bluff), the projections in the table reflect an ultimate recovery of 51% of the original oil in place. Our projected recovery from the main Prudhoe Bay reservoir is almost 60%, and technological innovation may improve this recovery rate, depending in great part on how much the producers invest to develop those reserves. A 1% increase in recovery from the Prudhoe Bay field is the equivalent of finding a new field with 237 million barrels of economically recoverable oil.

Getting back to the heavy-oil accumulation at West Sak, Ugnu and Milne-Schrader, these reserves are enormous, amounting to 20.6 billion barrels of oil in place, or almost a third of the original oil in place in all the discovered fields on the North Slope. Unlike the highly productive sandstone formation at Prudhoe Bay, we project that a little over 3%, or 712 million barrels, of this oil will be recovered. This relatively cold, heavy or viscous oil flows poorly and is difficult to extract from the reservoir. The reservoir rock containing these accumulations crumbles easily, causing sand to impede the flow of oil. Viscous oil is also less valuable because it contains a smaller proportion of the lighter, more valuable hydrocarbons found in conventional oil. Technological developments (horizontal wells and jet pumps, for example) have improved the economic feasibility of recovering some of this oil, but most of it will probably remain uneconomic and in the ground.

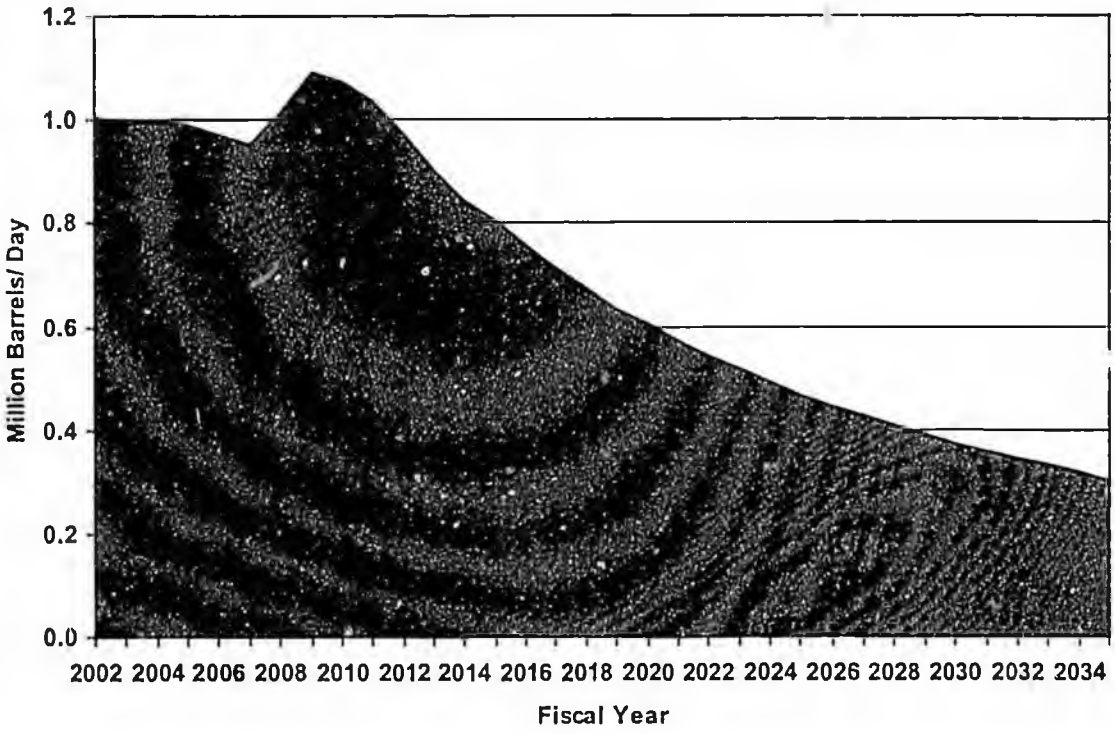
State tax policy could have some effect on whether this oil is produced, but the geology of the reservoir and the cost of extraction have as much to do with production rates as state tax policies.

The estimated production volumes set forth in the column "Currently Projected Additional Production" in Table 1 match (with one small exception) the production volumes the Department of Revenue would normally include in its periodic revenue forecasts. This column includes the department's production estimates from already-discovered fields. Our periodic revenue forecasts, for the most part, also reflect only production from discovered fields. However, where particular circumstances lead us to believe current exploration activity is very likely to result in new production within the next five years, we include estimated production from those undiscovered fields in our forecast.

In this forecast we have included production from as-yet-unverified Kuparuk satellite prospects. The producers have explored and continue to explore in the Kuparuk area. They have enjoyed a high rate of success in finding Kuparuk satellites, and they can bring these satellites on line in three years or less, given the available facilities at Kuparuk. Therefore, we reasoned that to leave these barrels out of the short-term forecast would understate likely production. This forecast includes 99 million barrels from these Kuparuk satellites, with production beginning in Fiscal 2005 at 5,000 barrels per day and peaking in 2007 at 20,000 barrels per day.

That's really what most people look for in our spring and fall production forecasts — how much oil will be produced each year. To arrive at those projections, we take the total production volumes in the "Currently Projected Additional Production" column from Table 1 and allocate those volumes year-by-year to reflect our estimate of the time when the oil will actually be produced. Figure 1 on the next page reflects this production profile. See also Table 8, Page 37; Table 20, Page 60; and Appendix D.

Figure 1. Department of Revenue ANS Production Forecast



The Department of Revenue estimates there could be 8.5 billion barrels of additional production from currently discovered North Slope fields (Table 1). Approximately 3.8 billion of those 8.5 billion barrels could be recovered with only those investments needed to preserve the integrity and safety of the facilities (the LTO investments referred to previously).[4] Production of the other 4.7 billion barrels would require significant additional investment. Table 2 on the next page reflects these amounts field by field.

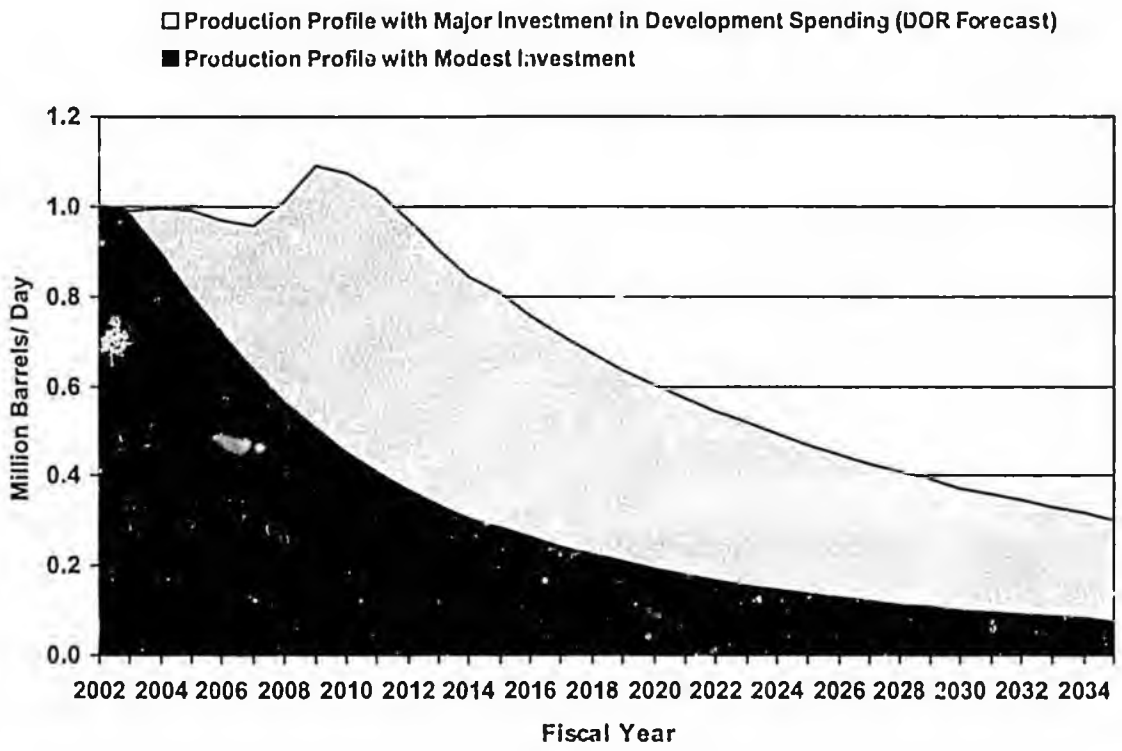
Figure 2 on Page 16 reflects these amounts by year. Clearly then, about one-half of the oil in this forecast will require major additional investment. If that investment is not made, is delayed, or is less than anticipated, then production will fall short of what we forecast.

(4) We derived this 3.8 billion barrels as follows: 1) For fields on decline, we derived a reserve amount and a corresponding production profile for this moderate investment case by first eliminating the reserves and production from anticipated development drilling and EOR/facility expansion projects. Then, we calculated an initial field decline rate by looking at production from each field as a whole (or in some cases at an isolated group of wells in that field) during a period of relatively low investment in that field or field area. We assumed the decline would be exponential (a constant year by year percentage decline) rather than hyperbolic (percentage decline slowing over time); 2) for newer fields not yet on decline, we used a lower-end reserve number in estimating a production profile; and, 3) finally, we assumed no new fields would be discovered and brought online in a moderate investment world.

Table 2. North Slope Remaining Oil Reserves Categorized by Investment Required
Modest Additional Investment orMajor Additional Investment
Million Barrels

	Remaining Reserves Recoverable with Modest Additional Investment	Additional Reserves Recoverable with Major Additional Investment	Total Possible Remaining Reserves from Both Modest and Major Investment
Producing Fields			
Prudhoe Bay (Oil and NGLs)	1,400	2,000	3,400
Prudhoe Bay satellites (Midnight Sun, Aurora, etc.)	160	340	500
Lisburne	40	0	40
Point McIntyre	130	40	170
Greater Point McIntyre Area (Niakuk, etc.)	50	0	50
Kuparuk	850	290	1,140
Kuparuk Satellites excl. heavy oil (Tabasco, Tarn, etc.)	140	0	140
West Sak	50	320	370
Milne Point- Kuparuk and Sag River	170	50	220
Milne Point- Schrader Bluff	120	190	310
Duck Island Unit (Endicott, Eider, Sag Delta)	130	40	170
Badami	2	0	2
Alpine	380	80	460
Northstar	130	70	200
Subtotal	**3,752**	**3,420**	**7,172**
Discovered Non-Producing Fields			
Alpine Satellites (Nanuq, Fiord, etc.)	0	180	180
Liberty	0	150	150
Point Thomson and Related Fields (Sourdough, Yukon Gold)	0	560	560
Sandpiper	0	60	60
NPR-A (Rendezvous/Spark)	0	400	400
Ugnu	0	0	0
OCS Offshore (Kuvlum, Hammerhead)	0	0	0
Subtotal	**0**	**1,350**	**1,350**
Total	**3,752**	**4,770**	**8,522**

Figure 2. ANS Production Forecast
Modest Investment vs. Significant Investment



New Discoveries

According to the most recent assessments by the U.S. Geological Survey, new discoveries in five areas could significantly add to North Slope reserves within the next few decades: (1) the National Petroleum Reserve-Alaska (NPR-A), (2) Arctic National Wildlife Refuge (ANWR), (3) Central North Slope, (4) Eastern Thrust Belt, and (5) Beaufort Shelf. [5] Discovery and development of these potential reserves will depend on oil prices, Alaska's competition for oil exploration investment dollars worldwide and, in the case of ANWR, congressional action.

NPR-A.

NPR-A probably contains 9.3 billion barrels of technically recoverable oil, according to the Geological Survey's 2002 assessment of the area. However, the federal agency believes this oil is mostly in relatively small accumulations of 32 million to 256 million barrels. They do not believe NPR-A contains a field as large as Kuparuk (6 billion barrels of original oil in place), let alone one the size of Prudhoe Bay (over 23 billion barrels of original oil in place). Another disadvantage is that USGS believes NPR-A's oil is spread out in multiple accumulations the size of Alpine (429 million barrels), Tarn (70 million barrels) and Nanuq (40 million barrels). These fields, they say, are scattered over an area of 36,000 square miles.

(5) The Minerals Management Service (MMS) made this assessment in 2000.

Due to the small size of the oil reservoirs and the high cost of transporting oil from those reservoirs to market, USGS estimates that NPR-A's reserves are uneconomic at West Coast ANS prices of $20 a barrel or less. However, at a West Coast price of $22 per barrel, 1.3 billion barrels would be economically recoverable. If West Coast ANS prices were $25 per barrel, 3.7 billion of the 9.3 billion barrels would be economic.

In addition to anticipated but undiscovered oil, NPR-A contains some already discovered oil. ConocoPhillips last year announced a discovery on the east side of NPR-A. The Department of Revenue believes that discovery will yield 400 million barrels of recoverable reserves from multiple accumulations, and we have included these barrels in our forecast. These 400 million barrels are included in the estimate of 1.3 billion barrels of economically recoverable oil from NPR-A at $22 a barrel. We forecast production from this discovery to begin in Fiscal 2008 at a rate of 30,000 barrels per day and peaking at 95,000 barrels per day in 2011. Meanwhile, ConocoPhillips plans to continue drilling exploratory wells in NPR-A.

ANWR.

Though the USGS estimates that ANWR contains only slightly more technically recoverable oil than NPR-A (10.3 billion barrels vs. 9.3 billion barrels), ANWR's oil is probably contained in larger reservoirs, according to the USGS. For that reason, USGS believes the ANS West Coast price would have to fall below $16 for all of the projected ANWR reserves to become uneconomic. At $22 per barrel, USGS believes 4 billion barrels of ANWR reserves would be economic (vs. 1.3 billion for NPR-A at the same price). However, ANWR has major hurdles to overcome, including congressional approval, environmental impact studies and lease sales before any exploratory wells could be drilled. Thus the U.S. Energy Information Agency estimates that nine years will pass between congressional approval for oil drilling in ANWR and first production.

Adding New Discoveries to Our Production Forecast.

Using the Geological Survey's assessment of North Slope oil potential and assuming a long-term West Coast price of $22 per barrel, the following table reflects the USGS projection of economically recoverable reserves from future North Slope discoveries.

Table 3. USGS- Estimated Economically Recoverable Reserves From New North Slope Discoveries at $22 per barrel ANS Price Millions of Barrels

Undiscovered Fields	Reserves
NPR-A Net of Rendezvous	900
Central North Slope Satellites	1,500
Eastern Thrust Belt and Foothills	900
ANWR	4,400
Beaufort Shelf Federal Offshore	2,600
Total Undiscovered	**10,300**

BP recently announced it was using a Brent price of $16 per barrel to evaluate the economic feasibility of its oil production investments worldwide. This price closely approximates a U.S. West Coast ANS price of $16 per barrel, and is slightly below the long-term average price for North Slope crude over the 15-year period 1986 through 2000. Other North Slope producers have not officially announced the oil prices they are using to evaluate the feasibility of new projects. However, we believe some are using a price that is closer to the price the Department of Revenue is projecting in this forecast.

For several years the Department of Revenue has consistently forecast that ANS prices would continue to maintain the long-run average of $16 to $17 per barrel that persisted from 1986 to 2000. As we explain later in this forecast, we are changing our long-run outlook and we are forecasting a substantial increase in the long-run delivered West Coast price of ANS to $22 per barrel. If we are correct in making this change, and if exploration and production companies interested in the North Slope were to base their investment decisions on this higher price, then we believe the production profile reflected in Figure 3 on the next page would be an optimistic — but perhaps achievable — target. We have not included any production from ANWR in this profile because congressional action is required before new exploration could commence there.

Attracting and Monitoring Investment Dollars.

Additions to North Slope production can come in two ways: 1) recovering a greater proportion of the oil in already discovered fields, or 2) discovering new fields or satellites to discovered fields. Over the next decade we project that adequate spending on discovered fields would maintain North Slope production near the million-barrels-a-day level. To keep production at or above a million barrels a day in the following decade, however, companies will have to discover new fields and new satellites to existing fields this decade. Then as discovered field production spending declines, companies will have to spend more money to bring production online from new satellites and new fields.

The figure on the next page illustrates the relationship between investment dollars spent to find and develop oil on the North Slope and the vitality of the oil industry in Alaska over the next two decades and beyond.

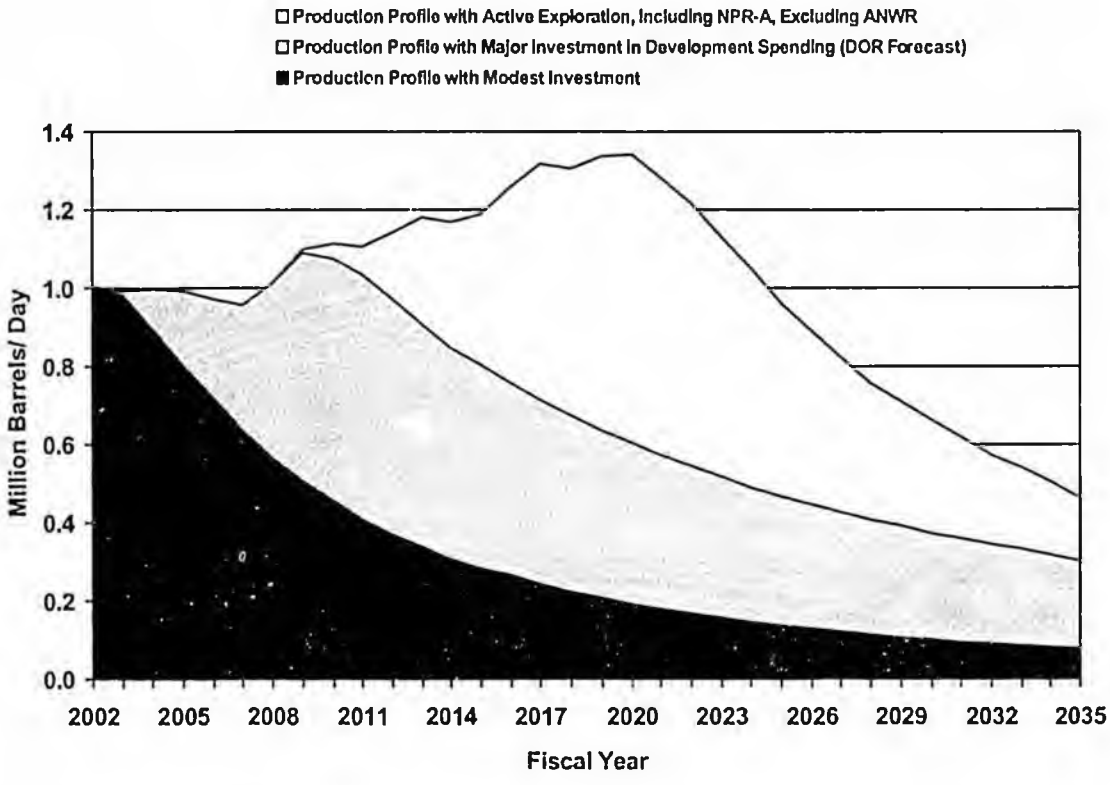
- If North Slope producers invest only at the level required to maintain the safety and integrity of the current production infrastructure, the dark-colored dotted area reflects the likely production profile.

- If the companies involved invest significantly to produce oil that has already been discovered, then the production forecast reflected by the light and dark dotted areas is, we believe, the likely profile. Our current revenue forecast is based upon this production profile.

- If immediate, substantial, successful and continuing exploration occurs, the top line volume profile — or more — may be attainable.

- Finally, even if exploration investments and successes are less than these optimistic hopes, unexpected additional discoveries would add to our forecast projections.

Figure 3. ANS Production Forecast
Modest Investment vs. Significant Investment vs. New Discoveries



For discovered fields, we believe it will cost $3 per barrel to drill the necessary wells and provide the infrastructure to produce the additional 4.7 billion barrels of discovered North Slope oil requiring substantial investment. (These are the 4.7 billion barrels of the 8.5 billion barrels already discovered on the slope that require significant investment, as opposed to the 3.8 billion barrels that could be produced with more moderate investments in the operations, safety and integrity of the facilities.) Therefore, to fully replace the 365 million barrels of reserves (1 million barrels per day) produced each year, the companies must spend around $1.1 billion per year ($3 per barrel x 365 million barrels).[6] In addition, the companies must spend $300 million per year in LTO capital just to preserve the safety and integrity of their facilities and to maintain a base flow of oil.

For undiscovered fields, and to maintain at least a million barrels a day of production in the following decade, new fields will need to be discovered this decade at a projected finding cost of $1 per barrel.

(6) As development spending on discovered fields declines, development spending on newly discovered fields must increase to maintain production levels.

Therefore, to find most of the 6 billion of possible new-field barrels estimated by the Minerals Management Service and USGS, the companies must spend $300 million to $365 million per year [7] in exploration spending at NPR-A, the Central North Slope satellites, Eastern Thrust Belt and foothills, and Beaufort Shelf. That's in addition to the $1.4 billion per year in ongoing development spending on past, present and future discovered fields.

In sum, to reach our most optimistic forecast, the companies will need to spend $1.7 billion to $1.8 billion a year in capital spending. (These investment amounts are only for exploration and development on the North Slope; they do not include downstream investments in the Trans-Alaska Oil Pipeline or marine vessels).

What Do We Know About Current Investment Levels on the North Slope?

ConocoPhillips reports its investments in Alaska in its annual 10K statements filed with the Securities and Exchange Commission and in its annual reports to shareholders. While BP does not separately reports its Alaska investments in its annual reports to securities regulators or its shareholders, it has publicly announced its investment plans for its North Slope operations. ExxonMobil neither separately reports nor publicly announces the amounts it plans to invest in its share of North Slope operations. Since all of ExxonMobil's current North Slope operations are conducted in partnership with other companies and since those partners make public the amount of their Alaska North Slope exploration and development investments, we believe it is possible to derive a reasonably close approximation of ExxonMobil's North Slope investments. Other companies currently active on the North Slope - ChevronTexaco, Anadarko and EnCana — publicly disclose the amounts of their North Slope capital spending programs.

From the information we have been able to compile, the Department of Revenue estimates that over the three-year period 2000-2002 the pertinent companies averaged $1.4 billion in annual exploration and production investment on Alaska's North Slope. This is $300 million to $400 million below the annual investment level we believe is required to achieve the top production profile reflected in Figure 3 on Page 19. Although $300 million to $400 million may represent only a 20% shortfall in our back-of-the-envelope estimations, much of the deficiency is in exploration spending. Lack of exploration spending makes our production forecast for as-of-yet-undiscovered barrels highly speculative.

It looks as though North Slope exploration and production investment for the current year will be about $1.2 billion. This is a 20% drop from spending in the years immediately proceeding 2002. Certainly, the completion of new facilities at Northstar and Alpine account for most of that reduction in 2002. Still, we believe companies are spending less in both development and exploration than they need to replace current production on the schedule we have forecast.

The three major North Slope producers currently take different approaches to adding to their reserve and production base on the North Slope. ConocoPhillips has an active wildcat exploration program and is actively exploring NPR-A. It also has an active satellite exploration program. BP has almost completely abandoned North Slope wildcat exploration, but it has made a significant commitment to the application of new technology to its heavy-oil interests in the Milne Point-Schrader Bluff reservoir and to search for satellite accumulations near the major producing reservoirs. ExxonMobil, it would appear, is seriously moving ahead with the potential development of the Point Thomson field. If that field is developed, BP, ConocoPhillips and ChevronTexaco — as partners in that field — will have to share in that investment. Other than Point

(7) Our most optimistic forecast has production declining below a million barrels a day in 2023. The $300 million of exploration spending postpones the decline another decade. To discover enough barrels to totally replace the 365 million barrels of reserves produced each year will take at least $365 million a year.

Thomson, ExxonMobil, like BP, is missing from frontier exploration and development on the North Slope, although it continues to pay its partner share in Prudhoe Bay production investments and satellite exploration there.

Great Expectations.

To maintain — and with luck increase — Alaska's North Slope oil production at a million barrels per day, this analysis leads to the conclusion that for each barrel leaving the North Slope, $5 must come back to pay for new exploration and development. Is this a realistic expectation? Figures 4 and 5 on Page 23 provide one perspective for thinking about this question.

These two figures depict the per-barrel free cash flow available from North Slope production under two different price scenarios using our current forecast of North Slope costs in Fiscal 2008, the first year we expect production from NPR-A. The costs reflected for the Explorer-Producer would all be actual out-of-pocket costs assuming the company has no ownership interest in feeder pipelines, TAPS or marine tankers. The Integrated-Producer could receive as additional free cash flow roughly $2 per barrel as a consequence of its ownership interests in pipelines and tankers.

At a $22-per-barrel West Coast ANS price, the free cash flows attributable to North Slope production for both the Integrated-Producer at Prudhoe Bay and the Explorer-Producer in NPR-A would be about $7.30 per barrel. We need to hope they will invest more than two-thirds of that amount in new exploration and production if we are to enjoy the benefits of million-barrels-per-day production after 2010. At a $17.70-per-barrel West Coast ANS price (the average price from 1986 to the present), the per barrel free cash flow attributable to North Slope production operations for both hypothetical producers would be about $5.25 per barrel. A $5-per-barrel exploration and production reinvestment would consume almost all of this projected free cash flow, leaving very little to pay interest or dividends for the capital invested in North Slope production operations.

Looking at it coldly from the perspective of the investor, after setting aside money for reserve replacement through exploration and development, there is roughly $2.25 left over from $22 oil to pay interest and dividends. But at a price of $17 per barrel, after subtracting for reserve replacement, the investor essentially gets nothing. It is clear that Alaska needs world oil markets to forget the $17 average price of the past 15 years.

What about new entrants and investors in Alaska? They must bring hundreds of millions of dollars raised from production or investment elsewhere to Alaska. Presumably, they believe Alaska will be a better investment than their alternatives, including the original source of the cash. We must also recognize that the current major investors in Alaska are worldwide, integrated producers evaluating broad portfolios of opportunities. Although we can encourage them to reinvest in Alaska, movement of capital between projects and regions is one of the economic advantages of a large integrated company.

As Alaska matures, companies already producing here will probably require that Alaska operations are positive or at least cash neutral. That is, Alaska oil producers should not expect infusions of money from parent companies but must pay for future opportunities from their own Alaska operations. On the other hand, new entrants must be willing to accept periods of negative cash flow while they explore and develop before any oil — and money — starts to flow.

What Can the State Do to Make This Investment More Likely?

- **Require the Investment.**
  The state could write investment or work commitments into future oil and gas leases, obligating leaseholders to those commitments. If the company doesn't do the work, the state could either take back the lease or require the leaseholder to allow another company to step in and do the work. But such lease terms would probably reduce both the price and marketability of future leases. The state cannot unilaterally change the terms of existing leases.

- **Provide Incentives Through Tax Deductions or Tax Credits.**
  Although there are some nuances, fundamentally the more the government takes, the less there is to reward industry for making investments. Consequently, the lower the government take, the more likely the producer or explorer will invest. The incentive, if it is optimally structured, may lower the government's short-term take with the hope of increasing the long-term public benefit, or it may maintain the current level of total tax revenues while shifting the burden among producers.

  The proceeds from producing oil in Alaska are taxed the same whether they are reinvested in Alaska or elsewhere in the world. The state could modify its production tax or income tax laws to provide a credit or a deduction for reinvestment in Alaska exploration or production. Alaska is particularly alone among major oil producers in not treating oil dollars that are reinvested here more favorably than oil dollars invested elsewhere.

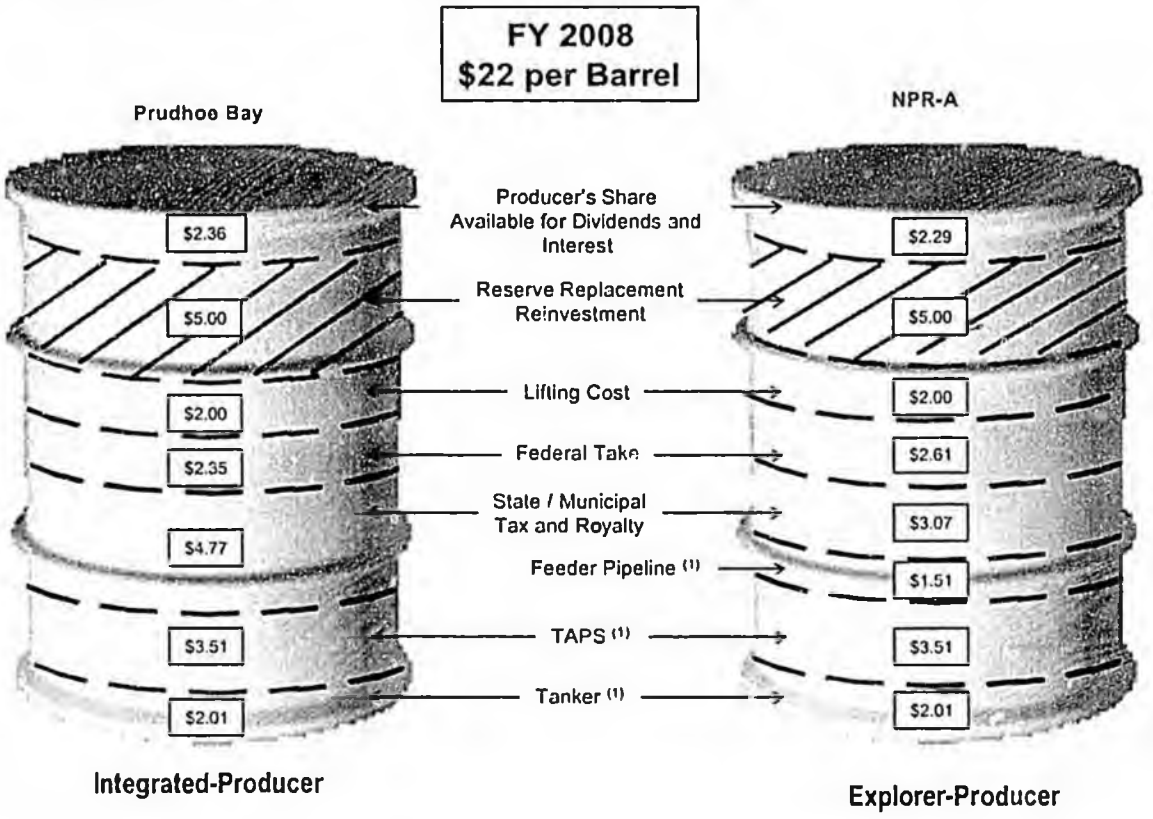
- **Make Alaska's Fiscal System Less Regressive.**
  When oil prices are very low, the state and federal government together take more than 100 percent of the profit from Alaska oil operations. When oil prices are high, the total government take from Alaska oil operations is low compared to comparable oil-producing provinces. This occurs because three major features of Alaska's fiscal system — the 20-mill property tax, the production tax and the royalty provisions in state leases — are not based on profits. Even when prices are so low that oil production operations are unprofitable, the state continues to receive a share from some or all of these sources.

  The state could modify its fiscal system to make it less regressive and thus share the risk of low oil prices and earn more when oil prices were high. Properly structured, such a modification could yield more total revenue for the state while at the same time making Alaska a less risky place to explore and produce oil.

  A less regressive, more progressive fiscal system would require fiscal discipline by the state government, however. When oil prices were high, the state would have to save for the time when oil prices were low. One need only look to the Province of Alberta to appreciate the difficulties governments can encounter in managing huge swings in oil and gas revenue caused by a very progressive fiscal system.

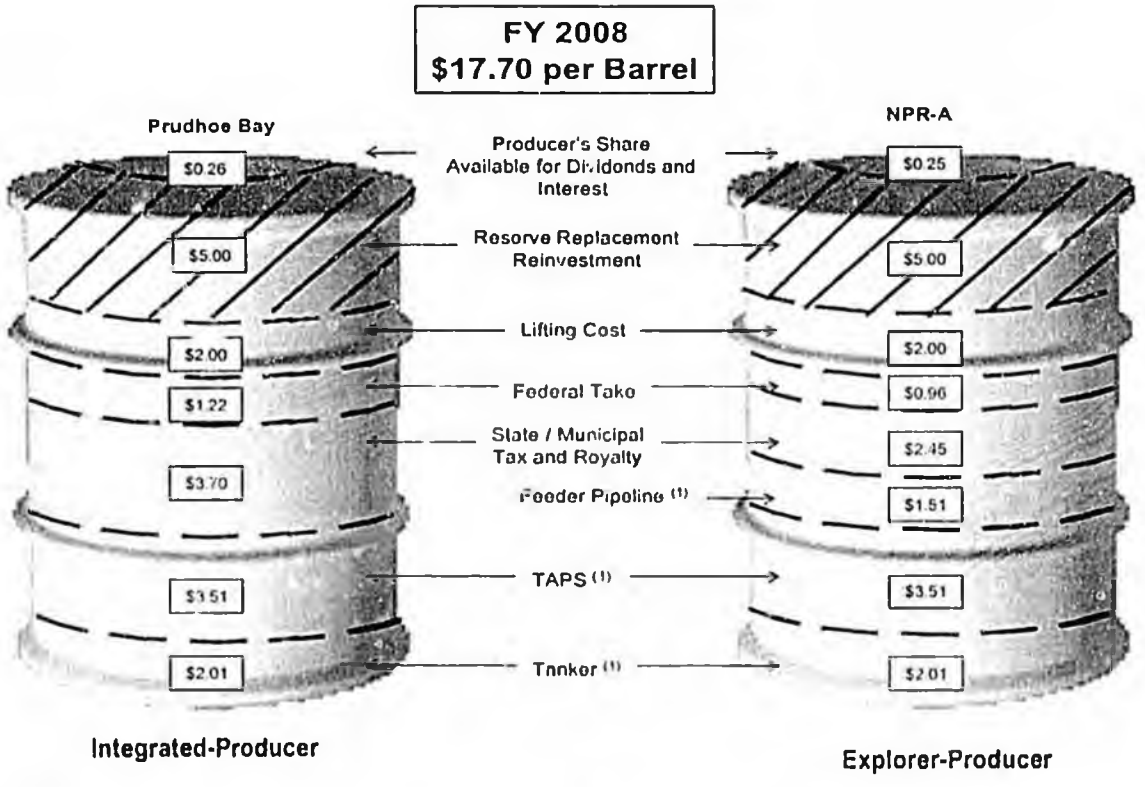
- **Eliminate the Structural Deficit in Alaska's Public Finances.**
  Current or would-be investors in the oil exploration and production opportunities in Alaska are necessarily going to be less willing to invest here if they believe they will be the ones called upon to plug our structural deficit with a "gap tax."

Figure 4. ANS Cash Flow With $5 Reserve Replacement Reinvestment



(1) These are notional tariff values and include capital recovery so an owner of the asset may recapture some of these costs.

Figure 5. ANS Cash Flow With $5 Reserve Replacement Reinvestment



(1) These are notional tariff values and include capital recovery so an owner of the asset may recapture some of these costs.

Gas Production as an Economic Opportunity

North Slope

Alaska's North Slope contains large amounts of natural gas. Prudhoe Bay holds approximately 24 trillion cubic feet (tcf), with 8 tcf at Point Thomson. Other discovered sources make for 35 tcf total discovered gas, and geologists estimate there may be as much as 100 tcf. Commercializing North Slope gas is one of the state's largest potential economic development prizes. A 100-tcf gasline project at 4.5 billion cubic feet (bcf) per day would support a vibrant gas exploration and production industry in Alaska, providing $400 million to more than $1 billion a year in public revenue for almost 60 years, depending on the cost of the project and gas prices.

Unfortunately, the gas has not been commercialized due to its distance from markets and the cost risks of arctic construction. Sponsors estimate a gas pipeline to the Midwest would cost $20 billion. This distance creates high transportation expenses, adding to the cost of the gas in a competitive marketplace. If gas prices in the markets cannot cover the expenses and a reasonable profit, the project will not be feasible. Potential project sponsors have looked at lowering the unit costs by increasing the size of the project to ship more gas, but a large project creates its own set of risks, mainly the potential for a large loss if unfavorable events unfold.

The project faces two main risks: (1) the construction cost overrun risk, and (2) the commodity price risk, the latter probably being more problematic. The pipeline will only be financed under conditions where the sponsors agree to pay the tariff regardless whether the gas is shipped. That is the only way investors would agree to loan money for the pipeline. Those "ship-or-pay" contracts mean that even if gas prices are less than the full tariff, the producers would still have to pay the tariff — and lose money on each gas molecule they sell.

Part of the problem for a gasline is that the transportation costs (the pipeline tariff) eat up about 75% of the value of the gas when it's sold coming out of the line. That doesn't leave much margin to cover production costs, taxes, exploration and development costs and profit if gas prices take a tumble. The story is much different for North Slope oil, where the transportation costs consume only 25% of the value when oil prices are in the $20 range.

Because of the slimmer margin for natural gas, the commodity price risk is a problem for the Alaska project. Project sponsors and investors need to focus on what gas prices will be for the next 30 years, the expected term of bonds sold to finance the project.

In any market for any commodity, consumers will purchase the lowest-cost item. Ordinarily, markets evolve by having lower-cost supplies enter the market first, followed by higher-cost supplies as needed to meet demand. There can be only one price in a commodity market, thus the market price for the entire supply will be set by the marginal supply of the last quantity to enter the market. The price of the marginal supply, and thus the market price itself, will be the cost of producing that last unit to enter the market.

In the situation where a specific quantity (such as natural gas) is already in the market, and a lower-priced one subsequently presents itself, consumers will naturally gravitate toward the latter — and the former must match the lower price to stay competitive. This is the challenge for North Slope gas.

Accordingly, a North Slope gas project will not be economically feasible if the gas cannot be transported to market for less than what new competing gas supplies will cost. The market will not pay above the lowest-cost new supply available. Therefore, the feasibility of the project depends largely on how potential sponsors view competing supplies from competing sources. The commodity price risk revolves around whether there are material quantities of lower-price gas to meet the market demand.

Most financial resources recently have focused on a pipeline through Canada, splitting off to the Midwest and West Coast markets, as the most promising option. The potential numerous sources of competing supplies make this a risky project. These could come, for example, from the deepwater Gulf of Mexico, liquefied natural gas (LNG) imports from the Atlantic or Pacific Basin, coal-bed methane, or from new technologies brought on by higher prices, just to name a few. Accordingly, an Alaska project needs to shed — or share — some risks before ever becoming a reality. Certainly, anything that creates more risks is going in the wrong direction.

Although lots of people are working hard to reduce the project risks, one (or both) of two things appear critical if the project is to be economically attractive to sponsors and investors:

- The sponsors and investors must hold the view that Lower 48 gas prices will be high enough in the years ahead so that North Slope gas will be profitable.

- Efforts by the state and/or federal governments to reduce the project risk must be successful. These efforts could include a price support or other means of sharing the commodity price risk, similar to the tax credit provision of the federal energy bill that passed the U.S. Senate this past session but died with adjournment.

Some people believe the best option is to pipe the gas to tidewater, liquefy it, and ship it to Pacific Rim markets as liquefied natural gas (LNG). This may be more risky than a pipeline to the Lower 48. The Pacific Rim is extremely bountiful in gas supplies at tidewater that do not have to bear the cost of an expensive 800-mile arctic Alaska pipeline to reach tidewater. This puts Alaska at a significant competitive disadvantage to other producers with gas at tidewater.

Even if the LNG were to go to Mexico's Baja Peninsula and then by pipe into California, as some have suggested, Alaska still would be at a price disadvantage. LNG tanker costs are relatively insignificant compared to the 800-mile pipeline, and the pipeline disadvantage would more than offset any shipping advantage Alaska might otherwise have over LNG supplies from Indonesia, Australia or East Timor. Moreover, at this time there are no LNG receiving terminals or even plans to start construction on the Baja, where environmental concerns are apparent. If an LNG project were smaller than 4.5 bcf/day, state revenues would be reduced accordingly.

Despite the odds, many Alaskans have not given up on an LNG project. More than 60% of Alaska voters on November 5 approved a ballot measure to create the Alaska Natural Gas Development Authority to acquire and sell gas and build, own and operate a natural gas pipeline for LNG export. It is not clear that the authority reduces any of the risks that are a barrier to development and may, in fact, transfer many of those financial risks to the state. Supporters of the ballot measure say the project would cost $12 billion for 2 bcf/day.

Finally, another option for North Slope gas commercialization is a process where gas can be converted to high-value liquids and marketed with the oil. The technology for this "gas-to-liquids" process (GTLs) is still in the pre-feasibility stage, and at this time it would be prohibitively expensive to use on the North Slope.

Cook Inlet

Annual gas consumption and production in Cook Inlet over the past 20 years has been fairly steady at about 200 billion cubic feet (bcf). Cook Inlet currently has about 2.5 tcf of reserves, or a little over 10 years of consumption. Consumption is allocated approximately 15% to power generation, 15% to gas utilities, 40% to liquefied natural gas (LNG) exports to Japan from the Phillips' terminal at Kenai, and 30% to ammonia/ urea production at Agrium's Nikiski plant.

Most Cook Inlet gas was discovered in a few very large fields in the late 1950s and 1960s. Since consumption has not changed materially over this period, the years of remaining reserves have decreased notably over the past several years. Also, there have not been large discoveries in recent years. This has caused many people to be concerned that Cook Inlet is running out of gas.

This, however, may be a premature conclusion. The large discoveries of gas years ago created a supply situation such that new supplies were not needed and any new discoveries would go unsold for years. Thus there was little incentive to look for gas. In the Lower 48, for example, annual discoveries have nearly offset annual consumption, and proven reserves have stood relatively constant at eight years. Companies do not need to invest in developing more new supplies than are needed to keep pace with consumption.

Accordingly, increased exploration is beginning to occur in Cook Inlet to find reserves to meet future demand. There is a large inventory of prospects, and it remains to be seen which ones produce how much gas.

III. EXECUTIVE SUMMARY

A. Total Revenue

Table 4 summarizes the state's total revenue outlook by major revenue component (Preliminary FY 2002 and projected FY 2003-2004). Preliminary revenue amounts have not been audited.

Table 4. Total Revenue
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Oil Revenue			
Unrestricted			
Property Tax	49.6	44.3	44.0
Corporate Income Tax	178.4	160.0	200.0
Production Tax	496.3	522.5	438.3
Royalties (including Bonuses & Interest)	595.8	741.2	644.4
Subtotal	**1,320.1**	**1,468.1**	**1,326.7**
Restricted			
Royalties to Permanent Fund & School Fund	264.2	327.2	295.6
Settlements to CBRF	90.2	30.0	20.0
NPRA Royalties, Rents & Bonuses	1.7	34.8	2.9
Subtotal	**356.1**	**392.1**	**318.6**
Subtotal Oil	**1,676.2**	**1,860.1**	**1,645.3**
Non-Oil Revenue (Except Federal and Investment)			
Unrestricted			
Taxes	177.6	171.4	176.8
Charges for Services	20.2	12.7	12.7
Fines and Forfeitures	10.6	10.6	10.6
Licences and Permits	42.2	32.5	33.2
Rents and Royalties	11.8	11.8	11.8
Other	28.3	14.4	15.0
Subtotal	**290.7**	**253.4**	**260.1**
Restricted			
Taxes	57.7	62.8	67.8
Charges for Services	232.2	306.0	308.4
Fines and Forfeitures	24.9	24.7	21.5
Licenses and Permits	25.6	25.9	26.1
Rents and Royalties	0.0	0.0	0.0
Other	125.1	129.0	82.3
Subtotal	**465.5**	**548.4**	**506.1**
Subtotal Non-Oil (Except Federal and Investment)	**756.2**	**801.8**	**766.2**

Table 4. Total Revenue, cont.
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Federal Revenue			
Restricted			
Federal Receipts	1,572.1	2,321.9	2,321.9
Subtotal Federal Revenue	1,572.1	2,321.9	2,321.9
Investment Revenue			
Unrestricted			
GeFONSI Pool Investments	35.4	25.6	11.6
Investment Loss Trust Fund	0.1	0.1	0.1
Interest Paid by Others	7.6	5.0	5.0
Subtotal	43.1	30.7	16.7
Restricted			
GeFONSI Pool Investments	10.6	7.2	3.4
Constitutional Budget Reserve Fund	122.3	83.7	48.5
Other Treasury Managed Funds	(0.8)	9.1	32.9
Alaska Permanent Fund (GASB) [1]	(617.0)	129.0	1,815.8
Subtotal	(484.9)	229.0	1,900.6
Subtotal Investment Revenue	(441.8)	259.7	1,917.3
Grand Total	3,562.7	5,243.5	6,650.7

(1) Governmental Accounting Standards Board (GASB) principles recognize changes in the value of investments as income or losses at the end of each trading day, whether or not the investment is actually sold.

Figure 6. FY 2002 Total Revenue — $3.6 Billion

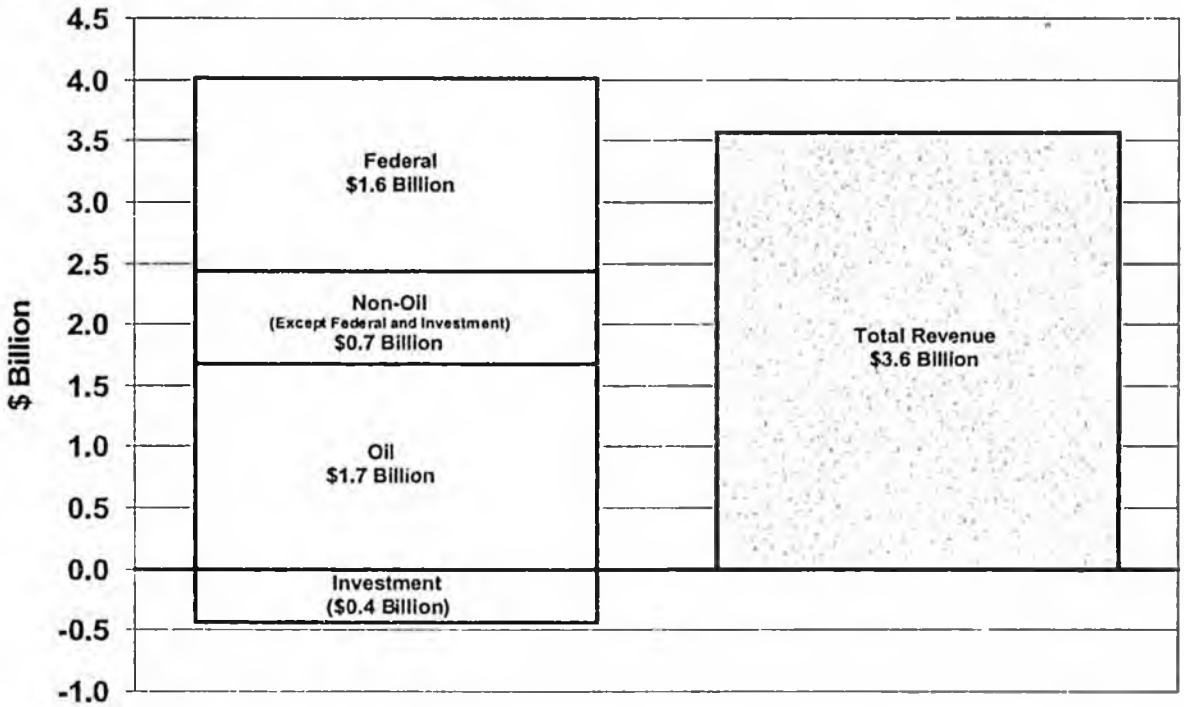


Figure 7. FY 2002 Unrestricted and Restricted Revenue

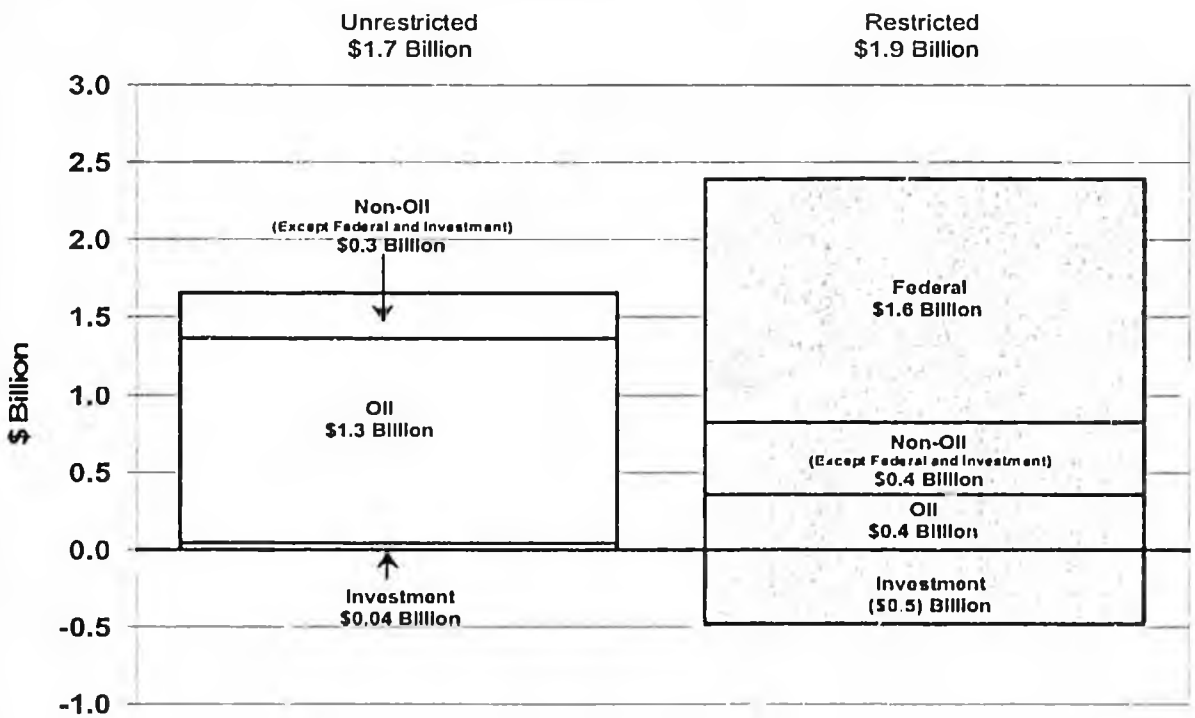


Table 5. Total State Revenue, Preliminary FY 2002 and Projected 2003-2004 Unrestricted [1] and Restricted by Major Source
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
Oil Revenue	1,320.1	1,468.1	1,326.7
Non-Oil Revenue (Except Federal and Investment)	290.7	253.4	260.1
Investment Revenue	43.1	30.7	16.7
Subtotal	**1,653.9**	**1,752.2**	**1,603.5**
Restricted			
Oil Revenue	356.1	392.1	318.6
Non-Oil Revenue (Except Federal and Investment)	465.5	548.4	506.1
Federal Revenue	1,572.1	2,321.9	2,321.9
Investment Revenue	(484.9)	229.0	1,900.6
Subtotal	**1,908.8**	**3,491.4**	**5,047.2**
Grand Total	**3,562.7**	**5,243.5**	**6,650.7**

(1) Total unrestricted revenue as reported for AKSAS (Alaska State Accounting System) with adjustments for certain municipal sharing of statewide taxes and additional spending restrictions.

B. Unrestricted General Purpose Revenue

Unrestricted General Purpose Revenue is the amount generally used for budget planning purposes. Table 6 on the next two pages sets out preliminary FY 2002 Unrestricted General Purpose Revenue and our revised forecast for FY 2003 and 2004.

We forecast Unrestricted General Purpose Revenue by first estimating General Fund Unrestricted Revenue, which includes all unrestricted revenue items in the Alaska State Accounting System (AKSAS), as well as certain program receipts. After consulting with the Governor's Office of Management and Budget and the legislature, we adjust our forecast of General Fund Unrestricted Revenue to derive a forecast of total Unrestricted General Purpose Revenue. Reductions include: (1) earmarking revenue for specific programs, (2) pass-through revenue for qualified regional aquaculture and dive fishery associations, and (3) revenue shared with local governments and organizations (e.g., fisheries taxes). Additions include transfers from the unclaimed property trust.

Table 6. Unrestricted General Purpose Revenue
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
OIL REVENUE			
Property Tax	49.6	44.3	44.0
Corporate Income Tax	178.4	160.0	200.0
Production Tax			
Oil and Gas Production	486.7	513.1	428.7
Oil and Gas Hazardous Release	9.6	9.4	9.6
Subtotal	496.3	522.5	438.3
Royalties			
Mineral Bonuses and Rents	14.6	5.5	7.2
Oil and Gas Royalties	575.8	730.8	632.2
Interest Paid	5.4	5.0	5.0
Subtotal	595.8	741.2	644.4
Subtotal Oil Revenue	1,320.1	1,468.1	1,326.7
NON-OIL REVENUE (EXCEPT FEDERAL AND INVESTMENT)			
Non-Oil Tax			
Sales and Use			
Alcoholic Beverage	12.9	12.5	15.3
Cigarette	9.5	9.3	9.1
Other Tobacco Product	6.0	6.3	6.6
Insurance Premium	34.1	37.4	39.2
Electric and Telephone Cooperative	0.1	0.1	0.1
Motor Fuel Tax	40.2	36.1	37.5
Subtotal	102.8	101.7	107.8
Corporate Income Tax	53.4	50.0	50.0
Fish Tax			
Fisheries Business	12.7	11.1	11.1
Fishery Resource Landing	2.6	3.5	3.5
Subtotal	15.3	14.6	14.6
Other			
Mining	0.5	0.5	0.5
Estate	3.1	2.1	1.4
Charitable Gaming	2.5	2.5	2.5
Subtotal	6.1	5.1	4.4
Subtotal	177.6	171.4	176.8

(continued on next page)

Table 6. Unrestricted General Purpose Revenue, cont.
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
NON-OIL REVENUE (EXCEPT FEDERAL AND INVESTMENT)			
Charges for Services			
General Government	17.0	10.0	10.0
Natural Resources	2.0	1.5	1.5
Other	1.2	1.2	1.2
Subtotal	**20.2**	**12.7**	**12.7**
Licenses and Permits			
Motor Vehicle	35.7	29.8	30.5
Other	6.5	2.7	2.7
Subtotal	**42.2**	**32.5**	**33.2**
Fines and Forfeitures			
Other Settlements	5.0	5.0	5.0
Other Fines and Forfeitures	5.6	5.6	5.6
Subtotal	**10.6**	**10.6**	**10.6**
Rents and Royalties			
Land Leasing, Rental and Sales	10.8	10.8	10.8
Coal Royalties	0.6	0.6	0.6
Timber Sales	0.2	0.2	0.2
Cabin Rentals	0.2	0.2	0.2
Subtotal	**11.8**	**11.8**	**11.8**
Other			
Miscellaneous	13.3	10.4	11.0
Unclaimed Property	15.0	4.0	4.0
Subtotal	**28.3**	**14.4**	**15.0**
Subtotal Non-Oil Revenue (Except Federal and Investment)	**290.7**	**253.4**	**260.1**
INVESTMENT REVENUE			
GeFONSI Pool Investments	35.4	25.6	11.6
Investment Loss Trust Fund	0.1	0.1	0.1
Interest Paid by Others	7.6	5.0	5.0
Subtotal Investment Revenue	**43.1**	**30.7**	**16.7**
TOTAL UNRESTRICTED REVENUE	**1,653.9**	**1,752.2**	**1,603.5**

C. Oil Price Forecast

Oil revenue will continue to provide close to 80% of forecast Unrestricted General Purpose Revenue through FY 2009. Two elements are critical to the oil forecast: price and volume.

The spot price of ANS is quoted by subtracting a market differential from the price of West Texas Intermediate (WTI) on the New York Mercantile Exchange (NYMEX). There is no price for Alaska oil on the NYMEX. All of Alaska's current oil production is delivered to refineries on the U.S. West Coast (including Alaska and Hawaii). Consequently, Alaska's royalty and severance tax revenue depends in large part on the market price of Alaska North Slope crude oil (ANS) at U.S. West Coast refining centers.

The table below reflects actual prices for FY 2002 and the Department of Revenue's forecast of oil prices for the 8-year period beginning with the current fiscal year, FY 2003, and continuing through FY 2010. The short-term oil price forecast (FY 2003-2004) is based on a subjective assessment of market dynamics and trend analysis by participants at a Department of Revenue price scenario summit. Our long-term forecast (FY 2005-2010) is based on the premise that prices will converge to $22 per barrel, the low-end of OPEC's current price target range.

Table 7. Delivered Price for ANS Crude Oil
Average West Texas Intermediate (WTI), ANS West Coast and ANS Wellhead
$ per barrel

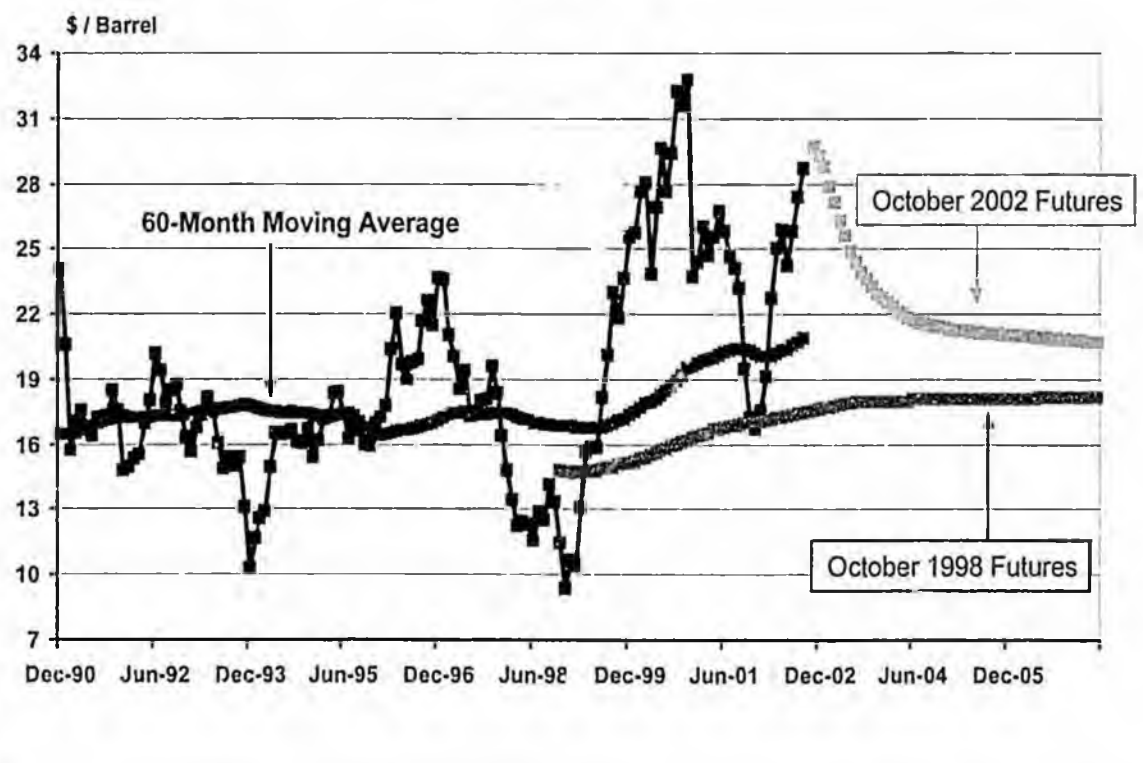
Fiscal Year	WTI	ANS West Coast	ANS Wellhead
Actual 2002	23.80	21.78	16.80
2003	27.34	25.94	20.53
2004	24.90	23.25	17.88
2005	23.65	22.00	16.56
2006	23.65	22.00	16.41
2007	23.65	22.00	16.30
2008	23.65	22.00	16.26
2009	23.65	22.00	16.28
2010	23.65	22.00	16.17

The prices we are forecasting are higher than the average market prices experienced over the 16-year period since the 1986 oil price collapse but are consistent with prices since 1999. The figure on the next page depicts: (1) the monthly West Coast ANS market price from December 1990 through September 2002; (2) the 60-month moving average West Coast market price for the same period; and (3) a set of derived ANS futures prices for October 1998 and October 2002.[1]

(1) The derived ANS futures price is based on the spot market differential between WTI and ANS applied to the WTI futures prices as reported on the New York Mercantile Exchange (NYMEX).

The figure below clearly illustrates the volatility of month-to-month crude oil prices. ANS West Coast prices during the pertinent time period ranged from just under $10 per barrel to over $32 per barrel. The average of the 60-month moving averages shown in the figure below is $17.71 per barrel. The derived futures market prices reflected below illustrates that the current convergence price has increased by about $3 per barrel since October 1998.

Figure 8. ANS West Coast and Futures Market Oil Prices

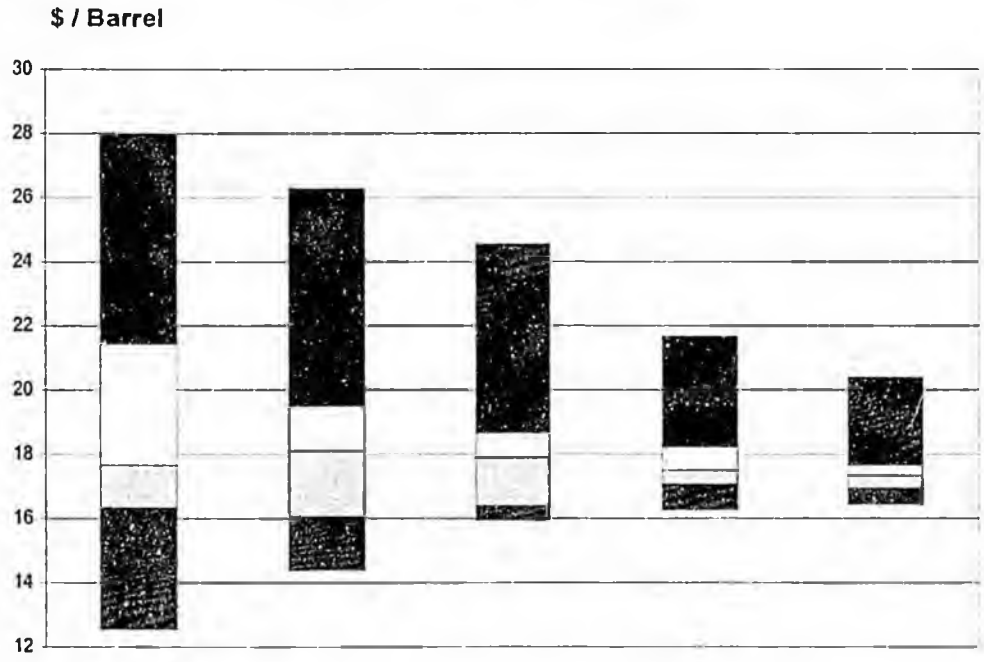


The figure on the next page reflects another analysis demonstrating both the short-term volatility and the longer-term stability of ANS West Coast market prices over the past 16 years. The left-hand bar depicts the variability of ANS West Coast oil prices for each of the rolling 12-month time periods (from December 1990 to September 2002). Ninety-five percent of those average prices fall between $12.54 and $28 per barrel; 50% of the time those prices fall between $16.32 and $21.47 per barrel, with a median price of $17.64 per barrel.

The right-hand bar depicts the variability of the rolling 60-month time period. The 60-month average ANS West Coast market prices were obviously very consistent. Ninety-five percent of those averages fall between $16.42 and $20.40 per barrel; 50 percent of the time, between $16.95 and $17.68 per barrel; and the median of those 60-month average prices is $17.35 per barrel. The middle three bars in the figure reflect the variability of the rolling 24-month, 36-month and 48-month time periods.

It is important to note that our base-case forecast through FY 2010 of $22 per barrel reflects an assumption that OPEC will manage the market to a price above the long-term price suggested by the statistics illustrated below. OPEC has successfully managed its share of oil production for the past four years. The evidence is that ANS oil prices over the past 51 months have averaged $22 per barrel.

Figure 9. Cumulative Average ANS Oil Price (December 1990-September 2002)
Moving Average and Confidence Intervals



Percentile Ranking	$ per Barrel 12-month	24-month	36-month	48-month	60-month
2.5%	28.00	26.28	24.56	21.65	20.40
25%	21.47	19.51	18	18.25	17.68
Median	17.64	18.11	17.91	17.51	17.35
75%	16.32	16.08	16.40	17.07	16.95
97.5%	12.54	14.37	15.93	16.26	16.42

The percentile ranking is the probability of exceeding the corresponding ANS oil price.

D. Oil Production Forecast

In 1988, ANS production peaked at 2.005 million barrels per day and has declined steadily since. The figure on the next page reflects the historical and projected rates for ANS oil production. FY 2001 was the first full year that ANS production averaged less than 1 million barrels per day — daily production averaged 0.991 million barrels per day. Thanks to the contribution of new fields, Northstar and Alpine, ANS production averaged 1.003 million barrel per day in FY 2002.

The future development of recent discoveries in the National Petroleum Reserve-Alaska (NPR-A) and the projected development of Nanuk, Fiord, Sourdough, Point Thomson and Liberty will increase production to slightly above the 1 million barrel per day level in FY 2008-2011.

A detailed field-by-field production forecast can be found in Appendix D.

Figure 10. ANS Historical Production
Million Barrels/ Day

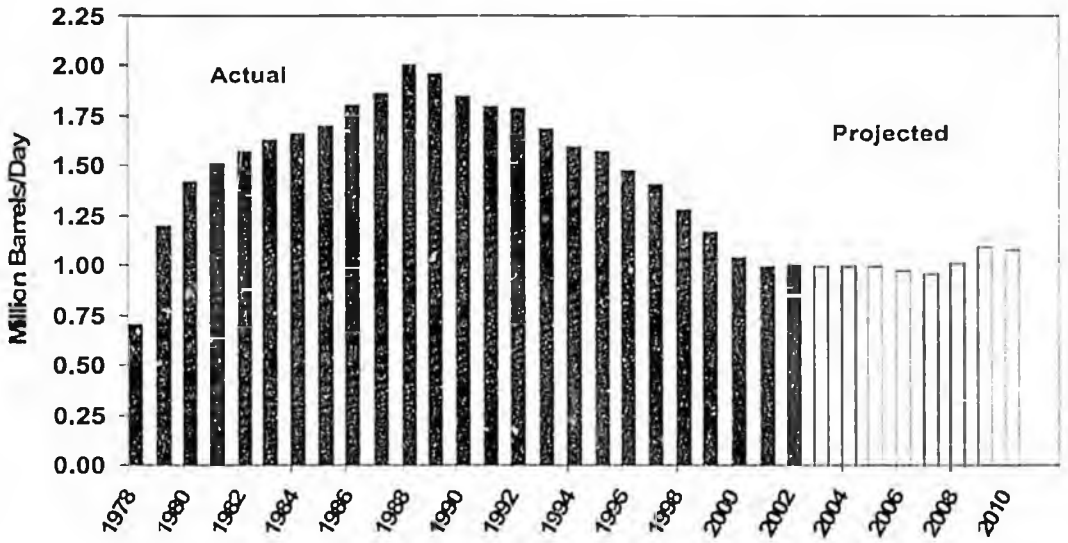


Table 8. ANS Oil and NGL Production
million barrels per day

Fiscal Year	ANS Production
Actual 2002	1.003
2003	0.994
2004	0.997
2005	0.992
2006	0.971
2007	0.956
2008	1.010
2009	1.091
2010	1.075

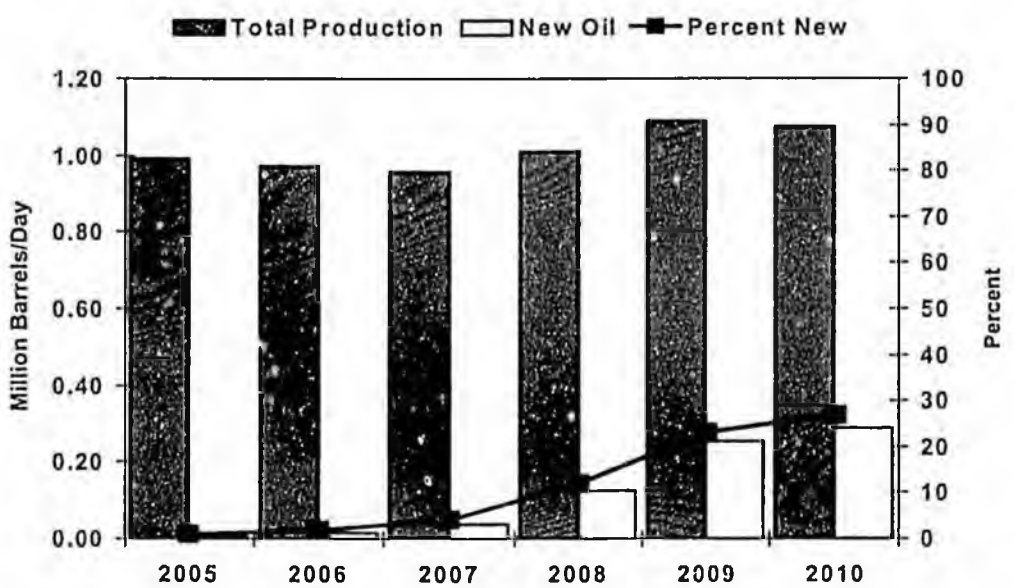
New Oil Development

As the volumes from the giant Prudhoe Bay and Kuparuk fields continue to decline, some of the decline in production will be offset by new oil development. In our forecast, new oil is defined as crude already discovered and likely to be developed. By FY 2009, as the table and figure below show, over one-quarter of our forecasted oil production will come from fields not currently producing oil.

Table 9. New Oil as a Percentage of Total Oil
million barrels per day

Fiscal Year	New Oil	Total Oil	New Oil as Percent of Total Oil
2005	0.005	0.992	0.5%
2006	0.015	0.971	1.5%
2007	0.038	0.956	3.9%
2008	0.125	1.010	12.4%
2009	0.254	1.091	23.3%
2010	0.289	1.075	26.9%

Figure 11. New Oil as a Percentage of Projected Oil

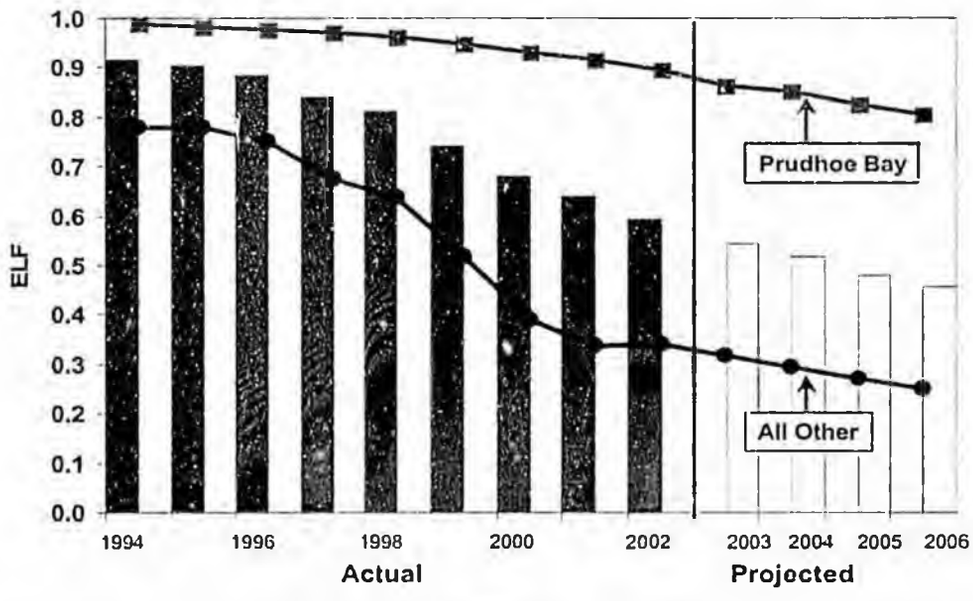


Economic Limit Factor

The average production tax rate on the North Slope has been falling as the result of the tax adjustment known as the Economic Limit Factor (ELF). The ELF is a factor that reduces the nominal production tax rate on a producing reservoir based on the average rate of production from the reservoir and the average productivity of the wells producing that reservoir. Since oil production rates and well productivity decline over time as an oil field is being produced, the average production tax rate will fall as well. Further, the ELF reduces the tax rate on smaller oil fields such that most fields producing less than 20,000 barrels per day will pay little or no production tax.

An ever smaller percentage of Alaska's current and projected North Slope oil production will continue to come from old, declining fields, while new production will come from small fields. Therefore, the average tax rate will continue to fall. The average oil production tax rate for North Slope production in FY 1994 was 13.5%; we project that for FY 2003 it will average 7.7%. The figure below illustrates the actual weighted average ELF for North Slope oil production since 1994 and our projections of that weighted average through FY 2006. The Prudhoe Bay ELF is also shown, as well as the average ELF for all of the other North Slope fields that have ELFs that are greater than zero.

Figure 12. Economic Limit Factor With ELF Greater Than Zero
Actual FY 1994-2002 and Projected FY 2003-2006



E. Longer-Term Unrestricted Revenue Outlook

Using the price and volume components developed for this fall 2002 forecast, the table below summarizes the department's forecast of total Unrestricted General Purpose Revenue through FY 2010.

Table 10. Total Unrestricted General Purpose Revenue
Preliminary FY 2002 and Projected FY 2003-2010
$ Million

Fiscal Year	(Section V) Unrestricted Oil Revenue	(Section VI) Unrestricted Non-Oil Revenue	(Section VIII) Unrestricted Investment Revenue	Total Unrestricted Revenue	Percent from Oil
Preliminary 2002	1,320.1	290.7	43.1	1,653.9	80
2003	1,468.1	253.4	30.7	1,752.2	84
2004	1,326.7	260.1	16.7	1,603.5	83
2005	1,193.7	260.6	16.7	1,471.0	81
2006	1,152.1	261.1	16.7	1,429.8	80
2007	1,103.7	262.2	16.7	1,382.7	80
2008	1,088.4	263.4	16.7	1,368.5	79
2009	1,097.5	264.6	16.7	1,378.8	80
2010	1,020.7	265.8	16.7	1,303.2	78

F. Constitutional Budget Reserve

The table below reflects the amount needed to make up the difference between the Department of Revenue's forecast of Unrestricted General Purpose Revenue and the annual General Fund budget, shown here as a flat $2.5 billion [1].

Table 11. Difference Between Unrestricted General Purpose Revenue and General Fund Budget — "The Gap" [1]
$ Million

Fiscal Year	Total Unrestricted General Purpose Revenue	General Fund Appropriation [1]	Difference
Preliminary 2002	1,653.9	2,503.9	(738.0) [2]
2003	1,752.2	2,500.0	(747.8)
2004	1,603.5	2,500.0	(896.5)
2005	1,471.0	2,500.0	(1,029.0)
2006	1,129.8	2,500.0	(1,070.2)
2007	1,382.7	2,500.0	(1,117.3)
2008	1,368.5	2,500.0	(1,131.5)
2009	1,378.8	2,500.0	(1,121.2)
2010	1,303.2	2,500.0	(1,196.8)

(1) The projected Fiscal Year 2003-2010 budget of $2.5 billion is simply a reference point for analysis. Any budget estimate used to determine "The Gap" will have its detractors — some will contend spending should be cut, while others will argue just as strongly that spending should be increased.
(2) The "Gap", or the draw on the CBRF for Fiscal 2002, is shown as actual cash spending which does not take into account Fiscal 2002 appropriations that will be spent in fiscal 2003.

As approved by voters in 1990, all of the money from oil and gas and mining tax and royalty settlements are deposited into the Constitutional Budget Reserve Fund (CBRF). Over the past nine years the state has deposited about $5.6 billion into the reserve fund and has earned about $1.5 billion on the money.

For all but two of those years, the state has relied on the CBRF to fill the difference between unrestricted revenue and the annual state budget.

Through November 20, 2002, approximately $4.9 billion had been withdrawn from the CBRF to balance the budget, leaving a balance of $2.075 billion.

This table reflects the CBRF depletion matrix and the time period the fund could continue to make up the difference between Unrestricted General Purpose Revenue and the General Fund budget at various oil prices and budget levels. For example, assuming no change in the state's fiscal system, if we are correct in our oil price forecast and if we assume a flat General Fund budget of $2.5 billion per year, the CBRF will be exhausted in June 2005.

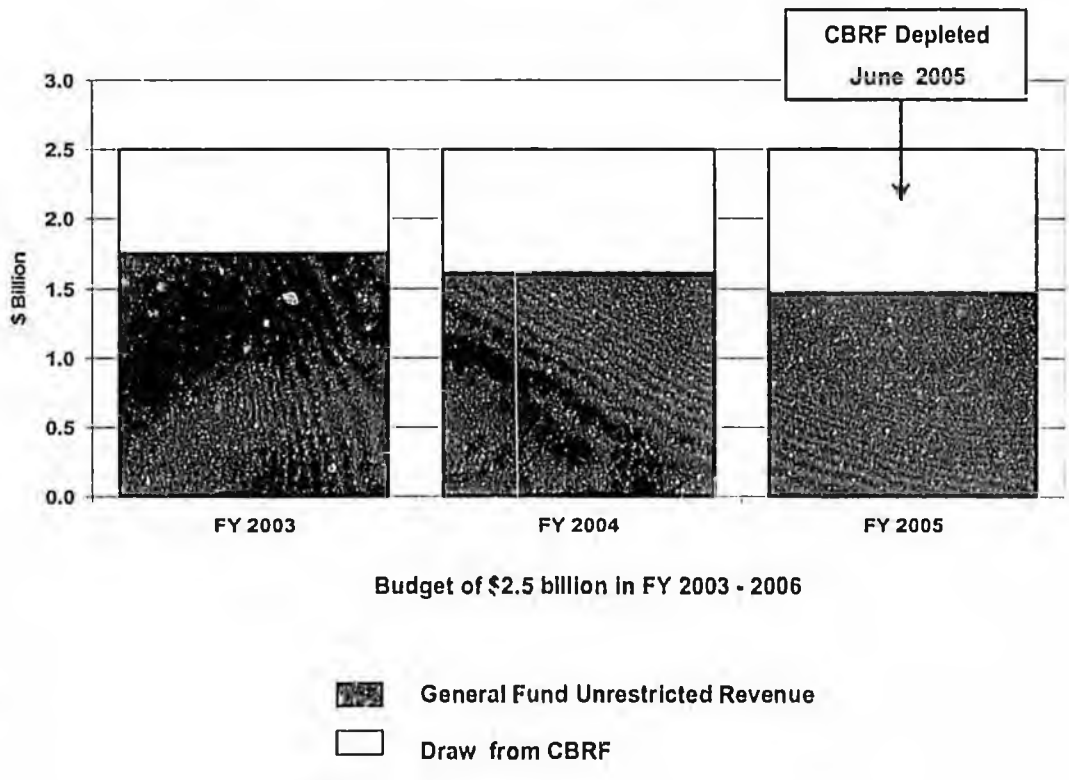
Table 12. When Would the CBRF Be Gone?

State Spending and Oil Price Variables, Starting in FY 2003

Annual State Budget	$17.70/bbl	$22.00/bbl	DOR Fall [1]	$25.00/bbl
$2.400 billion (no increases)	Oct-2004	Jun-2005	Nov-2005	May-2006
$2.500 billion (no increases)	Jun-2004	Mar-2005	Jun-2005	Nov-2005
$2.600 billion (+2%/yr growth)	Apr-2004	Nov-2004	Feb-2005	Apr-2005

(1) Based on Department of Revenue Fall 2002 oil price forecast: FY 2003 ANS, $25.94; FY 2004 ANS $23.25.
Sources: Department of Revenue Fall 2002 Forecast, Fiscal Driver Model of Oil Revenue and CBRF Performance.

Figure 13. Anticipated Life of the Constitutional Budget Reserve Fund



IV. ALASKA'S FISCAL OPTIONS

What Are the Options for Alaska's Fiscal Future?

We all hope that the road to a prosperous fiscal future is well marked and without detours. Alaskans are used to a few bumps in the road, we would just prefer not to break any axles along the way. But just as any Alaskan knows, we need to be prepared for roadside emergencies. A lack of enough money to pay for public services could be just such a problem.

The balance in the Constitutional Budget Reserve Fund is heading down, not up. This forecast book gives the Department of Revenue's best estimate of when the Budget Reserve Fund will hit empty, unless we take steps to close the fiscal gap. Any of several events could produce new revenues to reduce the gap. Among the long-term possibilities are unexpectedly high oil prices, large volumes of undiscovered oil flowing into the Trans-Alaska Oil Pipeline, or a natural gasline from the North Slope. (See Section II for a thorough review of the potential for increased North Slope oil development and a natural gas project for Alaska.)

This revenue forecast assumes none of the above in the next few years. Maybe later, but not now. We based our forecast on what we believe is a reasonable estimate of oil prices and known quantities of oil that can be produced before the end of the decade.

There also are no new or increased taxes in our revenue projections. And although some people have discussed the possibility of someday using some of the earnings from the Permanent Fund to help pay for public services, we did not include that in our state General Fund budget projections.

However, the future is uncertain, and any of the above possibilities could become reality in time. To help judge the possibilities and their economic value, we offer the following information in this section.

Could Higher Oil Prices Alone Fill the Fiscal Gap?

A quick study of the numbers shows it certainly is extremely unlikely. Alaska North Slope crude oil would have to fetch higher prices for a longer period than at any time in the pipeline's 25-year history. And not just a little higher for a short time, but a lot higher for a long time.

Although we believe North Slope oil production will hold just shy of 1 million barrels per day for the next few years, with a small increase later this decade, the state's declining production tax rate requires a higher price every year just to maintain the same revenues. North Slope oil would have to average more than $37 a barrel in Fiscal 2003 to balance the budget. The number gets further out of reach each year. In Fiscal 2010, the price would need to be over $43 a barrel.

To reach 2010 with something, anything, in the Budget Reserve Fund would require ANS oil averaging more than $33 a barrel for the next seven years. Keep in mind that prices would have to hold fairly steady around that average — the state could not afford a couple of bad years along the way if we wanted to maintain the Budget Reserve Fund and pay our bills. For example, if North Slope oil dipped below $15 for a year or more, as has happened three times since 1989, the Budget Reserve Fund would take such a deep hit that it would hit empty even if prices rebounded the next year.

Prices could rise above projections in the short term — maybe even enough to balance the budget for a short time. But it would take a major, sustained global shortage of oil to create the consistently high oil prices for the long term that could save the Budget Reserve Fund, and such a scenario is extremely unlikely. Oil is a market-traded commodity, with the forces of supply and demand determining the price. When supply exceeds the demand, prices fall. As oil gets cheaper, demand recovers, which, over time, leads to higher prices as demand builds to match supply. But when demand gets too high, squeezing the supply, prices rise and demand falls back down. Prices eventually come down, too. Because of how the market works, it is highly unlikely that oil prices could ever stay high enough long enough to solve Alaska's budget problem.

Higher - or Lower - Oil Production

Oil production could exceed our forecast, which includes only barrels from fields that are producing or have been discovered. For those that have been discovered, we included production only from those fields we expect to start pumping by 2010.

We forecast that "new oil," oil that has been discovered but is not yet flowing through TAPS, will constitute a substantial 12.4% of North Slope production by Fiscal 2008, growing quickly to 26.9% by Fiscal 2010. Clearly, Alaska is depending on a fair amount of this new oil just to meet our revenue forecast. Anything more than that would help close the fiscal gap, but North Slope oil production would need to more than double by 2010 to close the gap by itself.

It is possible that some of the discovered fields could start producing sooner than expected, meaning more production and more revenue to the state. We also expect new oil discoveries on the North Slope, but we do not believe those as-yet-undiscovered fields will begin producing before 2010. However, these undiscovered fields might also begin producing sooner.

On the other side of the fiscal coin, it is possible that some of the forecast production could be postponed past the expected start-up dates in this forecast. Also, the production rate for developed fields may decline at a faster rate than we project. For every upside, there is a downside. (See Section II, New Oil and Gas Production.)

Broad-Based Taxes

Though no one wants to pay taxes, it's always an option for the future if Alaska finds itself short of the money it needs to pay for public services. But just how much new revenue would taxes generate? And what are some of the options?

Personal Income Tax

Of the 50 states, 43 have a personal income tax. Joining Alaska on the list without a tax are Florida, Nevada, South Dakota, Texas, Washington and Wyoming. Of the 43 with a tax, New Hampshire and Tennessee collect taxes on dividends and interest income only.

There are three options for the tax base for calculating a personal income tax:

- **Adjusted gross income.** Because the tax base would be the highest of the three options, the tax rate would be the lowest. Adjusted gross income is Line 33 on the federal personal income tax Form 1040, which is an individual's gross income from all sources minus: IRA contributions, student loan interest, Medical Savings Account contributions, moving expenses, one-half of the self-employment tax paid by self-employed individuals, the self-employed health insurance deduction and alimony.

- **Federal taxable income.** This is Line 39 on Form 1040, which is adjusted gross income minus either the standard deduction or all of the itemized deductions allowed under federal law, plus the per-person exemptions allowed under the federal tax code. This requires the state to accept whatever tax deductions are allowed under federal law, although the state also could include its own deductions, credits or other conditions.

- **Federal tax liability.** This is what an individual pays the IRS. Because the tax base would be the lowest of the three options, the actual tax rate would be higher than if the rate were applied to gross income or taxable income. For example, a 1.87% tax on gross income, a 2.54% tax on taxable income, or a 12.66% tax on federal tax liability would all raise the same amount for the state — about $250 million a year. Using Federal Tax Liability as the base would require the state to accept whatever deductions and credits are allowed under federal law. Federal tax liability is Line 40 on Form 1040 (before several credits under the IRS code), or Line 52 (after Education Tax Credits and Elderly and Disabled Care Credits and others), or Line 52 plus the Earned Income Credit and Additional Child Tax Credit.

These are approximate numbers for tax rates and how much revenue would be raised by a state personal income tax in Alaska. The table assumes a flat tax for the sake of simplicity in showing potential revenues.

Table 13. Income Tax Rates and Income Tax Projections (2000 IRS Data)

$ Million Revenue	% Adjusted Gross Income	% Federal Taxable Income	% Net Federal Tax Liability
$250	1.87	2.54	12.66
$300	2.22	3.03	15.08
$350	2.58	3.51	17.49
$400	2.93	4.00	19.91

Alaska abolished its personal income tax in 1980. The tax raised $210.4 million in Fiscal 1977, its highest collections ever. The tax was assessed as a percentage of federal taxable income, ranging from 3.5% for income up to $8,000 per year to a high of 14.5% on income in excess of $300,000. In the middle, taxpayers paid 10% of their federal taxable income over $52,000. If the pre-1980 tax rates were in effect today, Alaskans would pay about $750 million in state personal income taxes. If the tax brackets were adjusted for inflation, that number would be $660 million.

An income tax certainly would collect money from non-residents working in Alaska, but there is no way to know exactly how much it would collect. The IRS reports income earned by taxpayers with an Alaska mailing address; it does not report income earned by non-residents working in Alaska. There are no exact numbers for non-resident wages in Alaska, but estimates range from 3% to 10% and the Department of Revenue believes the true number is probably in the middle. At 6% or 7%, an income tax that raised $350 million would collect perhaps $21 million to $22 million a year from non-residents.

A state personal income tax would be deductible from federal income taxes for Alaskans who itemize. IRS statistics indicate about 25% of Alaska taxpayers itemize their deductions, though most higher-income Alaskans itemize on their federal returns. And since it would be the higher-income Alaskans who would provide most of the state's new income tax revenues, a substantial portion of that tax would be deducted from Alaskans' tax payments to the federal government.

Statewide Sales Tax

The only states in the nation without a statewide sales tax are Alaska, Delaware, Montana, New Hampshire and Oregon. The others collect taxes that range from a low of 2.9% in Colorado to 7% in Mississippi and Rhode Island. In most states, the cities, counties, transit districts and other taxing authorities add their sales tax onto the state tax rate, with the states handling collection and enforcement, then disbursing the funds to the municipal agencies. Because of the cumulative effect of adding local sales taxes to the state tax, many states set a maximum overall rate. The highest total rates approach 10%.

Most states exempt all or some food purchases from sales taxes, with a few states charging a lower tax rate on foods. All states exempt prescription medicines from sales tax. Of those states with a general statewide sales tax, the tax provides an average 32.3% of overall state general fund revenues.

Although there is no statewide sales tax in Alaska, about one-third of Alaskans live in a community — a city or a borough — with a municipal sales tax. The rates for those 200,000-plus Alaskans range from:

- A low of 1% in Tenakee and White Mountain.
- To a high of 7% in Wrangell and 6% in Petersburg, Cordova, Kodiak and Kotzebue.

The 100 cities and boroughs with a sales tax collected about $125 million in Fiscal Year 2001, for an average of more than $600 per capita. Each municipality has its own list of tax exemptions, limits and rules, such as a cap on the maximum amount of a single purchase subject to a sales tax (to ease the burden on purchasers of big-ticket items such as cars). There is no uniformity across the state.

If Alaska had a statewide sales tax, the Department of Revenue estimates the state would collect approximately:

- $110 million a year for every 1% in a statewide sales tax on retail goods and services sold in Alaska, assuming no exemptions.
- $75 million a year if foods and medical goods and services were exempted.

It's hard to say how much of the sales tax would be paid by visitors from out of state, although the Department of Revenue believes it would be in the range of 10% of total tax revenues for a tax in place for the entire year. Visitors spend heavily on gifts, food, lodging and tours, although federal law prohibits a state sales tax on air transportation.

Additional exemptions would reduce the tax burden on some residents and, consequently, reduce revenues to the state. Exemptions also could complicate administration of the tax. And, if the state exempted any goods or services already subject to municipal sales taxes, and then imposed its exemptions on municipalities, some cities and boroughs could see a drop in their tax revenues.

Sales taxes exemptions are a large issue nationwide. Businesses nationwide and other states are working hard to win nationwide adoption of a Streamlined Sales and Use Tax Agreement. Alaska is an "Observer State" and has monitored this project, which has as its goal:

> "To simplify and modernize sales and use tax administration in the member states in order to substantially reduce the burden of tax compliance."

One of the major reasons for the push is to address the issue of lost state and municipal sales tax revenues to mail order and Internet commerce. The growth of mail order and Internet sales is costing states and municipalities billions of dollars a year in lost sales tax revenues. The retail industry has made it clear that it wants to see a set of uniform sales tax rules nationwide as a condition of working with the states to collect sales taxes on interstate commerce. Alaska would not be in compliance with the nationwide effort if it adopted a state sales tax without ordering the same exemptions and rules for municipal sales taxes statewide.

Permanent Fund Earnings

The Department of Revenue and the Alaska Permanent Fund Corporation believe the amount of "surplus" realized earnings available from the Permanent Fund over the next decade will average about $250 million per year under the existing statutory framework for calculating earnings and Permanent Fund dividends. However, the actual amount available in any one year will vary enormously - ranging from $0 to more than $500 million, depending on the performance of the financial markets and the mechanics of how the surplus is determined.

Relying on the surplus under existing statute to help pay for public services could be risky. For example, if the surplus for Fiscal 2001 or Fiscal 2002 were determined on the basis of current-year realized earnings only, there would have been no surplus available.

The Department of Revenue strongly recommends calculating the amount available for distribution each year from the Permanent Fund using a moving average over a five-year period. More specifically, the department recommends the legislature adopt the Percent of Market Value (POMV) approach, rather than realized earnings, to determine the amount of funds available for distribution. Using such a moving average would reduce the wild swings in the amount that would be available each year vs. using only a single-year's earnings to determine the amount available for distribution.

Under the Percent of Market Value calculation as endorsed by the Permanent Fund Board of Trustees, 5% of the Permanent Fund's total market value, as averaged over the past five years, would be available for distribution each year. Assuming the fund's long-term earnings target is about 8% the payout limit at 5% would ensure that sufficient earnings remain in the Permanent Fund to protect it from inflation.

At a 5% payout, the Permanent Fund, in the median case, would generate more than $1.3 billion a year, on average, between Fiscal 2003 and Fiscal 2008, according to the Permanent Fund Corporation. The earnings — and the dividends — would continue building over time. A $1.3 billion payout could, for example, fund almost an $1,100 dividend (assuming 600,000 eligible Alaskans) and still leave $650 million for the General Fund to help pay for public services.

New Money vs. Old Money

Finally, any discussion of closing the state's fiscal gap should include a look at "new money" vs. "old (or recycled) money." The more new money can be brought into the state's economy to close the gap, the less damage to Alaska's economic health. Another way of characterizing this is saying if we can "export" our efforts to close the fiscal gap by "importing" new money, our economy will be better off.

Examples of new money are:

- State tax and royalty revenues from new oil and gas discoveries.
- Taxes generated by new or expanded economic activity.
- Surplus earnings of the Permanent Fund. This is money not currently circulating through the Alaska economy because it is mostly invested in stocks and bonds outside of the state.
- Taxes paid by non-residents.
- Federal tax savings from deducting a state personal income tax
- Cruise ship corporate taxes or passenger taxes.

Examples of old, or recycled money include:

- Increased excise taxes, such as alcohol and motor fuel taxes. However, some of the higher taxes would be paid by non-resident workers and tourists.
- Sales taxes.
- Personal income tax.
- Reduced Permanent Fund dividends (the loss to Alaska's economy would be reduced by the amount of dividend money that would have flowed out of state in savings or purchases).

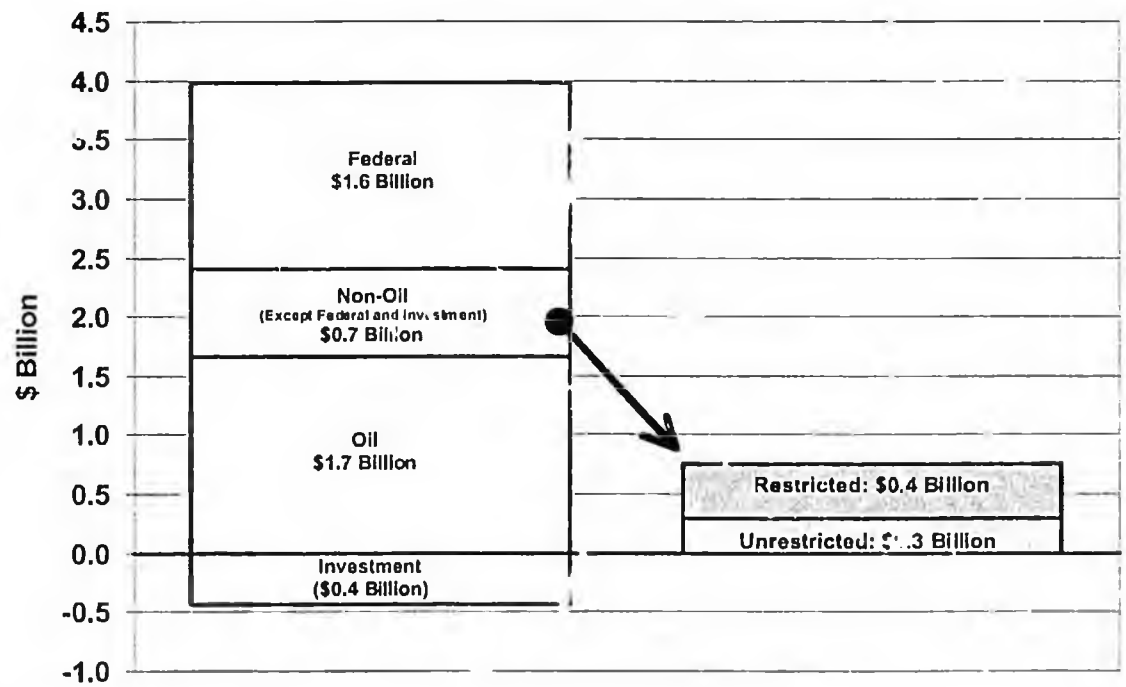
It's also worth considering in these discussions the reality of what has been called the "Alaska Disconnect." That is the disconnect between non-petroleum economic development and the state revenues needed to pay for the increased public services demanded by a growing population. Without a broad-based tax, non-petroleum economic development costs more in public services than it produces in revenues to the state. More jobs means more workers and more families and more children in school, more cars on the road, and more public expenses with no additional revenues to pay for those services.

V. OIL REVENUE

Table 14. Total Oil Revenue
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
Property Taxes	49.6	44.3	44.0
Corporate Income Taxes	178.4	160.0	200.0
Production Taxes	496.3	522.5	438.3
Royalties (including Bonuses and Interest)	595.8	741.2	644.4
Subtotal	**1,320.1**	**1,468.1**	**1,326.7**
Restricted			
Royalties to Permanent Fund & School Fund	264.2	327.2	295.6
Settlements to CBRF	90.2	30.0	20.0
NPRA Royalties, Rents and Bonuses	1.7	34.8	2.9
Subtotal	**356.1**	**392.1**	**318.6**
Total	**1,676.2**	**1,860.1**	**1,645.3**

Figure 14. FY 2002 Oil Revenue
$1.7 Billion



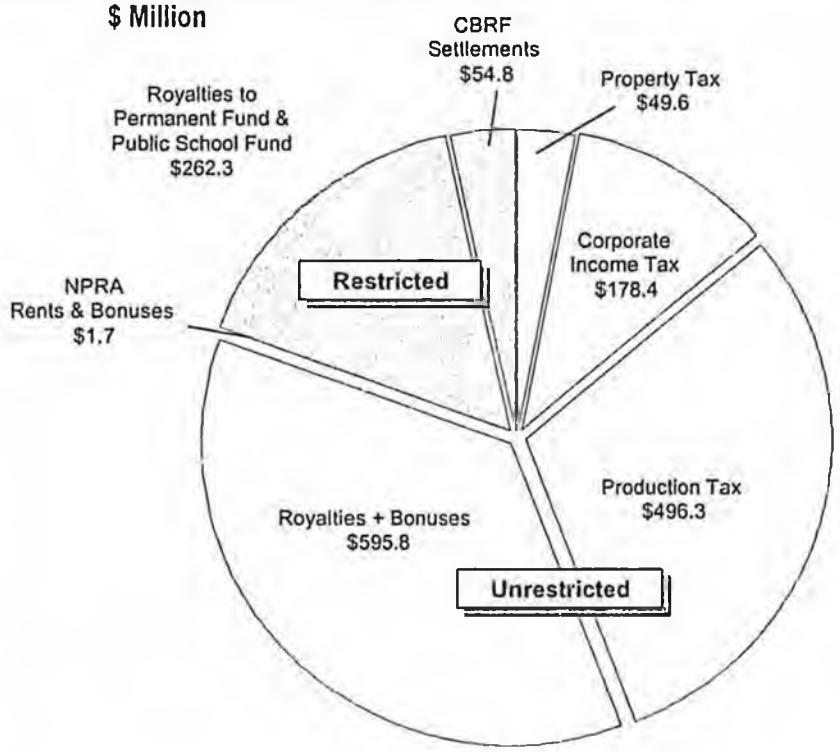
General Discussion

The state receives its oil and gas revenue from four sources: oil and gas production tax, property tax, royalties and corporate income tax. The bulk of the revenue received from taxes and royalties goes into the General Fund for general purpose spending. Slightly more than 30% of the royalty revenue goes into the principal of the Permanent Fund, and 0.5% goes into the Public School Trust Fund. Currently, the state's share of all lease bonuses from the National Petroleum Reserve-Alaska (NPR-A) goes into the NPR-A Fund.[1] Settlements of tax and royalty disputes between the State of Alaska and oil and gas producers go into the Constitutional Budget Reserve Fund (CBRF).

The figure below shows the actual amount of oil revenue from each source in Fiscal 2002.

As can be seen from the figure, royalties and severance taxes constitute the largest part of oil revenue — both restricted and unrestricted. This section begins with a discussion of these two revenue sources, both of which are driven by price and volume. We then review the price forecasting methodology that underlies our forecast, as well as explore how those market prices determine wellhead value. We also review our volume forecast, and close this section with a discussion of oil and gas property taxes, oil and gas corporate income taxes and the restricted portions of oil revenue.

Figure 15. FY 2002 Oil Revenue by Category
$ Million



(1) This fund implements a federal requirement that the state use its share of NPR-A oil revenue to satisfy the needs of local communities most affected by development in the NPR-A. For detailed information on this fund, see Section XII-P of Treasury's Investment Policies and Procedures Manual.

Unrestricted Oil Revenue

Table 15. Unrestricted Oil Revenue Projections
Preliminary FY 2002 and Projected FY 2003-2010
$ Million

Fiscal Year	Property Taxes	Corporate Income Taxes	Production Taxes	Royalties including Bonuses & Interest	Total Oil
Preliminary 2002	49.6	178.4	496.3	595.8	1,320.1
2003	44.3	160.0	522.5	741.2	1,468.1
2004	44.0	200.0	438.3	644.4	1,326.7
2005	37.9	190.0	376.9	588.8	1,193.7
2006	35.7	180.0	359.6	576.8	1,152.1
2007	33.5	170.0	330.3	569.9	1,103.7
2008	31.2	160.0	318.7	578.5	1,088.4
2009	28.9	150.0	302.1	586.6	1,097.5
2010	26.5	140.0	297.2	557.0	1,020.7

Oil and Gas Production Taxes

All oil and gas production in Alaska except the federal and state royalty share is subject to the state's production taxes. The taxes consist of the oil and gas production tax and a hazardous release surcharge levied only on oil. All of these taxes are collected on a monthly basis.

Oil Production Tax.
The tax rate for oil depends on the age of the field and the Economic Limit Factor (ELF). The ELF depends on the total daily oil production and the average daily per well oil production from each producing field.

The statutory production tax rate on oil is 12.25% of its value at the point of production for the first five years of field production and 15% thereafter. There is a minimum tax of 80 cents per taxable barrel.

The effective tax rate is calculated by multipling the statutory tax rate, even if it is the minimum 80 cents per barrel, times the ELF. The ELF formula for oil production is:

$$ELF = \left[1 - \frac{(300 \times wells)}{volume} \right]^{\left[\frac{(150{,}000)}{volume} \right]^{\wedge 1.53333}}$$

"Wells" is the number of producing wells in the field and "volume" is the total daily production for the field.

The ELF formula results in lower effective tax rates for smaller, low-production fields and higher tax rates for larger, highly productive fields. There is a unique ELF for every combination of total daily field production and average daily per well production.

The taxable value of oil is determined by deducting allowable marine and pipeline transportation costs from the destination value of the oil at its disposition point. This point is defined as either a third-party sale or delivery to the producer's own refinery. The destination value for most dispositions is tied by regulation to the West Coast spot price of ANS crude oil.

Natural Gas Production Tax.

The statutory production tax rate on natural gas is 10% of its value at the point of production, regardless of the age of the field. There is a minimum tax of 6.4 cents per thousand cubic feet.

To calculate the effective tax rate, multiply the statutory tax rate, even if it is the minimum 6.4 cents per thousand cubic feet, by the ELF. The ELF formula for natural gas production is:

> ELF = 1-(3000/PPW)
>
> PPW = average gas production per well per day in the field in thousand cubic feet
>
> If the average daily per well gas production from a field is less than 3,000 cubic feet, the ELF is zero and no gas production taxes are assessed.

The taxable value of natural gas depends on the location of its disposition and its use. For Cook Inlet production, the value for gas sent to Japan as LNG is based on the sales price in Japan less marine, processing and pipeline costs; the value for sales to the Nikiski fertilizer plant is indexed to the current market price of anhydrous ammonia; the value for sales for local use is based on the average sales price for the contracts in effect each month. The small volume of taxable North Slope gas production is valued for tax purposes using the following formula linking it to the value for North Slope crude oil:

> ANS Gas Taxable Value/mcf = 0.10 (average ANS oil per barrel netback value)

Hazardous Release Surcharge.

This tax was enacted following the 1989 grounding of the Exxon Valdez to provide an emergency fund to deal with hazardous substance spills.

The surcharge is comprised of two components: (1) a 3 cents per barrel charge on all oil production, except federal and state royalty barrels, and (2) an additional 2 cents per barrel charge on all oil production except federal and state royalty barrels whenever the balance in the state Oil and Hazardous Substance Release Prevention and Response Fund falls below $50 million. The balance of the fund was $50 million or greater for all of FY 2002, so the surcharge was 3 cents per barrel for the entire fiscal year.

Oil Royalties

Almost all Alaska oil and gas production occurs on lands leased by the state for exploration and development of oil and gas resources. As the land owner, the state earns revenue from leasing state-owned land as: (1) upfront bonuses, (2) annual rent charges, and (3) a retained royalty interest in oil and gas production.

Generally, the state issues leases based on a competitive bonus bid system. It has always retained a royalty interest of at least 12.5%. The vast majority of current production is from leases that carry that rate. Some currently producing leases carry rates as high as 20%.

State oil and gas leases provide that the state may take its oil royalty in barrels (in-kind) or as a percentage of the production value (in-value). Currently, the state takes approximately 60,000 barrels per day of Prudhoe Bay production in-kind and sells it to the Williams Alaska Petroleum Company, for its refinery in North Pole. The state's royalty share of Alaska North Slope production amounts to about 125,000 barrels per day.

The royalty oil taken in-value is valued according to a formula using a market basket of spot crude oil prices closely approximating the ANS West Coast spot price of oil less a transportation allowance back to the lease.

Oil Production Revenue Forecasting Methodology and Assumptions

The forecasted value of the state's anticipated oil production is based on projections of the destination market price of oil and the cost of shipping oil by pipeline and tanker to market. The forecast is the product of a formal oil price scenario meeting that includes state economists and financial professionals from the Department of Revenue, Department of Natural Resources, Department of Labor, the Governor's Office of Management and Budget and the University of Alaska.

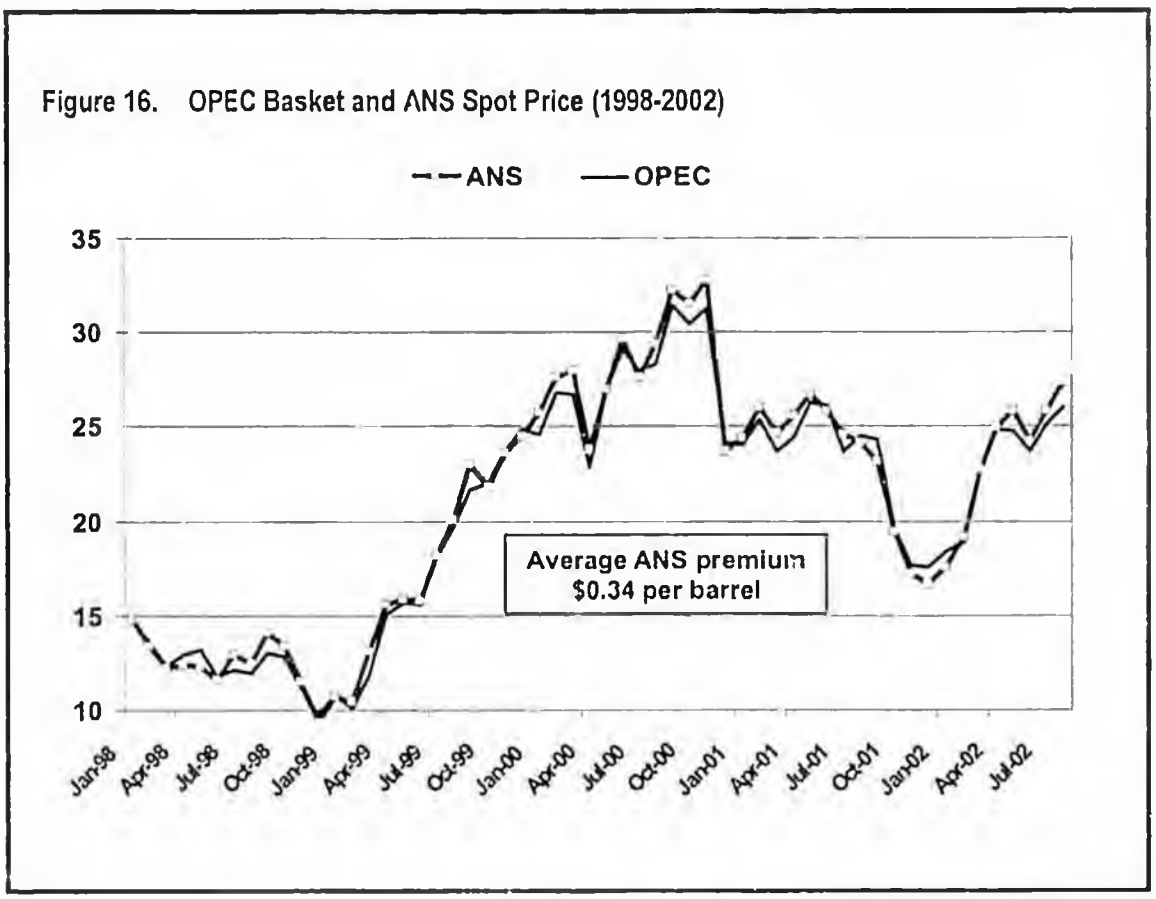
To develop a production volume forecast, the Department of Revenue uses an engineering consultant in conjunction with assistance from the Alaska Department of Natural Resources and the Alaska Oil and Gas Conservation Commission. This production volume forecast is developed from estimates of oil and gas production by field.

Oil Price Forecast

Our short-term price forecast (FY 2003-2005) is based on current supply-and-demand fundamentals and the uncertainty about a war with Iraq. For this three-year period, we are presenting two alternative cases: (1) no war with Iraq (our base case) and (2) war with Iraq.

Over the longer term, we present three alternative scenarios for a longer-term average price. Since 1999, the Organization of Petroleum Exporting Countries (OPEC) has endeavored to adjust its oil production quotas so that the current market price of the so-called OPEC basket falls within the range of $22 to $28 per barrel. The OPEC basket consists of seven different crude oils. [2] Over the past several years, the OPEC basket price and the West Coast delivered price for ANS have closely tracked one another with ANS selling at a modest premium to the OPEC basket. (See the figure below.)

Figure 16. OPEC Basket and ANS Spot Price (1998-2002)



(2) Saharan Blend, Minas, Bonny Light, Saudi Arab Light, Dubai, Tiajuana Light and Isthmus.

Because OPEC has been quite successful in managing the market and thereby keeping the price of the OPEC basket within its target range of $22 to $28 per barrel, we are changing our outlook for longer-term oil prices. For several years we have forecast that over the long term the delivered West Coast price for ANS would continue its post-1985 average of $16.50 to $17.50 per barrel. However, OPEC's success over the past three and a half years in maintaining the OPEC basket price within its target price band leads us to believe the most likely long-term delivered West Coast ANS price will be about $22 per barrel (in nominal dollars) — the ANS price equivalent to the OPEC basket price at the bottom of the target range. That is our base case long-term oil price forecast.

As alternative cases, we present the results of using a $17.70 delivered ANS price (the average delivered West Coast ANS price from January 1986 through October 2002), and using a $25 price (the price equivalent to the mid-point in OPEC's target range and, coincidentally, roughly the ANS market price for November 2002).

Short-Term Scenarios.

Oil prices so far in FY 2003 are running $5 higher than we forecast last spring. The uncertainty about a possible war with Iraq probably accounts for at least $2 to $3 of that increase.

The assumptions for our two alternative short-term price forecasts (FY2003 through FY2005) are:

- Worldwide economic growth sufficient to require a modest amount of new production from OPEC.
- Non-OPEC production will continue to grow because of high prices, and this production will satisfy most of the increase in demand created by economic growth.
- OPEC will continue to manage the volume of oil in the market so prices remain within its price target range.
- Inventories in key consuming countries will remain low.

In this forecast we present both a no-war scenario (our base case), and a war scenario in which hostilities occur in early 2003. In the war scenario we believe oil prices would spike to $30.25 per barrel in the first quarter of 2003 and then decline to $28.50 by summer. By 2005, we believe prices would be $1.50 lower than in our base case because Iraq's production would likely increase following a war. A new regime and a need to rebuild the country after 10 years of U.N. sanctions would no doubt result in a surge in investments in new production.

Table 16. Alternative General Fund Unrestricted Revenue, Short-Term Oil Price Scenarios
$ Million

No War Scenario — Our Base Case

FY	2003	2004	2005
ANS ($/ Barrel)	$25.94	$23.25	$22.00
General Fund Unrestricted Revenue ($ Million)	1,752.2	1,603.5	1,471.0

War Scenario

FY	2003	2004	2005
ANS ($/ Barrel)	$27.94	$23.19	$20.50
General Fund Unrestricted Revenue ($ Million)	1,885.7	1,599.6	1,377.4

Long-Term Scenarios.

Table 17. Alternative General Fund Unrestricted Revenue, Long-Term Oil Price Scenarios
$ Million

Our Base Case Compared to $17.70 and $25.00/ Barrel

FY	2006	2007	2008	2009	2010
($/ Barrel)					
$17.70	1,246.8	1,129.2	1,113.7	1,118.7	1,059.2
$22.00 - Base Case	1,429.8	1,382.7	1,368.5	1,378.8	1,303.2
$25.00	1,611.6	1,557.8	1,544.8	1,559.0	1,472.3

Current Oil Market Situation.

Alaska North Slope oil prices have been very strong so far in FY 2003, averaging $26.50 per barrel so far this year. Signs of recovery in the U.S. economy, as well as lower production from Iraq and the prospect of another war in that region, have kept oil prices toward the upper limit of the OPEC $22 to $28 per barrel target range. Recent rebounds in crude inventories, along with continued increases in both OPEC and non-OPEC production as well as subtle moderation in war talk by the U.S., have seen prices falling back to around $25 per barrel in late November.

Organization of Petroleum Exporting Countries.

OPEC has refrained from adjusting its production quotas from the levels established January 2002. They did, however, produce at 2.7 million barrels per day over quota in September. The members opted not to increase their quota to current actual levels at the September meeting, no doubt not wishing to institutionalize the higher current production levels in the event that softening oil prices would require adjusting quotas downward again.

The fundamental issue with respect to OPEC is that since April 2000 it has adjusted production quotas seven times; reducing production quotas in total by 5 million barrels per day since January 2001 and reducing actual production by 2.3 million barrels per day. The result has been a successful defense of the OPEC oil price target range of $22 to $28 per barrel.

This forecast assumes in the base case that OPEC is successful in continuing to manage the price band toward the bottom of its acceptable level.

Table 18. OPEC Production
Million Barrels Per Day

	September 2002	January 2002 Quota	over/(under) January 2002 Quota
Algeria	0.900	0.693	0.207
Indonesia	1.100	1.125	(0.025)
Iran	3.700	3.186	0.514
Kuwait	1.920	1.741	0.179
Libya	1.330	1.162	0.168
Nigeria	2.000	1.787	0.213
Qatar	0.660	0.562	0.098
Saudi Arabia	7.700	7.053	0.647
UAE	1.960	1.894	0.066
Venezuela	3.100	2.497	0.603
Subtotal (less Iraq)	24.370	21.700	2.670
Iraq	1.820		
Total OPEC	26.190	21.700	2.670

Source: Middle East Economic Review, October 28, 2002.

Alaska North Slope.
ANS prices closely track the price for the OPEC basket of internationally traded crude oils, the benchmark that OPEC uses to gauge the success of its production policy. ANS sells in direct competition with other waterborne crude oils sold at U.S. West Coast destinations. This includes a growing amount of crude oil from OPEC — primarily Saudi Arabia and Iraq.

ANS has a locational advantage over OPEC suppliers since it is the nearest waterborne source of crude oil for West Coast refiners. However, due to the seasonality of the West Coast market, ANS may trade at a premium or a discount relative to these competitive crude oils depending on the time of year and OPEC production policy. Currently, the West Coast crude oil market has strengthened at least in part due to Iraqi production cutbacks, with the result that ANS is now selling at a discount to WTI of $1.55 per barrel, whereas in October 2001 the discount was $2.84 per barrel. Last summer, differentials were even tighter due to seasonally lower ANS production and a tighter quality differential worldwide between high-sulfur crude oil like ANS and low-sulfur crude oil like WTI.

Other Transportation and Production Costs

Transportation Costs.
The forced replacement of vessels without double hulls with new, more expensive vessels, and the continued use of smaller qualified vessels to replace larger vessels retired by compliance with the Federal Pollution Act of 1990, will increase transportation costs in the future.

Trans-Alaska Pipeline System (TAPS) Tariffs.
The TAPS tariff is determined according to the TAPS Settlement Methodology, a rate-making method approved by the Federal Energy Regulatory Commission that allows the TAPS owners to recover their costs, including an allowance for profit. Under the agreement, future tariffs will be determined by operating cost trends, the production rate and inflation. Negotiations to revisit the TAPS Settlement Method will begin in January 2007.

TAPS tariffs are filed on a calendar year basis, with new tariffs taking effect January 1 each year. The expected tariff filing for calendar year 2003 is $3.40 per barrel. The Fall 2002 Forecast Assumptions table on the next page contains projected tariffs for FY 2004-2010.

Feeder Pipeline Costs.
Certain additional transportation costs are also incurred to move the various crude oils that comprise ANS from North Slope production fields to Pump Station No. 1 of the Trans-Alaska Pipeline System. These include both feeder pipeline charges and other cost adjustments to account for the different qualities of oil entering the North Slope pipelines as well as market-location differentials for in-state sales. See Table 19.

Wellhead Price.
The combination of ANS wellhead value and production volume by field form the basis for both state production taxes and royalties. The wellhead value by field is calculated by subtracting the relevant marine transportation and pipeline tariff costs (as well as adjustments for North Slope feeder pipelines and pipeline quality bank) from the appropriate destination value. Table 19 on the next page reflects this calculation for FY 2003-2010.

Table 19. Fall 2002 Forecast Assumptions
$ per barrel

Fiscal Year	ANS West Coast Price	ANS Marine Transportation	TAPS Tariff	Other [1] Deductions & Adjustments	ANS Wellhead
Actual 2002	21.78	1.80	3.47	(0.29)	16.80
2003 [2]	25.94	1.81	3.26	0.34	20.53
2004	23.25	1.86	3.34	0.18	17.88
2005	22.00	1.91	3.35	0.18	16.56
2006	22.00	1.96	3.45	0.19	16.41
2007	22.00	2.01	3.51	0.18	16.30
2008	22.00	2.06	3.45	0.26	16.25
2009	22.00	2.11	3.30	0.33	16.28
2010	22.00	2.16	3.32	0.37	16.17

(1) Other deductions include other pipeline tariffs, quality bank charges, location differentials and amended information.
(2) FY 2003 includes reported information through September.

Oil Production

Our short-term ANS oil production forecast has been reduced in anticipation of a slower than expected pace of heavy oil development, a slower pace of developing new Greater Kuparuk Area opportunities, delays in offshore Beaufort Sea developments, and uncertainty in facility expansion plans at the Colville River Unit. We have also incorporated recent unplanned production interruptions for the current fiscal year and have re-evaluated baseline reservoir performance at some of Alaska's mature fields. As a result, we expect to fall very slightly below the 1 million barrel per day level through FY 2007, at which point we anticipate new development will push production levels back over the 1 million per barrel level.

Production Highlights.

- FY 2003 production from Prudhoe Bay was reduced by about 9,000 barrels per day to reflect precautionary maintenance on over 130 wells.
- FY 2003 production from all North Slope fields was decreased an average 6,000 barrels per day due to repairing earthquake damage to the Trans-Alaska Pipeline vertical support system.
- The expected softening in the decline rate at the Prudhoe Bay field has been delayed. We now expect the rate of decline to slow in the next 2 to 3 years.
- Alpine's future peak production rate has been decreased to reflect current facility constraints. As a result, both the Fiord and Nanuq satellite fields have been delayed by one year due to uncertainty about the timing of required facility expansion.
- Kuparuk satellites were delayed one year to allow for continued evaluation.
- Both production rate and reserves in the Milne Point Kuparuk field have been significantly downgraded due to accelerated reservoir decline.
- Both the pace and production rate of development of heavy oil in the Schrader Bluff and West Sak fields have been reduced.
- Over the longer term, offshore developments for all Beaufort Sea development (primarily Liberty and Sandpiper) have been delayed by another year to account for potential environmental and permitting delays.

Table 20. Alaska Oil and NGL Production
Million Barrels per Day

	Actual FY 2002	FY 2003	FY 2004
Prudhoe Bay	0.4873	0.3952	0.3860
Midnight Sun	0.0062	0.0082	0.0066
Polaris	0.0014	0.0029	0.0043
Aurora	0.0051	0.0072	0.0077
Borealis	0.0133	0.0270	0.0293
Orion	0.0000	0.0007	0.0050
Kuparuk	0.1754	0.1580	0.1593
West Sak	0.0060	0.0074	0.0126
Tabasco	0.0028	0.0030	0.0027
Tarn	0.0273	0.0315	0.0255
Meltwater	0.0032	0.0096	0.0110
Milne Point	0.0397	0.0344	0.0367
Schrader Bluff	0.0117	0.0177	0.0225
Sag River	0.0007	0.0004	0.0004
Endicott/ Sag Delta	0.0296	0.0276	0.0283
Eider	0.0017	0.0011	0.0011
Badami	0.0017	0.0015	0.0013
Lisburne	0.0102	0.0095	0.0095
Point McIntyre	0.0454	0.0412	0.0365
Niakuk	0.0191	0.0142	0.0118
Alpine	0.0956	0.0972	0.0980
Northstar	0.0200	0.0588	0.0620
Total	**1.0034**	**0.9936**	**0.9973**
Cook Inlet	0.0293	0.0329	0.0409
Total Alaska	1.0327	1.0265	1.0382

Petroleum Property Tax

An annual tax is levied each year on the full and true value of property taxable under AS 43.56. The tax on oil and gas property is the only statewide property tax. The valuation procedure for three distinct classes of property — exploration, production and pipeline transportation — is described below.

Exploration Property.
Value is based on the estimated price that the property would bring in an open market under prevailing market conditions in a sale between a willing seller and a willing buyer, both conversant with the property and with prevailing general price levels.

The raw data for market value is gathered by the state appraiser by reviewing the details of equipment sales, attending auctions and reviewing trade journals. This data is then applied to the taxable property, taking into account age, capacity, physical and functional obsolescence.

Production Property.
Value is determined on the basis of replacement cost new less depreciation, based on the economic life of the proven reserves.

In the case of an offshore oil or gas platform or onshore facility, the number of years of useful life is determined by estimating when the facility would reach its economic limit, not on the basis of the projected physical life of the property. The time period until the estimated operating revenue would equal operating expenses plus the current age of the facility equals the total life. The depreciation factor for the facility equals the years of remaining life *divided* by the total life.

Pipeline Transportation Property.
The full and true value of taxable pipeline property is determined with due regard to the economic value of the property based on the estimated life of the proven reserves of gas or unrefined oil that will be transported by the pipeline. We rely upon several standard appraisal techniques to value Alaska pipelines. We primarily rely on the income method under which the value is the present worth of all future income streams of the pipeline. Over 95% of pipeline transportation property is accounted for by the Trans-Alaska Pipeline from Prudhoe Bay to Valdez.

The table on the next page illustrates the property tax distribution between local communities and the state for FY 2002. The property value is assessed by the state. A local tax is levied on the state's assessed value for oil and gas property within a city or borough, and is subject to the local property tax limitations established in AS 43.29.080 and .100. State law limits owners to paying 20 mills on their property — local governments get their share first, and the state receives whatever is left up to 20 mills.

Figure 17. FY 2002 Assessments by Property Type

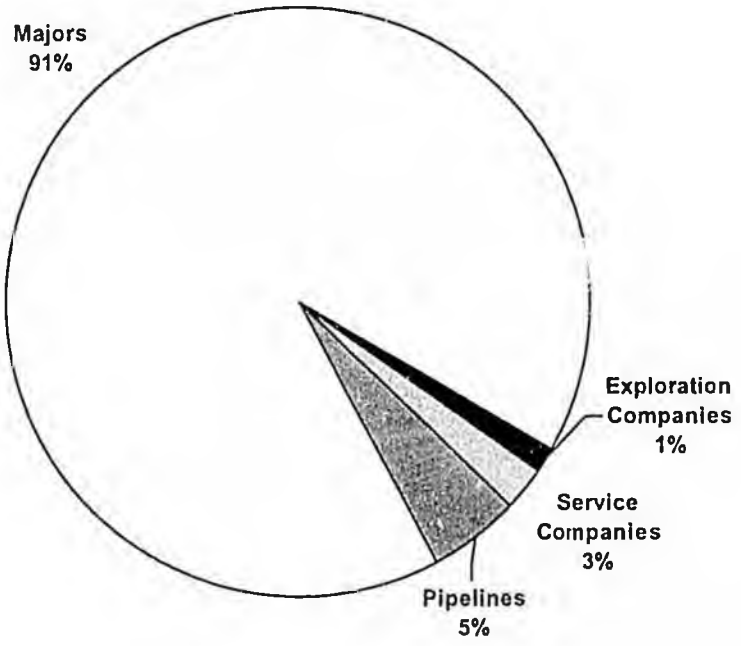


Table 21. FY 2002, Distribution of the Petroleum Property Tax
$ Million

Municipalities	Gross Tax	Local Share	State Share
North Slope	210.5	194.7	15.8
Unorganized	27.3	0.0	27.3
Valdez	13.2	13.2	0.0
Kenai	13.2	7.9	5.3
Fairbanks	5.3	4.2	1.1
Anchorage	0.8	0.7	0.1
Other Municipalities (1)	0.2	0.1	0.1
Total	270.4	220.7	49.7

(1) Other municipalities include Matanuska-Susitna, Cordova and Whittier.

Petroleum Corporate Income Tax

A petroleum corporation's Alaska income tax depends on the relative size of its Alaska-vs.-worldwide activities and the corporation's total worldwide net earnings. The corporation's Alaska taxable income is derived by apportioning the corporation's worldwide taxable income to Alaska using the average of three factors: the proportion of the corporation's (1) tariffs and sales, (2) oil and gas production, and (3) oil and gas property in Alaska.

We begin our forecast by estimating the statistical relationship between historical collections of tax and the value of Alaska oil production. We then adjust the forecast for carryforwards and refunds. In FY 2003, the carryforward and refund adjustment is over $70 million. This adjustment is a result of oil companies overpaying their income taxes. As a result of this adjustment, plus low marketing and refining margins, the FY 2003 petroleum corporation income tax projection is relatively low — in spite of projected high oil prices. As margins improve and refunds and carryforwards are used up, revenues should increase in FY 2004.

Restricted Oil Revenue

The table below reflects restricted oil and gas revenue.

A minimum of 25% of all mineral lease rentals, royalties, royalty sale proceeds, federal mineral revenue sharing payments and bonuses received by the state must be deposited into the Alaska Permanent Fund. For state oil and gas leases issued after 1980, state statute requires a 50% contribution to the fund. In addition, a state statute also requires a contribution of 0.5% of all royalties and bonuses to the Public School Fund Trust. As explained earlier, settlements with or judgments against the oil industry involving tax and royalty disputes must be deposited in the CBRF.

The state is entitled to 50% of all bonuses, rents and royalties from oil development activity in the federal NPR-A. All such revenue flows into the NPR-A Special Revenue Fund. All of the revenue in the fund each year is available for appropriation in the form of grants to municipalities that demonstrate present or future impact from NPR-A oil development. Of the revenue not appropriated to the municipalities, 25% goes to the Permanent Fund, 0.5% goes to the Public School Trust Fund, and the rest may be appropriated to the Power Cost Equalization and Rural Electric Capitalization Fund. Any remaining revenue after these appropriations lapses into the General Fund.

Table 22. Restricted Oil Revenue
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Restricted Oil Revenue			
Royalties to Permanent Fund & Public School Fund			
Royalties to the Permanent Fund	260.2	321.9	291.0
Royalties to the Public School Fund	4.0	5.3	4.7
Subtotal	**264.2**	**327.2**	**295.6**
Settlements to the CBRF	**90.2**	**30.0**	**20.0**
NPR-A Royalties, Rents and Bonuses	1.7	34.8	2.9
Total	**356.1**	**392.1**	**318.6**

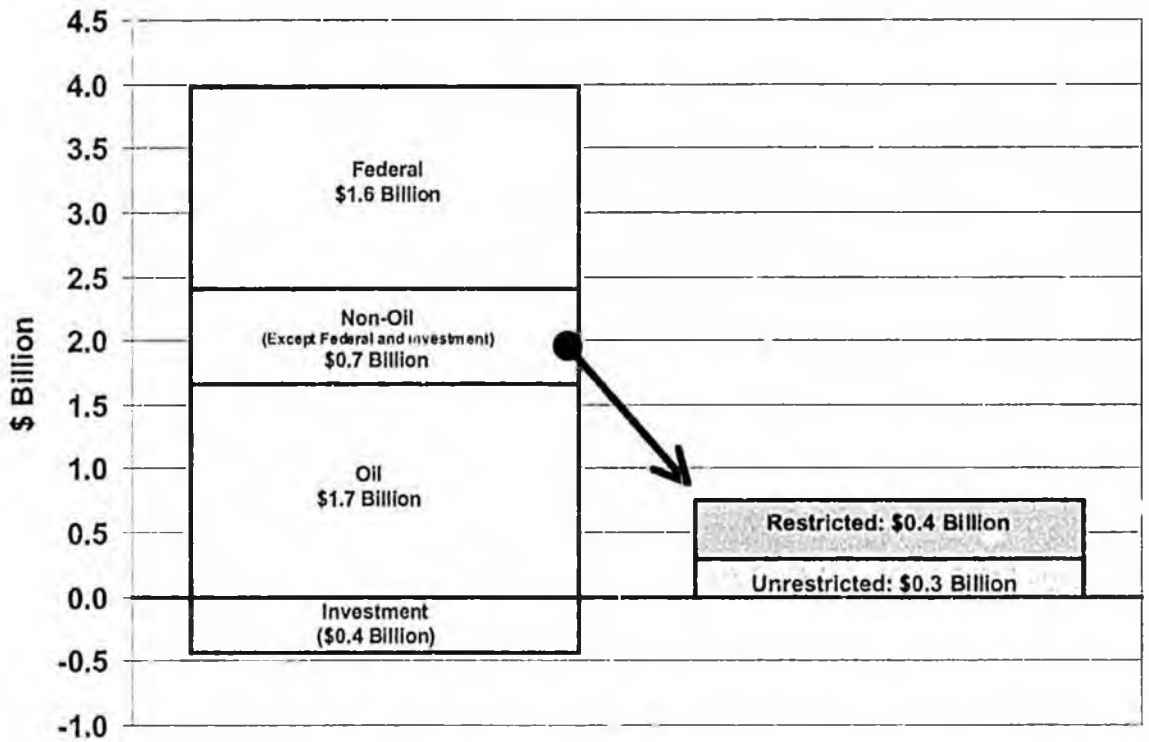
VI. NON-OIL REVENUE (EXCEPT FEDERAL AND INVESTMENT)

Income from sources other than oil and investments includes non-oil taxes, user fees and licenses. Many of these revenue sources are divided between unrestricted and restricted revenues; the amounts of each are reflected in the tables. Restricted revenue includes money deposited in funds other than the Unrestricted General Fund. For purposes of this forecast, restricted revenue also includes receipts that the legislature consistently appropriates or sets aside for a particular purpose or program, such as sharing of fish tax revenue with municipalities.

Table 23. Non-Oil Revenue (Except Federal and Investment)
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
Taxes	177.6	171.4	176.8
Charges for Services	20.2	12.7	12.7
Fines and Forfeitures	10.6	10.6	10.6
Licenses and Permits	42.2	32.5	33.2
Rents and Royalties	11.8	11.8	11.8
Other	28.3	14.4	15.0
Total Unrestricted	**290.7**	**253.4**	**260.1**
Restricted			
Taxes	57.7	62.8	67.8
Charges for Services	232.2	306.0	308.6
Fines and Forfeitures	24.9	24.7	21.5
Licenses and Permits	25.6	25.9	26.1
Rents and Royalties	0.0	0.0	0.0
Other	125.1	129.0	82.3
Total Restricted	**465.5**	**548.4**	**506.3**
Total	**756.2**	**801.8**	**766.4**

Figure 18. FY 2002 Non-Oil Revenue (Except Federal and Investment)
$0.7 Billion



Non-Oil Tax

Alcohol Beverage Tax

Alcoholic beverage taxes are collected primarily from wholesalers and distributors for alcoholic beverages sold in Alaska. On October 1, 2002 per gallon tax rates on alcoholic beverages were increased from $0.35 to $1.07 for beer, $0.85 to $2.50 for wine and $5.60 to $12.80 for liquor. Also, starting October 1, 2002, 50% of the revenue is deposited in the "Alcohol and Other Drug Abuse Treatment and Prevention Fund." Because the legislature "may use the annual estimated balance in the fund to make appropriations to the Department of Health and Social Services," this revenue is reflected as restricted in the Revenue Sources Book.

Corporate Income Tax

Corporations that do business in Alaska pay the Corporate Net Income Tax unless they are organized under a special IRS rule (Subchapter S) that generally applies to small, closely held companies. A corporation that does business both inside and outside Alaska must apportion its income to determine how much income it earned here. Corporations other than oil and gas corporations apportion their income to Alaska by using a three-factor formula based on sales, property and payroll. Alaska taxable income is determined by applying the apportionment factor to the corporation's modified federal taxable income. Corporate tax rates are graduated from 1% to 9.4% in $10,000 increments of Alaska taxable income. The maximum rate of 9.4% applies to income over $90,000.

Electric Cooperative and Telephone Cooperative Taxes

The electric cooperative and telephone cooperative taxes dates back to 1959, when the first Alaska legislature enacted the Electric and Telephone Cooperative Act to promote cooperatives around the state. The electric cooperative tax is based on kilowatt-hours furnished by qualified electric cooperatives recognized under AS 10; the telephone cooperative tax is levied on gross revenue of qualified telephone cooperatives under AS 10. All revenue from the co-op taxes is deposited in the General Fund, but revenue from co-ops located in municipalities is treated as restricted revenue in this forecast because it is shared 100% with the municipalities.

Estate Tax

This tax is levied on the transfer of an estate upon death. The Alaska estate tax is tied to the federal tax: The amount of the state tax equals the maximum state credit allowed on the estate's federal return. As a result of changes to the federal estate tax, the Alaska estate tax will be phased out by FY 2006. All revenue derived from estate taxes is deposited in the General Fund.

Fisheries Business Tax

The fisheries business tax is the oldest tax in Alaska, dating from 1913. The tax is levied on businesses that process or export fisheries resources from Alaska. Although the tax usually is levied on the act of processing, the tax is often referred to as a "raw fish tax" because it is generally based on the value paid to commercial fishers for the raw fishery resource. Tax rates vary from 1% to 5%, depending on whether a fishery resource is classified as "established" or "developing," and whether it was processed by an on-shore or floating processor. All revenue from the fisheries business tax is deposited in the General Fund, but not all of it is considered unrestricted for the purposes of this forecast. Each year, the legislature appropriates half the revenue from the tax either to the municipality in which the resource was processed, or, when the resource was processed outside a municipality, to the Department of Community and Economic Development to share. Given that this sharing formula is in statute, and that the legislature consistently follows the statutory formula, this forecast considers the shared revenues to be restricted. Fisheries business tax revenues declined in FY 2003 (2002 fishing season), mostly as a result of lower salmon values.

Fishery Resource Landing Tax

The fishery resource landing tax was enacted in 1993. The tax is levied on processed fishery resources first landed in Alaska, and is based on the unprocessed statewide average value of the resource. Fishery resource landing taxes are collected primarily from factory trawlers and floating processors that process fishery resources outside of the state's 3-mile limit and bring their products into Alaska for transshipment. Fishery resource landing tax rates vary from 1% to 3%, based on whether the resource is classified as "established" or "developing." All revenue derived from the fishery resource landing tax is deposited in the General Fund, but, by statute, 50% is available for sharing with municipalities on the same lines as the fisheries business tax. The revenue to be shared is considered restricted.

Insurance Premium Tax

Insurance companies in Alaska do not pay corporate income tax or sales or other excise taxes. Instead, they pay an insurance premium tax. Receipts from this tax are deposited in the General Fund. However, receipts from the insurance premium tax that are accounted for in the "Workers Safety and Compensation Fund" are shown as restricted.

Mining License Tax

This tax is on the net income of mining property in the state, ranging from 0% to 7%, less exploration and other credits. Except for sand and gravel operations, new mining operations are exempt from the mining license tax for a period of 3½ years after production begins. The production value of minerals decreased from 2000 levels by 6.5% in 2001 to $0.9 billion, mostly due to the decreased value of zinc. In 2001, zinc accounted for 70% of the production value for all metals mined in Alaska. Although the price of gold has improved by almost 10% over FY 2002, zinc prices remain low in FY 2003.

Motor Fuel Tax

The motor fuel tax dates back to 1945 when a tax of 1¢ per gallon was imposed on all motor fuel. The motor fuel tax is levied on motor fuel sold, transferred or used within Alaska. Motor fuel taxes are collected primarily from wholesalers and distributors licensed as qualified dealers. Current per gallon rates are 8¢ for highway use, 5¢ for marine use, 4.7¢ for aviation gasoline, 3.2¢ for jet fuel, and a variable rate of 8¢/2¢, depending on the season, for gasohol. Various uses of fuel are exempt from tax, including fuel used for heating or in flights to or from a foreign country. All revenue derived from motor fuel taxes is deposited in the General Fund, but 60% of taxes attributable to aviation fuel sales at municipal airports are shared with the respective municipalities, and hence considered restricted for purposes of this forecast.

Seafood Assessments and Taxes

The Department of Revenue administers several different programs that raise money through seafood assessments. The money raised is then set aside for the legislature to appropriate for the benefit of the seafood industry — either in marketing or in management/development of the industry. The four programs are the salmon marketing tax, seafood marketing assessment, salmon enhancement tax and dive fishery management assessment. The rates for many of these assessments are actually determined by a vote of the appropriate association within the seafood industry. Although all revenue received under these assessments is deposited in the General Fund, for purposes of this forecast it is treated as restricted revenue. With the exception of the salmon enhancement tax, all other seafood assessments are reflected under the Charges for Services section.

Tobacco Tax

The tobacco tax dates back to 1949, when a tax of 3 cents per pack of cigarettes and 2 cents per ounce of tobacco was enacted. The tobacco tax is levied on cigarettes and tobacco products sold, imported or transferred into Alaska. Tobacco taxes are collected primarily from licensed wholesalers and distributors. The tax rate on cigarettes is $1 per pack of 20 cigarettes. The tax rate on other tobacco products — such as cigars and chewing tobacco — is 75% of the wholesale price. Seventy-six percent of cigarette tax revenue is deposited in the School Fund; 24% in the General Fund. All tobacco products tax revenue is deposited in the General Fund; all cigarette and tobacco products license fees are deposited in the School Fund. Revenue deposited in the School Fund is dedicated to the rehabilitation, construction, repair and insurance costs of state school facilities. The decrease in cigarette tax revenue is due to a decline in taxable cigarette sales. The increase in other tobacco products revenue is due to the growth in the wholesale value of other tobacco products.

Charitable Gaming

Under Alaska law, municipalities and qualified non-profit organizations may conduct certain charitable gaming activities. The purpose of these activities is to derive public benefit in the form of money for the charities and revenues for the state. The Department of Revenue collects permit and license fees, a 1% net proceeds fee, and a 3% pull-tab tax.

Table 24. Non-Oil Tax
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
Sales and Use Tax			
Alcoholic Beverage	12.9	12.5	15.3
Cigarette	9.5	9.3	9.1
Other Tobacco Product	6.0	6.3	6.6
Insurance Premium	34.1	37.4	39.2
Electric and Telephone Cooperative	0.1	0.1	0.1
Motor Fuel	40.2	36.1	37.5
Subtotal	**102.8**	**101.7**	**107.8**
Corporation Income Tax	**53.4**	**50.0**	**50.0**
Fish Tax			
Fisheries Business	12.7	11.1	11.1
Fishery Resource Landing	2.6	3.5	3.5
Subtotal	**15.3**	**14.6**	**14.6**
Other			
Mining	0.5	0.5	0.5
Estate	3.1	2.1	1.4
Charitable Gaming	2.5	2.5	2.5
Subtotal	**6.1**	**5.1**	**4.4**
Total Unrestricted	**177.6**	**171.4**	**176.8**
Restricted			
Sales and Use Tax			
Alcoholic Beverage (Alcohol & Drug Treatment)	0.0	9.6	15.3
Insurance Premium (Workers Safety & Compensation)	3.2	3.0	3.0
Electric and Telephone Cooperative (Municipal Share)	3.1	3.1	3.1
Cigarette (School Fund)	30.3	29.3	28.6
Motor Fuel - Aviation (Municipal Share)	0.2	0.2	0.2
Subtotal	**36.8**	**45.2**	**50.2**
Fish Tax			
Fisheries Business (Municipal Share)	12.6	11.1	11.1
Fishery Resource Landing (Municipal Share)	4.6	4.1	4.1
Salmon Enhancement (Aquaculture Assoc. Share)	3.7	2.4	2.4
Subtotal	**20.9**	**17.6**	**17.6**
Total Restricted	**57.7**	**62.8**	**67.8**
Grand Total	**235.3**	**234.2**	**244.6**

Charges for Services

The charges for services reported in the next table do not include all charges for state services — it just reflects those that do not fit into other categories in this report. Most of these receipts are restricted revenue because they are returned to the program from which they came.

The only unrestricted revenue listed under charges for services in this report comes from fees and other program charges that do not have program receipt designations, or are not otherwise segregated and appropriated back to the program.

Marine Highway Fund

The revenue from certain transportation enterprises is reported here as a charge for state services. The Alaska Marine Highway Fund is in the General Fund and receives the revenue from operations of the state ferry system. The legislature has discretion over how the revenue is spent but, because it is customarily spent on Alaska Marine Highway operations, it is considered restricted.

Program Receipts

The definition of program receipts under AS 37.05.146 is "fees, charges, income earned on assets and other state money received by a state agency in connection with the performance of its functions." The statute then lists out all programs with program receipt authority. The statutory list includes many programs that are not included in Charges for Services because they are elsewhere in this forecast — such as federal receipts, trust funds and the Permanent Fund — or not state money, such as the public employee retirement funds. The table on the next page lists some of the larger individual programs and the receipts from those programs.

The largest of these is state airport revenue from landing and other fees, rents and the sale of aviation fuel. This is deposited in the International Airport Fund, which is an enterprise fund that the legislature traditionally appropriates only for air transportation purposes.

"Statutorily Designated" program receipts are those receipts from contracts, grants, gifts or bequests. The remaining program receipts are included under "Receipt Supported Services." Those not listed separately, or not described elsewhere in this forecast, are included in the catchall "Other."

Table 25. Charges for Services
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
General Government	17.0	10.0	10.0
Natural Resources	2.0	1.5	1.5
Other	1.2	1.2	1.2
Total Unrestricted	20.2	12.7	12.7
Restricted			
Marine Highway Receipts [1]	32.2	41.0	42.5
Statutorily Designated	55.5	98.7	98.7
Airport Receipts	72.6	74.0	74.0
Receipt Supported Services			
Pioneer Home Receipts	12.8	12.5	12.5
Banking and Securities	10.8	10.4	10.4
Occupational Licensing Receipts	6.4	7.9	8.2
Vehicle Registration Fees [2]	*	6.5	6.5
Regulatory Commission of Alaska Receipts	5.9	5.5	5.5
DNR Recording Fees	5.3	5.1	4.9
Alaska Seafood Marketing	4.8	4.2	4.2
Insurance Licensing Fees and Permits	4.7	4.9	5.1
Commercial Fisheries Entry Commission Receipts	3.4	3.3	3.3
State's Child Support Enforcement Services [2]	*	3.3	3.4
Oil and Gas Conservation	3.1	4.3	4.6
Vocational Tech Center and Teacher Certification	2.3	2.6	2.7
Test Fisheries Receipts	2.2	2.4	2.4
DOT Airport/ Navigation Fee [2]	*	2.6	2.8
DOT Standards & Commercial Vehicles	1.7	1.7	1.9
DOT Whittier Toll	1.3	1.1	1.2
DEC Food Inspection [2]	*	1.6	1.6
H&SS Vital Statistics	1.2	1.2	1.4
Corrections Community Residential Center	1.0	1.1	1.1
Other	5.0	10.1	9.7
Subtotal	71.9	92.3	93.4
Total Restricted	232.2	306.0	308.6
Grand Total	252.4	318.7	321.3

(1) In FY 2002, actual revenue was $39.5 million. However, $7.3 million was moved to prior year accrual in FY 2003 as a result of changes in accounting practices.
(2) In FY 2002, these receipt supported services were accounted for under unrestricted Licenses and Permits, Charges for Services and Other.

Fines and Forfeitures

This category includes civil and criminal fines and forfeitures, and money received by the state from the settlement of various civil lawsuits. The majority of the receipts under this category are from tobacco litigation and other settlements.

Tobacco Settlement

The tobacco settlement was signed by 46 states (including Alaska) in November 1998. The first payment from the settlement was made in FY 2000. In 2000 and 2001, the legislature authorized the sale of 80% of the future revenue stream from the tobacco settlement to a new public corporation, the Northern Tobacco Securitization Corporation, a subsidiary of the Alaska Housing Finance Corporation. The new corporation, in turn, sold bonds based on this revenue stream, and paid to the state the money raised by the bond sale, which the legislature appropriated for schools, the university and harbor projects. Starting in FY 2002, the remaining 20% of the settlement revenue each year will be deposited into the new Tobacco Use Education and Cessation Fund. We also show the 80% that goes directly to the Northern Tobacco Securitization Corporation for payment of the bonds.

Table 26. Fines and Forfeitures
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
Other Settlements	5.0	5.0	5.0
Other Fines and Forfeitures	5.6	5.6	5.6
Total Unrestricted	10.6	10.6	10.6
Restricted (1)			
Tobacco Settlement (Northern Tobacco Securitization Corp.)	19.9	19.8	17.2
Tobacco Settlement (Tobacco Use Education & Cessation Fund)	5.0	4.9	4.3
Total Restricted	24.9	24.7	21.5
Grand Total	35.5	35.3	32.1

(1) Assumes that all four "Original Participating Manufacturers" pay their initial and annual payments in full. Brown and Williamson withheld payment in the past due to ongoing disputes with participating states.

Licenses and Permits

Licenses and permits represent another source of government revenue derived from charges for allowing people to participate in activities regulated by the state. The majority of the receipts under this category are from motor vehicle registration and fishing and hunting license fees.

Fishing and Hunting Licenses Fees

The majority of these fees are appropriated to a special revenue fund called the Fish and Game Fund. Money in the fund may only be spent for fish and game management purposes.

Motor Vehicle Registration Fees

Most motor vehicle registration fees are unrestricted license and permit revenue. However some registration fees are reflected under restricted receipt supported services.

Table 27. Licenses and Permits
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
Motor Vehicle	35.7	29.8	30.5
Other Fees	6.5	2.7	2.7
Total Unrestricted	42.2	32.5	33.2
Restricted			
Fishing and Hunting			
Hunting and Fishing Fees (Fish and Game Fund)	23.3	23.5	23.7
Sanctuary Fees (Fish and Game Fund)	0.1	0.1	0.1
Subtotal	23.4	23.6	23.8
Other Fees (Clean Air Protection Fund)	2.2	2.3	2.3
Total Restricted	25.6	25.9	26.1
Grand Total	67.8	58.4	59.3

Rents and Royalties

The majority of the unrestricted receipts under this category are from leasing, rental and sale of state land. Although certain restricted receipts go to the Permanent Fund, Mental Health Trust Fund and Public School Trust Fund, these are treated elsewhere.

Table 28. Rents and Royalties
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
Land Leasing, Rental and Sale	10.8	10.8	10.8
Coal Royalties	0.6	0.6	0.6
Timber Sales	0.2	0.2	0.2
Cabin Rentals	0.2	0.2	0.2
Total Unrestricted	11.8	11.8	11.8
Grand Total	11.8	11.8	11.8

Other

This category includes unrestricted contributions, unclaimed property and miscellaneous other receipts.

Public Corporation Dividends

The public corporations of the state listed in this section have been capitalized with state money, which the corporations use for purposes — usually loans — related to their mission. The dividend listed in the next table is treated as restricted revenue.

Unclaimed Property

Under the unclaimed property statutes, a person holding abandoned property belonging to someone else must turn the property over to the state, which holds the property in trust until claimed by its rightful owner. Most unclaimed property is in the form of cash (checking and savings accounts), stocks and bonds (including dividends) and safe-deposit box contents. Other property includes utility deposits, traveler checks and wages. Because not all unclaimed property owners are located, amounts received from holders exceed the refunds to owners. The Treasury Division maintains a minimum balance in the trust account and periodically transfers excess funds to the General Fund. Unclaimed property receipts for FY 2002 are far greater than in any other year because of a very large settlement of an unclaimed property dispute with Bank of America.

Table 29. Other Non-Oil Revenue
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
Miscellaneous	13.3	10.4	11.0
Unclaimed Property	15.0	4.0	4.0
Total Unrestricted	28.3	14.4	15.0
Restricted			
Dividends from Public Corporations			
Alaska Housing Finance	103.0	103.0	75.7
Alaska Industrial Development & Export Authority	17.5	19.0	0.0
Alaska Student Loan Corporation	4.0	5.0	5.0
Alaska Municipal Bond Bank	0.6	2.0	1.6
Total Restricted	125.1	129.0	82.3
Grand Total	153.4	143.4	97.3

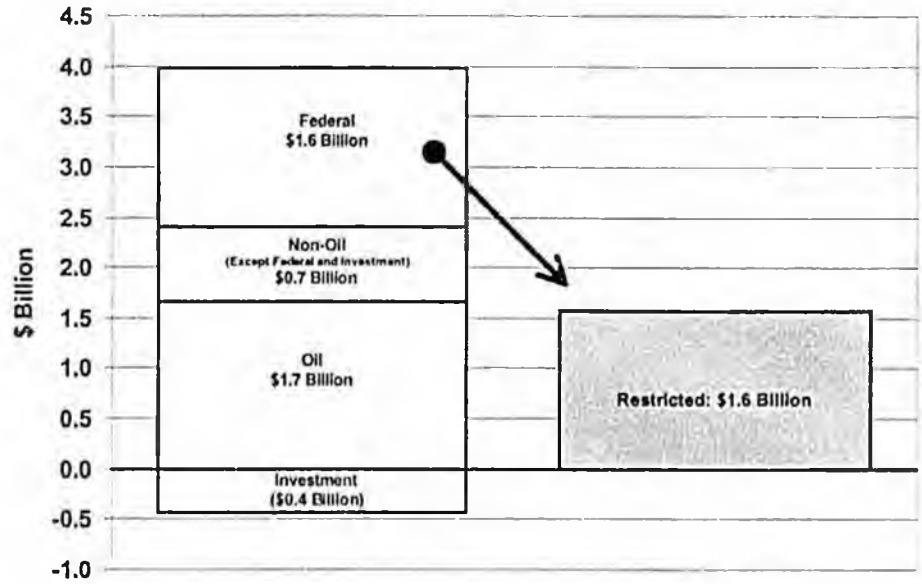
VII. FEDERAL REVENUE

Federal government spending has figured prominently in Alaska's history and is still a major force today, in spite of the maturing and diversification of Alaska's economy. In the latest fiscal year for which we have records, federal spending was $6.4 billion. Part of that spending comes from the activities of the various agencies of the federal government, part is in the form of grants to state and local governments, and still another part is payments to individuals.

Table 30. Total Federal Revenue to the State
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	Budgeted FY 2003	Budgeted FY 2004
Restricted			
Federal Receipts			
Social Services	702.6		
Transportation	411.5		
Education	136.3	not appropriated yet	
Natural Resources	107.2		
Public Protection	48.4		
Development	45.3		
Health	32.4		
Other	88.4		
Total Restricted	1,572.1	2,321.9	2,321.9

Figure 19. FY 2002 Federal Revenue
$1.6 Billion



Total Federal Spending

The federal fiscal year (FFY) runs from October 1 through September 30. In FFY 2001, the federal government spent $6.4 billion in Alaska.[1] Per capita, that's more money than any other state. It is also an increase over the year before, continuing a six-year trend of climbing federal spending. In fact, the federal government has increased its spending in Alaska at a faster rate than for the nation as a whole in four of the past six years.

Figure 20. FFY 2001: Federal Spending Per Capita — Top Six States

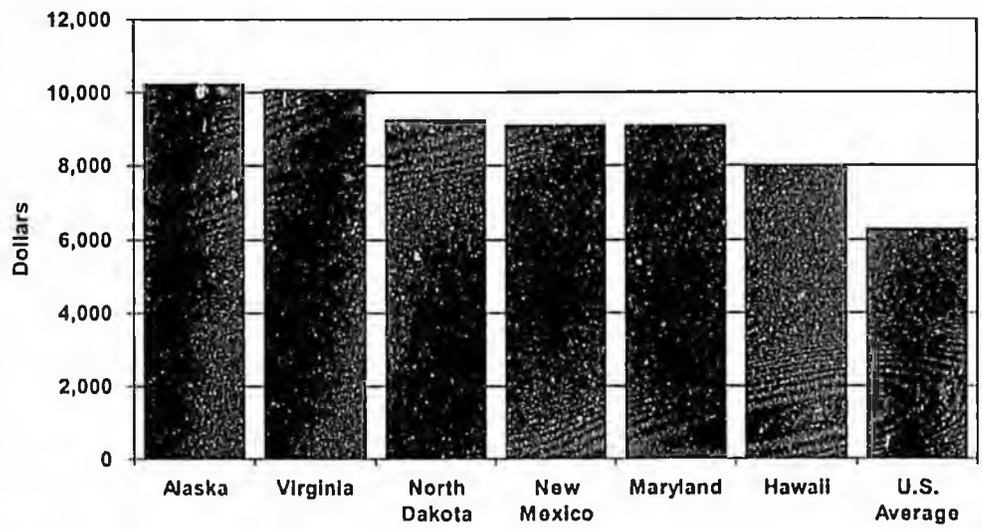
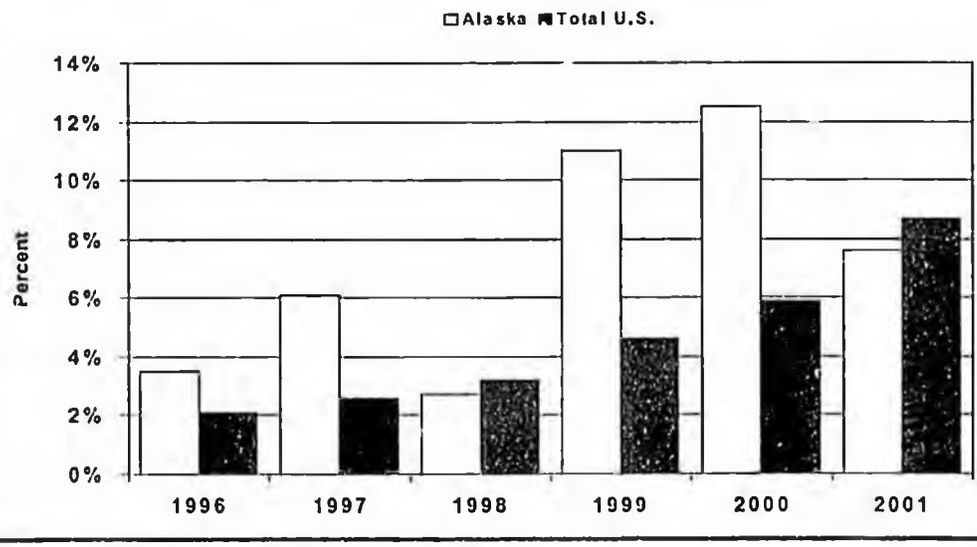


Figure 21. Annual Federal Spending Increase, Alaska and Total U.S.



(1) This and other federal funds figures in this section not otherwise attributed come from the Consolidated Federal Funds Report, U.S. Census Bureau, U.S. Department of Commerce, Washington, D.C. 20233.

About 39% of federal spending in Alaska is new money coming into the state — we received $1.63 for every $1.00 we paid in taxes.[1] Because the new money comes from outside the state, it contributes to an overall increase in the Alaska economy.

Among federal agencies, the Department of Defense spends the most in Alaska, followed by Health and Social Services. Together, they account for nearly half of all federal spending.

Not surprisingly, a large portion of federal money flows into Alaska through salaries of federal employees. However, more than a third of all federal spending is in the form of grants, mostly to state and local governments, but also to nonprofit organizations. Purchases of goods and services from Alaska businesses are also significant, as are direct payments to individuals for such things as retirement and disability.

Table 31. Total Federal Spending, FFY 2001
$ Million

	By Agency			By Category	
	$Million	Percent		$Million	Percent
Defense	1,778	28	Grants	2,313	36
Health & Human Services	1,177	18	Salaries & Wages	1,414	22
Social Security	573	9	Procurement	1,130	18
Other Agencies	2,875	45	Retirement & Disability	936	15
			Other Direct Payments	610	10
Total	**6,403**	**100**		**6,403**	**100**

Federal Funding in the State Budget

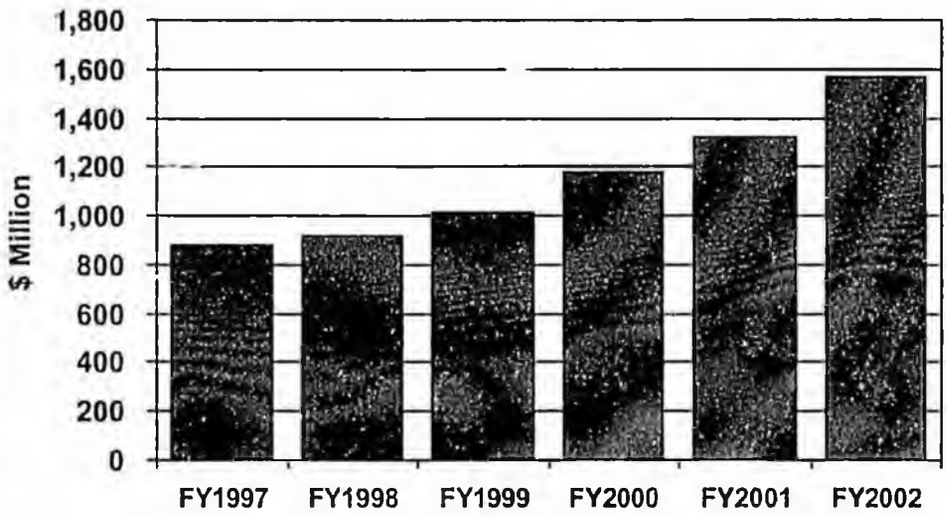
In FY 2002, the state received and spent approximately $1.6 billion of federal funds. As with federal spending in Alaska generally, support to state and local governments has continued to increase.[2]

Federal funding in the state budget is restricted to specific uses, such as road improvements, Medicaid payments, and aid to schools. Approximately 45% of total federal money spent by the state is for capital projects.

(1) Special Report No. 116, J. Scott Moody, Tax Foundation. This report can be found at: http://www.taxfoundation.org.
(2) While we don't have figures for how much federal money went to local governments in FY2002, we can infer that the amount was roughly $900 million to $1 billion. In Federal Fiscal Year 2001, the last for which we have figures, Alaska state and local governments combined received $2.4 billion.

Potential changes to federal law, differing federal and state fiscal years, and changing numbers of eligible Alaskans in certain programs make forecasting federal revenue difficult. For example, we can be pretty certain that the rising cost of medical care will drive up Medicaid costs, and that under current law federal revenues to the state will increase as a result. However, the number of Alaskans using the program could rise or fall as economic conditions change, and Congress could decide to alter the amount that states are reimbursed for Medicaid expenses. Similarly, we can fairly predict the rate at which we spend, and thus receive, federal transportation dollars already appropriated by Congress, but we cannot predict how much money Congress will appropriate. The estimates of federal revenues we present for state FY 2003 are, therefore, necessarily rough.

Figure 22. Federal Dollars Received by the State (1)



(1) State fiscal year.

It is important to note that the state routinely budgets for more federal money than it actually receives. The legislature authorizes agencies to receive and spend the maximum that federally funded programs might need. Actual amounts normally turn out to be less. Also, some of the federal money appropriated for multi-year capital projects is received and spent in years following the one in which the money is appropriated.

For FY 2003, the state budgeted $2.3 billion. Most federal funding requires state matching money. The budgeted state match in FY 2003 is $287 million.

All federal funds, whether spent in the operating or capital budget, are restricted to specific uses. The largest categories of federal funding, as budgeted for FY 2003, are Medicaid ($609 million), highways ($514 million), education ($179 million) and airports ($159 million).

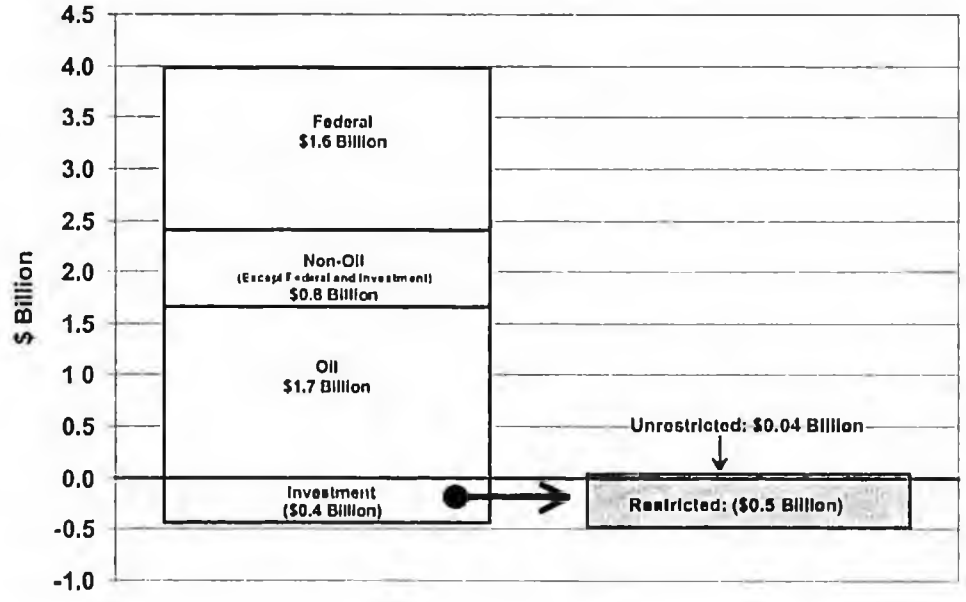
VIII. INVESTMENT REVENUE

Table 32. Total Investment Revenue
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
GeFONSI Pool Investments	35.4	25.6	11.6
Investment Loss Trust Fund	0.1	0.1	0.1
Interest Paid by Others	7.6	5.0	5.0
Subtotal	**43.1**	**30.7**	**16.7**
Restricted			
GeFONSI Pool Investments	10.6	7.2	3.4
Constitutional Budget Reserve Fund	122.3	83.7	48.5
Other Treasury Managed Funds	(0.8)	9.1	32.9
Alaska Permanent Fund (GASB) (1)	(617.0)	129.0	1,815.8
Subtotal	**(484.9)**	**229.0**	**1,900.6**
Total	**(441.8)**	**259.7**	**1,917.3**

(1) Governmental Accounting Standards Board (GASB) principles recognize changes in the value of investments as income or losses at the end of each trading day, whether or not the investment is actually sold.

Figure 23. FY 2002 Investment Revenue
($0.4 Billion)



Overview - Investment of State's Financial Assets

Revenue earned from investing the state's financial assets has become a major part of Alaska's revenue picture, exceeding all other state General Fund tax and royalty revenue in three of the five past years. The state's money is held in funds that fall into three categories: (1) revolving funds, (2) single-project funds, and (3) endowment funds.

(1) Revolving funds are funds that are continually expended and replenished. Examples of the state's many revolving funds include the General Fund and the International Airport Revenue Fund.

(2) Single-project funds are non-replenishing funds established with specific sums for specific projects or programs. Examples of this type of fund include the International Airport Construction Fund, as well as funds for capital grants to municipal governments, school districts, unincorporated communities and several funds for energy-related projects.

(3) The state's endowment funds are funds for which a principal balance is invested and the earnings go to support a public purpose. The state's endowment funds include the Alaska Permanent Fund, Mental Health Trust Fund, Alaska Science and Technology Fund, International Trade and Business Development Fund, Public School Trust, Alaska Children's Trust and Power Cost Equalization Endowment Fund.

Two different organizations manage the investment of most of the state's financial assets — the Treasury Division of the Alaska Department of Revenue and the Alaska Permanent Fund Corporation. The Treasury Division manages the many funds involved in the day-to-day operation of state government and also serves as the staff for the Alaska State Pension Investment Board in managing the several public employee retirement funds for which the state is responsible. In addition, it invests a portion of the University of Alaska Endowment and Exxon Valdez Oil Spill Trust Endowment. Finally, it manages state endowment funds not managed by the Permanent Fund, a portion of the Alaska Student Loan Fund and various state health and long-term care insurance funds.

The Alaska Permanent Fund Corporation has investment responsibility for the Alaska Permanent Fund, Mental Health Trust Fund, Alaska Science and Technology Endowment Fund and International Trade and Business Development Fund.

While we have included information about the Mental Health Trust Fund, Alaska Science and Technology Fund and International Trade and Business Endowment in this section of our forecast, we have not included projected investment revenue from these funds in our investment revenue totals. For financial reporting purposes, these entities are classified as component units of state government whose activities are accounted for separately from the activities of state government. (1)

The University of Alaska is the overall manager of its own endowment funds, and each of the state's independent public corporations except the Alaska Science and Technology Foundation manages its own cash assets.

The Treasury Division and the Alaska Permanent Fund employ similar processes when investing state assets. This involves selecting an asset allocation appropriate for the return objectives, risk tolerance, liquidity requirements and legal requirements for each individual fund. For example, where the state needs to spend the assets of a fund relatively soon — in other words, where the fund has a short-term investment horizon — the fund should be invested in assets such as short-term government securities whose value is unlikely to decline substantially in the near term. If the fund has a relatively long-term investment horizon, it is appropriate to invest a portion of the fund in riskier assets — such as stocks. Riskier assets are more likely to decline substantially in value in the near term but are also more likely to earn higher returns over the longer term.

The Treasury Division has established an array of investment pools with varying investment horizons and risk profiles. The funds are invested in these pools unless required by statute or bond indenture to be held separately. The investment pools maximize earning potential, provide economies-of-scale savings of time and dollars, and allow smaller funds to participate in investment opportunities that would otherwise be unavailable to them.

For a detailed discussion of the Treasury Division's investment process, together with the detailed investment policies of each of the funds managed by the Treasury Division, see the Division's Investment Policies and Procedures Manual at http://www.revenue.state.ak.us/Treasury/policies/Manual.htm.

For information on the investments managed by the Alaska Permanent Fund Corporation, see http://www.apfc.org.

(1) Component units are legally separate entities for which state government is financially accountable. The Mental Health Trust, Alaska Science and Technology Foundation and International Trade and Business Endowment are separately presented in the state's Comprehensive Annual Financial Report to emphasize they are legally separate from the state. The Alaska Permanent Fund Corporation is also classified as a component unit, but the report of its financial activity is blended into the primary state government report because its activities are, in substance, part of primary state government's operations.

Investment Forecast

To forecast investment revenue for the current fiscal year — FY 2003 — we combine each fund's actual performance through September 30 with a projection for the rest of the year. Normally, forecasts and estimated capital market median returns are based on information supplied by the state's investment consultant Callan Associates Inc. and its "Five-Year Capital Market Estimated Returns" (see the table below).

Table 33. Callan Associates Inc. 2002 Five-Year Capital Market Estimated Returns

Asset Class	Benchmark for Asset Class	%/ Year Median Expected Return	%/ Year Expected Risk
Equities			
U.S. Broad	Callan Associates Inc. (CAI) Broad Market	9.3	17.2
U.S. Large Cap	Standard and Poors (S&P) 500	9.0	16.0
U.S. Small Cap	CAI Small	10.6	25.0
International	Morgan Stanley Capital International EAFE	9.9	21.5
Fixed Income			
Domestic Broad Market	Lehman Brothers Aggregate	5.8	5.0
Domestic Short Term (cash equivalent)	Three-Month U.S. Treasury Bill	3.5	0.7
Domestic Intermediate Term	Merrill Lynch 1- to 5-Year Government	4.6	2.6
International	Salomon Brothers Non-U.S. Government	5.6	9.6
Other			
Real Estate		8.0	16.5
Economic Variables			
Inflation		2.9	1.8

The continued volatility in the world's financial markets makes focus on the expected risk columns in the table above particularly appropriate. The numbers in this column represent a statistical measure called standard deviation, which is the most commonly used measure of risk in the investment world. The standard deviation allows you to estimate a range in which you would expect results to fall two-thirds of the time. For example, Callan estimates an average annual return for the domestic broad market fixed-income asset class of 5.75% and an expected risk for that asset class of 5%. That means Callan is forecasting that two-thirds of the time the annual return for the domestic broad fixed-income asset class will fall between 0.75% (the median expected average annual return of 5.75% *minus* the expected risk of 5%) and 10.75% (the median expected return *plus* the expected risk).

The probability that a particular asset class or portfolio will have a negative return over a given period of time is another way to reflect the riskiness of that asset class or portfolio. The investment income summary tables in this section of the revenue forecast include an estimate of the probability of negative returns for each fund over a one-year period.

Given current market conditions, however, Callan Associates Inc. assumptions for projected fixed-income returns from last January are too optimistic. For the General Fund and Other Non-Segregated Investments (GeFONSI), the Constitutional Budget Reserve Fund (CBRF), International Airport and International Airport Construction Funds, we are substituting the current yields-to-maturity of the relevant asset classes. This lowers projected income from the income derived from Callans assumptions. (See comparison table below.)

We have continued to use Callan's Five-Year Market assumptions for the Public School Trust Fund, Alaska Children's Trust and the Power Cost Equalization Endowment.

Table 34. Callan Associates Inc. Capital Market Returns vs. Current Yield to Maturity

Asset Class	Benchmark for Asset Class	% per year Callan Associates Inc.	% per year Current Yield Expected to Maturity
Fixed Income			
Domestic Short Term (cash equivalent)	Three-Month U.S. Treasury Bill	3.5	1.19
Domestic Intermediate Term	Merrill Lynch 1- to 5-Year Government	4.6	1.99
Domestic Broad Market (Long Term)	Lehman Brothers Aggregate	5.8	4.31

(1) Yield as of November 12, 2002.

Unrestricted Investment Revenue

Table 35. Unrestricted Investment Revenue
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Unrestricted			
GeFONSI Pool Investments	35.4	25.6	11.6
Investment Loss Trust Fund	0.1	0.1	0.1
Interest Paid by Others	7.6	5.0	5.0
Total	**43.1**	**30.7**	**16.7**

Unrestricted Investment Revenue from the GeFONSI Pool

A majority of the state's funds, including the General Fund, participate in an investment pool established by the Treasury Division called the General Fund and Other Nonsegregated Investments (GeFONSI) pool. Investment objectives for this pool are: (1) limited exposure to principal loss, (2) generate income without taking substantial risk, (3) minimal inflation protection, and (4) high liquidity. To achieve these objectives this pool is, in turn, invested in two fixed income pools established and managed by Treasury — Treasury's short-term, fixed-income pool and Treasury's intermediate-term, fixed-income pool. The GeFONSI pool has maintained an average balance of $1 billion for the past eight years. The General Fund itself, with an average balance of $300 million, is the largest participant in the GeFONSI pool. The balance of the GeFONSI pool consists of the cash assets of 120 other funds.

Of the funds participating in the GeFONSI pool, 61 are entitled to the actual income earned on their cash assets invested in the pool. The earnings from the cash assets of the other 60 funds are credited to the General Fund.

Table 36. GeFONSI Investment Revenue Summary
Preliminary FY 2002 and Projected FY 2003-2004

Asset Allocation

Treasury Pool	Percent Allocation	Performance Benchmark
Short-term, Fixed-Income Pool	40%	Three-Month U.S. Treasury Bill
Intermediate-Term, Fixed-Income Pool	60%	Merrill Lynch 1- to 5-Year Government Index

GeFONSI Pool Balance September 30, 2002	$1,975.0 Million
Projected Annual Rate of Return	1.67 %
Probability of Negative Return Over 1 Year	15.72 %

Preliminary Actual Total Investment Income, FY 2002	$ 46.0 Million
Projected Total Investment Income, FY 2003	$ 32.8 Million
Projected Total Investment Income, FY 2004	$ 15.0 Million

$ Million

	Preliminary FY 2002	FY 2003	FY 2004
GeFONSI Pool Revenue into General Fund[1]	35.4	25.6	11.6
GeFONSI Pool Revenue Restricted	10.6	7.2	3.4
Total	46.0	32.8	15.0

(1) Includes subfunds of the General Fund.

For detailed information on the funds whose cash assets are invested in the GeFONSI pool and on the restricted and unrestricted investment revenue from the GeFONSI pool, see appendices P, Q and R of Treasury's Investment Policies and Procedures Manual.

Investment Loss Trust Fund (AS 37.14.300)

The trust fund was established for the benefit of participants in the state's Supplemental Benefits System annuity plan to insure against loss on investments in annuity contracts issued in the 1980s by Executive Life Insurance Company of California, which later became insolvent. The Department of Revenue is the custodian of the fund, which consists of money appropriated by the legislature. Money earned on the fund is retained in the fund but is available for appropriation by the legislature.

Table 37. Investment Loss Trust Fund Investment Revenue Summary
Preliminary FY 2002 and Projected FY 2003-2004

Asset Allocation

Treasury Pool	Percent Allocation	Performance Benchmark
Short-term, Fixed-Income Pool	100%	U.S. Treasury Bill

Investment Loss Trust Fund Balance September 30, 2002	$ 7.4 Million
Projected Annual Rate of Return	3.5 %
Probability of Negative Return Over 1 Year	0.0 %

	Total Return ($ Million)		
	Preliminary FY 2002	FY 2003	FY 2004
Investment Loss Trust Fund	0.1	0.1	0.1

Restricted Investment Revenue

Table 38. Restricted Investment Revenue
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Restricted			
GeFONSI Pool Investments	10.6	7.2	3.4
Constitutional Budget Reserve Fund	122.3	83.7	48.5
Other Treasury Managed Funds	(0.8)	9.1	32.9
Alaska Permanent Fund (GASB) [1]	(617.0)	129.0	1,815.8
Total	**(484.9)**	**229.0**	**1,900.6**

(1) Governmental Accounting Standards Board (GASB) principles recognize changes in the value of investments as income or losses at the end of each trading day, whether or not the investment is actually sold.

Restricted Investment Revenue from the GeFONSI Pool

As presented in the table on the prior page, restricted investment revenue from funds whose cash assets are invested in the GeFONSI pool totaled $10.6 million in FY 2002 and are projected to total $7.2 in FY 2003 and $3.4 million in FY 2004.

Constitutional Budget Reserve Fund (Alaska Constitution, Article IX, Section 17)

Voters approved a constitutional amendment in 1990 establishing the Constitutional Budget Reserve Fund (CBRF) and requiring the state to deposit all settlements from oil and gas and mining tax and royalty disputes into that fund. The money in the CBRF is invested by the Department of Revenue, and the CBRF retains its own investment earnings. Although, in theory, the legislature may appropriate money from the CBRF under certain conditions with a simple majority vote, in practice those conditions do not occur and it takes a three-fourths vote of the members of each chamber to appropriate money from the fund.

Since 1991 the legislature has appropriated money from the CBRF to balance the state's budget in every fiscal year except 1997 and 2001, when high oil prices resulted in small budget surpluses. The Alaska Constitution requires the General Fund to repay the money appropriated from the CBRF if the General Fund has a surplus at the end of any fiscal year, but the General Fund does not pay interest on the money it has "borrowed" from the CBRF. As of June 30, 2002, the General Fund had "borrowed" about $4.6 billion from the CBRF.

On June 30, 2002, the CBRF cash balance was $2.469 billion. The balance was down to $2.075 billion on November 20, 2002. Based on our oil price and production projections, if the state maintains its budget at the level of the FY 2002 budget, but continues to draw on the CBRF to balance the budget, the CBRF will run out of money at the end of fiscal 2005 (see Section III).

Treasury's investment policies for the CBRF have changed over the years as the balance and the expected uses of the CBRF have changed. Before 1999 a portion of the CBRF was invested with a long-term horizon and some of the fund was invested in U.S. equities. The very low oil prices experienced in 1998 and 1999 led to a significant reduction in the amount in the fund. The reduced size of the fund significantly shortened its investment time horizon, meaning the state could no longer afford the risk of long-term stock investments because the CBRF would likely be drained over the next few years. Therefore, the fund's investments were moved out of equities and concentrated in relatively short-term, fixed-income securities. A significant change occurred again in 2000 when the legislature created a special subaccount in the CBRF in the amount of $400 million. The legislature instructed the Department of Revenue to invest the $400 million subaccount with a long-term horizon so that the money would be invested in stocks — not just bonds — in the hope of earning more investment revenue over time.

Table 39. CBRF Investment Revenue Summary
Preliminary FY 2002 and Projected, FY 2003-2004

Asset Allocation Regular Account

Treasury Pool	Percent Allocation	Performance Benchmark
Short-term, Fixed-Income Pool	10%	Three-Month U.S. Treasury Bill
Intermediate-term, Fixed-Income Pool	65%	Merrill Lynch 1- to 5-Year Government Index
Broad Market Fixed-Income Pool	25%	Lehman Brothers Aggregate Bond Index

Regular Account Balance September 30, 2002	$1,934.8 Million
Projected Annual Rate of Return	2.49 %
Probability of Negative Return Over 1 Year	19.7 %

Asset Allocation Special Subaccount

Treasury Pool	Percent Allocation	Performance Benchmark
Broad Market Fixed-Income Pool	42%	Lehman Brothers Aggregate Bond Index
Domestic Equity Pool	41%	Russell 3000 Index
International Equity Pool	17%	MSCI EAFE Index

Special Subaccount Balance September 30, 2002	$ 329.1 Million
Projected Annual Rate of Return	7.93 %
Probability of Negative Return Over 1 Year	23.36 %

	Total Investment Income ($Million)		
	Preliminary FY 2002	FY 2003	FY 2004
Regular Account	143.4	89.4	19.8
Special Subaccount	(21.1)	(5.7)	28.7
Total	122.3	83.7	48.5

Table 40 Constitutional Budget Reserve Fund Cash Flows
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Beginning Cash Balance CBRF	2,994.8	2,469.3	1,835.1
Beginning Main Account Balance	2,618.8	2,114.4	1,485.9
Transfer to Special Subaccount	0.0	0.0	0.0
Earnings on Main Account Balance (1)	143.4	89.4	19.8
Petroleum Tax, Royalty Settlements (2)	90.2	30.0	20.0
Loan to GF (prior year)	0.0	0.0	0.0
Loan to GF (current year) (3)	(738.0)	(747.8)	(896.5)
Payback of Cash Flow Draw	0.0	0.0	0.0
Ending Main Account Balance	**2,114.4**	**1,485.9**	**629.3**
Beginning Special Subaccount Balance	376.0	354.9	349.2
Earnings on Special Subaccount Balance (1)	(21.1)	(5.7)	28.7
Petroleum Tax, Royalty Settlements (2)	0.0	0.0	0.0
Loan to GF from Special Subaccount	0.0	0.0	0.0
Ending Special Subaccount Balance	**354.9**	**349.2**	**377.9**
Total CBRF Balance	**2,469.3**	**1,835.1**	**1,007.2**

(1) The projected earnings rate for the balance of FY 2002, 2003 and 2004 is 2.49% for the undesignated subaccount and 7.93% for the special subaccount. These projections are based on Callan's capital market assumptions with the modifications reflected in the investment forecast explanation and Department of Revenue, Treasury Division's asset allocation.
(2) Settlement estimates are provided by the Department of Revenue and Department of Law.
(3) The FY 2002 draw is based on the audited cash balance in the CBRF as of June 30, 2002. FY 2003 CBRF draw projections do not represent final budget numbers.

International Airport Funds (AS 37.15.410 - .550)

In 1961 the Alaska Legislature established an enterprise fund, the International Airport Revenue Fund, to facilitate issuing revenue bonds for construction at the Anchorage and Fairbanks International Airports. Enterprise funds are self-supporting, revolving funds used to account for business-like state activities. They are financed through user charges and subject to legislative appropriation. Almost all the revenue and expenses of these two international airports flow through this Airport Revenue Fund, including the funding for most repair and maintenance projects. Consequently, the revenue fund is subject to large cash inflows and outflows.

The Airport Revenue Fund has maintained a significant balance (it has averaged $85 million since 1996), and the investment earnings from the fund are a significant revenue source for the airport system. Most of the revenue to run the airports comes from landing and lease fees paid by the airlines, and the Department of Transportation and Public Facilities takes the fund's projected earnings into account in negotiating fees with airlines. Airport management and airline representatives have tried to keep fees as stable and low as practical. Relatively stable investment earnings assist the airport system and the airlines in meeting that goal.

Table 41. International Airport Revenue Fund Investment Revenue Summary
Preliminary 2002 and Projected 2003-2004

Asset Allocation

Treasury Pool	Percent Allocation	Performance Benchmark
Short-term, Fixed-Income Pool	15%	Three-Month U.S. Treasury Bill
Intermediate-term, Fixed-Income Pool	85%	Merrill Lynch 1- to 5-Year Government Index

International Airport Revenue Fund Balance September 30, 2002	$ 107.1 Million
Projected Annual Rate of Return	1.87 %
Probability of Negative Return Over 1 Year	20.21 %

Total Investment Income ($ Million)

	Preliminary FY 2002	FY 2003	FY 2004
International Airport Revenue Fund	5.5	4.2	2.0

Major improvements in the International Airport system have generally been financed with revenue bonds. When issued, the proceeds of these airport revenue bonds are deposited into a separate International Airport Construction Fund. Unspent proceeds of four bond issues to finance major improvements at the International Airport system are currently invested in the Airport Construction Fund. The investment earnings from this fund are available to help pay for the construction project.

Table 42. International Airport Construction Fund (1999 Issues) Investment Revenue Summary Preliminary FY 2002 and Projected FY 2003-2004

Asset Allocation

Treasury Pool	Percent Allocation	Peformance Benchmark
Short-term, Fixed-Income Pool	25%	Three-Month U.S. Treasury Bill
Intermediate-term, Fixed-Income Pool	75%	Merrill Lynch 1- to 5-Year Government Index

International Airport Construction Fund Balance September 30, 2002	$ 117.2 Million
Projected Annual Rate of Return	1.79 %
Probability of Negative Return Over 1 Year	18.61 %

Total Investment Income ($ Million)

	Preliminary FY 2002	FY 2003	FY 2004
International Airport Construction Fund	7.2	4.3	1.2

Table 43. International Airport Construction Fund (2002 Issues) Investment Revenue Summary Preliminary FY 2002 and Projected FY 2003-2004

Asset Allocation

Treasury Pool	Percent Allocation	Peformance Benchmark
Short-term, Fixed-Income Pool	50%	Three-Month U.S. Treasury Bill
Intermediate-term, Fixed-Income Pool	50%	Merrill Lynch 1- to 5-Year Government Index

International Airport Construction Fund Balance September 30, 2002	$ 122.7 Million
Projected Annual Rate of Return	1.59 %
Probability of Negative Return Over 1 Year	13.44 %

Total Investment Income ($ Million)

	Preliminary FY 2002	FY 2003	FY 2004
International Airport Construction Fund	1.7	3.1	0.3

Public School Trust Fund (AS 37.14.110)

The net income of this Trust Fund may only be appropriated to support the state public school program. This trust fund was created from the Public School Permanent Fund on July 1, 1978, but its history goes back much further. The original source of funding consisted of income from the sale or lease of approximately 100,000 acres of land granted to the Territory of Alaska by an Act of Congress on March 15, 1915. The principal of the fund could not be appropriated by the legislature. The 1978 change abolished the land portion of the trust and, in its place, provided that one-half of 1% of the total receipts derived from the management of state land, including amounts paid to the state as proceeds of the sale or annual rent of surface rights, mineral lease rentals, royalties, royalty sale proceeds and federal mineral revenue-sharing payments or bonuses were to be deposited into the fund.

The money in the Trust Fund is invested and managed by the Department of Revenue, and the Commissioner of Revenue is the treasurer and fiduciary of the fund. The fund is managed to provide increasing net income over the long term for the fund's income beneficiaries. The principal of the fund and all capital gains or losses realized on the investment of the assets of the fund must be retained in the fund.

Currently, the fund each year distributes 4.75% of the last five years' average market value of the fund principal, as long as this amount does not exceed the accumulated interest and dividend income.

For a more detailed comparison of this fund with other state endowment funds, see Section IX of this forecast.

Table 44. Public School Trust Investment Revenue Summary
Preliminary FY 2002 and Projected FY 2003-2004

Asset Allocation

Treasury Pool	Percent Allocation	Performance Benchmark
Broad Market Fixed-Income Pool	55%	Lehman Brothers Aggregate Index
Domestic Equity Pool	45%	Russell 3000 Index

Public School Trust Fund Balance September 30, 2002	$ 258.7 Million
Projected Annual Rate of Return	7.27 %
Probability of Negative Return Over 1 Year	20.48 %

Total Investment Income and Distributable Income ($ Million)

	Preliminary FY 2002	FY 2003	FY 2004
Public School Trust Total Investment Income	(9.2)	2.6	17.5
Public School Trust Distributable Income	10.6	10.3	9.8

Alaska Children's Trust (AS 37.14.200)

Income from this endowment is used to provide grants to community-based programs for the prevention of child abuse and neglect. The trust provides individual grants of up to $50,000 per year, matched by other sources.

The legislature established the trust in 1988. The Commissioner of Revenue is the fiduciary. The first significant funding of the trust occurred in 1996 when the legislature appropriated $6 million to the trust. Appropriations, gifts, bequests and contributions of cash or other assets provide additional funds in the endowment.

Currently, the fund distributes 4.75% of the last five years' average beginning market value of the principal, as long as this amount does not exceed the accumulated interest and dividend income.

Legislation pending before the Alaska State Legislature would modify the laws governing this trust so that it would be administered in the same manner as a typical institutional endowment fund. The distinction between "principal" and "income" would be abolished and the fund would be managed to preserve its purchasing power over the long term. Five percent of the market value of the fund would be distributed to support grants to children's programs each year.

For a more detailed comparison of this fund with other state endowment funds, see Section IX of this forecast.

Table 45. Alaska Children's Trust Investment Revenue Summary
Preliminary FY 2002 and Projected FY 2003-2004

Asset Allocation

Treasury Pool	Percent Allocation	Performance Benchmark
Broad Market Fixed-income Pool	55%	Lehman Brothers Aggregate Index
Domestic Equity Pool	45%	Russell 3000 Index

Alaska Children's Trust Balance September 30, 2002	$ 8.3 Million
Projected Annual Rate of Return	7.27 %
Probability of Negative Return Over 1 Year	20.48 %

	Total Investment Income and Distributable Income ($ Million)		
	Preliminary FY 2002	FY 2003	FY 2004
Alaska Children's Trust Total Investment Income	(0.3)	0.0	0.6
Alaska Children's Trust Distributable Income	0.4	0.3	0.3

Power Cost Equalization Endowment Fund (AS 42.15.070)

Two separate funds are involved in the Power Cost Equalization program: the Power Cost Equalization Endowment Fund, which supplies money to the program; and the Power Cost Equalization and Rural Electric Capitalization Fund, which distributes money for the Power Cost Equalization program.

The legislature in May 2000 established the Endowment Fund as a separate fund of the Alaska Energy Authority (AEA). The AEA is a public corporation of the Department of Community and Economic Development directed by the officers of the Alaska Industrial Development and Export Authority. The endowment consists of the following sources of revenue:

1. Legislative appropriations.
2. Accumulated earnings.
3. Gifts and bequests.
4. Federal money.
5. Payments received after June 30, 2001 from the sale of the state-owned Four-Dam Pool hydroelectric projects in Kodiak, Valdez, Ketchikan and Wrangell-Petersburg.

The Commissioner of Revenue is the fiduciary of the endowment. The Department of Revenue is to manage the endowment in a manner likely to achieve at least a 7% nominal return over time.

For the initial transition years (2002 through the first year after closing of the Four-Dam Pool sale), 7% of the market value on February 1 each year is designated to pay for the Power Cost Equalization program for the next fiscal year. After the transition years, on July 1 of each year, the commissioner must determine the monthly average market value of the endowment for the previous three fiscal years, excluding the transition years. Seven percent of this amount may be appropriated for the following fiscal year for three purposes:

1. Funding the Power Cost Equalization and Rural Electric Capitalization Fund (AS 42.45.100).
2. Reimbursement to the Department of Revenue for the costs of establishing and managing the endowment.
3. Reimbursement of other costs of administration of the endowment.

The Power Cost Equalization and Rural Electric Capitalization Fund is used to equalize power costs per kilowatt-hour statewide at a cost close to or equal to the average cost per kilowatt-hour in Anchorage, Fairbanks and Juneau by paying money to eligible electric utilities in the state.

The program fund has received direct legislative appropriations, appropriations from the Power Cost Endowment Fund, and money appropriated from the National Petroleum Reserve Alaska Special Revenue Fund. The program fund is managed by the Alaska Energy Authority.

For a more detailed comparison of this fund with other state endowment funds, see Section IX of this forecast.

Table 46. Power Cost Equalization Endowment Investment Revenue Summary
Preliminary FY 2002 and Projected FY 2003-2004

Asset Allocation

Treasury Pool	Percent Allocation	Performance Benchmark
Broad Market Fixed-Income Pool	42%	Lehman Brothers Aggregate Index
Domestic Equity Pool	41%	Russell 3000 Index
International Equity Pool	17%	MSCI EAFE Index

Power Cost Equalization Endowment Balance September 30, 2002	$ 146.7 Million
Projected Annual Rate of Return	7.93 %
Probability of Negative Return Over 1 Year	23.36 %

	Total Return and Distributable Funds ($ Million)		
	Preliminary FY 2002	FY 2003	FY 2004
Power Cost Equalization Endowment Total Return	(5.7)	(5.1)	11.3
Power Cost Equalization Endowment Distributable Funds	7.1	12.8	12.6

Alaska Permanent Fund Corporation - Four Endowment Funds

The four endowment funds managed by the Alaska Permanent Fund Corporation (APFC) — the Alaska Permanent Fund itself, Mental Health Trust, Alaska Science and Technology Endowment and International Trade and Business Endowment — share a common asset allocation. (See table below.) The APFC and the Mental Health Trust use an income measure called *statutory net income*. This measure is different from the income measure prescribed by the Governmental Accounting Standards Board (GASB) for public funds. Under GASB standards, public funds normally recognize changes in the value of investments as income, or losses, as they occur at the end of each trading day, regardless of whether the investment is actually sold. By Alaska law, however, to calculate income available for use from these two funds, gains or losses on individual stocks and bonds are not recognized until the stock or bond is sold. The portfolios of these funds usually include significant unrealized gains and/or losses. As those gains or losses are realized over time, they may cause the fund's statutory net income to differ significantly from the net income derived using GASB standards. Of these four endowments, only the revenue earned by the Permanent Fund is included in our summary.

Table 47. Four Endowment Trust Funds Managed by the Permanent Fund Corporation Revenue Summary

Asset Allocation

Asset Class	Percent Allocation
Domestic Equities	37%
International Equities	16%
Domestic Fixed Income	35%
International Fixed Income	2%
Real Estate	10%

Projected Annual Rate of Return	7.95 %
Probability of Negative Return Over 1 Year	23.5 %

Alaska Permanent Fund.

In 1976, voters established the Alaska Permanent Fund by constitutional amendment. The amendment requires that at least 25% of the state's oil, gas and mining lease bonuses, rentals, royalties and federal mineral revenue-sharing payments be deposited into the fund. The legislature has, as described later, provided for use of some of the fund's income. The fund's principal, however, is protected by the constitution.

The legislature established the Alaska Permanent Fund Corporation (APFC) to manage and invest the fund's assets.The APFC is a public corporation managed by a board of trustees appointed by the governor.

The fund has grown significantly over the years, and as of October 31, 2002, had a market value of $22.5 billion, of which $22 billion is principal.

As fiduciaries for the fund, the trustees must have an investment objective that addresses the safety of the principal while maximizing total return. The board must also allow for maximum use of disposable income for purposes designated by law. To accomplish this, the board has adopted an investment policy that addresses risk, return, diversification and liquidity. Using this policy, the board adopted a strategic asset allocation by applying the basic process referenced earlier.

The table on the next page reflects the projected balances for the Permanent Fund, and projected income using both the statutory net income and GASB net income measures.

The Alaska Constitution requires the deposit of the income earned by the assets of the Permanent Fund "into the General Fund unless otherwise provided by law." The legislature has, by law, "provided otherwise" and all of the Permanent Fund's income is deposited into the Earnings Reserve Account within the Permanent Fund. This account was established by AS 37.13.145.

In turn, the income accumulated in the Earnings Reserve Account is statutorily applied to the Permanent Fund dividend program (AS 37.13.140 and AS 37.13.145(b)) and to inflation proofing the principal of the Permanent Fund (AS 37.13.145(c)). Realized Permanent Fund income in excess of the amount needed to satisfy the statutory dedication for annual dividends and inflation proofing — while legally available for other uses — has been left in the Permanent Fund Earnings Reserve Account. Because, as a matter of political custom, these excess earnings have been left in the Permanent Fund, this revenue forecast treats them as restricted revenue.

Table 48. Alaska Permanent Fund [1]
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Principal			
Beginning Balance	21,047.6	21,884.2	22,552.7
Dedicated Petroleum Revenue	257.7	321.9	291.0
Inflation Proofing	602.3	346.4	662.8
Deposits to Principal (Settlement Earnings)	(23.4)	0.2	12.6
End-of-Year Balance	**21,884.2**	**22,552.7**	**23,519.1**
Earnings and Earnings Reserve Account (Statutory Income) [2]			
Earning Reserve Account (ERA) Beginning Balance	2,383.7	1,135.7	752.8
Statutory Net Income and Settlement Earnings	261.3	693.7	1,338.6
Dividend Payout	(925.8)	(726.0)	(598.0)
Inflation Proofing	(602.3)	(346.4)	(662.8)
Deposits to Principal	23.4	(0.2)	(12.6)
Other Appropriations	(4.5)	(4.0)	(4.0)
ERA End-of-Year Balance (Statutory)	**1,135.7**	**752.8**	**814.0**
Earnings and Earnings Reserve Account (GASB Income) [2]			
ERA Beginning Balance	3,767.3	1,641.0	693.4
GASB Net Income	(617.0)	129.0	1,815.8
Dividend Payout	(925.8)	(726.0)	(598.0)
Inflation Proofing	(602.3)	(346.4)	(662.8)
Deposits to Principal	23.4	(0.2)	(12.6)
Other Appropriations	(4.5)	(4.0)	(4.0)
ERA End-of-Year Balance (GASB)	**1,641.0**	**693.4**	**1,231.8**
Market Value			
Principal End-of-Year Balance	21,884.2	22,552.7	23,519.1
ERA End-of-Year Balance (Statutory Income)	1,135.7	752.8	814.0
End-of-Year Unrealized Earnings	503.3	(59.4)	417.8
Dividends Payable and Other Liabilities	930.4	730.0	602.0
End-of-Year Balance (Total Asset Market Value)	**24,455.6**	**23,976.1**	**25,352.9**
Reconciliation			
Dividends Payable and Other Liabilities	(930.4)	(730.0)	(602.0)
End-of-Year Balance (Net Asset Market Value)	**23,525.2**	**23,246.1**	**24,750.9**

(1) Source: Permanent Fund Corporation data using October 31, 2002, financial statements. Income projections are based on Callan Associates, Inc. 2002 capital market assumptions: 7.95% total return for FY 2004.
(2) Alternative measures of income. Under GASB principles, daily gains or losses in investment value are recognized.Under statutory net income, gains or losses in investment value are not recognized until the investment is sold.

Mental Health Trust Fund (AS 37.14.001).

The Mental Health Trust Fund is administered by the Alaska Mental Health Trust Authority. The trust was created in territorial days when Congress passed the Alaska Mental Health Enabling Act of 1956. To implement the trust, the state selected one million acres of land to provide revenues for the development of a comprehensive mental health program for the state's citizens.

The state eventually merged the Mental Health Trust lands with the state's general grant land and transferred some of these lands to private ownership, prompting litigation that resulted in an Alaska Supreme Court order to reconstitute the trust. In 1994, a final settlement reconstructed the trust with 500,000 acres of the original trust land, 500,000 acres of replacement land, and $200 million in cash.

The trust's cash assets are held in the Mental Health Trust Fund and those assets are managed by the APFC. Trust lands are managed by the Trust Land Office in the Department of Natural Resources. The cash principal of the Mental Health Trust Fund must be retained in perpetuity in the fund for investment by the APFC and, as a result, may not be spent. The principal of the fund includes (1) the $200 million referenced above, (2) a portion of the revenue from trust lands, and (3) fund earnings that the Trust Authority has transferred into the principal.

Earnings of the fund accumulate in an earnings account that is managed along with the fund's principal at the APFC. This earnings account, which is equivalent to the Permanent Fund's Earnings Reserve Account, is called the *Principal Reserve Account* by the Mental Health Trust Authority.

The operations of the trust, including management of the trust's lands and the Trust Fund and the trust's grant program, are paid for from yet another account called the *Mental Health Trust Settlement Income Account.* This account is managed by the Treasury Division, and is part of the GeFONSI pool described earlier in this report.

AS 37.14.031(c) requires the APFC to determine the annual net income of the Mental Health Trust Fund in the same manner it determines the annual net income of the Permanent Fund (on the basis of realized as opposed to GASB income). Further, AS 37.14.035(b) directs the APFC, at the end of each fiscal year, to transfer all of the Trust Fund's realized net income to the *Settlement Income Account* managed by the Treasury Division. A different practice has developed, however. The Trust Authority has the discretion under AS 37.14.039(b) to make arrangements to invest any money in the *Settlement Income Account* that exceeds the current and projected cash needs of the trust. The Trust Authority has concluded that these excess funds should be invested by the APFC along with the principal of the trust. Rather than transfer all of the annual earnings from the APFC to the *Settlement Income Account* at Treasury and then request the transfer of the excess amount back to the APFC, the Trust Authority has arranged for the APFC to transfer to the *Settlement Income Account* only the amount needed each year for the trust's operations and grant program.

While the operating budget of the Mental Health Trust is subject to legislative appropriation under the Executive Budget Act, the trust's grant program is not. When the trust awards grants to state agencies, those agencies must, or course, obtain legislative authorization to receive and expend those grants. No legislative approval or appropriation is required for the trust's grants to municipalities and/or nonprofit corporations.

The Mental Health Trust Fund spending policy is to distribute 3.5% of the year-end market value of the Trust Fund. The Mental Health Trust Authority has adopted this conservative distribution policy to build up a sufficient principal reserve and thus ensure the fund will be able to continue to support its program in years of poor returns in the financial markets. If income exceeds the 3.5% distribution, the excess remains with the Principal Reserve Account of the Trust Fund or is moved into the principal of the fund in accordance with the directions and polices adopted by the Trust Authority Board. Currently, the trust tries to maintain a balance in the Principal Reserve Account equal to four times the projected annual distribution. Eventually, the Trust Authority hopes to increase the annual distribution rate to 5% of the year-end market value.

Table 49. Mental Health Trust Fund [1]
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Principal			
Beginning Balance	271.4	274.6	278.4
Deposits to Principal	3.2	3.8	4.4
End-of-Year Balance	**274.6**	**278.4**	**282.8**
Earnings and Principal Reserve Account (Statutory Income) [2]			
Principal Reserve Account (PRA) Beginning Balance	53.2	50.5	56.3
Statutory Net Income	8.3	17.1	19.8
Distributions	(11.0)	(11.3)	(11.3)
PRA End-of-Year Balance (Statutory)	**50.5**	**56.3**	**64.8**
Earnings and Principal Reserve Account (GASB Income) [2]			
PRA Beginning Balance	31.5	22.1	33.9
GASB Net Income	1.6	23.1	24.4
Distributions	(11.0)	(11.3)	(11.3)
PRA End-of-Year Balance (GASB)	**22.1**	**33.9**	**47.0**
Total Liabilities and Fund Balance			
Principal End-of-Year Balance	274.6	278.4	282.8
PRA End-of-Year Balance (Statutory Income)	50.5	56.3	64.8
End-of-Year Unrealized Earnings	(28.4)	(22.3)	(17.8)
Other Liabilities	0.0	0.0	0.0
End-of-Year Balance (Total Asset Market Value)	**296.8**	**312.4**	**329.8**
Reconciliation			
Other Liabilities	0.0	0.0	0.0
End-of-Year Balance (Net Asset Market Value)	**296.8**	**312.4**	**329.8**

(1) Source: Alaska Mental Health Trust Fund September 30, 2002, estimates using October 31, 2002, financial statements. Income projections are based on Callan Associates, Inc. 2002 capital market assumptions; 7.95% total return for FY 2004. Projected contributions and distributions are Alaska Mental Health Trust Fund estimates for current and future years.
(2) Alternative measures of income. Under GASB principles, daily gains or losses in investment value are recognized. Under statutory net income, gains or losses in investment value are not recognized until the investment is sold.

Alaska Science and Technology Foundation and Endowment (AS 37.17.010).

The Alaska Science and Technology Foundation was established in 1988 as a public corporation in the Department of Community and Economic Development to promote and enhance the development and commercialization of technology in the state.

The Alaska Science and Technology Endowment was established to support the foundation and was capitalized with $100 million in legislative appropriations to benefit the foundation. The Alaska Permanent Fund Corporation (APFC) manages the endowment's investments.

The distribution of the endowment's income to the foundation is subject to the Executive Budget Act. The board has the discretion to divide the annual realized capital gains between principal and income of the fund. With one exception — totaling $1.037 million in 1991 — the board has left the realized capital gains in the fund's income account.

Income from the endowment is used to fund grants through a competitive proposal process managed by the foundation's nine-member board of directors. The administrative expenses of the foundation are also paid from income, and the legislature also has appropriated income of the endowment to pay for the administrative expenses of the Alaska Aerospace Development Corporation and the University of Alaska agricultural and forestry experiment station research centers.

Table 50. Alaska Science and Technology Endowment (1)
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Market Value			
Beginning-of-Year Balance (Market Value)	106.7	101.0	94.3
Transfers In	0.1	0.0	0.0
Transfers Out	(3.4)	(7.3)	(5.4)
Net Investment Gain/ (Loss)	(2.3)	0.6	7.3
End-of-Year Balance	**101.0**	**94.3**	**96.2**

(1) Source: Alaska Science and Technology Endowment estimates using October 31, 2002, financial statements. Income projections are based on Callan Associates, Inc. 2002 capital market assumptions: 7.95% total return for FY 2004. Projected contributions are actual year-to-date amounts for current year and zero for all future years. Transfers out are estimates provided by Alaska Science and Technology Endowment.

International Trade and Business Endowment.

In 1997, the legislature established the International Trade and Business Endowment and assigned the administration of the endowment to the Alaska Science and Technology Foundation. The legislature funded this endowment with an appropriation of $4.95 million in FY 1997 to support programs for the development of international trade and business in the state. The Department of Community and Economic Development administers the programs supported by the income from this endowment.

Table 51. International Trade and Business Endowment [1]
Preliminary FY 2002 and Projected FY 2003-2004
$ Million

	Preliminary FY 2002	FY 2003	FY 2004
Market Value			
Beginning-of-Year Balance (Market Value)	5.6	4.6	4.7
Transfers In	0.0	0.0	0.0
Transfers Out	(0.9)	0.0	(0.2)
Net Investment Gain/ (Loss)	(0.1)	0.0	0.4
End-of-Year Balance	4.6	4.7	4.8

(1) Source: Projected contributions and distributions are International Trade and Business Endowment estimates using October 31, 2002, financial statements. Income projections are based on Callan Associates, Inc. 2002 capital market assumptions: 7.95% total return for FY 2004. Projected contributions are actual year-to-date amounts for current year and zero for all future years. Transfers out are estimates provided by International Trade and Business Endowment.

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IX. STATE ENDOWMENT FUNDS

The State of Alaska has established several endowment funds to support specific public purposes. Proposals for additional endowment funds also have been introduced during recent legislative sessions. In 2000 the Power Cost Equalization Endowment Fund was established. In 2001, the legislature established an endowment for Alaska's participation in the Arctic Winter Games. In 2002, the legislature established an endowment to support veterans' memorials.

This section of the revenue forecast compares some important attributes of six existing endowment funds. The University of Alaska endowment is included in this comparison because it is one of the Alaska state public endowment funds that employs the annual distribution practices typical of the vast majority of endowments in the United States and Canada.(1)

The fiduciary for each of these endowment funds has the responsibility for establishing an asset allocation policy for the fund. The table below compares the asset allocation policies for these endowments.

Today, under the standards adopted by the Governmental Accounting Standards Board (GASB), public funds complying with those standards determine and report their income by recognizing changes in the value of securities as income, or losses, as they occur at the end of each trading day, regardless of whether the securities are actually sold and the income taken, or realized. All six of these endowments report annual income on this basis. However, as reflected in the table, four of them — two of the funds administered by the Alaska Permanent Fund Corporation, the Public School Trust and the Alaska Children's Trust — use other measures of annual income for their distributions.

In determining the amount of income available for distribution each year for the two funds managed by the Alaska Permanent Fund Corporation, gains or losses on individual stocks and bonds are not recognized until the stock or bond is sold. For calculating distributable income for the Public School Trust and the Alaska Children's Trust, only interest earned and dividends paid are treated as income. Gains and losses in the value of individual stocks and bonds are never recognized as income. By law, those gains and losses remain with the principal of the fund.

Table 52. Target Asset Allocation - State Endowment Funds
percent

	Cash	U.S. Bonds	Foreign Bonds	U.S. Equities	Int'l Equities	Real Estate	Alternative Investments	Total
Alaska Permanent Fund	0	35	2	37	16	10	0	100
Mental Health Trust	0	35	2	37	16	10	0	100
Public School Trust	0	58	0	42	0	0	0	100
Alaska Children's Trust	0	58	0	42	0	0	0	100
Power Cost Equalization	0	42	0	41	17	0	0	100
University of Alaska Endowment	1	28	0	36	12	5	18	100

(1) The predominant practice, making annual distributions of 4% to 5% of the market value of the endowment, developed following a 1968 Ford Foundation study. See The Ford Foundation *Managing Educational Endowments* (New York, New York; 1968).

Table 53. Calculation of Annual Income - State Endowment Funds

	Financial Reporting of Income	Distributable Income
Alaska Permanent Fund	GASB (recognize gains and losses based on change in market value)	Interest earnings + dividends paid + gains and losses on securities actually sold
Mental Health Trust	GASB (recognize gains and losses based on change in market value)	Interest earnings + dividends paid + gains and losses on securities actually sold
Public School Trust	GASB (recognize gains and losses based on change in market value)	Interest earnings + dividends paid; gains and losses on value of securities are never income, they become part of principal
Alaska Children's Trust	GASB (recognize gains and losses based on change in market value)	Interest earnings + dividends paid; gains and losses on value of securities are never income, they become part of principal
Power Cost Equalization Endowment	GASB (recognize gains and losses based on change in market value)	GASB (recognize gains and losses based on change in market value)
University of Alaska Endowment	GASB (recognize gains and losses based on change in market value)	GASB (recognize gains and losses based on change in market value)

Several important considerations bear on the distribution policy established for an endowment fund.

What kind of distribution policy will minimize year-to-year volatility in distributions? Distributions based on the average of several years of fund earnings or several years of fund market value will be less volatile than distributions based on one year's earnings or one year's market value. Because the proportional variability in total market value from year-to-year will be smaller than the proportional variability in fund earnings, distributions based on fund market value will be less volatile than distributions based on fund earnings.

Where there is a prohibition on distributing fund principal, how can a fund best be managed to make it possible to continue distributions in a several-year bear market? To reduce the possibility of no distribution, a policy of retaining a large cushion in an earnings reserve account is essential. If all the fund's accumulated earnings are either distributed or moved to the fund principal when times are good, the fund may well be precluded from making distributions when times are bad.

What kind of distribution policy will provide maximum current distributions, yet protect the purchasing power of the fund and the fund distributions against inflation? The answer is: a policy that leads to the distribution, on average, of the long-run real return of the fund — that is the nominal average return of the fund minus the average inflation rate. If the long-run nominal return of the fund is 8% and the long-run inflation rate is 3%, then the fund can distribute 5% (8% *minus* 3%) of its value each year and still protect its purchasing power.

The following tables show how the legislature and the fund managers have addressed these questions.

Table 54. Distributable Income Determination - State Endowment Funds

Alaska Permanent Fund	The only regular distribution is for the annual Permanent Fund Dividend (PFD). That distribution, following the formula in AS 37.13.140-.150, equals 10.5% of the past five years' total realized income but not to exceed 50% of the balance in the Fund's Earning Reserve Account (ERA). The 50% limitation has never been triggered. Because the fund principal does not change with changes in investment market values, the market value volatility for the entire fund is absorbed by the ERA. Consequently, a large balance is needed in the ERA to ensure there are enough funds for the full annual dividend distribution according to the statutory formula. The annual PFD dividend distribution has been equal to about 4% of the market value of the fund.
Mental Health Trust	The Mental Health Trust Board adopted a policy to annually distribute 3.5% of the market value of the fund's total asets beginning in FY 2001. For FY 1996-1998 it was 3%; for FY 1999-2000 it was 3.25%. Because of recent declines in market value, the Trust Board is exploring a redefinition of "principal" so that losses in market value would be proportionally allocated to the principal account and the income account.
Public School Trust	The annual distribution is 4.75% of a five-year moving average of the fund principal's market value so long as that amount does not exceed the interest and dividend earnings available in the earnings account. The trust has accumulated a sizable income account balance so the fund is better able to retain its ability to distribute in a sustained bear market.
Alaska Children's Trust	The annual distribution is 4.75% of a five-year moving average of the fund principal's market value so long as that amount does not exceed the interest and dividend earnings available in the earnings account. The trust has accumulated a sizable income account balance so the fund is better able to retain its ability to distribute in a sustained bear market.
Power Cost Equalization Endowment	The annual distribution is 7% of the fund's market value. For the initial transition years, use the market value on February 1 for the subsequent fiscal year. Thereafter, use 7% of the monthly average value for a specified 36-month period.
University of Alaska Endowment	The annual distribution is 5% of a five-year moving average of the market value of the fund.

Table 55. Inflation-Proofing Procedures — State Endowment Funds

Alaska Permanent Fund	The legislature annually inflation proofs the principal of the Permanent Fund (but not the accumulated balance in the Earnings Reserve Account (ERA)) pursuant to AS 37.13.145. The legislature each year transfers from the ERA to the fund's principal an amount equal to the U.S. Consumer Price Index's effect on the value of the principal. The Alaska Permanent Fund Corporation's Trustees have proposed a constitutional amendment that would inflation proof the entire fund by limiting the annual distribution of earnings to 5% of the market value of the fund.
Mental Health Trust	The Mental Health Trust Authority has adopted two policies to inflation proof the fund. It limits distributions to 3.5% of the fund's market value. (The authority's ultimate distribution rate goal of 5% should still inflation proof the fund.) The authority also has adopted a policy transferring money from the reserve account to the principal whenever the reserve exceeds four times the annual income distribution.
Public School Trust	The asset allocation policy is such that, in combination with the requirement that the fund's capital gains and losses remain part of the principal of the fund, the retained capital gains are adequate to inflation proof the fund.
Alaska Children's Trust	The asset allocation policy is such that, in combination with the requirement that the fund's capital gains and losses remain part of the principal of the fund, the retained capital gains are adequate to inflation proof the fund.
Power Cost Equalization Endowment	The legislature, in selecting a 7% distribution policy, expressly elected not to inflation proof this fund, but rather to distribute all, or almost all, of its anticipated annual earnings.
University of Alaska Endowment	The university's distribution policy of 5% of the moving five-year average of the fund's market value should inflation proof the fund.

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X. PUBLIC CORPORATIONS AND THE UNIVERSITY OF ALASKA

Public Corporations

The state has established the following public corporations to carry out certain public policies:

- Alaska Housing Finance Corporation (AHFC)
- Alaska Industrial Development and Export Authority (AIDEA)
- Alaska Energy Authority (AEA)
- Alaska Student Loan Corporation (ASLC)
- Alaska Municipal Bond Bank Authority (AMBBA)
- Alaska Aerospace Development Corporation
- Alaska Railroad Corporation
- Alaska Science and Technology Foundation (ASTF)

These eight corporations, together with the Mental Health Trust and Alaska Science and Technology Foundation (described in Section VIII) and University of Alaska, are component units of state government whose activities are accounted for in the State's Comprehensive Annual Financial Report separately from the activities of primary state government.

Four of these corporations — the Alaska Housing Finance Corporation, Alaska Industrial Development Authority, Alaska Student Loan Corporation and Alaska Municipal Bond Bank Authority — pay some portion of their income as a "dividend" to the state. These "dividends" have been included as income in Section VI — Non-Oil Revenue (Except Federal and Investment) — of this forecast.

Two of these corporations — AIDEA and AEA — share a common staff and board of directors. The other corporations each have their own staffs and boards. While neither the sale of bonds nor the expenditure of bond proceeds by these corporations are subject to the Executive Budget Act, expenditures for the day-to-day administration of all of these corporations except the Alaska Railroad are.

The following six tables summarize the activities of these eight corporations.

Table 56. Public Corporations - Missions

	What does the corporation do and how does it do it?
Alaska Housing Finance Corporation	Using proceeds from the sale of bonds backed by its corporate assets, AHFC purchases home mortgages from Alaska banks. Income from payments on these mortgages repays bond holders and adds to the corporation's income, thereby enabling the corporation, since FY1991, to pay an annual dividend and/or return of capital to the state. In addition to ensuring that Alaskans, especially Alaskans of low and moderate income and those in remote and underdeveloped areas of the state, have adequate housing at reasonable cost, the corporation administers federally and state funded multi-residential, senior and low-income housing, residential energy and home weatherization programs. In recent years, the legislature also has authorized AHFC to finance the construction of schools, University of Alaska housing and other capital projects identified by the legislature.
Alaska Industrial Development and Export Authority	By lending money, guaranteeing loans or becoming an owner, AIDEA makes financing available for industrial, export and other business enterprises in Alaska. The corporation earns money from interest on its loans and from leases and operations of its properties. The corporation has paid an annual dividend to the state since FY1997.
Alaska Energy Authority	A separate entity within AIDEA, AEA provides loans to rural utilities, communities and individuals to pay for the purchase or upgrade of equipment and for bulk fuel purchases. Additionally, the agency administers the Power Cost Equalization program, subsidizing rural electric costs with the earnings of the Power Cost Equalization Endowment. AEA also receives federal and state money to provide technical advice and assistance in energy planning, management and conservation in rural Alaska.
Alaska Student Loan Corporation	The Alaska Student Loan Corporation uses proceeds from bond sales to finance student loans made by the Alaska Commission on Postsecondary Education. Loan repayments satisfy bond obligations and enhance the corporation's capital asset base. Alaska statutes authorize the board of directors to annually declare a return to the state of a portion of its contributed capital. The board has declared a return of capital for FY 2001, FY 2002 and FY 2003.
Alaska Municipal Bond Bank Authority	The Bond Bank loans money to Alaska municipalities for capital improvement projects. The bank's larger capital base, its reserve funds and its credit rating enable it to sell bonds at lower interest rates than the municipalities could obtain on their own. The Bond Bank earns interest on the money it holds in reserve and has returned a dividend to the state every year since 1977.
Alaska Aerospace Development Corporation	The corporation finances aerospace-related ventures in Alaska, including the establishment and operation of a commercial space vehicle launch facility in Kodiak, space science and engineering research and promoting tourism at the Poker Flat rocket range and other facilities. Eventually, income from investments and operations will be returned to a revolving fund used to make more loans and acquire properties.
Alaska Railroad Corporation	The corporation operates freight and passenger rail services between Seward and Fairbanks, including a spur line to Whittier. In addition, the corporation generates revenues from real estate it owns.
Alaska Science and Technology Foundation	The Foundation was initially incorporated to promote science and engineering research and development in Alaska by awarding grants and by serving as an adviser to and facilitator among various government agencies and industry. The Foundation's mission was later expanded to include administering the International Trade and Business Endowment. However, in practice, the State Division of International Trade and Market Development administers the endowment.

Table 57. Public Corporations - State Capitalization

	How did the state capitalize the corporation?
Alaska Housing Finance Corporation	The legislature appropriated $739.9 million in cash and $292.5 million in mortgages held by the General Fund to the corporation between 1976 and 1984. The payments on those mortgages and additional mortgages purchased with the cash, have helped build the corporation's asset base and allow it to return some capital to the state each year. In 1993, AHFC received an additional $2[illegible].7 million in cash and $9.3 million in equity when the legislature merged the Alaska State Housing Authority with the corporation.
Alaska Industrial Development and Export Authority	Between 1981 and 1991, the State of Alaska transferred various loan portfolios worth $366.1 million and $69 million in cash to the corporation. In 1998, the state transferred ownership of the Ketchikan Shipyard. The corporation has since written down some assets and returned $60 million in cash to the state. The state's contributed capital as of June 30, 2001 totaled $297.2 million.
Alaska Energy Authority	The legislature established the AEA in 1976 to finance and operate power projects. The corporation has also administered rural energy programs at various times, including the present. As a result of legislatively mandated reorganizations, capital has moved into and out of the corporation. At the end of FY 2001, the corporation reported contributed capital of $963.5 million. Some of that is from the federal government; the corporation does not report what portion.
Alaska Student Loan Corporation	In FY 1988, the state transferred $260 million of existing student loans to the corporation. Additional appropriations of cash between FY 1988 and FY 1992 totaled $46.7 million.
Alaska Municipal Bond Bank Authority	Between 1976 and 1986, the legislature appropriated $18.6 million to the Bond Bank to be use for backing bond issues. In addition, the legislature gave the Bond Bank $2.5 million in 1981 to cover an anticipated default by a municipality. The municipality did not default, and the Bond Bank retained the appropriation.
Alaska Aerospace Development Corporation	Since 1993, the state has contributed $10.9 million from the Science and Technology Endowment.
Alaska Railroad Corporation	The state bought the railroad from the federal government in 1985. The purchase price of $22.7 million was recorded as the state's capitalization.
Alaska Science and Technology Foundation	The corporation is funded from the earnings of the Alaska Science and Technology Endowment. The endowment was capitalized with $100 million from the General Fund that was paid to the endowment over several years in the late 1980s.

Table 58. Public Corporations - Financial Facts, FY 2002

	($ Million) Total Assets	($ Million) Assets *Less* Liabilities Book Value	($Million) Unrestricted Net Assets	($ Million) FY 2002 Operating Budget	[1] Total Positions
Alaska Housing Finance Corporation	$5,282	$1,766	$210	$39.1	354
Alaska Industrial Development and Export Authority	$1,142	$793	$789	$6.5	65
Alaska Energy Authority	$598	$438	$226	$1.0	See AIDEA [2]
Alaska Student Loan Corporation	$819	$302	$4	$10.3	103
Alaska Municipal Bond Bank Authority	$269	$40	$22	$0.5	1
Alaska Aerospace Development Corporation [3]	$75	$48	na	$14.6	18
Alaska Railroad Corporation [4]	$306	$114	na	$77.0	710
Alaska Science and Technology Foundation	$109	$107	na	$10.6	7

(1) Permanent Full Time (PFT), Permanent Part Time (PPT) and Temporary (TMP) are included in total positions.
(2) The Alaska Industrial Development and Export Authority (AIDEA) provides staff for the activities of the Alaska Energy Authority (AEA). A significant portion of AIDEA's 65 member staff are engaged in AEA programs.
(3) Unaudited.
(4) The Alaska Railroad reports financial data on a calendar year. Assets and book value shown here are for 2001. The operating budget figure shown here is for CY 2003.

Table 59. Public Corporations - Revenue and Net Income
$ Million

	FY 2002 Revenue	FY 2002 Operating Income	FY 2002 Net Income
Alaska Housing Finance Corporation	$349.2	$75.7	($7.9)
Alaska Industrial Development and Export Authority	$73.3	($55.0)	($72.5)
Alaska Energy Authority	$54.8	($197.4)	($199.7)
Alaska Student Loan Corporation	$37.1	$14.4	$9.1
Alaska Municipal Bond Bank Authority	$14.5	$2.2	$1.1
Alaska Aerospace Development Corporation	$2.4	($1.2)	($0.6)
Alaska Railroad Corporation (1)	$96.2	$0.0	$6.6
Alaska Science and Technology Foundation	($2.2)	($2.3)	($5.7)

(1) The Alaska Railroad reports financial data by calendar year. CY 2001 covers the second half of FY 2001 and the first half of FY 2002.

Table 60. Public Corporations - Dividends to the State

	How, if at all, does the corporation pay dividends to the state?
Alaska Housing Finance Corporation	By agreement with the legislature, the corporation is to annually transfer an amount no greater than its net income for the preceding year to the state. As established in statute, that amount has been $103 million (Chapter 130, SLA 2000). The final payment will be in FY 2008. The corporation has customarily regarded $53 million of the dividend as available for AHFC capital projects, while the remaining $50 million is a cash transfer for the legislature to spend as it sees fit. In practice, the legislature has in recent years used some of the $53 million for non-AHFC projects.
Alaska Industrial Development and Export Authority	By statute, AIDEA must make available to the state not less than 25% and not more than 50% of its total net income for a base year, defined as the year two years prior to the dividend year. The dividend is further limited to no more than the total amount of its *unrestricted* net income in the base year (AS 44.88.088). Booked losses would reduce net earnings and, consequently, reduce the dividend to the state. For example, the write-down of asset values in FY 2003 will likely preclude paying a dividend in FY 2004, unless the legislature wants to change the statute.
Alaska Energy Authority	AEA does not pay a dividend or return capital to the state on a regular basis. However, in FY 2000 the corporation returned $55.6 million of contributed capital to the Railbelt Energy Fund and the General Fund
Alaska Student Loan Corporation	The corporation, at the discretion of its board of directors, may make available to the state a return of contributed capital for any base year in which the net income of the corporation is $2 million or more. A base year is defined as the year two years before the payment year. If the board authorizes a payment, the returned capital must be between 10% and 35% of net income for the base year (AS 14.42.295).
Alaska Municipal Bond Bank Authority	By statute, the Bond Bank annually returns earnings or income of its reserve fund in excess of expenses to the state.
Alaska Aerospace Development Corporation	AADC does not pay a dividend or return capital to the state.
Alaska Railroad Corporation	ARRC does not pay a dividend or return capital to the state.
Alaska Science and Technology Foundation	The foundation itself does not pay a dividend or return capital to the state, however, the legislature regularly appropriates money from the earnings of the Science and Technology Endowment and the International Trade and Business Endowment.

Table 61. Public Corporations - Operating Expenses and Dividends
$ Million

	Operating Expenses Subject to the Executive Budget Act		Dividends and/or Return of Capital	
	Actual FY 2002	Budget FY 2003	Actual FY 2002	Budget FY 2003
Alaska Housing Finance Corporation	$36.4	$39.1	$103.0 (1)	$103.0
Alaska Industrial Development and Export Authority	$5.5	$6.5	$17.5	$19.0
Alaska Energy Authority	$18.2	$1.0	na	na
Alaska Student Loan Corporation	$10.0	$10.3	$4.0	$5.3
Alaska Municipal Bond Bank Authority	$0.5	$0.5	$0.7	$2.0
Alaska Aerospace Development	$4.8	$14.6	na	na
Alaska Railroad Corporation	na	na	na	na
Alaska Science and Technology Foundation	$2.5	$10.6	na	na

(1) This figure reflects the provision in Chapter 130, SLA 2000, that $103 million will be transferred to the state each year through Fiscal 2008. Because some of this money is earmarked for multi-year capital projects, actual cash transfers in any given year may vary.

University of Alaska

Established in territorial days, the University of Alaska is organized into four branches: statewide administration and three main campuses in Fairbanks, Anchorage and Juneau. Each main campus administers satellite campuses in rural areas.

The University of Alaska is overseen by a Board of Regents appointed by the governor and subject to confirmation by the legislature. While other semi-autonomous state agencies are created in statute, the university and its board are uniquely embodied in the Alaska constitution.

Accounting standards for state universities and colleges differ from those of public corporations. For instance, they do not record contributed capital. The figures presented here, therefore, cannot be compared directly with those of other state agencies or corporations. Rather, they are intended only to give the reader an idea of the university's size and scope.

Table 62. University of Alaska
$ Million

Lands and Facilities June 30, 2002	Total Assets June 30, 2002	Unrestricted Net Assets	FY 2003 Operating Budget	FY 2003 Total Positions
$651.3 (1)	$895.6	$36.5	$611.8	3,786

(1) Unaudited. Includes depreciation. Past years' figures did not include depreciation, in accordance with accounting principles for universities at that time.

XI. ROSETTA STONE

Introduction

This Revenue Sources Book published by the Department of Revenue, the Summary of Appropriations published by the Legislative Finance Division, and the Comprehensive Annual Financial Report (CAFR) published by the Finance Division of the Department of Administration all present detailed information about where the state gets the money for its budgeted day-to-day operations.

Although these three documents concern the same subject matter, they serve very different purposes. This Revenue Sources Book concerns the first step in the process, estimating available "general purpose" or "unrestricted" revenue for appropriation in the next fiscal year. It is published each fall, just before the legislative session — about seven months before the beginning of the fiscal year for which it is forecasting revenue. While the main focus for us in preparing this book is the unrestricted revenue, we also look at many sources of restricted revenues as well.

At the far end of the spectrum from this forecast is the CAFR. The CAFR reports what actually happened to state dollars during the prior fiscal year, and is published in December about six months after the end of the fiscal year — about two years after the publication of the Revenue Sources Book that had estimated the available revenue for that year. New standards set by the Government Accounting Standards Board in GASB Statement 34, promulgated a fairly major restructuring of its required financial reporting model, and the state will use that model for its 2002 CAFR. In December of 2002, a CAFR covering FY2002 will be published. In April 2003 we will publish a comparison between that and the 2002 numbers in our spring forecast.

In between the publication of our forecast and the CAFR, thousands of events occur and many different "snapshots" of the state's finances are taken. The Summary of Appropriations is one such snapshot, which records how much spending the legislature and governor authorized in the legislative session then just ended. The Summary of Appropriations is published in July, right at the start of the fiscal year. In July 2002, the Summary of Appropriations for FY 2003 was published.

Even though these three books concern the same subject matter, they present it differently. This purpose of this section is to reconcile these documents. Going from one document to the other can be very difficult because each uses a different system to classify various kinds of state money, so a sum of money in one report may be broken up into many different pieces in a different report, or vice-versa. In addition, some of the critical terms used in the classification are defined very differently between the books.

Defining "Fund"

Alaska's public finances are generally described under one of two different systems: "accounting funds" or "budget funds." Many accounting funds have a corresponding budget fund. For other funds, a single budget fund can incorporate several entire accounting funds or parts of various accounting funds, and the reverse is true as well. Some budget funds have no corresponding accounting fund. As will be fleshed out below, a major difference between the two systems of funds is how each defines the "general fund."

Only about 110 of the approximately 181 budget funds are active[1] — and some of these are used to designate duplicated receipts. When a budget writer says money is coming from a particular fund, the writer identifies a source that may include money already set aside under that fund code or a stream of revenues earmarked for that fund code. Of those funds, 83 show up in the 2003 Summary of Appropriations as "other revenues " and can be found in Tables 65-67.

Accounting funds are funds established under general accepted accounting principles as codified by the Governmental Accounting Standards Board (GASB).[2] These rules apply to all the states, counties, cities and other public jurisdictions across our country. They are meant to increase the transparency of public finances and the accountability of public officials. Accountants track revenues into specific GASB-defined funds. However, when an accountant says money is coming from such and such a fund, again, he or she is identifying a source that may include money on hand already set aside under that fund code or from a stream of revenues earmarked for that fund code.

(1) The list of fund codes can be found several places including "The Swiss Army Knife of Budget Handbooks," which can be found at http://www.legfin.state.ak.us/, with more recent additions found only in the budget itself.

(2) The GASB is a sister organization to the more well know FASB or Financial Accounting Standards Board. GASB sets out generally accepted accounting principles (GAAP) for governmental entities; FASB sets out GAAP for private businesses. Both are under the auspices of the Financial Accounting Foundation.

Defining "General Fund"

The General Fund is the general operating fund of the state. All public money coming into the state treasury that is not authorized or required by law to be placed in a special fund constitutes the General Fund. As noted above, the accounting "General Fund" and the budgeting "general fund" are not the same thing. For example, the FY 2002 budget passed in the spring of 2001 was predicated on $2.4 billion in general fund revenue. The draft CAFR for FY 2002 shows General Fund revenue for the period of $3.7 billion. Did a billion dollars go missing? No. What accounts for this difference is just that the accountants and budget writers use the term "general fund" differently.

The accountants' General Fund starts with everything in the budget writers' general fund, which represents the core government dollars that are designated as "unrestricted" in this Revenue Sources Book. The accountant's General Fund, however, also includes the following:

- Sub-accounts or subfunds of the General Fund. A budget writer will consider a General Fund subfund as a separate fund, and will discuss moving money from the general fund to a subfund. But such a transfer would not show up in the accountant's final report, because, to the accountants, it had no effect on the General Fund. For example, in conformance with GASB 34 standards, in FY 2002, the Constitutional Budget Reserve is considered a subfund of the General Fund.

- Federal dollars that are spent in general fund programs. No accounting funds are defined by the fact that they have only federal dollars. On the other hand, six specific budget codes refer to different kinds of federal funds.

To distinguish between these two concepts, in this document we will capitalize the accountants' General Fund, and keep the budget writers' general fund in lowercase.

Reconciling this Revenue Sources Book With the State's Annual Budget

Total Revenue

Budgeting is a dynamic process and there are many different budget documents available. This appendix compares the Revenue Sources Book with one of the most accessible of these many budget documents: the Summary of Appropriations [4] published by the Legislative Finance Agency every year. We have chosen the hard-print version of the Summary of Appropriations for FY 2003, issued in the summer of 2002, just after the fiscal year 2003 budget had been passed. For FY 2003, there will be many minor differences between the Revenue Sources Book and the Summary of Appropriations that simply reflect the difference between the budget document which was looking forward in July 2002 and the forecast which is looking backwards from the vantage of November 2002 after the passage of five of FY 2003's 12 months.

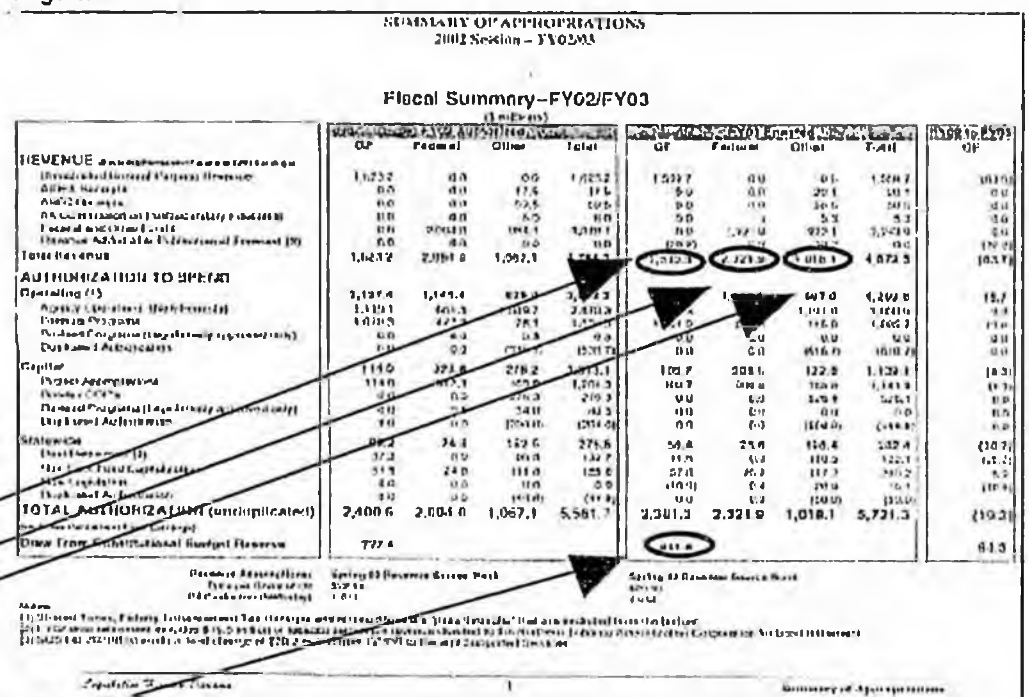
The first two pages of the Summary of Appropriations, the "fiscal summary", reproduced below present the following budget picture for FY 2003, with each item circled on the reproduction on the adjacent page:

Table 63. Total Authorized Revenues in Summary of Appropriations
$ Million

Summary of Appropriations (Page 1)	
General Fund Revenues	1,539.5
Federal Revenues	2,321.9
Other Revenues	1,018.1
"Total Revenues"	4,879.5
Draw from CBRF	841.8
Fiscal Summary (Page 2)	
Permanent Fund Inflation Proofing	655.0
Permanent Fund Dividends	721.1
Supplementals	161.8
Total	7,259.3

(4) This document can be found by clicking "fiscal summary" at http://www.legfin.state.ak.us/

Table 63. Total Authorized Revenues in Summary of Appropriations, cont.



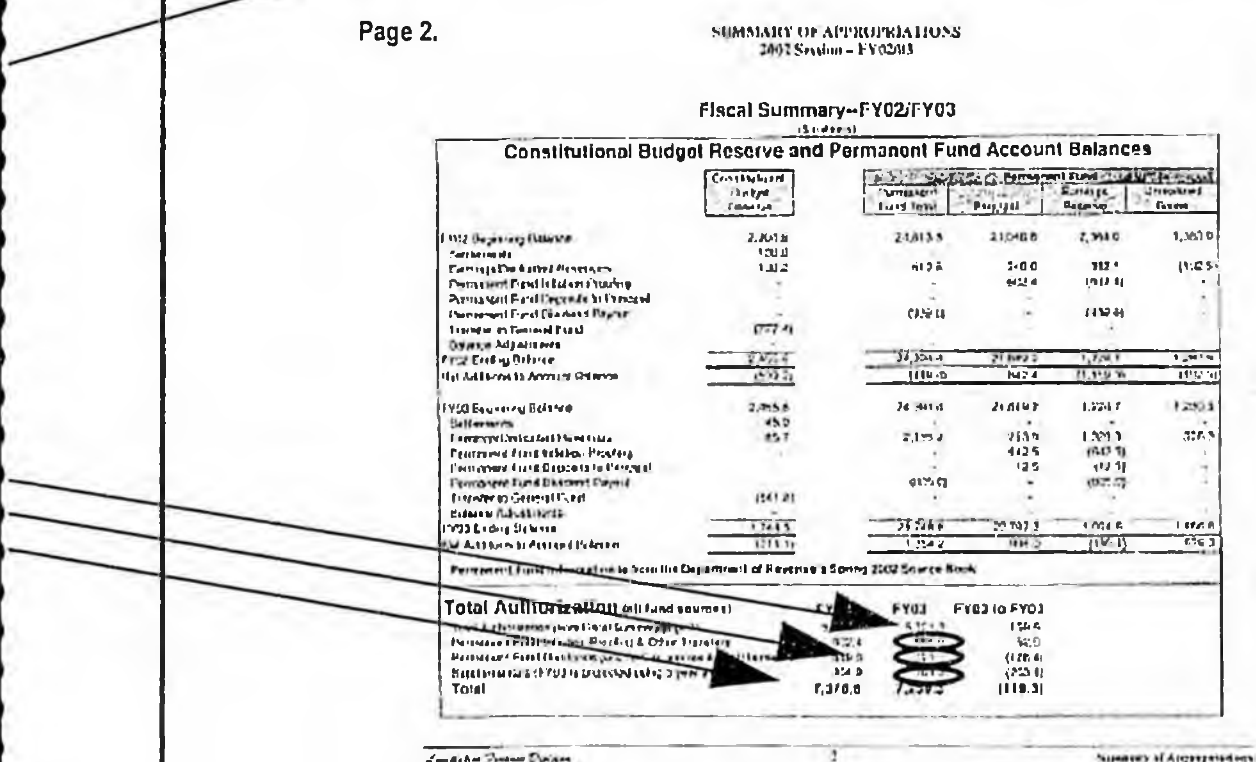
Page 1.

SUMMARY OF APPROPRIATIONS
2002 Session – FY02/03

Fiscal Summary–FY02/FY03

($ millions)

	GF	Federal	Other	Total	GF	Federal	Other	Total	GF
REVENUE									
Total Revenue	1,023.2	[illegible]	1,067.1	[illegible]	[illegible]	[illegible]	[illegible]	4,872.5	[illegible]
AUTHORIZATION TO SPEND									
TOTAL AUTHORIZATION (unduplicated)	2,400.6	2,094.0	1,067.1	5,561.7	2,381.3	2,321.9	1,018.1	5,721.3	(19.3)
Draw From Constitutional Budget Reserve	777.4				[illegible]				61.3



Page 2.

SUMMARY OF APPROPRIATIONS
2002 Session – FY02/03

Fiscal Summary–FY02/FY03

($ millions)

Constitutional Budget Reserve and Permanent Fund Account Balances

Total Authorization (all fund sources)	FY02	FY03	FY02 to FY03
[illegible]	[illegible]	[illegible]	159.6
[illegible]	[illegible]	[illegible]	56.0
[illegible]	[illegible]	[illegible]	(120.6)
[illegible]	[illegible]	[illegible]	(223.0)
Total	7,370.8	[illegible]	(118.3)

The "Page 2 items" and the "Draw from the CBRF" are non-revenue items. The draws from the Constitutional Budget Reserve Fund (CBRF) and the appropriations from the Permanent Fund (PF) shown in the Summary of Appropriations are draws on pools of dollars already in place. The Revenue Sources Book describes the revenues that go into these funds, essentially opposite from the Summary of Appropriations. The Revenue Sources Book includes an extensive discussion of both the PF and the CBRF (Section VIII). Of course, when we project future balances for those funds we include both the revenue coming into and the dollars taken out of each.

The "supplementals" is spending projected to be authorized later in the fiscal year. No current source is given for these dollars. If and when supplemental spending is authorized, a source will be identified. In prior years' versions of the Summary of Appropriations, supplemental spending would be presented on "Page 1" of the Summary, and thus would be included in the calculation of the draw required from the CBRF required to balance the budget. In the current format there is no indication of the revenue or other dollar source to support supplemental spending.

Comparison of Revenue

As can be seen in the next table, there are four areas in these two reports that have close enough ties to be compared.

- What the Revenue Sources Book labels as "Unrestricted Revenues" can be compared to what the Summary of Appropriations labels "General Fund Revenue."
- What the Revenue Sources Book characterizes as "Restricted Federal Revenues" ties to federal revenue in the Summary of Appropriations.
- What the Summary of Appropriations characterizes as "Other Revenue" can be divided into three parts. One part, roughly half, covers items that do line up with what the Revenue Sources Book characterizes as "Non-Oil Revenues (Except Federal & Investments)." Another part, again roughly half, does not, and frequently represents draws from existing sources of money, and not actual new revenues.
- The third piece, which represents a couple of percent of the Summary of Appropriation's "Other Revenue" contains three items, which line up with items that the Revenue Sources Book shows as restricted investment revenues.

The "Restricted Oil Revenues" and the remaining "Restricted Investment Revenues" found in the Revenue Sources Book — that flow primarily into the CBRF and PF — have no counterpart in the Summary of Appropriations. Shared taxes are those dollars apportioned out to municipalities according to formulas found in statute. They also appear in the Revenue Sources Book but not the Summary of Appropriations.

Table 64. Comparison of FY 2002 Revenue Shown in Revenue Sources Book and Summary of Appropriations
$ Million

Presentation in Revenue Sources Book - Table 4		Presentation on Page 1 of the Fiscal Summary	
Description	Dollars	Dollars	Description
Unrestricted Revenue			
Oil	1,468.1		
Non-Oil (ex Fed & Invst.)	253.4		
Investment	30.7		
Subtotal Unrestricted Revenue	**1,752.2**	**1,539.5**	General Fund Revenue
Restricted Revenue			
Federal Revenue	2,321.9	2,321.9	Federal Revenue
			Other Revenue
Nothing comparable in Revenue Forecast		535.3	Items not in Revenue Sources Book (see Table 65)
Non-Oil (ex Fed & Invst.)	548.4	456.8	Non-Oil Items in Revenue Sources Book (see Table 66)
Investment			
Investment items in Summary of Appropriations	(2.5)	26.0	Investment Items in Revenue Sources Book (see Table 67)
		1,018.1	Subtotal Other Revenue
Other Investment not in Summary of Appropriations	231.5	Nothing Comparable in Budget	
Subtotal Investment	229.0		
Oil	392.1	Nothing Comparable in Budget	
Subtotal Restricted Revenue	3,491.4		
Total Revenue in Revenue Sources Book	5,243.6	4,879.5	**Total Revenue in Summary of Appropriations**

General Fund Revenue

Conceptually, the $1,539.5 million in revenue listed in the Summary of Appropriations corresponds to the $1,752.2 million in unrestricted revenues shown in the Revenue Sources Book.[5] Practically, in the Summary of Appropriations, "general fund revenues" are based on last year's Spring 2002 forecast, made in April 2002. This year's fall 2002 forecast is written in November, now that one third of fiscal year 2003 is behind us, and it looks like our unrestricted revenues will be $193 million or 12% higher than originally forecast. Why? Several reasons, but the two usual suspects we see every year show up here once again – the price and volume of Alaska North Slope crude. In April 2002 we estimated an average price for a barrel of North Slope crude for FY 2003 of $20.50. Now, about one third of the way through the fiscal year, we have revised this estimate up to $25.90, or about $5.40 higher, which will result in both higher oil royalty and production tax collections. On the other hand, we projected production of 1.053 million barrels a day of oil. Now, due to among other events, an unexpected shutdown of TAPS, we are projecting about 60,000 barrels less a day or .994 million barrels. This results in lower projected oil royalty and production tax collections. In addition to several other minor adjustments in the non-oil and investment areas of the forecast, income tax collections from the oil and gas industry appear to be about $30 million less than anticipated, for a net increase of $193 million. As a consequence of this increase, we forecast the annual draw from the CBRF will go down by roughly the same $193 million.[6]

Another interesting adjustment is a switch of dollars from unrestricted to restricted. On Page 1 of the Summary of Appropriations it can be seen that our actual estimate in April of 2002 was for $1,559.7 million in unrestricted revenue. In the 2002 legislative session, $20.2 million in revenues from programs that used to go into the unrestricted general-purpose pot, were earmarked for a specific purpose. Typically, a program, such as building or restaurant inspection, that charges fees for its services now becomes self-supporting. The revenue the program generates moves from unrestricted to restricted. This has no effect on the budget gap or the CBRF draw as both the programs' costs as well as the programs' revenues are moved from "general fund" to "other" in the budget. Probably some dollars that we are calling unrestricted in our forecast for FY 2004 will eventually be redesignated as restricted in the next legislative session.

Federal Revenue

This $2.3 billion amount lines up both conceptually and practically with the number found in this Revenue Sources Book. A more thorough discussion of federal dollars can be found in Section VII of this forecast. The reason this matches is that both documents draw on the same source: This number is developed by the Office of Management and the Budget (OMB) which asks each agency how much federal money it expects to get and spend over the fiscal year, and sums these estimates.

(5) We call this category "unrestricted revenue" rather than "general fund revenue" because, while all the dollars here are general fund revenues, at least according to the accounting definition of General Fund; there are lots of General Fund revenues that are not included here.

(6) Our actual CBRF draw figures differ from the estimated CBRF draw in the Summary of Appropriations because we use a rounded spending figure (after supplementals) of $2.5 billion, where the Summary of Appropriations uses a spending figure of $2.381 billion, prior to adding in supplemental spending estimated on Page 2 at $161.8 million, for a total spend of $2.542 billion.

Other Revenue

Although characterized as revenue in the Summary of Appropriations, a significant portion of the $1,018.1 million [7] in this category appear to not be revenues as the Revenue Sources Book uses the term. Rather, as was explained earlier for the Permanent Fund and CBRF, the figure in the summary of appropriations is the amount that will be used by state government for various purposes. It might represent a draw down from an existing pool of money, current revenues, or more typically a combination of the two. There does not appear to be any budget document that sets forth how much money is available in the various budget funds – nor a reconciliation of how well those figures will line up with actual cash on hand. [8]

Where those sources exist as investable dollars there is frequently actual revenue, which we will include in our investment numbers — but the draw rarely matches the forecast return. The budget draw is either larger than the investment return, implying that the source is being used up, or the budget draw is smaller than the investment return, implying that the source is being built up. In general, the budget draws are larger. Most of these investment revenues will be discussed in Section VIII.

The table on the next two pages set forth the items that are shown as sources of money for the budget in the Summary of Appropriations, but are not revenues, nor are they listed in the Revenue Sources book. They are subcategorized into several types of sources discussed below.

The first three are trust funds that hold money not for general governmental purposes but for specific other beneficiaries. The actual returns earned by these funds are not included in either the Revenue Sources Book or the Summary of Appropriations, though they are shown in the CAFR.

Summary of Appropriation Items Not in Revenue Sources Book.

Retirement and Benefit Related Trust Funds. The Alaska State Pension Investment Board manages the retirement funds. The Department of Revenue Treasury Division serves as staff to the Pension Board. The Revenue Sources Book does not show the dollars transferred between the retirement funds and the department to pay for the staff, while the Summary of Appropriations does. Other trust funds hold money for current state employee benefits.

Exxon Valdez Spill Money. The sums here represent transfers authorized by the Exxon Valdez Oil Spill Trustee Council from the trust to the state agencies doing remediation and other spill-related work.

Mental Health Trust Fund. This fund was established in 1994 to settle a dispute concerning land that was set aside in a trust to support mental health services in Alaska. When the Trust makes grants to state agencies to carry out the mission of the Trust, these grants pass through the Mental Health Trust Authority Authorized Receipts Fund that is shown as their source for the budget. The cost of administering the trust is subject to the Executive Budget Act and the funding for this expenditure is received in the Mental Health Administration Fund. The Trust is discussed further in Section VIII.

(7) The specific figures are derived from the Summary of Appropriation documents by first taking the detail summary of appropriations found at Pages 17 to 21 for the operating budget and netting out duplicated fund sources found on Pages 7, 11 and 13-14, adding in the capital non-duplicated fund sources found on Page 9. The result ($5,721.3 million) precisely matches total revenues plus anticipated CBRF draw as found in the fiscal summary. OMB budget codes designate each item as federal, general fund or other, so the sources can be divided between these three categories.
(8) The CAFR does track the "cash on hand" and investments in the General Fund.

Table 65. Items in FY 2003 Summary of Appropriations Not in Revenue Sources Book
$ Million

OMB Fund Number	OMB Fund Name	Summary of Appropriations "Other Revenues" From Table 64 Not In Revenue Sources Book
Permanent Fund		
1041	Permanent Fund Earnings Reserve Account	83.85
1179	Permanent Fund Corporation	4.00
		87.95
Revolving Loan Funds		
1021	Agricultural Loan Fund	2.21
1035	Veterans Revolving Loan Fund	0.06
1036	Commercial Fishing Loan Fund	5.82
1046	Student Revolving Loan Fund	12.26
1057	Small Business Loan	0.00
1062	Power Project Loan Fund	1.33
1067	Mining Loan Fund	0.01
1069	Historical District Revolving Loan Funds	0.00
1071	Alt Energy Rev Ln Funds	0.15
1073	Bulk Fuel Rev Ln	0.05
		21.89
Retirement Related Trust Fund Sources		
1017	Benefit Systems Receipts	17.53
1023	Fica Administration Fund	0.14
1029	Public Employees Retirement Fund	26.25
1034	Teachers' Retirement System Fund	12.92
1042	Judicial Retirement System	0.31
1053	Investment Loss Trust	4.30
1045	National Guard Retirement System	0.20
		61.66
Spill Related Trust Fund Sources		
1018	Exxon Valdez Oil Spill Settlement	6.16
1114	Exxon Valdez Oil Spill Restoration Fund	0.20
	Subtotal	6.36
Mental Health Trust Fund Sources		
1092	Mental Health Trust Administration	9.06
1094	Mental Health Trust Authority Authorized Receipts	1.17
	Subtotal	10.22
Component Revenue Sources		
1010	University Of Alaska Interest Income	4.95
1015	University Of Alaska/Dormitory/Food/Auxiliary	38.89
1025	Science & Tech Endow	10.52
1038	Ua Stf Svc	59.41
1039	University Of Alaska Indirect Cost Recovery	25.19
1048	University Of Alaska Interest Restricted Receipts	98.46
1101	Alaska Aerospace Development Corporation Receipts	13.85
1102	Aidea Receipts	4.15
1106	Alaska Post-Secondary Education Commission Receipts	8.37
1103	Ak Housing Finance Corp. Receipts	16.86
1107	Alaska Energy Authority Corp. Receipts	1.07
	Subtotal	281.72

Table 65. Items in FY 2003 Summary of Appropriations Not in Revenue Sources Book, cont.
$ Million

OMB Fund Number	OMB Fund Name	Summary of Appropriations "Other Revenues" From Table 64 Not in Revenue Sources Book
In Unrestricted Revenue in Sources Book		
1153	Land Disposal Inc Fund	3.12
1049	Training & Building	0.69
	Subtotal	3.81
Other Fund Sources not in Revenue Sources Book		
1054	State Employment & Training Program	5.26
1059	Correctional Industry	4.15
1031	Second Injury Fund	3.18
1032	Fisherman's Fund	1.31
1111	Fisherman's Fund Income	0.12
1001	Constitutional Budget Reserve Fund	0.13
1012	Railbelt Energy Fund	42.97
1040	Real Estate Surety	0.25
1068	Child Care Facility	0.01
1091	General Funds-Designated	3.31
1117	Vocational Rehabilitation Small Business Enterprise Fund	0.37
1134	Fish And Game Criminal Fines And Penalties (Net Of Table 2 Duplication)	(2.24)
1142	Retiree Health Ins/Mm	0.02
1143	Retiree Health Ins	0.04
1152	Ak Fire Standards Council Receipts	0.22
1154	Shore Fisheries Development Lease	0.32
1164	Rural Econ Dev Init	0.04
1166	Vessel Environmental Compliance Fund	0.70
1170	Small Business Economic Development Relief Fund	0.04
1172	Building Safety	1.28
1173	Misc Earnings	0.29
1181	Veteran's Endowment	0.01
	Subtotal	61.78
	Total	**535.29**

Permanent Fund. These are additional draws from the Earnings Reserve of the Permanent Fund used to cover expenses related to the Permanent Fund or issuing the dividend. Actual revenues earned by the fund are included in both the Revenue Sources Book and the CAFR.

Revolving Loan Funds. These revenues represent the annual payments of interest and principle on the outstanding loans in each fund's portfolio. Even though the interest portion of those repayments represents revenue to the state, they are not included in our Revenue Sources Book.

Component Revenue Sources. We have separated out those revenues of the component organizations such as the University of Alaska, AHFC, etc., which the legislature appropriates back to the organizations to run their affairs and carry out their missions. Their day-to-day expenditures are subject to the Executive Budget Act. The dollars being so appropriated show up in the budget documents. The gross revenues of these organization can be found in Section IX of this book.

Other Fund Sources in Unrestricted Revenue in Sources Book. These dollars all appear to be included in accounts which we are designating as unrestricted. As a concerted effort is made to assign particular revenues to particular programs we may not always be in sync. These items will be fixed in the next Spring Forecast, by which time no doubt other differences may have arisen.

Other Fund Sources Not in Revenue Sources Book. [10] These remaining sources , many of which are quite small, represent many different things. For example, the Correctional Industries $4.2 million is derived from selling prison-crafted furniture to state agencies. On the other hand, the $43 million from the Railbelt Energy Fund is for the most part the draw down of money set aside at an earlier time.

(10) When the process of reversing duplicated expenditures described in Footnote 7 was carried out, the only duplicated fund that was not netted out precisely was Fund 1134, Fish and Game Criminal Fines. The balance, a credit of $2.24 million is in this category.

Table 66. Items in FY 2003 Summary of Appropriations Shown in Non-Oil Revenue in Sources Book
$ Million

OMB Fund Number	OMB Fund Name	Summary of Appropriations Comparable "Other Revenue" From Table 64 In Revenue Sources Book	Revenue Sources Book "Non-Oil" Revenue
Other (Public Corporations Dividends)			
1139	AHFC Dividend	50.5	103.0
1140	AIDEA Dividend	20.1	19.0
1150	Alaska Student Loan Corporation	5.3	5.0
1104	AK. Muni Bond Bank receipts	0.5	2.0
Total Other		76.4	129.0
Fines & Forfeitures			
1168	Tobacco Use Education	6.1	4.9
	Northern Tobacco Securuitization Corp Payments	0.0	19.8
Total Fines & Forfeitures		6.1	24.7
Licenses & Permits			
1093	Clean Air Protection	2.9	2.3
1024	Fish And Game Fund	25.4	23.6
Total Licenses & Permits		28.3	25.9
Tax			
1030	School Fund (Cigarette Tax)	29.0	29.3
1157	Workers Safety & Comp	3.7	3.0
1180	Alcohol & Drug Prevention & Treatment Fund	3.6	9.6
Subtotal earmarked taxes		36.3	41.9
NB: Taxes shared with local municipalities			20.9
Total Taxes			62.8
Charges for Services			
1027	International Airports Revenue Fund	63.3	-
1112	International Airports Construction Fund	0.4	-
Subtotal International Airport Funds		63.6	74.0
1076	Ak Marine Hwy System Fund	49.1	41.0
1108	Statutory Designated Program Receipts	98.4	98.7
1175	Business License Receipts	1.9	0.5
1109	Test Fisheries Receipts	4.0	2.4
1070	Fisheries Enhancement	0.4	0.3
1155	Timber Sale Receipts	0.7	0.3
1151	Technical & Vocate Ed. Fund	4.6	2.3
1156	Other Receipt Supported Services	75.9	76.7
1162	Alaska Oil & Gas Conservation Commission Rcpts	5.0	4.3
1141	Regulatory Commission Of Alaska Receipts	6.0	5.5
Subtotal Receipt Supported Services		98.6	92.3
Total Charges for Services		309.8	306.0
Total Comparable "Other Revenues" from Table 64		456.8	
Total "Non-Oil Restricted Revenues" from Table 4 of Revenue Sources Book			548.4

Summary of Appropriations Items in Revenue Sources Book as Non-Oil Revenue.

Table 66 are those items which line up fairy closely, and are categorized as Non-Oil Revenue (Except Federal and Investment) in the restricted section of the Revenue Sources Book and as "other" the Summary of Appropriations. They are divided into the same categories as Section IV, where a more complete discussion of each topic can be found.

(Other) Dividends from Public Corporations. Both sources delineate dividends from the Alaska Housing Finance Corporation (AHFC), the Alaska Student Loan Corporation (ASLC), Alaska Industrial Development and Export Authority (AIDEA), and the Alaska Municipal Bond Bank Authority (AMBBA). The $52 million difference between the two figures shown for the AHFC dividend represents a difference in how the dividend is reported. In the Revenue Sources Book we show a $103 million dividend. The dividend can be broken into several pieces: Capital project dollars spent directly by AHFC; dollars appropriated for debt retirement; and dollars used to pay off AHFC bonds. However, only the first two uses are specifically identified in the Summary of Appropriations because the payment of bonds is part of the general ("language") appropriation and thus is not part of AHFC's appropriation. See Section X of the Revenue Sources Book for the actual revenues earned by each of these corporations. The other dividends match more closely.

Fines and Forfeitures. The State of Alaska was a participant in the so-called nationwide Master Settlement Agreement (MSA) in which the major tobacco companies agreed to reimburse the state for the costs it will incur to treat its population made sick from smoking cigarettes. Through the AHFC subsidiary, the Northern Tobacco Securitization Corporation (NTSC), the state sold much the stream of settlement payments up front for cash by issuing bonds backed by future settlement payments. Part of the money from the MSA is set aside for tobacco-related education, and that is found in both the Summary of Appropriations and the Revenue Sources Book. In the Revenue Sources Book we include estimated future settlement payments to the state that the NTSC will use to pay off the bonds. This latter stream of money is not shown in the Summary of Appropriations.

Licenses and Permits. This includes money for clean air and various Fish and Game programs.

Taxes. A portion of the tax on cigarettes is dedicated to the School Fund. A portion of the insurance premium tax is earmarked for the Workers Safety and Comp Fund. A portion of the alcohol tax is earmarked for the Alcohol and Drug Prevention and Treatment program. All of these are shown in both the Summary of Appropriations and the Revenue Sources Book. To help the reader tie this to the rest of the Revenue Sources book, the tax dollars shared with the municipalities and various fishery industry promotion groups is shown here to tie to restricted total taxes in the Revenue Sources Book of $62.8 million.

(10) When the process of reversing duplicated expenditures described in Footnote 7 was carried out, the only duplicated fund that was not netted out precisely was Fund 1134, Fish and Game Criminal Fines. The balance, a credit of $2.24 million, is in this category.

Charges for Services. Money in this category has been earmarked for a particular purpose. The money may be new revenue, a draw on an existing amount of money previously set aside, or setting aside current revenues for future use, or some combination of these approaches. These can be subtotaled into several categories.

The first are the International Airport Funds. The Summary of Appropriations shows money to be used from prior activities, bond sales, current fees and current investment income, while the Revenue Sources Book only shows the latter two items.

The second is the Marine Highway Fund, where again the Summary of Appropriations draws on accumulated cash from prior years.

The third is Statutorily Designated Program Receipts.

Finally, Receipt Supported Services, for which several individual services are broken out.

Summary of Appropriation Items in Revenue Sources Book as Investment Revenue.

Table 67 . FY 2003 Summary of Appropriations
Items Shown in Investment Revenue in Revenue Sources Book
$ Million

		Summary of Appropriations	Revenue Sources Book	
OMB Fund Number	OMB Fund Name	Comparable "Other Revenues" from Table 64	"Other Revenues" from Table 64	Distributable Income from Investment Section
1169	Power Cost Equalization Endowment	12.9	(5.1)	12.8
1098	Children's Trust Fund Earnings	0.5	0.0	0.2
1066	Public School Fund	12.6	2.6	10.3
Total		26.0	(2.5)	23.3

The table above breaks out three of the four items in "Other Treasury Managed Funds" in the investment revenues section of the Revenue Sources book that are directly comparable with the Summary of Appropriations. As shc vn in Section IX of this book, these, and many other state funds calculate their earnings available for distribution differently than how GASB calculates earnings. For these three funds, the distributable income is a fixed percentage of the market value of the fund, whether that value is shrinking or growing. Thus for example the PCE Endowment had $12.8 million in distributable income, which represents 7% or the fund market value over the previous 36 months. But the fund actually lost $5.1 million in value. This table sets forth both the revenues and the dollars available for distribution. As might be expected, the distributable funds line up more closely with the Summary of Appropriations numbers than the actual revenues do.

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XII. APPENDICES

A. General Fund Unrestricted Revenue Sensitivity Matrices

$ Million

FY 2003

$/barrel	Million barrels/day 0.90	1.00	1.10
15.00	1,100	1,140	1,170
16.00	1,150	1,190	1,240
17.00	1,200	1,250	1,300
18.00	1,250	1,310	1,360
19.00	1,300	1,360	1,430
20.00	1,350	1,420	1,490
21.00	1,400	1,480	1,560
22.00	1,450	1,540	1,620
23.00	1,500	1,590	1,690
24.00	1,550	1,650	1,750
25.00	1,600	1,710	1,810
26.00	1,650	1,760	1,880
27.00	1,690	1,820	1,940
28.00	1,740	1,880	2,010
29.00	1,790	1,930	2,070

FY 2004

$/barrel	Million barrels/day 0.90	1.00	1.10
15.00	1,090	1,150	1,200
16.00	1,140	1,200	1,260
17.00	1,190	1,260	1,320
18.00	1,240	1,310	1,380
19.00	1,290	1,370	1,450
20.00	1,340	1,430	1,510
21.00	1,390	1,480	1,570
22.00	1,440	1,540	1,630
23.00	1,490	1,590	1,690
24.00	1,540	1,650	1,750
25.00	1,590	1,700	1,810
26.00	1,640	1,760	1,870
27.00	1,690	1,810	1,930
28.00	1,740	1,870	2,000
29.00	1,790	1,930	2,060

FY 2005

$/barrel	Million barrels/day 0.90	1.00	1.10
15.00	1,050	1,100	1,150
16.00	1,100	1,160	1,210
17.00	1,150	1,210	1,270
18.00	1,200	1,260	1,330
19.00	1,250	1,320	1,390
20.00	1,290	1,370	1,450
21.00	1,340	1,420	1,510
22.00	1,390	1,480	1,570
23.00	1,440	1,530	1,630
24.00	1,490	1,590	1,680
25.00	1,530	1,640	1,740
26.00	1,580	1,690	1,800
27.00	1,630	1,750	1,860
28.00	1,680	1,800	1,920
29.00	1,730	1,850	1,980

B. Unrestricted Petroleum Production Tax and Royalty Revenue Forecast

$ Million

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Alaska North Slope								
Oil Royalty - NET (1)	690.2	593.4	539.5	522.4	508.8	518.4	529.0	499.0
Oil Severance Tax	495.2	411.9	350.3	332.7	303.2	290.5	302.5	267.2
Conservation Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hazardous Release Fund	9.1	9.2	9.1	9.0	8.8	9.4	10.2	10.1
Gas Royalty	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Gas Severance Tax	1.3	1.5	1.3	1.2	1.2	1.2	1.2	1.2
Subtotal	**1,196.9**	**1,017.0**	**901.2**	**866.2**	**822.8**	**820.3**	**843.8**	**778.3**
Cook Inlet								
Oil Royalty - NET (1)	23.8	22.4	21.1	20.0	19.0	26.5	25.7	25.2
Oil Severance Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Conservation Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hazardous Release Fund	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Gas Royalty	20.6	20.4	21.1	21.7	22.4	23.2	23.9	24.7
Gas Severance Tax	16.6	15.3	15.7	16.2	16.7	17.3	17.8	18.3
Subtotal	**61.3**	**58.5**	**58.4**	**58.3**	**58.6**	**67.3**	**67.8**	**68.6**
TOTAL PRODUCTION TAX and ROYALTY REVENUE	**1,258.2**	**1,075.5**	**959.5**	**924.6**	**881.4**	**887.6**	**911.6**	**846.9**
Bonuses	**5.5**	**7.2**	**6.2**	**11.8**	**18.8**	**9.6**	**7.0**	**7.3**
TOTAL PRODUCTION TAX + ROYALTIES + BONUSES	**1,263.7**	**1,082.7**	**965.8**	**936.3**	**900.2**	**897.2**	**918.7**	**854.2**

(1) Unrestricted oil royalty revenue is net of Permanent Fund and Public School Fund contributions.

C. Historical and Projected Crude Oil Prices
$ per Barrel

FY	WTI		ANS Wellhead		ANS West Coast	
	nominal	real2002	nominal	real2002	nominal	real2002
1990	20.06	28.77	11.90	17.06	17.22	24.70
1991	24.95	34.19	15.38	21.08	21.57	29.56
1992	20.69	27.08	11.21	14.67	16.64	21.78
1993	20.69	26.27	12.81	16.26	17.83	22.64
1994	16.69	20.57	9.57	11.80	14.05	17.32
1995	18.54	22.30	11.51	13.84	16.77	20.17
1996	19.20	22.41	12.60	14.71	17.74	20.71
1997	22.54	25.60	16.40	18.63	20.90	23.74
1998	18.03	20.03	11.91	13.22	15.86	17.61
1999	14.09	15.39	8.47	9.25	12.73	13.90
2000	24.82	26.58	18.82	20.16	23.27	24.92
2001	30.41	31.40	22.24	22.96	27.85	28.75
2002	**23.80**	**23.80**	**16.80**	**16.80**	**21.78**	**21.78**
2003	27.34	26.57	20.53	19.95	25.94	25.25
2004	24.90	23.52	17.88	16.89	23.25	21.96
2005	23.65	21.71	16.56	15.20	22.00	20.19
2006	23.65	21.09	16.41	14.63	22.00	19.62
2007	23.65	20.50	16.30	14.13	22.00	19.07
2008	23.65	19.92	16.26	13.70	22.00	18.53
2009	23.65	19.36	16.28	13.33	22.00	18.01
2010	23.65	18.82	16.17	12.86	22.00	17.50

D. Historical and Projected ANS Production

Million Barrels/ Day

FY	(1) Prudhoe Bay	(2) PBU-Satellite	Kuparuk	(3) Kup Satellite	(4) Milne Point	(5) Endicott	Lisburne	Point McIntyre	Niakuk	(6) West Beach	Alpine	Nanuk	Northstar	Liberty	(7) Known Onshore	Flord	NPRA	Point Thomson	TOTAL ANS
1978	0.702	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.702
1979	1.197	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.197
1980	1.422	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.422
1981	1.511	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.511
1982	1.531	.	0.039	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.570
1983	1.532	.	0.095	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.627
1984	1.539	.	0.118	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.657
1985	1.534	.	0.161	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.694
1986	1.555	.	0.238	.	0.009	.	.	.	.	.	.	.	.	.	.	.	.	.	1.802
1987	1.564	.	0.272	.	0.006	.	0.018	.	.	.	.	.	.	.	.	.	.	.	1.859
1988	1.605	.	0.287	.	0.000	0.069	0.044	.	.	.	.	.	.	.	.	.	.	.	2.006
1989	1.524	.	0.300	.	0.002	0.098	0.038	.	.	.	.	.	.	.	.	.	.	.	1.962
1990	1.396	.	0.300	.	0.011	0.103	0.037	.	.	.	.	.	.	.	.	.	.	.	1.846
1991	1.330	.	0.299	.	0.018	0.108	0.039	.	.	.	.	.	.	.	.	.	.	.	1.794
1992	1.300	.	0.316	.	0.020	0.111	0.037	.	.	.	.	.	.	.	.	.	.	.	1.783
1993	1.193	.	0.322	.	0.018	0.115	0.030	.	.	0.001	.	.	.	.	.	.	.	.	1.679
1994	1.082	.	0.308	.	0.018	0.099	0.020	0.059	0.002	0.004	.	.	.	.	.	.	.	.	1.593
1995	0.991	.	0.303	.	0.021	0.099	0.020	0.121	0.014	0.003	.	.	.	.	.	.	.	.	1.572
1996	0.891	.	0.283	.	0.022	0.089	0.015	0.147	0.024	0.002	.	.	.	.	.	.	.	.	1.474
1997	0.809	.	0.267	.	0.052	0.068	0.013	0.166	0.028	0.002	.	.	.	.	.	.	.	.	1.404
1998	0.713	.	0.260	0.001	0.053	0.058	0.008	0.152	0.029	0.000	.	.	.	.	.	.	.	.	1.275
1999	0.636	0.003	0.241	0.025	0.055	0.048	0.007	0.119	0.029	0.000	.	.	.	.	.	.	.	.	1.164
2000	0.570	0.004	0.212	0.037	0.053	0.044	0.009	0.079	0.025	0.002	.	.	.	.	.	.	.	.	1.035
2001	0.540	0.007	0.196	0.031	0.052	0.037	0.010	0.060	0.019	0.001	0.040	.	.	.	.	.	.	.	0.991
2002	0.487	0.026	0.175	0.039	0.052	0.033	0.010	0.045	0.019	.	0.096	0.000	0.020	.	.	.	.	.	1.003
2003	0.435	0.046	0.158	0.051	0.053	0.030	0.009	0.041	0.014	.	0.097	0.000	0.059	.	.	.	.	.	0.994
2004	0.425	0.053	0.159	0.052	0.060	0.031	0.010	0.036	0.012	.	0.098	0.000	0.062	.	.	.	.	.	0.997
2005	0.399	0.077	0.155	0.056	0.064	0.028	0.009	0.033	0.010	.	0.100	0.000	0.062	.	.	.	.	.	0.992
2006	0.382	0.081	0.148	0.064	0.064	0.026	0.008	0.029	0.009	.	0.100	0.000	0.060	.	.	.	.	.	0.971
2007	0.368	0.085	0.141	0.070	0.062	0.024	0.007	0.026	0.008	.	0.100	0.008	0.048	.	.	0.010	.	.	0.956
2008	0.355	0.087	0.134	0.072	0.061	0.023	0.006	0.023	0.007	.	0.100	0.015	0.038	.	0.010	0.020	0.030	0.030	1.010
2009	0.340	0.080	0.128	0.073	0.062	0.020	0.005	0.021	0.006	.	0.090	0.015	0.031	0.035	0.025	0.020	0.065	0.075	1.091
2010	0.326	0.074	0.122	0.073	0.061	0.019	0.005	0.019	0.005	.	0.074	0.013	0.025	0.050	0.030	0.018	0.090	0.072	1.074

(1) Includes NGLs from Central Gas Facility shipped to TAPS
(2) Midnight Sun, Polaris, Aurora, Borealis, and Orion.
(3) West Sak, Tobasco, Tarn and Meltwater
(4) Milne Point includes Schrader Bluff and Sag River
(5) Endicott includes Sag Delta, Eider and Badami
(6) West Beach and North Prudhoe Bay State
(7) Sourdough

E. Historical General Fund Unrestricted Revenue

$ Million

FY	1991	1992	1993	1994	1995	1996	(1) 1997	(1) 1998	(1) 1999	(1) 2000	(1) 2001	(1) 2002
TAX PORTION												
Property Tax	85.0	69.0	66.9	61.5	57.3	56.0	53.6	51.3	48.8	45.0	45.1	49.6
Sales/Use												
Alcoholic Beverages	12.2	12.0	11.9	12.0	12.0	12.0	11.6	11.8	12.2	12.7	12.0	12.9
Tobacco Products	14.0	14.3	14.0	14.1	14.4	14.2	13.7	15.4	15.2	16.3	16.3	15.5
Insurance Premium	24.4	25.5	26.3	26.1	27.9	28.2	28.4	33.7	28.4	28.7	32.2	37.4
Motor Fuel Tax (2)	39.8	43.3	40.8	40.5	39.6	37.7	35.3	35.6	37.8	42.1	37.5	40.2
Total	90.4	95.1	93.0	92.7	93.9	92.1	89.0	96.5	93.6	99.8	98.0	106.0
Income Tax												
Corporation General	37.9	33.7	25.1	44.3	67.0	53.3	48.4	53.4	53.8	56.3	59.5	53.4
Corporation Petroleum	185.1	165.5	117.6	17.8	128.5	173.7	269.4	200.1	145.1	162.7	338.1	178.4
Total	223.0	199.2	142.7	62.1	195.5	227.0	317.8	253.5	198.9	219.0	397.6	231.8
Severance Tax												
Oil and Gas Production	1,253.8	1,022.2	989.4	662.8	769.8	771.7	907.0	564.4	358.6	693.2	694.4	486.7
Oil and Gas Conservation	2.3	2.3	2.1	2.3	2.0	1.8	1.7	1.6	1.4	0.0	0.0	0.0
Oil and Gas Hazardous Release	28.0	28.7	26.1	27.0	22.1	13.7	12.9	11.8	11.1	9.5	9.4	9.6
Total	1,284.1	1,053.2	1,017.6	692.1	793.9	787.2	921.6	577.8	371.1	702.7	703.8	496.3
Other Natural Resource Tax												
Salmon and Seafood Marketing	3.3	2.8	3.6	5.8	7.9	8.6	7.6	5.6	5.3	7.2	5.7	4.8
Salmon Enhancement	6.2	4.2	6.8	5.0	5.7	5.2	4.2	4.2	3.9	5.3	3.6	3.7
Dive Fishery Management	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2
Fisheries Business	31.1	30.1	42.2	33.9	39.0	38.2	31.0	28.5	25.9	36.7	30.5	25.3
Fish Landing	0.0	0.0	0.0	0.1	7.3	7.1	7.3	3.8	5.9	5.3	7.3	7.1
Total	40.6	37.1	52.6	44.8	59.9	59.1	50.1	42.1	41.0	54.7	47.3	41.1
Other Tax												
Estate	3.3	1.0	0.9	1.6	1.2	1.7	1.7	5.5	1.7	2.5	2.7	3.1
Other	4.1	4.1	4.1	4.7	4.8	4.9	5.0	6.1	6.5	8.9	7.4	6.1
Total	7.4	5.1	5.0	6.3	6.0	6.6	6.7	11.6	8.2	11.4	10.1	9.2
TOTAL TAXES	1,730.5	1,458.7	1,377.8	959.5	1,206.5	1,228.0	1,438.8	1,032.8	761.6	1,132.6	1,301.9	934.0

FY	1991	1992	1993	1994	1995	1996	(1) 1997	(1) 1998	(1) 1999	(1) 2000	(1) 2001	(1) 2002
NON TAXES												
Licenses and Permits	29.1	32.4	32.7	35.7	34.7	60.9	69.0	74.6	63.7	69.2	37.3	42.2
Intergovernmental Receipts												
Federal Shared Revenues	14.8	11.4	10.3	4.3	4.2	1.0	2.0	2.2	0.8	1.0	0.3	0.1
Charges for Services												
Marine Highways	40.7	42.3	40.8	40.4	41.5	38.5	38.6	37.1	38.8	38.3	37.6	32.2
Other	16.5	44.1	14.3	18.0	18.1	36.9	39.5	34.9	31.8	43.7	27.0	20.2
Total	57.2	86.4	55.1	58.4	59.6	75.4	78.1	72.0	70.6	82.0	64.6	52.4
Fines and Forefeitures	0.0	0.0	0.0	0.0	0.0	9.4	8.2	37.7	12.5	46.2	33.6	10.6
Rents and Royalties												
Mineral Bonuses, Rents, Royalties	24.8	6.5	44.3	5.2	5.6	6.9	7.4	23.0	25.6	4.0	7.1	14.6
Oil and Gas Royalties	951.6	702.4	711.3	512.1	628.3	642.2	759.2	480.4	322.6	727.9	781.0	581.2 (3)
Timber Sales	0.4	0.6	0.6	0.4	0.6	1.5	1.9	0.8	0.3	0.3	0.4	0.2
Sale of State Property	4.7	1.0	4.0	9.0	21.8	8.1	8.6	8.1	10.6	9.4	10.5	11.6
Total	981.5	710.5	760.2	526.7	656.3	658.7	777.1	512.3	359.1	741.6	799.0	607.6
Investment Earnings	125.0	101.8	70.9	31.7	72.4	64.1	77.1	60.6	46.5	48.1	78.8	43.1 (4)
Miscellaneous Revenue	14.9	61.4	45.0	36.2	49.2	35.8	44.6	33.5	37.3	27.1	34.9	28.3
Subtotal NON-TAX REVENUE	1,222.5	1,003.9	974.2	693.0	876.4	905.3	1,056.1	792.8	590.5	1,015.2	1,048.5	784.3
Plus: Income from prior years	33.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL NON-TAX REVENUE	1,256.1	1,003.9	974.2	693.0	876.4	905.3	1,056.1	792.8	590.5	1,015.2	1,048.5	784.3
TOTAL TAX REVENUE	1,730.5	1,458.7	1,377.8	959.5	1,206.5	1,228.0	1,438.8	1,032.8	761.6	1,132.6	1,301.9	934.0
TOTAL GENERAL FUND UNRESTRICTED REVENUE	2,986.6	2,462.6	2,352.0	1,652.5	2,082.9	2,133.3	2,494.9	1,825.7	1,352.1	2,147.8	2,351.4	1,718.3

(1) Starting in FY 1996, all General Fund program receipts are included under Unrestricted Revenue. FY 1996 also includes additional royalties due to payment from the TAPS Liablility Fund. However, starting in FY 1998, many General Fund program receipts have been moved from unrestricted to restricted categories such as "Statutorily Designated Program Receipts" and "Receipt Supported Services."
(2) Motor Fuel Tax includes aviation, highway and marine.
(3) FY 2001 oil and gas royalties adjusted to include interest earnings.
(4) FY 2001 investment revenue adjusted to exclude oil and gas interest earnings.

F. Historical Petroleum Revenue
$ Million

FY	Corporate Petroleum Tax	Production Tax	Petroleum Property Tax	Reserve Tax	(1) (2) Royalties	(1) (2) Bonuses & Rents	(3) (4) Petroleum Special Settlements	Total Petroleum Revenue	(5) Cumulative Total Petroleum Revenue	Total General Fund Unrestricted Revenue	% of Total General Fund Unrestricted Revenue
1978	8.4	107.7	173.0	.	150.6	1.8	.	441.5	2,797.8	764.9	58%
1979	232.6	173.8	163.4	.	250.2	1.6	.	821.6	3,619.4	1,133.0	73%
1980	547.5	506.5	168.9	.	689.4	344.2	.	2,256.5	5,875.9	2,501.2	90%
1981	860.1	1,170.2	143.0	.	1119.7	11.3	.	3,304.3	9,180.2	3,718.0	89%
1982	663.9	1,581.7	142.7	.	1174.4	7.1	.	3,574.8	12,755.0	4,108.4	87%
1983	236.0	1,493.7	152.6	.	1105.6	38.7	.	3,026.6	15,781.6	3,631.0	83%
1984	265.1	1,393.1	131.0	.	1058.5	13.9	.	2,861.6	18,643.2	3,390.1	84%
1985	168.6	1,389.4	128.4	.	1042.2	14.9	.	2,743.5	21,386.7	3,260.0	84%
1986	133.9	1,107.9	113.5	.	845.0	38.9	418.2	2,657.4	24,044.1	3,075.5	86%
1987	120.4	648.5	102.5	.	448.3	4.3	70.5	1,394.5	25,438.6	1,799.4	77%
1988	158.0	818.7	96.2	.	701.5	11.3	163.9	1,949.6	27,388.2	2,305.8	85%
1989	166.0	698.8	89.7	.	611.5	16.7	257.7	1,840.4	29,228.6	2,186.2	84%
1990	117.2	1,001.6	89.8	0.0	753.7	4.2	154.8	2,121.3	31,349.9	2,507.2	85%
1991	185.1	1,284.8	85.0	0.0	958.7	24.7	33.5	2,571.8	33,921.7	2,986.6	86%
1992	165.5	1,053.2	69.0	0.0	708.2	6.8	4.7	2,007.4	35,929.1	2,462.6	82%
1993	117.6	1,017.6	66.9	0.0	716.7	44.3	4.7	1,967.8	37,896.9	2,352.0	84%
1994	17.8	692.1	61.5	0.0	516.1	5.1	0.1	1,292.7	39,189.6	1,652.5	78%
1995	128.5	793.9	57.3	0.0	631.8	5.0	0.7	1,617.2	40,806.8	2,082.9	78%
1996	173.7	787.2	56.0	0.0	642.2	5.7	0.0	1,664.8	42,471.6	2,133.3	78%
1997	269.4	921.6	53.6	0.0	759.2	6.4	0.0	2,010.2	44,481.8	2,494.9	81%
1998	200.1	577.8	51.3	0.0	480.4	23.0	0.0	1,332.6	45,814.4	1,825.5	73%
1999	145.1	371.1	48.8	0.0	322.6	25.6	0.0	913.2	46,727.7	1,352.1	68%
2000	162.7	702.7	45.0	0.0	731.9	4.0	0.0	1,646.3	48,373.9	2,147.6	77%
2001	338.1	703.8	45.1	0.0	781.0	7.1	0.0	1,875.1	50,249.0	2,282.0	82%
2002	178.4	496.3	49.6	0.0	581.2	14.6	0.0	1,320.1	51,569.1	1,668.0	79%

(1) These categories are primarily composed of petroleum revenue, however, they include some additional revenue from other minerals (mostly coal).
(2) Royalties and bonuses and rents are net of Permanent Fund contribution and Constitutional Budget Reserve Fund (CBRF) deposits.
(3) Not subject of CBRF deposits
(4) Tax settlements are in the CBRF.
(5) This table shows historical petroleum revenue for FY 1975-2001. The cumulative petroleum revenue total is based on revenue beginning in FY 1959.

In accordance with AS 37.07.060 (b)(4), the Revenue Sources book is compiled biannually by the Department of Revenue to assist the governor in formulating a proposed comprehensive financial plan for presentation to the Alaska State Legislature. Within the publication are shown prior year actuals, revised current year estimates and future year projections.

Anticipated state income is projected through the use of a number of data sources: (1) econometric models developed by the Department of Revenue to forecast unrestricted non-petroleum revenues; (2) a petroleum revenue model created by the department's Tax Division; and (3) estimates from individual state agencies.

We thank the various state agencies for their cooperation in computing anticipated revenues for publication in this document.

The Department of Revenue complies with Title II of the Americans With Disabilities Act of 1990. This publication is available in alternative communication formats upon request. Please contact the division's representative at (907) 465-3692 or (907) 465-3678 (TDD) to make necessary arrangements.

This publication, required by law (AS 37.07.060),
was printed in Anchorage, Alaska
at a cost of $6.65 per copy.

Fall 2002 Revenue Sources Book

Department of Revenue, Tax Division
550 West Seventh Avenue, Suite 500
Anchorage, Alaska, 99501

www.tax.state.ak.us

November 26, 2002

1/29/03

Alaska Science & Technology Foundation

----------Project Examples----------

Technology

Knowledge

Science & Technology Education

ASTF's Team -- Partners for Economic Development Infrastructure

Technology Projects

Alaska Manufacturing Contractors

Alaska Fresh Cut

UniSea Fish Oil Demonstration

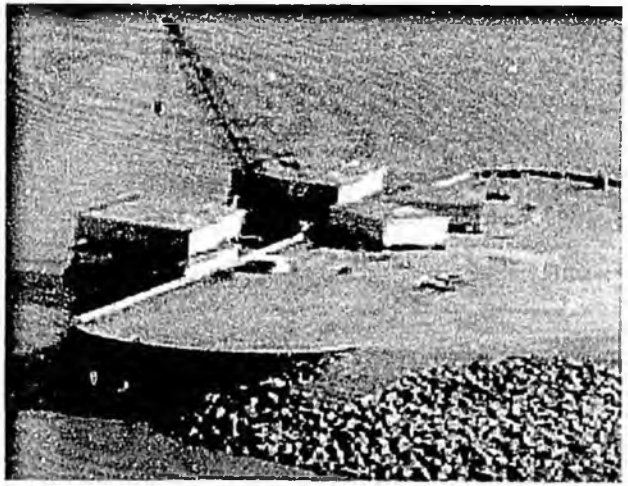
Scientific Fishery Systems

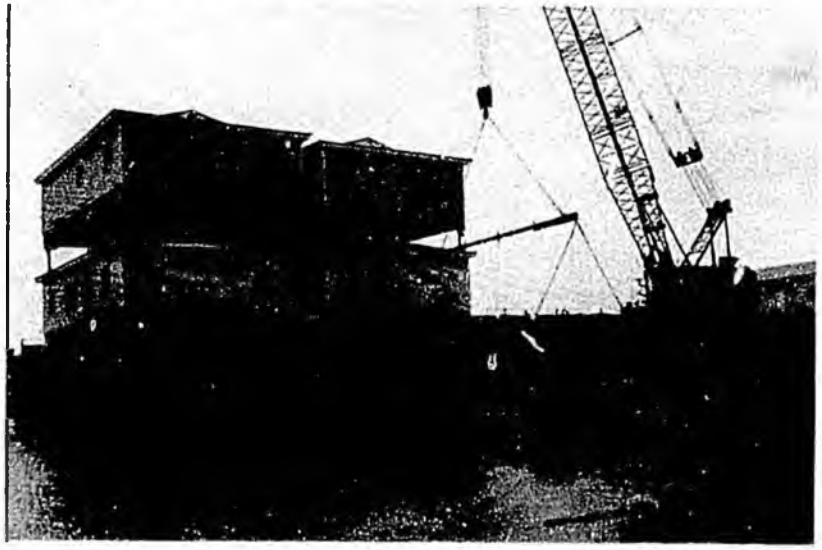
PeopleMatter

Remote Airport Webcams

Paralytic Shellfish Poisoning Test Kits

Alutiiq Manufacturing Contractors





Located at Port McKenzie, Wasilla

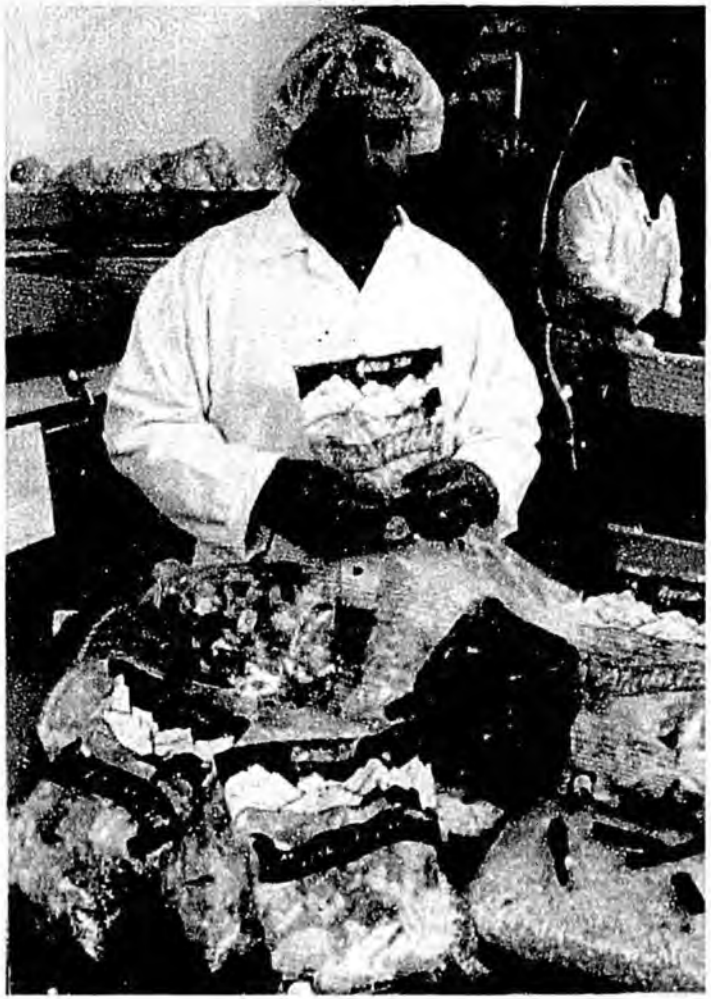
Completed 62 portable homes built for arctic conditions

Employs 45 workers

Sales $10 million in 2001/2002

Replacing imported homes

Alaska Fresh Cut



Located in Anchorage

Selling fresher chopped salads in bags and fruits

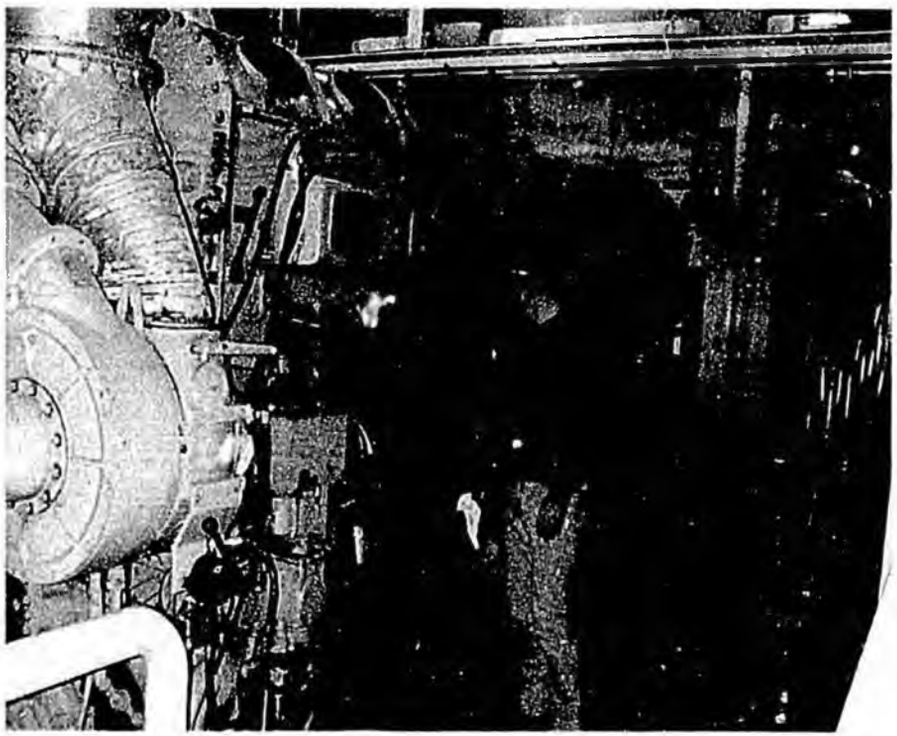
Purchasing produce from Mat-Su Valley

Employs 47 people

Sales $6 million (99-02)

Replacing imports

UniSea Fish Oil Demonstration



UniSea fish processing plant, Dutch Harbor

Using 50/50 fish oil/diesel blend to generate electricity

Reduced air emissions

Replaced expensive diesel with low value fish oil (0.7 million gallons first year)

Project paid out in under one year and is being expanded

Scientific Fishery Systems

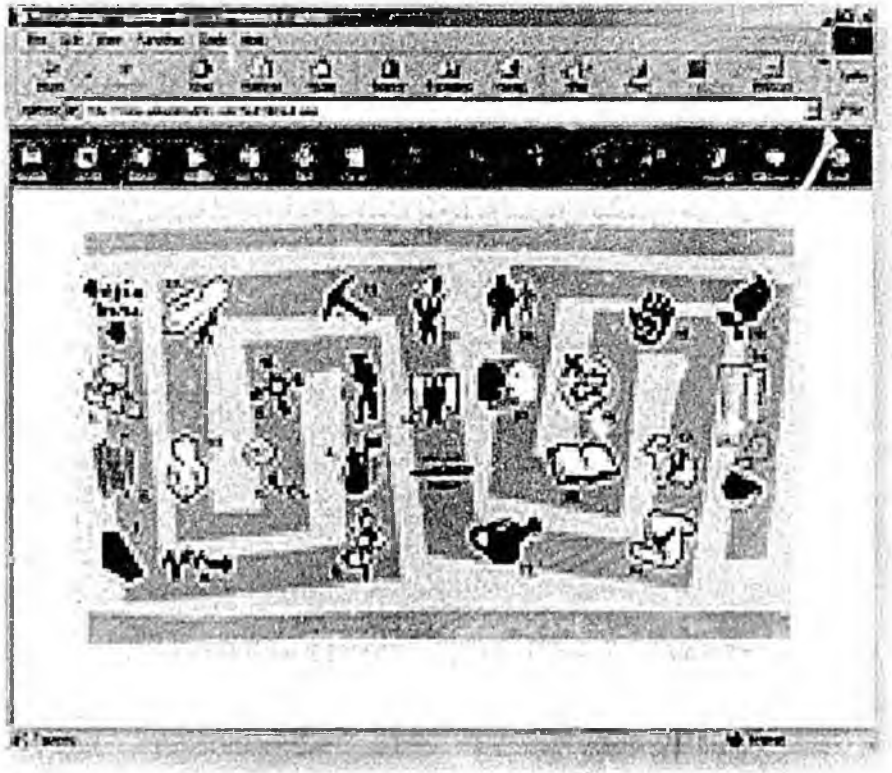
Located in Anchorage

Sonar systems to increase fish harvest and reduce by-catch

Employs 10 people

Sales $5 million (last 5 yrs)

PeopleMatter



Click For Flash Demo

Software for human resources & organizational development

Employs 10 people

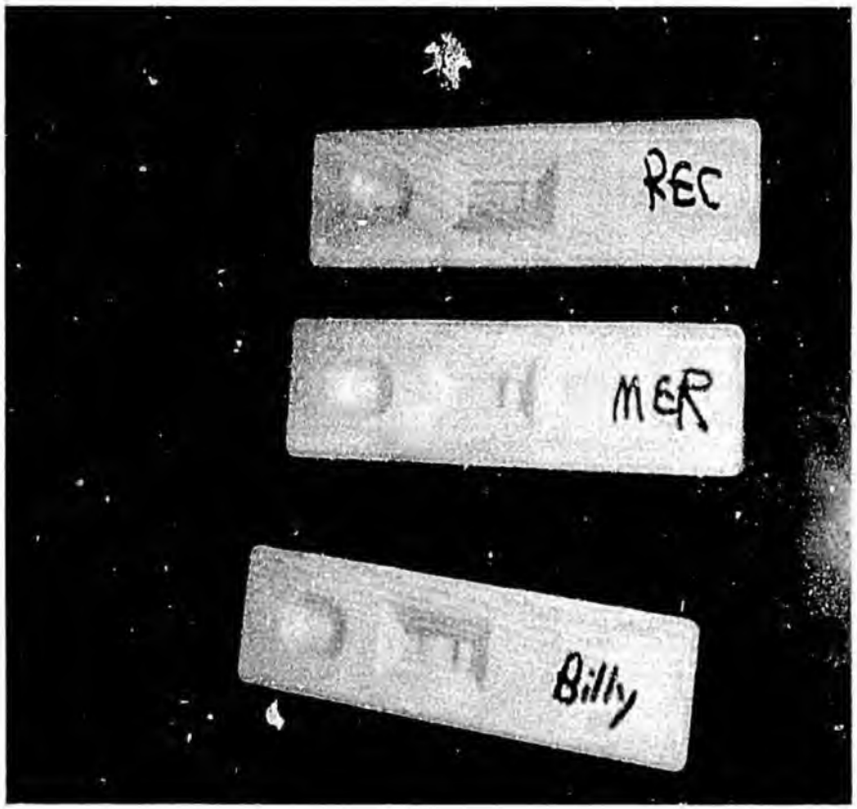
Sales $0.5 million in first year

Remote Airport Webcams

Demonstrated feasibility of putting real time photos of remote airstrip weather conditions on the web.

FAA is duplicating application throughout Alaska

Paralytic Shellfish Poisoning Test Kits



Kits are quick & inexpensive

Two thousand distributed

Training conducted in Kodiak, Anchorage, and Ketchikan

Commercial sales planned in 2003

Knowledge Projects

Surimi Manufacture

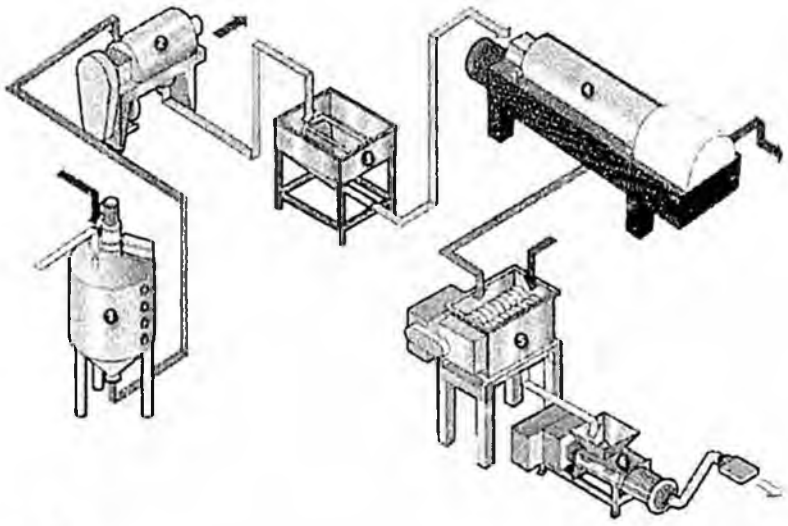
Earthquake Severity Maps for Anchorage

Alaska Sea Ice Atlas

New Permeable Wave Barriers

Guidebook to Geology of Anchorage, Alaska

Surimi Manufacture



- Conditioned water
- Mince slurry
- Discharge
- Refined slurry
- Drain
- Dewatered mince
- Additives
- Surimi

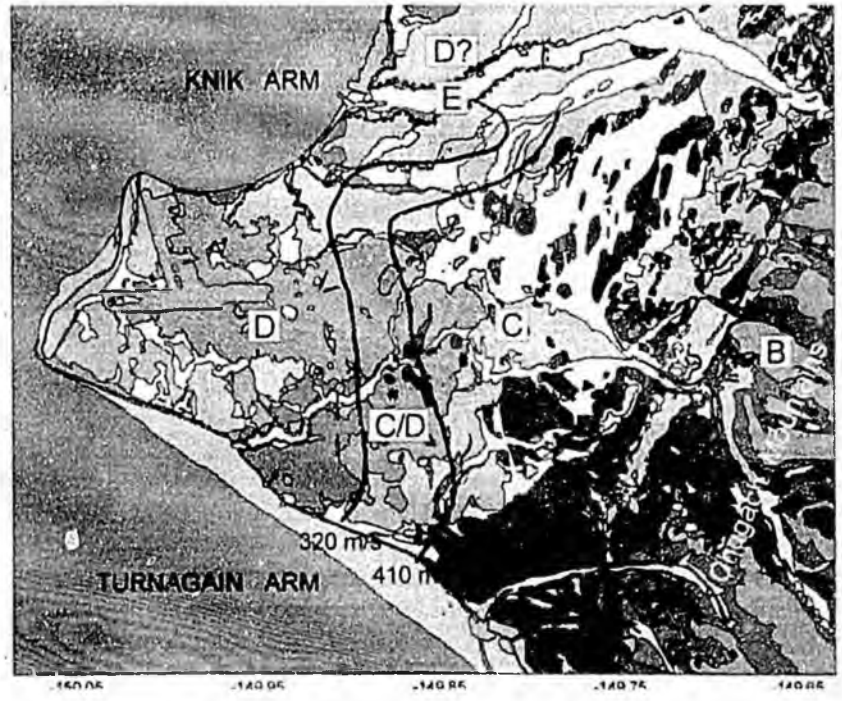
1. Mixing tank 1
2. Refiner
3. Mixing tank 2
4. Decanter centrifuge
5. Mixer
6. Extruder

Surimi is a seafood byproduct made from fish waste – Japan is the largest market

Advanced centrifuge decanter process demonstrated use of pollack and other bottom fish

Industry surimi sales showed a $150 million/yr increase

Earthquake Severity Maps for Anchorage



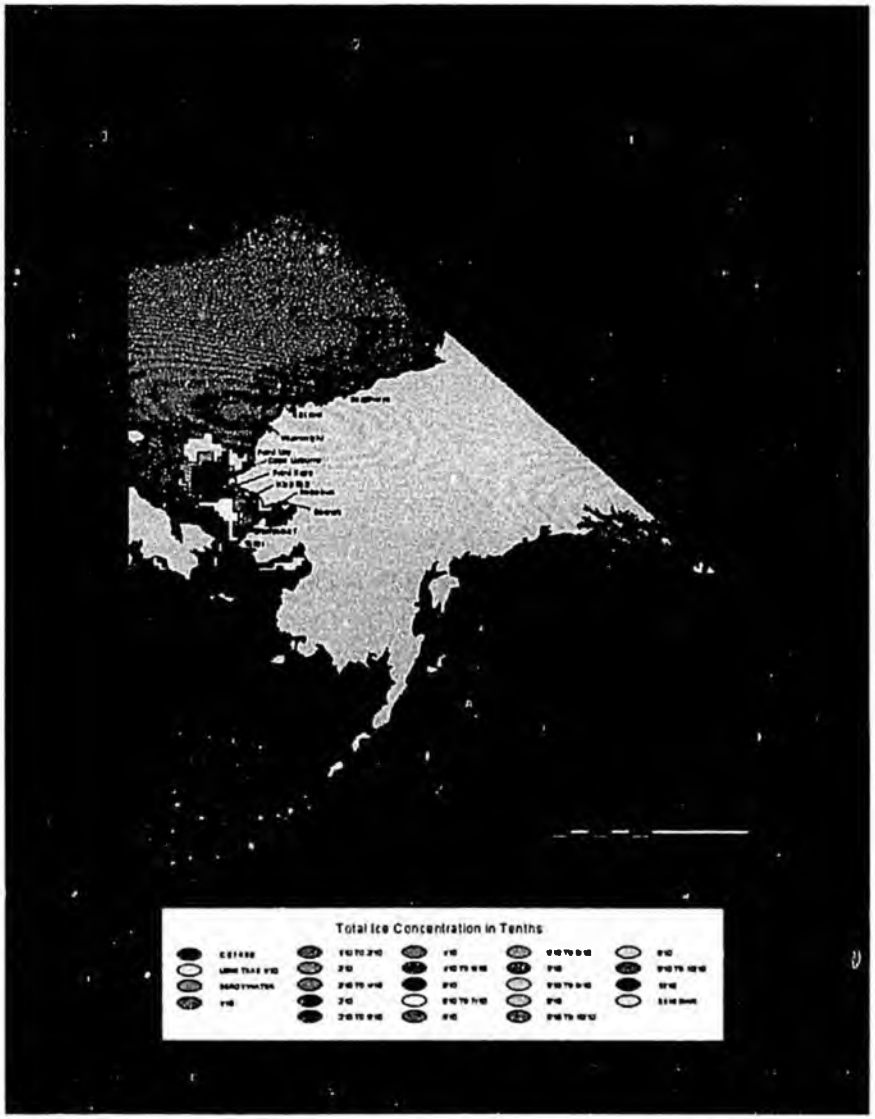
Being integrated into much larger national network maintained and supported by USGS.

UAF created new earthquake severity maps based on soil conditions and seismic readings from 25 Anchorage sensors

Building codes being reevaluated

Architectural & engineering firms using maps in siting and design

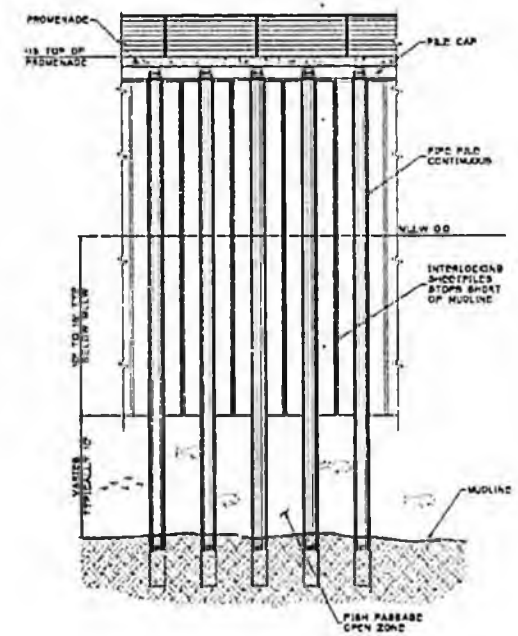
Alaska Sea Ice Atlas

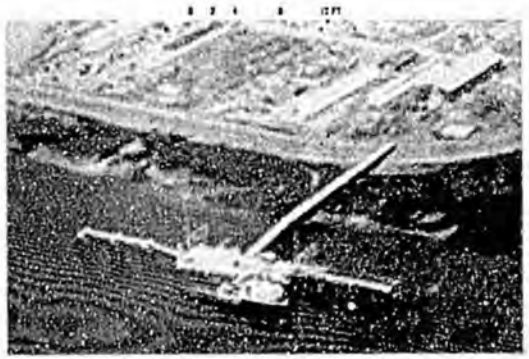


UAA created updated web-based ice atlas

Being used by development and transportation planners

New Permeable Wave Barriers





Designed by Pertrovich, Nottingham, and Drage of Anchorage

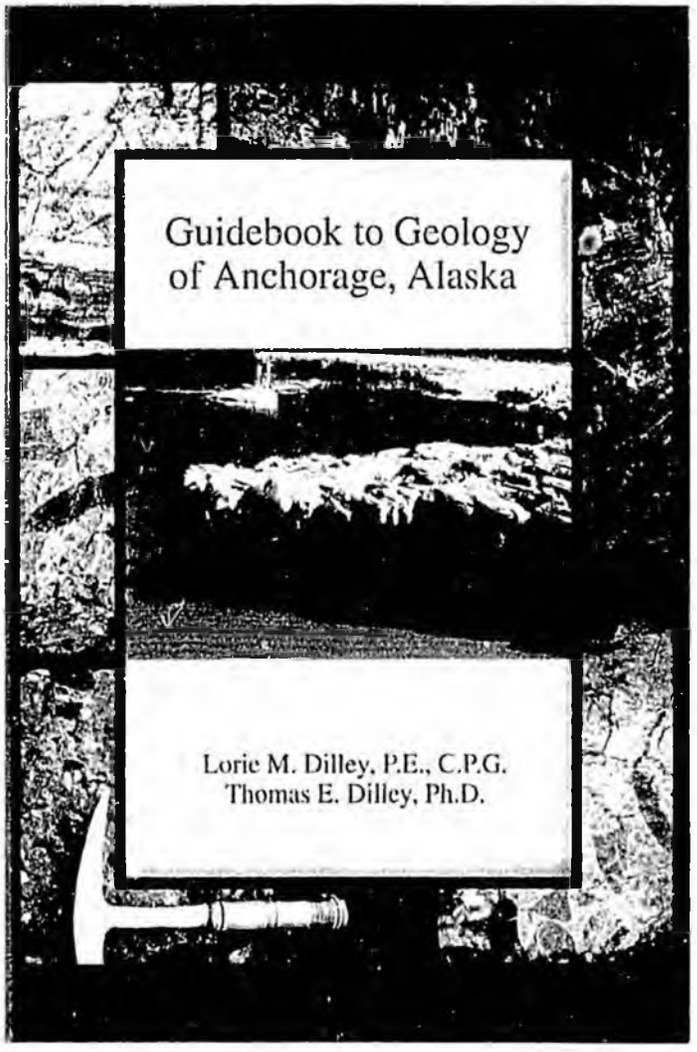
Reduces wave impacts on structures and shoreline

New design significantly reduces costs and environmental impacts

Built in Glacier Bay, Valdez and Lower-48

Won national design awards

Guidebook to Geology of Anchorage, Alaska



Authored by two Anchorage based geologists

250 page photo-illustrated paperback book

Used by engineers, planners, and general readers

Science & Technology Education

Direct Grants to Teachers

K-12 Information Technology

Science Lecture Series

Wiring Alaska's K-12 Schools & Science Museums

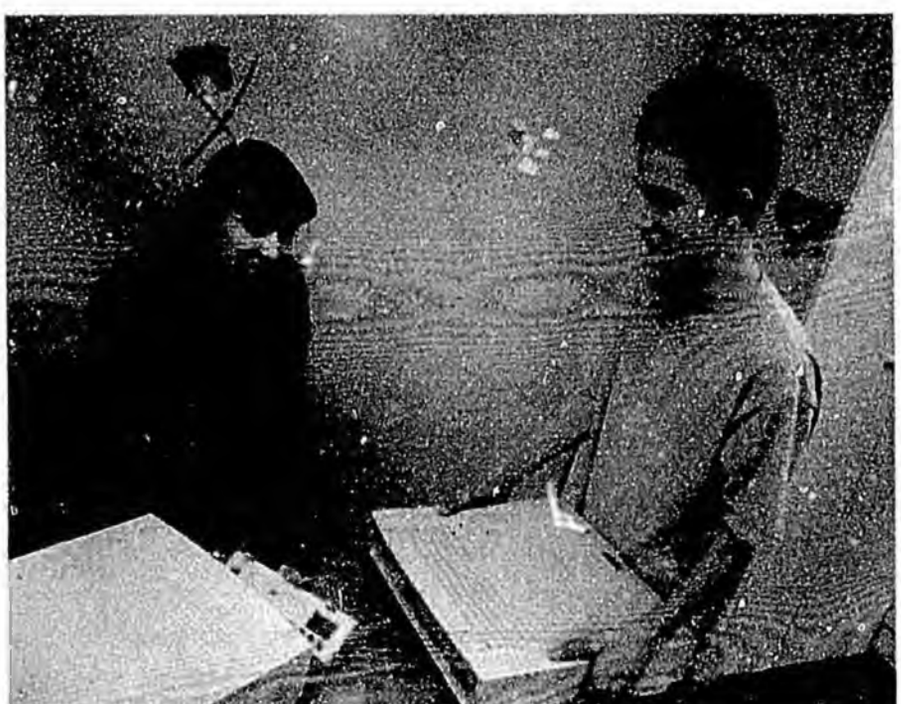
Direct Grants to Teachers

Nearly 400 grants to math & science teachers

Reaching approximately 47,500 students

Surveys indicate about 85% of students show an increased interest and achievement in science

K-12 Information Technology



Programs so far in Kodiak and Kenai

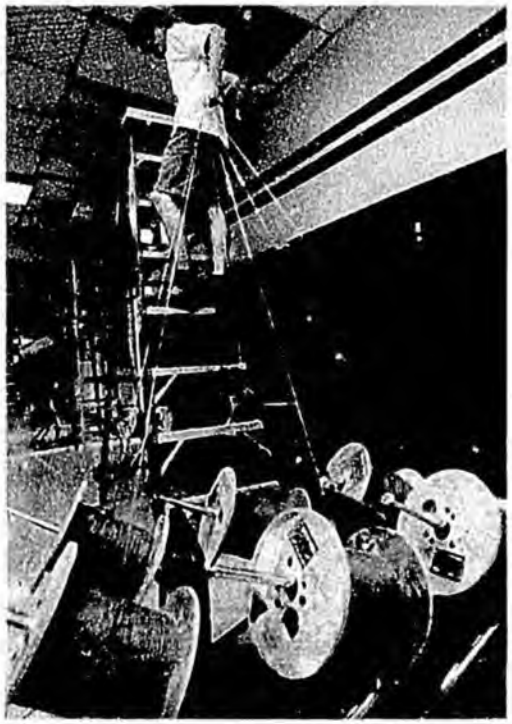
School district and local village programs for students to install, repair, and network computers, become A+/MSCE certified, and build websites for commercial use

Science Lecture Series

Popular ASTF and UA sponsored Science Lecture Series presented in Anchorage, Fairbanks and Juneau

Over 5,000 persons attended last winter, 48% increase over previous year

Wiring Alaska's K-12 Classrooms & Science Museums



ASTF provided funding to wire over 500 Alaska schools (8,000 classrooms) for computer networks and internet access as well as science museums in Homer, Kenai, Seward, and Anchorage.

ASTF's Team -- Partners for Economic Development Infrastructure

---

ALASKA Growth Capital

ak/ma
Alaska Manufacturers' Association

ALASKA HI-TECH BUSINESS COUNCIL

Alaska InvestNet

ALASKA Growth Capital

Subsidiary of Arctic Slope Regional Corp.

High risk lending (regulated and audited as a bank) – nearly $29 million to 38 organizations with hundreds of jobs created or retained

Business consulting

Grown from $6 to 11 million in capital ($3 million from ASTF)

10 employees (Anchorage)

Mission: to enable the growth and economic development of the technology industry in Alaska

ALASKA HI-TECH BUSINESS COUNCIL

Largest statewide trade association for information & computer technology, founded 1996

Major projects include: workforce development, industry advocacy, and member services.

Alaska InvestNet

Matches Alaskan entrepreneurs with Alaskan investors

Venture forums, seminars, training, and intern program

ak/ma

Alaska Manufacturers' Association

Lumber grading

Wood testing

Salmon grading

Manufacturing consulting, courses, and trade association

10 employees (Anchorage & Ketchikan)

1/29/03

Team Members

ALASKA Growth Capital

ak/ma Alaska Manufacturers' Association

Alaska investNET

ALASKA HI-TECH BUSINESS COUNCIL

PRODUCTS
+
RISK CAPITAL
+
HIGH-TECH WORKERS
+
KNOWLEDGE
+
KNOWHOW NETWORK

G R O W T H

CONTENTS

ASTF 2002 ANNUAL REPORT

As the newly appointed Executive Director of ASTF, I inherit a foundation full of promise in a time and place full of challenge. As oil revenues continue to decrease, and the full impact of America's troubled financial markets is felt, the need for a highly diversified Alaskan economy is more pressing than perhaps ever before.

The convergence of digital information, including information technology and telecommunications, now impacts every sector of our economy. Business opportunities are all around us, and it is important that we look and listen for the ideas that will help Alaska grow and prosper. I look forward to meeting this challenge with you.

I would like to thank Jamie Kenworthy for his leadership of the foundation and his positive contributions to the Alaska economy.

J.A. Hans Roeterink,
Executive Director,
Alaska Science & Technology Foundation

Honorable Frank Murkowski, Governor
Honorable Members of the Legislature
Citizens of Alaska

The test of a business or organization is often whether it can sustain customers and momentum even in tough times. In the face of sharply lower endowment earnings, we think ASTF met that test in FY02 and is now poised to continue to expand the state's technology-based economic development.

LETTER FROM THE EXECUTIVE DIRECTOR & CHAIR

ASTF weathered the last year by cutting back operations, funding no new projects and working with partners and entrepreneurial grantees to keep projects going by minimizing ASTF cash and by maximizing non-ASTF resources and relationships. The last year told us that we are doing business with the right entrepreneurs and partners.

This year's report features our partner organizations and how we are working together to provide the investment capital, business know-how, technology workers and manufacturing expertise necessary to grow technology companies.

As you will see from reading this report, our partner organizations, launched with ASTF funds and private sector leadership, now have more than twice the impact of ASTF as measured by funds distributed on the street. The continued success of our partners and new ASTF projects is critical to carrying out ASTF's mission to use science and technology to grow an Alaskan economy and to create sustainable wealth.

Critical to that strategy is the decision to use five percent of the value of the ASTF endowment to fund ASTF's ongoing programs. This amount allows ASTF to continue to fund projects through the ups and downs of the stock market, inflation-proof the value of the endowment and carry out ASTF's mission.

We will be working with Governor Murkowski and the legislature to work within the five percent budget, to guarantee ASTF's long-term ability to build the businesses and projects that match the science base of the state with industry needs and opportunities.

Sincerely,

Ron Duncan,
Chair

Jamie Kenworthy,
Executive Director

2002

ASTF's FINANCIAL STATUS

ENDOWMENT EARNINGS HAVE DECLINED

Endowment earnings have declined beginning in FY99:

- ASTF's endowment is co-invested with the Alaska Permanent Fund; and,
- Earnings have significantly declined due to the stock market downturn and a smaller earnings base.

ASTF'S RESPONSE TO THE STOCK MARKET DOWNTURN

The ASTF Board reduced distributions in FY02 by:

- Reducing operations costs;
- Deferring consideration of new proposals;
- Reducing payments to partners;
- Prorating available earnings to ASTF, UA and AADC; and,
- Closely managing payments to existing grantees.

LEGISLATIVE APPROPRIATIONS FOR NON-ASTF PURPOSES

Over the last five years, the legislature appropriated $14.2 million of ASTF's endowment earnings for non-ASTF purposes:

- $11.4 million to the University of Alaska;
- $2.3 million to Alaska Aerospace Development Corp.;
- $0.5 million for DCED International Trade;
- In FY02, the ASTF Board prorated available income and paid $1.1 million to UA and AADC equivalent to approximately 100 percent of its FY02 endowment earnings; and,
- For FY03, the legislature appropriated $2.3 million to UA from the ASTF endowment.

EXPENDITURES FOR ASTF PURPOSES AND THE OVERALL ENDOWMENT VALUE HAVE DECLINED

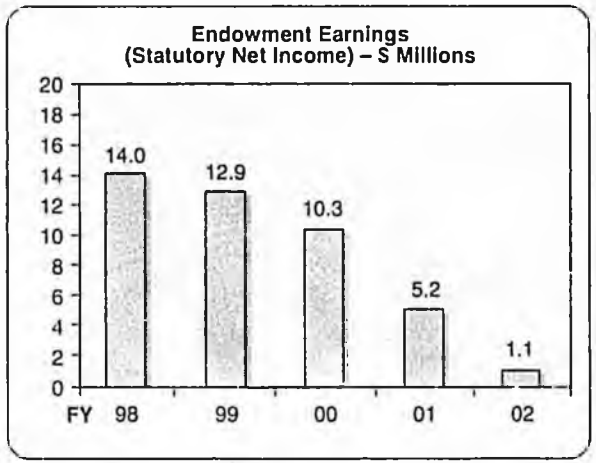
Expenditures for ASTF purposes have declined and fallen short of legislative appropriations due to:

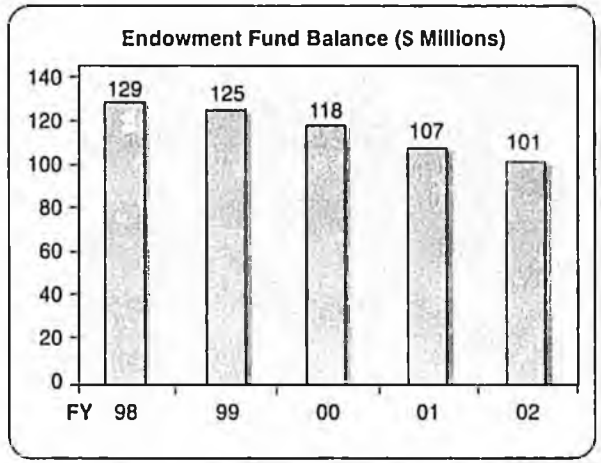
- The signification reduction in endowment earnings; and,
- Continued legislative appropriations for non-ASTF purposes.

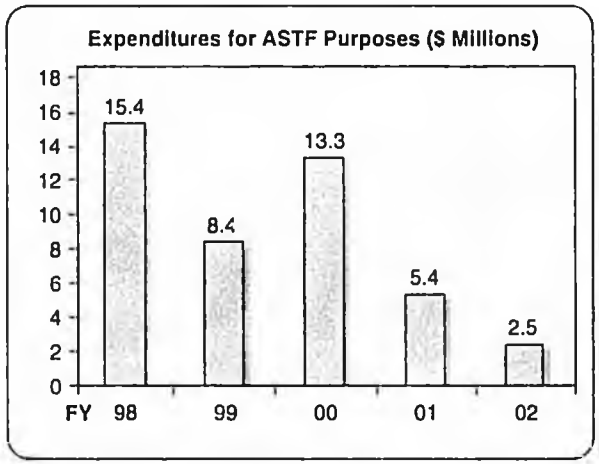
THE FUTURE

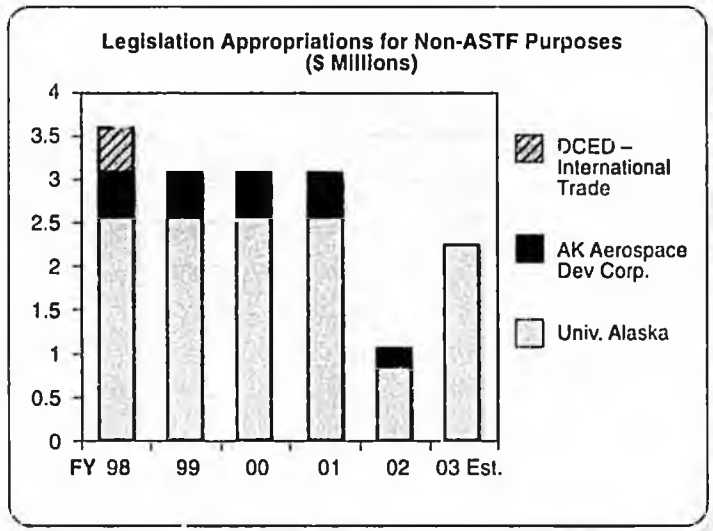
To smooth future year-to-year distributions and inflation-proof the endowment, the ASTF Board adopted a policy to limit distributions to five percent of the five-year rolling average of the market value of the endowment, a practice consistent with many foundations.

The ASTF Board resumed approving new projects in November 2002.









2002 HIGHLIGHTS

ASTF's commitment to fund worthwhile projects continues even though our financial returns precluded awarding new grants in FY02. However, many notable accomplishments were attained by our partners and ASTF-funded organizations.

PARTNERS

Alaska Growth Capital – Last year's portfolio included 27 loans totaling over $9.4 million.

Alaska Manufacturers' Association – In addition to consulting with manufacturers, AKMA worked in four regions to develop salmon quality programs (over 100,000 lbs marketed last year) and is developing engineered wood products in addition to the lumber grading program.

Alaska InvestNet – In addition to sponsoring numerous seminars, eight entrepreneurs reported raising capital and 13 service providers gained clients this year.

Alaska Hi-Tech Business Council – Cooperative programs with ASTF, technology industry and other government partners delivered nearly $2 million in training for IT professionals in Alaska during FY02.

ASTF PROJECTS

New Decanter Process – In 2002, the production of surimi (a seafood product from pollock) using the advanced decanter process demonstrated under ASTF sponsorship, yielded over $150 million to processors in Alaska.

Fish Oil – Fish oil/diesel fuel mixtures were demonstrated to effectively burn in diesel powered generation units in the UniSea fish processing plant. The fuel reduced emissions and no adverse wear was detected.

Earthquake – The recent 7.9 magnitude earthquake confirmed the accuracy of the attenuation maps produced by the Microzonation program. The program developed the finest free-field instrumentation network in the country.

Alaska Fresh Cut – Employs nearly 50 full-time workers with annual sales in excess of $2.5 million.

Qutekcak Hatchery – Now sells oysters, littleneck clams, rock scallops, cockles and geoducks to producers.

Geology Guidebook – A 251-page guide outlining the geological features of the Anchorage area.

Wave Barrier Technology – In 2001, Peratrovich, Nottingham and Drage won an outstanding design award for Bell Street Pier in Seattle.

Alaska Sea Ice Atlas – Using GIS technology, the web-based atlas compiles historical information for Alaska sea ice conditions.

EDUCATION PROJECTS

K-12 Teacher Grants – 85 percent of students have greatly increased interest and achievement in math, science or technology.

IT Workers – In Kodiak, 18 students installed 100 refurbished computers in homes. Six students passed the A+ hardware exam and prepared commercial web pages.

Science Lecture Series – Over 7,600 people attended—a 48 percent increase overall.

Alaska Science & Technology Innovation Index

2002 Report Card

State Trend		Alaska Compared to Nation	Indicator
Increasing	▲	+	Above Average
Flat	–	=	Same as Average
Decreasing	▼	–	Below Average
			Population and Economic Infrastructure
	▼	–	Age Distribution (Share of Young Workers)
	▼	–	Growth in Real Gross State Product
	▼	+	International Exports
	▼	–	Employment Growth Rate
	▼	+	Unemployment
	▲	+	Median Household Income
	▲	=	Per Capita Personal Income
	▲	=	Average Earnings Per Job
	▲	–	Technology Industry Jobs
	▼	–	Number of Manufacturing Jobs
			Innovation
	–	–	Patents
	–	–	Research & Development Expenditures
	▲	+	R&D at the University of Alaska Fairbanks
			Financial Capacity
	–	–	Initial Public Offerings
	–	–	Venture Capital
	–	–	Small Business Investment Companies Financings
	–	–	Small Business Innovation Research Awards
			Infrastructure and Human Resources
	▲	+	Online Population
	▲	+	Digital State Government
	–	=	Ph.D. Scientists and Engineers Per 1000 Workers
	–	=	SAT Scores
	▲	–	High School Graduates Enrolling in College
	▼	–	Science and Engineering Graduate Students
	–	–	Science and Engineering Doctorate Awards

A MARKET SUSTAINABLE ECONOMY

A Market Sustainable Future–Can the Alaska Economy be Easily Explained?

For the past few years ASTF has been working with the State Chamber of Commerce, the Resource Development Council and the Hi-Tech Business Council on developing a clear picture of the Alaska economy and a broader consensus for expanding the state's private sector base.

Two key success measures have been identified:

+ increased per capita income in the state and in each region of the state; and,

+ a larger private sector economic base.

The business groups now function as the Economy Group of Alaska 20/20, a statewide goal-setting effort. Representatives of the economy group, including past ASTF Executive Director Jamie Kenworthy, have spoken at many local community meetings, 20/20 work sessions and local Chamber lunches. The goal is to give Alaskans a clearer picture of what drives the state's economy and to encourage local communities, regions and statewide groups to decide what form of economic development is appropriate and motivates Alaskans to build a more robust and diversified economy.

In November 2002, 20/20 published a booklet A Market Sustainable Future: A Closer Look at Alaska's Economy that explains the dynamics of the state's economy and the market-based actions that could be taken by Alaskans to grow it. The full booklet is available at *www.akhf.org*, from the Alaska Humanities Forum or ASTF. Also available is a game that lets you play out various future scenarios of the state's economy at *www.akfuture.org*

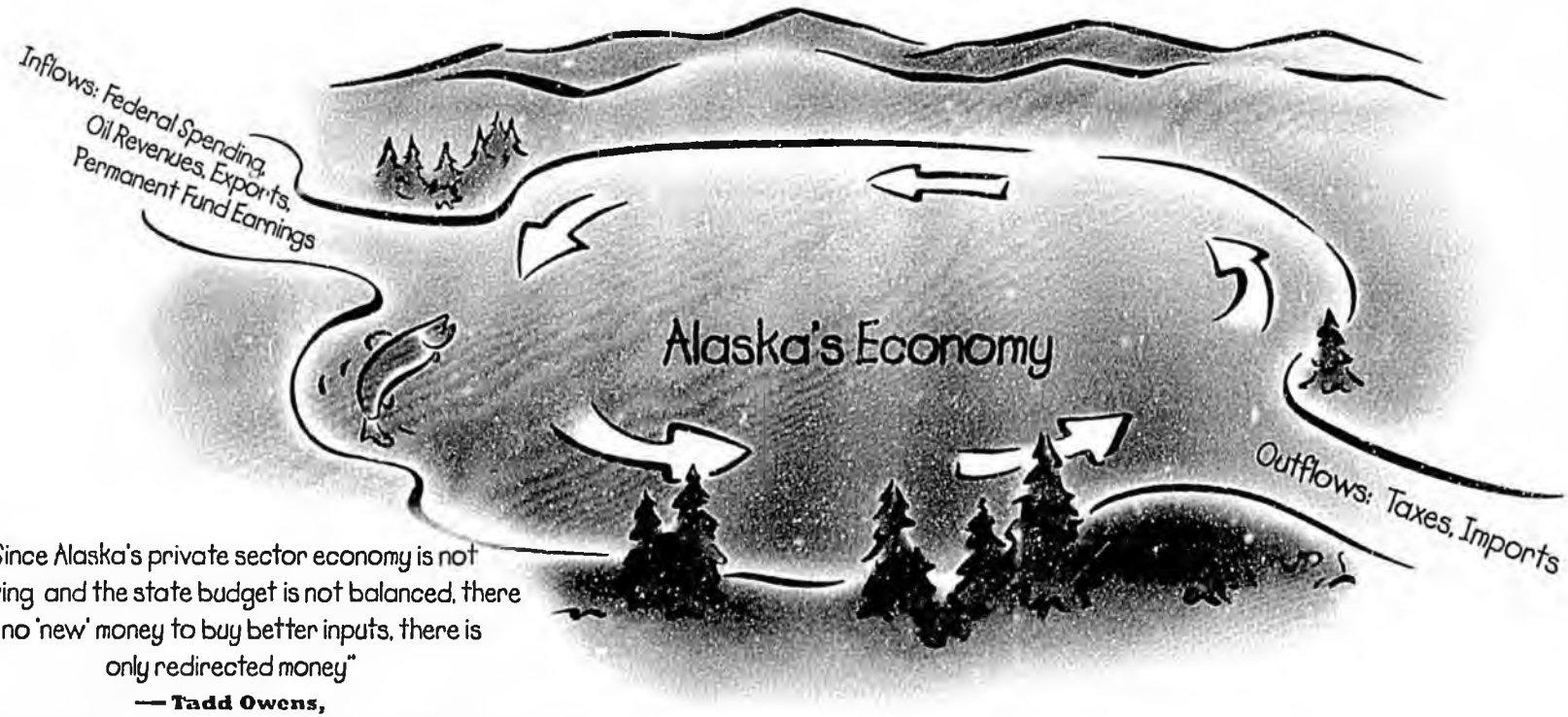
THE LAKE

In simple terms, you may think of Alaska's economy as a lake.

Streams and rivers are dollars that flow into and out of the lake. As in-flows decrease, the lake level drops (economy declines). As in-flows increase, the lake rises (economy improves). The lake level can only be raised by increasing the flow from outside (selling goods and services outside the state) or by decreasing the rate of out-flow (replacing imports with local goods and services).

How can Alaska's economy be more market sustainable? From a market perspective, an economy that expands the products and services it sells to the world is the principal long-term form of sustainable economic security.

Recently, University of Alaska Anchorage economist Scott Goldsmith attributed the state's growth in the 1990s to the increased Permanent Fund dividends and increased federal spending. The 1990s were one of the longest business expansions in our nation's history, yet in Alaska, none of our increased wealth was due to the private sector. Alaska did not create net additional wealth through succeeding in markets.



"Since Alaska's private sector economy is not growing and the state budget is not balanced, there is no 'new' money to buy better inputs, there is only redirected money"

— Tadd Owens,
Executive Director, Resource Development Council

Goldsmith said that once the impact of the increase in federal spending and higher Permanent Fund dividends have been filtered out, the Alaska economy created no additional private sector generated wealth. Alaska hasn't increased exports or replaced imports; it has just increased consumption.

In effect, during the last decade Alaskans have become more dependent on government revenue and less capable of earning their own living in world markets. And with a population growing about two percent a year, the same wealth must support more people. What's the solution?

Economists call the enterprises that sell goods or services outside the state its Base Economy. "The Base" in Alaska differs from other states. With a small private sector, Alaska's base is less diversified than other states. Still, Alaska's base is just as important as those in other states in driving the entire state economy. While every job is important, all jobs are not equal in terms of the impact they have on the state's economy. Broadly speaking, export activity brings new money into Alaska by selling products and services to customers in the rest of the world. By contrast, most activity in the local services sector simply recirculates money within the state.

The two largest segments of Alaska's base economy are federal spending and oil. Together, they make up about two-thirds of all earned income in Alaska. Add in the Permanent Fund Dividend, and 70 percent of Alaska's economy is related to government spending or oil.

Timber, fishing, mining and tourism are traditional Alaskan industries and all are a part of Alaska's base economy.

Engineering, software development and the export of professional and technical expertise and services are areas that also can increase the base economy. Oil field service contractors are now selling their services on the global market. Certainly, other professionals and technical enterprises can compete in global markets.

Economists like to talk about "guns or butter" to demonstrate competing opportunities. In Alaska, the culture suggests we should choose either "mining or tourism," "fishing or timber" or "oil development or eco-tourism."

In fact, we need all base industries to grow: fishing, timber, mining, information technology, services and tourism, etc. In addition, Alaska needs more value-added industries like seafood processing, manufacturing and high-tech.

The 20/20 booklet describes "Four Steps Communities Can Do Today" to increase the base.

- Create local and regional vision of the future.
- Enhance local competitive advantages and fix disadvantages.
- Improve key inputs to economic development such as improved worker skills, access to capital, infrastructure and regulatory and tax regimes.
- Measure success and abandon failure.

When public funds are involved in economic development, the booklet recommends the following questions be asked and answered:

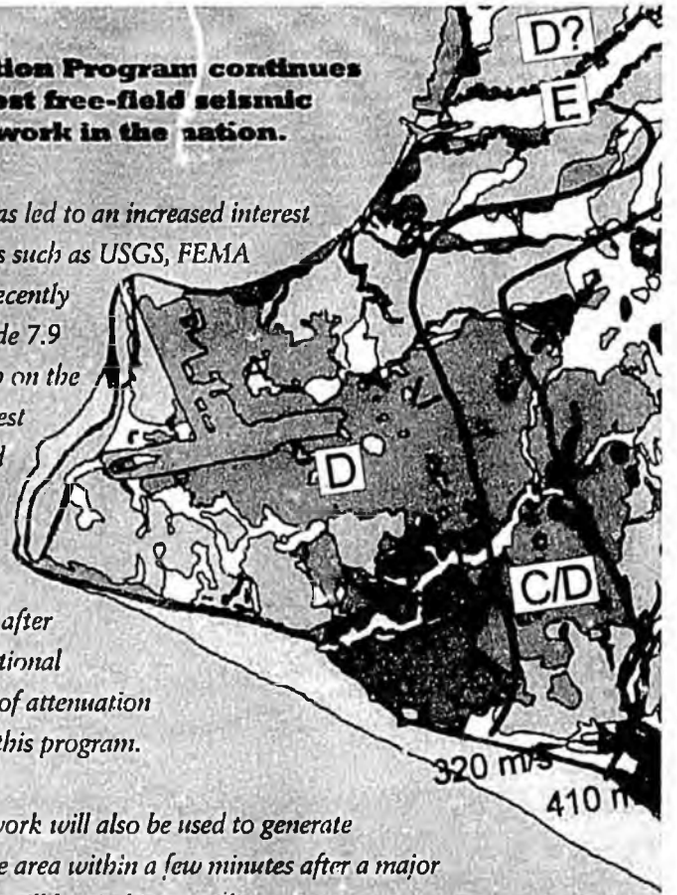
- Is there a market?
- Is there private investment?
- If there is any public investment, is the risk shared and appropriate?
- Are the economics transparent?
- Is there an acceptable business plan?
- Is there a competitive process for the government funds?

ASTF's Role

ASTF's process for assessing technology projects asks and answers these questions before funding is granted.

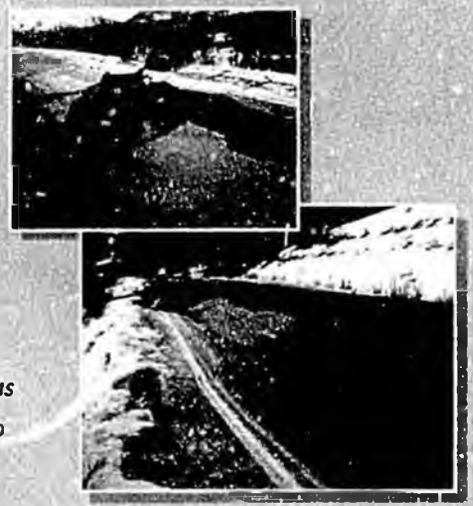
The rest of the annual report describes the activities of ASTF and its partner organizations to help put in place the manufacturing assistance, risk capital and business and investor know-how to grow technology-based firms. By one estimate, Alaska now has 321 technology firms that generates $300 million in revenue. This is still a minor part of the economy but the tech sector – information technology, software, advanced manufacturing – is critical to the competitiveness of Alaska's other basic industry sectors.

The ASTF Microzonation Program continues to operate as the finest free-field seismic instrumentation network in the nation.



The success of the program has led to an increased interest in Alaska by national agencies such as USGS, FEMA and NSF. The network was recently tested by the Nov. 3 magnitude 7.9 earthquake resulting from slip on the Denali Fault– one of the longest continental faults in the world rivaling California's San Andreas Fault. Peak ground acceleration data obtained from the Anchorage network after the earthquake provided additional confirmation to the accuracy of attenuation maps being developed under this program.

In the future, the seismic network will also be used to generate ShakeMaps for the Anchorage area within a few minutes after a major earthquake. Such a capability will be vital in providing emergency managers with a quick picture of where shaking was greatest and what the possible extent of the damage might be.



Dr. John Aho, Advisory Panel Chairman noted that "the Alaska Science & Technology Foundation should be commended for its foresight in originally funding this program for it will have positive repercussions for Alaskans now and in the future. This will continue to be a program emulated by others".

Economic growth is a total of many factors including; innovative products, investment or venture capital, a pool of skilled workers, knowledge of the industry sector in play and a network of individuals with the skills and knowledge to assist in developing ventures.

ECONOMIC GROWTH = Products + Risk Capital + Hi-Tech Workers + Knowledge + KnowHow Network

Recognizing these factors are all critical in enhancing the state's economy, ASTF set about to create organizations that add to the entrepreneurial infrastructure of the state.

ASTF has supported the development of innovative products for existing companies or for new ventures as part of its mission for 14 years. ASTF has funded partner organizations to address shortages of venture capital, IT workers and manufacturing and business knowledge.

Alaska Fresh Cut–Update
In its fourth year of business, Alaska Fresh Cut is continuing to replace imports of prepared vegetables and salad mixtures. Using Alaskan produce whenever possible (imported produce during the winter) Alaska Fresh Cut produces prepared value-added salads and cut fruit for distribution in Alaskan markets. Employing nearly 50 full-time workers, its sales exceed $2.5 million per year.

CAPITAL

About seven years ago, ASTF seeded a new financial institution in Alaska to address the need for venture capital. Through a Request for Proposals, ASTF sought to form a Business and Industry Development Corporation (BIDCO) to fill a need for investment capital to fuel the entrepreneurial activity.

Alaska Growth Capital was formed with Arctic Slope Regional Corporation and ASTF each investing $3 million. Now the institution has over $11 million in funds it is investing in a wide variety of ventures.

MANUFACTURING

Several years ago, ASTF partnered with the US Department of Commerce to sponsor a Manufacturing Extension Center to assist the manufacturing sector of Alaska's economy. This lead to the establishment of the Alaska Manufacturers' Association. Services provided include helping manufacturers: find partners, create business plans, design and implement quality programs and improve cost systems. In addition, the Association conducts research in the Ketchikan Wood Testing Center for the establishment of quality and strength specifications for Alaska lumber products. It conducts the lumber grading program for Alaska's sawmills and the salmon grading program for fishermen's co-ops in the state.

Fish Oil –
Fish oil/diesel fuel mixtures were demonstrated to effectively burn in diesel power generation units in the UniSea fish processing plant. The fuel yielded emissions below the regulatory limits with no adverse wear.

BUSINESS KNOWLEDGE

The last three years has seen the beginning of Alaska's InvestNet, a non-profit organization aimed at bringing together the entrepreneurs with potential investors. The approach is to highlight and showcase the businesses searching for investment capital to investors interested in that type of venture. InvestNet also conducts training programs around the state on timely topics important to emerging companies.

IT SHORTAGE

The Alaska Hi-Tech Business Council is an organization of companies in the information technology (IT) industry. The Council has worked with ASTF over the years on several activities. Recently it participated with ASTF, the University of Alaska, Charter College and the industry to define the needs of Alaska companies and government agencies for skilled IT workers. When the needs were defined, the recognition was reached that there was a shortage of trained individuals completing training in Alaska.

Science Lecture Series –
Over 7,600 people attended the presentations, a 48 percent increase over the previous year.

Education projects–
K-12 Teacher Grants – Reports indicate that 86 percent of students involved in these projects have greatly increased interest in math, science, or technology. 85 percent have increased achievement.

THE TEAM

The matrix below illustrates how the ASTF team meets with requirements for economic development. Each has a primary role (**XX**) and secondary roles (XX) with some overlap. This breakdown of roles and responsibilities helps applicants find the assistance they need as they move from product inception through manufacturing and commercialization.

Team Member	Innovative Product	Knowledge	Hi-Tech Workers	Venture Capital	Knowhow Network
ASTF	**XX**				
Alaska Growth Capital				**XX**	
Alaska InvestNet				**XX**	**XX**
Alaska Manufacturers' Association		**XX**			
Alaska Hi-Tech Business Council			**XX**		

ASTF has invested in four other partnership organizations to build infrastructure for technology-based economic development:

- $3 million to capitalize Alaska Growth Capital (BIDCO) matched by $3 million initially (now $11 million)
- $1.6 million to Alaska Manufacturers' Association matched by $2.5 million
- $0.6 million to Alaska InvestNet matched by $0.5 million
- $0.7 million to Alaska Hi-Tech Business Council matched by $0.6 million

The Team

ALASKA Growth Capital

Alaska Growth Capital (AGC) is a commercial lending institution that is licensed and regulated by the State of Alaska. AGC makes loans to viable businesses that are deemed "too risky" by banks. It also provides financing for all business needs, including construction, lines of credit, permanent working capital, equipment and leasehold improvements. AGC was started in 1997 with a $3 million ASTF grant and $3 million in match from Arctic Slope Regional Corporation.

The AGC mission includes reaching out to nontraditional borrowers, targeting businesses that expand Alaska's economy. They accomplish this through loan services and consulting.

AGC customizes each financial package to meet the specific needs of the applicant. Loans range from $100,000 and up with terms from 1 to 15 years. Interest rates depend on the risk level of the venture. Many loans are guaranteed by the Small Business Administration or USDA Business & Industry. It also can make direct equity investments in businesses. By defining clear exit strategies on this type of investment, its money is retrieved once the company has achieved its financial goals. Characteristics they look for in applicants are: dedicated/experienced management; past performance; economic viability; market strengths; high profitability potential; and, a high potential for growth.

AGC offers two types of consulting services. First, before and after a loan is closed, managerial and financial advice is provided at no cost. It is in AGC's interest to assure the applicant's success. An extensive network of professionals can provide valuable assistance to their clients. Secondly, a unique approach to corporate planning is provided to non-borrowing clients on a fee basis. They help clients develop practical strategies, plans and goals that can be attained – grounded in the realities of the business world.

At year end AGC's portfolio included 27 loans totaling $9,486,254. Nine of these loans are guaranteed by SBA or USDA. These businesses generated $10.25 million in payroll.

ALASKA HI-TECH BUSINESS COUNCIL

Founded in 1996, the Alaska Hi-Tech Business Council (AHTBC) is the statewide computer and information technology industry trade association. With a mission to enable the growth and development of the technology sector in Alaska, the AHTBC provides member services and partners with other organizations in economic development initiatives.

The AHTBC in 1999 identified workforce development as a critical need for growth in the sector, which has experienced a significant shortage in technical workers. In a partnership with the ASTF, the council formed the IT Careers Consortium (ITCC) in 2000 to respond to the critical need for these technology professionals statewide – to increase both the quantity and quality of the tech workforce.

Cooperative programs with ASTF, technology industry and other government partners delivered nearly $2 million in training for information technology (IT) professionals in Alaska in 2001-2002.

One of these AHTBC / ITCC programs, partnered with the Anchorage & Mat-Su Workforce Investment Board, provided special federal grants to incumbent workers for updating and advancing their skills. The "H1B" grant program was established by Congress to reduce the number of foreign workers with H1B visas in high technology careers and by providing advanced training to Americans. The Alaska program has evolved as a national model.

From August 2001 through July 2002, the AHTBC approved 348 H1B applications from tech professionals for $715,048 in grants, representing 40 percent of training costs. Overall, 95 employers invested the 60 percent matching funding of $1.05 million for staff improvement. A total of 19 training providers delivered courses ranging from Microsoft certifications to Cisco, Oracle, GIS, telecommunications and other applications.

Data collected from the program also indicate that the average computer-training-hour cost in Alaska is $50.85, and that Alaska IT professionals currently earn an average salary of $23.68 per hour (generally on par with the overall national average in the industry).

Another partner in the $2.4 million H1B program, Mat-Su College, developed a new, two-year Computer Systems Technology AAS degree program that was approved by the University of Alaska Board of Regents in September 2002. The new degree program incorporates four computer industry certifications (A+, Net+, CCNA, MCSE) with soft skills, standard business courses and IT theory. It's the first such degree program in the state, and can be replicated at other campuses in the university system.

An ASTF-sponsored IT Fellowship program also invested $141,000 in training and development for new entrants into the industry. Fellows are matched with employers who mentor and guide them over a one-year period that leads to full-time, permanent employment.

As part of AHTBC's ongoing research on computer and IT skills demand, an industry survey during the summer of 2002 identified a series of employment and workforce trends in the Alaska information technology industry. Among them: the skills in highest demand are database developers and administrators (89 percent of employers citing as high or moderate need); network design and administrators (89 percent); technical support (82 percent); programmers and software developers (82 percent); certified LAN/WAN administrators (81 percent); and, information & data security specialists (81 percent).

IT vacancies over the year were projected at 498 jobs among 78 organizations. The Alaska Hi-Tech Business Council estimates that demand (vacancies) for IT professionals for 2002-2003 will total 700 to 950 positions, with a majority of these found in non-IT-related organizations. A total of 102 responses were included in the survey, with 75 percent related to the computer and technology industry, and 25 percent representing non-IT companies with a demand for technology workers.

From ASTF's original investment in the workforce development program, additional partnerships have been leveraged with the Information Technology Association of America, the US Dept. of Labor (Employment & Training Administration and Women's Bureau); the Computer Technology Industry Association (CompTIA) and the Anchorage & Mat-Su Workforce Investment Board.

During the year, the AHTBC joined with five other industry-based workforce groups in the formation of the Alaska Industry Skills Coalition, to work on issues of common concern to the information technology, hospitality, construction, health, seafood and oil and gas industries. The multi-sector industry workforce coalition is the first of its kind in the nation. Planned for late 2002–2003 is a multi-industry media project to promote Alaska careers, with the goal of retaining talent in Alaska.

ak/ma

Alaska Manufacturers' Association

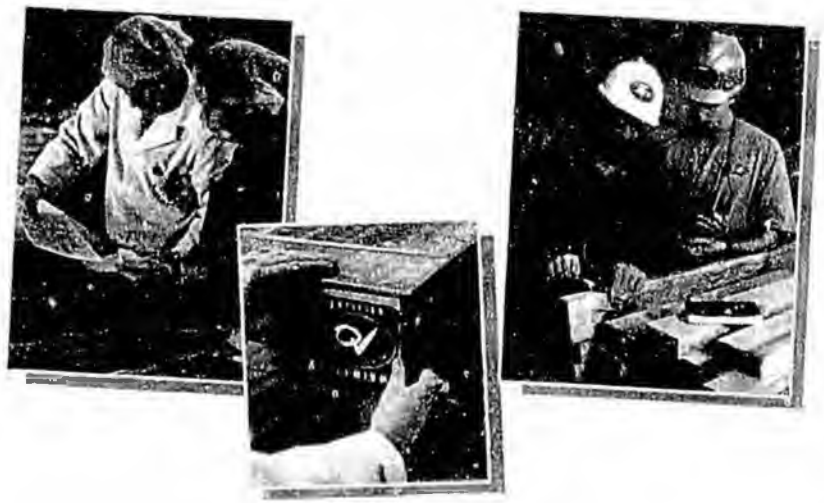
AKMA's Mission is "to strengthen the global competitiveness of Alaska-based manufacturing by providing assistance to small manufacturing firms in adopting new, more advanced manufacturing technologies, techniques and best practices. Further AKMA seeks to help remove barriers and encourage the development of systems that will support new formation and growth of manufacturing companies."

AKMA is the US Department of Commerce NIST Manufacturing Extension Partnership Affiliate for Alaska. This federal program helps fund centers to work with small manufacturers around the country and has had a significant impact on firms it has worked with. AKMA also is supported by funds from the US Department of Agriculture, the US Forest Service and fees for client assistance.

Manufacturing in Alaska has some unique characteristics. First, it is a very small activity compared to other states in total size and in percent of the economy. There are only about 100 manufacturers in the state with more then 20 employees. Second, two thirds of manufacturing employment in Alaska is in seafood processing. Distance and logistics are also huge barriers. Alaska has a world renown, unique resource in its seafood, and any strategy to help manufacturing should logically include a focus on that sector. In seafood the focus is on salmon. Farmed salmon has taken much of the market away from Alaska wild salmon. AKMA is working with salmon processors and fisherman in four regions to define a quality program, teach people the requirements, create an organization to monitor conformance to standards, create a quality brand and market the quality program to buyers. Alaskan wild salmon has many intrinsic properties that could make it a highly sought after product if it can be produced with a consistently high quality. Over 100,000 pounds of salmon were marketed last year under this program and at least one producer was able to get a premium price for its product.

Another area of focus is forest products. Forest products, while never the size and importance of seafood, also has some unique advantages, particularly some of the native woods that have both excellent decorative and structural properties. The lumber strategy is to help sawmills increase the value of the products. This effort started by helping mills produce graded lumber (on-going for three years), then worked with them to install dry kilns, and now while continuing earlier efforts is also working with the mills to help them learn how to use their kilns and other equipment more efficiently. Limitations on log supplies limit the size of mills but increasing the value of each log increases the success of the operations. At the same time, AKMA is testing Alaska wood species for strength values. This will increase the strength values in the building code and thus increase the value of the lumber and engineered wood products. AKMA is also helping companies produce engineered wood products, and assisting in finding new markets for products. The impact of all of these efforts can be significant. One mill has noted that each log now produces twice the revenue it did two years ago.

AKMA is also working with a variety of other manufacturers in Alaska, from small start-ups to larger well established companies. It is helping them find partners, create business plans, design and implement quality programs and improve cost systems.



Alaska InvestNet's (AIN) purpose is to create wealth and jobs. They accomplish this by linking Alaska's most talented and resourceful individuals to local financial support for their diverse enterprises, creating a natural synergy and successful business development. Alaska private equity investments keep entrepreneurial talent and businesses in Alaska, and entrepreneurs build fresh economic infrastructure with sales, new jobs and enduring wealth. AIN fulfills its purpose by providing education, facilitating business relationships, catalyzing the formation of venture capital in the state and fueling development. The businesses in AIN's current membership cumulatively generate $5 million in sales, employ 100 and are increasing in value over time.

In the mid-1990s ASTF began mobilizing forces to create a venture network – a logical extension of the mission to build an entrepreneurial economy. AIN was established in 1998. The AIN program focuses on educating entrepreneurs and investors on private equity financing issues and linking entrepreneurs with service providers who assist them to make their businesses attractive to investors.

Current strategy is to deliver quality core educational services and building business infrastructure in Alaska. This is accomplished in many ways. The signature event is the Capital Investment Conference held in early spring. It combines AIN's educational and networking activities with the Early Stage Venture Forum showcasing Alaska's top 10 companies seeking investments. Other activities include Venture Breakfasts and Investor Dinners, featuring entrepreneur's presentations.

HIGHLIGHTS FROM THIS YEAR:

The software and training company PeopleMatter, accompanied by InvestNet intern, Jeanne Huangli, made two successful presentations to Alaska investors. They received capital from a variety of angel investors and are currently attracting venture capital interest from the Pacific Northwest.

The character education program Tools For Life created by Chris and Vashti Young, was officially launched. A significant sale was made to a small country that purchased Tools for Life as the fundamental curriculum for all their schools.

GreatLand Laser licensed their first product last year and is on the way to licensing a second. In November, GLL began demonstrating their runway lighting system at the Ted Stevens International Airport.

In 2003, Alaska InvestNet will formalize its Entrepreneur in Residence program. Last year, AIN placed 10 InvestNet interns in the private sector. Donations support interns in Juneau and Anchorage, fund seminars and events, and help subsidize the KnowHow Network database. Special thanks to the Rasmuson and Kozmetsky Foundations for ongoing assistance.

With the help of Alaska Science & Technology Foundation, Alaska InvestNet is now a non-profit, statewide corporation with an active governance board.

We look forward to fueling Alaska's entrepreneurial economy in 2003.

Even though no new technology or knowledge projects were initiated in 2002, many ongoing projects attained high degrees of success. This section summarizes some significant accomplishments for FY02. Some covered in recent years are also briefly updated. Additionally, K–12 education projects, the university lecture series and K–12 high-tech training projects are updated.

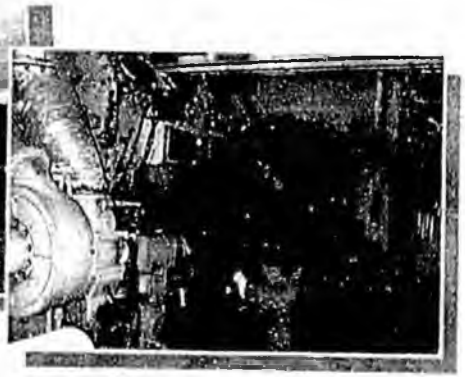
2002 Program Updates

UNISEA FISH OIL DEMONSTRATION

UniSea, Inc., a fish processor in Unalaska, completed testing of fish oil as a supplemental fuel for diesel engines. Partially funded by ASTF, the UniSea Fish Oil Demonstration Project showed the practical use of blended fish oil and diesel fuel in one of the six 2.3-megawatt engine-generators UniSea operates to serve its seafood processing facilities in the Unalaska/Dutch Harbor community in the Aleutian islands with electricity.

Approximately 3.5 million gallons of fish oil are currently produced annually from pollock processing operations in Unalaska. More is produced in other locations in the Aleutian Islands, Kodiak and the Southeast coast.

Unalaska/Dutch Harbor, Alaska, Seafood Processing Facility of UniSea, Inc. (October 1999)



UniSea Powerhouse Operators, Eraclio Benitez, left and Shane Elliott, right, take engine readings during Emission Source Testing (October 2001)

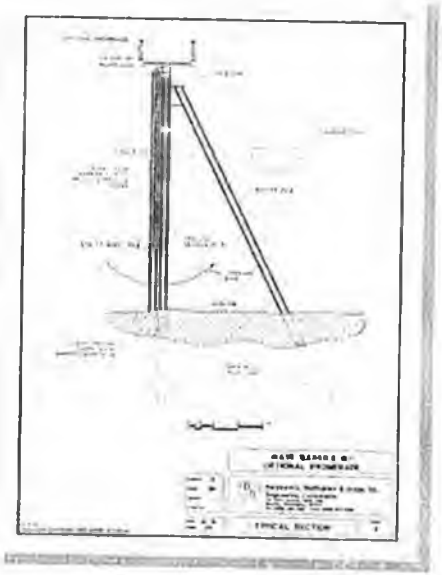
An independent contractor-tested engine exhaust emissions over a five-day period with fuel blends ranging from 100 percent diesel to 100 percent fish oil. Results yielded up to 30 percent reductions of airborne particulate matter and carbon monoxide and 45 to 90 percent reduction in sulfur dioxides with the use of blended fuel. The engine has operated normally throughout the testing with no apparent adverse effects from the change in fuel. The demonstration will next determine any long-term affects on the generators.

WAVE BARRIERS

An ASTF knowledge project has had significant impact and resulting cost savings for Alaska marine construction. Dennis Nottingham, president of Peratrovich, Nottingham and Drage, applied for a grant to establish the relationship between the theoretical design calculations, small-scale model tests and a full-scale installed wave barrier. This allowed improved designs for this type of construction. The results have been used to design many structures and have resulted in design awards for two structures.

A permeable wave barrier is a pile-supported series of panels that form a wall oriented usually vertically and blocks wave propagation. It is permeable because it is open at the bottom, allowing water to move under it, minimizing environmental impact.

Because of its design, the wave barrier requires less material to build and decreases disturbance of the sea floor. This saves money and reduces impacts on the environment.



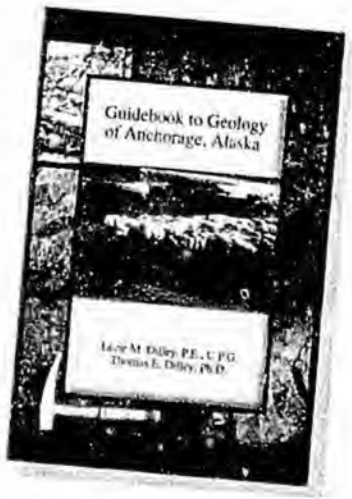
Previous work resulted in incomplete data which led to in an overly conservative estimate for construction designs. This study filled in the data gaps and permitted more precise designs. Installations have been completed in Alaska at Glacier Bay and Valdez, and in other parts of the US, including Pier 66 and Shilshole Marina in Seattle.

The Bell Street Pier in Seattle won the Deep Foundations Institutes 2001 Outstanding Projects Award Program's special recognition ward.

Inquires have been received from many places outside the US including most recently from Trinidad.

GEOLOGY GUIDEBOOK TO ANCHORAGE

The authors of this guidebook recognized the need for the book from their work with geologists, city planners, biologists, developers, engineers, students and others over the years. A guide did not exist for professionals or lay people with an interest in the geology and geological history, or consequences of urban development of the Municipality of Anchorage from the Knik River to Girdwood. The authors wrote this guide to bridge the gap between highly technical manuscripts and non-technical light reading. The guide is the result of intensive literature research and extensive field work to select, examine and describe the various localites around Anchorage which best illustrate the variety of geological processes and hazards, and landforms.



The guide is 251 pages and is available in local bookstores and through Amazon.com.

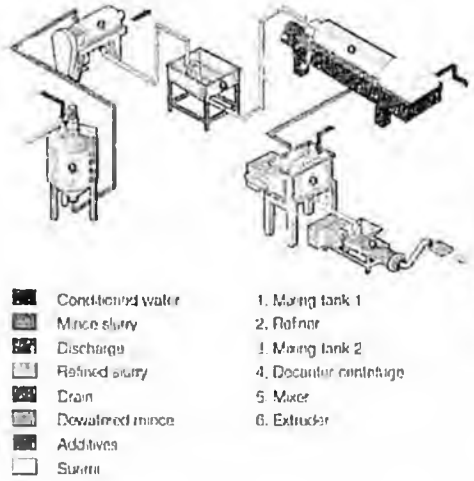
NEW DECANTER SURIMI PROCESS

ASTF helped fund a project in Kodiak that demonstrated a new process to produce surimi, a highly prized product made from trimmings and waste from bottom fish processing (Pollock, cod, arrowtooth flounder, etc). The process proved to be simpler, less expensive and adaptable to smaller operations. Mock crab meat is one product made from surimi.

The application has resulted in $150 million in gross revenues to the industry in 2002. Japan dominates the market in consumption of surimi.

The new process employs centrifugation to remove the water and lower the moisture content to the critical range for high product quality. Alfa Laval, a process equipment supplier, developed the "decanter".

Previous methods for preparation of surimi used large quantities of fish waste and large amounts of process water. It is capital intensive to set up production. The industry needed a process that could be scaled more closely to the volumes of protein material available at Alaskan processing plants.



EQUIPPING ALASKA STUDENTS FOR SCIENCE & TECHNOLOGY CAREERS

Students in Alaska are learning and applying science, math and technology through ASTF Direct Grants to Teachers classroom projects. This program provides Alaska K-12 teachers with support and up to $5,000 for innovative, hands-on classroom projects in math, science and technology.

In one Fairbanks middle school, social studies teacher Carl Addington, developed a teacher and student self-primer for applying geography information systems (GIS) data to create problem-solving information applicable to Interior Alaska. Addington's students digitally mapped the elevation of selected areas of the Tanana Valley using GPS receivers and altimeters, and using raw data of auto thefts from the Fairbanks Police Department created a Crime Analysis Study showing where and at what time of year auto thefts occurred in Fairbanks.

Sharon Gherman, ASTF's Outreach Administrator, reports that in the 2001-2002 school year, more than 2,700 students participated in ASTF teacher grant projects statewide. During this time, ASTF teacher grantees reported increased or greatly increased interest in math, science or technology by 86 percent of their students.

Even more importantly, the same teachers reported increased or greatly increased achievement in the sciences by 85 percent of their students. One teacher commented: "Since the beginning of this project, all but 10 percent of our students have passed standard areas in science and some have even completed two. Considering there are only six levels in our curriculum from K-12 that is a significant improvement in science standard achievement... interest and involvement is greatly increased among our student body."

Students in Alaska researched boat hull designs in relation to riverbank damage; used gases to create neon signs while studying physics; studied bill mutations in local chickadee populations; worked on DNA mapping; learned how groundwater becomes polluted by what we put on or in the ground; built and entered competitions with robots to learn higher-level thinking skills. They studied the relationship between soil moisture and birch tree sap production; performed volcanic ash analyses; and, built a fully-functional observatory.

SHELLFISH HATCHERY UPDATE

The Qutekcak Shellfish Hatchery in Seward provided five species of bivalve seed stock to Alaska's mariculture industry and restoration projects over the last year. Demand for oyster seed was met, with just over five million shipped to the state's farmers. Half a million littleneck clam seed were shipped, also meeting the demand. Geoduck clam and rock scallop seed, both products of ASTF funded research, were shipped in limited commercial quantities for the first time, at 47,000 geoducks and 3,500 scallops. A trial shipment of cockles went to Metlakatla.

Demand for all species has increased markedly over the past year as the industry and demand grows. Farmers are recognizing the profit potential demonstrated in growout trials of new species, and are now acquiring the necessary permits for those species. Difficulty in acquiring permits, especially for on-bottom activities, has previously been a limiting factor, but regulations are being put in place which eases the process.

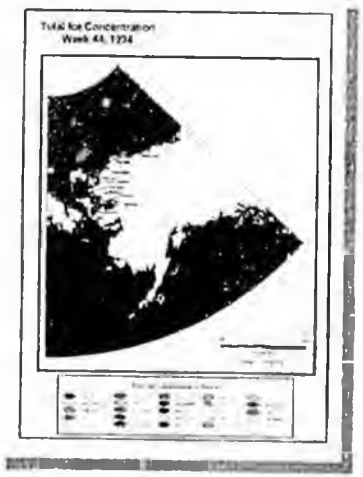
Restoration and enhancement programs continue to provide some market for seed, which is also expected to expand. Littleneck clam and cockle seed will go to existing and new programs in Seldovia, Nanwalek, Port Graham and Tatitlek. Others are in the permitting process. The Metlakatla tribe is starting restoration and farming projects, and plans to purchase several million clam and considering a million cockle seeds. TDX Corporation has taken the lead in organizing some Bering Sea communities to explore the potential for shellfish farming in their area. Some seed have been purchased and growout trials are underway. Results are encouraging, but not yet quantified.

Qutekcak Hatchery – *now selling five varieties of shellfish to producers. Oysters, littleneck clams, rock scallops, cockles and geoducks were identified by the industry as the needed species – now they are all being sold.*

THE ALASKA SEA ICE ATLAS

The Alaska Sea Ice Atlas, led by UAA's Dr. Orson Smith, is intended to aid mariners, regulatory agencies, engineers and disaster response planners in the assessment of sea ice impacts on current and future logistical operations and construction works.

Precision and comprehensive coverage of reported ice conditions has increased during the last 17 years through use of satellite imagery and an expanding network of aerial, shipboard and coastal observations. The US National Ice Center (NIC) has recently compiled weekly summary ice reports from 1972 to the present (NIC 2001). The US National Weather Service also has archived periodic ice reports at different scales (NWS 2001). Furthermore, geographical information systems (GIS) and computer database software improvements make archiving, analysis and portrayal of geospatial information, much more practical to distribute as digital products via electronic media, especially on the Internet. The Alaska Sea Ice Atlas applies these new resources to improve the service offered by the earlier work. It incorporates NIC digital reports, the Cook Inlet Ice Atlas, meteorological data and simulated ice-related parameters.



GIS software is directly applied for planning and design decisions by computing geo-referenced parameters derived from a geospatial database. Availability of this service on the Internet assures streamlined transfer of technology to the widest possible population of ice information users.

TECH LEADERS FOR THE 21st CENTURY

Tech Leaders for the 21st Century, funded by ASTF, is a partnership between the Kodiak School District, the Kodiak campus of the University of Alaska and local Kodiak Native organizations. Now approximately 90 percent complete, the project has been an excellent example of investing in Alaska's youth to increase Alaska's knowledge workers and assist local economic development.

One hundred refurbished computers were placed in the villages in and around Kodiak and students are receiving training that could lead to certification as a Microsoft Certified Systems Engineer. Six students have already passed the A+ hardware certification exam. All students in the web design program have prepared a commercial web page, and four of them have been hired by local businesses to design web pages. Kodiak students have all completed a minimum of 200 hours of computer mentorship.

The A+ program has been so successful the Kodiak School District has elected to fund the program for FY03. Discussions are being held with other Alaska school districts to both replicate this project and initiate new student technology projects around the state.

FY02 Funds Expended by Sector

SECTOR	$ AMOUNT	# OF GRANTS
Agriculture	$ 85,826	3
Energy	40,300	1
Engineering	102,118	2
Environment	37,687	3
Forestry & Wood Products	4,871	1
Fisheries & Aquaculture	396,065	11
Infrastructure for Economic Development	386,113	4
K–12 Teachers & Information Technology	91,517	60
Mining	165,631	5
Public Health & Safety	75,614	4
Software Development	166,920	3
TOTAL	$ 1,552,662	97

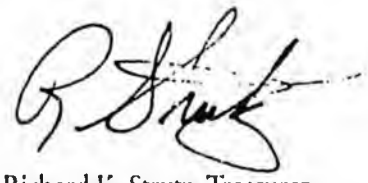
FINANCIALS *Alaska Science & Technology Endowment Fund*

Total Fund Balance on June 30, 2002	$ 101,019,000	

FISCAL YEAR 2002	Actual	Legislative Appropriation
EXPENDITURES FOR ASTF PURPOSES	1,552,662	9,214,200
Grants	986,734	1,277,700
Operations	2,539,396	10,491,900
Subtotal Expenditures		
LEGISLATIVE APPROPRIATIONS OF ASTF EARNINGS FOR NON-ASTF PURPOSES		
University of Alaska	876,667	2,630,000
Alaska Aerospace Development Corporation	185,067	566,200
Subtotal Legislative Appropriations	1,061,734	3,196,200
TOTAL EXPENDITURES & LEGISLATIVE APPROPRIATIONS	$ 3,601,130	13,688,100

At its October 2001 meeting, the Board voted to distribute available funds prorata to ASTF, UAF and AADC.

FISCAL YEAR 2003	Projected	Legislative Appropriation
EXPENDITURES FOR ASTF PURPOSES		
Grants	4,890,000	9,214,200
Operations	1,000,000	1,394,400
Subtotal Expenditures	5,890,000	10 608,600
LEGISLATIVE APPROPRIATIONS OF ASTF ENDOWMENT FOR NON-ASTF PURPOSES		
University of Alaska	2,315,000	2,315,000
TOTAL EXPENDITURES & LEGISLATIVE APPROPRIATIONS	$ 8,205,000	12,923,600



Richard K. Strutz, Treasurer

Alaska Science & Technology Foundation 2002

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1/29/03

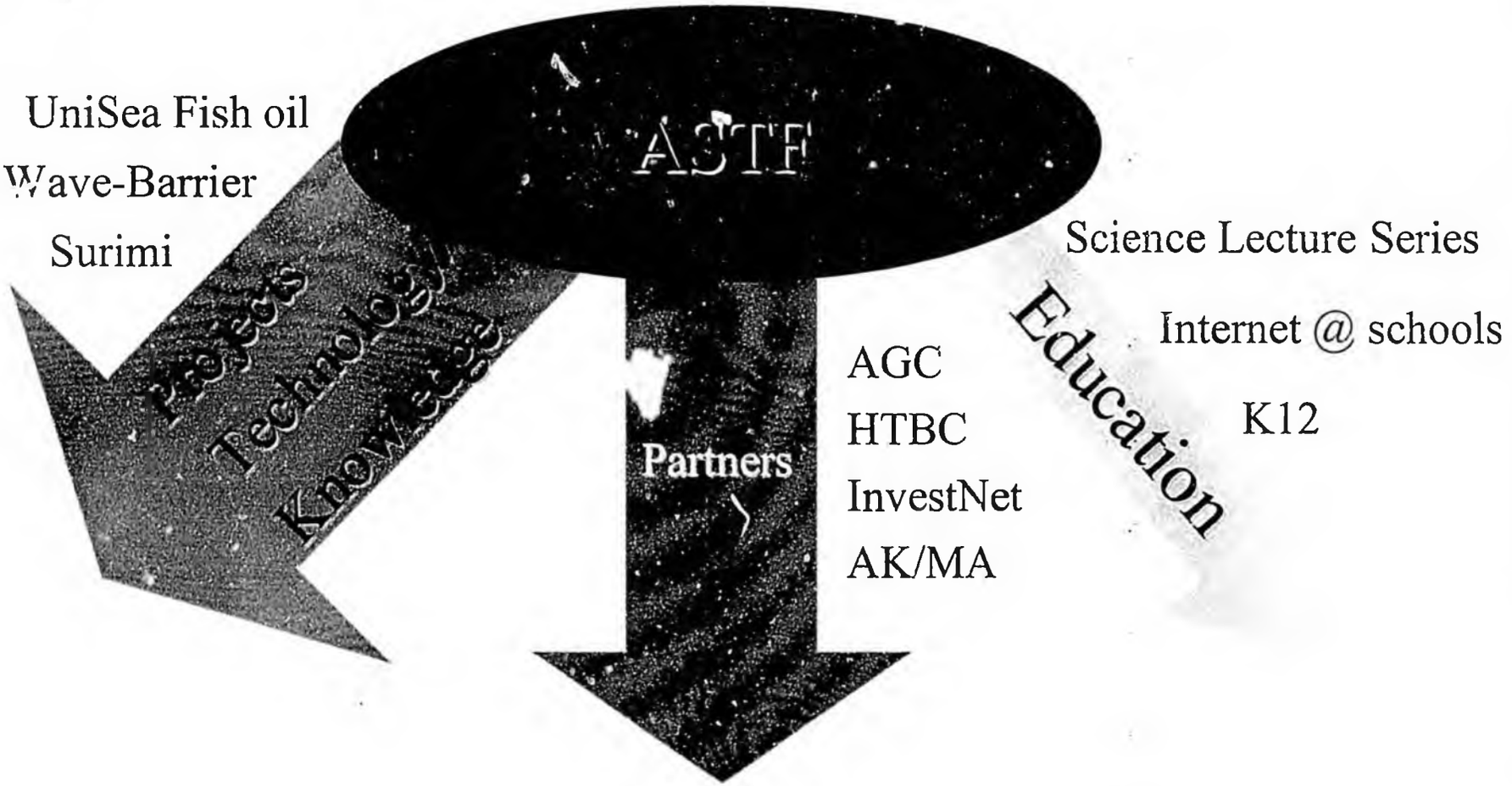
Alaska Science & Technology Foundation

Presentation to the House Finance Committee

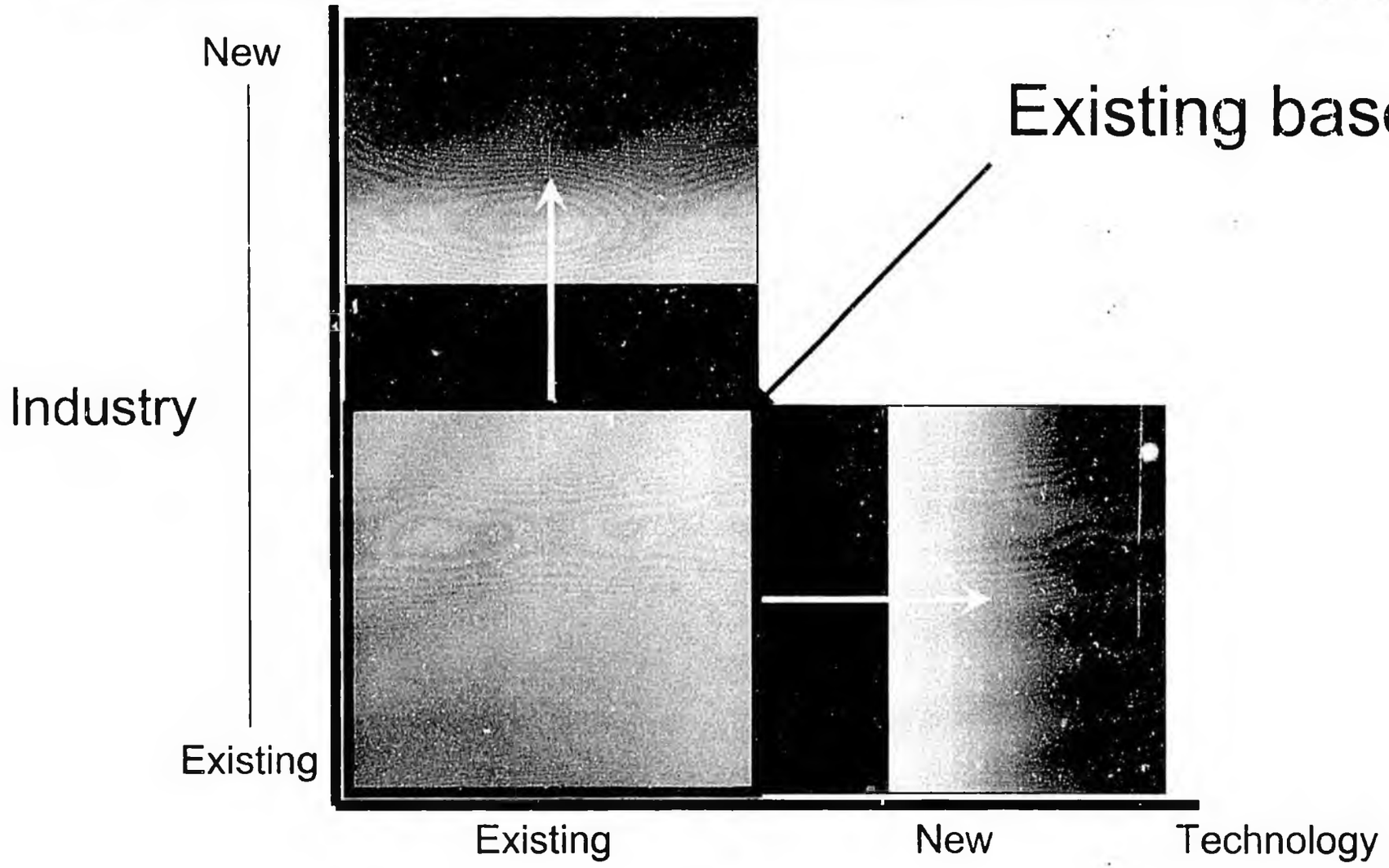
Hans Roeterink – Executive Director

January 29th, 2003

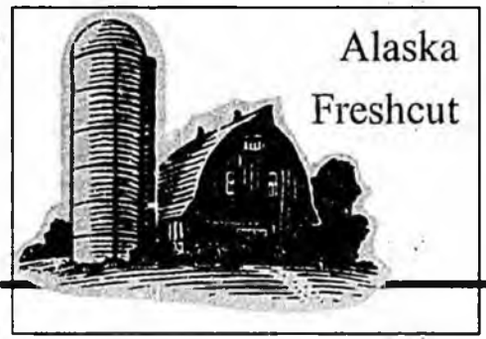
ASTF, who are we?



ASTF's goal
Growing Alaska's Economic Base



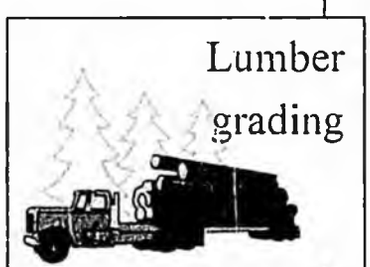
Examples

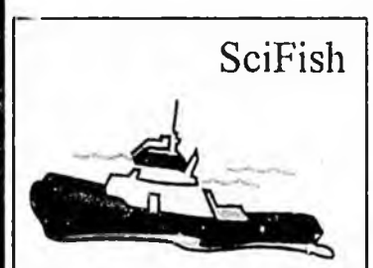


New

New base

Industry



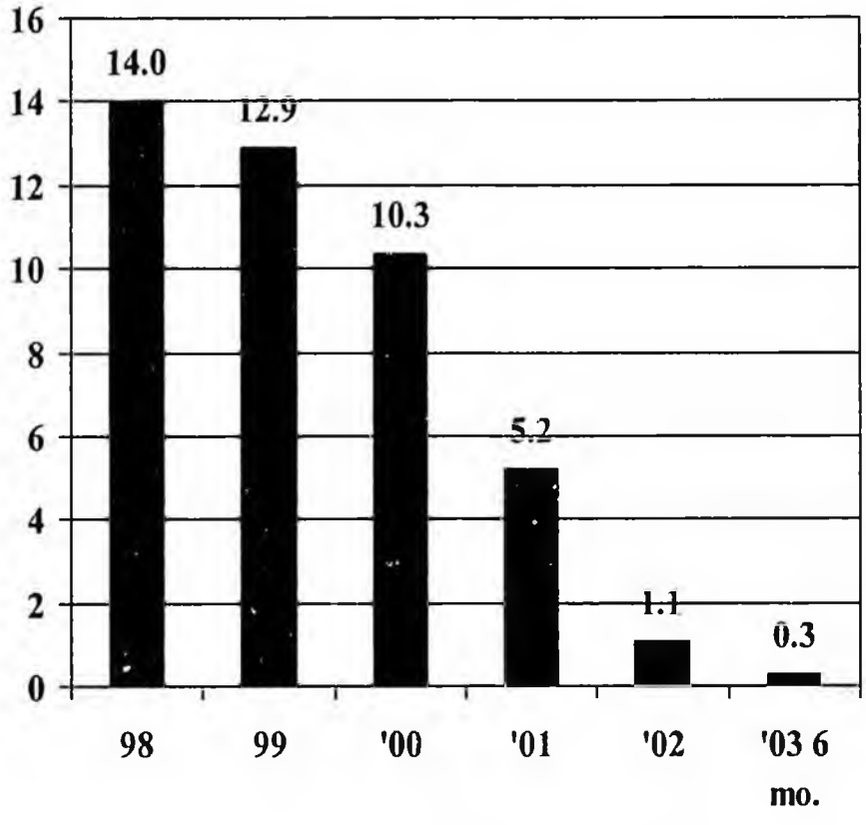


Existing

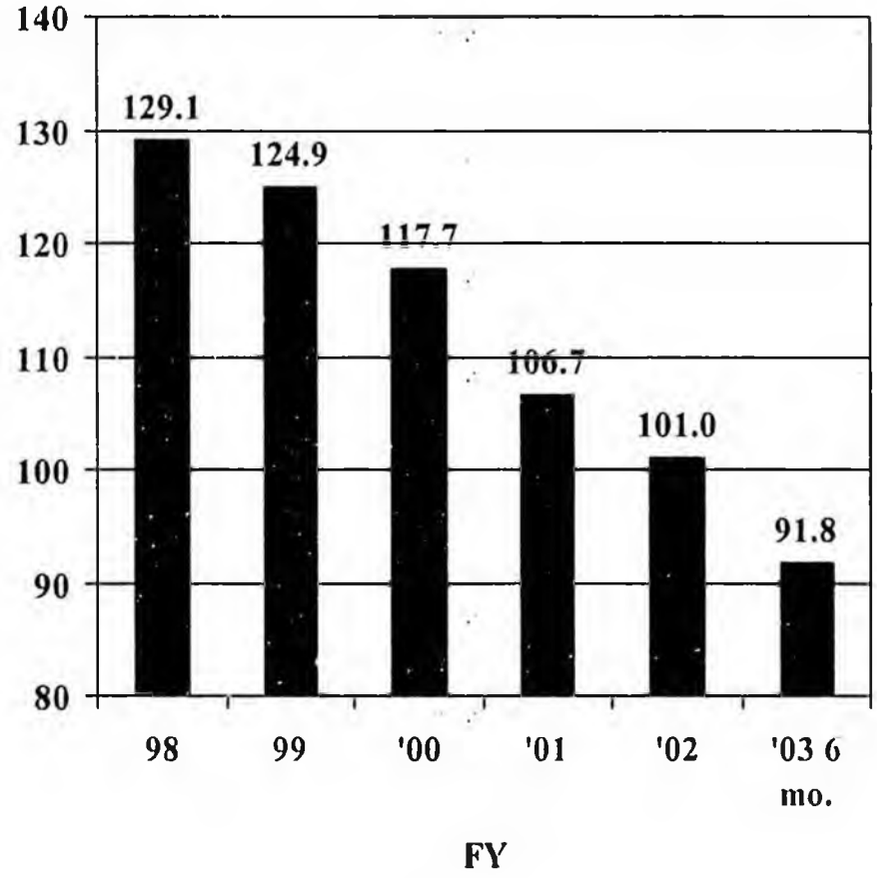
Existing New Technology

Alaska Science & Technology Endowment Fund

Statutory Net Income ($MM)



Fund Balance ($MM)



ASTF Funding

- Feb. 2002 ASTF Board approved 5% of market value concept to limit distributions:
  - Smooth year-to-year distributions
  - Inflation proof the endowment over long-term
- Adjustments need to be made in the budget and statutes to address this issue
- Legislature should fund UA appropriation from other sources

1/29/03

ALASKA MANUFACTURERS' ASSOCIATION
Outline of 2003 Alaska Quality Seafood Program
15 January 2003

The 2002 salmon fishing season was a period of accomplishment for the Alaska Manufacturers' Association's (AKMA's) Alaska Quality Seafood Program (AQSP). The Program, which AKMA began in Cordova in 2000, with two small processors, expanded last year --

* Cordova: the two small processors continued in the Program, and two of Cordova's large processors joined up; of these big firms, one has already achieved AQSP-certified status

* Kenai: three processors underwent their first year of AQSP, and it was a fruitful season of experience and training

* Naknek: one small processor participated in AQSP; this was important, because Bristol Bay has the largest sockeye salmon fishery in the world, but it has some of the more difficult quality-related problems; AQSP now has a toehold in the Bay

Some of the findings of the 2002 AQSP were --

* a typical salmon processing company will require two years of intensive AKMA assistance, in order to achieve AQSP-certified status; some companies might require more assistance, others less

* in order to ensure that the customers receive top-quality seafood, it is necessary to monitor the temperature of the products in transit to the customers

* the parameters for the AQSP product grades might require some modification, based on product form and intended market; for example, skin color and scale retention are important to the buyer of H&G salmon, but not to the buyer of fillets

* industry interest in AQSP is growing all throughout coastal Alaska; AKMA has received inquiries from Chignik, Kodiak, and Southeast, as well as other companies in Bristol Bay

* because of that expanding industry interest, and the finite nature of AKMA funds, it will be necessary to require that participating processors share in the cost of AQSP

One of the primary principles of AQSP is that there exists in the USA a significant market for premium-quality Alaska salmon, and that this market is less price-sensitive than are the traditional markets. That is, this "high-end" market is quality-driven, rather than price-driven. This principle was supported by AKMA investigations during 2002, and by the members of AQSP's Advisory Group. AKMA formed the Advisory Group in the second half of 2002 -- its members include a harvester, a small processor, a large processor, and representatives of companies that are successful in premium-level food marketing.

Finally, AKMA's AQSP website is about to be launched -- it will serve both the producing and consuming ends of the salmon food chain. This combination of "push" and "pull" mirrors the overall approach of AQSP itself, and maximizes its visibility, utility, and chances of success.

In the upcoming 2003 season, AKMA intends to adjust AQSP, to better meet the needs of the industry --

* Slightly less assistance to Cordova processors

* Increased assistance to Cook Inlet processors

* Increased assistance to Bristol Bay processors

* Start-up of AQSP in Chignik

* Possible start-up of AQSP in Kodiak, Southeast, and/or other areas

* Expansion of AQSP to include harvesters who process and market their own catch

* Combined technical & market research, to address possible modification of product grades, depending on product form and market

* Experiments in tracking of temperature of products in transit; AKMA will work closely with Mark Buckley of Kodiak, who has important experience

* Promote AQSP among the premium-level American seafood markets, both retail and foodservice, in order to generate demand

AKMA is currently --

* Quantifying the 2003 demand for AQSP within the Alaska industry, so that we can use grant funds most effectively, and require an appropriate amount of cost-sharing from the participants

* Designing AQSP's 2003 performance measures, which might include -- increased number of harvesters, increased number of processors, more fisheries participating in AQSP, improved capabilities among companies that have some AQSP experience, finding solutions to new questions (e.g. - product standards), examining the temperature effects of shipping, and generating awareness and value of AQSP in the marketplace

Therefore, AKMA perceives a clear and definite need for at least the same amount of funding that we received in 2002, and if at all possible, an increase.

Alaska Manufacturers' Association
ALASKA QUALITY SEAFOOD PROGRAM

aggregate statistics from the 2002 season

regions: Copper River (CR), Cook Inlet (CI), Bristol Bay (BB)

plants: 9

tenders or buying stations: 6

fishermen: 66

round pounds delivered: 306,134

finished pounds certified: 96,137

Notes --

(1) Tenders are used in CR and BB, buying stations are used in CI.

(2) Finished pounds include both H&G and fillets, which have very different yields.

(3) 2002 was AKMA/AQSP's third year in CR, and its first year in CI and BB.

(4) In CR (Cordova), 2002 was the third year for the two small processors, but only the first year for the two large processors.

After the 2002 fishing season had ended, AKMA began an aggressive effort to promote AQSP in the marketplace. This is because the previous years (with only two small processors in Cordova) did not yield a volume of product sufficient to begin credible contacts with customers. In fact, even the 2002 volume can be considered useful only for a qualitative (vs. quantitative) market assessment.

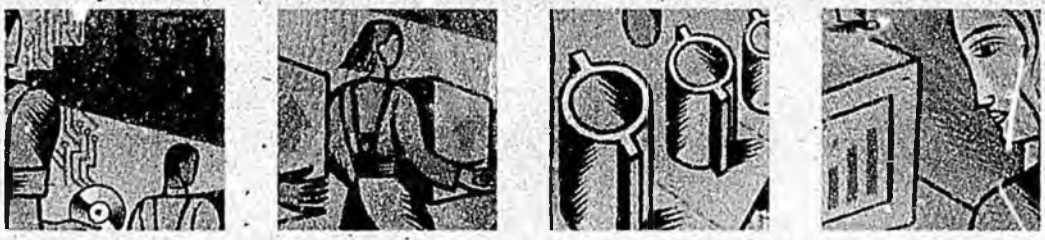
This is not surprising. AKMA expects that almost every company will have start-up difficulties in their first season of AQSP. Also, the Program must be tailored to meet the characteristics of each region's fishery.

To date, not all certified product has been sold. Anecdotal reports suggest that customers are willing to pay a 0-5% premium for certified product. AKMA maintains active contact with its participating processors, in order to monitor the market.

AKMA fully anticipates that, as (a) the Alaska industry generates an increasing amount of certified product, and (b) the seafood marketplace begins to recognize the value of AQSP, then the monetary value of AQSP-certified seafood will be easily demonstrated. AKMA continues to work to achieve both goals.

Alaska manuFACTS

1/29/03



Alaska's Natural Resource For Manufacturers

Alaska Manufacturers' Association Volume 2, Issue 1 New Year Edition, 2003

NEW STANDARD

Alaska Quality Seafood™ Program Targets Buyers

The market for Alaska salmon is changing. Many large Japanese or European buyers of Alaska fresh or frozen salmon are switching to farmed fish. Continually dropping salmon prices reflect both the increasing supply of farmed fish and a market demand that, while increasing, is growing too slowly to use up the supply.

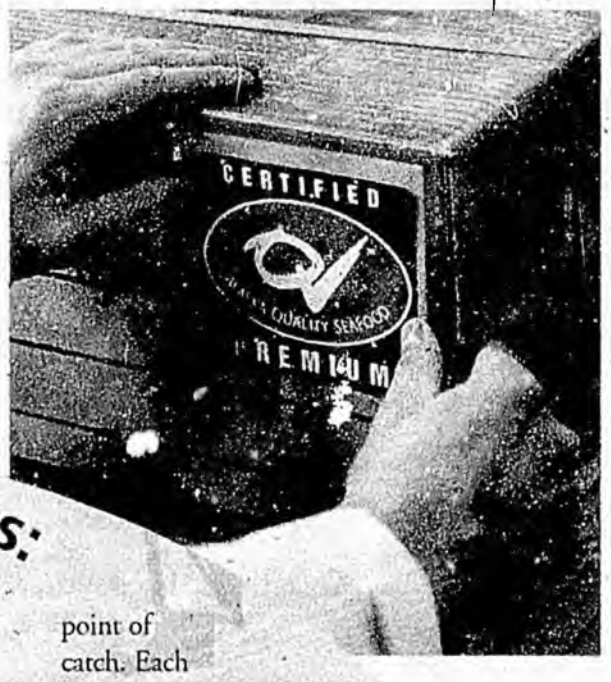
Yet, at the same time there is a substantial and growing market for high quality fresh fish. While price is always important, for many buyers it is a lesser consideration than quality.

Reducing buyers' uncertainty will make the salmon more valuable to them and allow processors and fishermen to get higher prices. The quality seal reduces the amount of effort for buyers and consumers.

"More and more people are recognizing that seafood quality is key to marketing," says Tom Gemmell, Executive Director of United Fishermen of Alaska. "We've seen some good progress this year in terms of quality, but imported farmed Atlantic salmon has established a benchmark for quality that we need to meet."

Scott Miller of the McDowell Group, a Juneau research firm, indicates that sales are often lost because buying Alaska salmon is just too difficult. The nature of buyers has also changed: the primary market is now thousands of small buyers who do not understand the market and have

Continued on page 4



Delivering Freshness:

Smart Tag Project Studies Fish Transit Temperatures

by Mark K. Buckley, Managing Partner, Digital Observer LLC, Kodiak

Alaska Manufacturers' Associations' (AKMA) Alaska Quality Seafood™ Program is the statewide program designed to ensure that fish leaving Alaska seafood processing plants are high quality. Alaska, however, is situated far from Lower 48 and other global markets and many things can go wrong between the time the fish exits the plant and when it arrives at its destination.

The Smart Tag Project, a study using computer-driven waterproof temperature loggers, undertaken by Digital Observer, LLC, of Kodiak in coordination with AKMA, tracked fish caught in several Alaska locations, following them through processing plants and the airfreight system to a distributor in Chicago. Project funding from the United States Department of Agriculture was funneled through the University of Alaska Fairbanks Fishery Industrial Technology Center in Kodiak.

Volunteer fishermen attached sturdy, waterproof temperature loggers, or smart tags, to fish at the point of catch. Each computer-driven tag was programmed with names of fisherman, processor and buyer. The tags stayed attached to the fish and recorded temperatures at pre-set intervals until the data download in Chicago. The research yielded some surprising results: one shipment of prized Copper River salmon, for example, actually warmed up as it flew at 35,000 feet and then reached 62° F as it sat under the hot June sun.

Continued on page 2

BEST PRACTICES

Ocean Beauty Gains Quality Certification in Record Time

"Anything that can be done by the salmon industry in Alaska to promote consistent high quality product in the marketplace is a positive for wild Alaska salmon," says Hap Symmonds, Plant Manager, Ocean Beauty Seafoods of Cordova. The Alaska Seafood Quality™ Program is definitely a positive project, but must be looked at as a long-term program. It will take time for the consumer to come to the retailer and specify that they want salmon with the Alaska Quality seal."

Alaska Manufacturers' Association approached Ocean Beauty Cordova in the spring of 2002 to become involved in the program. "We were a good choice — with the current quality control programs in place at the OB Cordova plant it was evident that few if any alterations would need to take place," Symmonds explains. "Our existing programs already covered boats, dock, production lines and shipping."

... consistent high quality product in the marketplace is a positive for wild Alaska salmon ...

Fishermen signed agreements with AKMA to follow program quality guidelines on the fishing grounds and for delivery to the plant. Once product was delivered, it was separated into program and non-program fish and run separately down the production line and through the distribution system.

Symmonds observes that better communication between fishermen and dock regarding program fish would be desirable, and that a system for tagging fish to follow them through the entire distribution system is needed — a challenge that AKMA is researching.

Ocean Beauty Seafoods became a stand-alone Alaska Quality Seafood (AQS) Certified Processor in one year instead of the usual three because they had already addressed core quality concerns before entering the program. Congratulations, Ocean Beauty Seafoods! ■

Freshness continued from page 1

Before discussing the project's results in detail, it is important first to understand how the seafood market defines quality. To fish buyers around the world, quality is comprised of three factors: shelf life, appearance and taste or dining experience, all working together to minimize the buyer's risk. Our findings indicate that buyers place a very high value on shelf life, the piece of the equation that answers the question of how long a buyer can hold a fish before he needs to drop the price to move it, process it into a lower-valued product or in the worst case scenario – throw it out. Project researchers indicate that shelf life accounts for 45 percent of the buyer's quality quotient; that appearance counts for another 45 percent and that taste and dining experience account for the remaining 10 percent of the buyer's quality equation. The Smart Tag project focused primarily on shelf life, containing a traceability component.

To fish buyers around the world, quality is comprised of three factors: shelf life, appearance and taste or dining experience ...

Completely Sealed Underwater Temperature Logger

Smart tags are remarkable and indestructible devices, costing about $100 each. Weighing in at about one ounce each, the tags are roughly the diameter of a quarter and are about three-quarters of an inch thick. Sealed in plastic, they are programmed and read by an infrared coupler that can be attached to almost any PC. They are waterproof to 1,000 feet, reusable, with batteries lasting about five years and have enough memory to store temperatures taken once every 30 minutes for up to 667 days.

Using standard electrician's zip ties to secure the tags to the fish tails, we asked our fishermen to tag about a half dozen fish in one fishing trip. Then we followed the fish through seafood plants, seeing to it that the tagged fish were distributed among the boxes of fresh fish air freighted to Chicago.

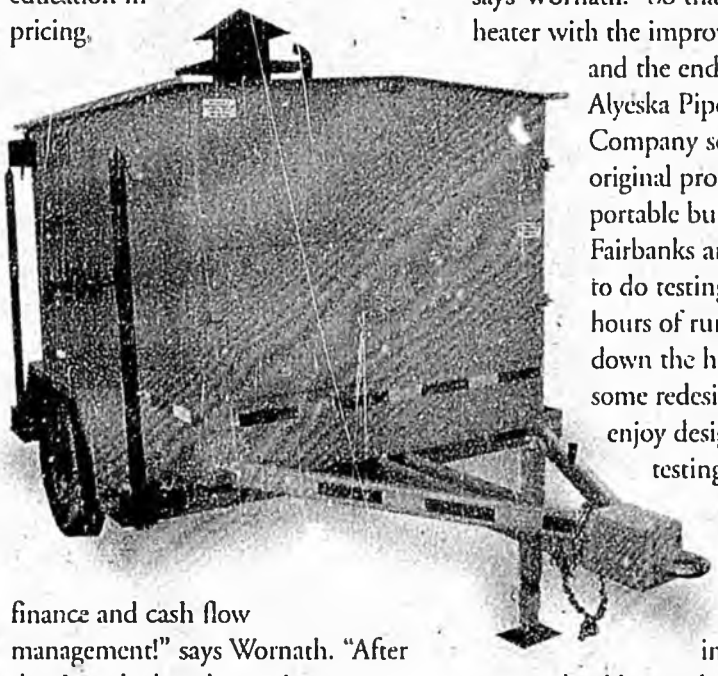
In 2002 we studied gillnet-caught salmon in the Copper River and Bristol Bay areas and troll-caught salmon caught in Southeast Alaska

Continued on page 5

Business Heats Up For Equipment Source, Inc.

Farm life requires a good mix of ingenuity, perseverance and determination — qualities that Terry Wornath, owner of Equipment Source, Inc., carries with him from his childhood experiences in Montana. Landing in Fairbanks in 1982, he worked as a welder and mechanic for several years, then in the mid-'80s he started a heavy equipment repair business that lasted for eight years.

"I left that business with no money but did get a very expensive education in pricing, finance and cash flow management!" says Wornath. "After that I worked as the service manager for an equipment distributor, so switching to manufacturing was easy as far as the work goes."



Not easily daunted, he and a partner formed Equipment Source, LLC in March of 2000. At that time, ARCO Alaska had 100 tired and worn 600,000 BTU indirect fired heaters. With the possible buy-out with British Petroleum and other budget issues pending, the company decided to recondition their existing heater fleet rather than purchase new. The newly formed venture won the project bid, so in its first year of operations, Equipment Source, LLC reconditioned 60 heaters. That fall however, a glitch in the smooth running machine occurred when the partner decided to leave Alaska. Without missing too many beats, Wornath's farmer-determination kicked in, he bought out the shares and restructured the business into Equipment Source, Inc. and kept the momentum.

"When you tear apart 60 units of someone else's product and rebuild them, you start to see things that could be improved or changed," says Wornath. "So that fall I built a heater with the improvements both I and the end users wanted. Alyeska Pipeline Service Company set up the original prototype to heat a portable building here in Fairbanks and allowed me to do testing. After 3,000 hours of run time we tore down the heater and did some redesign work. I enjoy designing and testing the new heaters and my crew loves working on 'new iron' instead of the rusty, oily older machines."

Build & rebuild

In 2001 the company reconditioned 40 more heaters and built 10 new heaters for additional testing. This year the reconditioning part of the business is down to 10 units, and new heater sales should reach 20 machines. During the first year, reconditioned heaters accounted for 100 percent of sales; in the second year that service was 60 percent; and this year it will total less than 10 percent of sales. Total revenues have been flat, but next year the company expects new heater sales to continue to grow, resulting in significant revenue growth for 2003.

"Building a manufacturing business in Fairbanks is a challenge; very few people think it is possible. Our fuel, labor, utilities, property taxes and freight costs are all higher than Lower 48 competitors' who are able to out-source many of the processes involved in manufacturing. If I want to use laser cutting, metal stamping or powder coating I need to buy equipment, as these manufacturing support services are not available in Alaska. My competitors just go out to bid," says the far North entrepreneur. "The only way we will succeed is to continue building a superior product. Our competitors' heaters require 12 engine services for every one with our machines. And our heaters have containment for fluid spills built into each machine. No other heater that I am aware of has either of these features."

In-state manufacturing does have some advantages according to Terry: proximity to customers, knowing the enviro. ment, and surprisingly, freight costs. "I know what my customers want and when there is a problem I can go out and address it. I live in the middle of one of the largest markets for my products in the world and that is a huge advantage for me. Plus, I can ship enough material on one trailer to build 14 heaters. It takes my competitors four trailers to ship the same number of heaters to Alaska."

Financing and the future

As company owner, Wornath considers himself fortunate in the funding arena. "No one in Alaska was repairing heaters the way they wanted so ARCO helped get me going, providing me with a substantial deposit for start-up. Later as I developed receivables and sales history, First National Bank of

Continued on page 4

Alaska Quality Seafood™ Program Targets Buyers continued from page 1

neither the time nor the money to learn about it and find reliable suppliers. In aggregate, these small buyers comprise a substantial market. A typical small buyer might be a regional supermarket chain of 15 stores.

Making it easier to buy

Alaska Manufacturers' Association (AKMA) is working hard to both close this information gap and to ensure quality. The goal is to make it as easy as possible for buyers to find reliable high quality suppliers of Alaska salmon and to reduce their level of uncertainty.

"Variation and uncertainty costs money," says AKMA president Dave Arnsdorf. "Reducing buyers' uncertainty will make the salmon more valuable to them and allow processors and fishermen to get higher prices. The quality seal reduces the amount of effort for buyers and consumers."

The first and most important step is the statewide standardized grading and handling certification program, the Alaska Seafood Quality Program. The goal is for any buyer to be able to source product from any certified supplier and be sure of the seafood's quality and grade.

According to industry consultant Steve Grabacki, President of Graystar Pacific Seafood, Ltd., salmon quality is defined by both extrinsic and intrinsic factors. "Intrinsic qualities include oil content, color and taste, while extrinsic qualities are more visual, like scale loss, bruising, gaping, firmness and shelf life. Alaska salmon has a higher intrinsic quality than farmed salmon, but the market does not recognize this because of our poor record of extrinsic quality control."

AKMA is aggressively marketing the grading and certification program to buyers through mailings, publicity and trade shows, plus an informational website, scheduled to launch in March 2003, where sellers can advertise their quality-certified salmon.

Program progress

During the 2002 fishing season, Naknek (Bristol Bay) and Kenai joined Cordova in the grade-certifying effort. "It is highly likely that the program will expand further in this, our fourth, season," reports Arnsdorf. "We've been talking to Kodiak, Southeast, Chignik and more sites in Bristol Bay. We're moving out of the experimental phase and doing what we had hoped — fixing quality. Now we're at the stage of convincing new markets to try the fish and to actively market the product."

Expectations are that by the end of the decade the Program efforts to elevate quality will extend to halibut and sablefish, as farming in these sectors increase. "Farming halibut, however, won't be as easy as salmon because the fish aren't as distributed in the water column," according to Grabacki. "It will take underwater real estate . . . these fish grow slower than salmon, plus the salmon are tough fish that can take more crowding and temperature variations.

Equipment Source, Inc. continued from page 3

Alaska stepped in and helped fund our facility and the construction of the new heaters."

The future of Equipment Source, Inc. looks very good. Companies on the North Slope have been very supportive; because we reduce their current and potential costs dramatically, our customers are very willing to pay the premium I need to run my business in Fairbanks. This season I sold several heaters that went to Russia and I have had some serious inquiries from Canada. I am confident sales will grow in both of these markets. Next year I am building an alternative-fuel prototype that will be tested by an oil producer. I am also building a smaller heater that will target the airport market."

Support along the way

Alaska Manufacturers' Association is top on this manufacturer's list of most important contacts. "The most valuable service I have received from AKMA is having Jim Wamberg as my mentor. If I need a contact or advice he always seems to find the information I need. For that alone AKMA is invaluable to me. I've learned how to develop my floor layout and bill of materials, but my single largest downfall has been not taking time to implement all of the programs they have made available," reflects Wornath. "I want to be able to tell a customer the day their heater will be delivered and tell my accountant exactly what it cost. Jim has already done the groundwork to help me implement these systems. After we

finish the run of heaters for this season I will implement these new programs."

For those starting on their own adventure in business, Terry suggests first getting your personal finances in order, then being honest with all your partners (wife, husband, banker, vendors, customers) because you will need their help and support sooner or later. "Then: find a mentor" advises Terry. "I suggest the people at AKMA." ■

We have a chance to get ahead of the curve with halibut and sablefish."

An advisory committee works with program managers to define problems, find workable solutions and plan for future challenges. The committee includes two processors, one fisherman and two buyers — one national and one regional.

Program participation

Program participants, all voluntary, include fishermen, tender vessel owners and processors, working together to institute statewide handling procedures and grade specifications. Not all of a processor's fishermen, however, need to sign up for a processor to participate, but eventually fishermen will see financial rewards as a result of the grade certification.

Processors wishing to participate in the program write and submit a proposal to AKMA, detailing how they intend to follow the program's quality control guidelines. Each plan is individually reviewed and approved by an outside contractor before AKMA goes into action.

"Now we have more processors wanting to participate than we have dollars. We'll need to start charging them something to participate, probably around $10,000 -15,000 a year," explains Arnsdorf.

During years one and two of the certification process, a third party works with the processor and observes plant and boat operations. AKMA has contracted with Surefish Seafood Quality Specialists to provide training, inspection and certification services. The goal is for a processor to work as a stand-alone Alaska Quality Seafood (AQS) Certified Processor by year three, continuing to work under the program, subject to random audits to verify compliance. One exception to the three-year process is Ocean Beauty Seafoods of Cordova. Because it already had a solid quality control process in place when it joined the program, the company was able to certify in one year.

Besides working with established seafood processors, AKMA is researching a way to include harvesters who process and sell their own catch.

Alaska has seen an increase in harvesters applying for processor permits. According to the Alaska Department of Fish and Game, the number of catcher-sellers grew from 528 in 2001 to 706 in 2002, a 34 percent increase.

According to UFA's Gemmell, though, time will tell how well this level of participation by catcher-sellers will work out. "With the increased time and extra steps it takes to process and the time needed to market, no one is sure how it will pencil out."

The Business of SeaFOOD Forum scheduled for next March will bring together harvesters with national retail and foodservice buyers to learn firsthand what the market expects in terms of product and quality. World Trade Center Alaska, organizers of The Business of SeaFOOD has invited transportation and value-added packaging experts to share their knowledge and ideas. See www.wtcak.org for more details. ■

Freshness continued from page 2

and looked at several shipments of longline-caught halibut landed at Kodiak. For fish delivered ungutted, such as those commonly produced in the Copper River and Bristol Bay areas, each fish passing through a plant was handled 20+ times by people and several times by machines. Although the fish pass through the process line quickly — typically about 20 minutes, all that handling tends to warm the fish and to affect its appearance. Additionally, on warm summer days water coming into some plants can exceed 50° F.

In Southeast Alaska, where troll fishermen gut and ice their catch shortly after harvest, the fish are quickly moved into more ice once they are ashore. Because the fish are already gutted, each fish is handled only six times at the plant — never by machines — before it goes into a shipping box. The resulting fish temperature is considerably more stable for a troll-caught salmon than for its gillnet-caught cousins.

No matter how the fish are caught or processed, they must still move to market through existing distribution systems. Assuming that fish will cool in the cargo holds of jetliners can be a mistake. Sometimes air freight crews, for reasons of weight and balance, will load fish boxes in the compartment under the cockpit, an area that stays warm due to the presence of heat-producing hydraulic and electric equipment. Fish that warmed up at 36,000 feet were probably loaded into the forward cargo hold. Additionally, once the fish arrive at a destination, it can be folly to assume cargo crews will automatically move the boxes into a cooler. Airfreight handlers report that fresh seafood gets their attention only after they deal with passenger luggage, mail, time-sensitive medical supplies and, if present, human remains. Our hapless shipment from Copper River sat for 90 minutes in 80-degree Chicago temperatures before the freight crew placed the boxes in a cooler. As a result the fish reached 62°, but the buyer, whose truck did not arrive to collect the shipment until hours after the fish were chilling in the cooler, was unaware that the shipment had suffered such temperature abuse in transit.

Contact Mark Buckley at 907-486-4680 or mkbuckley@alaska.com ■

Making Affiliation Work for You

Want to improve your business and increase your contacts?

Become an AKMA Affiliate and benefit from the collective knowledge of Alaska's manufacturing companies and access the specific resources you need to help your business grow and prosper.

- Seminar and training discounts
- Online notification of events and Manufacturing Wanted postings
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- Peer recognition
- Excellent networking opportunities & site tours
- Legislative advocacy

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SERVICES

SIGs and CIGs: a Meeting of the Minds

An entrepreneur's independent mindset, often a business strength, can sometimes be a detriment. Establishing a support network and sharing concerns with other business professionals can be invaluable to business growth and reduce feelings of alienation.

Coming together is a beginning; staying together is progress, and working together is success.
Henry Ford

Alaska Manufacturers' Association (AKMA) provides forums for like-minded individuals to discuss common business problems within narrow frameworks, like taxes, insurance, the process of qualifying suppliers and a variety of other concerns.

"The meetings are highly-focused problem-solving forums that can be either SIGs, or special interest groups facing common challenges, or CIGs, continuous improvement groups finding better ways to do things. SIGs often become CIGs," explains Jim Wamberg, AKMA Senior Project Manager. "Either way, they help reduce the randomness and variability within these problems by using proven tools and techniques including: Benchmarking, Root Cause Analysis, Failure Mode and Effect Analysis, Six Sigma and computer simulations.

The groups can have significant legislative impacts on industry. AKMA will keep Alaska lawmakers and communities informed and advocate for you with information gathered from these discussions. Like minds affect change.

AKMA plans forums for late winter and early spring of 2003. Contact Cheryl Cummings or Jim Wamberg at 907-565-5655 with topics of interest. Possible topics might be: employee retention, quality systems, workers compensation, insurance issues, training, transportation and other topics that make sense to you, the business owner.

In addition Bill Webb, representative for Made in Alaska, will be conducting SIGs around the state in January and February. Contact Bill at: 907-272-5634 or go to their website at www.madeinalaska.org/mia/

Please take time to fill out the enclosed mailer regarding future forum topics. ■

TIPS

Finding Financing

Banks like collateral – a hard fact of business life. If you've been in business for less than three years or have nothing to offer as collateral, you might find traditional lending institutions reluctant or unwilling to finance your business.

"The way we raise money has direct impact on the future of the business," says Deborah Marshall, Director of Alaska InvestNet. "Becoming bankable is the goal; banks loan against your ability to take on debt."

Stabilizing your intellectual capital, however, is often more important than actually raising the money, according to Marshall. "Having a good management team and advisory board in place is key, because investors look at how the business will be run."

Funding sources, listed from easiest to hardest to secure:

- Out-of-pocket, or Bootstrapping
- Friends & Family
- Angel Investors
- BIDCOs (high risk lenders)
- Banks

Being informed and becoming bankable go hand in hand. Any business, start-ups especially, can take advantage of educational seminars and technical assistance from Alaska Manufacturers' Association, Alaska InvestNet, Alaska Growth Capital or the Small Business Development Center.

ManuFACTS will discuss funding sources in more depth in future issues. ■

BIZ BRIEF

The Entrepreneurial Process

Entrepreneur: a person who organizes, operates and assumes the risk for business ventures.

Entrepreneurship is a major contributing factor to the economic well being of a country, both in terms of economic growth and job creation. One in 10 adults in the US today is an entrepreneur. The leading country for entrepreneurship is Brazil, where one in eight adults venture out into business, according to the Global Entrepreneurship Monitor, www.gemconsortium.org. In contrast, only one in 25 adults become entrepreneurs in Germany, one in 50 in Finland and Sweden and less than one in 100 in Japan and Ireland.

Some business theorists believe that natural born entrepreneurs exist, but that their behavioral qualities can be learned and cultivated through practice and application. With expanding technology and business downsizing, requirements for doing business are constantly changing, forcing existing businesses to take on entrepreneurial challenges.

Although he agrees to a certain extent that behavioral characteristics are integral to entrepreneurship, Dr. Jeffrey Shuman, Director of Entrepreneurial Studies at the Benley College Graduate School of Business in Waltham, Mass., also recognizes an intuitive process that natural born entrepreneurs use to start, build and run a business, dubbing it the Rhythm of Business. "The key is to understand that there is a process and that venture creation is not a straight line."

Shuman looks at how entrepreneurs do what they do, and the sequence of what they do.

"Most people who start businesses start it with a vision of the entity and what it's going to be" he explains. "Natural born entrepreneurs don't do that. They start a process that will manifest itself at various times as different business configurations. It's a continuous never ending process."

The process:

- Start with a market opportunity
- Develop the business concept to respond to that opportunity
- Assess and gain access to the resources required
- Apply those resources
- Manage the business (and don't expect to get it right the first time)

The key to entrepreneurial and business success is very simple, according to the author: "The ability to satisfy the needs and wants of your customers better than anyone else in the world ... get feedback and continually tweak to satisfy the needs of the customer. You have to continue this dance. It's a continuous process and if you're lucky enough to ever obtain success it is often never final. The process continues because the customers' needs constantly change ... the answer is exactly the same whether you are a brand new start-up or an established billion dollar company."

Shuman has started four companies, with two becoming multi-million dollar ventures, and has taught graduate level courses and two different business schools. His book, *The Rhythm of Business: The Key to Building and Running Successful Companies,* is scheduled for publication this year. ■

NEWS TO USE

Entrepreneur University Alaska

What stage is your business at today? Where do you envision your business to be in the future? How will you manage needed business transitions and realize this vision?

You may be asking yourself some of these very same questions, and many others. Find some answers at Entrepreneur University Alaska, a one-day intensive seminar on the business life cycle in Anchorage, February 6, 2003. This seminar will provide you with an understanding of the different stages of the cycle, where your business fits and what actions are needed to transition your business.

Entrepreneurs, management and marketing experts, along with funders and investors will share their knowledge and experience in a series of related courses. Whether you are a start-up, early-stage or established business, you will learn: the fundamental elements and activities involved in executing a realistic business plan; how to integrate your company's message into everything you do, from marketing and sales to hiring and billing; setting prices that balance covering costs and making a profit; how to identify the kind of money you need and where to find it; and a lot more ...

Learn about our offered courses and the keynote and guest speakers by visiting our website at www.eualaska.com.
(907) 565-5655

SUCCESSFUL ENTREPRENEURS:

- **Have a Vision:** Attend Entrepreneur University Alaska
- **Plan:** Learn what it takes to manage and grow a successful business
- **Take action:** Use new knowledge to transition to the next business stage
- **Succeed:** Move your business forward and achieve success ■

ENTREPRENEUR UNIVERSITY
ALASKA

Anchorage Marriott Downtown, February 6, 2003
Collaboration by AKMA & Alaska InvestNet

The Business of SeaFOOD

World Trade Center Alaska announces

Second Annual Business of SeaFOOD Forum

at the Hospitality and Food Service Trade Show

March 4-5, 2003
Egan Civic & Convention Center, Downtown Anchorage

Business of SeaFOOD Forum 2003 connects global leaders in FOOD production and marketing with Alaska's harvesters and processors to explore diverse food development and distribution models.

Main topics:

- What is the Business of FOOD?
- Buyers Defining their Standards
- Responding to Buyers/Best Practices
- Value-Added/Innovating
- Quality Transportation Solutions for Perishables

NEW FEATURE

SeaFOOD Pavilion

A prominent area on the exhibit floor has been set aside to showcase the latest technologies, products, services and expertise to support food processing businesses in Alaska with special concentration on SeaFOOD.

For more details visit www.wtckak.org or call Vanessa Norman at 907-278-7233.

ak/ma
Alaska Manufacturers' Association

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