

# REVENUE SOURCES BOOK

## FALL 2012

ALASKA DEPARTMENT OF REVENUE – TAX DIVISION



# Revenue Sources Book

*Alaska Department of Revenue – Tax Division*

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## FALL 2012

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THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

Department of Revenue

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December 4, 2012

The Honorable Sean Parnell, Governor of Alaska  
P.O. Box 110001  
Juneau, Alaska 99811-0001

Dear Governor Parnell,

We are pleased to present to you the Department of Revenue's Fall 2012 *Revenue Sources Book*.

The *Revenue Sources Book* is the annual publication that provides a history and a projection of state revenue for you, the Alaska Legislature, and the Alaska public. This publication is a collaborative effort among the Department of Revenue, the Permanent Fund Corporation, and the Office of Management and Budget.

Briefly, total state revenue was \$13.6 billion in FY 2012, while General Fund Unrestricted Revenue totaled \$9.5 billion. The Department forecasts Unrestricted Revenue of \$7.5 billion and \$7.0 billion for FY 2013 and FY 2014, respectively. The revenue forecast is based on an oil price forecast of \$108.67 per barrel for FY 2013 and \$109.61 per barrel for FY 2014. For comparison, the FY 2012 average oil price was \$112.65 per barrel. Forecasted oil prices remain above \$100 per barrel throughout our forecast period to 2022.

Oil revenue continues to dominate the state's revenue. In FY 2012, approximately 93% of all Unrestricted Revenue can be attributed to oil revenue and this high level of dependence will likely continue. The state requires high oil prices and stable or increased production, in order to maintain a stable or increasing state revenue forecast. It should be noted that if oil prices decline from forecasted levels, state revenue will decline at a greater rate than the decrease due to the "progressivity effect" of the current taxation structure. The continuing decline in oil production will also lead to a yearly decline in state revenue.

Our goal is to stem and eventually turn around the decline in production, which the state currently supports by participating in the oil industry's investment in exploration and development through tax credits. In FY 2012, the state provided more than \$700 million in support of this purpose in the form of production tax credits.

In FY 2012, an average of 579,100 barrels of oil per day was produced on the North Slope, and an additional average of 10,800 barrels per day was produced in Cook Inlet. North Slope oil production continued to decline at a rate of 3.3% in FY 2012. While our near-term forecast over the next two years anticipates decline rates of 4.5% and 2.6%, respectively, starting in FY 2018 our forecasted decline rate is steeper and exceeds 7% in several years during the forecast period.

This year, we have employed a methodology that accounts for risk that promises to forecast a more accurate decline of Alaska North Slope oil production, based on the historic decline and expert opinion. This methodology was applied to the production profile starting in the third forecasted year, FY 2015. The methodology is described in Chapter 4.

Chapter 3, the specialty chapter of the *Revenue Sources Book*, is devoted to Alaska commercial fisheries. Alaska commercial fisheries are a vital part of the Alaska economy, though a significantly smaller contributor to state revenue than the oil industry. This chapter reviews the historical and continued importance of fisheries to the Alaska economy.

We hope you find the information provided in the Fall 2012 *Revenue Sources Book* to be interesting and useful.

We will provide a forecast update in the spring of 2013.

Sincerely,

A handwritten signature in blue ink that reads "Bryan Butcher". The signature is fluid and cursive, with the first name "Bryan" and last name "Butcher" clearly distinguishable.

Bryan Butcher  
Commissioner

# Revenue Sources Book

Alaska Department of Revenue – Tax Division

## FALL 2012

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# Revenue Sources Book

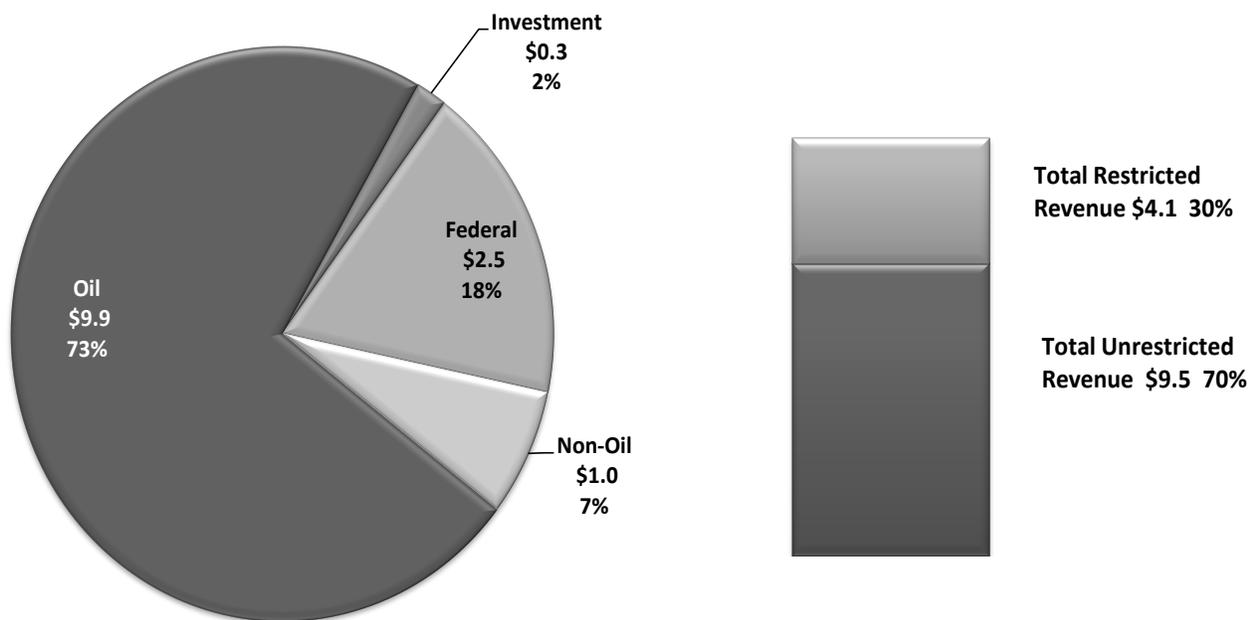
*Alaska Department of Revenue – Tax Division*

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# FALL 2012

# 1. Introduction

Figure 1-1. FY 2012 Total State Revenue: \$13.6 billion



## General Discussion

The *Revenue Sources Book* is an annual publication that provides a history and a projection of state revenue for the Governor, the Alaska Legislature, and the Alaska public. This publication is a collaborative effort of the Department of Revenue, the Permanent Fund Corporation, and the Office of Management and Budget.

In Fiscal Year (FY)<sup>(1)</sup> 2012, the total revenue for the State of Alaska was \$13.6 billion.

State revenue comes from four major sources:

- oil revenue;
- income from sources other than oil, such as taxes, charges for services, licenses, permits, fines and forfeitures;
- federal revenue; and
- investment revenue, primarily from the Permanent Fund and the Constitutional Budget Reserve Fund.

Oil revenue continues to be the most significant source of revenue to the state. In FY 2012, approximately 93% of all Unrestricted Revenue can be attributed to oil revenue. General Fund Unrestricted Revenue totaled \$9.5 billion in FY 2012, although DOR

forecasts General Fund Unrestricted Revenue to drop to \$7.5 billion and \$7.0 billion for FY 2013 and FY 2014, respectively. The revenue forecast is based on an Alaska North Slope (ANS) price forecast of \$108.67 for FY 2013 and \$109.61 for FY 2014, calculated in nominal dollars. Calculated in real (constant) dollars the forecast price declines between FY 2013 and FY 2014, from \$108.67 to \$106.94. For comparison, the FY 2012 average oil price was \$112.65.

In FY 2012, an average 579.1 thousand barrels of oil per day were produced on the North Slope, and an additional average 10.8 thousand barrels per day were produced in Cook Inlet.

Since peak production in 1988, production of oil and natural gas liquids on the North Slope has declined. While production declined by about 71% over that period, the market price of oil has increased by close to 600%. In recent years, high oil prices, combined with a higher production tax rate on oil, have masked the impact that declining oil production has had on state revenue. In the future, lower real oil prices combined with the current trend of declining North Slope crude oil volumes could lead to significant budget shortfalls. A shortfall in revenue due to falling oil price will be exacerbated by the “progressivity effect” of the current

taxation structure, since state revenue will decline at a greater rate than the decrease in oil price.

The Constitutional Budget Reserve Fund (CBRF), created in 1990, has served the state as a tool to stabilize the budget in years of low revenue. Budget shortfalls can be compensated by draws from the CBRF. At the forecast price, production, and budget the CBRF will last at least through June 2023. See Figure 2-9.

Chapter 3, the specialty chapter of *Revenue Sources Book*, is devoted to Alaska commercial fisheries, a vital part of Alaska’s economy, though a significantly smaller contributor to state revenue than the oil industry. This chapter reviews the historical and continued importance of fisheries to the Alaska economy.

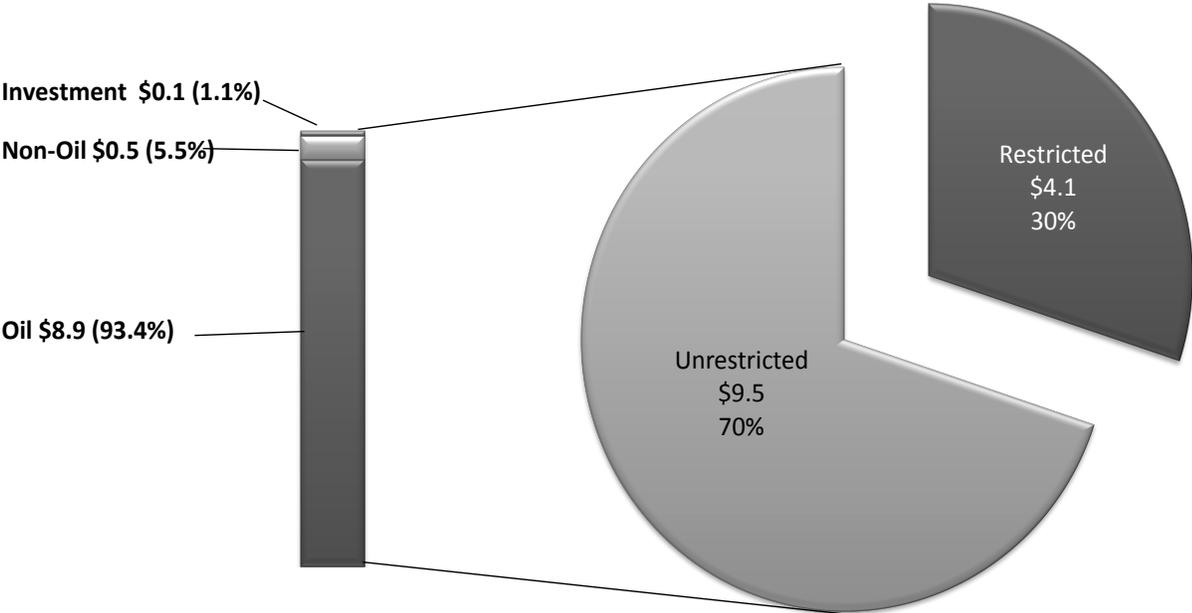
The Department of Revenue is also referred to by its acronym - DOR - and as “the department,” throughout this book.

The totals of some tables in this publication may not equal the sum of components due to rounding. FY 2012 totals should be considered preliminary and will be updated in the spring of 2013.

<sup>(1)</sup> Alaska’s fiscal year runs from July 1 through June 30.

# 2. Summary of Revenue and Forecast

Figure 2-1. FY 2012 Total State Revenue: \$13.6 billion



## Total State Revenue

In FY 2012, the total revenue for the State of Alaska was \$13.6 billion. DOR forecasts total revenue will increase to \$15.3 billion in FY 2013 and \$14.6 billion in 2014. Within this net gain there is a difference in two significant components that make up total revenue for the state. Between FY 2012 and FY 2013, DOR forecasts a decline of about a \$2 billion in Unrestricted Revenue, primarily due to lower oil and gas production tax revenue. For the same period, there is a more than \$3.7 billion increase in forecasted Restricted Revenue most of which is due to an increase in investment revenue.

### Unrestricted Revenue and Restricted Revenue

Throughout this publication DOR generally refers to two broad categories that make up total revenue - “Unrestricted Revenue” and “Restricted Revenue.” “Unrestricted Revenue,” technically referred to as “Unrestricted General Fund Revenue,” is based on the unrestricted component of the General Fund in the State of Alaska Accounting System, with certain adjustments. “Restricted Revenue” represents the remaining revenue and is further categorized as “Designated General Fund,” “Other Restricted Revenue,” or “Federal Revenue.” These four revenue categories, adopted by DOR, are analogous to those defined and used by the Office of Management and Budget (OMB) and Legislative Finance.<sup>(1)</sup>

Figure 1-1, on page 1, is a graphic representation of total state revenue divided into oil, non-oil, federal, and investment categories, as well as a graphic showing the relationship between Restricted and Unrestricted Revenue, in

percent and nominal dollar value. The department uses “petroleum” and “oil” interchangeably in revenue categories, and the use of the term “Oil Revenue” does not exclude the possibility that the category may contain revenue from natural gas. “Non-oil Revenue” excludes federal and investment revenue. Figure 2-1 is a graphic representation of Unrestricted Revenue divided into oil, non-oil, federal, and investment revenue categories.

Figure 2-2 sets out the total state revenue divided into the general restricted and unrestricted categories for FY 2012 and DOR’s forecast for the same categories for FY 2013 and FY 2014.

### Unrestricted General Fund Revenue

Unrestricted General Fund Revenue is revenue that is not restricted by the constitution, state or federal law, trust or debt restrictions or customary practice. Most legislative and public debate centers on this category of revenue, and this is the amount used for budget planning purposes and designated in budget documents as “Unrestricted General Funds.” Unrestricted General Fund Revenue reported in this forecast includes funds deposited into the unrestricted component of the General Fund, with certain adjustments.

Reductions might include: (a) revenue earmarked for specific programs, (b) pass-through revenue for qualified regional aquaculture and dive fishery associations, and, (c) revenue shared with municipal governments and organizations (e.g., property and fisheries taxes).

Additions might include transfers from the unclaimed property trust to the state treasury.

### Restricted Revenue

Restricted Revenue includes revenue restricted by the constitution, state or federal law, trust or debt restrictions, customary practice, or other restriction. Restricted Revenue reported in this forecast includes money deposited into the Restricted Component of the General Fund, with certain additions. Additions might include: (a) receipts deposited in funds other than the General Fund, and (b) receipts deposited in the General Fund, but restricted by statute or customarily appropriated for a particular purpose or program, such as sharing of fish tax revenue with municipalities.

Article IX, Section 15 of the Alaska Constitution requires that at least 25% of all mineral lease rentals, royalties, royalty sale proceeds, federal mineral revenue sharing payments and bonuses received by the state be placed in the Permanent Fund. Until 2003, Alaska Statute 38.13.010 required that 50% of royalties be put into the Permanent Fund. House Bill 11, passed by the legislature in 2003, changed the law so that only 25% from all leases were placed into the Permanent Fund, contingent on the impact of this change to the Permanent Fund dividend. On October 1, 2008, the impact of HB 11 on the Permanent Fund dividend had exceeded the limitations provided in HB 11, and HB 11 was repealed. As of October 1, 2008, some leases pay 50% of royalties to the Permanent Fund, while others pay 25% to the fund. On average, approximately 30% of oil and gas royalties go into the principal of the Permanent Fund.

The restricted and designated revenue component of actual and forecasted revenue reflects three fund categories.

<sup>(1)</sup> Prior to 2010, DOR used different terms, specifically DOR used the term “General Purpose Unrestricted Revenue,” and classified certain revenue differently than OMB and Legislative Finance so that the term “Unrestricted Revenue” was not synonymous with “General Fund Unrestricted Revenue.” However, since 2010, OMB, Legislative Finance and DOR now report the same categories of revenue as the agencies continue to work cooperatively to ensure consistency in their revenue classifications.

Figure 2-2. Total State Revenue (\$ million)

Unrestricted Revenue Sources	History	Forecast	
	FY 2012	FY 2013	FY 2014
<b>Unrestricted General Fund</b>			
Oil Revenue	8,857.8	6,904.0	6,399.0
Non-Oil Revenue, except federal and investment	519.6	541.5	535.5
Investment Revenue	107.8	66.2	67.5
<b>Total Unrestricted Revenue</b>	<b>9,485.2</b>	<b>7,511.7</b>	<b>7,001.9</b>
<b>Restricted Revenue Sources</b>			
<b>Designated General Fund</b>			
Non-Oil Revenue, except federal and investment	268.2	311.7	310.0
Investment Revenue	34.6	41.4	33.7
<b>Subtotal</b>	<b>302.8</b>	<b>353.1</b>	<b>343.7</b>
<b>Other Restricted Revenue</b>			
Oil Revenue	1,021.7	1,138.0	858.4
Non-Oil Revenue, except federal and investment	184.5	209.9	210.8
Investment Revenue	109.7	3,286.0	3,369.5
<b>Subtotal</b>	<b>1,315.9</b>	<b>4,633.9</b>	<b>4,438.7</b>
<b>Federal Revenue</b>			
Oil Revenue <sup>(1)</sup>	4.8	2.7	2.7
Federal Receipts	2,455.5	2,822.7	2,822.7
<b>Subtotal</b>	<b>2,460.3</b>	<b>2,825.4</b>	<b>2,825.4</b>
<b>Total Restricted Revenue</b>	<b>4,079.0</b>	<b>7,812.4</b>	<b>7,607.8</b>
<b>Total State Revenue</b>	<b>13,564.2</b>	<b>15,324.1</b>	<b>14,609.7</b>

These fund categories were developed by the Division of Legislative Finance and the Office of Management and Budget in 2010 to provide additional information in the budget process. The restricted and designated revenue fund

categories are as follows: (1) Designated General Fund Revenue; (2) Other Restricted Revenue; and (3) Federal Revenue. These categories are used in tables throughout the *Revenue Sources Book*.

Figure 2-3 sets out the total state Unrestricted Revenue while Figure 2-4 details Restricted Revenue for FY 2012 and the department's forecast for the same categories for FY 2013 and FY 2014.

<sup>(1)</sup> Oil revenue shown in the Federal category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve - Alaska.

**Figure 2-3. Unrestricted General Fund Revenue (\$ million)**

<b>Oil Revenue</b>	History	Forecast	
	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
<b>Oil Taxes</b>			
Petroleum Property Tax	111.2	111.6	99.3
Petroleum Corporate Income Tax	568.8	558.2	606.9
Oil & Gas Production Tax	6,146.1	4,353.2	3,778.8
<b>Subtotal Oil Taxes</b>	<b>6,826.1</b>	<b>5,023.0</b>	<b>4,485.0</b>
<b>Royalties (including Bonuses, Rents, &amp; Interest)</b>			
Mineral Bonuses & Rents	6.2	10.4	6.0
Oil & Gas Royalties	2,022.8	1,869.6	1,907.0
Interest	2.7	1.0	1.0
<b>Subtotal Royalties</b>	<b>2,031.7</b>	<b>1,881.0</b>	<b>1,914.0</b>
<b>Total Oil Revenue</b>	<b>8,857.8</b>	<b>6,904.0</b>	<b>6,399.0</b>
<b>Non-Oil Revenue, except federal and investment</b>			
<b>Non-Oil Taxes</b>			
<b>Excise Tax</b>			
Alcoholic Beverage	19.4	21.7	22.2
Tobacco Product – Cigarette	33.6	32.4	31.4
Tobacco Product – Other	12.0	13.3	14.4
Insurance Premium	54.8	57.9	58.8
Electric and Telephone Cooperative	0.2	0.2	0.2
Motor Fuel	40.9	40.7	40.6
Vehicle Rental	8.5	8.7	8.9
Tire Fee	1.4	1.4	1.4
<b>Subtotal Excise Tax</b>	<b>170.8</b>	<b>176.3</b>	<b>177.9</b>
<b>Corporate Income Tax</b>	<b>98.5</b>	<b>111.2</b>	<b>113.7</b>
<b>Fisheries Tax</b>			
Fisheries Business	26.4	22.0	22.6
Fishery Resource Landing	6.3	3.7	3.8
<b>Subtotal Fisheries Tax</b>	<b>32.7</b>	<b>25.7</b>	<b>26.4</b>
<b>Other Tax</b>			
Charitable Gaming	2.6	2.6	2.6
Estate	0.0	0.0	0.0
Large Passenger Vessel Gambling	5.2	5.2	5.2
Mining	40.7	58.3	64.0
<b>Subtotal Other Tax</b>	<b>48.5</b>	<b>66.1</b>	<b>71.8</b>
<b>Subtotal Non-Oil Taxes</b>	<b>350.5</b>	<b>379.3</b>	<b>389.8</b>

Figure 2-3. Unrestricted General Fund Revenue (\$ million) (continued from previous page)

	History	Forecast	
	FY 2012	FY 2013	FY 2014
<b>Charges for Services</b>			
General Government	14.0	17.8	17.8
Natural Resources	8.9	8.9	8.9
Other	6.3	6.6	6.6
<b>Subtotal Charges for Services</b>	<b>29.2</b>	<b>33.3</b>	<b>33.3</b>
<b>Subtotal Fines &amp; Forfeitures</b>	<b>10.9</b>	<b>9.5</b>	<b>9.5</b>
<b>Licenses &amp; Permits</b>			
Alcoholic Beverage Licenses	1.0	1.0	1.1
Motor Vehicle	38.2	39.7	39.3
Other	3.1	2.7	2.7
<b>Subtotal Licenses &amp; Permits</b>	<b>42.3</b>	<b>43.4</b>	<b>43.1</b>
<b>Rents &amp; Royalties</b>			
Mining Rents & Royalties	12.3	12.3	12.3
Other Non-Petroleum Rents & Royalties	8.1	8.0	8.0
<b>Subtotal Rents &amp; Royalties</b>	<b>20.4</b>	<b>20.3</b>	<b>20.3</b>
<b>Other</b>			
Miscellaneous	22.3	14.3	14.3
Alaska Housing Finance Corporation	8.9	16.5	0.0
Alaska Industrial Development & Export Authority	29.4	20.4	20.7
Alaska Municipal Bond Bank Authority	0.0	0.9	0.9
Alaska Student Loan Corporation	1.7	0.0	0.0
Alaska Energy Authority	0.0	0.0	0.0
Mental Health Trust	0.0	0.1	0.1
Unclaimed Property	4.0	3.5	3.5
<b>Subtotal Other</b>	<b>66.3</b>	<b>55.7</b>	<b>39.5</b>
<b>Total Non-Oil Revenue, except federal and investment</b>	<b>519.6</b>	<b>541.5</b>	<b>535.5</b>
<b>Investment Revenue</b>			
Investments	104.8	61.8	63.1
Interest Paid by Others	3.0	4.4	4.4
<b>Total Investment Revenue</b>	<b>107.8</b>	<b>66.2</b>	<b>67.5</b>
<b>Total Unrestricted Revenue</b>	<b>9,485.2</b>	<b>7,511.7</b>	<b>7,001.9</b>

**Figure 2-4. Total State Restricted Revenue by Major Component (\$ million)**

<b>Designated General Fund Revenue</b> <b>Non-Oil Revenue, except federal and investment</b>	History	Forecast	
	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
Taxes	52.0	50.5	50.7
Charges for Services	200.1	231.2	229.3
Fines and Forfeitures	6.9	8.0	8.0
Licenses and Permits	0.4	0.2	0.2
Rents and Royalties	4.4	4.4	4.4
Other	4.4	17.4	17.4
<b>Subtotal</b>	<b>268.2</b>	<b>311.7</b>	<b>310.0</b>
<b>Investment Revenue</b>			
Investments - Designated GF	9.2	4.8	5.3
Other Treasury Managed Funds	25.4	36.6	28.4
<b>Subtotal</b>	<b>34.6</b>	<b>41.4</b>	<b>33.7</b>
<b>Subtotal Designated General Fund Revenue</b>	<b>302.8</b>	<b>353.1</b>	<b>343.7</b>
<b>Other Restricted Revenue</b>			
<b>Oil Revenue</b>			
Royalties to Perm Fund & School Fund (includes Bonuses & Rents)	919.6	801.6	838.4
Tax and Royalty Settlements to CBRF <sup>(1)</sup>	102.1	336.4	20.0
<b>Subtotal</b>	<b>1,021.7</b>	<b>1,138.0</b>	<b>858.4</b>
<b>Non-Oil Revenue, except federal and investment</b>			
Taxes	75.3	70.2	71.3
Charges for Services	41.7	69.6	69.6
Fines and Forfeitures	24.4	23.6	23.4
Licenses and Permits	30.7	31.5	31.5
Rents and Royalties	8.0	8.0	8.0
Other	4.4	7.0	7.0
<b>Subtotal</b>	<b>184.5</b>	<b>209.9</b>	<b>210.8</b>

<sup>(1)</sup> On November 8, 2012, a \$255 million settlement was announced between the State of Alaska and BP Exploration (Alaska) Inc. The majority of the \$255 million will be deposited into the Constitutional Budget Reserve Fund (CBRF). However, a portion will also be deposited into the Permanent Fund and School Fund, and approximately \$10 million will be paid to settle civil assessments. As this information was received late in the forecast process, the entire \$255 million was included as a deposit to the CBRF for purposes of this *Revenue Sources Book*. The department's Spring 2013 update will revise this information to include the actual amounts deposited to each applicable fund.

Figure 2-4. Total State Restricted Revenue by Major Component (\$ million) (continued from previous page)

<b>Investment Revenue</b>	History	Forecast	
	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
Investments - Other Restricted	18.5	9.8	10.6
Constitutional Budget Reserve Fund	191.1	550.3	422.9
Alaska Permanent Fund (GASB) <sup>(2)</sup>	-99.9	2,725.9	2,936.0
<b>Subtotal</b>	<b>109.7</b>	<b>3,286.0</b>	<b>3,369.5</b>
<b>Subtotal Other Restricted Revenue</b>	<b>1,315.9</b>	<b>4,633.9</b>	<b>4,438.7</b>
<b>Federal Revenue</b>			
<b>Oil Revenue</b>			
NPR-A Royalties, Rents and Bonuses	4.8	2.7	2.7
<b>Subtotal</b>	<b>4.8</b>	<b>2.7</b>	<b>2.7</b>
<b>Federal Receipts</b>			
Federal Receipts	2,455.5	2,822.7	2,822.7
<b>Subtotal</b>	<b>2,455.5</b>	<b>2,822.7</b>	<b>2,862.2</b>
<b>Subtotal Federal Revenue</b>	<b>2,460.3</b>	<b>2,864.9</b>	<b>2825.4</b>
<b>Total Restricted Revenue</b>	<b>4,079.4</b>	<b>7,812.4</b>	<b>7,607.8</b>

<sup>(2)</sup> Both realized and unrealized gains and losses are included per GASB 34 as interpreted by the Finance Division of the Department of Administration in its *Comprehensive Annual Financial Report*.

## Crude Oil Price Forecast

Oil revenue is projected to provide at least 85% of forecasted Unrestricted General Fund Revenue through FY 2022. Four elements are critical to the oil revenue forecast: price, volume, transportation charges, and lease expenditures.

There is no price for Alaska crude oil on the New York Mercantile Exchange (NYMEX)<sup>(1)</sup> or other commodity exchanges. The spot price of Alaska North Slope (ANS) crude oil is calculated by applying a market differential from the price of West Texas Intermediate (WTI) quoted on the NYMEX. DOR uses three different reporting and assessment services that estimate the market differential between ANS and WTI prices and report a daily spot price for ANS. These prices are used in the calculation of the department’s ANS West Coast “prevailing value” for

oil price.

All of Alaska’s oil production is delivered to refineries on the U.S. West Coast, including Alaska and Hawaii. Consequently, Alaska’s royalty and production tax revenue depends in large part on the average market price of ANS crude oil at U.S. West Coast refineries.

Figure 2-5 shows a comparison of WTI price, ANS West Coast price and a derived ANS wellhead price, for FY 2012 and the Department of Revenue’s forecast of prices for the 10-year period beginning with FY 2013. The department compiles its oil price forecast from several sources. This compilation is referred to as a “blended” forecast. Figure 2-6 shows the monthly actual ANS West Coast market prices from July 2006 through October 2012. Also shown are the Department’s ANS oil price forecast, along with recent

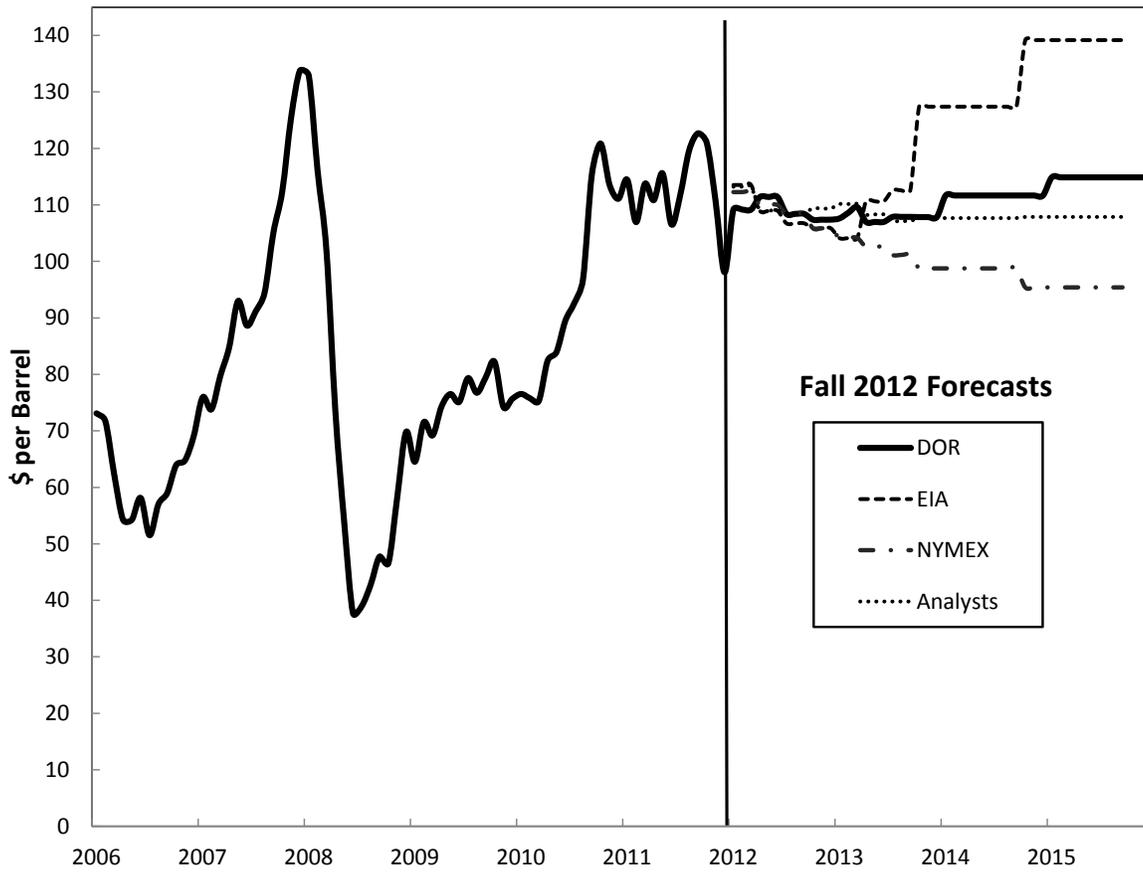
WTI oil price forecasts provided by the Energy Information Administration (EIA), the New York Mercantile Exchange (NYMEX), and a survey of analysts from Bloomberg services. Forecasted prices are adjusted with DOR’s forecasted differential to arrive at an oil price forecast for ANS and are incorporated into DOR’s Fall 2012 ANS oil price forecast. Detail about DOR’s oil price forecast methodology is provided in Chapter 4. The Department of Revenue projects that, in the short term, ANS oil prices will average \$108.67 per barrel in FY 2013 and \$109.61 per barrel in FY 2014. In the mid term, DOR forecasts ANS to increase slightly, with a FY 2015 price of \$111.67 and a FY 2016 price of \$114.88.

**Figure 2-5. WTI, ANS West Coast and ANS Wellhead Price (\$ per barrel)**

Fiscal Year	WTI	ANS West Coast	ANS Wellhead
Actual			
2012	95.80	112.65	103.84
Forecasted			
2013	91.79	108.67	99.24
2014	98.79	109.61	100.80
2015	102.83	111.67	102.70
2016	107.24	114.88	105.54
2017	110.27	116.22	106.53
2018	112.74	117.16	107.28
2019	114.88	118.29	108.12
2020	117.10	119.74	109.20
2021	119.38	121.42	110.49
2022	121.77	123.34	112.02

<sup>(1)</sup> The NYMEX futures market is one source for a WTI price quote. Several reporting services also report a daily WTI price quote.

Figure 2-6. ANS Monthly Oil Price History and Forecasts<sup>(1)</sup>



<sup>(1)</sup> EIA, NYMEX and Analysts forecasts represent WTI forecasts with the department's differential applied.

## Crude Oil Production Forecast

Alaska North Slope crude oil production has steadily declined since 1988, as reservoir depletion of legacy fields continues to reduce the ability to recover oil. As shown in Figure 2-7, DOR anticipates volumes will continue to decline by 4.5% in FY 2013 to about 552.8 thousand barrels per day. The Department's 10-year forecast estimates a continued average decline rate of 5.5%. DOR continues to refine its methodology for evaluating new oil production within the overall produc-

tion forecast. Chapter 4 has a more thorough discussion of the production forecast and the production forecast methodology. A more detailed production forecast is included in Appendix C of this publication.

## Crude Oil Expenditures Forecast

A major component of oil production revenue forecasting is the lease expenditures forecast. Under the ACES production tax, companies are allowed to deduct certain lease expenditures from the gross value of their production before applying the tax rate. Future

tax collections, therefore, are dependent not only on the oil price and the level of production, but on the cost of that production.

Costs of production may include operating expenses, such as the costs of labor and the expense to run a facility, and they may include costs to acquire production equipment or to drill a well—usually deemed to be capital expenses. A portion of capital expenses is also allowed as a credit against the ACES production tax.

Lease expenditures for the exploration for and production of crude oil on the North Slope increased during the first

**Figure 2-7. Alaska Near-Term Crude Oil Production Forecast (thousand barrels per day)**

Alaska North Slope	History	Forecast	
	FY 2012	FY 2013	FY 2014
Prudhoe Bay <sup>(1) (2)</sup>	265.2	267.5	256.1
PBU Satellites <sup>(3)</sup>	50.7	46.5	44.4
GPMA <sup>(4)</sup>	29.6	26.8	25.5
Kuparuk	91.6	85.0	84.8
Kuparuk Satellites <sup>(1)(5)</sup>	27.5	23.9	23.4
Endicott <sup>(6)</sup>	11.2	10.1	10.0
Alpine <sup>(7)</sup>	78.7	67.3	64.3
Offshore <sup>(8)</sup>	24.6	25.6	29.9
<b>Total Alaska North Slope</b>	<b>579.1</b>	<b>552.8</b>	<b>538.4</b>
Total Cook Inlet	10.8	10.4	9.6
<b>Total Alaska</b>	<b>590.0</b>	<b>563.2</b>	<b>548.0</b>

<sup>(1)</sup> Milne Point Unit production is now being reported with PBU Satellites instead of with PBU volume. Historical volumes will, therefore, not match the Fall 2011 RSB.

<sup>(2)</sup> Includes NGLs from Central Gas Facility shipped to TAPS.

<sup>(3)</sup> Aurora, Borealis, Midnight Sun, Orion, Polaris, Milne Point, Sag River, Schrader Bluff, Ugnu

<sup>(4)</sup> Lisburne, Niakuk, Point McIntyre, Raven, West Beach, West Niakuk

<sup>(5)</sup> Meltwater, NEWS, Tabasco, Tarn, West Sak

<sup>(6)</sup> Endicott, Minke, Sag Delta, Eider, Badami

<sup>(7)</sup> Alpine, Fiord, Nanuq, Qannik, Mustang (after 2016)

<sup>(8)</sup> Northstar, Oooguruk, Nikaitchuq, Liberty (delayed)

\* Totals may show slight differences from other sources due to rounding and aggregation differences

two years they were reported and leveled off in FY 2009 through FY 2011 at \$4.9 billion. In FY 2012, total North Slope lease expenditures increased to \$5.4 billion, with most of the increase due to higher operating costs. It is important to note that these are unaudited, company-reported lease expenditures. DOR projects total North Slope spending to increase to \$6.3 billion in FY 2013, \$6.7 billion in FY 2014, and \$6.8 billion in FY 2015, then DOR forecasts that the expenditures begin to decline later in the decade. The higher forecasts are due to higher capital spending and reflect a combination of recently announced new developments, and increased costs for ongoing development at existing fields. These increased spending estimates are in part contingent on oil prices maintaining current levels or increasing.

## Transportation Charges Forecast

To estimate the ANS wellhead value, a component in the revenue calculation, it is necessary to forecast transportation costs, since these costs are subtracted from the appropriate destination value to estimate wellhead value, a process known as the “netback calculation.”

Forecasts of marine transportation cost, Trans Alaska Pipeline System (TAPS) tariff, feeder pipeline tariffs and quality bank adjustments are discussed and summarized in Chapter 4.

## Long-Term Unrestricted Revenue Outlook

Using the price, volume, lease expenditure, and transportation cost components developed for this fall forecast, Figure 2-8 summarizes the department’s forecast of total Unrestricted General Fund Revenue through FY 2022.

Figure 2-8. Total Unrestricted General Fund Revenue (\$ million)

Fiscal Year	Unrestricted Oil Revenue	Unrestricted Non-Oil Revenue, excluding federal and investment	Unrestricted Investment Revenue	Total Unrestricted Revenue	Percent From Oil Revenue
Actual					
2012	8,857.8	519.6	107.8	9,485.2	93%
Forecasted					
2013	6,904.0	541.5	66.2	7,511.7	92%
2014	6,399.0	535.5	67.5	7,001.9	91%
2015	6,016.4	551.4	91.7	6,659.5	90%
2016	6,323.6	559.1	116.8	6,999.5	90%
2017	6,396.3	567.3	141.8	7,105.5	90%
2018	6,228.0	575.2	166.9	6,970.1	89%
2019	5,943.8	583.4	192.0	6,719.2	88%
2020	5,672.2	597.3	217.1	6,486.6	87%
2021	5,374.9	591.5	242.1	6,208.6	87%
2022	5,102.3	599.9	267.2	5,969.5	85%

## Constitutional Budget Reserve Fund and Forecasted Spending

As approved by voters in 1990, all receipts from oil and gas tax and royalty settlements are deposited into the Constitutional Budget Reserve Fund (CBRF). As of September 30, 2012, since the CBRF's inception, the State has deposited about \$7.6 billion into the fund and generated another \$3.4 billion in investment earnings. A cumulative total of approximately \$8.8 billion has been borrowed from the CBRF to balance the budget during prior fiscal years, but has been fully repaid to the CBRF. The current net asset value in the CBRF, as of September 30, 2012, is about \$11.0 billion.

Since the increase in oil prices beginning in 2003, no significant CBRF withdrawals have been necessary to balance the state's budget. However, the

state may have to depend on the CBRF in the future should state revenue decline and spending remain at current levels. Figure 2-9 is a matrix that estimates the time period in which the CBRF would be depleted, depending on the price of oil and percent change in the budget. There is a column that is based on the price forecast for Fall 2012. The matrix also assumes that the unobligated balance of the operating general fund would be deposited upon appropriation into the Statutory Budget Reserve Fund (SBRF) (AS 37.05.540). In the event of a budget deficit, the SBRF would be the first fund to be drawn down, and upon depletion, would be followed with draws upon the Constitutional Budget Reserve Fund. As of September 30, 2012, the SBRF had a net asset value of approximately \$4.7 billion. Figure 2-9 shows that, given the current oil price and production forecast and up to 10% in budget growth from FY 2014 levels, the CBRF

would not be depleted before 2021. However, under certain conditions, falling prices and increased spending, the CBRF could be depleted as early as 2016.

On November 8, 2012, a \$255 million settlement was announced between the State of Alaska and BP Exploration (Alaska) Inc. The majority of the \$255 million will be deposited into the Constitutional Budget Reserve Fund (CBRF). However, a portion will also be deposited into the Permanent Fund and School Fund, and approximately \$10 million will be paid to settle civil assessments for the spills. As this information was received late in the forecast process, the entire \$255 million was included as a deposit to the CBRF for purposes of this *Revenue Sources Book*. The DOR's Spring 2013 update will revise this information to include the actual amounts deposited to each applicable fund.

**Figure 2-9. CBRF Run-Out Date With Revenue Surpluses Deposited into SBRF<sup>(1)</sup>**

Annual State Budget (% change)	Fiscal Model of Oil Revenue & CBRF Performance at Selected Prices (\$ per barrel starting FY 2014) <sup>(2)</sup>						Fall 2012 Oil Price Forecast <sup>(3)</sup>
	\$50	\$60	\$70	\$80	\$90	\$100	
-2%	Jan-2017	Sep-2017	Aug-2018	Feb-2020	Jun-2023	Jun-2023	Jun-2023
0%	Nov-2016	Jul-2017	Mar-2018	May-2019	Aug-2021	Jun-2023	Jun-2023
2%	Oct-2016	May-2017	Nov-2017	Oct-2018	Jul-2020	Jan-2023	Jun-2023
4%	Sep-2016	Feb-2017	Aug-2017	Jul-2018	Oct-2019	Aug-2021	Jun-2023
6%	Aug-2016	Jan-2017	Jul-2017	Feb-2018	Apr-2019	Sep-2020	Jun-2023
8%	Jul-2016	Nov-2016	May-2017	Nov-2017	Oct-2018	Jan-2020	Jul-2022
10%	Jun-2016	Nov-2016	Mar-2017	Sep-2017	Jul-2018	Jul-2019	Jul-2021

<sup>(1)</sup> Based on the current forecast, and the assumption that the unobligated balance of the operating general fund would be deposited upon appropriation into the Statutory Budget Reserve Fund (SBRF) (AS 37.05.540). In the occurrence of a budget deficit, the SBRF would be the first fund to be drawn down, and upon depletion, would be followed with draws upon the CBRF.

<sup>(2)</sup> Matrix allows reader to select specific fiscal year price (from FY 2014-beyond) to determine CBRF exhaustion date. Fall 2012 forecasted production volumes are used. A date of June 2023 indicates that the CBRF does not run out before that date.

<sup>(3)</sup> See Figure 2-5 for Fall 2012 oil price forecast used in base scenario.

**Fall 2012 ANS Oil Official Price Forecast (\$ per barrel)**

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
108.67	109.61	111.67	114.88	116.22	117.16	118.29	119.74	121.42	123.34

# Revenue Sources Book

*Alaska Department of Revenue – Tax Division*

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# FALL 2012

# 3. Alaska Commercial Fisheries and Fisheries-Related Revenues<sup>(1)</sup>

## Introduction

From the establishment of the canned salmon industry in 1878, until they were eclipsed by oil production in the 1970s, salmon fisheries were one of Alaska's most important sources of revenue and employment. For almost 100 years, salmon fisheries were rivaled in economic importance to Alaska only by gold and copper mining and military activity.<sup>(2)</sup>

Today, Alaska's fisheries remain a vital part of Alaska's overall economy. Although fisheries revenues are small relative to oil, they are among the most important non-oil sources of state revenues.

This chapter briefly reviews Alaska's commercial fisheries and state fisheries-related revenues.

## World-Class Fisheries

Alaska's commercial Fisheries are world class. If Alaska were an independent

country, it would rank 14th among seafood harvesting nations. The state usually accounts for approximately 45% of the total U.S. harvest by volume and 35% by value. In 2010, the Commercial Fisheries Entry Commission (CFEC) estimated the value of Alaska landings, basically the value paid

to harvesters, to be approximately \$1.5 billion. This value is 33% of the total \$4.5 billion U.S. fisheries harvest.<sup>(3)</sup>

In 2010, six of the top ten and eight of the top twenty U.S. ports, in terms of both the volume and value of fisheries landings, were located in Alaska. A

**Figure 3-1 Commercial Fishery Landings by Value, Major Alaska Ports CY 2010**

Port	National rank	\$ millions
Dutch Harbor	2	\$163.1
Kodiak	3	\$128.1
Naknek	4	\$100.9
Cordova	5	\$84.3
Seward	9	\$69.2
Sitka	10	\$62.2
Homer	11	\$56.1
Ketchikan	19	\$41.3
Petersburg	23	\$36.3
Kenai	33	\$25.1
Juneau	35	\$23.8

Source: National Oceanic and Atmospheric Administration<sup>(3)</sup>

<sup>(1)</sup> Special thanks to Dr. Gunnar Knapp, Director, Institute of Social and Economic Research, University of Alaska Anchorage for reviewing this chapter and his valuable contributions. Thanks also to Geron Bruce, Assistant Director for Information Services, Division of Commercial Fisheries, Alaska Department of Fish and Game and Dan Robinson Chief, Research and Analysis, Alaska Department of Labor & Workforce Development for reviewing this chapter.

<sup>(2)</sup> George Rogers, *Alaska in Transition: the Southeast Region*, Johns Hopkins Press 1960

<sup>(3)</sup> The CFEC data referenced throughout this chapter vary slightly from Department of Revenue tax return data, in part due to treatment of fishery resources caught outside the state's 3-mile jurisdictional limit in the CFEC data. For example, for 2010, the Department of Revenue reports \$1.7 billion in total value for fisher's landings. NOAA [http://www.noaanews.noaa.gov/stories2011/20110907\\_usfisheriesreport.html](http://www.noaanews.noaa.gov/stories2011/20110907_usfisheriesreport.html)

total of eleven Alaska ports were ranked in the top fifty.<sup>(1)</sup> They are shown in Figure 3-1.

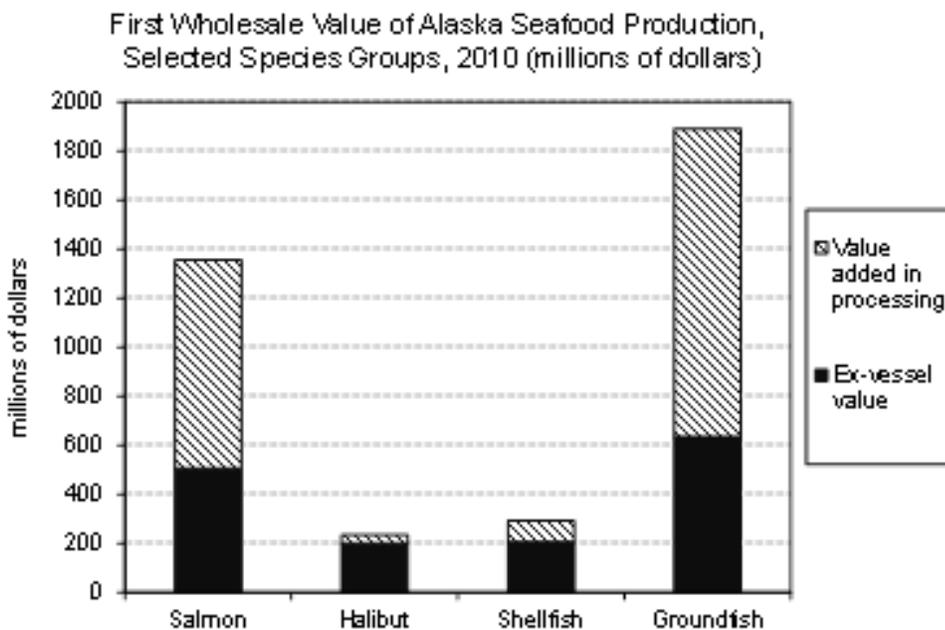
The social and economic importance of fisheries to the state is demonstrated by its importance to Alaska's employment. A 2011 study by Northern Economics estimated that the seafood industry employs a harvesting and processing workforce of 70,548 and employs more workers than any other non-government industry sector in Alaska, including oil and gas and mining combined.<sup>(2)</sup> According to the Alaska Department of Labor & Workforce Development, of all the people who work in Alaska, one in six work in the fish industry, although many of the fishing industry jobs are seasonal.

Seafood is a major Alaska export. About 80% of Alaska salmon production and about 50% of crab production is exported. Major export markets include Japan, China and the European Union.

## Fleet Profile

Alaska's fishing fleets include (1) a "mosquito fleet," (2) a small boat fleet, and (3) industrial fleet. The "mosquito fleet" of small, mostly open boats, is primarily utilized by the salmon set-net and hand-troll fisheries. The small boat fleet is largely composed of vessels from thirty to fifty-eight feet in length designed for the salmon gill-net, power troll or purse seine fisheries. While the type of gear used imposes some functional limits to vessel size and configuration, the upper size limit was established by a regulation that prohibited the use of vessels over fifty-eight feet in length from participation in the salmon purse seine fishery. Many of the small

**Figure 3-2 Wholesale Value of Seafood Production**



boat fleet vessels also engage in halibut, near shore crab and other fisheries to supplement their income in the salmon fisheries. The industrial fleet is a specialized and highly productive fleet of large crab, long-line, catcher trawl, and factory trawl vessels that target offshore crab and groundfish and account for most of the volume and, including the at-sea sector, half the value of the Alaska commercial fisheries.<sup>(3)</sup>

## Clarification of Terms

The term "Alaska commercial fisheries" is not well-defined. "Alaska" may refer to the general geographic region including the off-shore waters of the Exclusive Economic Zone (EEZ), to the state managed fisheries only, or to the residency of the harvesters and processing workers. "Commercial fisheries" includes a broad range of economic activities ranging from

set-net fisherman to corporate-owned multi-million dollar factory trawlers. A broader definition of the term "commercial fisheries" may also include the corporate headquarters of processing firms, financial backers, distribution networks, and fleet support activities or what is currently referred to as "fisheries clusters."

Most "Alaska commercial fisheries" are in fact federally managed fisheries conducted under rules set by the National Marine Fisheries Service (NMFS), the North Pacific Fisheries Management Council (NPFMC), or the International Pacific Halibut Commission (IPHC). In 2010, non-resident fishermen accounted for 55% of the Commercial Fisheries Entry Commission monitored landings and a considerably higher percentage if the offshore fisheries are included. Non-residents own and operate most of the large vessel

<sup>(1)</sup> NMFS <http://www.st.nmfs.noaa.gov/st1/trade/documents/TRADE2011.pdf> and <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>

<sup>(2)</sup> *The Seafood Industry in Alaska's Economy, 2011 Executive Summary Update*: prepared by Northern Economics for the Marine Conservation Alliance (the numbers are not strictly comparable with those of ADOL&WD, because most fishermen, including crew members are technically self-employed and not included in wage and salary counts), [http://www.marineconservationalliance.org/wp-content/uploads/2011/02/SIAE\\_Feb2011a.pdf](http://www.marineconservationalliance.org/wp-content/uploads/2011/02/SIAE_Feb2011a.pdf)

<sup>(3)</sup> Neal Gilbertsen, "Residency and the Alaska Fisheries", *Alaska Economic Trends*, December 2004, <http://labor.state.ak.us/trends/dec04.pdf>

crab and trawl fleet. The major seafood companies operating in Alaska are headquartered in Seattle or the Puget Sound area, where the first wholesale values are realized. Moreover, Puget Sound remains the center for fisheries support industries ranging from vessel repair and fishing supplies, to finance, distribution and other activities. A report to the Seattle Marine Business Coalition placed the 2004 local economic contribution of the Washington distant water fleet fishing in or offshore Alaska at \$3.5 billion.<sup>(1)</sup>

## Major Alaska Fisheries

Dozens of species of fish are harvested in Alaska. Most of the volume and value of harvests is included in four broad fisheries groups: Salmon, Halibut

and Sablefish, Shellfish, and Groundfish. There are significant differences between these four groups in the fishery resources, vessel and gear types, markets, and management. Salmon are managed by the State of Alaska, while the other three species groups are managed by the federal government.

As shown in Figure 3-2, Groundfish (particularly pollock) accounts for by far the largest share of the volume of fish harvested, and also the largest share of ex-vessel value (the value paid to fishermen) and first wholesale value after processing. Salmon is the second most value fishery group. Note that in both the groundfish and salmon fisheries, the value added in processing exceeds the ex-vessel value. The remainder of this chapter provides more detail about each of these major Alaska

fisheries.

## Salmon

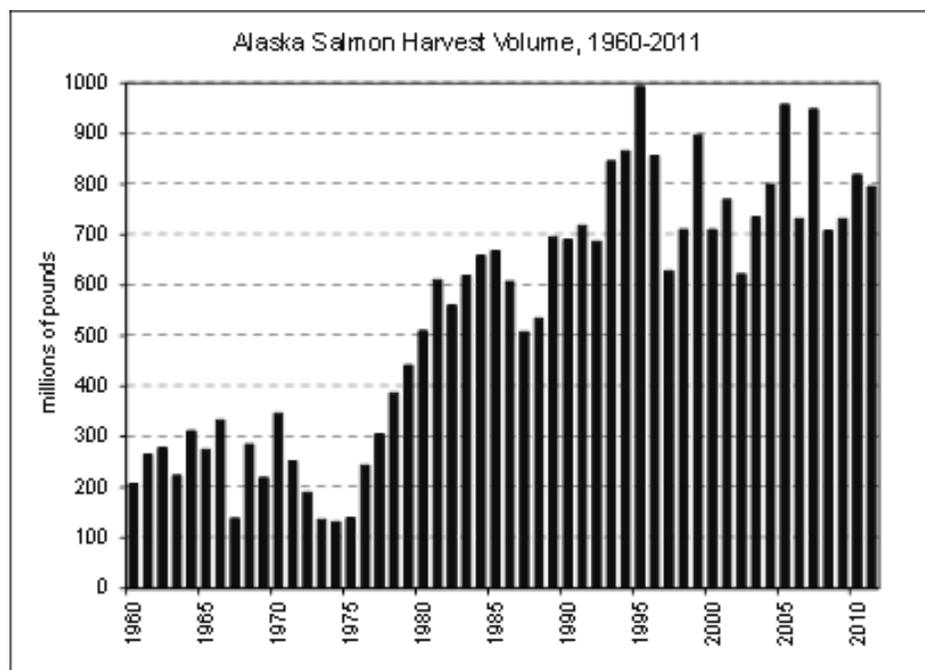
Under Federal management salmon fisheries peaked in 1939, and then began a decline that continued until the state assumed management in 1959.<sup>(2)</sup> The new state relied heavily on salmon taxes as a source of revenue.

Salmon runs increased in the decade following statehood, but then declined dramatically in the early 1970s. In response the state introduced a limited entry management system, under which the right to participate in the various salmon fisheries was limited to a fixed number of individuals. The limited entry system significantly affected the economies of many smaller villages, as fishing permits and vessels were sold over time into larger communities or out of state, leading to declining local employment in the salmon fisheries.

In the late 1970s Alaska salmon runs recovered and harvests continued to grow dramatically into the 1990s. Much of the growth is attributable to hatchery programs, which now account for about 35% of Alaska's salmon harvests.<sup>(3)</sup>

Despite record harvests, the unprecedented economic prosperity in Alaska's salmon industry in the 1980s was followed by a long period of decline in the 1990s. Salmon farmers in Norway, followed soon by farmers in Scotland, Chile, Canada and other countries flooded world markets with an expensive year-round supply of fresh salmon. Japan embarked on a large-scale ocean ranching program and Russia entered

**Figure 3-3 Alaska Salmon Harvest Volume**



Source: Alaska Department of Fish and Game

<sup>(1)</sup> Hans D. Radtke, Ph.D., Washington State Commercial Fishing Industry Total Economic Contribution, <http://www.fishermensnews.com/attachmentsPDF/RadtkeReport.pdf>

This study is total economic impact and includes value added effects and should not be compared to the landings figures.

<sup>(2)</sup> Steve Colt, ISER "Salmon Fish Traps In Alaska: An Economic Perspective" <http://www.alaskool.org/projects/traditionalife/fishtrap/fishtrap.htm>

<sup>(3)</sup> ADF&G <http://www.adfg.alaska.gov/FedAidpdfs/RIR.1J.2001.10.pdf>

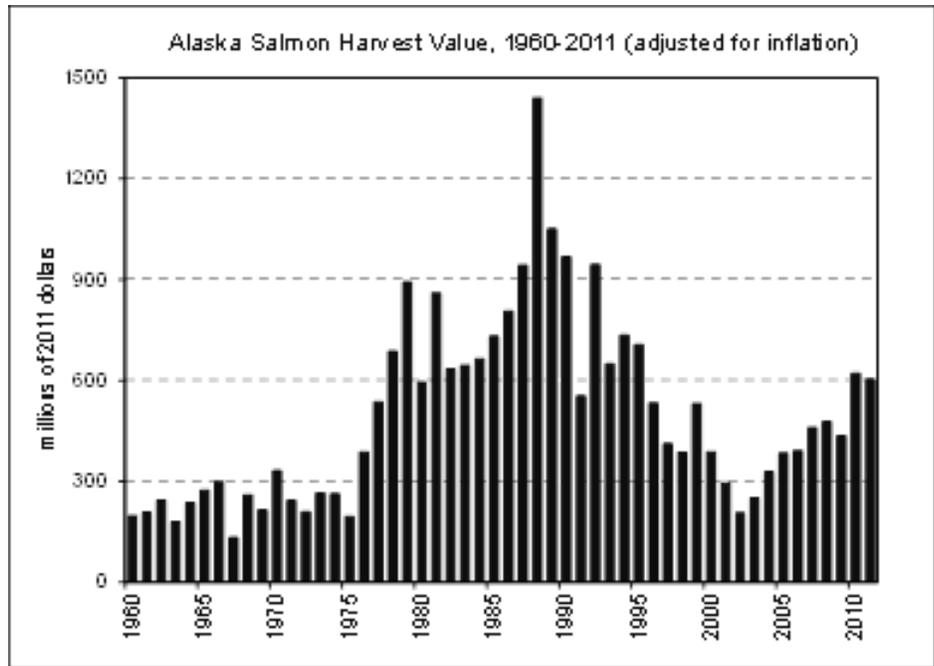
world markets with large sales of wild salmon from the Russian Far East.<sup>(1)</sup> This global competition grew rapidly through the end of the century, drastically depressing prices and the value of Alaska's salmon harvests.

For example, the ex-vessel price of Southeast Alaska pink salmon fell from \$0.84/lb in 1988 (\$1.60 in CPI adjusted 2011 dollars) to just \$.10/lb in 2002 (\$0.13/lb in CPI adjusted 2011 dollars). In effect, pink salmon fishermen in 2002 would have had to harvest ten times the amount they had harvested in 1988 in order to earn as much in constant dollars.<sup>(2)</sup>

With the drastic fall in prices and value, the value of salmon vessels and limited entry permits also plummeted. Many fishermen were forced out of the fisheries as earnings were insufficient to make payments on their investments. Canneries limited the numbers of fishermen in their fleets.<sup>(3)</sup>

It appears that the Alaska salmon industry has weathered the worst of this economic storm. Alaska Department of Fish and Game (ADF&G) management developed and maintains a fishery based upon high levels of production which allows Alaska to remain competitive in world markets. Salmon prices have recovered considerably since their nadir in 2002, in part due to disease problems encountered by the Chilean farmed salmon industry that reduced production and competition. Improvements in Alaska fishing vessels and refrigeration technology have led to better quality control, and processors have added new product lines. An aggressive campaign by the Alaska Seafood Marketing Institute promoting the virtues of "wild salmon"

**Figure 3-4 Alaska Salmon Harvest Value**



Source: Alaska Department of Fish and Game

**Figure 3-2 Salmon Fisheries, CY 2010**

	(\$ millions)
Value of All Fisheries Landings	\$1,480.4
Value of Salmon Landings	\$521.5
-Alaska Resident Value	\$333.6
-Non-Resident Value	\$187.9
Salmon as Percentage of Total Harvest Value	35.2%
Individuals Fishing Permits All Fisheries	9,767
Number of Salmon Fishing Permits	7,508
-Alaska Residents who fished	5,503
-Non-Residents who fished	2,005

Source: Commercial Fisheries Entry Commission(CFEC)

<sup>(1)</sup> Gunnar Knapp of the Institute of Social and Economic Research, University of Alaska Anchorage has written extensively on the impacts of ocean ranching and farmed salmon on the Alaska commercial fisheries [http://www.iser.uaa.alaska.edu/people/knapp/personal/pubs/TRAFFIC/The\\_Great\\_Salmon\\_Run.pdf](http://www.iser.uaa.alaska.edu/people/knapp/personal/pubs/TRAFFIC/The_Great_Salmon_Run.pdf)

<sup>(2)</sup> ADF&G <http://www.adfg.alaska.gov/static/fishing/PDFs/commercial/84-10exvl.pdf>

<sup>(3)</sup> Neal Gilbertsen, "The Global Salmon Industry", *Alaska Economic Trends*, October 2003. <http://www.sfos.uaf.edu/salmontools/publications/docs/AK-labor-salmon-oct03.pdf>

contributes to a growing public awareness of the benefits of natural foods. However, prices have not yet regained the levels in terms of real dollars seen in the 1980's, in part due to continuing competition from farmed fish.

Although Alaska salmon fisheries account for considerably less than half of the total ex-vessel value of Alaska fisheries, they are by far the most important in terms of employment. In 2010, 7,508 individuals fished Alaska salmon permits. While many of these individuals also participated in other fisheries, such as halibut, crab or herring, the salmon fishery remains the core fishery for most.<sup>(1)</sup>

## Federally Managed Fisheries

The Alaska Department of Fish and Game controls the governance of salmon, herring, and a few other near-shore fisheries, which occur primarily within three miles from the coast where state jurisdiction ends.

Alaska's other major fisheries - halibut, sablefish (also known as black cod), crab and groundfish are governed by the North Pacific Fisheries Management Council and the National Marine Fisheries Service. These federally managed fisheries are for the most part governed by individual fisheries quotas (IFQs), community development quotas (CDQs), or agreed upon allocations of the established biological quotas. The remaining fisheries are also candidates for evolving "rationalization" plans.

## Halibut and Sablefish

The long-line fisheries are among Alaska's oldest. The first recorded shipment of halibut from Alaska was from Juneau to Seattle in 1897. In

1923, the International Pacific Halibut Commission (IPHC) was formed by a treaty between the U.S. and Canada to regulate the fisheries.

Alaska based long-line fishers were primarily salmon fishermen who supplemented their incomes by participation in the halibut fisheries. Because their main focus remained salmon, few vessels were larger than the fifty-eight foot limit imposed on that fishery.<sup>(2)</sup> By way of contrast, much of the Seattle based long-line fleet did not participate in the salmon fisheries and instead focused on halibut and sablefish. As a result, the vessels they used, such as the famed halibut schooners, were often much larger. Moreover, the individual harvests by these specialist vessels were considerably larger than those of Alaska fishermen who would leave the fishery during the salmon season.

The decade of the 1980s saw increasing numbers of fishers entering the halibut fisheries. For the most part, these were Alaska residents trying to establish a production record in anticipation of

a limited entry program being imposed on the fishery. As participation increased, seasons were shortened and by the 1990's in some areas the annual harvest was taken in a 24-hour period. This "derby" style race for fish resulted in often dangerous conditions, poor quality of harvests, and annual gluts on the market.

In 1995, the Individual Fisheries Quota share program was implemented, and quota shares were issued based on historical catches. Every year, biological quotas or "total allowable catches" (TACs) are assigned to halibut and sablefish areas. This quota is then divided among the IFQ share-holders in proportion to their quota shares. This results in the assignment to individuals of a known number of pounds that only they are allowed to harvest.

In the initial division, 63% of the halibut IFQ shares were awarded to 3,976 Alaska residents, while the remaining 37% was shared among 855 non-residents. The average share size held by Alaskans, was approximately

**Figure 3-3 The Long-Line Fisheries: Halibut and Sablefish CY 2010**

	(\$ millions)
Value of All Fisheries Landings	\$1,480.4
Value Halibut & Sablefish Landings	\$291.9
-Alaska Resident Value	\$176.3
-Non-Resident Value	\$115.7
Halibut & Sablefish as Percentage of Total Harvest Value	19.7%
Individuals Fishing Permits All Fisheries	9,767
Individuals Fishing Halibut & Sablefish Permits	2,778
-Alaska Residents who fished	2,159
-Non-Residents who fished	619

Source: Commercial Fisheries Entry Commission(CFEC)

<sup>(1)</sup> Commercial Fisheries Entry Commission(CFEC) [http://www.cfec.state.ak.us/fishery\\_statistics/earnings.htm](http://www.cfec.state.ak.us/fishery_statistics/earnings.htm)

<sup>(2)</sup> Originally the federal limitation was based on a 49-foot keel length, measured from the interior bow stem to the rudder stock. This federal limitation was altered by the state to a 58-foot overall length, measured from the exterior bow to the extreme stern of a vessel.

only one-third the size of that awarded to non-residents. Because many of the IFQ awarded Alaskans were quite small, a natural consolidation took place as small holders sold out to specialists. By 2006, more than a third of the Alaskans initially awarded IFQ shares had left the fishery and sold their shares to others. For those remaining, the average quota share had increased from 52,623 to 79,364 pounds.

Consolidation also took place in the non-resident fleet, where 210 of the initial IFQ holders sold their shares. By 2006, the remaining 645 non-resident IFQ holders had an average allocation of 198,482 quota shares, or more than double the size of Alaska IFQ holders. Many of these shares are now fished from very large long-line vessels.

A similar process took place with the sablefish allocations. Initially, 721 Alaskan residents were awarded 40% of the IFQs issued, while 334 non-residents received 60%. By 2006, the number of Alaskan resident had declined to 516, while the number of non-residents had slightly increased to 343. The average IFQ assignment for Alaskan resident was 243,000 pounds as opposed to the non-resident average of 560,000 pounds. The non-resident specialized long-line fleet garnered larger quotas than the residents who divided their time among multiple fisheries.<sup>(1)</sup>

## Crab Fisheries

Non-resident fishermen have always dominated the large-vessel crab fishery. Seattle-based processing firms had greater access to the required capital as the fisheries developed in the 1970's and 1980's. Non-residents harvested nearly 75% of the total value in the crab fisheries. In 2010, the average

non-resident crab venture yielded \$1.4 million, as compared to the average resident crab venture which yielded \$143,000. Many resident crabbers use small vessels and focus on near-shore dungeness crab and localized king crab stocks. The non-resident fleet operates offshore, and dominates the opilio or "snow" crab and king crab fisheries of the Bering Sea Aleutian Island region.

Like the halibut and sablefish fisheries, the Bering Sea Aleutian Island crab fisheries have been "rationalized," with quota shares awarded to fishers, processors, communities, and Community Development Quotas (CDQ) groups. (See Figure 3-6 for a discussion of Alaska's Community Development Quota (CDQ) Program.) This has ended the "race for fish" and resulted in much safer fishing conditions as quota shareholders are free to choose the timing and location of their harvesting. However, a large number of vessels have left the fishery, and employment opportunities have been dramatically

reduced, as the much smaller fleet harvests the quota over an extended period of time.

## Groundfish

The Bering Sea Aleutian Island (BSAI) trawl fishery is the newest major fishery for Alaska, and by far the largest in terms of volume. The fishery is managed under a complicated quota system developed by the North Pacific Fisheries Management Council that allocated percentages of total allowable catch between shore based, mother ship (floating processor), and at-sea sectors, and CDQ groups. See Figure 3-6.

In 1976, Congress passed the Magnuson-Stevens Fishery Conservation and Management Act. This is the principal law governing marine fisheries in the United States. It was originally adopted to extend control of U.S. waters to 200 nautical miles in the ocean, creating the Exclusive Economic Zone (EEZ), to phase out foreign fishing activities

Source: Commercial Fisheries Entry Commission(CFEC)

**Figure 3-4 Crab Fisheries CY 2010**

	(\$ millions)
Value of All Fisheries Landings	\$1,480.4
Value Crab Landings	\$222.4
-Alaska Resident Value	\$58.6
-Non-Resident Value	\$163.8
Crab as Percentage of Total Harvest Value	15.00%
Individuals Fishing Permits All Fisheries	9,767
Individuals Fishing Crab Permits	524
-Alaska Residents who fished	409
-Non-Residents who fished	115

Source: Commercial Fisheries Entry Commission(CFEC)

<sup>(1)</sup> NOAA IFQ changes 1995-2006 <http://www.fakr.noaa.gov/ram/ifq/rtf06.pdf>

### Figure 3-6 The Western Alaska Community Development Quota (CDQ) Program

#### Program Goals:

The goals of the CDQ program are to provide eligible western Alaska villages, represented by CDQ groups, with the opportunity to participate and invest in fisheries in the Bering Sea and Aleutian Islands Management Area (BSAI); to support economic development in western Alaska; to alleviate poverty and provide economic and social benefits for residents of western Alaska; and to achieve sustainable and diversified local economies in western Alaska.

#### CDQ Groups:

Six CDQ non-profit managing organizations (CDQ groups) represent the 65 communities eligible for the CDQ Program. They are: \* Aleutian Pribilof Island Community Development Association (APICDA), \* Bristol Bay Economic Development Corporation (BBEDC), \* Central Bering Sea Fishermen's Association (CBSFA), \* Coastal Villages Region Fund (CVRF), \* Norton Sound Economic Development Corporation (NSEDC), and \* Yukon Delta Fisheries Development Association (YDFDA). The Western Alaska Community Development Association (WACDA) is an administrative panel made up of a representative from each CDQ group. More information and links to the individual CDQ groups and WACDAs are on the NMFS website at: <http://www.alaskafisheries.noaa.gov/cdq/default.htm>.

#### CDQ Allocations:

Portions of the fishery quotas in the groundfish, halibut, and crab fisheries in the BSAI are allocated annually to the CDQ Program, under the federal Magnuson-Stevens Fishery Conservation and Management Act. The CDQ allocations are made from fishery quotas in the BSAI and include 10% of the pollock quota, 10.7% of the quotas for selected other groundfish target species, 10% of most crab quotas, and between 20% and 100% of halibut quotas. In 2007, the CDQ groups held \$543 million in total assets and \$170 million in total revenue. Approximately 40% (or \$70 million) of the total revenue were derived from royalties paid to the CDQ groups for the CDQ fishery allocations. By 2011 CDQ groups had increased assets to \$938 million and had increased revenues to \$259 million. Revenues and assets are likely to increase as more CDQ groups catch and process their quotas. As a result, royalty revenue has and will continue to decrease.

#### CDQ Program Administration:

The CDQ program is jointly administered by the federal and state governments. Federal agencies include the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and National Marine Fisheries Service (NMFS) State agencies include the Department of Commerce, Community and Economic Development, and Department of Fish & Game

**Source:** Alaska Department of Commerce, Community, and Economic Development: Alaska Economic Development Resource Guide: [http://www.commerce.state.ak.us/dca/edrg/EDRG\\_BrowsePage\\_Template.cfm?Program\\_Name=Western+Alaska+Community+Development+Quota+\(CDQ\)+Program](http://www.commerce.state.ak.us/dca/edrg/EDRG_BrowsePage_Template.cfm?Program_Name=Western+Alaska+Community+Development+Quota+(CDQ)+Program)

within this zone and to conserve and manage fishery resources. The Act is named after the late Senators Warren Magnuson of Washington and Ted Stevens of Alaska.<sup>(1)</sup>

In 1980, the American Fisheries Promotion Act was added which allowed

the NPFMC to pursue an aggressive policy of "Americanizing" the large harvest of Alaska bottom fish that was carried out by foreign catcher-processors. This began with a ban on harvesting by foreign vessels and American trawlers delivering their catch to foreign

processing ships. The joint-venture program, which had produced 95,000 metric tons in 1981, grew to 1.4 million metric tons by 1987. By 1991, the foreign fleets and joint venture program were entirely displaced and the newly "Americanized" bottom fish

<sup>(1)</sup> Pacific Fishery Management Council; <http://www.pfcouncil.org/resources/applicable-laws/magnuson-stevens-act/>

industry accounted for 2.4 million metric tons, annually.

The Bering Sea Aleutian Island pollock fishery is now conducted under an allocation scheme that divides the harvest between three user groups. After deductions for the CDQ program, 50% of the total allowable catch (TAC) is allocated to shore-based operations, 40% to the at-sea sector, and 10% to mother ships (floating processors). These user group allocations are further divided among cooperatives in each sector that allocate their shares of the TAC among members. These binding agreements have allowed users to reduce the number of vessels employed in harvesting and processing operations. For example, the at-sea sector has formed a cooperative that divides their allocation between the six companies that own and operate the at-sea catcher-processor fleet. This agreement has allowed them to reduce the fleet size from an initial 26 vessels to 19 vessels that range in size from 230 to 360 feet in length.

While the industrial groundfish industry continues to be largely a non-resident fishery based out of Puget Sound, the CDQ program has captured a growing share of this fishery for Alaska based owners. Coastal Villages has recently acquired ownership of an at-sea catcher processor and the associated quota share in the BSAI at-sea fishery. It now has a small fleet of trawlers and crab vessels, some of which are held in partnership with the Norton Sound Economic Development Corporation.

## State Fisheries Taxes

In the early years of statehood, salmon taxes and income taxes on individuals

**Figure 3-5 Groundfish Fisheries CY 2010**

	(\$ millions)
Value of All Fisheries Landings	\$1,480.4
Value Groundfish Landings	\$405.5
-Alaska Resident Value	\$71.9
-Non-Resident Value	\$333.6
Groundfish as Percentage of Total Harvest Value	27.40%
Individuals Fishing Permits All Fisheries	9,767
Individuals Fishing Groundfish Permits	783
-Alaska Residents who fished	470
-Non-Residents who fished	313
At-Sea Groundfish	
Estimated value of pollock processed at-sea	\$139.5
Excepting CDQ Ventures, At-sea Harvest is non-resident	

Source: Commercial Fisheries Entry Commission(CFEC)

employed in the fisheries and support industries were a major source of state revenue. As the oil industry developed, the relative importance of fisheries taxes to overall state revenue has declined dramatically. In FY 2012, all Alaska commercial fisheries related taxes accounted for \$87.5 million or 0.6% of total Alaska revenue.

While fisheries taxes are a small part of total state revenue, they remain very important to fishing communities, municipalities, enhancement programs, and seafood promotion.<sup>(1)</sup> Figure 3-7 summarizes major Alaska commercial fisheries related taxes.

<sup>(1)</sup> The source of tax revenue from fisheries is the Department of Revenue Annual Report FY 2010, FY 2011, and FY 2012. In comparing fisheries related revenue to the CFEC harvest values presented in the chapter the reader must use caution. CFEC earnings data are based on a calendar year that runs from January 1 through December 31, while Department of Revenue data are based on fiscal years that run from July 1 through June 30 of the following year. For example, the FY 2010 tax collections would include most of the fisheries harvest of calendar year 2009.

**Figure 3-7 Fisheries Related Taxes****Fisheries Business Tax AS 43.75**

Taxes Collected	FY 2010	FY 2011	FY 2012
	\$31,945,401	\$44,462,246	\$53,097,514

Alaska levies a fisheries business tax, also known as the "raw fish tax," on businesses and persons who process fisheries resources in Alaska, or who export unprocessed fisheries resources from Alaska. The tax is based on the price paid to commercial fishermen for the raw resource, or fair market value when there is no arm's length transaction prior to processing or export. The Tax Division collects fisheries business taxes from processors and persons who export unprocessed fishery resources from Alaska.

Fisheries business tax rates are based on the location and type of processing activity and whether a fishery resource is classified as "established" or "developing" by the Alaska Department of Fish and Game. Rates range from 1% to 5%.

The Tax Division shares 50% of tax collected with the incorporated city or organized borough in which the processing took place. If an incorporated city is within an organized borough, the revenue is divided equally between the incorporated city and the organized borough. The Division shares 50% of the tax collected from processing activities outside an incorporated city or an organized borough through an allocation program administered by the Department of Commerce, Community and Economic Development. Remaining revenue is available as unrestricted general revenue.

**Fishery Resource Landing Tax AS 43.77**

Taxes Collected	FY 2010	FY 2011	FY 2012
	\$12,552,075	\$7,083,988	\$12,013,308

Alaska levies a fishery resource landing tax on fishery resources processed outside of and first landed in Alaska, based on the unprocessed value of the resource. The unprocessed value is determined by multiplying a statewide average price per pound (derived from Alaska Department of Fish and Game data) by the unprocessed weight.

The fishery resource landing tax is primarily collected from factory trawlers and floating processors that process fishery resources outside the state's 3-mile limit and bring their products into Alaska for transshipment.

Tax rates are based on whether the resource is classified as "established" or "developing" by the Alaska Department of Fish and Game. Tax rates are 1% of landings for developing fisheries and 3% of landings for established fisheries.

The Tax Division shares 50% of taxes from landings within a municipality with the respective municipalities in which the landings occurred. If a municipality is within a borough, the Tax Division divides the 50% shareable amount between the municipality and the borough. The Tax Division shares 50% of the taxes from landings outside a municipality (Unorganized Borough) through an allocation program administered by the Alaska Department of Commerce, Community and Economic Development. Remaining revenue is available as unrestricted general fund revenue.

**Salmon Enhancement Tax AS 43.76**

Taxes Collected	FY 2010	FY 2011	FY 2012
	\$4,877,106	\$7,851,054	\$10,060,538

*(Continued on next page)*

**Figure 3-7 Fisheries Related Taxes**

*(continued from previous page)*

The salmon enhancement tax is an elective tax levied on salmon sold in or exported from established aquaculture regions in Alaska. Fishermen pay salmon enhancement taxes to licensed buyers at the time of sale, or to the Tax Division for salmon sold to unlicensed buyers or exported from the region. Buyers remit taxes collected from fishermen to the Tax Division.

Commercial fishermen elected tax rates ranging from 2% of gross sales in most areas with aquaculture projects to 3% of gross sales in Southeast Alaska. Under AS 43.76.025(c), the legislature may appropriate salmon enhancement revenue to provide financing for qualified regional aquaculture associations. Salmon enhancement tax revenue is shown as restricted in the *Revenue Sources Book*.

**Regional Seafood Development Tax AS 43.76.350**

Tax collected	FY 2010	FY 2011	FY 2012
	\$1,578,861	\$2,143,116	\$1,915,156

The seafood development tax is an elective tax levied on certain fishery resources using specific gear types sold in or exported from designated seafood development regions. Fishermen pay seafood development taxes to licensed buyers at the time of sale or to the Tax Division for resources sold to unlicensed buyers or exported from Alaska. Buyers remit 1% of landings, as taxes collected from fishermen to the Tax Division.

Assessments are for drift gill-net salmon fishermen in Bristol Bay, and, drift and set gill-net salmon fishermen in Prince William Sound only.

All revenue from this tax is shown as restricted in this forecast book. Under AS 43.76.380(d), the legislature may appropriate seafood development tax revenue to provide financing for qualified regional seafood development associations.

**Seafood Marketing Assessment AS 16.51.120**

Taxes collected	FY 2010	FY 2011	FY 2012
	\$7,812,697	\$8,622,211	\$9,710,180

Alaska levies a seafood marketing assessment on seafood processed or first landed in Alaska. The state also levies the assessment on unprocessed fisheries products exported from Alaska. The Tax Division collects the assessment from seafood processors and fishermen who export fishery resources out of Alaska.

The seafood marketing assessment is 0.5% of the value of seafood products exported from, processed, or first landed in Alaska.

All revenue from this tax is shown as restricted in this forecast book. The legislature may appropriate funds to the Alaska Seafood Marketing Institute.

*(Continued on next page)*

**Figure 3-7 Fisheries Related Taxes***(continued from previous page)***Dive Fishery Management Assessment AS 43.76.150**

Tax Collected	FY 2010	FY 2011	FY 2012
	\$523,024	\$603,219	\$682,534

The dive fishery management assessment is an elective assessment on the value of fisheries resources taken using dive gear. The assessment only applies to designated management areas and species, and is assessed at a rate elected by a vote of permit holders.

Southeast Alaska region commercial dive fishermen elected the following rates for the Southeast Alaska administrative area (Management Area A): Geoduck 7%, Sea Cucumber 5%, Sea Urchin 7%

All revenue is shown as restricted in this forecast book. Under AS 43.76.200, the legislature may appropriate dive fishery management assessment revenue to the Department of Fish and Game for the purpose of funding the regional dive fishery development association.

**Cost Recovery Fisheries Assessment AS 16.10.45**

The cost recovery fisheries assessment was authorized in 2006. This program allows hatcheries to establish a common property fishery and recoup costs through an assessment on fisheries resources taken in the terminal harvest area. The first year an aquaculture association used the program was FY 2012. FY 2013 is expected to be the first year of collections.

AS 16.10.46 (d) states that The Department of Revenue may, by regulation, annually, by March 1 of each year, set the rate of the assessment levied on salmon taken in a terminal harvest area in consultation with the Department of Commerce, Community, and Economic Development, the hatchery permit holder, and representatives of affected commercial fishermen. The rate of the assessment shall provide sufficient revenue to cover debt service to the state, reasonable operating expenses, reasonable maintenance expenses, and development or maintenance of a reserve fund up to 100 percent of annual operating costs of the hatchery permit holder. In setting the rate of the assessment, the department shall consider the estimated return and harvest of salmon in the terminal harvest area, the projected price to be paid for salmon in the region, the amount of the existing reserve held by the hatchery permit holder, and the amount by which the assessment collected in previous years exceeded or fell short of the amount anticipated to be collected. The total rate of the assessment may not exceed 50 percent of the value of the salmon.

Source: Tax Division Annual Reports

# Revenue Sources Book

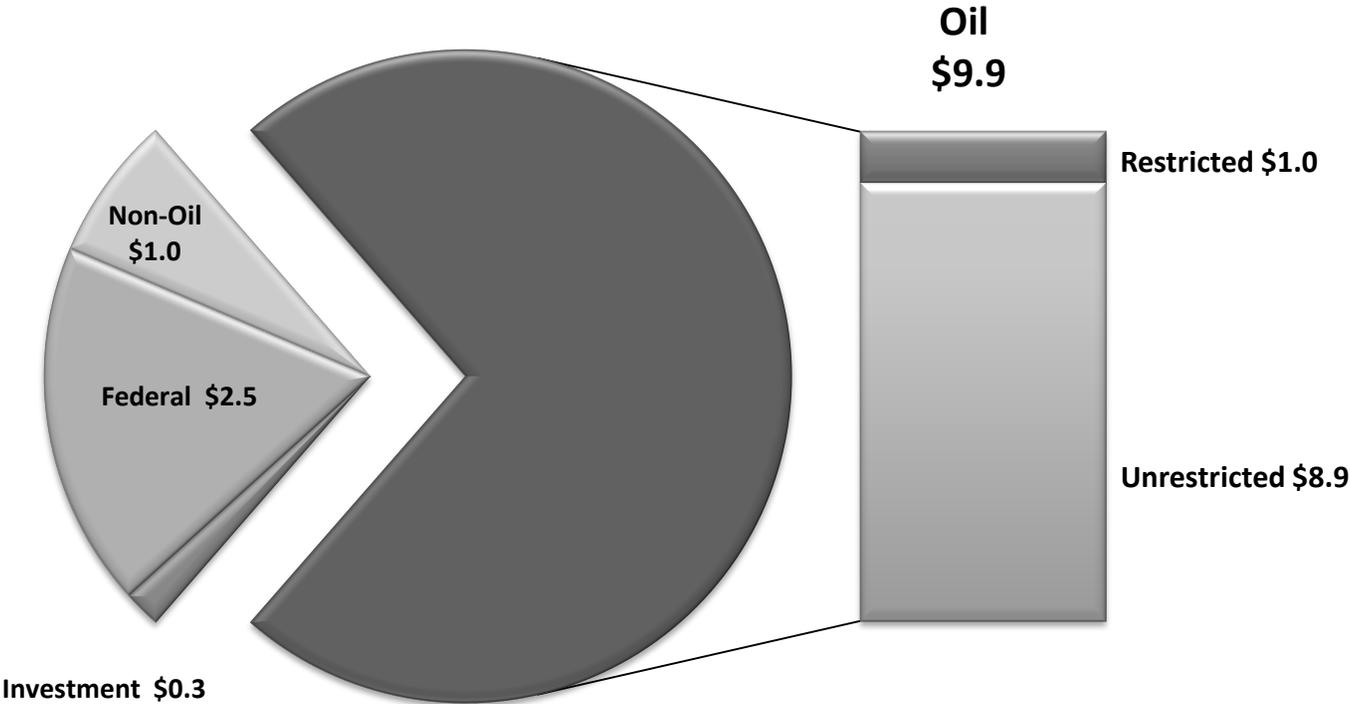
*Alaska Department of Revenue – Tax Division*

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# FALL 2012

# 4. Oil Revenue

Figure 4-1. FY 2012 Oil Revenue: \$9.9 billion



**Figure 4-2. Total Oil Revenue (\$ million)****Oil Revenue**

	History	Forecast	
	FY 2012	FY 2013	FY 2014
<b>Unrestricted</b>			
Petroleum Property Tax	111.2	111.6	99.3
Petroleum Corporate Income Tax	568.8	558.2	606.9
Production Tax	6,146.1	4,353.2	3,778.8
Royalties (including Bonuses, Rents & Interest)	2,031.7	1,881.0	1,914.0
<b>Total Unrestricted</b>	<b>8,857.8</b>	<b>6,904.0</b>	<b>6,399.0</b>
Increase/(Decrease) from Prior Period	1,808.8	(1,953.8)	(505.0)
% Change from Prior Period	25.7%	-22.1%	-7.3%
<b>Restricted</b>			
<b>Other Restricted</b>			
<b>Royalties to Permanent Fund &amp; School Fund</b>			
Royalties, Bonuses & Rents to the Permanent Fund	904.9	788.1	824.6
Royalties, Bonuses & Rents to the School Fund	14.7	13.4	13.8
Tax Settlements to CBRF <sup>(1)</sup>	102.1	336.4	20.0
<b>Subtotal Other Restricted</b>	<b>1,021.7</b>	<b>1,138.0</b>	<b>858.4</b>
<b>Federal</b>			
NPR-A Royalties, Rents & Bonuses	4.8	2.7	2.7
<b>Subtotal Federal</b>	<b>4.8</b>	<b>2.7</b>	<b>2.7</b>
<b>Total Restricted</b>	<b>1,026.5</b>	<b>1,140.7</b>	<b>861.1</b>
Increase/(Decrease) from Prior Period	(14.7)	114.2	(279.6)
% Change from Prior Period	-1.4%	11.1%	-24.5%
<b>Total Oil Revenue</b>	<b>9,884.3</b>	<b>8,044.7</b>	<b>7,260.0</b>
Increase/(Decrease) from Prior Period	1,794.1	(1,839.6)	(784.6)
% Change from Prior Period	22.2%	-18.6%	-9.8%

<sup>(1)</sup> On November 8, 2012, a \$255 million settlement was announced between the State of Alaska and BP Exploration (Alaska) Inc. The majority of the \$255 million will be deposited into the Constitutional Budget Reserve Fund (CBRF). However, a portion will also be deposited into the Permanent Fund and School Fund, and approximately \$10 million will be paid to settle civil assessments for the spills. As this information was received late in the forecast process, the entire \$255 million was included as a deposit to the CBRF for purposes of this *Revenue Sources Book*. The Department's Spring 2013 update will revise this information to include the actual amounts deposited to each applicable fund.

## Unrestricted Oil Revenue

Figure 4-3. Unrestricted Oil Revenue (\$ million)

Fiscal Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Petroleum Property Tax	111.2	111.6	99.3	95.3	92.0	89.1	86.3	83.7	81.7	79.1	76.5
Petroleum Corporate Income Tax	568.8	558.2	606.9	623.6	633.6	643.0	651.9	660.3	668.2	675.8	683.0
Production Tax	6,146.1	4,353.2	3,778.8	3,406.6	3,723.1	3,890.6	3,834.7	3,663.1	3,462.3	3,244.3	3,042.9
Royalties-Net <sup>(1)</sup>	2,031.7	1,881.0	1,914.0	1,890.9	1,874.8	1,773.6	1,655.0	1,536.8	1,460.0	1,375.7	1,299.9
<b>Total Oil Revenue</b>	<b>8,857.8</b>	<b>6,904.0</b>	<b>6,399.0</b>	<b>6,016.4</b>	<b>6,323.6</b>	<b>6,396.3</b>	<b>6,228.0</b>	<b>5,943.8</b>	<b>5,672.2</b>	<b>5,374.9</b>	<b>5,102.3</b>
Increase/(Decrease) from Prior Period	1,808.8	(1,953.8)	(505.0)	(382.6)	307.2	72.7	(168.4)	(284.1)	(271.6)	(297.3)	(272.6)
% Change from Prior Period	25.7%	-22.1%	-7.3%	-6.0%	5.1%	1.2%	-2.6%	-4.6%	-4.6%	-5.2%	-5.1%

<sup>(1)</sup> Includes bonuses and interest

### General Discussion

The state receives oil and gas revenue from four sources: oil and gas production tax, royalties, property tax, and corporate income tax.

The bulk of the revenue goes into the General Fund for general purpose spending. An average of approximately 30% of all oil and gas royalties go to augment the principal of the Alaska Permanent Fund and 0.5% goes into the Public School Trust Fund.<sup>(1)</sup> There are two other funds that receive specific oil and gas revenue: the National Petroleum Reserve-Alaska (NPR-A) Fund,<sup>(2)</sup> which receives the state's share of all lease bonuses from sales in the NPR-A; and the Constitutional Budget Reserve Fund (CBRF), which receives settlements of tax and royalty disputes between the state and oil and gas producers.

Figure 4-2 shows the dollar value of each tax and royalty source in FY 2012

and the forecast for FY 2013 and FY 2014. Royalties and production tax (excluding CBRF settlement deposits) constituted the largest part, 93%, of restricted and unrestricted oil revenue in FY 2012. They are expected to represent 87% of that revenue in FY 2013. Figure 4-3 shows the department's unrestricted oil revenue forecast from the current fiscal year through FY 2022 by revenue category.

This section begins with a discussion of production taxes and royalties, both of which are driven by price and volume. The section also reviews the price forecast methodology that underlies this report, discusses the linkage between market prices and wellhead values, reviews the lease expenditure and transportation costs forecast, and provides details about the production forecast and production forecast methodology. The section concludes with a discussion of:

- oil and gas property taxes,

- oil and gas corporate income taxes, and
- the restricted portions of oil revenue.

### Crude Oil and Natural Gas Production Taxes

All oil and gas production in Alaska, except the federal and state royalty share and a small amount used in production operations, is subject to the state's production tax and to the hazardous release surcharge. The hazardous release surcharge is only levied on crude oil, not on natural gas. Production taxes and surcharges are estimated and collected by the Department of Revenue on a monthly basis.

#### The Production Tax Known as "Alaska's Clear and Equitable Share" (ACES)

In November 2007, the Alaska Legislature passed Alaska's Clear and Equitable Share (ACES) tax legislation. This legislation made changes to the state's

<sup>(1)</sup> For more discussion on deposits to the Permanent Fund and the School Trust Fund, see Chapter 2, Restricted Revenue section.

<sup>(2)</sup> 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 Procedure Manual.

production tax system, retroactive to July 1, 2007. The previous production tax, titled the Petroleum Profits Tax (PPT), had been in place for one year prior to the passage of ACES. Both production tax systems are based on net profits of oil and gas production. For more than 20 years prior to the enactment of the PPT, the state used a production tax system that was based on the gross value at the point of production and adjusted by the Economic Limit Factor (ELF).

The ACES tax calculation starts with the value at the point of production and then subtracts upstream operating and capital costs, including costs capitalized on company financial statements, to arrive at the “production tax value.” Each company that produces oil in Alaska has a production tax value based on this calculation, which is conceptually similar to a company’s net income, or net profit. The production tax value is multiplied by the tax rate—25%—to arrive at the base tax. Should the production tax value exceed \$30 per barrel of oil produced or the equivalent for natural gas, the tax rate increases 0.4% for every dollar the per-barrel production tax value exceeds \$30. For production tax values greater

than \$92.50, the progressive factor changes to 0.1% for every additional dollar of profit on a barrel of oil. The maximum total tax rate is 75%. An illustration of how ACES tax liability is calculated is shown in Figure 4-4.

Under ACES, most of the costs incurred in the production of oil and/or gas, otherwise known as “lease expenditures,” are deductible against the gross value of oil and/or gas produced. Lease expenditures include operating expenditures, which include costs such as labor and utilities, and capital expenditures, which include the cost of drilling rigs, infrastructure, and facility expansion. Capital costs are also eligible for a 20% credit to be spread over two years and can be either applied against a company’s tax liability or, under certain circumstances, be refunded by the state. The 20% qualified capital expenditure credit is intended to encourage investment in Alaska.

Other tax credits are available against the ACES production tax. Companies producing less than 100,000 barrels of oil per day may be eligible for a tax credit of up to \$12 million per year. Net losses are eligible for a 25% tax credit in the year following the loss. ACES also expanded the Exploration

Incentive Credit, changing the credit rates from 20% and 40% to 30% and 40% of exploration expenditures.

Figure 4-5 shows credits claimed by companies on annual tax returns, and credits that were refunded to companies that did not have an offsetting production tax liability. A significant number of credits were earned by companies that were unable to apply the credits against a tax liability either because they had no tax liability or because the liability was too small. These credits are converted into certificates and subsequently refunded by the state in cash.

The oil and gas tax credit fund, authorized under AS 43.55.028, was created to fund the state’s cash purchase of production tax credit certificates. In FY 2012, the fund paid out \$353 million, and, as of November 9, 2012, the fund has paid out \$156.8 million to purchase credits in FY 2013. As of November 9, 2012, the fund balance was \$46.7 million. Fiscal year 2012 credits against tax liability are estimated pending true-up information provided on the annual production tax return.

### Hazardous Release Surcharge

The Oil and Hazardous Substance

**Figure 4-4. ACES Tax Liability Calculation**

$$\text{ACES Tax Liability} = [\text{Production Tax Value} * \text{Tax Rate}] - \text{Credits}$$

The terms used in the equation are defined as follows:

$$\text{Production Tax Value} = (\text{Value} - \text{Costs})$$

$$\text{Value} = \text{Volume of Taxable Oil \& Gas Produced} * \text{Wellhead Value}$$

$$\text{Costs} = \text{Operating Expenditures} + \text{Capital Expenditures}$$

$$\text{Tax Rate} = 25\% + 0.4\% \text{ for every } \$1 \text{ per barrel that this “net income” exceeds } \$30, \text{ up to } \$92.50, \text{ then } 0.1\%$$

$$\text{Credits} = (20\% * \text{Capital Expenditures})^{(1)} + (20\% * \text{Eligible Transition Expenditures})^{(2)} + \text{Small Producer Credit}^{(3)}$$

<sup>(1)</sup> Spread over two years

<sup>(2)</sup> Limited to those credits earned while the PPT was in effect and could not be used

<sup>(3)</sup> Credit is for companies producing less than 100,000 bbls/day. Available up to \$12 million for North Slope and/or Cook Inlet Producers, and \$6 million for production outside of North Slope and Cook Inlet annually. Small producer credits cannot be redeemed for cash certificates or carried forward.

Release Prevention and Response Fund was created by the legislature in 1986 to provide a “readily available funding source to investigate, contain, and clean up oil and hazardous releases.” An amendment in 1994 divided the fund into two separate accounts comprised of:

- The Response Account which requires a surcharge on all oil production, except federal and state royalty barrels. The funds may be used to finance the state’s response to an oil or hazardous substance release that is declared a disaster by the governor.
- The Prevention Account which is an additional surcharge on all oil production, except federal and state royalty barrels. The funds may be used for the clean-up of oil and hazardous substance releases not declared a disaster by the governor. This account can also be used to fund oil and hazardous substance release prevention programs in Alaska.

The Response Surcharge (AS 43.55.201) is \$.01 per taxable barrel of oil and the Prevention surcharge (AS 43.55.300) is \$.04 per taxable barrel of

oil produced.

The Response Surcharge is suspended when the balance of the Response Account is equal to or exceeds \$50 million. As of September 30, 2012, the cumulative balance of the account was \$50.1 million. The Response Surcharge was re-imposed effective April 1, 2007, and because the balance of the fund exceeds \$50 million, the surcharge will be suspended effective January 1, 2013.

### Oil Royalties

Almost all Alaska oil and gas production occurs on state lands leased for exploration and development. As the land owner, the state earns revenue from leasing as:

- upfront bonuses,
- annual rent, and
- a royalty interest in oil and gas production.

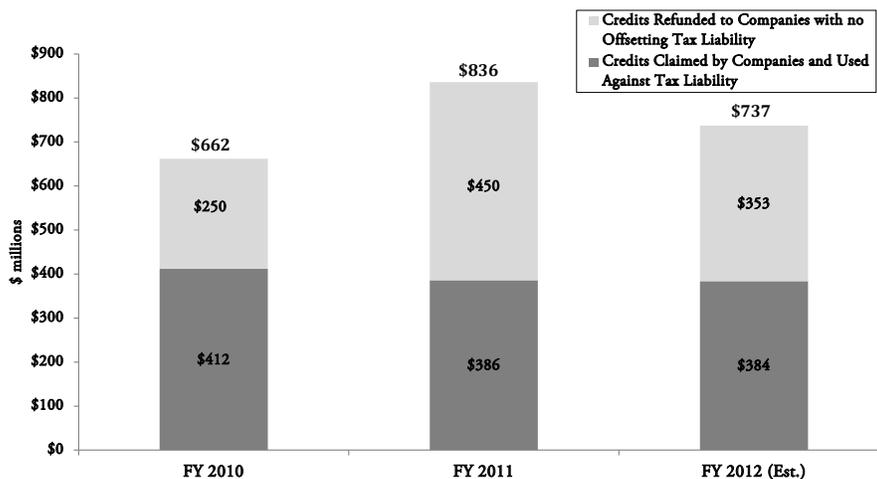
Typically the state issues leases based on a competitive bonus bid system. The state generally retains a royalty interest of at least 12.5%. The vast majority of current production is from leases that carry that rate. Some currently producing leases carry rates as high as 27%

and some leases also have a net profit-sharing production agreement.

State oil and gas leases provide that the state may take possession of its oil royalty in barrels (in-kind) or as a percentage of the production value (in-value). In FY 2012, the state took approximately 34,500 barrels per day of North Slope production in-kind and sold it to Flint Hills Resources Alaska, LLC for the company’s refinery at North Pole, Alaska.

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. Royalties are based on a destination price—the higher of the actual sales price or the prevailing value.<sup>(1)</sup> The pipeline and marine transportation costs are deducted from the destination value to derive the royalty netback value of the oil or gas.

**Figure 4-5. Production Tax Credits Reported (\$ million)**



<sup>(1)</sup> ANS West Coast prevailing value per 15 AAC 55.171 is the monthly average of daily spot market prices reported by Platt’s Oilgram, Reuters and Dow Jones Energy reporting services. This price is published monthly on the Tax Division website at www.tax.alaska.gov.

## Forecasting Underlying Factors for Revenue Projection: Crude Oil Prices, Lease Expenditures, Transportation Costs and Crude Oil Production

Historically, the revenues collected by the state from oil production relied primarily on oil prices and production volumes. With the implementation of the production tax on net profits, an additional factor influences the level of revenue anticipated from oil production—costs. The state, therefore, shares in the expenses related to the exploration, development and production of oil. All or part of these expenses are deductible and/or qualify for tax credits as “lease expenditures.”

To forecast oil revenue, the Department of Revenue must forecast:

1. Crude oil prices
2. Lease expenditures
3. Transportation costs
4. Crude oil production volumes

This section reviews how the depart-

ment forecasts each of these factors.

Each of these forecasted items play an important role in determining the level of revenue anticipated from oil production. These four items are used as inputs in the department’s revenue model.

Basic data about expenditures and tax calculations are shown in Figure 4-7.

### 1. Crude Oil Prices

The department forecasts that the Alaska North Slope (ANS) crude oil West Coast spot prices for FY 2013-2015 will be \$108.67, \$109.61, and \$111.67, respectively. A complete ten-year forecast through FY 2022 of ANS West Coast spot prices and the inferred wellhead prices for ANS can be found in Figure 4-6. The table also includes information on transportation charges – the TAPS Tariff and ANS marine charges. Additionally, Appendix B includes a ten-year history and ten-year forecast of these values, as well as additional information for West Texas Intermediate (WTI) prices, oil prices in real terms, and comparisons to the Spring 2012 forecast.

#### Methodology for Forecasting Prices

The department compiles its oil price

forecast from several sources. This compilation is referred to as a “blended” forecast, utilizing a methodology created by DOR in 2008. Currently, the methodology does not include any probability or statistical confidence for the price forecast. The final “blended” forecast is the department’s official forecast.

One of the four major components of the price forecast is the result of a day-long price forecast session hosted by the Department of Revenue. This year, the Fall 2012 oil price forecast session was held on October 2. The forecast session uses a modified Delphi Method, an iterative forecast method which relies on a pool of expert participants. There were thirty-one participants from state government, the private sector, including industry experts, and academia who participated and submitted their own price forecasts. These individual price forecasts are averaged to derive the price forecast of the session. More than forty people attended the session. There were four primary speakers, who covered major themes of interest, as well as presentations made by members of the Economic Research Group of the department’s Tax Division.

**Figure 4-6. Fall 2012 Forecast Assumptions (nominal \$ per barrel)**

Fiscal Year	2012	2013 <sup>(1)</sup>	2014	2015	2016	2017	2018	2019	2020	2021	2022
ANS West Coast Price	112.65	108.67	109.61	111.67	114.88	116.22	117.16	118.29	119.74	121.42	123.34
ANS Marine Transportation	3.24	3.75	3.67	3.72	3.77	3.81	3.84	3.88	3.92	3.97	4.02
TAPS Tariff	5.06	5.62	5.09	5.21	5.45	5.63	5.82	6.09	6.43	6.80	7.18
Other Deductions & Adjustments <sup>(2)</sup>	0.51	0.06	0.04	0.03	0.13	0.24	0.22	0.20	0.18	0.16	0.12
ANS Wellhead Price	103.84	99.24	100.80	102.70	105.54	106.53	107.28	108.12	109.20	110.49	112.02

<sup>(1)</sup> FY 2013 values include four months of actual data.

<sup>(2)</sup> Includes other adjustments such as quality bank charges, feeder pipeline tariffs, location differentials and company-amended information.

**Figure 4-7. Basic Data Used for ANS Oil & Gas Production Taxes<sup>(1)</sup>**

	History	Forecast	
	FY 2012	FY 2013	FY 2014
<b>North Slope Price and Production</b>			
Price of ANS WC in dollars per barrel	112.65	108.67	109.61
Transit Costs & Other in dollars per barrel	8.81	9.43	8.81
ANS Wellhead in dollars per barrel	103.84	99.24	100.80
Total ANS Production in thousands of barrels per day	579.1	552.8	538.4
Royalty and federal thousands of barrels per day <sup>(2)</sup>	76.4	71.4	70.7
Taxable thousands of barrels per day	502.7	481.4	467.7

**North Slope Lease Expenditures<sup>(3)(4)</sup>**

Total North Slope Lease Expenditures in \$ millions			
Operating Expenditures [OPEX]	3,001.2	3,078.9	2,817.4
Capital Expenditures [CAPEX]	2,383.4	3,262.9	3,845.1
Total North Slope Expenditures	5,384.6	6,341.8	6,662.5
Deductible North Slope Lease Expenditures in \$ millions			
Operating Expenditures [OPEX]	2,862.2	2,832.8	2,779.0
Capital Expenditures [CAPEX]	1,543.0	2,393.0	3,338.6
Deductible North Slope Expenditures	4,405.3	5,225.8	6,117.6

**State Production Tax Revenue <sup>(1)</sup>**

Millions of Dollars	6,146.1	4,353.2	3,778.8
Production Tax Collected per Taxable Barrel	33.4	24.8	22.1

**State Wide Production Tax Credits <sup>(3)(5)</sup>**

Credits Used against Tax Liability in \$ millions	360.0	490.0	615.0
Credits for Potential Purchase in \$ millions	353.0	360.0	400.0

<sup>(1)</sup> Production tax is calculated on a company specific basis, therefore the aggregated data reported here will not generate the total tax revenue shown. For an illustration of the tax calculation, see Appendix D.

<sup>(2)</sup> Royalty and Federal barrels represents DOR's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, and barrels produced from federal offshore property.

<sup>(3)</sup> Lease expenditures and credits used against tax liability for FY 2012 were prepared using unaudited company-reported estimates.

<sup>(4)</sup> Expenditure data for FY 2013 and FY 2014 are compiled from company submitted expenditure forecast estimates and other documentation as provided to the DOR. Expenditures shown here are shown in two ways: (1) total estimated expenditures including for those companies with no tax liability; and (2) estimated deductible expenditures for only those companies with a tax liability.

<sup>(5)</sup> Production tax credits shown include all production tax credits and all areas of the state. North Slope CAPEX credits are spread out over two years as specified in the ACES production tax. Assumptions for the \$12 million credits for small Alaska producers are included in the table.

This year the forecast session participants were asked to forecast the price of Alaska North Slope (ANS) crude oil. In previous years participants were asked to forecast the West Texas Intermediate (WTI) benchmark. Adjustments were made with a price differential to derive the price of ANS. This new methodology to forecast ANS price is the result of a change in the physical characteristics of the WTI market, which has created a price decoupling of water borne crudes, like ANS, from those stocks bottle-necked in Cushing, Oklahoma.

The forecast participants were asked to forecast ANS prices in real, 2012 dollars. Price forecasts were submitted to the Department of Revenue prior to the session, as well as at the end of the session. An average for each time period was calculated from the post-session results. These averages were converted from real prices to nominal oil prices using the current Callan Associates Inc. inflation assumption of 2.5%.

For the final “blended” forecast, the forecast session result was averaged with derived ANS price forecasts from the Energy Information Administration (EIA), the New York Mercantile Exchange (NYMEX),<sup>(1)</sup> and analyst forecasts.<sup>(2)</sup> These forecasts predict future WTI prices, so a forecasted price differential adjustment is applied in order to calculate an implied forecast of ANS oil prices using a number of assumptions.<sup>(3)</sup> For analyst forecasts made in real terms, the oil price is inflated at the rate of 2.5% per year. The NYMEX, EIA, and some analyst forecasts already take inflation into account. The adjust-

ments allow the NYMEX, EIA and analyst forecasts to be averaged with the DOR forecast session results. The purpose of the “blended” forecast is to increase the sample of opinions beyond the forecast session participants.

Although there is consensus that ANS oil is likely to be in the range of \$100 to \$110, within the coming fiscal year, there is significant lack of consensus among major oil price forecasts in terms of direction in the long term. Futures markets suggest declining prices in the coming years, while other sources predict stability or increasing prices. Ten years from now, the EIA and NYMEX prices differ by about \$50 per barrel. Uncertainty is prevalent. The “blended” forecast provides a method to moderate between the extremes, in order to provide a reasonable price assumption, an integral component of the revenue forecast.

### **ANS – WTI Differential**

Prior to 2011, the difference between the WTI benchmark and ANS crude average was about -\$2.50, that is, ANS typically traded for about \$2.50 per barrel less than WTI. Near the end of 2010, WTI began to diverge from other world crude oils. WTI, which historically sold at a premium to Brent (a European benchmark), Dubai, ANS, and other crude oils, began to sell at a noticeable discount. This change is attributed by many experts to a significant increase in supply from the midwest, especially from North Dakota production, and Western Canada. Compounding the issue, there are logistical constraints

to moving crude out of Cushing, Oklahoma, the delivery location for WTI crude oil. Together the increased supply, and insufficient pipeline capacity for transporting this new production to the Gulf Coast has pushed WTI out of sync with other global oil markets. A recent reversal of the Seaway pipeline is draining some barrels from Cushing. Other pipeline projects that should relieve this bottleneck to deliver the increased production are some years away. In addition, increasing supplies from the Bakken formation in North Dakota are finding their way to places other than Cushing.

The value of ANS crude relative to the crudes it competes with in the West Coast market area has been maintained by the increasing differential relative to the North American benchmark. Since January 2012, ANS has consistently been priced more than \$15 above WTI, and more than \$17 above since August 2012. This difference is likely to persist into the mid-term, but DOR forecasts that this differential will narrow to under \$2 within a ten-year period as the logistical constraints are resolved at Cushing. That is, as markets balance over the next ten years, ANS will go from trading at a value much higher than WTI to trading at a price closer to WTI.

### **Short Term Variables that Influence Oil Prices**

Forecasting oil supply and demand involves an understanding of economics, geology, geography and geopolitics.

<sup>(1)</sup> NYMEX futures prices are closing prices published as of 9/27/2012.

<sup>(2)</sup> Analyst forecasts are primarily taken from the Bloomberg survey of analysts for short-term, then IHSI, INFORUM, IEA, EVA, P&G and SEER reported in the EIA Annual Energy Outlook for long-term.

<sup>(3)</sup> Assumptions include inflation and conversion techniques, combining short and long-run forecasts, and deriving an ANS-WTI differential forecast relative to the Brent benchmark, as well as fiscal/calendar year adjustments.

Figure 4-8.

### Alaska North Slope West Coast Price Daily Oil Price in Dollars per Barrel and 95% Confidence Level January 1, 2011 to October 31, 2012

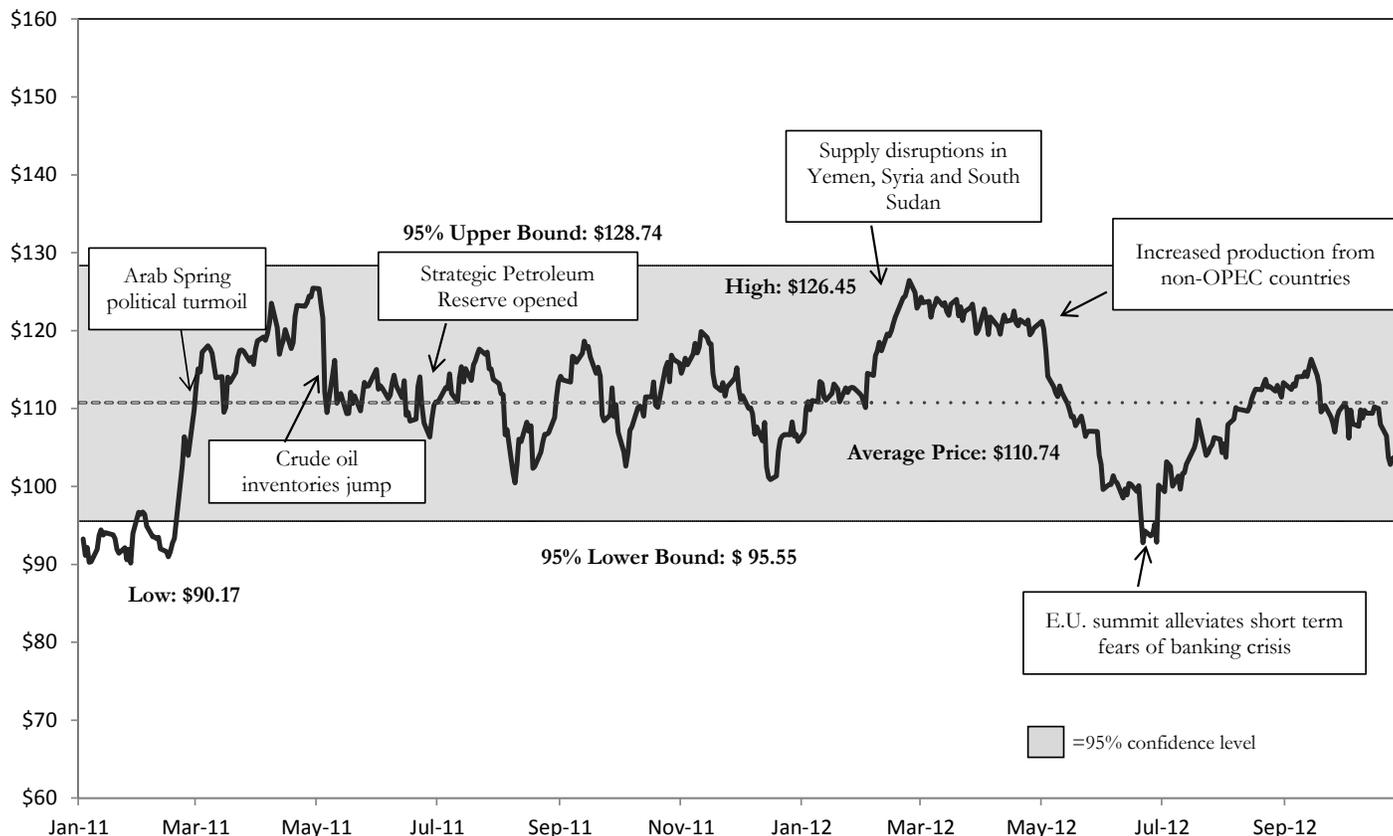


Figure 4-8 shows oil prices in recent months and associated key market events. Several major factors contribute to the pricing of oil on the world market. Some of the many triggers for price movement include:

- Inventory levels
- Infrastructure
- Geopolitics
- Natural disasters
- Warfare
- Action by the Organization of Petroleum Exporting Countries (OPEC) cartel
- Macroeconomic events
- Financial market trends and speculation

All of these variables influence the price of oil and they have all been encountered within a ten-year period. Without a forecast of what events will occur when, it is not possible to forecast a particular path for oil prices with any certainty. Furthermore, the system is dynamic and the impact of the same event can bring about a different outcome depending on other events and underlying oil market fundamentals. Depending on the underlying supply and demand situation, the market will react differently to external events. Events often accentuate, rather than cause price movements.

Longer term, fundamental economic factors of supply and demand ultimately drive oil prices. Predicting demand requires an understanding of economic growth and the supply and demand

for petroleum products, since oil is a derived demand.

#### Oil Price Drivers

An uneven and uncertain global economic outlook means great uncertainty for near-term oil prices.

Global and U.S. domestic economic recovery would be a clear major driver for higher oil prices. Likewise, weaker economic growth from China, the E.U. and the U.S. may not be strong enough to support higher prices. At the same time, there is also interplay between economic growth and low energy prices, since lower energy prices can promote growth.

In the long-term, global oil demand is projected, by EIA, to grow in the 1-3% range until 2030.

Some key factors that will determine the actual global demand for oil include:

- U.S. economic growth and demand.
- World-wide changes in refinery capacity.
- China's continued course of growth and demand, following recent leadership changes.
- The European Union (E.U.) resuming growth and resolving its debt crisis.
- Japan's demand for oil as it restructures its energy mix following the Fukushima incident and as rebuilding the country provides a stimulus for the stagnant economy.
- Growth in non-OECD countries in Asia, Latin America, and the Middle East, which fared better during and since the world recession. Although output has increased in these regions, in many countries the downside risks are greater as well.

Global supply will be based on such factors as:

- Whether Saudi Arabia, as OPEC's chief producer, continues to produce 10 million barrels per day of oil.
- Easing of sanctions on Iran or increased purchases of Iranian crude by China, which would free up additional oil supply.
- Supply interruptions in politically unstable areas. Mid-East and African instability has affected production in the past. Production that is currently offline should resume in Sudan, South Sudan, Yemen, Syria and Nigeria.
- Europe or the U.S. deploying strategic petroleum reserves to keep gasoline prices low.
- Capacity constraints in producing areas.

- Potential disruptions in key non-OPEC producers such as Russia, U.S. and Canada or U.K. and Norway in the North Sea.
- Growing supply of unconventional petroleum supplies due to new technology, such as shale oil, oil sands and biofuels. Unconventional supplies are higher cost, so bringing unconventional supplies online serves more to stem price increases than to lower prices.

### Price Summary

One could ask, why, with sluggish global economic growth, has there been recent relative stability in oil prices?

One explanation is that while increasing demand strength and speed of the global and U.S. economic recovery continue to be important drivers for higher oil prices, the right conditions can exist if economies are sluggish or in recession to also produce high oil prices. Economic conditions that promote less oil consumption usually lead to falling price. However, anticipation of inflation caused by government intervention to stimulate the economy through quantitative easing and stimulus programs can provide sufficient incentive for many investors to purchase commodities, including oil, to hedge their cash and financial holdings against inflation. The demand for oil by the financial markets is often much greater than the physical demand for oil. So, the current situation suggests that even in a very uncertain environment there can be persistent prices over \$100. However, without sufficient global growth and a demand for energy there is a significant possibility that the price of oil can fall.

In the short term, volatile prices are possible and even probable depending on the specifics of the various drivers discussed here. In the long term, the official forecast reflects stabilizing oil demand growth that puts pressure on

world oil production and tightens oil markets, and oil prices, on average, remaining over \$100 per barrel.

## 2. Lease Expenditures

The Department of Revenue forecasts lease expenditures, in addition to oil prices and production. Lease expenditures are defined in part as the upstream costs that are the direct costs of exploring for, developing, or producing oil or gas deposits. The production tax under ACES allows the deduction of lease expenditures in arriving at a taxable base. The production tax system also allows a partial credit against the tax liability for certain lease expenditures known as qualified capital expenditures. For more information on how ACES production tax is calculated, see Figure 4-4.

### Methodology for Forecasting Lease Expenditures

Since 2006, the Department of Revenue has received annual filings of tax returns under the net profits production tax. Additionally, the department receives monthly information filings from oil and gas companies operating in the state that provide estimated monthly lease expenditures by property. Semi-annually, the department receives projections of lease expenditures by property for up to 5 years in the future. These reports are provided by the operators of the properties and have greatly enhanced the department's ability to prepare better revenue forecasts.

The department also uses several other means to forecast lease expenditures, including consulting other taxpayer-submitted information, such as plans of development. Production profiles are reviewed, as well as publicly available information on planned exploration activity, estimated costs to bring new fields online and projected start-up dates.

### Forecast for Lease Expenditures

In FY 2012, the following unaudited lease expenditures were reported by companies producing or exploring for oil and/or gas on the North Slope on monthly information forms: \$3.0 billion in operating expenditures and \$2.4 billion in capital expenditures. For FY 2013, DOR forecasts operating expenditures at about \$3.1 billion and capital expenditures at \$3.3 billion. For FY 2014, DOR forecasts operating expenditures at \$2.8 billion and capital expenditures at \$3.8 billion. For FY 2013 and 2014, DOR is forecasting higher capital expenditures due to a combination of factors. In existing fields, higher costs of doing business are leading to increases in both ongoing capital and operating expenses. Higher spending is forecast for investment in new developments, such as Point Thomson and CD-5 (Alpine West), while development continues at the Oooguruk and Nikaitchuq units. Finally, continued exploration spending by several newcomers is included, despite the speculative nature of those plans.

For lease expenditure forecasts for FY 2015 and beyond, a risk factor has been applied to ensure consistency with DOR's production forecast. For units that are not currently in production, the risk factor has been applied to the entire amount of capital and operating expenses associated with those units. For currently producing units, the risk factor has been applied only to a portion of anticipated expenses, based on the portion of production that is forecast from new oil in each year (since risk factors are only applied to that category of production). For more information on the risk adjustments incorporated into the production forecast beginning with this Fall 2012 forecast, please see the Crude Oil Production section of this chapter.

### 3. Transportation Charges and Other Production Costs

Transportation costs are subtracted from the appropriate destination value to estimate the ANS wellhead value. This is called a netback calculation. Components in the netback calculation include marine costs, the Trans Alaska Pipeline System (TAPS) tariff, feeder pipeline tariffs, and quality bank adjustments. This netback calculation is shown in Figure 4-6 for FY 2012-2022.

#### Marine Transportation Costs

North Slope crude oil is delivered through TAPS to Valdez where it is loaded on tankers and shipped to Washington, California, Hawaii and the Kenai Peninsula. Most of the crude is delivered to refineries in Puget Sound, San Francisco and Los Angeles. The voyage takes about two weeks.

Most of the oil is delivered by double-hulled "Alaska Class" and "Endeavour Class" tankers. Double-hulled tankers have an inner hull containing the crude oil and a surrounding outer hull for additional protection against oil spills. These tankers range from about 125 to 215 thousand deadweight tons with the capacity ranging from 800 thousand to 1.5 million barrels at full capacity.

For tax purposes, the allowable costs for oil transported by a vessel not owned or effectively owned by the producer of the transported oil are the total costs under the charter or contract and other allowable costs borne by the producer. For crude oil shipped on tankers that are owned or effectively owned by the producer of the transported oil, which is typically the case, the bulk of allowable marine costs are the following:

- depreciation,
- return on investment,
- fuel for the vessel,

- wages and benefits,
- routine maintenance,
- tug and pilotage fees and
- drydocking costs.

Marine costs can be broadly categorized as capital, fuel and labor costs with each category accounting for roughly one third of the total. Future increases in marine costs take into account inflation and the cost of bunker fuel which is driven by the crude oil price forecast.

#### Trans Alaska Pipeline System (TAPS) Tariff

A cost-based model is used to forecast the tariff rate to transport a barrel of oil on TAPS. The idea is to estimate the total revenue required to operate and maintain the pipeline while providing a reasonable rate of return. This return includes both a return of the pipeline investment through depreciation and a return on the investment to compensate for the debt and equity used to finance the investment.

The tariff forecast model for TAPS simulates a regulatory approach to estimate what the tariff would be using the Federal Energy Regulatory Commission (FERC) Opinion 154-B which established the generic principles for setting just and reasonable oil pipeline rates with a trended original cost methodology. The model uses components and data from FERC pipeline tariff filings, Form 6 filings and Opinion 502. In Opinion 502 FERC ordered the TAPS carriers to make compliance rate filings and refunds based on rates calculated in conformance with prescribed property balances, depreciation, deferred return, regulatory assets, cost of debt, return on equity, and capital structure.

Cost components are summed for each year to estimate the total cost of service or the total revenue required to operate the pipeline. DOR does not attempt to

predict the outcome of pending litigation or estimate the level and timing of protested tariffs.

The beginning rate base for TAPS is established and depreciated according to FERC Opinion 502. The methodology for calculating the return on equity is consistent with the FERC policy for determining rates of return for oil pipelines. Projections reflect assumptions regarding those components and adjustments to the rate base from:

- deferred return,
- working capital,
- capital additions, and
- depreciation.

Cost components for operating the pipeline and providing a reasonable return include:

- operating expenses,
- property tax,
- depreciation expense,
- amortization of deferred return,
- return on equity,
- cost of debt, and
- income tax allowance.

The sum of the cost components represents the total revenue required for the pipeline company to earn a reasonable rate of return for the year.

The total revenue requirement is linked to the production forecast to calculate a dollar per barrel tariff based on the volume of oil shipped through the pipeline. Dividing by throughput makes the tariff sensitive to the production profile and the tariff escalates as production declines and increased costs are spread over fewer units. The weighted average tariff on TAPS is estimated to be about \$5.62 per barrel in FY 2013 and is forecasted to increase to about \$7.18 in FY 2022.

### **Feeder Pipeline Tariffs and Other Adjustments**

Producers shipping crude oil through a pipeline from various North Slope production fields to Pump Station No.1 of TAPS pay a tariff rate to the owner of the feeder pipeline. In general, tariff rates are calculated for each of the six feeder pipelines according to each pipeline's particular cost-of-service model contained in their settlement agreement.

A cost-of-service approach allows the pipeline to recover the costs required to operate the pipeline in addition to a return of capital investment and a return on capital investment. The return of capital investment is the yearly depreciation expense, which allows a pipeline to recover the capital investment it has undertaken to provide its service. The return on capital investment is compensation for the use of its capital to finance the investment. Other costs the pipeline can recover typically include operating expenses, an account for dismantling, removal and restoration, an allowance for funds used during construction, accumulated deferred income taxes, working capital, and an allowance for income taxes.

To forecast the per barrel tariff rates for each pipeline, the projected total cost of service are summed and allocated across the different connections, if there is more than one, and then divided over the projected throughput of each connection.

### **Wellhead Price**

The combination of ANS wellhead value and production volumes forms the basis for both state production taxes and royalties. The wellhead value is calculated by subtracting the relevant marine transportation and pipeline tariff costs, as well as quality bank adjustments, from the appropriate destination value.

Figure 4-6 reflects this calculation for FY 2012-2022.

## **4. Crude Oil Production**

In order to estimate the future revenue from oil production, the Department of Revenue must estimate the anticipated volumes of oil that will be taxed. The future is inherently uncertain, the reader is cautioned that actual production values will vary from this projection. This forecast is a best attempt to approximate a reasonable expectation of the future.

As the forecast period extends further into the future, the ability to forecast accurately becomes more difficult. The deviation between actual production and forecasted production for each field, and, even each well, compounds over time. Ideally, actual values would be close to the projected values; however, because that is unlikely, the goal should be to have any differences between actual production and forecasted production offset one another, resulting in an average error close to zero over time.

An evaluation of historical long-range production forecasts shows that past forecasts have been higher than actual, especially when forecasting further than four years into the future. The department began to review and refine its forecast methodology in 2009. In the last three years, the department and its consultant have incorporated changes which include: (1) updating the engineering principles that are applied to forecasted production from currently producing wells in order to generate a more accurate expected decline rate; and (2) collected information from operators regarding their independent plans of development. These changes have resulted in a downward revision in production forecasted and provided for forecasts that are more accurate. The process of refining the forecast continued this year, as DOR further

addressed the uncertainty in the categories “under development” and “under evaluation” in previous forecasts. A description of these categories is provided later in this chapter and an even more detailed description of these categories can be found in the Fall 2011 *Revenue Sources Book*.

The majority of remaining inaccuracy in historical forecasting stems from higher than actual expectations about the success of future projects. Projects were forecasted at their full potential value without taking into account possible failure to produce an expected level of production or the delay or cancellation of a project. This created a “best case” forecast of new development that never materialized, and resulted in an “optimism bias.” To correct for this, the Department of Revenue now employs a probabilistic approach to future projects. It is anticipated that this approach will reduce the amount of average error to which the produc-

tion forecast is subject. The department continues to review and revise its methodology.

This year’s production forecast consists of two components: a) the decline of currently producing oil wells, and b) a risk adjusted expected value of new oil production.

The projections for currently producing fields assume that all reservoirs perform consistent with their historical performance and standard engineering expected decline rates from reservoir optimization. Unplanned maintenance and surface disruptions can cause actual values to deviate significantly from this forecast. The values provided in this book supersede all prior forecasts.

### Forecast Methodology<sup>(1)</sup>

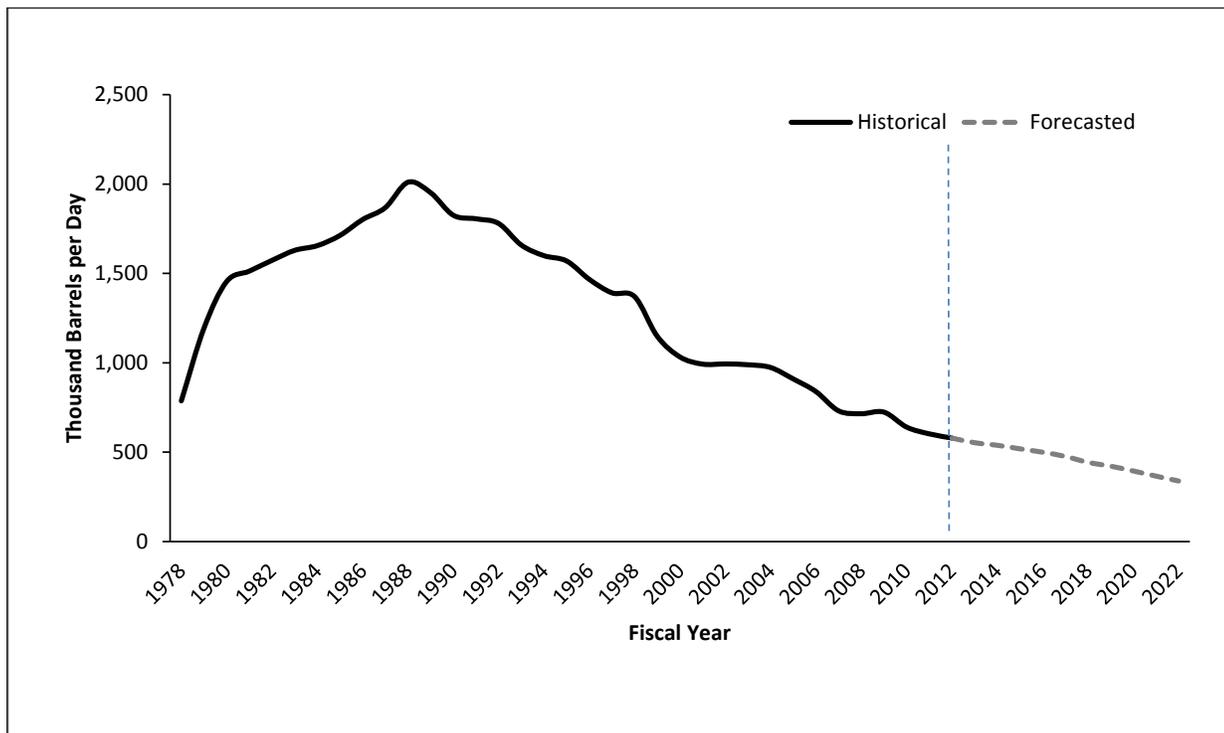
For the production forecast process, the Department of Revenue contracted an outside engineering consultant to per-

form a bottom-up, well-by-well evaluation of all currently producing wells. The department and its consultant also met with the producers of each unit to discuss the ongoing operations, plans of development, maintenance schedules, and general risks, concerns, and uncertainties surrounding future projects. The result of these meetings and the consultant evaluation is synthesized as a reasonable approximation of future production.

### Currently Producing

“Currently producing” production is the least speculative of the categories used in this forecast. The department’s consultant utilizes production data provided by the producers to the Alaska Oil and Gas Conservation Commission in order to develop a time series data set of well production characteristics including oil production, gas to oil ratios, water cuts and technical reservoir characteristics.

**Figure 4-9. Alaska North Slope Production**



<sup>(1)</sup> For his generous assistance in assisting with production forecast methodology, special thanks to Bill Barron, Director, Division of Oil and Gas, Department of Natural Resources.

The engineering consultant then employs a decline curve analysis, applying a best fit trend line for each well via generally accepted engineering principles. The projection of future production from each well is then aggregated into a field total and a unit total. The result is an expected rate of decline for currently producing wells due to physical factors following typical reservoir engineering optimization. Because the data used to inform the forecast model is actual production data, those values incorporate scheduled and unscheduled disruptions to production. The projection of future production also incorporates anticipated production disruptions, assuming that future interruptions will be consistent with historical ones. This assumption adds an unavoidable error potential, if future production does not follow the historical path. This uncertainty means actual production may differ from the projection if future interruptions are less or greater than in the past. The error band for this projection is estimated at +5% to -10%. The reason there is a greater downside risk of 10% is the assumption that aging infrastructure is more prone to unplanned disruption than in the past.

The projection of future production from each well is then aggregated into a field total and a unit total. This aggregation does not take constraints of infrastructure or facilities into consideration. Production optimization for a well, field, or unit is conducted by the unit operators and cannot be accurately replicated by the Department of Revenue. As such, the aggregation of well-by-well data carries a risk of over estimation should processing and transportation constraints be encountered. This risk is estimated to be very small or non-existent for most units as the marginal gain from additional facilities must be lower than the marginal cost (including opportunity cost)

of upgrading those facilities.

The total production estimate from currently producing wells is, therefore, subject to a net overvaluation risk. The Department of Revenue does not assume shut-ins of any well due to economic limitations in this category. While imposing an economic limitation is feasible, the assumptions used to generate such a limitation are subject to high degrees of uncertainty and are ultimately made by unit operators. Similarly, investment decisions are made by a company's internal expectations of return on investment and must compete across industry opportunities. The Department of Revenue does not have the ability to project those decisions and, therefore, relies on discussions with operators regarding them. Production from future investment in enhanced recovery operations will be addressed in the next section.

### **New Oil**

In addition to the performance of currently producing wells, investment in enhanced recovery operations and facility upgrades can increase the future production from a reservoir and new wells can bring new production. While the "base oil" case assumes no investment, this section incorporates projected production increases from projects that can increase performance as well as investment in new wells which provide an expectation of future production. The volume for each project is unknown and ranges from zero to an amount dictated by reservoir characteristics and infrastructure performance. Due to the fact that these increases fall to zero if the project does not move forward, including the production from proposed projects carries a significant risk of over estimation. Ignoring such projects has the opposite effect. In order to address such risk, future production that results from future investment is divided into two risk categories, as

has been done in the past.

This first section, classified as "under development," is limited to projects that have already been approved and budgeted by a company. Information regarding these projects and the expected increase in production that will result is provided by unit operators. In some cases, the project is already under construction and the production is forthcoming, in others, the project is budgeted, but has not yet been started. In the latter case, production may require a lead time of several years.

The second section, classified as "under evaluation," is limited to projects that have known reserves, but have not reached the approval and budgeting phase of development. These projects have some reasonable certainty of completion, but it is not known when they will enter production. As such, these projects carry greater risk and are discounted at a greater rate than "under development" projects.

There are two significant error possibilities surrounding potential new oil that can affect forecasting. First, there is uncertainty around the success of a project. If a project moves forward, the results may either not prove as rewarding as anticipated, or may exceed expectations. In some cases, the project may yield no results at all. Second, the dynamics that determine the economic viability of a project can change. The economic environment is rapidly evolving, funding can be quickly redirected and plans can change. As future price expectations move, technology advances and fiscal environments around the world adjust, there is potential for a project to lose support or for marginal projects to become economic.

Postponement risk is strictly a downside risk, and it is also compounding. An environment that encourages postponement of one project is likely

to deter other projects increasing postponement risk. Forecast errors cannot be offset, leaving a high level of unidirectional risk.

In order to account for these kinds of risks, the department reports an expected value of future production from this category that is a percentage of the value of the successful project. This risk adjusted volume is intended to minimize total deviations from the production forecast.

Due to the change in engineering principles applied in 2009, DOR did not apply additional risk to the currently producing wells as that change was itself a downward revision.

The Department of Revenue applied statistical techniques to historical data in order to assess the reasonableness of DOR's risk factors for new oil.

#### Fiscal Year 2012-2014

In FY 2012, Alaska North Slope oil production averaged 579,147 barrels

per day. The department had projected a volume of 574,373 barrels per day in last year's RSB, an error of less than 1%. This year, the Department of Revenue forecasts the FY 2013 ANS production to be 552,842 barrels of oil per day, a 4.5% decline from FY 2012, which is a downward revision from last year's FY 2013 estimate of 555,227 barrels of oil per day, a 3.3% previously anticipated total decline. This revision is primarily a result of an increase in scheduled maintenance during FY 2013.

Likewise, the FY 2014 estimate has been revised from 560,940 barrels per day, a previously expected increase of 1%, to 538,400 barrels per day, a projected decline rate of 2.6%. This revision reflects a change in operator plans of development and a decrease in expected well performance.

The new forecast amounts are summarized in Figure 4-10 and an

expanded forecast is available in Appendix C.

For FY 2012, Cook Inlet production totaled 10,842 barrels of oil per day, approximately 500 barrels per day greater than the forecasted amount of 10,306 barrel of oil per day. Cook Inlet has now seen the second straight year of increased production. A high level of capital expenditures budgeted in Cook Inlet for next fiscal year by producers new to Alaska is likely to result in new discovery, development and production in years to come. Unfortunately, none of these projects have reached a stage of development in which they can be included in the production forecast. The Department of Revenue is watching these developments closely as the tax credits exclusion provided by AS 43.55.010(k) is set to sunset in 2022 and enter the forecast window. As such, the department forecasts an oil production rate in Cook Inlet to continue around 10,372 barrels of oil per day in FY 2013. While the production rate is likely to continue to increase if projects prove successful, the department has avoided speculating on the success of those projects in this forecast. The decline rate for Cook Inlet is projected to be relatively flat at this point for the rest of the forecast. These estimates will be updated as information becomes available.

#### Statistical Analysis

Figure 4-11 shows the amount of likely future new oil based on historical trends and the amount of anticipated volume if all projects currently in the initial phases were successful.

The actual amount of production from new projects is highly sensitive to investment decisions, economic factors, geological conditions, technical limitations, and access to equipment. While any volume is potentially possible, the band of possibilities DOR

**Figure 4-10. Forecasted Oil Production on Alaska's North Slope**  
(thousands of barrels per day)

FY	Currently Producing	Decline Rate of Currently Producing	Risk Adjusted New Oil	Risk Adj Total Forecast	Net Decline	Percent New Oil
2013	517.6	-10.6%	35.3	552.8	-4.5%	6.4%
2014	486.1	-6.1%	52.3	538.4	-2.6%	9.7%
2015	440.0	-9.5%	78.6	518.6	-3.7%	15.2%
2016	401.1	-8.8%	98.6	499.7	-3.6%	19.7%
2017	367.4	-8.4%	108.7	476.1	-4.7%	22.8%
2018	337.9	-8.0%	105.0	442.9	-7.0%	23.7%
2019	312.2	-7.6%	109.4	421.6	-4.8%	25.9%
2020	289.9	-7.2%	104.9	394.8	-6.4%	26.6%
2021	269.6	-7.0%	96.3	365.9	-7.3%	26.3%
2022	251.2	-6.8%	87.3	338.5	-7.5%	25.8%

considered is believed to capture 95% of likely outcomes, barring a structural change (ex: ANWR opens, technological breakthrough, large shift in relative investment climate) or outlier event. Figure 4-12 shows the risk adjusted production forecast including “new oil” that is currently under development. Additionally, a reasonable band of potential outcomes is included in the “high case” and the “low case.”

Applying a simple best fit trend line to the historical production since the time ANS oil peaked results in an exponential decline rate of about 5.5%. Because these data points include the addition of new fields and incremental increases resulting from investment, this trend incorporates new oil offsetting the natural decline due to reservoir depletion. This can be seen where the production curve flattens out, such as with the additions of production from Endicott and Milne Point in 1988-90, Point McIntyre in 1994, and the Prudhoe Bay Unit Satellites,<sup>(1)</sup> Kuparuk River Unit satellites,<sup>(2)</sup> and Northstar

Field all coming online in 2000-2002. Oooguruk, Nikaitchuq, and Colville River satellites continued to assist in offsetting decline from 2007 forward. Without the addition of new oil, the decline trend is estimated to be 9.7%.

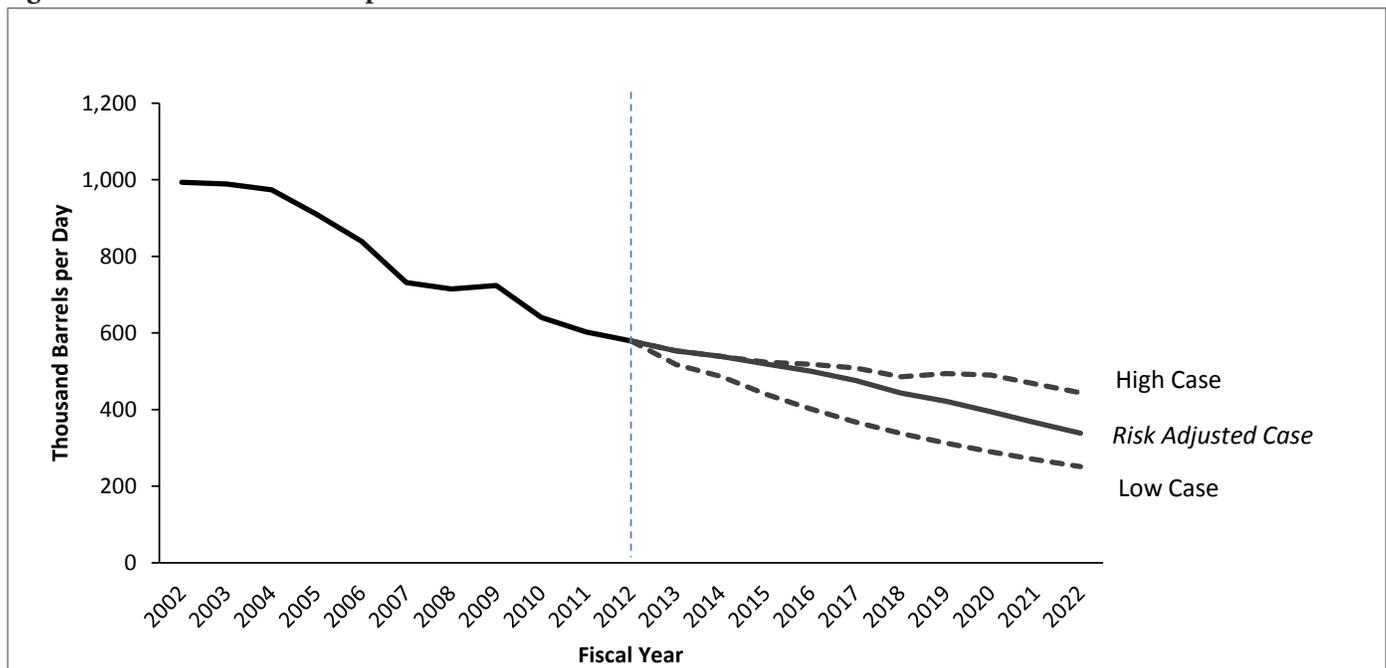
When plotting DOR’s risk adjusted forecast against the historical trend line, (Figure 4-13) it appears that DOR’s forecast is reasonable and does not unjustifiably discount the impacts of future development. While it is

**Figure 4-11. Forecasted New Oil Production Confidence Band (thousand barrels per day)**

**95% Confidence Interval Based on Historic Trend**

FY	Lower Limit	Upper Limit	Known Projects Under Development or Under Evaluation
2013	9.0	90.5	34.1
2014	33.0	113.3	52.5
2015	37.7	145.5	83.2
2016	39.3	164.3	116.0
2017	41.9	178.4	140.8
2018	45.2	190.6	147.9
2019	45.9	197.2	182.1
2020	44.5	199.8	199.7
2021	43.5	200.8	196.8
2022	43.3	202.2	192.8

**Figure 4-12. Alaska North Slope Forecasted Production**



<sup>(1)</sup> Aurora, Borealis, Midnight Sun, Orion, Polaris

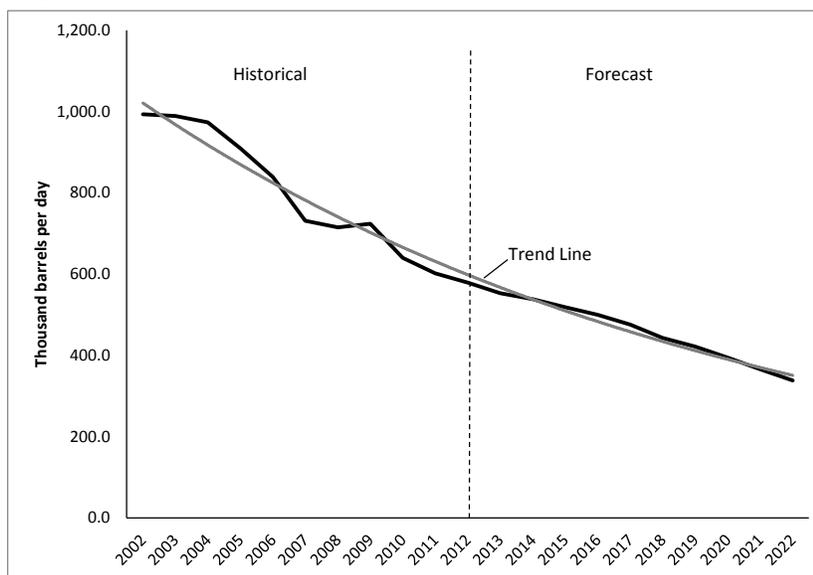
<sup>(2)</sup> Meltwater, Tabasco, Tarn, West Sak

possible that additional production will allow actual production to exceed DOR's forecast, it appears prudent to budget according to a weighted average of all possible outcomes rather than any particular possible outcome. Should future production materialize, DOR's forecasts will be revised accordingly.

### Future Possibilities

In addition to the projects that have been funded, Alaska holds significant opportunities for future development. Each of these opportunities requires a significant amount of financial investment to develop. These resources are competing with investment opportunities around the world, where factors that drive investment are constantly changing. Categorizing these opportunities into a production forecast requires a large number of assumptions and a high degree of uncertainty. The very speculative nature of future actions by producers in an unknown future environment requires a prudent observer to be cautious of these projections. Reasonably adjusting for this risk drives these projects close to zero. For this reason, the Department of Revenue has elected to withhold projections from this category in forecasting future tax revenue for budgeting purposes. This includes production from the Arctic National Wildlife Refuge (ANWR), the Outer Continental Shelf (OCS), Cold Heavy Oil Production Sands (CHOPS) and Shale oil. Doing so ensures an upside risk for Alaska's future production if and when these projects become viable. As these speculative prospects become more likely to occur, they will be included in future production projections. Because these projects promise production years in the future, the decision to exclude them from the forecast does not greatly influence the short term fiscal revenue estimates and

**Figure 4-13. Production Decline Trend vs Forecast**



**Figure 4-14. Technically Recoverable North Slope Oil and Gas Potential**

Exploration Area	Mean Technically Recoverable Oil (BBO)	Mean Technically Recoverable Gas (TCF)
ANWR	10.4	3.8
Beaufort Sea OCS	6.9	32.1
Chukchi Sea OCS	15.5	60.1
Colville-Canning Area (& adjacent state waters)	4.5	37.5
NPR-A	0.9 <sup>(1)</sup>	53 <sup>(1)</sup>
<b>TOTAL</b>	<b>38.2<sup>(1)</sup></b>	<b>186.5<sup>(1)</sup></b>

Source: U.S. Department of Energy, August 2007; Addendum April 2009.

<sup>(1)</sup> Reflects new estimates by USGS 2010 Updated Assessment of Undiscovered Oil and Gas Resources of the NPR-A (October, 2010).

reduces the medium term estimates that are susceptible to large error bounds regardless of this decision.

The 2007 U.S. Department of Energy (DOE) report evaluated geologic and commercial viability of future oil and gas production from five areas or provinces: 1) the central Arctic area between the Colville and Canning Rivers (and adjacent state waters), 2) the 1002 area of ANWR,

3) the National Petroleum Reserve Alaska (NPR-A), 4) the Beaufort Sea Outer Continental Shelf (OCS), and 5) the Chukchi Sea OCS. Under the most optimistic scenario, DOE reported mean technically recoverable oil resources of 38.2 billion barrels and mean technically recoverable gas resources of 186.5 TCF from these five areas.<sup>(1)</sup> Figure 4-14 shows the breakout of these areas.

<sup>(1)</sup> <http://www.netl.doe.gov/technologies/oil-gas/publications/EPreports/ANSSummaryReportFinalAugust2007.pdf>

## 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

The full and true 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.

DOR gathers raw data for determining market value by reviewing trade journals and details of equipment sales in Alaska when available. If available, the department considers recent sales transactions in Alaska for this classification of property. The department also considers market costs in Alaska as of the lien date. These data are then applied to the taxable property, taking into account age, utilization, and functional obsolescence.

### Production Property

The full and true value is determined on the basis of replacement cost new less depreciation, based on the economic life of the proven reserves.

### Pipeline Transportation Property

The full and true value of pipeline property is determined giving 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. The department relies upon standard appraisal techniques to value pipelines in Alaska. When market data are available, DOR analyzes the income

method, under which the value is the net present worth of all future income streams of the pipeline. When sales transactions are available, the department will take that data into consideration as well. DOR primarily relies on replacement cost new less depreciation, based on the economic life of the proven reserves that feed the pipeline. This is especially useful when income generated from the property is constrained by the regulatory process or when market data cannot be obtained for use in the income method.

Figure 4-15 illustrates the oil and gas property tax distribution between local communities and the state for FY 2012. The value is assessed by the state. A local tax is levied on the state's assessed value for oil and gas property when that property resides in a city or borough and is subject to the local property tax limitations established in AS 29.45.080 and AS 29.45.100. Payment to a local jurisdiction by the taxpayer counts as a credit to the 20 mill levy by the state. The state's rate is then effectively 20 mills (2%) minus the local rate.

### Petroleum Property Tax Revenue

Forecasting state revenue from petroleum property tax starts with the assessed value for each class of property from the previous year. Capital investment and inflation assumptions are made and typical depreciation curves, based on historical observation for each property class, are applied. The state rate of 20 mills is applied to the forecast values to estimate the total tax for each type of property. The state share is calculated as the difference between the levied 20 mill rate and the mill rate for the city or borough. When property falls in an unorganized area, the full 20 mill levy is received by the state.

For TAPS no attempt is made to predict the outcome of ongoing litigation. The

model does not account for new projects such as a gas pipeline, onshore infrastructure associated with OCS development or new field development. DOR forecasts petroleum property tax revenue of \$111.6 million in FY 2013 and \$99.3 million in FY 2014.

### Petroleum Corporate Income Tax

Alaska levies two types of corporate income tax. This section focuses on the oil and gas corporate income tax. Forecasts and discussion of the corporate income tax as applied to corporations other than oil and gas corporations can be found in the Non-Oil Revenue section of this forecast (Chapter 5).

An oil and gas corporation's Alaska income tax liability depends on the relative size of its Alaska and worldwide activities, and the corporation's total worldwide net earnings. The corporation's Alaska taxable income is derived by apportioning its worldwide taxable income to Alaska based on the average of three factors as they pertain to the corporation's Alaska operations: (1) tariffs and sales, (2) oil and gas production and (3) oil and gas property.

Historically, oil and gas corporate income tax revenue has varied greatly along with oil prices and oil industry profits. In FY 1982, revenue from this tax was \$668.9 million. In FY 1994, the oil and gas corporate income tax generated a mere \$17.8 million. For the past several years, revenue from the oil and gas corporate income tax have benefited from high oil prices and oil industry profits. Actual revenue collected totaled \$542.1 million in FY 2011 and \$568.8 million in FY 2012, representing an increase of \$26.7 million or about 5%. We forecast oil and gas corporate income tax collections of \$558 million in FY 2013 and \$607 million in FY 2014, based on continued forecasts for high oil prices.

## Restricted Oil Revenue

According to Article IX, Section 15 of the Alaska Constitution, 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. In addition, AS 37.14.110 requires a contribution of 0.5% of all royalties and bonuses to the Public School Fund Trust. Settlements with, or judgments against, the oil industry involving tax and royalty disputes must be deposited in the Constitutional Budget Reserve Fund (CBRF).

The state is entitled to 50% of all bonuses, rents and royalties from oil development activity in the federal NPR-A, all of which flows into the NPR-A Special Revenue Fund. 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 is placed into the General Fund. Figure 4-16 reflects restricted oil and gas revenue.

**Figure 4-15. Petroleum Property Tax, FY 2012 (\$ million)**

Municipalities	Gross Tax	Local Share	State Share
Anchorage	5.7	4.4	1.3
Fairbanks	13.4	9.1	4.3
Kenai	16.2	7.9	8.3
North Slope	348.5	322.3	26.2
Other Municipalities <sup>(1)</sup>	0.4	0.2	0.2
Unorganized	68.0	-	68.0
Valdez	37.7	34.5	3.2
<b>Total</b>	<b>489.9</b>	<b>378.3</b>	<b>111.6</b>

Note: Amounts shown here do not include the supplemental property tax roll and as a result may not exactly match data presented elsewhere in this forecast.

<sup>(1)</sup> Includes Matanuska-Susitna Borough, Cordova, Northwest Arctic Borough and Whittier.

**Figure 4-16. Restricted Oil Revenue (\$ million)**

Other Restricted Oil Revenue	History	Forecast	
	FY 2012	FY 2013	FY 2014
Royalties, Bonuses & Rents to the Permanent Fund	904.9	788.1	824.6
Royalties, Bonuses & Rents to the School Fund	14.7	13.4	13.8
Settlements to CBRF <sup>(1)</sup>	102.1	336.4	20.0
<b>Subtotal Other Restricted</b>	<b>1,021.7</b>	<b>1,138.0</b>	<b>858.4</b>
<b>Federal</b>			
NPRA Royalties, Rents & Bonuses	4.8	2.7	2.7
<b>Subtotal Federal</b>	<b>4.8</b>	<b>2.7</b>	<b>2.7</b>
<b>Total Restricted</b>	<b>1,026.5</b>	<b>1,140.7</b>	<b>861.1</b>

<sup>(1)</sup> On November 8, 2012, a \$255 million settlement was announced between the State of Alaska and BP Exploration (Alaska) Inc. The majority of the \$255 million will be deposited into the Constitutional Budget Reserve Fund (CBRF). However, a portion will also be deposited into the Permanent Fund and School Fund, and approximately \$10 million will be paid to settle civil assessments for the spills. As this information was received late in the forecast process, the entire \$255 million was included as a deposit to the CBRF for purposes of this *Revenue Sources Book*. The Department's Spring 2013 update will revise this information to include the actual amounts deposited to each applicable fund.

# Revenue Sources Book

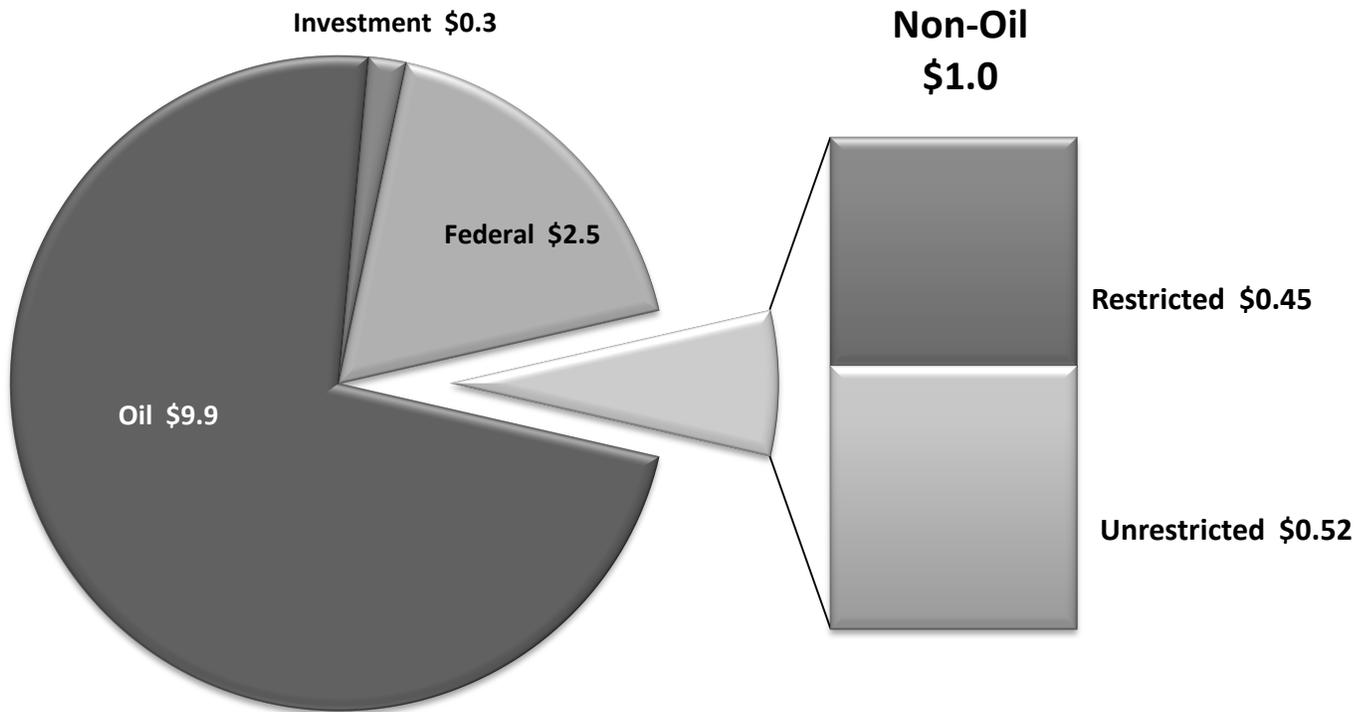
*Alaska Department of Revenue – Tax Division*

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# FALL 2012

# 5. Non-Oil Revenue, except Federal and Investment

Figure 5-1. FY 2012 Non-Oil Revenue: \$1.0 billion



**Figure 5-2. Total Non-Oil Revenue, except federal and investment (\$ million)**

<b>Unrestricted</b>	History	Forecast	
	FY 2012	FY 2013	FY 2014
Taxes	350.5	379.3	389.8
Charges for Services	29.2	33.3	33.3
Fines & Forfeitures	10.9	9.5	9.5
Licenses & Permits	42.3	43.4	43.1
Rents & Royalties	20.4	20.3	20.3
Other	66.3	55.7	39.5
<b>Total Unrestricted</b>	<b>519.6</b>	<b>541.5</b>	<b>535.5</b>
<b>Restricted</b>			
<b>Designated General Fund</b>			
Taxes	52.0	50.5	50.7
Charges for Services	200.1	231.2	229.3
Fines & Forfeitures	6.9	8.0	8.0
Licenses & Permits	0.4	0.2	0.2
Rents & Royalties	4.4	4.4	4.4
Other	4.4	17.4	17.4
<b>Subtotal</b>	<b>268.2</b>	<b>311.7</b>	<b>310.0</b>
<b>Other Restricted</b>			
Taxes	75.3	70.2	71.3
Charges for Services	41.7	69.6	69.6
Fines & Forfeitures	24.4	23.6	23.4
Licenses & Permits	30.7	31.5	31.5
Rents & Royalties	8.0	8.0	8.0
Other	4.4	7.0	7.0
<b>Subtotal</b>	<b>184.5</b>	<b>209.9</b>	<b>210.8</b>
<b>Total Restricted</b>	<b>452.7</b>	<b>521.6</b>	<b>520.8</b>
<b>Total Non-Oil Revenue, except federal and investment</b>	<b>972.3</b>	<b>1,063.1</b>	<b>1,056.3</b>

## General Discussion

Revenue from sources other than oil include state investments, federal receipts, non-oil taxes, charges for services, fines and forfeitures, licenses and permits, rents and royalties and other revenue sources are categorized as “Non-Oil Revenue, except federal and investment.”

This category does not include federal or investment revenue, as its name implies, and sometimes is shortened to “Non-Oil Revenue.” Federal revenue is discussed in Chapter 6 and Investment revenue is the subject of Chapter 7. This chapter addresses the remaining Non-Oil Revenue. These revenue sources are each subcategorized into Unrestricted, Designated General Fund and Other Restricted Revenue. The amounts of each are reflected in Figures 5-2 through 5-8 throughout this chapter. Other Restricted Revenue includes money deposited in funds other than the General Fund, as well as receipts that are restricted by statute or that the legislature customarily appropriates for a particular purpose or program.

## Taxes

### Alcoholic Beverages Tax

Alcoholic beverage taxes are collected primarily from wholesalers and distributors of alcoholic beverages sold in Alaska. The per-gallon tax rates on alcoholic beverages are \$1.07 for beer, \$2.50 for wine and \$12.80 for liquor. Qualifying small brewers pay tax at a rate of \$0.35 per gallon for beer. Revenue is deposited into the General Fund. 50% of the revenue is deposited into a subfund of the General Fund, the Alcohol and Other Drug Abuse Treatment and Prevention Fund and is treated as restricted in this forecast.

In Alaska over the past 5 years, wine consumption has grown at an aver-

age annual rate of 2.9% and liquor consumption has grown at an average annual rate of 3.6%. Meanwhile, beer consumption has fallen by 0.1% per year on average. Alcoholic beverage tax revenue forecasts are based on a continuation of these 5-year average rates of growth or decline.

### Charitable Gaming

Under Alaska law, municipalities and qualified nonprofit organizations may conduct certain charitable gaming activities. The purpose of such activities is to derive public benefit in the form of money for charities and revenue for the state. The department collects permit and license fees, a 1% net proceeds fee and a 3% pull-tab tax. DOR forecast revenue from charitable gaming activity will remain flat in FY 2013 and FY 2014.

### Corporate Income Tax

Alaska levies two types of corporate income tax: one that applies to oil and gas corporations and one that applies to corporations other than oil and gas corporations. Forecasts and discussion of the corporate income tax as applied to oil and gas corporations can be found in Chapter 4.

Alaska levies the corporate income tax on corporations doing business in the state. Corporate tax rates are graduated from 1% to 9.4% in \$10,000 increments of taxable income. The maximum rate of 9.4% applies to taxable income over \$90,000. S-Corporations and LLCs that file federally as partnerships are generally exempt from corporate income tax. Corporations compute their tax liability based on federal taxable income with Alaska adjustments. Corporations other than oil and gas corporations apportion their income to Alaska by using a three-factor apportionment based on sales, property and payroll.

Alaska taxable income is determined by applying the apportionment factor to the corporation’s modified federal taxable income.

For the Fall 2012 forecast, the department’s expectations for corporate income tax revenue are based on a nonlinear statistical relationship of historical tax payments. Forecast of estimated payments is then adjusted for refunds, carry-forwards, credits and other payments that cause actual collections to differ from estimated payments. Adjustments are based upon actual FY 2013 1<sup>st</sup> quarter cash collections and historical trends.

Over the past few years, income tax revenue from corporations other than oil and gas corporations has been volatile. In FY 2009, revenue was \$120.9 million, in FY 2010 revenue decreased to \$81.9 million—\$39 million less than FY 2009 due to the economic downturn. FY 2011 corporate income tax revenue jumped dramatically to \$157.7 million, only to fall to \$98.5 million in FY 2012. Looking forward to FY 2013 and FY 2014, collections are expected to increase to slightly over \$110 million per year. The forecast is uncertain due to changes to the educational tax credit law, film credits, the federal “fiscal” cliff and other exogenous variables affecting economic growth.

### Commercial Passenger Vessel Taxes

In August 2006, Alaska voters approved an initiative that imposed new taxes and fees on commercial passenger vessels. Effective October 31, 2010, the Alaska Legislature made several changes to the voter approved initiative. Following are descriptions of the various commercial passenger vessel taxes and fees enacted by the voter approved initiative and revised by the 2010 legislation:

- The Commercial Passenger Vessel Tax (CPVT) is a tax of \$34.50 on each passenger aboard a commercial passenger vessel with 250 or more berths. This rate was reduced from \$46 as part of the 2010 legislation. Revenue is deposited into a subfund of the General Fund, the CPVT Account. Five dollars of the tax can be appropriated to each of the first seven ports of call. If a commercial passenger vessel visits a port that levies a tax similar to the CPVT, and that tax was in place before December 17, 2007, the local tax imposed is allowed as a credit against the state tax. Only Juneau and Ketchikan had qualifying levies in place at that time. CPVT can only be collected if a cruise ship spends more than 72 consecutive hours in Alaskan waters. All funds received from the CPVT must be spent on port facilities, harbor infrastructure, and other services provided to commercial passenger vessels and the passengers on board those vessels. The entire passenger fee is considered restricted for purposes of this forecast.

In the original voter approved initiative, an additional 25% of the tax was designated for other local governments impacted by the cruise ship industry via the Regional Cruise Ship Impact Fund. The Regional Cruise Ship Impact Fund was eliminated as of October 31, 2010. Revenue for the fund came from the CPVT, representing \$11.50 of the tax. The \$11.50 represents the decrease in the CPVT from \$46 to \$34.50.

- The Ocean Ranger Fee is an additional per-berth fee of \$4 to operate the Ocean Ranger program, which provides for independent observers of engineering, sanitation and health practices. This fee is considered restricted and is included in the

Charges for Services section.

- The Large Passenger Vessel Gambling Tax is a tax of 33% on the adjusted gross income from gaming or gambling activities aboard large passenger vessels in the state. Revenue goes to the General Fund and is considered unrestricted.
- The Alaska corporate income tax now applies to large commercial passenger vessels, and the revenue is included in the forecast of corporate income taxes.
- There are penalties for false reporting, violating environmental regulations and failing to make proper disclosures on promotions and shore side activity sales. Revenue from these provisions are included in the Fines and Forfeitures section.

Following the changes to the CPVT enacted in 2010, the state's share of the fee fell from \$14.1 million in FY 2011 to \$2.2 million in FY 2012. The reduction is due to the increase in the number of ports of call which may receive funds, the number of ports visited, the credit allowed for existing local levies, the reduction in the CPVT and cruise ships spending less than 72 consecutive hours in Alaskan waters. With the phase out of the Regional Cruise Ship Impact Fund, the revenue decreased to zero in FY 2012. Revenue shared with local governments increased from \$9.1 million in FY 2011 to \$14.2 million in FY 2012 and are treated as Restricted Revenue. Projected FY 2013 and FY 2014 revenue is expected to remain the same as FY 2012.

Estimates of cruise ship passenger counts subject to the fee for CY 2013 and CY 2014 are estimated to remain flat at 790,000 passengers.

### **Electric Cooperative and Telephone Cooperative Taxes**

The electric cooperative tax is based on kilowatt hours furnished by qualified electric cooperatives recognized under Title 10 of the Alaska Statutes. The telephone cooperative tax is levied on gross revenue of qualified telephone cooperatives under Title 10. Revenue from cooperatives located in municipalities is treated as other Restricted Revenue in this forecast because it is shared 100% with the municipalities. The small amount of revenue collected from cooperatives outside municipalities is retained by the state. Revenue from the electric and telephone cooperative taxes are expected to increase at the overall rate of inflation.

### **Estate Tax**

Estate tax is levied on the transfer of an estate upon death. The Alaska estate tax is tied to the federal tax, with the amount of the state tax equaling the maximum state credit allowed on the estate's federal return. All revenue derived from estate taxes is deposited in the General Fund.

As a result of changes to the federal estate tax, the Alaska estate tax was phased out completely beginning January 1, 2005. The federal estate tax changes that caused the state tax to be phased out are scheduled to sunset after December 31, 2012. Assuming the tax changes sunset as scheduled, Alaska may begin to receive revenue from the estate tax again in calendar year 2014. For this forecast, DOR shows the first revenue from the estate tax in FY 2015.

### **Fisheries Business Tax**

The fisheries business tax is levied on businesses that process fisheries resources in Alaska or export fisheries resources from Alaska. Although the tax is usually levied on the act of processing, the tax is often referred to as a "raw fish tax" because it is based on the value of 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 a shore-based or floating processor. Revenue from the tax is deposited in the General Fund. Fifty percent of the revenue (before credits) is shared with qualified municipalities and is treated as Other Restricted Revenue.

Forecasts of fisheries business tax revenue is based on estimated taxable values of the major fisheries in the state and historical effective tax rates. Fisheries business tax revenue retained by the state is reduced by an estimate of tax credits, including Salmon Product Development credits, which apply only to the state portion of the tax.

### **Fishery Resource Landing Tax**

The fishery resource landing tax is based on the unprocessed statewide average price of the resource and is levied on fishery resources processed outside of Alaska and first landed in Alaska. The tax is collected primarily from factory trawlers and floating processors that process fishery resources outside the state’s three mile limit and bring their products into Alaska for shipment. The tax rates vary from 1% to 3%, based on whether the resource is classified as “established” or “developing.” All revenue derived from the tax is deposited in the General Fund. Fifty percent of the revenue (before credits) is shared with qualified municipalities, and is treated as Other Restricted Revenue.

We forecast fisheries resource landing tax revenue based on estimated taxable values of the major fisheries in the state and historical effective tax rates. Fisheries resource landing tax revenue retained by the state is reduced by a forecast of tax credits which apply only to the state’s share of the tax.

### **Insurance Premium Tax**

Insurance companies in Alaska pay

an insurance premium tax instead of corporate income tax, sales or other excise taxes. Revenue is deposited into the General Fund, and for most types of insurance, the tax is treated as Unrestricted Revenue. Insurance premium taxes on worker’s compensation insurance are deposited into a subfund of the General Fund, the Workers Safety and Compensation Fund, and are reflected as restricted in this forecast. The restricted component also includes service fees paid into the Workers Safety and Compensation Fund by employers who are uninsured or self-insured.

The forecast of insurance premium tax revenue is based on estimates provided by the Department of Commerce, Community and Economic Development’s Division of Insurance, which administers the insurance premium tax, and the Department of Labor and Workforce Development’s Workers Compensation Division, which collects worker’s compensation service fees.

### **Mining License Tax**

The Mining License Tax (MLT) ranges from 0% to 7% on the net income of most mining operations in the state. With the exception of sand and gravel operations, new mining operations are exempt from the MLT for a period of 3.5 years after production begins. Sand and gravel operations are exempt from the MLT tax effective January 1, 2012.

This forecast uses a bottom-up approach to estimate tax payments for each of the major mines in the state based on expected minerals prices and production. Prices for most minerals have stabilized over the past year. MLT revenue decreased from \$49.0 million in FY 2011 to \$40.7 million in FY 2012. Gold and zinc play the largest role in the MLT. The Department of Natural Resources estimates that in 2010 zinc accounted for 42% and gold accounted for 36% of nonpetroleum mineral value produced

in Alaska. For FY 2013 and FY 2014, DOR forecast modest increases in MLT revenue as mineral prices stabilize and new large mines complete their 3.5 year exemption period.

### **Motor Fuel Tax**

The motor fuel tax is imposed on all motor fuel sold, transferred or used within Alaska. Per gallon rates are 8 cents for highway use, 5 cents for marine fuel, 4.7 cents for aviation gasoline, 3.2 cents for jet fuel, and 8 cents or 2 cents for gasohol, depending on the season, location and EPA mandate. Motor fuel taxes are collected primarily from wholesalers and distributors licensed as qualified dealers. Various uses of fuel are exempt from tax, including fuel used for heating or flights to or from a foreign country. All revenue derived from motor fuel taxes is deposited in the General Fund. Sixty percent of the taxes attributable to aviation fuel sales at municipal airports are shared with the respective municipalities and are treated as Other Restricted Revenue.

The forecast of motor fuel tax revenue shows slight declines in FY 2013 and FY 2014, based on the Energy Information Agency projections for declines in total U.S. motor fuel consumption.

### **Tire Fee**

The tire fee has two components. The first component is a tax of \$2.50 on all new tires sold in Alaska for motor vehicles intended for highway use. The second component is an additional \$5 fee per tire on all new tires with heavy studs sold in Alaska, and a \$5 fee per tire on the installation of heavy studs on a previously un-studded tire.

Forecasted revenue from the tire fee is based on the expected number of vehicle registrations in the state.

### **Seafood Assessments and Taxes**

The Department of Revenue admin-

isters five different programs that raise money through seafood assessments and taxes. The rates for these assessments and taxes are determined by a vote of the appropriate association within the seafood industry, by members of the Alaska Seafood Marketing Institute, or by the Department of Revenue. The five programs are:

- The seafood marketing assessment, which applies to all seafood products

made or first landed in Alaska and all unprocessed products exported from Alaska.

- The dive fishery management assessment, which is levied on the value of fishery resources taken using dive gear in a designated management area.
- The regional seafood development tax, which is levied on the value of fishery resources in a designated management area.

- The salmon enhancement tax, which is levied on salmon sold or exported from designated aquaculture regions.

- The cost recovery fisheries assessment, a program authorized in 2006. This program allows hatcheries to establish a common property fishery and recoup costs through an assessment on fishery resources taken in the terminal harvest area. This program was used as a funding source for the first time

**Figure 5-3. Non-Oil Taxes (\$ million)**

<b>Unrestricted Excise Tax</b>	History	Forecast	
	FY 2012	FY 2013	FY 2014
Alcoholic Beverage	19.4	21.7	22.2
Tobacco Products – Cigarettes	33.6	32.4	31.4
Tobacco Products – Other (General Fund)	12.0	13.3	14.4
Electric & Telephone Cooperative	0.2	0.2	0.2
Insurance Premium	54.8	57.9	58.8
Motor Fuel Tax	40.9	40.7	40.6
Tire Fee	1.4	1.4	1.4
Vehicle Rental	8.5	8.7	8.9
<b>Subtotal</b>	<b>170.8</b>	<b>176.3</b>	<b>177.9</b>
<b>Corporate Income Tax (non oil and gas)</b>	<b>98.5</b>	<b>111.2</b>	<b>113.7</b>
<b>Fish Tax</b>			
Fisheries Business	26.4	22.0	22.6
Fishery Resource Landing	6.3	3.7	3.8
<b>Subtotal</b>	<b>32.7</b>	<b>25.7</b>	<b>26.4</b>
<b>Other Tax</b>			
Charitable Gaming	2.6	2.6	2.6
Estate	0.0	0.0	0.0
Large Passenger Vessel Gambling	5.2	5.2	5.2
Mining License	40.7	58.3	64.0
<b>Subtotal</b>	<b>48.5</b>	<b>66.1</b>	<b>71.8</b>
<b>Total Unrestricted Taxes</b>	<b>350.5</b>	<b>379.3</b>	<b>389.8</b>

Figure 5-3. Continued

<b>Restricted Designated General Fund</b>	History	Forecast	
	FY 2012	FY 2013	FY 2014
Alcoholic Beverage (alcohol & drug treatment)	19.3	20.1	20.6
Tobacco – Cigarettes (tobacco use cessation)	3.3	3.2	3.1
Tobacco – Cigarettes (school fund)	22.5	21.0	20.8
Insurance Premium/Other <sup>(1)</sup>	6.9	6.2	6.2
<b>Subtotal</b>	<b>52.0</b>	<b>50.5</b>	<b>50.7</b>
<b>Other Restricted</b>			
Cruise Ship Passenger Fee (State Share)	2.2	2.2	2.2
Cruise Ship Passenger Fee (Municipal Share)	14.2	14.2	14.2
Dive Fishery Management Assessment (designated management areas)	0.7	0.7	0.7
Electric and Telephone Cooperative (Municipal Share)	3.9	3.9	3.9
Fisheries Business (Municipal Share)	26.7	25.7	26.3
Fishery Resource Landing (Municipal Share)	5.7	5.1	5.2
Motor Fuel Tax-Aviation (Municipal Share)	0.1	0.1	0.1
Salmon Enhancement (Aquaculture Association Share)	10.1	8.3	8.5
Seafood Development (qualifying regional associations)	1.9	1.6	1.6
Seafood Marketing Assessment (seafood marketing programs)	9.7	8.4	8.6
Settlements to CBRF (non-petroleum taxes)	0.1	0.0	0.0
<b>Subtotal</b>	<b>75.3</b>	<b>70.2</b>	<b>71.3</b>
<b>Total Restricted Taxes</b>	<b>127.3</b>	<b>120.7</b>	<b>122.0</b>
<b>Grand Total</b>	<b>477.8</b>	<b>500.0</b>	<b>511.8</b>

<sup>(1)</sup> In addition to the worker's compensation insurance premiums for the Insurance Premium Tax, this amount also includes services fees from employers who are self-insured.

in 2012, with revenue expected to be received in FY 2013.

Revenue received under these assessments is deposited in the General Fund. Funds are treated as Other Restricted Revenue in this forecast because they are set aside for the legislature to appropriate for the benefit of the seafood industry, either in marketing or in management and development of the industry.

The estimated taxable value of Alaska's salmon fishery and historical effective tax rates are used to forecast salmon enhancement tax revenue. Seafood development tax revenue is based on the estimated taxable value of seafood processed in Alaska. Dive fishery taxes are based on the value of the fishery in the prior fiscal year. Seafood assessment taxes are forecasted using estimates of the fisheries business and landing taxes from both the forecasted year and the preceding year.

### **Tobacco Tax**

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. There are two components to the tobacco tax: the cigarette tax, and the other tobacco products tax.

The tax rate on cigarettes has been \$2.00 per pack since July 1, 2007. Of the cigarette tax, \$0.76 per pack is deposited into the School Fund, and is considered Designated General Fund Revenue. All cigarette and tobacco products license fees are also deposited in the School Fund. The remainder of the cigarette tax revenue is deposited into the General Fund. Of the General Fund portion, 8.9% is deposited into a subfund of the General Fund, the Tobacco Use Education and Cessation Fund, and is treated as Designated General Fund Revenue.

Our forecast for cigarette tax revenue is

based on projected average consumption declines of 3% annually.

The tax rate on other tobacco products, such as cigars and chewing tobacco, is 75% of the wholesale price and is deposited entirely in the General Fund. Moderate increases in wholesale prices and consumption will result in revenue from other tobacco products tax continuing to increase at a 10-year average rate of about 8% annually.

### **Vehicle Rental Tax**

Vehicle rental tax is a 10% tax on most passenger vehicle rentals of 90 days or less, and a 3% tax on rentals of recreational vehicles for 90 days or less. The vehicle rental tax provisions became effective January 1, 2004.

Revenue from the vehicle rental tax is expected to increase with the overall rate of inflation.

### **Charges for Services**

The charges for services category includes fees and other program charges for state services. Revenues reported in this category do not include all charges for state services. This category only includes those that do not fit into other categories in this report.

Most of these receipts are considered Restricted Revenue because they are returned to the program where they were generated. The only Unrestricted Revenue listed in this category come from charges that do not have program receipt designations, or are not otherwise segregated and appropriated back to a program. Many of the charges for services are small amounts that DOR have grouped into the broad categories "General Government," "Natural Resources" and "Other." Estimates for these categories are based on fiscal year-to-date collections and historical averages. The largest categories of charges for services are listed separately and are

discussed below.

### **Marine Highway Fund**

The Alaska Marine Highway Fund is a subfund of the General Fund and receives revenue from state ferry system operations. The legislature has discretion over how the revenue is allocated. Because revenue is customarily appropriated for Alaska Marine Highway operations, they are considered Restricted Revenue for this forecast. Revenue projections are based upon revenue expectations provided by the Alaska Marine Highway Division (part of the Alaska Department of Transportation).

### **Environmental Compliance Fund**

Commercial passenger vessel fees paid into the Environmental Compliance Fund come from two sources: Ocean Ranger fees, and environmental compliance fees. All fees paid into the fund are considered restricted for purposes of this forecast and are based on estimated cruise ship passenger levels discussed in the taxes section earlier.

The Ocean Ranger fee is a per-berth fee of \$4 that applies to commercial passenger vessels with 250 or more berths. The fee is levied to support the Ocean Ranger program, which provides for independent observers of engineering, sanitation and health practices aboard the vessels. This fee was imposed as part of an initiative passed by voters in August 2006, and is covered in more detail along with the discussion of Commercial Passenger Vessel taxes earlier in this chapter.

Environmental compliance fees are levied on commercial passenger vessels with over 50 berths. Fees range from \$75 to \$3,750 per vessel based on the number of berths, and funds are used to support environmental compliance programs.

**Figure 5-4. Charges for Services**  
(\$ million)

	History		Forecast	
	FY 2012	FY 2013	FY 2014	
<b>Unrestricted</b>				
General Government	14.0	17.8	17.8	
Natural Resources	8.9	8.9	8.9	
Other	6.3	6.6	6.6	
<b>Total Unrestricted</b>	<b>29.2</b>	<b>33.3</b>	<b>33.3</b>	
<b>Restricted</b>				
<b>Designated General Fund</b>				
DCCED Business Licenses	8.4	8.4	8.4	
Environmental Compliance Fees	0.9	1.0	1.0	
General Government - GF Subfunds	7.1	7.5	7.5	
Marine Highway Receipts	53.6	54.9	53.0	
Natural Resources	0.3	0.9	0.9	
Ocean Ranger Fees	3.7	3.8	3.8	
Oil and Gas Conservation	5.9	6.3	6.3	
RCA Receipts	8.5	10.7	10.7	
Receipt Supported Services <sup>(1)</sup>	111.0	136.9	136.9	
Timber Sale Receipts	0.7	0.8	0.8	
<b>Subtotal</b>	<b>200.1</b>	<b>231.2</b>	<b>229.3</b>	
<b>Other Restricted</b>				
General Government - Special Funds	0.1	0.2	0.2	
Statutorily Designated	41.6	69.4	69.4	
<b>Subtotal</b>	<b>41.7</b>	<b>69.6</b>	<b>69.6</b>	
<b>Total Restricted</b>	<b>241.8</b>	<b>300.8</b>	<b>298.9</b>	
<b>Grand Total</b>	<b>271.0</b>	<b>334.1</b>	<b>332.2</b>	

<sup>(1)</sup> Beginning Fall 2011, Test Fisheries receipts are included in the Receipt Supported Services category and are not reported separately.

## Program Receipts

Under AS 37.05.142 – 37.05.146, receipts from authorized state programs are accounted for separately and appropriated to administer the source program, implement laws related to the program, or cover costs associated with collecting the receipts. Some programs with program receipt authority are not included in the department's Charges for Services category because they are reported elsewhere in this forecast or because they do not generate revenue available for general appropriation.

Expected revenue from program receipts are based on discussions with the Governor's Office of Management and Budget and analysis of the most recent budget expectations for these categories.

Program receipts listed in this section are:

- Receipt supported services, which include state services such as Pioneers homes and occupational licensing that are funded by program receipts. Some seafood assessments are included in this category.
- Statutorily designated program receipts, which include money received from sources other than the state or federal government and restricted by the terms of a gift, grant, bequest or contract.
- Regulatory Commission of Alaska (RCA) receipts, which are regulatory cost charges and user fees levied on utilities and pipelines to fund costs of regulation.
- Timber sale receipts, which are used to fund the timber disposal program of the Department of Natural Resources.
- Oil and Gas Conservation Commission receipts, which are fees and charges for regulation of oil and gas

**Figure 5-5. Fines & Forfeitures (\$ million)**

<b>Unrestricted</b>	History	Forecast	
	FY 2012	FY 2013	FY 2014
Fines & Forfeitures	10.9	9.5	9.5
<b>Total Unrestricted</b>	<b>10.9</b>	<b>9.5</b>	<b>9.5</b>
<b>Restricted</b>			
<b>Designated General Fund</b>			
Tobacco Settlement (Tobacco Use Education & Cessation Fund)	6.0	5.8	5.8
Other - GF Subfunds	0.9	2.2	2.2
<b>Subtotal</b>	<b>6.9</b>	<b>8.0</b>	<b>8.0</b>
<b>Other Restricted</b>			
Tobacco Settlement (Northern Tobacco Securitization Corporation)	24.0	23.3	23.1
Other - Special Revenue Funds	0.4	0.3	0.3
<b>Subtotal</b>	<b>24.4</b>	<b>23.6</b>	<b>23.4</b>
<b>Total Restricted</b>	<b>31.3</b>	<b>31.6</b>	<b>31.4</b>
<b>Grand Total</b>	<b>42.2</b>	<b>41.1</b>	<b>40.9</b>

wells and pipelines.

- Business license fees collected by the Department of Commerce, Community and Economic Development.

## Fines and Forfeitures

Fines and forfeitures include civil and criminal fines and forfeitures and money received by the state from the settlement of civil lawsuits. The largest single source of receipts under this category is the multi-state tobacco settlement often referred to as the Master Settlement Agreement (MSA). Other sources are forecast based on fiscal year-to-date collections and historical averages.

### Tobacco Settlement

The tobacco MSA was signed by 46 states (including Alaska) in November 1998 and dictates annual payments to

each of the states. Eighty percent of the settlement revenue is earmarked for the Northern Tobacco Securitization Corporation for payments on bonds that were sold based on the future revenue stream. The revenue for these bonds is considered other Restricted Revenue. The remaining 20% of the revenue is deposited into the Tobacco Use Education and Cessation Fund, a subfund of the General Fund. Tobacco Use Education and Cessation Fund revenue is considered Designated General Fund Revenue.

Tobacco settlement payments are based on a complex formula that takes into account several factors including declines in cigarette consumption, inflation and certain adjustments for litigation expenses and market share losses related to the settlement.

## Licenses and Permits

Licenses and permits represent revenue derived from charges for participating 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. Several other small license and permit fees are summarized in the Other Fees category. Alcoholic beverage license fees are forecast separately.

### Alcoholic Beverage Licenses

Alcoholic beverage licenses are required to manufacture or sell alcoholic beverages in Alaska. Licenses are issued by the Alcoholic Beverage Control Board and revenue is deposited into the General Fund. All of the revenue from biennial license fees collected within municipali-

ties, excluding annual wholesale fees and biennial wholesale license fees, is shared with the municipalities and treated as other Restricted Revenue for purposes of this forecast. DOR expects little change in revenue because the issuance of alcoholic beverage licenses is limited based on population.

### Fishing and Hunting License Fees

Fishing and hunting licenses are issued by the Alaska Department of Fish and Game for participation in various fishing, hunting and related activities. The majority of this revenue is appropriated to a special revenue fund called the Fish and Game Fund and are classified as Other Restricted Revenue. Money in the fund can only be spent for fish and game management purposes. Future revenue from fishing and hunting license

fees is provided by the Alaska Department of Fish and Game.

### Motor Vehicle Registration Fees

Motor vehicle registration fees are collected by the Division of Motor Vehicles within the Department of Administration. Most fees are considered unrestricted license and permit revenue; however, some registration fees are considered restricted receipt supported services and are reflected in the Charges for Services section. Revenue from motor vehicle registration fees is based on data provided by the Division of Motor Vehicles.

### Rents and Royalties

Rents and royalties from sources other than oil and gas fall into two categories: mining rents and royalties, and other

non-petroleum rents and royalties.

All rents and royalties from oil and gas are reported in the Oil Revenue section.

### Mining Rents and Royalties

As with oil and gas production, the state earns revenue from other mineral production that occurs on state lands leased for exploration and development. As the landowner, the state earns revenue from leases as: (1) up-front bonuses, (2) annual rent charges, and (3) as a retained royalty interest in minerals production.

Revenue received from mining rents and royalties is deposited as follows: 25% to 50% into the Permanent Fund, 0.5% into the School Fund and the remaining into the General Fund. The Permanent Fund and School Fund portions are treated as Other Restricted Revenue.

Figure 5-6. Licenses & Permits (\$ million)

	History	Forecast	
	FY 2012	FY 2013	FY 2014
<b>Unrestricted</b>			
Alcoholic Beverage Licenses	1.0	1.0	1.1
Motor Vehicles	38.2	39.7	39.3
Other Fees	3.1	2.7	2.7
<b>Total Unrestricted</b>	<b>42.3</b>	<b>43.4</b>	<b>43.1</b>
<b>Restricted</b>			
<b>Designated General Fund</b>			
Other Fees - GF Subfunds	0.4	0.2	0.2
<b>Subtotal</b>	<b>0.4</b>	<b>0.2</b>	<b>0.2</b>
<b>Other Restricted</b>			
Alcoholic Beverage License Share	0.9	0.9	0.9
Hunting and Fishing Fees (Fish & Game Fund)	26.4	26.4	26.4
Other Fees - Special Revenue Funds	3.4	4.2	4.2
<b>Subtotal</b>	<b>30.7</b>	<b>31.5</b>	<b>31.5</b>
<b>Total Restricted</b>	<b>31.1</b>	<b>31.7</b>	<b>31.7</b>
<b>Grand Total</b>	<b>73.4</b>	<b>75.1</b>	<b>74.8</b>

Future revenue from mining rents and royalties are based on expected changes in minerals prices and mine-specific forecasts for large mines on state land.

### Other Non-Petroleum Rents and Royalties

The state receives revenue from the leasing, rental, and sale of state land. While all of this revenue is deposited into the General Fund, some is deposited into sub funds of the General Fund and is treated as Designated General Fund Revenue for purposes of this forecast. This category includes revenue from leasing, rental, and sale of state land

that do not fall into the oil and gas or mining royalty categories. Other non-petroleum rents and royalties are based on analysis of fiscal year-to-date and historical collections.

### Other

This category includes unclaimed property transfers, transfers to the state from component organizations, and miscellaneous revenue. Projections of miscellaneous revenue, which include contributions to the state and other revenue, are based on analysis of fiscal year-to-date and historical collections. Unclaimed property and transfers from component organizations are discussed below.

### Unclaimed Property

Alaska’s unclaimed property statutes require businesses and corporations to report unclaimed intangible property to the state. Property is reportable if an owner cannot be located, the owner has not cashed a property check, or an account has not had any owner-initiated activity for at least three years. Unclaimed property may include checking accounts, customer deposits and overpayments, gift certificates, unpaid wages, and security related accounts. The state holds the property in trust until the owner or his or her legal heir claims it. Each year the unclaimed property trust account is evaluated and the excess of the working trust balance is transferred to the General Fund.

### Transfers from Component Organizations

Each year, the state receives money in the form of transfers from component organizations, such as the Alaska Housing Finance Corporation, frequently in the form of dividends. Component organizations are covered in more detail in the Public Corporations & the University of Alaska section. Some component organizations do not make transfers to the state and, as a result, not all component organizations are listed here.

Actual transfers for FY 2012 are reflected in draft tables from the Comprehensive Annual Financial Report. Forecasts for FY 2013 and FY 2014 transfers are based on discussions with the Governor’s Office of Management and Budget, and analysis of the most recent budget expectations for these categories.

Transfers from component organizations presented under this category may differ from those presented in the Public Corporations & University of Alaska section for two reasons: (1) amounts in

Figure 5-7. Rents & Royalties (\$ million)

	History		Forecast	
	FY 2012	FY 2013	FY 2014	
<b>Unrestricted</b>				
Mining Rents and Royalties	12.3	12.3	12.3	
Other Non-Petroleum Rents and Royalties	8.1	8.0	8.0	
<b>Total Unrestricted</b>	<b>20.4</b>	<b>20.3</b>	<b>20.3</b>	
<b>Restricted</b>				
<b>Designated General Fund</b>				
Other Non-Petroleum Rents and Royalties	4.4	4.4	4.4	
<b>Subtotal</b>	<b>4.4</b>	<b>4.4</b>	<b>4.4</b>	
<b>Other Restricted</b>				
Mining Rents and Royalties	8.0	8.0	8.0	
<b>Subtotal</b>	<b>8.0</b>	<b>8.0</b>	<b>8.0</b>	
<b>Total Restricted</b>	<b>12.4</b>	<b>12.4</b>	<b>12.4</b>	
<b>Grand Total</b>	<b>32.8</b>	<b>32.7</b>	<b>32.7</b>	

this section account differently for funds paid over time for multi-year capital projects; and (2) amounts in this section include funds that are transferred to the state and then appropriated to the component unit for operations.

**Figure 5-8. Other Revenue (\$ million)**

	History	Forecast	
	FY 2012	FY 2013	FY 2014
<b>Unrestricted</b>			
Miscellaneous	22.3	14.3	14.3
Alaska Housing Finance Corporation	8.9	16.5	0.0
Alaska Industrial Development & Export Authority	29.4	20.4	20.7
Alaska Municipal Bond Bank Authority	0.0	0.9	0.9
Alaska Student Loan Corporation	1.7	0.0	0.0
Alaska Energy Authority	0.0	0.0	0.0
Mental Health Trust	0.0	0.1	0.1
Unclaimed Property	4.0	3.5	3.5
<b>Total Unrestricted</b>	<b>66.3</b>	<b>55.7</b>	<b>39.5</b>
<b>Restricted</b>			
<b>Designated General Fund</b>			
Miscellaneous - GF Subfunds <sup>(1)</sup>	4.4	17.4	17.4
<b>Subtotal</b>	<b>4.4</b>	<b>17.4</b>	<b>17.4</b>
<b>Other Restricted</b>			
Miscellaneous - Special Revenue Funds <sup>(1)</sup>	4.4	7.0	7.0
<b>Subtotal</b>	<b>4.4</b>	<b>7.0</b>	<b>7.0</b>
<b>Total Restricted</b>	<b>8.8</b>	<b>24.4</b>	<b>24.4</b>
<b>Grand Total</b>	<b>75.1</b>	<b>80.1</b>	<b>63.9</b>

<sup>(1)</sup> Revenue shown under account codes for "other" or "contributions" in the Alaska State Accounting System for General Fund subfunds and special revenue funds.

# Revenue Sources Book

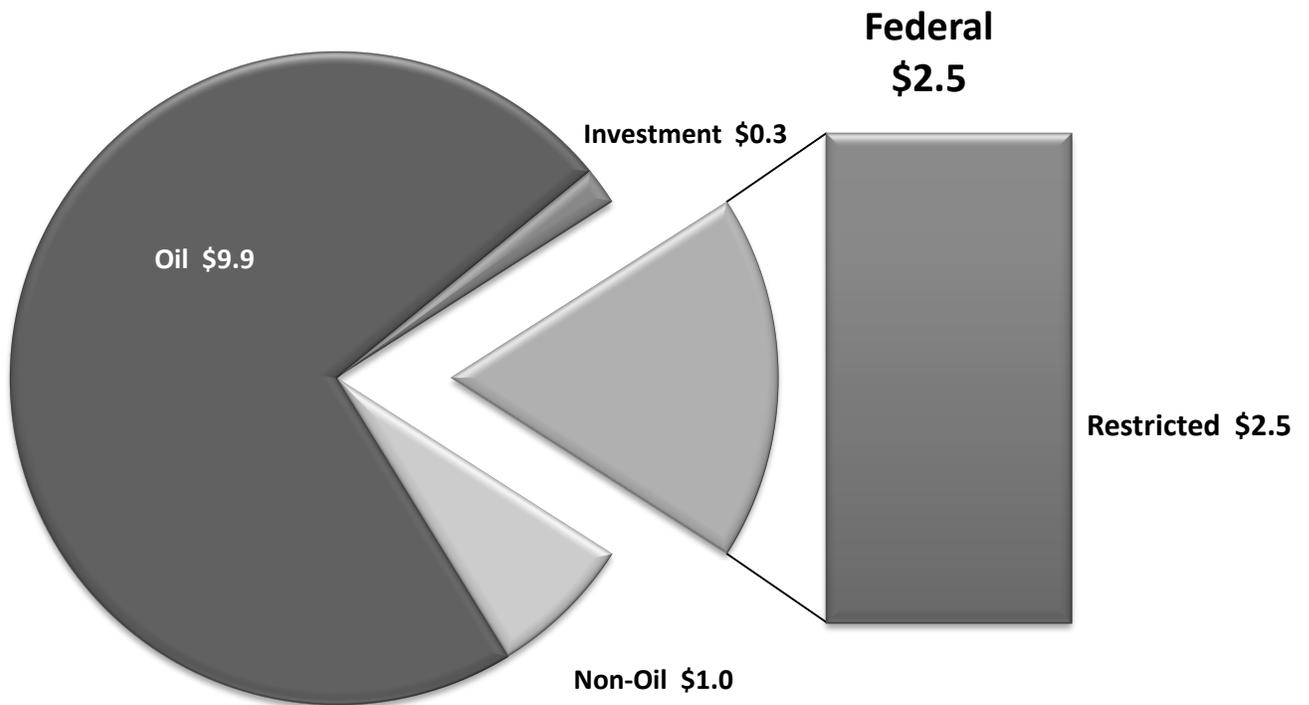
*Alaska Department of Revenue – Tax Division*

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# FALL 2012

# 6. Federal Revenue

Figure 6-1. FY 2012 Federal Revenue \$ 2.5 billion



## General Discussion

The federal government continues to play a significant role in Alaska's economy. Federal expenditures in Alaska come in the form of direct payments for retirement and disability benefits, other direct payments, grants, procurement and salaries and wages. Salaries and wages traditionally has been the largest of these categories, making up almost a third of total federal government expenditures. In this chapter, DOR traditionally reports information from the Consolidated Federal Funds Report (CFFR) to enumerate federal spending in the various categories other than funds directly received by the state. Due to federal budget cuts, the U.S. Census Bureau has suspended the CFFR following the Federal Fiscal Year (FFY) 2010 report.

In FY 2012, the State of Alaska received and spent over \$2.4 billion in federal funds. This federal funding

is generally restricted to specific uses such as road improvements, Medicaid payments, and aid to schools. Potential changes to federal law, differing federal and state fiscal years, and varying numbers of eligible Alaskans in certain programs make forecasting federal revenue difficult. The estimates for FY 2013 and FY 2014 are from the Office of Management and Budget and are based on state agency projections of potential federal revenue.

For FY 2013, the state is budgeted to receive more than \$2.8 billion in federal receipts. The American Recovery and Reinvestment Act (ARRA), which played an important role in the overall level of federal funding in the FY 2012 state budget, will have a much smaller impact in FY 2013. ARRA represented approximately \$58.7 million (2%) of all federal funds in FY 2012. In FY 2013, only \$2.3 million or about .08% of all federal funds is expected to come as a result of ARRA.

Most federal funding requires state-matching money. The budgeted state match, and the top three budgeted categories for federal spending in Alaska for FY 2013 and FY 2014 are included in Figure 6-3.

It is important to note that the state routinely budgets for federal funds in excess of expected allotments. The legislature authorizes state agencies to receive and spend the maximum that federally funded programs might receive, while the actual appropriation amounts are generally less. In addition, some of the funding granted for multi-year capital projects is received and spent in years following the one in which the money is procured. All federal funds, whether spent in the operating or capital budget, are restricted by legislative appropriation to specific uses.

**Figure 6-2. Total Federal Revenue to the State**(\$ million)<sup>(1)</sup>

	History	Forecast	
	FY 2012	FY 2013	FY 2014
<b>Unrestricted General Fund</b>			
Federal Receipts	0.0	0.0	0.0

**Restricted (Federal)**

Federal Receipts	2,455.5	2,822.7	2,822.7
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<b>Grand Total</b>	<b>2,455.5</b>	<b>2,822.7</b>	<b>2,822.7</b>
--------------------	----------------	----------------	----------------

<sup>(1)</sup> This amount includes federal receipts other than Alaska's share of NPR-A oil royalties, which are presented in Chapter 2.

Source: Historical figures come from the Division of Finance and projected revenue come from the Office of Management and Budget.

**Figure 6-3. Federal Spending and State Match Requirements**

(\$ million)

	History	Budgeted	Budgeted
	FY 2012	FY 2013	FY 2014
<b>State Match Requirement</b>			
Operating Budget	518.9	567.6	567.6
Capital Budget	79.8	74.7	74.7
<b>Total</b>	<b>598.6</b>	<b>642.3</b>	<b>642.3</b>

**Top Spending Categories**

Transportation Projects	883.1	692.9	692.9
Medicaid	867.5	952.5	952.5
Education (K-12, University of Alaska)	394.7	388.1	388.1
<b>Total</b>	<b>2,145.3</b>	<b>2,033.5</b>	<b>2,033.5</b>

Source: Federal Revenue comes from Office of Management and Budget

# Revenue Sources Book

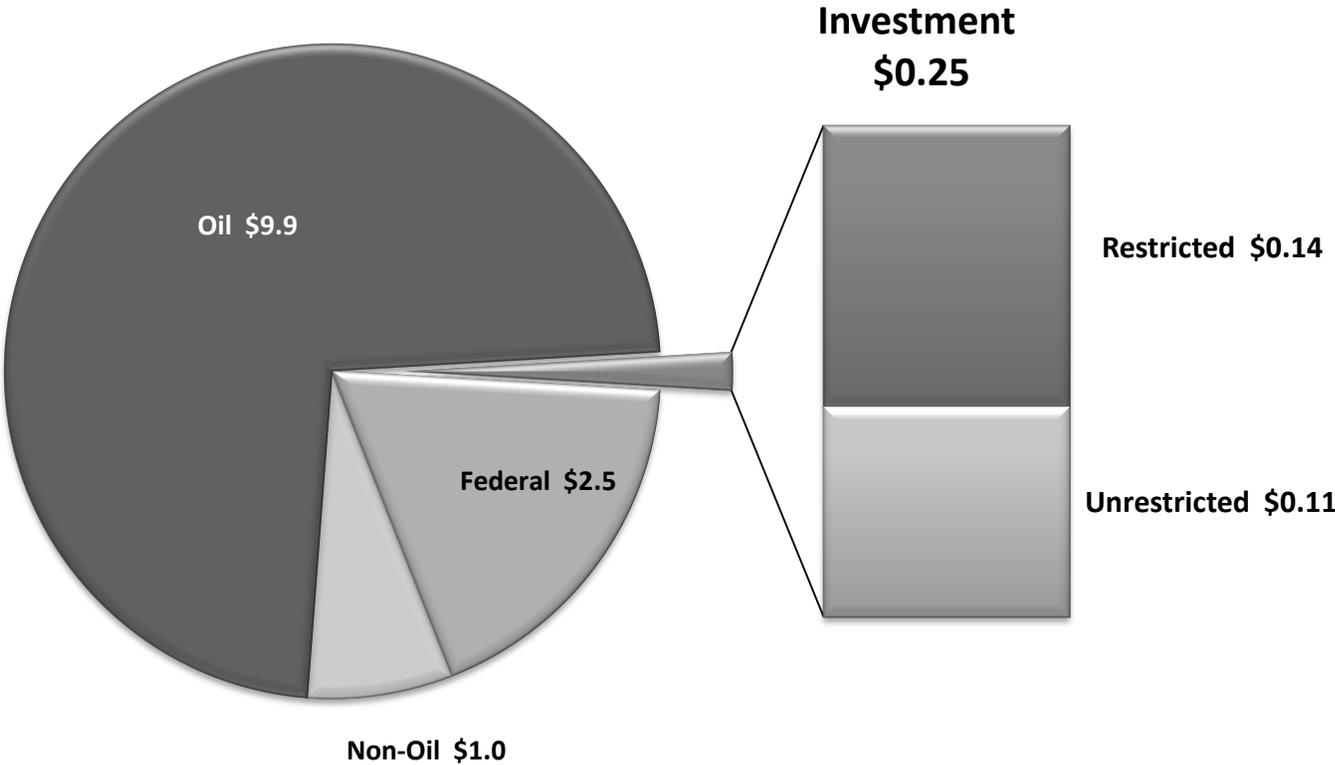
*Alaska Department of Revenue – Tax Division*

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# FALL 2012

# 7. Investment Revenue

Figure 7-1. FY 2012 Net Investment Revenue: \$0.3 billion



**Figure 7-2. Total Investment Revenue**(\$ million) <sup>(1)</sup>

	History	Forecast	
	FY 2012	FY 2013	FY 2014
<b>Unrestricted</b>			
Investments	104.8	61.8	63.1
Interest Paid by Others	3.0	4.4	4.4
<b>Total Unrestricted</b>	<b>107.8</b>	<b>66.2</b>	<b>67.5</b>
<b>Restricted</b>			
<b>Designated General Fund</b>			
Investments - Designated GF	9.2	4.8	5.3
Other Treasury Managed Funds	25.4	36.6	28.4
<b>Subtotal</b>	<b>34.6</b>	<b>41.4</b>	<b>33.7</b>
<b>Other Restricted</b>			
Investments - Other Restricted	18.5	9.8	10.6
Constitutional Budget Reserve Fund	191.1	550.3	422.9
Alaska Permanent Fund	-99.9	2,725.9	2,936.0
<b>Subtotal</b>	<b>109.7</b>	<b>3,286.0</b>	<b>3,369.5</b>
<b>Subtotal Restricted</b>	<b>144.3</b>	<b>3,327.4</b>	<b>3,403.2</b>
<b>Total</b>	<b>252.1</b>	<b>3,393.7</b>	<b>3,470.7</b>

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

## Investment Forecast

To forecast investment revenue for the current fiscal year, DOR combines actual performance through September 30, 2012, with a projection for the remainder of the year. Forecasts and estimated capital market median returns are based on information supplied by the state's investment consultant, Callan Associates Inc., and their 5- to 10-year capital market estimated returns.

The application of Callan's 5- to 10-year capital market estimates to the Permanent Fund Corporation's current asset allocation results in a 7.00% median expected total return. These estimates result in forecasted earnings

of \$2.7 billion for FY 2013 and \$2.9 billion for FY 2014. Actual Permanent Fund returns for FY 2012 were -\$100 million. This leads to a large difference, over \$2.8 million, between the actual return on investment of the Alaska Permanent Fund for FY 2012 and the forecast for FY 2013. The influence of this difference on total state revenue is briefly discussed in Chapter 2.

## Unrestricted Investment Revenue

Unrestricted investment revenue is earned on the General Fund non-segregated investments managed by the Treasury Division of the Department

of Revenue. Interest Paid by Others is interest received by the state other than on its investments. Oil and gas royalty interest, production tax interest, and corporate income tax interest are included in the Oil Revenue section of this forecast.

## Restricted Investment Revenue

Restricted investment revenue consists of earnings from governmental funds, the Constitutional Budget Reserve Fund (CBRF), other Treasury Division-managed governmental funds, and the Alaska Permanent Fund.

**Figure 7-3. Summary of Callan Associates Inc. Long-Term Capital Market Projections,  
As of November 7, 2012**

The continued volatility in the world's financial markets makes focus on the "Projected Risk" column (far right in the table above) particularly appropriate. The numbers in the Projected Risk column represent a statistical measure called standard deviation, which is the most commonly used measure of risk in the investment world. The standard deviation is a measure of the dispersion of data around its mean. The analyst can use this measure of dispersion to provide a range of possible outcomes at any desired level of confidence. In the data on this table, the level of confidence is set at 67% or one standard deviation. A higher level of confidence would require a broader range. For example, Callan estimates an average annual return for the Intermediate Treasury asset class of 3.10% and an expected risk for that asset class of 4.00%. 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 -0.90% (the median expected average annual return of 3.10% minus the expected risk of 4.00%) and 7.10% (the median expected return plus the expected risk). A prediction at 95% confidence would run from -4.00% to 10.20%, too broad a range to be useful. 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.

<b>Asset Class</b>	<b>Benchmark for Asset Class</b>	<b>Projected Return: 10-Year Geometric<sup>(1)</sup></b>	<b>Projected Risk: Standard Deviation</b>
<b>Equities</b>			
Broad Domestic Equity	Russell 3000 Index	7.75%	18.70%
Global ex-U.S. Equity	MSCI ACWI ex-U.S.	7.90%	21.15%
International Equity	MSCI EAFE	7.60%	20.00%
<b>Fixed Income</b>			
Domestic Fixed	Barclays Aggregate	3.25%	4.25%
High Yield	Barclays High Yield	5.35%	12.50%
Intermediate Treasury	Barclays Intermediate Treasury	3.10%	4.00%
TIPS	Barclays TIPS	3.00%	5.60%
Government 1-3	Barclays Gov't 1-3 Year	3.00%	2.50%
Non-U.S. Fixed	Citi Non-U.S. Gov't	2.85%	9.50%
<b>Other</b>			
Private Equity	VE Post Venture Cap	8.80%	30.60%
Hedge Funds	Callan Hedge FoF	5.55%	10.00%
Real Estate	Callan Real Estate	6.40%	16.95%
Cash Equivalents	90-Day T-Bill	2.75%	0.90%
Inflation	CPI-U	2.50%	1.40%

<sup>(1)</sup> Geometric returns are derived from arithmetic returns and the associated risk (standard deviation)

**Figure 7-4. Investment Revenue Summary, FY 2012 and Forecasted FY 2013-2014**  
 (\$ million)

**Asset Allocation**

Treasury Pool	Percent Allocation	Performance Benchmark
Short-term Fixed Income Pool	43%	Three-Month U.S. Treasury Bill
Liquidity Fund	10%	Three-Month U.S. Treasury Bill
Intermediate-Term Fixed Income Pool	47%	Barclays 1-3 Year Gov't Bond Index
Alaska Student Loan Corporation Note	0%	Allocation up to 6%
Bank Bonds	0%	Allocation up to 1%

Investment Balance: September 30, 2012	11,037.7
Long-term Expected Rate of Return	2.87%
Probability of Negative Return Over 1 Year	1.60%

Actual Total Investment Income, FY 2011	119.2
Actual Total Investment Income, FY 2012	132.5
Projected Total Investment Income, FY 2013	76.4

	History	Forecast	
	FY 2012	FY 2013	FY 2014
Investment Revenue Unrestricted	104.8	61.8	63.1
Investment Revenue Restricted - Designated GF <sup>(1)</sup>	9.2	4.8	5.3
Investment Revenue Restricted - Other Restricted	18.5	9.8	10.6
<b>Total</b>	<b>132.5</b>	<b>76.4</b>	<b>79.0</b>

<sup>(1)</sup> Includes subfunds of the General Fund.

**Figure 7-5. CBRF Investment Revenue Summary, FY 2012 and Forecasted FY 2013-2014**

(\$ million)

**Asset Allocation Regular Account**

Treasury Pool	Percent Allocation	Performance Benchmark
Short-term Fixed Income Pool	19%	Three-Month U.S. Treasury Bill
Intermediate-Term Fixed Income Pool	61%	Barclays 1-3 Year Government Bond Index
Broad Market Fixed Income Pool	20%	Barclays U.S. Aggregate
Bank Bonds	0%	Allocation up to 2%

Regular Account Balance: September 30, 2012	\$5,554.2
Long-term Expected Rate of Return	3.01%
Probability of Negative Return Over 1 Year	9.60%

**Asset Allocation Special Subaccount**

Treasury Pool	Percent Allocation	Performance Benchmark
Broad Market Fixed Income Pool	42%	Barclays U.S. Aggregate
Domestic Equity Pool	38%	Russell 3000 Index
International Equity Pool	20%	MSCI EAFE Index
Short-term Fixed Income Pool	0%	Allocation up to 2%

Special Subaccount Balance: September 30, 2012	\$5,424.5
Long-term Expected Rate of Return	6.31%
Probability of Negative Return Over 1 Year	27.90%

<b>Total CBRF Investment Income</b>	History	Forecast	
	FY 2012	FY 2013	FY 2014
Restricted - Other Restricted			
Regular Account	166.7	74.8	78.2
Special Subaccount	24.4	475.5	344.7
<b>Total</b>	<b>191.1</b>	<b>550.3</b>	<b>422.9</b>

**Figure 7-6. Constitutional Budget Reserve Fund Cash Flows**

(\$ million)

	History	Forecast	
	FY 2012	FY 2013	FY 2014
Beginning Cash Balance CBRF	10,330.0	10,642.4	11,272.8
Beginning Main Account Balance	5,164.0	5,452.0	5,863.2
Earnings on Main Account Balance <sup>(1)</sup>	166.7	74.8	78.2
Petroleum Tax, Royalty Settlements <sup>(2)(3)(4)</sup>	121.3	336.4	20.0
(Loan to GF)/Repayment to CBRF	0.0	0.0	0.0
Draw from/to GF	0.0	0.0	0.0
<b>Ending Main Account Balance</b>	<b>5,452.0</b>	<b>5,863.2</b>	<b>5,961.4</b>
Beginning Special Subaccount Balance	5,166.0	5,190.4	5,665.9
Earnings on Special Subaccount Balance <sup>(1)</sup>	24.4	475.5	344.7
Transfer from Main Account	0.0	0.0	0.0
<b>Ending Special Subaccount Balance</b>	<b>5,190.4</b>	<b>5,665.9</b>	<b>6,010.6</b>
<b>Total CBRF Balance</b>	<b>10,642.4</b>	<b>11,529.1</b>	<b>11,972.0</b>

<sup>(1)</sup> The long-term earnings estimate for the main account is 3.01% and the long-term earnings estimate for the special subaccount is 6.31%. These projections are based on 2012 Callan's capital market assumptions and Department of Revenue, Treasury Division's asset allocation.

<sup>(2)</sup> Settlement estimates are provided by the Department of Revenue and Department of Law, net of annual Federal Minerals Management Service payments.

<sup>(3)</sup> The petroleum tax, royalty settlements number on this sheet is shown on a cash basis. Please note the State accounting system numbers presented elsewhere in this book include accruals and therefore may differ from the numbers presented here.

<sup>(4)</sup> On November 8, 2012, a \$255 million settlement was announced between the State of Alaska and BP Exploration (Alaska) Inc. The majority of the \$255 million will be deposited into the Constitutional Budget Reserve Fund (CBRF). However, a portion will also be deposited into the Permanent Fund and School Fund, and approximately \$10 million will be paid to settle civil assessments for the spills. As this information was received late in the forecast process, the entire \$255 million was included as a deposit to the CBRF for purposes of *Revenue Sources Book*. The department's Spring 2013 update will revise this information to include the actual amounts deposited to each applicable fund.

**Figure 7-7. Public School Trust Investment Revenue Summary, FY 2012 and Forecasted FY 2013-2014**  
(\$ million)

### Asset Allocation

Treasury Pool	Percent Allocation	Performance Benchmark
Broad Market Fixed Income Pool	58%	Barclays U.S. Aggregate
Domestic Equity Pool	27%	Russell 3000 Index
International Equity Pool	15%	MSCI EAFE
Short-term Fixed Income Pool	0%	Allocation up to 2%

Public School Fund Balance: September 30, 2012	487.4
Long-term Expected Rate of Return	5.59%
Probability of Negative Return Over 1 Year	24.50%

### Total Investment Income & Distributable Income

Restricted - Designated General Fund	History	Forecast	
	FY 2012	FY 2013	FY 2014
Public School Trust Total Investment Income	25.4	36.6	28.4
Public School Trust Distributable Income	8.9	9.1	10.5

**Figure 7-9. Alaska Permanent Fund Managed by the Alaska Permanent Fund Corporation,**  
(\$ million)

	History	Forecast	
	FY 2012	FY 2013 <sup>(1)</sup>	FY 2014 <sup>(1)</sup>
<b>Nonspendable Assets — Principal</b>			
<b>Total Nonspendable Assets – Beginning Balance</b>	37,832.4	38,252.5	40,928.1
<b>Contributions &amp; Appropriations</b>			
Contributions & Appropriations – Beginning Balance	33,044.3	35,032.5	36,724.4
Dedicated Petroleum and Minerals Revenue	915.1	796.1	832.6
Inflation Proofing Transfer from Realized Earnings	1,073.1	895.7	938.9
<b>Subtotal Contributions &amp; Appropriations</b>	<b>35,032.5</b>	<b>36,724.4</b>	<b>38,495.9</b>
<b>Unrealized Appreciation/Depreciation</b>			
Appreciation/Depreciation – Beginning Balance	4,788.1	3,220.0	4,203.7
Annual Unrealized Gain/Loss	-1,568.1	983.7	682.5
Subtotal Unrealized Appreciation/Depreciation	3,220.0	4,203.7	4,886.2
<b>Total Nonspendable Assets – Ending Balance</b>	<b>38,252.5</b>	<b>40,928.1</b>	<b>43,382.1</b>
<b>Assigned Assets — Realized Earnings Account</b>			
<b>Total Assigned Assets - Beginning Balance</b>	<b>2,307.8</b>	<b>2,080.6</b>	<b>2,438.4</b>
<b>Realized Earnings Account</b>			
Realized Earnings Account – Beginning Balance	2,015.7	1,905.5	2,188.0
Annual Realized Earnings	1,585.2	1,666.9	2,191.7
Dividend Payment to State of Alaska <sup>(2)</sup>	-605.2	-470.0	-958.0
Inflation Proofing Transfer to Reserved Assets	-1,073.1	-895.7	-938.9
Other Appropriations Out of Fund	-17.1	-18.7	-22.5
<b>Realized Earnings Account – Ending Balance</b>	<b>1,905.5</b>	<b>2,188.0</b>	<b>2,460.3</b>
<b>Unrealized Appreciation/Depreciation <sup>(3)</sup></b>			
Appreciation/Depreciation - Beginning Balance	292.1	175.1	250.4
Annual Unrealized Gain/Loss	-117.0	75.3	61.8
Subtotal - Unrealized Appreciation/Depreciation	175.1	250.4	312.2
<b>Total Assigned Assets – Ending Balance</b>	<b>2,080.6</b>	<b>2,438.4</b>	<b>2,772.5</b>
<b>Market Value – Total Fund Invested Assets Value</b>			
Nonspendable Fund Balance - end of year	38,252.5	40,928.1	43,382.1
Assigned Fund Balance - end of year	2,080.6	2,438.4	2,772.5
<b>Fund Balance (market value) End-of-year Balance</b>	<b>40,333.1</b>	<b>43,366.5</b>	<b>46,154.6</b>
<b>Total Reported Earnings</b>			
Annual Unrealized Gain/Loss	-1,685.1	1,059.0	744.3
Annual Realized Earnings	1,585.2	1,666.9	2,191.7
<b>Reported Earnings</b>	<b>-99.9</b>	<b>2,725.9</b>	<b>2,936.0</b>

<sup>(1)</sup> FY 2013-14 data projected using Callan 2012 capital market assumptions and current asset allocation policy, resulting in a 7.00% median expected total return, a 5.30% realized rate of return, and an inflation rate of 2.50%.

<sup>(2)</sup> The Permanent Fund dividend payment is recorded as a liability at fiscal year end, and is paid out the following month.

<sup>(3)</sup> Beginning in FY 2009, and applied retroactively, Department of Law opinion required an allocation of unrealized gains and losses to the assigned fund balance of the Fund.

# 8. State Endowment Funds

## General Discussion

This section compares important attributes of five endowment funds. The University of Alaska endowment is included in this comparison because it is one of Alaska's public endowment funds that uses the annual distribution calculation method typical of the vast majority of endowments in the United States and Canada.<sup>(1)</sup>

The fiduciary for each of these endowment funds has the responsibility for establishing an asset-allocation policy for the fund. Figure 8-1 on the next page compares the asset-allocation policies for these endowments.

Under the standards adopted by the Governmental Accounting Standards

Board (GASB), public funds calculate 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. They do this regardless of whether the securities are actually sold, and the income, or losses, are taken or realized. All five of these endowments report annual income on this basis. However, as reflected in Figure 8-2 on the next page, three of them use other measures of annual income for determining their distributions. These include the Alaska Permanent Fund, and the Mental Health Trust Fund, both administered by the Alaska Permanent Fund Corporation, and the Public School Trust.

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 investments are not recognized until the investment is sold. For calculating distributable income for the Public School Trust, only interest earned and dividends received are treated as income. Gains and losses in the value of individual investments are never recognized as income. By law, those gains and losses remain with the principal of the fund. Figure 8-3 explains how distributable income for each of the endowments is determined. Inflation-proofing procedures for the State Endowment Funds are shown in Figure 8-4.

<sup>(1)</sup> 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).

**Figure 8-1. Target Percent Asset Allocation—State Endowment Funds<sup>(1)</sup>**

	Cash	U.S. Bonds	International Bonds	U.S. Equities	International Equities	Global Equities	Real Estate	Alternative Investments	Total
Alaska Permanent Fund	2	16	8	16	8	13	12	25	100
Mental Health Trust	2	16	8	16	8	13	12	25	100
Public School Trust	0	58	0	27	15	0	0	0	100
Power Cost Equalization	0	25	0	49	26	0	0	0	100
University of Alaska Endowment	3	20	0	17	0	30	10	20	100

	Risk Based	Cash	Interest Rate Class	Company Exposure	Real Assets	Special Opportunities
Alaska Permanent Fund		2	6	55	19	18
Mental Health Trust		2	6	55	19	18

<sup>(1)</sup>In 2009, the Board of Trustees for the Alaska Permanent Fund Corporation elected to move to a new asset allocation grouping based on risk and return profiles. The Alaska Permanent Fund and Mental Health Trust funds are broken out above using both the traditional asset allocation and the new risk-based asset allocation. For more information please see the Alaska Permanent Fund Corporation Website: <http://www.apfc.org/home/Content/investments/assetAllocation2009.cfm>

**Figure 8-2. Calculation of Annual Income—State Endowment Funds**

	Financial Reporting of Income	Distributable Income
<b>Alaska Permanent Fund</b>	GASB (recognize gains and losses based on change in market value)	Interest earnings + dividends paid + gains and losses on investments actually sold
<b>Mental Health Trust</b>	GASB (recognize gains and losses based on change in market value)	Interest earnings + dividends paid + gains and losses on investments actually sold
<b>Public School Trust</b>	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
<b>Power Cost Equalization Endowment</b>	GASB (recognize gains and losses based on change in market value)	GASB (recognize gains and losses based on change in market value)
<b>University of Alaska Endowment</b>	GASB (recognize gains and losses based on change in market value)	GASB (recognize gains and losses based on change in market value)

**Figure 8-3. Distributable Income Determination—State Endowment Funds****Alaska Permanent Fund**

The annual distribution for the Permanent Fund Dividend follows the formula in AS 37.13.140-.145, which specifies that 10.5% of the past five years' total realized income shall be paid out as dividends but also sets the limitation that the annual distribution may never exceed 50% of the balance in the fund's Realized Earning Account (REA). The 50% limitation has never been triggered.

**Mental Health Trust**

Current statute requires net income earned on the cash principal of the fund to be calculated by the Alaska Permanent Fund Corporation in the same manner used to determine the net income of the Alaska Permanent Fund. Accumulated undistributed earnings in one year are available for distribution in subsequent years. Aside from the statutory limits on income distribution, the Mental Health Trust Board has established an asset management policy that limits actual distributions in any given year to 4.25% of the four year moving average of total fund ending net assets plus certain adjustments including interest earned on the budget reserve account, and income earned on land assets as well as lapsing appropriations back to the fund.

**Public School Trust**

The annual distribution is a percentage of the Trust's principal market value so long as that amount does not exceed the interest and dividend earnings available in the earnings account.

**Power Cost Equalization Endowment**

The annual distribution is 7% of the fund's market value. For the initial transition years, state statute specifies that the fund shall use the market value on February 1 for the subsequent fiscal year's distribution. Thereafter, the fund is to distribute each year 7% of the monthly average market value for a specified 36-month period.

**University of Alaska Endowment**

The annual distribution is 4.5% of a 5-year moving average of the market value of the fund.

#### **Figure 8-4. Inflation-Proofing Procedures—State Endowment Funds**

##### **Alaska Permanent Fund**

An annual appropriation is needed to “inflation proof” the principal of the Permanent Fund (but not the accumulated earnings) pursuant to AS 37.13.145. The legislative appropriation requires a transfer from the Realized Earnings Account to the fund’s principal an amount equal to the calculated U.S. Consumer Price Index’s effect on the value of the principal, comprised of oil and gas royalty contributions and legislative appropriations. The Alaska Permanent Fund Corporation’s Trustees have proposed a constitutional amendment that would inflation proof the entire fund—the principal and accumulated earnings—by limiting the annual distribution of earnings to 5% of a five-year moving average of the market value of the fund.

##### **Mental Health Trust**

The asset management policy adopted by the Board of Trustees currently limits distributions of accumulated earnings on the fund to a percentage of total net assets that is periodically reviewed for sufficiency. To the extent retained investment earnings exceed distributions, total fund balance grows accordingly. The authority also has adopted a policy transferring funds from the reserve account to principal whenever the reserve account exceeds four times the annual distribution.

##### **Public School Trust**

The asset-allocation policy is such that, when combined with the requirement that the fund’s capital gains and losses remain part of the principal, 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 4.5% of the moving five-year average of the fund’s market value should allow for retained earnings to inflation proof the fund.

# 9. Public Corporations and 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 Corporation (AAC)
- Alaska Railroad Corporation (ARC)

These seven corporations and the University of Alaska are components of state government whose activities are accounted for in the state's Com-

prehensive Annual Financial Report separately from the activities of primary state government. Information in this section is provided by these corporations. Four of these corporations pay, or may elect to pay, some portion of their income as an annual "dividend" to the state. They include the Alaska Housing Finance Corporation, Alaska Industrial Development and Export Authority, Alaska Student Loan Corporation and Alaska Municipal Bond Bank Authority.

The members of the AIDEA Board also serve as the Board of Directors of AEA, though AIDEA and AEA continue to exist as separate legal entities. AEA has no employees, and AEA contracts to have AIDEA employees administer AEA programs. ASLC has its own board of directors but contracts with the Alaska Commission on Postsec-

ondary Education (ACPE) to service its loan portfolio and to provide staff support to the ASLC. Other corporations have their own staffs and boards. While neither the sale of bonds nor the expenditure of bond proceeds, or proceeds from other debt by these corporations are subject to the state's Executive Budget Act, expenditures for the day-to-day administration of all of these corporations except the ASLC and ARC are subject to the Executive Budget Act.

ASLC provides funding to ACPE for loan servicing and staff support. ACPE's expenditures are subject to the Executive Budget Act.

The seven figures that follow in this section summarize the activities of these corporations.

**Figure 9-1. 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 FY 1991, 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 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**

AIDEA provides various means of financing and investment to advance economic growth in Alaska. By lending money, guaranteeing loans, issuing revenue bonds, or becoming an owner, AIDEA makes financing available for industrial, export, and other business enterprises in Alaska. The corporation generates income from interest on its loans, investments, leases, and operations of its properties. The corporation has paid an annual dividend to the State since FY 1997.

**Alaska Energy Authority**

AEA provides loans to 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 Power Cost Equalization Endowment. AEA also receives federal and state money to provide technical advice and assistance in energy planning, emergency response management, energy infrastructure construction and conservation in rural Alaska. AEA owns, and operates and maintains (under contractual agreements) state-owned power projects, such as the Bradley Lake Hydroelectric Project and the Alaska Intertie.

**Alaska Student Loan Corporation**

The Alaska Student Loan Corporation issues debt and recycles education loan payments to finance education loans. Education loan payments satisfy debt obligations and provide funding for operations. Alaska statutes authorize the board of directors to return capital to the state based on net income. The corporation has returned capital to the state each year beginning in FY 2001 through FY 2009 based on net income in FY 1999 through FY 2007. Alaska statutes also authorize the corporation to issue bonds for the purpose of financing projects of the state. Those bonds in aggregate may not exceed \$280 million. The corporation issued \$163 million in bonds, the proceeds of which have been appropriated to fund capital projects of the state.

**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 but one since 1977.

**Alaska Aerospace Corporation**

The corporation operates and maintains a commercial spaceport in Kodiak, Alaska and provides commercial rocket vehicle launch support services. It promotes space-related business, research, education, and economic growth in the State of Alaska.

**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 revenue from real estate it owns.

**Figure 9-2. 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 \$27.7 million in cash and \$9.3 million in equity when the legislature merged the Alaska State Housing Authority with this corporation.

**Alaska Industrial Development and Export Authority**

Between 1981 and 1991, the State of Alaska transferred various loan portfolios worth \$297.1 million and \$69.2 million in cash to this corporation.

**Alaska Energy Authority**

The legislature established the AEA in 1976 to finance and operate power projects. This 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, this corporation reported contributed capital of \$963.5 million.

**Alaska Student Loan Corporation**

In FY 1988, the state transferred \$260 million of existing student loans to this 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 used for backing bond issues. In addition, the legislature gave the Bond Bank \$2.5 million in 1981 to fund a direct loan by a municipality. The municipality repaid the loan and the Bond Bank retained the appropriation. In 2012 the legislature appropriated \$13 million to the Bond Bank to forgive loans from the general fund issued to back bond issues.

**Alaska Aerospace Corporation**

Since 1993, the state has contributed \$10.9 million from the Science and Technology Endowment and \$11 million in capital project funding for facility maintenance and construction.

**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.

**Figure 9-3. Public Corporations—Financial Facts, FY 2012 (\$ million)**

	Total Assets	Assets Less Liabilities Book Value	Unrestricted Net Assets	FY 2012 Oper- ating Budget	Total Positions <sup>(1)</sup>
Alaska Housing Finance Corporation	4,288.6	1,554.1	659.0	88.5	355.0
Alaska Industrial Development and Export Authority	1,267.5	1,075.7	964.7	12.8	86.0
Alaska Energy Authority	1,228.7	1,070.6	911.4	48.3	See AIDEA <sup>(2)</sup>
Alaska Student Loan Corporation <sup>(3)</sup>	653.5	218.3	93.1	12.9	93.4
Alaska Municipal Bond Bank Authority	807.1	60.8	14.0	0.8	0.5
Alaska Aerospace Corporation <sup>(4)</sup>	87.8	83.6	4.9	28.8	50.0
Alaska Railroad Corporation <sup>(5)</sup>	926.9	245.3	0.0	105.4	685.0

<sup>(1)</sup> Permanent Full Time (PFT), Permanent Part Time (PPT) and Temporary (TMP) are included in total positions.

<sup>(2)</sup> 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 86 member staff is engaged in AEA programs.

<sup>(3)</sup> The Alaska Student Loan Corporation (ASLC) contracts with the Alaska Commission on Postsecondary Education (ACPE) to service its loan portfolio and provide staff support. Budget and positions reported are those of ACPE's funded by ASLC.

<sup>(4)</sup> Alaska Aerospace Corporation based on audited financial statements.

<sup>(5)</sup> The Alaska Railroad Corporation reports financial data on a calendar year basis. Assets and book value shown in this table are from audited December 31, 2011, financial statements. The operating budget figure shown here is for CY 2011.

**Figure 9-4. Public Corporations—Revenue & Net Income, FY 2012 (\$ million)**

	Revenue	Operating Income	Net Income
Alaska Housing Finance Corporation	351.2	(30.5)	(39.7)
Alaska Industrial Development and Export Authority <sup>(1)</sup>	93.0	42.1	36.1
Alaska Energy Authority <sup>(1)</sup>	152.2	(45.3)	(5.3)
Alaska Student Loan Corporation	35.5	0.6	0.2
Alaska Municipal Bond Bank Authority	33.4	0.4	0.0
Alaska Aerospace Corporation <sup>(2)</sup>	6.9	(6.8)	(7.1)
Alaska Railroad Corporation <sup>(3)</sup>	184.3	5.0	13.4

<sup>(1)</sup> The Alaska Industrial Development and Export Authority and Alaska Energy Authority report financial data on a fiscal year basis, and are increases (decreases) in Net Assets. Revenue, operating income and net income in the table are from audited June 30, 2012, financial statements.

<sup>(2)</sup> The Alaska Aerospace Corporation financial data include depreciation of \$4.41 million and are based on audited June 30, 2012 financial statements.

<sup>(3)</sup> The Alaska Railroad Corporation reports financial data on a calendar year basis. Revenue and Operating Income shown in this table are for CY 2011.

**Figure 9-5. Public Corporations—Dividends to the State. How, if at all, does the corporation pay dividends to the state?**

**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 \$27.7 million in cash and \$9.3 million in equity when the legislature merged the Alaska State Housing Authority with this corporation.

**Alaska Industrial Development and Export Authority**

Between 1981 and 1991, the State of Alaska transferred various loan portfolios worth \$297.1 million and \$69.2 million in cash to this corporation.

**Alaska Energy Authority**

AEA does not pay a dividend or return capital to the state on a regular basis. However, in FY 2000, this corporation returned \$55.6 million of contributed capital to the Railbelt Energy Fund and the General Fund.

**Alaska Student Loan Corporation**

This corporation, at the discretion of its board of directors, may make available to the state a return of contributed capital or dividend 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, it must be between 10% and 35% of net income for the base year (AS 14.42.295). The corporation may also issue bonds in an aggregate amount not to exceed \$280 million, for the purpose of financing projects of the state as those projects (AS 14.42.220). Investment earnings on proceeds of bonds issued in 2004 under this statute are also used to finance projects of the state.

**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 Corporation**

AAC does not pay a dividend or return capital to the state.

**Alaska Railroad Corporation**

The corporation does not pay a cash dividend to the General Fund.

**Figure 9-6. Public Corporations—Operating Expenses & Dividends (\$ million)**

	Expenses		Dividends	
	\$ Million	\$ Million	\$ Million	\$ Million
	Actual FY 2012	Budget FY 2013	Actual FY 2012	Budget FY 2013
Alaska Housing Finance Corporation <sup>(1)</sup>	84.9	90.3	38.5	27.3
Alaska Industrial Development and Export Authority	12.3	14.3	29.4	20.4
Alaska Energy Authority <sup>(2)</sup>	48.3	51.7	na	na
Alaska Student Loan Corporation <sup>(3)</sup>	12.3	12.9	0.1	0.1
Alaska Municipal Bond Bank Authority	0.5	0.8	0.0	0.1
Alaska Aerospace Corporation <sup>(4)</sup>	13.7	28.8	na	na
Alaska Railroad Corporation	na	na	na	na

<sup>(1)</sup> Because some of this money is earmarked for multi-year capital projects, actual cash transfers in any given year may vary.

<sup>(2)</sup> The Alaska Industrial Development and Export Authority and Alaska Energy Authority report financial data on a fiscal year basis. Actual operating expenses and dividends are for the fiscal year ended June 30, 2012.

<sup>(3)</sup> The Alaska Student Loan Corporation (ASLC) did not pay a dividend to the state in FY 2012 as allowed for in AS14.42.295. The amounts reported above represent bond proceed investment earnings which are used to finance state projects under AS 14.42.220. Chapter 5 shows a transfer to the state of \$2.5 million from ASLC which is part of a capital project authorized in a prior year and not a current year dividend.

<sup>(4)</sup> The Alaska Aerospace Corporation financial data include depreciation of \$4.41million and are based on audited June 30, 2012 financial statements.

## University of Alaska

**Figure 9-7. University of Alaska (\$ million)**

Lands & Facilities June 30, 2012	Total Assets June 30, 2012	Unrestricted Net Assets	FY 2013 Operat- ing Budget	FY 2013 Total Positions
\$1,097.3 <sup>(1)</sup>	\$1,551.5	\$140.1	\$925.8	4,949

<sup>(1)</sup> Includes depreciation of \$854.3 million.

# Revenue Sources Book

*Alaska Department of Revenue – Tax Division*

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# FALL 2012

# 10. Appendices

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## A-1 Glossary of Terms

### **Constitutional Budget Reserve Fund (CBRF)**

Created by voters in 1990, the Constitutional Budget Reserve Fund receives proceeds from settlements of oil, gas, and mining tax and royalty disputes. The legislature may, with a three-quarters majority vote in each chamber, withdraw money from the fund.

### **Designated General Fund Revenue**

General Fund revenue that is designated for a specific purpose, typically using a General Fund subaccount. The legislature can at any time remove the restrictions on this category of revenue as they are solely imposed by either Alaska statute or customary practice. At times, this category of revenue may be included in legislative and public debate over the budget.

### **Federal Revenue**

When the federal government gives money to states, it typically restricts how that money can be used. For example, 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.

### **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 General Fund Unrestricted Revenue, General Fund sub-account revenue, program receipts and other funds spent through the General Fund. In budget reports, General Fund Revenue is split into revenue with no

specific purpose, and revenue with a specific purpose. These categories are called Unrestricted General Fund Revenue and Designated General Fund Revenue, respectively.

### **Unrestricted General Fund Revenue**

Revenue not restricted by the constitution, state or federal law, trust or debt restrictions, or customary practice. This revenue is deposited into the state's unrestricted General Fund and most legislative and public debate over the budget each year centers on this category of revenue. In deriving the department's Unrestricted Revenue figure from total General Fund Revenue, DOR has excluded General Fund subaccount revenue, as well as customarily Restricted Revenue such as shared taxes and pass-through revenue for qualified fisheries associations. DOR has also added certain revenue such as transfers to the state treasury from the Unclaimed Property Trust and dividends from component units.

### **Other Restricted State Revenue**

Non-federal revenue that is not deposited to the General Fund or a subaccount of the General Fund. This revenue is restricted by the constitution, state or federal law, trust or debt restrictions, or by customary practice.

### **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 is 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.

### **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 use realized income primarily for dividends and inflation proofing and, then either leave the excess in the Realized Earnings Account, or transfer it to the principal of the Permanent Fund.

### **Restricted Program Receipts**

This revenue is earmarked in state statute or by contract for specific purposes and is usually appropriated back to the program that generated the revenue. Examples include University of Alaska tuition payments, marine highway receipts, payments to various revolving loan funds, 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. The remainder, while statutorily earmarked, may be appropriated to purposes other than those reflected in statute if the legislature so chooses. These earmarked

## A-1 Glossary of Terms

*(continued from previous page)*

funds are categorized as designated general funds.

### **Restricted Revenue**

Restricted revenue represents revenue that is restricted by the constitution, state or federal law, trust or debt restrictions, or by customary practice. The legislature can at any time remove restrictions that are solely imposed by either Alaska statute or customary practice. Program receipts, revenue allocated to sub-accounts of the General Fund, and General Fund Revenue customarily shared with other entities are all considered Restricted Revenue for the purposes of this report. In this report, DOR presents three categories of Restricted Revenue: Designated General Fund Revenue, Other Restricted State Revenue, and Federal Revenue.

Table A-2 presents estimated General Fund Unrestricted Revenue at a range of ANS prices, holding all other variables constant. Only production tax, royalties, and corporate income tax are adjusted for purposes of this analysis. Users should be cautioned that changes in any number of variables may cause revenue to vary significantly from amounts shown. These variables include but are not limited to production, lease expenditures, and netback costs. In addition, revenues may vary from amount shown due to changes in company decision making, company specific tax calculation issues, month to month variation in price or production, and changes in Non-Oil State Revenue.

## A-2 Unrestricted General Fund Revenue Matrices, with Price Sensitivity

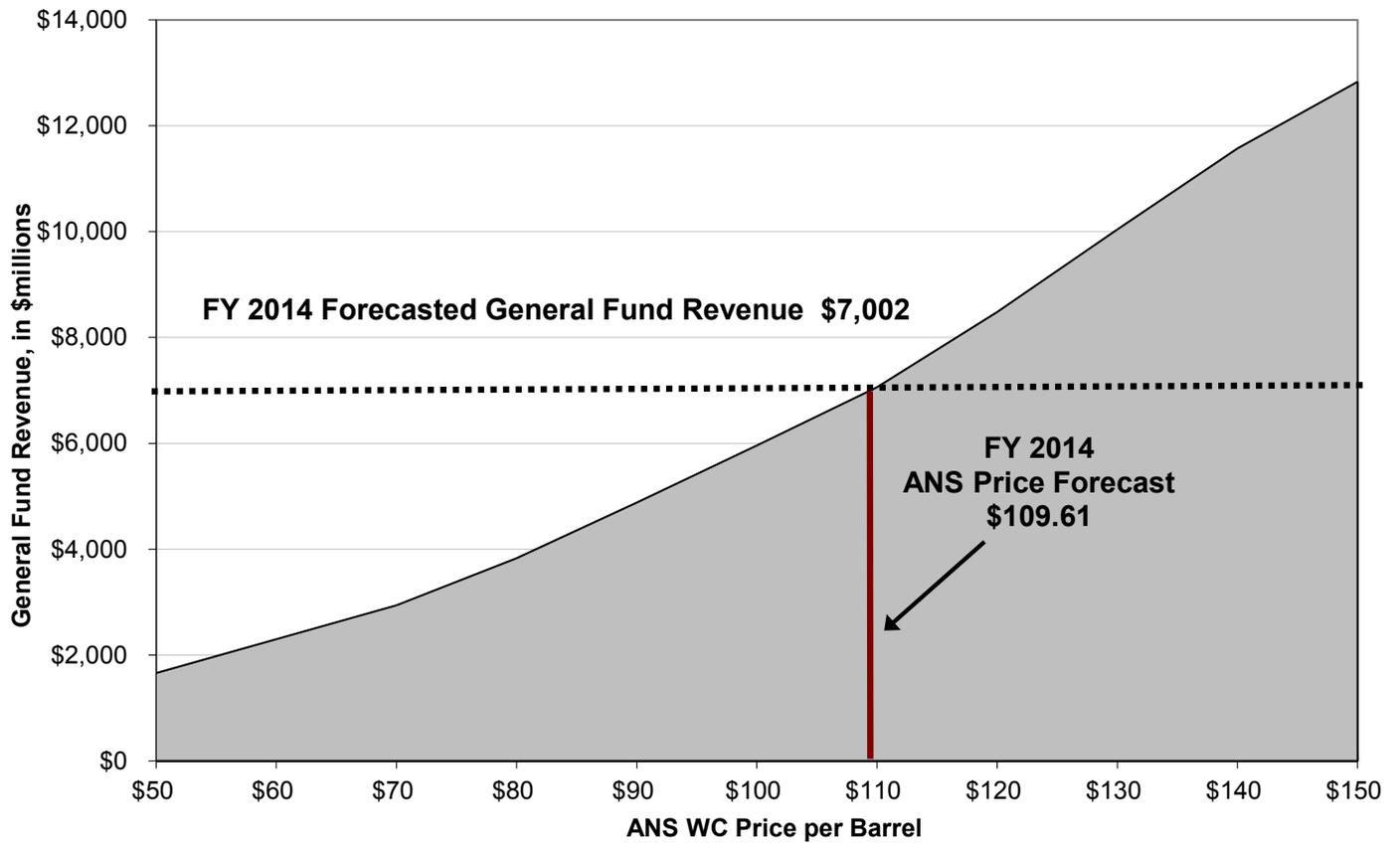
(\$ million)

FY 2013		FY 2014		FY 2015	
At forecasted production of 552.8 thousand bbls/day		At forecasted production of 538.4 thousand bbls/day		At forecasted production of 518.6 thousand bbls/day	
ANS \$/ barrel <sup>(1)</sup>	GF Unrestricted Revenue	ANS \$/ barrel <sup>(1)</sup>	GF Unrestricted Revenue	ANS \$/ barrel <sup>(1)</sup>	GF Unrestricted Revenue
\$50	\$2,860	\$50	\$1,850	\$50	\$1,870
\$60	\$3,190	\$60	\$2,300	\$60	\$2,090
\$70	\$3,520	\$70	\$2,940	\$70	\$2,670
\$80	\$4,210	\$80	\$3,830	\$80	\$3,420
\$90	\$5,160	\$90	\$4,880	\$90	\$4,270
\$100	\$6,360	\$100	\$5,960	\$100	\$5,250
\$108.67	\$7,512	\$109.61	\$7,002	\$110	\$6,450
\$110	\$7,670	\$110	\$7,060	\$111.67	\$6,659
\$120	\$9,140	\$120	\$8,480	\$120	\$7,780
\$130	\$10,640	\$130	\$10,040	\$130	\$9,230
\$140	\$11,990	\$140	\$11,570	\$140	\$10,800
\$150	\$13,400	\$150	\$12,830	\$150	\$12,010

<sup>(1)</sup> ANS \$/barrel values are fiscal year averages that incorporate actual prices for the first 4 months of FY 2013. Because oil prices were in the \$100-\$110 range in the first 4 months, it can take a different price for the remainder of the year to bring the fiscal year average to levels in the table. For example, a fiscal year price of \$80 per barrel would require 8 months of oil prices around \$65 per barrel.

# A-2 Unrestricted General Fund Revenue with Price Sensitivity (\$ million)

## FY 2014 General Fund Unrestricted Revenue, with Price Sensitivity



**A-3 Unrestricted General Fund Revenue<sup>(1)</sup>—History**

(\$ million)

<b>FY</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>TAX REVENUE</b>										
<b>Petroleum Property Tax</b>	<b>48.7</b>	<b>47.3</b>	<b>42.5</b>	<b>54.5</b>	<b>65.6</b>	<b>81.5</b>	<b>111.2</b>	<b>118.8</b>	<b>110.6</b>	<b>111.2</b>
<b>Excise Tax</b>										
Alcoholic Beverages	14.1	16.4	17.3	17.6	17.1	20.0	19.5	19.5	19.4	19.4
Tobacco Products	16.3	16.0	25.1	35.4	43.8	44.9	46.6	45.1	46.5	45.6
Insurance Premium	39.0	43.7	45.9	44.3	46.5	47.1	45.5	50.4	49.6	54.8
Electric and Telephone Cooperative	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
Motor Fuel Tax	37.2	41.2	39.4	42.0	39.2	41.8	10.1	28.8	39.5	40.9
Vehicle Rental tax	0.0	2.7	7.5	7.7	8.0	8.5	8.0	7.3	8.3	8.5
Tire Fee	0.0	0.8	1.6	1.6	1.5	1.5	1.5	1.4	1.5	1.4
<b>Total</b>	<b>106.8</b>	<b>121.0</b>	<b>137.0</b>	<b>148.8</b>	<b>156.3</b>	<b>164.0</b>	<b>131.3</b>	<b>152.6</b>	<b>164.9</b>	<b>170.8</b>
<b>Income Tax</b>										
General Corporate	47.7	39.6	61.8	138.0	176.9	182.7	120.9	81.9	157.7	98.5
Petroleum Corporate	151.1	298.8	524.0	661.1	594.4	605.8	492.2	446.1	542.1	568.8
<b>Total</b>	<b>198.8</b>	<b>338.4</b>	<b>585.8</b>	<b>799.1</b>	<b>771.3</b>	<b>788.5</b>	<b>613.1</b>	<b>528.0</b>	<b>699.8</b>	<b>667.3</b>
<b>Oil and Gas Production Tax</b>										
Oil and Gas Production Tax	589.8	642.7	854.9	1,191.7	2,198.3	6,810.9	3,100.9	2,860.7	4,543.2	6,136.7
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Hazardous Release	9.2	9.2	8.3	7.8	10.1	11.7	11.1	10.3	9.7	9.4
<b>Total</b>	<b>599.0</b>	<b>651.9</b>	<b>863.2</b>	<b>1,199.5</b>	<b>2,208.4</b>	<b>6,822.6</b>	<b>3,112.0</b>	<b>2,871.0</b>	<b>4,552.9</b>	<b>6,146.1</b>
<b>Fisheries Tax</b>										
Fisheries Business Tax	13.8	14.9	10.7	15.4	17.1	14.7	19.3	14.0	20.1	26.4
Fishery Landing	6.9	2.5	3.9	4.7	5.3	7.9	4.7	8.3	2.7	6.3
<b>Total</b>	<b>20.7</b>	<b>17.4</b>	<b>14.6</b>	<b>20.1</b>	<b>22.4</b>	<b>22.6</b>	<b>24.0</b>	<b>22.3</b>	<b>22.8</b>	<b>32.7</b>
<b>Other Tax</b>										
Estate	1.2	2.3	1.5	0.6	0.1	0.0	0.2	0.0	0.0	0.0
Mining	0.4	3.2	10.3	18.6	79.1	54.4	15.5	29.7	49.0	40.7
Charitable Gaming	2.6	2.4	2.5	2.4	2.5	2.7	2.8	2.6	2.5	2.6
Large Passenger Vessel Gambling	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	5.8	5.2
<b>Total</b>	<b>4.2</b>	<b>7.9</b>	<b>14.3</b>	<b>21.6</b>	<b>81.7</b>	<b>57.1</b>	<b>18.5</b>	<b>38.6</b>	<b>57.3</b>	<b>48.5</b>
<b>TOTAL TAX REVENUE</b>	<b>978.2</b>	<b>1,183.9</b>	<b>1,657.4</b>	<b>2,243.6</b>	<b>3,305.7</b>	<b>7,936.3</b>	<b>4,010.1</b>	<b>3,731.3</b>	<b>5,608.3</b>	<b>7,176.6</b>

(continued on next page)

## A-3 Unrestricted General Fund Revenue<sup>(1)</sup>—History *(continued from previous page)*

(\$ million)

FY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>NON TAX REVENUE</b>										
Licenses and Permits	33.6	41.8	42.7	41.0	42.0	38.9	35.5	39.5	42.8	42.3
<b>Intergovernmental Receipts</b>										
Federal Shared Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Charges for Services	13.9	11.1	17.9	21.8	28.5	29.3	19.3	17.1	18.5	29.2
Fines and Forfeitures	7.0	16.0	9.4	8.5	7.8	8.9	10.5	10.4	7.0	10.9
<b>Rents and Royalties</b>										
Oil and Gas Royalties-Net	825.7	1,042.8	1,401.1	1,772.2	1,583.8	2,420.6	1,451.2	1,469.0	1,821.3	2,022.8
Oil and Gas Bonuses, Rents, Interest <sup>(2)</sup>	14.6	13.3	18.8	11.9	29.2	25.5	14.4	8.0	22.0	8.9
Other <sup>(3)</sup>	6.2	7.8	9.3	8.8	11.8	14.6	15.6	13.2	17.6	20.4
<b>Total</b>	<b>846.5</b>	<b>1,063.9</b>	<b>1,429.2</b>	<b>1,792.9</b>	<b>1,624.8</b>	<b>2,460.7</b>	<b>1,481.2</b>	<b>1,490.2</b>	<b>1,860.9</b>	<b>2,052.1</b>
Investment Earnings	59.0	9.7	24.7	53.3	140.1	227.9	247.6	184.0	96.3	107.8
Miscellaneous Revenue <sup>(4)</sup>	9.4	19.2	7.5	39.3	9.7	26.2	27.0	40.8	39.1	66.3
<b>Total Non-Tax Revenue</b>	<b>969.4</b>	<b>1,161.7</b>	<b>1,531.4</b>	<b>1,956.8</b>	<b>1,852.9</b>	<b>2,791.9</b>	<b>1,821.1</b>	<b>1,782.0</b>	<b>2,064.6</b>	<b>2,308.6</b>
<b>Total Tax Revenue</b>	<b>978.2</b>	<b>1,183.9</b>	<b>1,657.4</b>	<b>2,243.6</b>	<b>3,305.7</b>	<b>7,936.3</b>	<b>4,010.1</b>	<b>3,731.3</b>	<b>5,608.3</b>	<b>7,176.6</b>
<b>Total Unrestricted General Fund Revenue</b>	<b>1,947.6</b>	<b>2,345.6</b>	<b>3,188.8</b>	<b>4,200.4</b>	<b>5,158.6</b>	<b>10,728.2</b>	<b>5,831.2</b>	<b>5,513.3</b>	<b>7,672.9</b>	<b>9,485.2</b>

<sup>(1)</sup> Unrestricted General Fund Revenue includes those revenue that are not restricted by statute or custom, as reported elsewhere in this publication. A summary of historical Unrestricted General Fund Revenue can be found on the Tax Division's web site at: [www.tax.alaska.gov/sourcesbook/GeneralFundUnrestrictedRevenueHistory.pdf](http://www.tax.alaska.gov/sourcesbook/GeneralFundUnrestrictedRevenueHistory.pdf)

<sup>(2)</sup> This category is primarily composed of petroleum revenue.

<sup>(3)</sup> Includes non-petroleum rents and royalties.

<sup>(4)</sup> Starting in FY 2010, dividends and payments from state-owned corporations are included in unrestricted miscellaneous revenue.

## A-4a Unrestricted General Fund Revenue, with Petroleum Revenue Detail— History<sup>(1)</sup>

(\$ million)

<b>FY</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Unrestricted Petroleum Revenue</b>										
Petroleum Corporate Income Tax	151.1	298.8	524.0	661.1	594.4	605.8	492.2	446.1	542.1	568.8
Production Tax	599.0	651.9	863.2	1,199.5	2,208.4	6,822.6	3,112.0	2,871.0	4,552.9	6,146.1
Petroleum Property Tax	48.7	47.3	42.5	54.5	65.6	81.5	111.2	118.8	110.6	111.2
Oil and Gas Royalties-Net <sup>(2)</sup>	825.7	1,042.8	1,401.1	1,772.2	1,583.8	2,420.6	1,451.2	1,469.0	1,821.3	2,022.8
Bonuses, Rents & Interest-Net <sup>(2)(3)</sup>	14.6	13.3	18.8	11.9	29.2	25.5	14.4	8.0	22.0	8.9
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Unrestricted Petroleum Revenue</b>	<b>1,639.1</b>	<b>2,054.1</b>	<b>2,849.6</b>	<b>3,699.2</b>	<b>4,481.4</b>	<b>9,956.0</b>	<b>5,181.0</b>	<b>4,912.9</b>	<b>7,048.9</b>	<b>8,857.8</b>
<b>General Fund Unrestricted Non-Petroleum Revenue</b>	<b>308.5</b>	<b>291.5</b>	<b>339.2</b>	<b>501.2</b>	<b>677.2</b>	<b>772.2</b>	<b>650.2</b>	<b>600.4</b>	<b>624.0</b>	<b>627.4</b>
<b>Total Unrestricted General Fund Revenue</b>	<b>1,947.6</b>	<b>2,345.6</b>	<b>3,188.8</b>	<b>4,200.4</b>	<b>5,158.6</b>	<b>10,728.2</b>	<b>5,831.2</b>	<b>5,513.3</b>	<b>7,672.9</b>	<b>9,485.2</b>
% Petroleum of Total Unrestricted General Fund Revenue	84%	88%	89%	88%	87%	93%	89%	89%	92%	93%
<b>Cumulative Unrestricted Petroleum Revenue<sup>(4)</sup></b>	<b>53,206</b>	<b>55,260</b>	<b>58,110</b>	<b>61,809</b>	<b>66,291</b>	<b>76,247</b>	<b>81,428</b>	<b>86,340</b>	<b>93,389</b>	<b>102,247</b>

<sup>(1)</sup> Historical Unrestricted General Fund petroleum revenue can be found on the Tax Division's web site at: <http://www.tax.alaska.gov/sourcesbook/PetroleumRevenueHistory.pdf>. The table on Tax web site includes historical Reserve Tax (FY 1976-1977) and Petroleum Special Settlements (FY 1986-1995). This revenue is included in the cumulative totals shown in Appendix A-4a.

<sup>(2)</sup> Royalties, bonuses, rents and interest are net of Permanent Fund contribution and Constitutional Budget Reserve Fund (CBRF) deposits.

<sup>(3)</sup> This category is primarily composed of petroleum revenue.

<sup>(4)</sup> The cumulative unrestricted petroleum revenue total is based on revenue beginning in FY 1959.

## A-4b Unrestricted General Fund Revenue, with Petroleum Revenue Detail— Forecast (\$ million)

<b>FY</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Unrestricted Petroleum Revenue</b>										
Petroleum Corporate Income Tax	558.2	606.9	623.6	633.6	643.0	651.9	660.3	668.2	675.8	683.0
Oil and Gas Production Tax	4,353.2	3,778.8	3,406.6	3,723.1	3,890.6	3,834.7	3,663.1	3,462.3	3,244.3	3,042.9
Petroleum Property Tax	111.6	99.3	95.3	92.0	89.1	86.3	83.7	81.7	79.1	76.5
Oil and Gas Royalties-Net <sup>(1)</sup>	1,869.6	1,907.0	1,881.7	1,865.6	1,764.4	1,645.8	1,527.6	1,450.8	1,366.5	1,290.7
Bonuses, Rents & Interest-Net <sup>(1)(2)</sup>	11.4	7.0	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Unrestricted Petroleum Revenue</b>	<b>6,904.0</b>	<b>6,399.0</b>	<b>6,016.4</b>	<b>6,323.6</b>	<b>6,396.3</b>	<b>6,228.0</b>	<b>5,943.8</b>	<b>5,672.2</b>	<b>5,374.9</b>	<b>5,102.3</b>
<b>General Fund Unrestricted Non-Petroleum Revenue</b>	<b>607.7</b>	<b>603.0</b>	<b>643.1</b>	<b>675.9</b>	<b>709.1</b>	<b>742.1</b>	<b>775.4</b>	<b>814.4</b>	<b>833.6</b>	<b>867.1</b>
<b>Total Unrestricted General Fund Revenue</b>	<b>7,511.7</b>	<b>7,001.9</b>	<b>6,659.5</b>	<b>6,999.5</b>	<b>7,105.5</b>	<b>6,970.1</b>	<b>6,719.2</b>	<b>6,486.6</b>	<b>6,208.6</b>	<b>5,969.5</b>
% Petroleum of Total Unrestricted General Fund Revenue	92%	91%	90%	90%	90%	89%	88%	87%	87%	85%
<b>Cumulative Unrestricted Petroleum Revenue<sup>(3)</sup></b>	<b>109,151</b>	<b>115,550</b>	<b>121,567</b>	<b>127,890</b>	<b>134,286</b>	<b>140,514</b>	<b>146,458</b>	<b>152,131</b>	<b>157,505</b>	<b>162,608</b>

<sup>(1)</sup> Royalties, bonuses, rents and interest are net of Permanent Fund contribution and Constitutional Budget Reserve Fund (CBRF) deposits.

<sup>(2)</sup> This category is primarily composed of petroleum revenue.

<sup>(3)</sup> The cumulative Unrestricted General Fund petroleum revenue total is based on revenue beginning in FY 1959.

## A-5a Total Petroleum Revenue—History

(\$ million)

<b>FY</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Unrestricted Petroleum Revenue										
Petroleum Corporate Income Tax	151.1	298.8	524.0	661.1	594.4	605.8	492.2	446.1	542.1	568.8
Oil and Gas Production Tax	589.8	642.7	854.9	1,191.7	2,198.3	6,810.9	3,100.9	2,860.7	4,543.2	6,136.7
Oil and Gas Hazardous Release	9.2	9.2	8.3	7.8	10.1	11.7	11.1	10.3	9.7	9.4
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum Property Tax	48.7	47.3	42.5	54.5	65.6	81.5	111.2	118.8	110.6	111.2
Oil & Gas Royalties	825.7	1,042.8	1,401.1	1,772.2	1,583.8	2,420.6	1,451.2	1,469.0	1,821.3	2,022.8
Bonuses, Rents & Interest	14.6	13.3	18.8	11.9	29.2	25.5	14.4	8.0	22.0	8.9
<b>Total Unrestricted Petroleum Revenue</b>	<b>1,639.1</b>	<b>2,054.1</b>	<b>2,849.6</b>	<b>3,699.2</b>	<b>4,481.4</b>	<b>9,956.0</b>	<b>5,181.0</b>	<b>4,912.9</b>	<b>7,048.9</b>	<b>8,857.8</b>
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	34.6	2.5	31.6	4.5	12.8	5.2	14.8	21.3	3.0	4.8
Royalties to Permanent Fund	397.6	354.7	476.9	599.5	535.0	834.0	659.8	696.1	857.3	904.9
Royalties to Public School Fund	6.2	7.1	9.6	12.0	10.6	16.5	11.0	11.1	13.6	14.7
CBRF Deposits	22.3	8.4	27.4	43.7	101.9	476.4	202.6	552.7	167.3	102.1
<b>Total Restricted Petroleum Revenue</b>	<b>460.7</b>	<b>372.7</b>	<b>545.5</b>	<b>659.7</b>	<b>660.3</b>	<b>1,332.1</b>	<b>888.2</b>	<b>1,281.2</b>	<b>1,041.2</b>	<b>1,026.5</b>
<b>Total Petroleum Revenue</b>	<b>2,099.8</b>	<b>2,426.8</b>	<b>3,395.1</b>	<b>4,358.9</b>	<b>5,141.7</b>	<b>11,288.1</b>	<b>6,069.2</b>	<b>6,194.1</b>	<b>8,090.1</b>	<b>9,884.3</b>

## A-5b Total Petroleum Revenue—Forecast

(\$ million)

<b>FY</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Unrestricted Petroleum Revenue										
Petroleum Corporate Income Tax	558.2	606.9	623.6	633.6	643.0	651.9	660.3	668.2	675.8	683.0
Oil and Gas Production Tax	4,345.3	3,771.9	3,400.0	3,716.8	3,884.5	3,829.1	3,657.7	3,457.2	3,239.7	3,038.6
Oil and Gas Hazardous Release	7.9	6.8	6.6	6.4	6.1	5.6	5.4	5.0	4.7	4.3
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum Property Tax	111.6	99.3	95.3	92.0	89.1	86.3	83.7	81.7	79.1	76.5
Oil & Gas Royalties	1,869.6	1,907.0	1,881.7	1,865.6	1,764.4	1,645.8	1,527.6	1,450.8	1,366.5	1,290.7
Bonuses, Rents & Interest	11.4	7.0	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
<b>Total Unrestricted Petroleum Revenue</b>	<b>6,904.0</b>	<b>6,399.0</b>	<b>6,016.4</b>	<b>6,323.6</b>	<b>6,396.3</b>	<b>6,228.0</b>	<b>5,943.8</b>	<b>5,672.2</b>	<b>5,374.9</b>	<b>5,102.3</b>
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Royalties to Permanent Fund	788.1	824.6	813.0	807.8	759.5	702.2	649.3	610.5	570.9	535.2
Royalties to Public School Fund	13.4	13.8	13.6	13.5	12.7	11.8	11.0	10.4	9.8	9.2
CBRF Deposits <sup>(1)</sup>	336.4	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
<b>Total Restricted Petroleum Revenue</b>	<b>1,140.7</b>	<b>861.1</b>	<b>849.3</b>	<b>844.0</b>	<b>794.9</b>	<b>736.7</b>	<b>683.0</b>	<b>643.6</b>	<b>603.4</b>	<b>567.1</b>
<b>Total Petroleum Revenue</b>	<b>8,044.7</b>	<b>7,260.0</b>	<b>6,865.7</b>	<b>7,167.6</b>	<b>7,191.2</b>	<b>6,964.7</b>	<b>6,626.8</b>	<b>6,315.8</b>	<b>5,978.3</b>	<b>5,669.5</b>

<sup>(1)</sup> On November 8, 2012, a \$255 million settlement was announced between the State of Alaska and BP Exploration (Alaska) Inc. The majority of the \$255 million will be deposited into the Constitutional Budget Reserve Fund (CBRF). However, a portion will also be deposited into the Permanent Fund and School Fund, and approximately \$10 million will be paid to settle civil assessments for the spills. As this information was received late in the forecast process, the entire \$255 million was included as a deposit to the CBRF for purposes of this *Revenue Sources Book*. The Department's Spring 2013 update will revise this information to include the actual amounts deposited to each applicable fund.

**B-1a Crude Oil Prices - History<sup>(1)</sup>**

(\$ per barrel)

**NOMINAL****WTI, ANS West Coast, ANS and Cook Inlet Wellhead Prices**

<b>FY</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
WTI	29.90	33.73	48.72	64.22	63.35	97.02	69.71	75.21	89.39	95.80
ANS West Coast Spot	28.59	32.36	44.85	62.12	61.60	96.51	68.34	74.90	94.49	112.65
ANS Wellhead Wtd Average All Destinations	23.42	27.46	40.12	56.69	56.20	90.46	61.86	68.89	87.32	103.84

**REAL 2012 \$<sup>(2)</sup>****WTI, ANS West Coast, ANS and Cook Inlet Wellhead Prices**

<b>FY</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
WTI	37.52	41.45	57.97	74.53	70.48	105.38	71.91	78.70	92.58	95.80
ANS West Coast Spot	35.87	39.76	53.36	72.09	68.52	104.83	70.50	78.38	97.85	112.65
ANS Wellhead Wtd Average All Destinations	29.39	33.74	47.74	65.79	62.52	98.26	63.82	72.09	90.43	103.84

<sup>(1)</sup> Data are from Reuters, Platt's and Alaska Department of Revenue's prevailing value, monthly information report, and tax return data. Historical real and nominal crude oil and natural gas prices can be found on the Tax Division's web site at: [www.tax.alaska.gov/sourcesbook/OilGasPrices.pdf](http://www.tax.alaska.gov/sourcesbook/OilGasPrices.pdf).

<sup>(2)</sup> Real or constant prices are those that are adjusted for inflation and are useful when comparing prices over time. These prices data are adjusted to real 2012 dollars based on inflation rates provided by the U.S. Department of Labor, Bureau of Labor Statistics. The data series used is the Consumer Price Index for all Urban Consumers (CPI-U), which can be found at: [www.bls.gov/cpi/home.htm](http://www.bls.gov/cpi/home.htm).

## B-1b Crude Oil Prices - Forecast

(\$ per barrel)

### NOMINAL<sup>(1)</sup>

#### WTI, ANS West Coast, ANS and Cook Inlet Wellhead Prices

<b>FY</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
WTI	91.79	98.79	102.83	107.24	110.27	112.74	114.88	117.10	119.38	121.77
ANS West Coast Spot	108.67	109.61	111.67	114.88	116.22	117.16	118.29	119.74	121.42	123.34
ANS Wellhead Wtd Average All Destinations	99.24	100.80	102.70	105.54	106.53	107.28	108.12	109.20	110.49	112.02

### REAL 2012 \$

#### WTI, ANS West Coast, ANS and Cook Inlet Wellhead Prices

<b>FY</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
WTI	91.79	96.38	97.88	99.58	99.90	99.64	99.06	98.51	97.98	97.51
ANS West Coast Spot	108.67	106.94	106.29	106.68	105.29	103.55	102.00	100.73	99.65	98.76
ANS Wellhead Wtd Average All Destinations	99.24	98.35	97.75	98.00	96.51	96.51	93.23	91.87	90.69	89.70

<sup>(1)</sup> The forecast is made in real dollars, and then adjusted for inflation using Callan Associates Inc.'s inflation rate of 2.5% for FY 2014 and beyond.

**B-2a Netback Costs<sup>(1)</sup> - History**

(\$ per barrel)

<b>FY</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Marine Costs <sup>(2)</sup>	1.70	1.69	1.79	1.65	1.62	1.93	2.05	2.21	2.44	3.24
Taps Tariff <sup>(2)</sup>	3.37	3.16	3.33	3.55	4.37	5.08	4.59	3.81	4.02	5.06
Feeder Tariff <sup>(3)</sup>	0.33	0.28	0.27	0.30	0.45	0.31	0.31	0.31	0.29	0.75
Quality Bank <sup>(3)</sup>	-0.12	-0.24	-0.38	-0.24	-0.86	-1.26	-0.52	-0.41	-0.54	-0.68
Other <sup>(3)(4)</sup>	-0.11	0.00	-0.29	0.17	-0.18	-0.01	-0.05	0.09	0.96	0.44
Sum of Netback Costs	5.17	4.89	4.72	5.43	5.40	6.05	6.49	6.01	7.17	8.81

<sup>(1)</sup>The cost of moving one barrel of oil from the point of production to the West Coast.

<sup>(2)</sup>Average costs for barrels that incurred the transportation expense.

<sup>(3)</sup>Average costs for all barrels produced. Average feeder tariffs includes a 0 (zero) tariff for barrels not shipped on a feeder pipeline.

<sup>(4)</sup>Other costs primarily include tanker and pipeline losses, marketing differences and other adjustments.

Source: Data maintained by Alaska Department of Revenue, Tax Division, Economic Research Section. DOR attempts to use a consistent methodology when reporting data. However, data sources and formats have changed over time making consistent comparison of data potentially difficult.

## B-2b Netback Costs <sup>(1)</sup> - Forecast

(\$ per barrel)

<b>FY</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Marine Costs	3.75	3.67	3.72	3.77	3.81	3.84	3.88	3.92	3.97	4.02
Taps Tariff	5.62	5.09	5.21	5.45	5.63	5.82	6.09	6.43	6.80	7.18
Feeder Tariff	0.35	0.34	0.33	0.33	0.43	0.44	0.44	0.44	0.43	0.40
Quality Bank	-0.68	-0.68	-0.69	-0.70	-0.71	-0.70	-0.71	-0.71	-0.71	-0.73
Other <sup>(2)</sup>	0.39	0.39	0.40	0.50	0.52	0.49	0.47	0.46	0.45	0.44
<b>Sum of Netback Costs</b>	<b>9.42</b>	<b>8.81</b>	<b>8.97</b>	<b>9.34</b>	<b>9.68</b>	<b>9.88</b>	<b>10.17</b>	<b>10.54</b>	<b>10.92</b>	<b>11.32</b>

<sup>(1)</sup> For forecast purposes netback costs are assumed to apply to all barrels sold. The sum of forecasted netback costs equals the difference between the forecasted ANS West Coast price and Wellhead Price.

<sup>(2)</sup> Other costs primarily include tanker and pipeline losses.

## B-3 Price Differences from Spring 2012 Forecast

(\$ per barrel)

<b>FY</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Fall 2012 Forecast</b>										
WTI	91.79	98.79	102.83	107.24	110.27	112.74	114.88	117.10	119.38	121.77
ANS West Coast	108.67	109.61	111.67	114.88	116.22	117.16	118.29	119.74	121.42	123.34
ANS Wellhead Wtd Average All Destinations	99.24	100.80	102.70	105.54	106.53	107.28	108.12	109.20	110.49	112.02
<b>Spring 2012 Forecast</b>										
WTI	101.66	103.19	109.73	111.04	113.81	116.66	119.58	122.56	125.63	128.77
ANS West Coast	110.44	109.12	114.53	113.29	111.31	114.16	117.08	120.06	123.13	126.27
ANS Wellhead Wtd Average All Destinations	101.75	100.21	105.30	103.75	101.71	104.39	106.98	109.60	112.27	114.97
<b>\$ change from prior forecast</b>										
WTI	-9.87	-4.40	-6.90	-3.80	-3.54	-3.92	-4.70	-5.46	-6.25	-7.00
ANS West Coast	-1.77	0.49	-2.87	1.59	4.90	3.00	1.22	-0.33	-1.71	-2.93
ANS Wellhead Wtd Average All Destinations	-2.50	0.60	-2.60	1.79	4.83	2.89	1.14	-0.40	-1.77	-2.95
<b>% change from prior forecast</b>										
WTI	-9.7%	-4.3%	-6.3%	-3.4%	-3.1%	-3.4%	-3.9%	-4.5%	-5.0%	-5.4%
ANS West Coast	-1.6%	0.4%	-2.5%	1.4%	4.4%	2.6%	1.0%	-0.3%	-1.4%	-2.3%
ANS Wellhead Wtd Average All Destinations	-2.5%	0.6%	-2.5%	1.7%	4.7%	2.8%	1.1%	-0.4%	-1.6%	-2.6%

## C-1 Production Differences from Spring 2012 Forecast

(thousand barrels per day)

<b>FY</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Fall 2012 Forecast</b>										
ANS	552.8	538.4	518.6	499.7	476.1	442.9	421.6	394.8	365.9	338.5
Cook Inlet	10.4	9.6	8.9	8.3	7.7	7.2	6.7	6.3	5.9	5.6
ALASKA	562.8	548.4	527.6	507.7	484.1	449.9	428.6	400.8	371.9	344.5
<b>Spring 2012 Forecast</b>										
ANS	562.5	567.4	546.8	557.9	557.0	551.7	521.8	492.6	464.0	438.4
Cook Inlet	8.9	8.3	7.7	7.2	6.7	6.3	5.9	5.6	5.3	5.0
ALASKA	571.4	575.7	554.5	565.1	563.7	558.0	527.7	498.2	469.3	443.4
<b>Volume change from prior forecast</b>										
ANS	-9.7	-29.0	-28.2	-58.2	-80.9	-108.8	-100.2	-97.8	-98.1	-99.9
Cook Inlet	1.5	1.3	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.6
ALASKA	-8.2	-27.7	-27.0	-57.1	-79.9	-107.9	-99.4	-97.1	-97.5	-99.3
<b>Percent change from prior forecast</b>										
ANS	-1.7%	-5.4%	-5.4%	-11.6%	-17.0%	-24.6%	-23.8%	-24.8%	-26.8%	-29.5%
Cook Inlet	14.2%	13.6%	13.4%	12.8%	12.9%	12.3%	12.3%	11.4%	10.9%	10.7%
ALASKA	-1.5%	-5.1%	-5.1%	-11.2%	-16.5%	-24.0%	-23.2%	-24.2%	-26.2%	-28.9%

## C-2a Crude Oil Production—History

(thousand barrels per day)

<b>FY</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Prudhoe Bay <sup>(1) (2)</sup>	429.1	414.4	380.2	335.4	270.8	291.1	291.4	276.7	267.6	265.2
PBU Satellites <sup>(1)(3)</sup>	96.8	103.3	92.4	82.1	75.7	67.5	67.9	63.0	55.4	50.7
GPMA <sup>(4)</sup>	65.0	60.2	54.6	47.5	36.9	44.3	38.5	34.0	30.8	29.6
Kuparuk	160.0	154.0	140.8	132.0	121.4	112.5	105.5	99.2	91.0	91.6
Kuparuk Satellites <sup>(5)</sup>	52.3	48.9	51.0	43.3	43.8	37.7	36.7	35.0	31.9	27.5
Endicott <sup>(6)</sup>	29.0	28.1	20.0	20.5	16.4	14.1	14.2	12.7	11.7	11.2
Alpine <sup>(7)</sup>	98.8	99.0	104.6	123.4	124.4	114.9	106.8	93.5	84.5	78.7
Offshore <sup>(8)</sup>	59.5	66.1	67.7	55.4	44.9	34.4	31.5	28.2	26.1	24.6
NPR-A <sup>(9)</sup>	-	-	-	-	-	-	-	-	-	-
Point Thomson <sup>(9)</sup>	-	-	-	-	-	-	-	-	-	-
<b>Total ANS</b>	<b>990.6</b>	<b>974.1</b>	<b>911.2</b>	<b>839.7</b>	<b>734.2</b>	<b>716.5</b>	<b>692.5</b>	<b>642.3</b>	<b>598.9</b>	<b>579.1</b>
Cook Inlet	29.3	25.1	20.3	18.3	16.1	13.9	10.1	8.9	10.3	10.8
<b>Total Alaska</b>	<b>1,019.9</b>	<b>999.2</b>	<b>931.5</b>	<b>858.0</b>	<b>750.3</b>	<b>730.4</b>	<b>702.7</b>	<b>651.2</b>	<b>609.2</b>	<b>590.0</b>

<sup>(1)</sup> Milne Point Unit production is now being reported with PBU Satellites instead of with PBU volume. Historical volumes will, therefore, not match the Fall 2011 RSB.

<sup>(2)</sup> Includes NGLs from Central Gas Facility shipped to TAPS.

<sup>(3)</sup> Aurora, Borealis, Midnight Sun, Orion, Polaris, Milne Point, Sag River, Schrader Bluff, Ugnu

<sup>(4)</sup> Lisburne, Niakuk, Point McIntyre, Raven, West Beach, West Niakuk

<sup>(5)</sup> Meltwater, NEWS, Tabasco, Tarn, West Sak

<sup>(6)</sup> Endicott, Minke, Sag Delta, Eider, Badami

<sup>(7)</sup> Alpine, Fiord, Nanuq, Qannik, Mustang (after 2016)

<sup>(8)</sup> Northstar, Oooguruk, Nikaitchuq, Liberty (delayed)

<sup>(9)</sup> Not in production

\* Totals may show slight differences from other sources due to rounding and aggregation differences

## C-2b Crude Oil Production—Forecast

(thousand barrels per day)

FY	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Prudhoe Bay	267.5	256.1	250.0	240.3	228.8	218.1	207.8	197.0	186.9	177.3
PBU Satellites <sup>(1)</sup>	46.5	44.4	41.4	38.9	36.3	33.3	30.5	27.7	25.8	23.8
GPMA <sup>(2)</sup>	26.8	25.5	23.3	21.1	19.1	17.7	16.4	15.2	14.2	13.4
Kuparuk	85.0	84.8	82.8	79.0	75.3	71.7	68.3	65.0	61.3	56.2
Kuparuk Satellites <sup>(3)</sup>	23.9	23.4	21.9	21.8	20.8	18.6	16.4	14.7	13.2	11.9
Endicott <sup>(4)</sup>	10.1	10.0	10.9	10.5	8.9	7.6	6.7	6.1	5.5	4.9
Alpine <sup>(5)</sup>	67.3	64.3	60.3	60.5	55.4	47.3	40.0	34.4	29.8	26.0
Offshore <sup>(6)</sup>	25.6	29.9	28.0	26.3	24.3	21.8	19.6	17.9	16.5	15.1
NPR-A	0.0	0.0	0.0	0.0	0.0	0.1	9.8	11.2	7.5	5.1
Point Thomson	0.0	0.0	0.0	1.3	7.2	6.7	6.1	5.6	5.2	4.8
<b>Total ANS</b>	<b>552.8</b>	<b>538.4</b>	<b>518.6</b>	<b>499.7</b>	<b>476.1</b>	<b>442.9</b>	<b>421.6</b>	<b>394.8</b>	<b>365.9</b>	<b>338.5</b>
Cook Inlet	10.4	9.6	8.9	8.3	7.7	7.2	6.7	6.3	5.9	5.6
<b>Total Alaska</b>	<b>563.2</b>	<b>548.0</b>	<b>527.5</b>	<b>508.0</b>	<b>483.8</b>	<b>450.1</b>	<b>428.3</b>	<b>401.1</b>	<b>371.8</b>	<b>344.1</b>

<sup>(1)</sup> Aurora, Borealis, Midnight Sun, Orion, Polaris, Milne Point, Sag River, Schrader Bluff, Ugnu

<sup>(2)</sup> Lisburne, Niakuk, Point McIntyre, Raven, West Beach, West Niakuk

<sup>(3)</sup> Meltwater, NEWS, Tabasco, Tarn, West Sak

<sup>(4)</sup> Endicott, Minke, Sag Delta, Eider, Badami

<sup>(5)</sup> Alpine, Fiord, Nanuq, Qannik, Mustang (after 2016)

<sup>(6)</sup> Northstar, Ooguruk, Nikaitchuq, Liberty (delayed)

## D-1a Income Statement

### FY 2012 Production Tax Estimate using Income Statement Format

*This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.*

	Price	Barrels (Thousands)	Value (\$ million)
Avg ANS Oil Price (\$/bbl) & Daily Production	\$112.65	579.1	\$65.2
Annual Production			
Total		211,951	\$23,876.2
Royalty, Federal and other barrels <sup>(1)</sup>		-32,211	(\$3,628.6)
Taxable barrels from companies with tax liability <sup>(2)</sup>		179,740	\$20,247.7
Downstream (Transportation) Costs (\$/bbl)			
ANS Marine Transportation	-\$3.24		
TAPS Tariff	-\$5.06		
Other	-\$0.51		
Total Transportation Costs	-\$8.81	179,740	(\$1,583.5)
Deductible Lease Expenditures <sup>(3)</sup>			
Deductible Operating Expenditures	-\$15.92		(\$2,862.2)
Deductible Capital Expenditures	-\$8.58		(\$1,543.0)
Total Lease Expenditures	-\$24.51	179,740	(\$4,405.3)
Production Tax			
Production Tax Value (PTV)			\$14,258.9
Base Tax (25%*PTV)			\$3,564.7
Production Tax Value per barrel	\$79.33		
Progressive Tax = (19.7% * PTV)			\$2,813.6
<b>Total Tax before credits</b>			<b>\$6,378.3</b>
<b>Credits applied against tax liability</b>			<b>(\$360.0)</b>
<b>Estimated Total Tax after credits<sup>(4)</sup></b>			<b>\$6,018.3</b>

<sup>(1)</sup> Royalty, Federal and other barrels represents DOR's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

<sup>(2)</sup> This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

<sup>(3)</sup> Deductible Lease Expenditures represents DOR's best estimate of lease expenditures that are applicable to companies that are likely to produce a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

<sup>(4)</sup> Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company specific information. Variations in these assumptions captured in larger revenue models will produce different results that differ from the estimates in the simple model above.

## D-1b Income Statement

### FY 2013 Production Tax Estimate using Income Statement Format

*This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.*

	Price	Barrels (Thousands)	Value (\$ million)
Avg ANS Oil Price (\$/bbl) & Daily Production	\$108.67	552.8	\$60.1
Annual Production			
Total		201,787	\$21,927.8
Royalty, Federal and other barrels <sup>(1)</sup>		-30,232	(\$3,285.3)
Taxable barrels from companies with tax liability <sup>(2)</sup>		171,555	\$18,642.5
Downstream (Transportation) Costs (\$/bbl)			
ANS Marine Transportation	-\$3.75		
TAPS Tariff	-\$5.62		
Other	-\$0.06		
Total Transportation Costs	-\$9.42	171,555	(\$1,616.7)
Deductible Lease Expenditures <sup>(3)</sup>			
Deductible Operating Expenditures	-\$16.51		(\$2,832.8)
Deductible Capital Expenditures	-\$13.95		(\$2,393.0)
Total Lease Expenditures	-\$30.46	171,555	(\$5,225.8)
Production Tax			
Production Tax Value (PTV)			\$11,800.0
Base Tax (25%*PTV)			\$2,950.0
Production Tax Value per barrel	\$68.78		
Progressive Tax = (15.5% * PTV)			\$1,830.6
<b>Total Tax before credits</b>			<b>\$4,780.6</b>
<b>Credits applied against tax liability</b>			<b>(\$490.0)</b>
<b>Estimated Total Tax after credits<sup>(4)</sup></b>			<b>\$4,290.6</b>

<sup>(1)</sup> Royalty, Federal and other barrels represents DOR's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

<sup>(2)</sup> This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

<sup>(3)</sup> Deductible Lease Expenditures represents DOR's best estimate of lease expenditures that are applicable to companies that are likely to produce a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

<sup>(4)</sup> Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company specific information. Variations in these assumptions captured in larger revenue models will produce different results that differ from the estimates in the simple model above.

## D-1c Income Statement

### FY 2014 Production Tax Estimate using Income Statement Format

*This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.*

	Price	Barrels (Thousands)	Value (\$ million)
Avg ANS Oil Price (\$/bbl) & Daily Production	\$109.61	538.4	\$59.0
Annual Production			
Total		196,516	\$21,540.6
Royalty, Federal and other barrels <sup>(1)</sup>		-26,254	(\$2,877.7)
Taxable barrels from companies with tax liability <sup>(2)</sup>		170,262	\$18,662.9
Downstream (Transportation) Costs (\$/bbl)			
ANS Marine Transportation	-\$3.67		
TAPS Tariff	-\$5.09		
Other	-\$0.04		
Total Transportation Costs	-\$8.81	170,262	(\$1,499.6)
Deductible Lease Expenditures <sup>(3)</sup>			
Deductible Operating Expenditures	-\$16.32		(\$2,779.0)
Deductible Capital Expenditures	-\$19.61		(\$3,338.6)
Total Lease Expenditures	-\$35.93	170,262	(\$6,117.6)
Production Tax			
Production Tax Value (PTV)			\$11,045.6
Base Tax (25%*PTV)			\$2,761.4
Production Tax Value per barrel	\$64.87		
Progressive Tax = (13.9% * PTV)			\$1,540.8
<b>Total Tax before credits</b>			<b>\$4,302.2</b>
<b>Credits applied against tax liability</b>			<b>(\$615.0)</b>
<b>Estimated Total Tax after credits<sup>(4)</sup></b>			<b>\$3,687.2</b>

<sup>(1)</sup> Royalty, Federal and other barrels represents DOR's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

<sup>(2)</sup> This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

<sup>(3)</sup> Deductible Lease Expenditures represents DOR's best estimate of lease expenditures that are applicable to companies that are likely to produce a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

<sup>(4)</sup> Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company specific information. Variations in these assumptions captured in larger revenue models will produce different results that differ from the estimates in the simple model above.

# Revenue Sources Book

*Alaska Department of Revenue – Tax Division*

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# FALL 2012

## E-1 Summary of Tax Credits in Current Law (\$ millions)

Due to the number of credit programs and the differences in the administration of the programs, this table provides 5 years of tax credit information that has been restated based on two criteria: (1) in fiscal year terms for all the programs; and (2) in the fiscal year that the credits impact the state treasury - for example, when credits are refunded or applied against a tax liability. This information will be consistent with other tax credit information that the department has provided.

Description of Credit	Credit Rate and Maximum Credit	Credits Claimed in FY (\$m)				
		2008	2009	2010	2011	2012
<b>Credits Applicable to the Oil and Gas Production Tax</b>						
<b>Exploration Incentive Credit, AS 38.05.180(i)</b>						
A non-transferable credit for the cost of drilling or seismic work performed under a limited time period established by the Commissioner of the Department of Natural Resources.	Up to 50% of the cost of drilling or seismic work, not to exceed 50% of the tax liability to which it is being applied. This credit may also be applied against the state royalty.	\$0	\$0	\$0	\$0	\$0
<b>Qualified Capital Expenditure and Well Lease Expenditure Credit, AS 43.55.023(a) and (l)</b>						
Includes Carried-Forward Loss Credits						
A transferable tax credit for qualified oil and gas capital expenditures in the state. Taken in lieu of exploration incentive credits under AS 43.55.025 and gas exploration credits under AS 43.20.043.	Credit is 20% of eligible expenditures, or 40% for qualified well lease expenditures outside the North Slope. For credits earned for North Slope capital expenditures under AS 43.55.023 (a), no more than half the credit may be applied in a single calendar year.	\$268	\$458	\$569	\$766	\$603
<b>Carried-Forward Annual Loss Credit, AS 43.55.023(b)</b>						
A transferable credit for a carried-forward annual loss, as defined as a producer or explorer's adjusted lease expenditures that are not deductible in calculating production tax values for the calendar year.	Credit is 25% of the carried-forward annual loss. If a transferable credit certificate is applied for North Slope losses, the certificate is split in half with the first half available for redemption immediately and the second half available in the following year.	Totals included in Qualified Capital Expenditure Credits above				
<b>Small Producer / New Area Development Credit, AS 43.55.024(a) and (c)</b>						
A non-transferable credit for oil and gas produced by small producers, defined as having average taxable oil and gas production of less than 100,000 BTU equivalent barrels per day, or for oil or gas produced on leases outside Cook Inlet and below 68 degrees North latitude, providing the producer has a positive tax liability on that production before the application of other credits. Credit is available until the later of 2016 or 9 years after first commercial production of oil and gas on the properties for which the credit applies.	Credit is 100% of tax liability for eligible oil and gas production. The credit is capped at \$12,000,000 annually under the small producer credit for producers with no more than 50,000 BTU equivalent barrels per day. The credit then phases out, reaching zero for producers with 100,000 or more BTU equivalent barrels per day.  Under the new area development credit, credit is available up to \$6,000,000 per company annually.	\$31	\$27	\$27	\$52	\$53

## E-1 Summary of Tax Credits in Current Law (\$ millions)

Due to the number of credit programs and the differences in the administration of the programs, this table provides 5 years of tax credit information that has been restated based on two criteria: (1) in fiscal year terms for all the programs; and (2) in the fiscal year that the credits impact the state treasury - for example, when credits are refunded or applied against a tax liability. This information will be consistent with other tax credit information that the department has provided.

Description of Credit	Credit Rate and Maximum Credit	Credits Claimed in FY (\$m)				
		2008	2009	2010	2011	2012
<b>Transitional Investment Expenditure Credit, AS 43.55.023(i)</b>						
A non-transferable credit for qualified oil and gas capital expenditures incurred between March 31, 2001 and April 1, 2006. Only available to companies that did not have production in commercial quantities prior to January 1, 2008. Credit may not be used after December 31, 2013.	Credit is 20% of qualified oil and gas capital expenditures incurred between March 31, 2001 and April 1, 2006, not to exceed 10% of the capital expenditures incurred between March 31, 2006 and January 1, 2008.	\$73	\$0	Cannot be reported due to taxpayer confidentiality		
<b>Alternative Credit for Exploration, AS 43.55.025(a)(1)-(4)</b>						
A transferable credit for expenditures for certain oil and gas exploration activities. Expires 7/1/2016.	Outside of Cook inlet, credit is 40% for seismic costs outside an existing unit, 30% for drilling costs greater than 25 miles from an existing unit, 30% for pre-approved new targets greater than 3 miles from an existing well, and 40% for pre-approved new targets greater than 3 miles from a well and greater than 25 miles from an existing unit. For Cook Inlet, credit is 40% for seismic costs outside an existing unit, 30% for drilling costs greater than 10 miles from an existing unit, 30% for pre-approved new targets, and 40% for drilling costs that are greater than 10 miles from an existing unit and pre-approved new targets.	\$60	\$42	\$66	\$19	\$57
<b>Cook Inlet Jack-Up Rig Credit, AS 43.55.025(a)(5)</b>						
A credit for exploration expenses for the first three wells drilled by the first jack-up rig brought in to Cook Inlet. Expenses only for drilling of wells from a jack-up rig for wells that test pre-Tertiary; all three wells must be drilled by unaffiliated parties using the same rig.	Credit is 100% of costs for the first well up to \$25 million, 90% of costs for the second well up to \$22.5 million, and 80% of costs for the third well up to \$20 million. If exploration well is brought into production, operator shall repay 50% of the credit over ten years following production start-up.	Credit program began in FY 2010		\$0	\$0	\$0
<b>Frontier Basin Credit, AS 43.55.025(a)(6)-(7)</b>						
A credit for expenses for the first four persons to drill exploration wells and the first four persons to conduct seismic projects within an area designated in AS 43.55.025(p), also called the "Frontier Basins."	Credit is for lesser of 80% of qualified exploration drilling expenses or \$25 million; or for seismic projects, credit is for lesser of 75% of qualified seismic exploration expenditures or \$7.5 million. Includes expenditures incurred for work performed after June 1, 2012 and before July 1, 2016.	Credit program begins in FY 2013				

## E-1 Summary of Tax Credits in Current Law (\$ millions)

Due to the number of credit programs and the differences in the administration of the programs, this table provides 5 years of tax credit information that has been restated based on two criteria: (1) in fiscal year terms for all the programs; and (2) in the fiscal year that the credits impact the state treasury - for example, when credits are refunded or applied against a tax liability. This information will be consistent with other tax credit information that the department has provided.

Description of Credit	Credit Rate and Maximum Credit	Credits Claimed in FY (\$m)				
		2008	2009	2010	2011	2012
<b><i>Credits Applicable to the Corporate Income Tax</i></b>						
<b>Internal Revenue Code Credits Adopted by Reference, AS 43.20.021</b>						
Under Alaska's blanket adoption of the IRC, taxpayers can claim all federal incentive credits. Federal credits that refund other federal taxes are not allowed. Multi-state taxpayers apportion their total federal incentive credits.	For most credits, credit is limited to 18% of the amount of the credit determined for federal income tax purposes which is attributable to Alaska.	Not tracked				
<b>Gas Exploration and Development Credit, AS 43.20.043</b>						
A non-transferable credit for qualified expenditures for exploration and development of non-North Slope natural gas reserves.	Credit is 25% of qualified expenditures for investment after January 1, 2010; investments in existing units qualify. Credit is capped at 75% of tax liability as calculated before applying other credits.	Cannot be reported due to taxpayer confidentiality				
<b>Gas Storage Facility Credit, AS 43.20.046</b>						
A credit for the costs incurred to establish a gas storage facility. Does not apply to gas storage related to a gas sales pipeline on the North Slope. Facility shall operate as a public utility regulated by the Alaska RCA with open access for 3rd parties. Effective for facilities placed into service between January 1, 2011 and December 31, 2015.	Credit is \$1.50 per thousand cubic feet of "working gas" storage capacity as determined by AOGCC. Maximum credit is the lesser of \$15 million or 25% of costs incurred to establish the facility.	Credit program began in 2011				\$0
<b>Veteran Employment Tax Credit, AS 43.20.048</b>						
A credit for corporate income taxpayers that employ qualified veterans in the state. A "qualified veteran" is a veteran who was unemployed for more than 4 weeks preceding the employment date and who was discharged or released from military service not more than 10 years before employment date (for disabled vet) or not more than 2 years before employment date (for vet that is not disabled).	Credit is \$3,000 for a disabled vet or \$2,000 for a vet that is not disabled for employment for a minimum of 1,560 hours during 12 consecutive months following veteran's employment date. For seasonal employment, credit is \$1,000 for veteran employed for a minimum of 500 hours during 3 consecutive months following employment date.	Credit program begins in FY 2013				

## E-1 Summary of Tax Credits in Current Law (\$ millions)

Due to the number of credit programs and the differences in the administration of the programs, this table provides 5 years of tax credit information that has been restated based on two criteria: (1) in fiscal year terms for all the programs; and (2) in the fiscal year that the credits impact the state treasury - for example, when credits are refunded or applied against a tax liability. This information will be consistent with other tax credit information that the department has provided.

Description of Credit	Credit Rate and Maximum Credit	Credits Claimed in FY (\$m)				
		2008	2009	2010	2011	2012
<b>LNG Storage Facility Credit, AS 43.20.047</b>						
A credit for the costs incurred to establish a storage facility for liquefied natural gas. Applies to facilities with a minimum storage capacity of 25,000 gallons of LNG and that are public utilities regulated by Alaska RCA. Effective for facilities placed into service after January 1, 2011.	Credit is lesser of \$15 million or 50% of costs incurred to establish the facility.	Credit program began in 2012				\$0
<b>Film Production Credit, AS 43.98.030</b>						
A transferable credit for expenditures on eligible film production activities in Alaska. Producer must spend at least \$100,000 in a consecutive 24-month period to qualify. Credit program extended and revised effective 7/1/2013 - see Senate Bill 23 (2012) for details.	Credit is 30% of eligible film production expenditures, plus an additional 10% credit for wages paid to Alaska residents, plus an additional 2% credit for filming in a rural area, plus an additional 2% credit for filming between October 1 and March 30. Program is capped at \$100 million for all projects.	Credit program began in FY 2009		\$0	<\$1	\$3
<b>Credits Applicable to Multiple Tax Programs</b>						
<b>Education Credit, AS 21.96.070, AS 43.20.014, AS 43.55.019, AS 43.56.018, AS 43.65.018, AS 43.75.018, AS 43.77.045 - Applicable to Corporate Income Tax, Fisheries Business Tax, Fishery Resource Landing Tax, Insurance Premium Tax, Title Insurance Premium Tax, Mining License Tax, Oil and Gas Production Tax, Oil and Gas Property Tax</b>						
A non-transferable credit for contributions to vocational educational programs, accredited Alaska universities or colleges for educational purposes or facilities, annual intercollegiate sports tournaments, AK Native educational programs, facilities that qualify under the Coastal American Partnership.	Credit is 50% of annual contributions up to \$100,000, 100% of the next \$200,000 and 50% of annual contributions beyond \$300,000. The credit cannot exceed \$5,000,000 annually across all eligible tax types. The credit at these rates is effective from January 1, 2011 until December 31, 2020, at which point the maximum credit for any taxpayer is \$150,000 per year.	\$3	\$2	\$2	\$3	\$4
<b>Minerals Exploration Incentive Credit, AS 27.30.030, AS 43.20.044 - Applicable to Corporate Income Tax, Mining License Tax and Mineral Production Royalty</b>						
A non-transferable credit for eligible costs of mineral or coal exploration activities. Credit must be used within 15 years.	Credit is 100% of allowable exploration costs with a maximum of \$20 million. Credit is limited to: (1) for mining license tax, the lesser of 50% of the MLT liability at the mining operation at which the exploration occurred or 50% of total MLT liability; (2) for corporate income tax, the lesser of 50% of the MLT liability at the mining operation at which the exploration occurred or 50% of total CIT liability, and (3) for mineral royalty, 50% of royalty liability from the mining operation at which the exploration activity occurred.	\$0	\$0	<\$1	<\$1	\$6

## E-1 Summary of Tax Credits in Current Law (\$ millions)

Due to the number of credit programs and the differences in the administration of the programs, this table provides 5 years of tax credit information that has been restated based on two criteria: (1) in fiscal year terms for all the programs; and (2) in the fiscal year that the credits impact the state treasury - for example, when credits are refunded or applied against a tax liability. This information will be consistent with other tax credit information that the department has provided.

Description of Credit	Credit Rate and Maximum Credit	Credits Claimed in FY (\$m)				
		2008	2009	2010	2011	2012
<b><i>Credits Applicable to Fisheries Taxes</i></b>						
<b>Scholarship Contributions Credit, AS 43.75.032, AS 43.77.035 - Applicable to the Fisheries Business Tax and Fishery Resource Landing Tax</b>						
A non-transferable credit for contributions to the A.W. "Winn" Brindle memorial education loan account established under AS 14.43.250.	Credit is 100% of contribution amount up to a maximum of 5% of tax liability.	<\$1	<\$1	<\$1	<\$1	<\$1
<b>Salmon Product Development Credit, AS 43.75.035 - Applicable to the Fisheries Business Tax</b>						
A non-transferable credit for eligible capital expenditures to expand value-added processing of Alaska salmon including ice making machines. Credit expires December 31, 2015 and may be carried forward for three years.	Credit is 50% of qualified investment up to 50% of tax liability incurred for processing of salmon during the tax year.	\$5	\$3	\$4	\$2	<\$1
<b>Community Development Quota Credit, AS 43.77.040 - Applicable to the Fishery Resource Landing Tax</b>						
A non-transferable credit for contributions to an Alaska nonprofit corporation that are dedicated to fisheries industry-related expenditures. Credit is available only for fishery resources harvested under a community development quota (CDQ).	Credit is 100% of contribution amount up to a maximum of 45.45% of tax liability on fishery resources harvested under a CDQ.	<\$1	\$0	<\$1	<\$1	<\$1
<b>Other Taxes Credit, AS 43.77.030 - Applicable to the Fishery Resource Landing Tax</b>						
A non-transferable credit for taxes paid to another jurisdiction on fishery resources landed in Alaska.	Credit is 100% of taxes paid with a maximum of 100% of the Alaska tax liability on the fishery resources.	Not tracked				
<b>Total All Credits</b>		<b>\$442</b>	<b>\$533</b>	<b>\$671</b>	<b>\$846</b>	<b>\$729</b>

# Revenue Sources Book

*Alaska Department of Revenue – Tax Division*

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## FALL 2012

In accordance with AS 37.07.060 (b)(4), the *Revenue Sources Book* is compiled annually by the Alaska Department of Revenue to assist the governor in formulating a proposed comprehensive financial plan for presentation to the Alaska State Legislature. The publication provides historic and current revenue information, as well as forecast projections of revenue.

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 revenue;
- (2) A petroleum revenue model created by the department's Tax Division;
- (3) Estimates from individual state agencies.

We are very grateful to the state agencies that provided information and analysis for publication in this Fall 2012 *Revenue Sources Book*.

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 Tax Division 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 about \$5 per copy.

# Revenue Sources Book

*Alaska Department of Revenue – Tax Division*

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# FALL 2012

## **Forecast & Historical Data**

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