Revenue Sources Book Fall 2019

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Revisions – December 18, 2019
Language was added to Chapter 1, Chapter 4, and several exhibit footnotes, to clarify how Natural Gas Liquid shipments are reflected in the publication. Table C-1 was revised to better reflect production changes from the Spring 2019 forecast. Other minor edits were made throughout the book for clarity, punctuation, and formatting.

Errata – December 20, 2019
Language was revised in the Permanent Fund Changes topic box at the end of Chapter 7, Investment Revenue, to correctly reflect the amount of the transfer appropriated to the general fund in FY 2021 and FY 2022.

Errata – December 24, 2019
Adjustments made in Table A-3 to the FY 2011 and FY 2012 "Constitutional Budget Reserve Fund Deposits" to correctly reflect royalty settlements.

Errata – January 21, 2020
Total Tax After Credits and Adjustments corrected in Table E-3.

Cover: The aurora borealis near Fairbanks. Photo by Sherman Hogue, courtesy of ExploreFairbanks.com.

THE STATE of ALASKA

GOVERNOR MICHAEL J. DUNLEAVY

Department of Revenue

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December 6, 2019

The Honorable Michael J. Dunleavy, Governor of Alaska
P.O. Box 110001
Juneau, Alaska 99811-0001

Dear Governor Dunleavy,

I am pleased to present to you the Department of Revenue's Fall 2019 *Revenue Sources Book*. This publication provides a history and projection of state revenues and is a collaborative effort among the Department of Revenue and several other state agencies.

Unrestricted General Fund (UGF) revenue totaled $2.6 billion in fiscal year (FY) 2019 and is forecast to be $2.1 billion in FY 2020 and $2.0 billion in FY 2021. These figures exclude the transfer from the Permanent Fund Earnings Reserve. The Permanent Fund is expected to transfer $2.9 billion to the general fund in FY 2020 and $3.1 billion in FY 2021. These amounts include funds for both payment of dividends and general government spending.

For FY 2019, Alaska North Slope (ANS) oil prices averaged $69.46 per barrel. The revenue forecast incorporates the most current indications from financial markets and is based on an annual average ANS oil price of $63.54 per barrel for FY 2020 and $59.00 per barrel for FY 2021.

For FY 2019, North Slope oil production averaged 496,900 barrels per day. The forecast assumes that production will decline modestly to 492,100 barrels per day in FY 2020 and 490,500 barrels per day in FY 2021. New fields offer tremendous potential to increase production later in the 2020's but these developments are still contingent on final investment decisions and commitment of billions of dollars of new investments on the part of oil and gas producers.

We hope you find the information provided in the Fall 2019 *Revenue Sources Book* to be interesting and useful. The department will provide a forecast update in the spring of 2020.

Sincerely,

Michael A. Barnhill
Acting Commissioner

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Revenue
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Chapter 1

Introduction

Purpose

The *Revenue Sources Book* (RSB) provides Alaskans with a report of historical, current, and estimated future state revenue. The governor uses the information in this publication to formulate the proposed budget and financial plan before presenting it to the Alaska Legislature. Over the years, the RSB has become an educational tool to inform the general public of how the state's revenues are structured.

This publication is prepared by the Department of Revenue, in accordance with AS 37.07.060 (b)(4). Forecasts of state revenue are made using models developed by the department's Economic Research Group and other state agencies.

The department expresses its gratitude to those state agencies and the individuals in those agencies who have provided information, assistance and analysis for this RSB.

Throughout this book, unless stated otherwise, information is presented based on a fiscal-year basis. The state's fiscal year runs from July 1 through June 30.

Forward-Looking Statements

All figures and narratives in this document that are not based on events that have already occurred constitute forecasts or "forward-looking statements." These numbers are projections based on assumptions regarding uncertain future events and the responses to those events. Such figures are, therefore, subject to uncertainties and actual results will differ, potentially materially, from those anticipated.

The department attempts to capture these uncertainties in order to provide policymakers and the general public with a general understanding of the scale and scope of future revenue streams. The official forecast process takes into account many possible outcomes and attempts to minimize deviations from what is likely to happen. These figures do not necessarily represent a single scenario of a future path.

The department will update the estimates in this forecast book in the coming spring, as more information is received. This forecast supersedes all prior estimates or forecasts as the official forecast of the State of Alaska. Therefore, all prior forecasts should be used only for comparison purposes.

Defining Revenue Categories

In general, this *Revenue Sources Book* presents revenues in accordance with current budget categories and conventions as agreed on by the Office of Management and Budget (OMB) in the Governor's Office, and Alaska Division of Legislative Finance, a legislative agency.

The one exception is Chapter 3, which describes revenue that is available for appropriation for any current-year funding need, regardless of customary uses or restrictions. Displaying the information in this way gives a complete view of the state's ability to meet its obligations.

The remainder of the RSB utilizes revenue categories consistent with budget conventions. Revenues are divided into categories in two ways – by revenue source (where the revenue comes from), and spending restriction or designation (how the revenue may be used).

There are three basic revenue sources – funds collected from in-state activities, funds received from the federal government, and earnings from investments. Due to the importance of revenues from oil production, in-state activities are further divided into petroleum revenue and non-petroleum revenue.

Revenue is also categorized by the level of restrictions regarding its use. Those categories are "unrestricted" (available to fund general state activities and capital projects) or "restricted" (placed into reserves or used for a specific purpose, either by a requirement or historical practice).

Any revenue that is not restricted by the Alaska Constitution, state or federal law, trust or debt restriction, or customary practice is considered "unrestricted general fund revenue" (UGF) or simply "unrestricted revenue." Historically, most legislative and public discussion has centered on the unrestricted category of revenue, and it has been the figure most commonly referenced in budget discussions.

Restricted revenues are divided into three types to aid in the budget process – "designated general fund," "other restricted revenue," and "federal revenue." Some of these revenues are restricted by budget convention only, and are technically available for appropriation even though they are shown as restricted in this RSB.

Changes

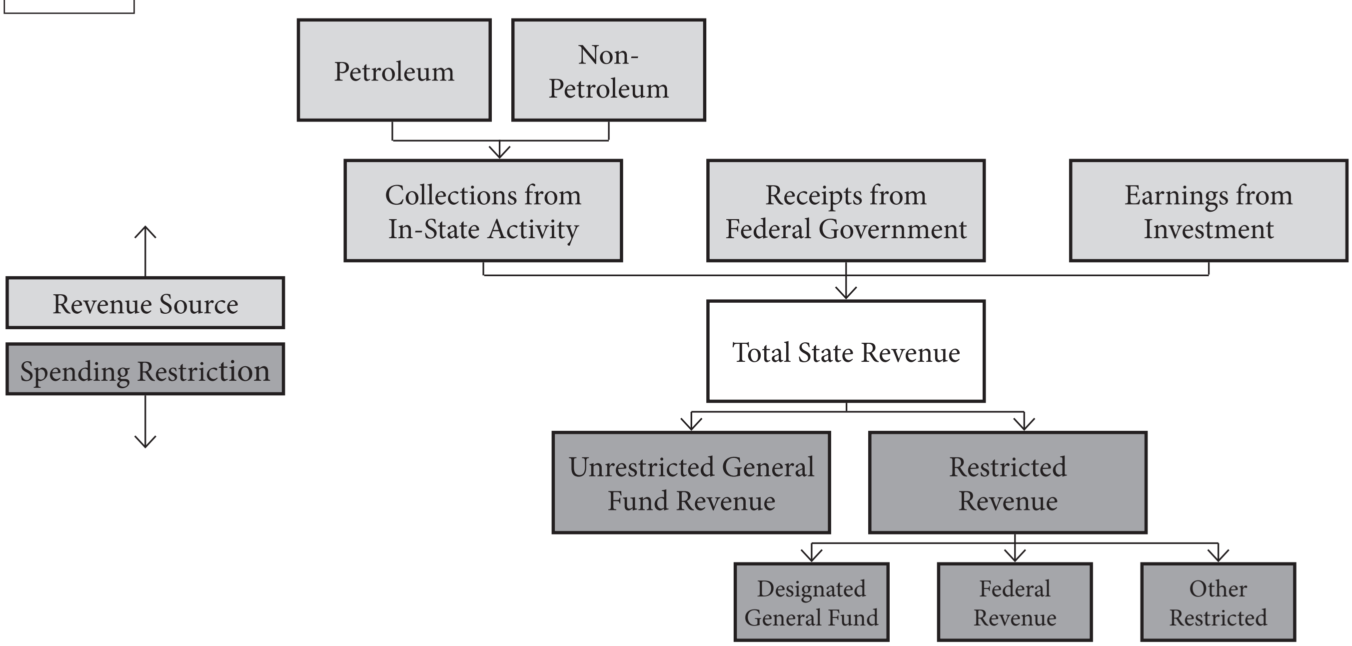
Noteworthy changes to this Fall 2019 *Revenue Sources Book* include:

- The special-topic chapter, previously Chapter 3 of the book, was not included this year. This change was made primarily as an efficiency measure, to focus limited resources on the essential forecast information. As a result of this change, the "Revenue Available for Current-Year Appropriation" chapter, previously Chapter 1 in the Fall 2018 RSB, has been moved to Chapter 3. The chapter numbers and figure numbers for the rest of the book remain largely the same.

Chapter 1 **A**

Revenue Categories

Sources and spending restrictions



Chapter 1

B

QR Codes

Access data tables online

- Specific number references and extraneous information have been removed from the narrative where possible throughout the book, with the exception of Chapter 2. These changes were made primarily as an efficiency measure to streamline the process of producing and updating the forecast publication in the future.
- The methodology for producing the oil price forecast changed this year. Previously, the oil price forecast was the result of a resource-intensive process that included a day-long price forecast meeting and significant analysis. Beginning with this forecast, the short-term oil price forecast (current and next fiscal year) is derived from futures market expectations, and the long-term forecast is held constant in real terms, increasing with inflation. This approach to price forecasting allows the department to prepare a forecast with minimal expense to the state, while providing a transparent methodology that incorporates the most recent market information available at the time the forecast is produced.

QR Codes

Quick response (QR) codes are included on the first page of each chapter so that the data tables are accessible online in the Microsoft Excel format.

To access them, use a QR code recognition application with your mobile phone, smartphone, or tablet to take a picture of the QR code, which looks similar to Figure 1-B.

The Figure 1-B QR code will take you to the RSB directory on the Tax Division website. The device will display a website with the link to download the Microsoft Excel workbook containing the tables found in the corresponding chapter.

If you are reading the RSB in PDF form, the QR code images are hyperlinked to their corresponding web addresses.

Forecast Methods Note

This *Revenue Sources Book* includes an assumption that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in an ongoing large-scale enhanced oil recovery project. These NGLs are excluded from production forecasts reported in this publication, impacting comparisons to the Spring 2019 forecast which did not include this assumption. These estimated NGL shipments are excluded from Department of Revenue figures because they are not considered produced barrels for tax purposes. The reason for this exclusion is so that production is only counted once, as the relevant barrels will ultimately be produced from the Kuparuk reservoir in the future and taxed at that time. This treatment is consistent with how the department presented previous NGL shipments which had been suspended in 2014 and were not included in historical production volumes. Beginning in September 2018, NGL shipments resumed and these NGLs are again excluded from actual and forecast production volumes. Note that for royalty purposes the NGLs are subject to royalty and are considered produced barrels as reported by the Alaska Oil and Gas Conservation Commission (AOGCC) and forecasted by the Department of Natural Resources (DNR); this provision is incorporated into revenue forecast modeling.

At times, the department's forecast numbers may appear to vary between analyses, even if they come from the same data source. This can happen for many reasons and does not necessarily discount other analyses, nor should it be considered an error.

One example is in petroleum revenue forecasting, where results can differ depending on whether the department uses confidential company-specific data versus statewide aggregated summary data.

Another instance where differences can occur is in how uncertainty is incorporated. Depending on the analysis, uncertainties can be addressed by applying risk factors to the data, incorporating probability into the analysis and results, or providing a narrative disclaimer about the uncertainty.

Therefore, even though all of the department's models start with the same set of data, the results can differ depending on data handling and how uncertainty is handled in the analysis.

Additionally, throughout this book, values and sums may show slight differences due to rounding.

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Chapter 2
Executive Summary

Introduction

The Department of Revenue releases a formal revenue forecast twice per year. The revenue forecast is intended to be a policy-neutral document that provides fundamental data and information to inform the public and aid decision-makers.

This fall forecast will be used as the basis for the governor's budget proposal and legislative budget discussions. This revenue forecast is based on detailed modeling and reflects the department's most current expectations for numerous variables, including oil price, oil production, company spending, and investment returns. The forecast will be next updated in the spring to provide an updated view on revenue to help guide final budget decisions.

Revenue Summary

The State of Alaska received an estimated total of $11.1 billion in revenue in fiscal year (FY) 2019 from all sources, a decrease of $1.3 billion in total revenue from the previous fiscal year. Figure 2-A graphically illustrates the composition of total revenue by restriction and type.

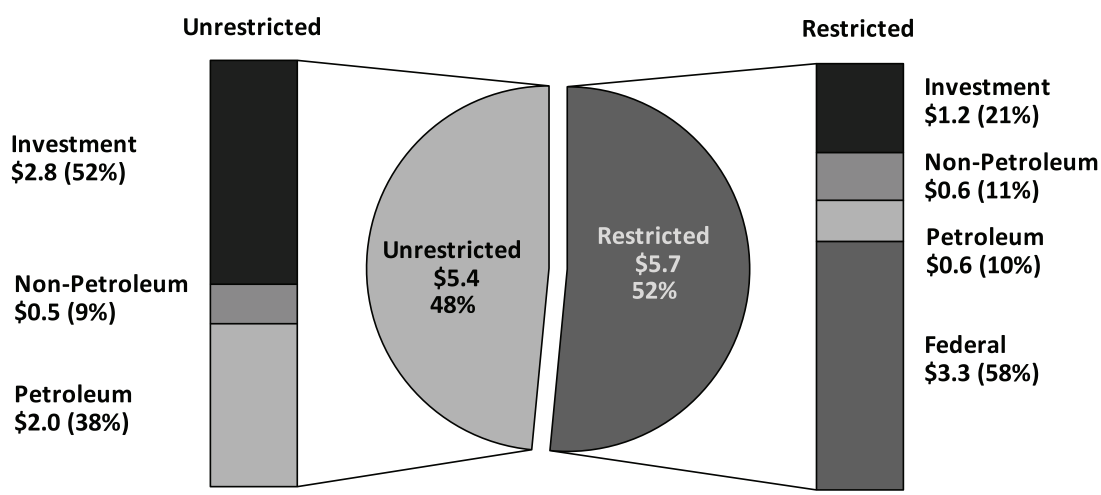
In FY 2019, unrestricted general fund revenues (UGF) totaled $5.4 billion. Excluding transfers from the Alaska Permanent Fund, UGF for FY 2019 was $2.6 billion. Tables 2-1 and 2-2 provide an overview of the composition of UGF as well as forecasts for the next two fiscal years.

Restricted revenue, on the other hand, is a combination of federal receipts, investment earnings,

Chapter 2 A

FY 2019 Total State Revenue

By restriction and type, in billions of dollars



Chapter 2 1	**Total State Revenue** By restriction and type			
		Millions of Dollars		
		History	Forecast	
	Fiscal Year	**2019**	**2020**	**2021**
Unrestricted Revenue Sources				
Unrestricted General Fund Revenue				
Petroleum Revenue		2,047.3	1,559.4	1,410.0
Non-Petroleum Revenue		491.4	502.9	505.7
Investment Revenue		2,815.9	2,987.2	3,143.3
Total Unrestricted General Fund Revenue		**5,354.6**	**5,049.4**	**5,059.0**
Restricted Revenue Sources				
Designated General Fund Revenue				
Non-Petroleum Revenue		451.4	428.3	430.7
Investment Revenue		53.3	43.7	45.1
Subtotal Designated General Fund Revenue		**504.7**	**472.0**	**475.8**
Other Restricted Revenue				
Petroleum Revenue		563.5	586.5	418.1
Non-Petroleum Revenue		180.2	250.3	252.4
Investment Revenue		1,134.7	1,244.0	1,421.3
Subtotal Other Restricted Revenue		**1,878.4**	**2,080.8**	**2,091.8**
Federal Revenue				
Federal Receipts		3,311.4	3,715.9	3,715.9
Petroleum Revenue [1]		12.3	11.3	9.5
Subtotal Federal Revenue		**3,323.7**	**3,727.2**	**3,725.4**
Total Restricted Revenue		**5,706.9**	**6,280.1**	**6,293.0**
Total State Revenue		**11,061.5**	**11,329.5**	**11,352.0**

[1] Petroleum Revenue shown in the Federal Revenue category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve – Alaska.

constitutionally mandated petroleum revenue deposits, and non-petroleum revenue sources that are used for specific purposes. In FY 2019, restricted state revenue totaled $5.7 billion. Tables 2-1 and 2-3 summarize the department's forecasts for restricted revenue for the next two fiscal years.

As mentioned in Chapter 1, restricted revenues are divided into three types – designated general fund, other restricted revenue, and federal revenue. As described in Chapter 3, some of these revenues, while categorized as restricted by custom, are still available for appropriation for any purpose.

Petroleum Revenues

Petroleum revenues come from four components – production tax, royalties, property tax, and corporate income tax.

Unrestricted petroleum revenue amounted to $2.0 billion in FY 2019. Petroleum is projected to provide between 25% and 31% of unrestricted revenue over the next 10 years as shown in Table 2-5. This percentage is lower than the historical share, due to including a portion of the value of the Permanent Fund as unrestricted revenue beginning in FY 2019. Exclud-

Chapter 2

2

Unrestricted General Fund Revenue

By source and type

	Millions of Dollars		
	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
Unrestricted Petroleum Revenue			
Petroleum Taxes			
Petroleum Property Tax	119.5	121.6	117.9
Petroleum Corporate Income Tax	217.7	210.0	215.0
Oil and Gas Production Tax	595.5	380.7	328.1
Subtotal Petroleum Taxes	**932.6**	**712.4**	**661.0**
Royalties (including Bonuses, Rents, and Interest)			
Mineral Bonuses and Rents	33.9	28.8	28.8
Oil and Gas Royalties	1,077.2	816.0	718.0
Interest	3.6	2.2	2.2
Subtotal Royalties	**1,114.7**	**847.0**	**749.0**
Total Unrestricted Petroleum Revenue	**2,047.3**	**1,559.4**	**1,410.0**
Unrestricted Non-Petroleum Revenue			
Non-Petroleum Taxes			
Excise Tax			
Alcoholic Beverage	20.4	20.7	21.0
Tobacco Products – Cigarette	26.5	24.4	23.5
Tobacco Products – Other	13.5	15.8	16.4
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium Tax [1]	71.9	56.7	58.5
Marijuana	5.5	5.8	6.8
Motor Fuel (Refined Fuel Surcharge)	6.3	6.1	6.1
Tire Fee	1.3	1.3	1.3
Subtotal Excise Tax	**145.7**	**131.2**	**133.7**
Corporate Income Tax	**114.8**	**135.0**	**125.0**
Fisheries Tax			
Fisheries Business	21.3	21.2	21.6
Fishery Resource Landing	6.5	5.4	5.5
Subtotal Fisheries Tax	**27.8**	**26.5**	**27.1**
Other Tax			
Charitable Gaming	2.6	2.6	2.7
Large Passenger Vessel Gambling	10.1	10.9	11.8
Mining	45.1	50.0	50.0
Subtotal Other Tax	**57.7**	**63.5**	**64.5**
Subtotal Unrestricted Non-Petroleum Taxes	**346.0**	**356.2**	**350.3**

(Table continued, next page)

Chapter 2
2

Unrestricted General Fund Revenue
By source and type *(Continued)*

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2019	2020	2021
Unrestricted Non-Petroleum Revenue			
Charges for Services	**7.1**	**7.1**	**7.1**
Fines and Forfeitures	**19.0**	**12.8**	**12.8**
Licenses and Permits			
Motor Vehicle	37.2	36.5	36.5
Other	0.8	2.3	2.3
Subtotal Licenses and Permits	**38.0**	**38.8**	**38.8**
Rents and Royalties			
Mining Rents and Royalties	1.9	1.3	1.3
Other Non-Petroleum Rents and Royalties	3.7	3.7	3.7
Subtotal Rents and Royalties	**5.6**	**5.0**	**5.0**
Miscellaneous Revenues and Transfers			
Miscellaneous	37.1	25.6	25.6
Alaska Housing Finance Corporation Dividend	17.4	27.0	33.6
Alaska Industrial Development and Export Authority Dividend	4.8	10.3	14.5
Alaska Municipal Bond Bank Authority Dividend	0.0	0.0	0.0
Alaska Student Loan Corporation Dividend	0.0	0.0	0.0
Alaska Energy Authority Dividend	0.0	0.0	0.0
Alaska Natural Gas Development Authority Dividend	0.0	0.0	0.0
Mental Health Trust Dividend	0.0	0.0	0.0
Unclaimed Property	16.5	20.0	18.0
Subtotal Miscellaneous Revenues and Transfers	**75.8**	**82.9**	**91.7**
Total Unrestricted Non-Petroleum Revenue	**491.4**	**502.9**	**505.7**
Unrestricted Investment Revenue			
Investment Revenue			
Alaska Permanent Fund	2,722.6	2,933.1	3,091.5
Investments	93.3	54.1	51.8
Total Unrestricted Investment Revenue	**2,815.9**	**2,987.2**	**3,143.3**
Total Unrestricted General Fund Revenue	**5,354.6**	**5,049.4**	**5,059.0**

[1] Insurance Premium Tax was considered designated restricted revenue for FY 2016 to FY 2018 and reverted to unrestricted revenue beginning in FY 2019.

Chapter 2

3 Restricted Revenue

By source and type

Fiscal Year	Millions of Dollars History 2019	Forecast 2020	2021
Designated General Fund Restricted Revenue			
Non-Petroleum Revenue			
Taxes	141.9	146.1	147.1
Charges for Services	243.9	213.1	212.7
Fines and Forfeitures	4.6	5.1	5.0
Licenses and Permits	2.4	2.4	2.4
Rents and Royalties	20.9	18.3	18.4
Other	37.8	43.3	45.2
Subtotal Non-Petroleum Revenue	**451.4**	**428.3**	**430.7**
Investment Revenue			
Investments – Designated General Fund	5.3	3.0	3.0
Other Treasury – Managed Funds	48.0	40.7	42.1
Subtotal Investment Revenue	**53.3**	**43.7**	**45.1**
Total Restricted Designated General Fund Revenue	**504.7**	**472.0**	**475.8**
Other Restricted Revenue			
Petroleum Revenue			
Royalties to Alaska Permanent Fund and Public School Trust Fund (includes bonuses, rents, and interest)	382.3	386.5	343.1
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	181.2	200.0	75.0
Subtotal Petroleum Revenue	**563.5**	**586.5**	**418.1**
Non-Petroleum Revenue			
Taxes	51.6	51.1	53.2
Charges for Services	46.6	111.9	112.2
Fines and Forfeitures	16.1	18.3	17.8
Licenses and Permits	41.1	41.0	41.2
Rents and Royalties	6.7	9.9	10.0
Other	18.1	18.1	18.1
Subtotal Non-Petroleum Revenue	**180.2**	**250.3**	**252.4**
Investment Revenue			
Investments – Other Restricted	16.9	9.7	9.8
Constitutional Budget Reserve Fund	74.8	46.0	32.3
Alaska Permanent Fund Restricted Earnings, net of General Fund Draw [1]	1,043.0	1,188.3	1,379.2
Subtotal Investment Revenue	**1,134.7**	**1,244.0**	**1,421.3**
Total Other Restricted Revenue	**1,878.4**	**2,080.8**	**2,091.8**

(Table continued, next page)

Chapter 2

3 Restricted Revenue

By source and type *(Continued)*

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2019	2020	2021
Restricted Federal Revenue			
Federal Receipts	**3,311.4**	**3,715.9**	**3,715.9**
Petroleum Revenue			
NPR-A Royalties (includes bonuses, rents, and interest)[2]	12.3	11.3	9.5
Total Restricted Federal Revenue	**3,323.7**	**3,727.2**	**3,725.4**
Total Restricted Revenue	**5,706.9**	**6,280.1**	**6,293.0**

[1] While payouts are limited to realized revenue, both unrealized and realized are shown per Generally Accepted Accounting Principles. Restricted earnings starting in FY 2019 consist of unrealized gains plus realized gains, less the transfer to the general fund.

[2] Petroleum Revenue shown in the Restricted Federal Revenue category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve – Alaska.

ing this Permanent Fund share, petroleum is expected to provide between 70% and 74% of unrestricted revenue over the next 10 years.

Restricted petroleum revenue contributed an additional $576 million in FY 2019. The primary sources of restricted petroleum revenue are royalties deposited in both the Permanent Fund and Public School Trust Fund, as well as settlements of tax and royalty disputes deposited in the Constitutional Budget Reserve Fund (CBRF).

Four elements are critical to the determination of petroleum revenues – price, production, lease expenditures, and transportation costs. These components are explained in detail in Chapter 4.

Oil Price

Alaska North Slope (ANS) oil prices averaged $69.46 in FY 2019. The revenue forecast is based on an annual average ANS oil price of $63.54 per barrel for FY 2020 and $59.00 per barrel for FY 2021. The department projects that annual average prices will increase to $71.00 (nominal) within the 10-year forecast period.

The department made a change to how oil prices are forecast this year. Beginning with fall 2019, the short-term oil price forecast (current and next fiscal year) is derived from futures market expectations for Brent crude. Beyond the next fiscal year, the price forecast is held constant in real terms, increasing with inflation. This approach to price forecasting allows the department to prepare a forecast with minimal expense to the state, while providing a transparent methodology that incorporates the most recent market information available at the time the forecast is made.

Oil Production

Total crude oil production from Alaska's North Slope averaged 496,900 barrels per day in FY 2019. The oil production forecast expects ANS production to remain relatively stable in coming years, with production of 492,100 barrels per day in FY 2020 and 490,500 barrels per day in FY 2021. Production is forecast to decline to 434,300 barrels per day in FY 2024 before increasing to 494,500 barrels per day by the end of the 10-year forecast period.

The oil production forecast balances projected declines in production at existing fields with incremental production from new fields and new developments. Following several years of relatively stable production, most existing fields are expected to return to declining production during the forecast period. Meanwhile, several new oil fields are progressing through the planning and development process. These new fields are expected to contribute to stable and increasing production later in the forecast period.

Chapter 2
4

Total State Revenue, Actual and Forecast

FY 2019 actuals and FY 2020 – FY 2029 forecast

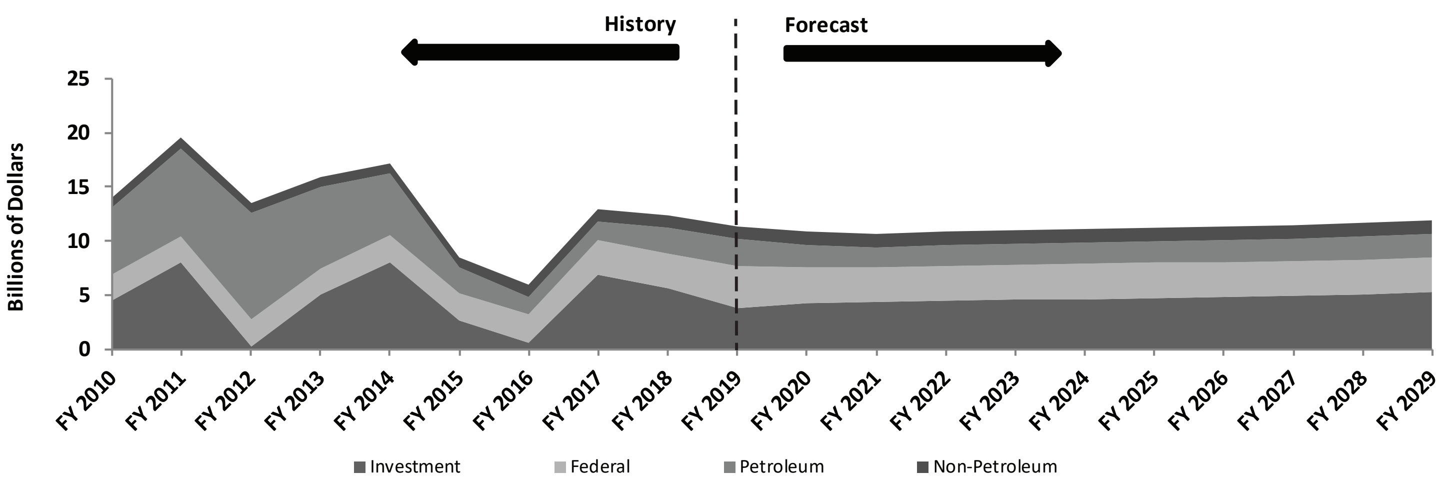
Millions of Dollars

	History	Forecast									
Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total State Revenue											
Petroleum	2,623.2	2,157.2	1,837.6	1,805.2	1,757.0	1,777.5	1,870.7	1,912.8	2,017.7	2,114.2	2,245.5
Non-Petroleum	1,123.0	1,181.5	1,188.8	1,187.7	1,197.6	1,204.0	1,211.2	1,224.2	1,234.8	1,241.9	1,253.6
Investment	4,003.9	4,274.9	4,609.7	4,735.9	4,860.8	4,983.8	5,107.7	5,235.8	5,367.8	5,505.7	5,783.0
Federal	3,311.4	3,715.9	3,715.9	3,715.9	3,715.9	3,715.9	3,715.9	3,715.9	3,715.9	3,715.9	3,715.9
Total State Revenue	**11,061.5**	**11,329.5**	**11,352.0**	**11,444.6**	**11,531.2**	**11,681.2**	**11,905.5**	**12,088.7**	**12,336.2**	**12,577.7**	**12,998.0**

Chapter 2
B

Total State Revenue

A look back and a look ahead



Chapter 2
5

Total Unrestricted General Fund Revenue

FY 2019 actuals and FY 2020 – FY 2029 forecast

	Millions of Dollars										
	History	Forecast									
Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Unrestricted General Fund Revenue											
Petroleum	2,047.3	1,559.4	1,410.0	1,408.9	1,364.2	1,366.8	1,419.7	1,424.6	1,483.7	1,527.9	1,600.3
Non-Petroleum	491.4	502.9	505.7	508.0	515.6	519.9	524.7	536.3	545.4	550.9	560.9
Investment	2,815.9	2,987.2	3,143.3	3,154.5	3,327.1	3,448.8	3,536.5	3,627.2	3,719.9	3,814.6	3,910.4
Total Unrestricted General Fund Revenue	**5,354.6**	**5,049.4**	**5,059.0**	**5,071.4**	**5,206.9**	**5,335.5**	**5,481.0**	**5,588.0**	**5,749.0**	**5,893.4**	**6,071.7**
Percent from Petroleum	38%	31%	28%	28%	26%	26%	26%	25%	26%	26%	26%
Total Unrestricted Revenue (not including Permanent Fund transfer)	**2,632.0**	**2,116.3**	**1,967.5**	**1,976.4**	**1,944.9**	**1,957.5**	**2,021.0**	**2,043.0**	**2,117.0**	**2,172.4**	**2,260.7**
Percent from Petroleum	78%	74%	72%	71%	70%	70%	70%	70%	70%	70%	71%
Selected Petroleum Data											
Price Per Barrel of ANS Crude (Dollars)	69.46	63.54	59.00	61.00	62.00	63.00	65.00	66.00	68.00	69.00	71.00
Average Daily ANS Production [1] (Thousand Barrels Per Day)	496.9	492.1	490.5	460.1	439.7	434.3	450.0	458.9	468.9	482.5	494.5

[1] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

Lease Expenditures and Transportation Costs

In FY 2019, allowable oil and gas lease expenditures amounted to an estimated $5.5 billion statewide, including $5.0 billion of spending on the North Slope. Allowable lease expenditures are expected to increase slightly in FY 2020 to $5.8 billion statewide, including $5.4 billion of spending on the North Slope. Allowable lease expenditures are expected to show several years of increases, based on expected investments in new developments. These investments include multiple billions of dollars to bring new fields like Pikka and Willow into production. These are long-term investments in Alaska that will provide production, jobs, and state revenue for decades to come – well beyond the time horizon of this revenue forecast.

In FY 2019, average transportation costs for North Slope oil averaged $8.02 per barrel; they are expected to average $9.06 in FY 2020 and $9.78 in FY 2021. Transportation costs are subtracted from the ANS price to form the basis for tax and royalty calculations.

Major Gas Sales and ANWR

Two major petroleum-related projects have the potential to add to state petroleum revenues beyond what is presented in this forecast.

First, the State of Alaska is continuing to work on a project to commercialize North Slope natural gas reserves. This project could lead to liquid natural gas exports and substantial new state revenues. To be conservative, major gas sales will not be included in this forecast until the project reaches a Final Investment Decision.

Additionally, as part of federal tax legislation enacted in 2017, the U.S. Department of Interior is directed to hold two lease sales in the Arctic National Wildlife Refuge (ANWR) "1002 area" over the 10-year period. Currently, the Department of Interior is pursuing a first lease sale potentially taking place in 2020.

ANWR lease sales are of interest to Alaska both as a source of future production and economic activity, and because the state will receive a portion of any federal bonuses, rents, and royalties from the leases. It is anticipated that 50% of ANWR revenue will be shared with the state. Of the revenue received by the state, 50% of the state's share will go to the Permanent Fund, 0.5% to the Public School Trust Fund, and the remaining share would be unrestricted general fund revenue. Since lease sale revenue is unknown at this time, the department has conservatively chosen not to include lease sale revenue in this revenue forecast until a successful lease sale has taken place. Additionally, any production from ANWR will not be included until a discovery is made that meets the criteria for inclusion in the production forecast.

Non-Petroleum Revenue from In-State Activity

Corporate income tax revenue from non-petroleum related businesses, excise taxes, consumption taxes, charges for services, fines and forfeitures, licenses and permits, non-petroleum rents and royalties, transfers, and other miscellaneous revenue are referred to as "non-petroleum revenues from in-state activity." This does not include federal and investment revenues. In FY 2019, unrestricted non-petroleum revenues amounted to $491.4 million. Unrestricted non-petroleum revenues from in-state activities are expected to be $502.9 million in FY 2020, increasing to $560.9 million by the end of the 10-year forecast period. In FY 2019, restricted non-petroleum revenue amounted to $631.6 million. Restricted non-petroleum revenues are expected to be $678.6 million in FY 2020. Details regarding these revenue sources can be found in Chapter 5. These amounts only represent revenues from existing revenue sources under current law.

Federal Revenue

All federal funds the state receives are considered restricted for purposes of this forecast. Federal funds include revenues for highways, medical care, education, and other designated purposes. The state received an estimated $3.3 billion in FY 2019. Consistent with practice in prior years, the federal revenue forecast represents the maximum possible federal revenue contribution, while actual revenues received routinely come in below forecast. More detail regarding federal revenue can be found in Chapter 6.

Investment Revenue

Investment revenue is the earnings generated from certain assets such as the Permanent Fund, the CBRF, and other funds. In FY 2019, the state earned $4.0 billion in total investment revenue. The department is forecasting investment income of $4.3 billion in FY 2020 and $4.6 billion in FY 2021.

Prior to FY 2019, the majority of investment revenue was considered restricted revenue. However, beginning in FY 2019, a portion of the value of the Permanent Fund is depicted as unrestricted revenue, and investments are now one of the largest contributors to unrestricted revenue.

The Permanent Fund contributed $2.7 billion to unrestricted revenue in FY 2019, and is anticipated to contribute $2.9 billion to unrestricted revenue in FY 2020. These projections are based on a series of assumptions including a total fund value of $66.3 billion as of July 1, 2019, and a 7.00% annual average return on invested assets. The annual Permanent Fund "draw" is available for appropriation to fund dividends, government spending, or savings.

More information about investment revenue can be found in Chapter 7.

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Chapter 3

Revenue Available for Appropriation for Any Purpose

General Discussion

Historically, most of the discussion on Alaska's budget has focused on the "unrestricted general fund" (UGF) category of revenue, which in times of deficiency is supplemented by "funding from reserves." At the same time, certain current-year revenue available for appropriation for any purpose is added to reserves.

This way of defining revenue has served Alaska well by automatically placing categories of revenue in reserves. However, it is also important to accurately define revenue that is available for appropriation for any purpose so that both the Alaska Legislature, in deliberations on potentially shifting how revenue is categorized, as well as people outside the Legislature, in analyzing Alaska's budget, are able to determine the state's true revenue potential.

Table 3-1 provides an accounting of current-year revenue available for appropriation for any purpose for the most recent fiscal year, as well as a 10-year forecast period.

The State of Alaska has historically categorized certain revenues that are available for appropriation for any purpose as "restricted." The primary use of these "customarily restricted" revenues has been largely to fund reserves. Examples of revenues customarily treated as restricted, but available for appropriation for any purpose include:

- Settlement revenue deposited into the Constitutional Budget Reserve Fund (CBRF), as well as the investment earnings of the CBRF.
- Royalty revenue deposited into the Alaska Permanent Fund beyond the 25% constitutional dedication, as well as a portion of the earnings of the Permanent Fund.
- Most revenue deposited into subfunds or subaccounts of the general fund. For example, 50% of alcohol tax revenue is designated for the Alcohol and Other Drug Abuse Treatment and Prevention Fund.

The Permanent Fund and Constitutional Budget Reserve Fund

Alaska receives investment earnings from a number of internal funds. Primary sources of investment revenue for the state are two constitutionally mandated funds – the Permanent Fund and the CBRF.

The balance of the CBRF is available for appropriation for any purpose with a three-fourths vote of each body of the Legislature. This also applies to the amount of any investment earnings, and tax and royalty settlement deposits to the CBRF.

The Earnings Reserve Account balance in the Permanent Fund is available for appropriation for any purpose with a majority vote of the Legislature. This is different from an appropriation of the Permanent Fund's principal balance, which would require an amendment to the Alaska Constitution.

For accounting purposes, the Permanent Fund is divided into two parts – principal (the non-spendable funds), and the Earnings Reserve (assigned funds). The Earnings Reserve contains both realized earnings from all the fund's investments, and unrealized gains on assets in that portion of the Permanent Fund that is accounted for in the Earnings Reserve. Historically, a portion of the Earnings Reserve has been used to fund Permanent Fund dividends. Beginning

Chapter 3
1

Current-Year Revenue Subject to Appropriation

FY 2019 actuals and FY 2020 – FY 2029 forecast

	Millions of Dollars										
	History	Forecast									
Fiscal Year	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Petroleum Revenue											
Unrestricted General Fund	2,047.3	1,559.4	1,410.0	1,408.9	1,364.2	1,366.8	1,419.7	1,424.6	1,483.7	1,527.9	1,600.3
Royalties to Alaska Permanent Fund Beyond 25% Dedication [1]	0.0	71.9	64.6	63.2	60.7	64.0	73.9	93.3	116.2	137.0	157.0
Tax and Royalty Settlements to CBRF	181.2	200.0	75.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Subtotal Petroleum Revenue	**2,228.6**	**1,831.3**	**1,549.6**	**1,522.1**	**1,474.9**	**1,480.8**	**1,543.6**	**1,567.9**	**1,650.0**	**1,714.9**	**1,807.3**
Non-Petroleum Revenue											
Unrestricted General Fund	491.4	502.9	505.7	508.0	515.6	519.9	524.7	536.3	545.4	550.9	560.9
Designated General Fund	451.4	428.3	430.7	433.9	436.1	438.0	439.7	440.3	441.1	441.9	442.8
Royalties to Alaska Permanent Fund Beyond 25% Dedication [1]	0.0	3.2	3.3	3.3	3.3	3.4	3.5	3.5	3.6	3.7	3.8
Tax and Royalty Settlements to CBRF	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Non-Petroleum Revenue	**945.7**	**934.4**	**939.7**	**945.2**	**955.0**	**961.3**	**967.9**	**980.1**	**990.0**	**996.5**	**1,007.5**
Investment Revenue											
Unrestricted General Fund	2,815.9	2,987.2	3,143.3	3,154.5	3,327.1	3,448.8	3,536.5	3,627.2	3,719.9	3,814.6	3,910.4
Designated General Fund	53.3	43.7	45.1	45.5	45.8	46.2	46.5	46.9	47.3	47.6	48.0
CBRF	74.8	46.0	32.3	36.0	39.8	43.6	47.4	51.2	55.0	58.8	62.7
Subtotal Investment Revenue	**2,944.0**	**3,076.9**	**3,220.7**	**3,236.0**	**3,412.7**	**3,538.6**	**3,630.4**	**3,725.3**	**3,822.2**	**3,921.0**	**4,021.1**
Total Revenue Subject to Appropriation	**6,118.3**	**5,842.6**	**5,710.0**	**5,703.3**	**5,842.6**	**5,980.7**	**6,141.8**	**6,273.4**	**6,462.2**	**6,632.4**	**6,835.9**

Note: CBRF is an acronym for Constitutional Budget Reserve Fund.
[1] Estimate based on deposit to Permanent Fund minus 25% of total royalties. In FY 2019, only the constitutionally required 25% of royalties were deposited into the Permanent Fund.

in FY 2019, funds have been appropriated from the Earnings Reserve for both government spending and dividends.

Other Customarily Restricted Revenues

Because Alaska is dependent on taxes, royalties, fees, and other revenues that can be volatile, the State of Alaska has developed a framework of constitutionally and statutorily restricted revenue that is held in a variety of reserve funds to provide long-term and short-term options to address cash flow mismatches and budgetary needs.

The Alaska Constitution provides that, with three exceptions, the proceeds of state taxes or licenses "shall not be dedicated to any special purpose." The three exceptions are when dedication is required by the federal government for state participation in federal programs, any dedication existing before statehood, and dedication of funds is provided for by the Alaska Constitution.

Many state revenues are classified as "customarily restricted," meaning they are designated for a specific purpose, even though the Constitution does not allow a dedication of funds. This includes most revenue deposited into subfunds or subaccounts of the general fund. The State of Alaska has historically restricted these revenue sources based on custom or by statutory direction, even though neither of these structures limit the ability of a future Legislature to appropriate the revenue for any purpose. Statutory language typically suggests that revenue from a certain source "may be appropriated" by the Legislature for a specific purpose. Such revenue is nonetheless subject to annual appropriation, even if the State of Alaska by historical practice has followed customary restrictions.

Meeting State Obligations

Understanding the customary nature of many sources of restricted revenue is important, because the ability of the state to meet its obligations is not truly reflected by the UGF category in budget documents. The state's ability to meet its obligations is provided by adjusting for customary restrictions and looking at all current-year revenues that are subject to appropriation for any purpose.

All revenues subject to appropriation for any purpose can be used by the Legislature to fund government services or obligations, including the use of funds in the CBRF and the Earnings Reserve of the Permanent Fund.

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Chapter 4

Petroleum Revenue

General Discussion

The four major sources of state revenue from oil and gas production are production tax, royalties, property tax, and corporate income tax. This chapter describes each of these sources, as well as key variables that influence these revenue sources.

Production tax (the state's severance tax for oil and gas) is levied on a producer when the resource is severed (or extracted) from land in Alaska. Royalties are payments to the owners of the land and represent a percentage of production. Property tax is collected as a percentage of the value of taxable oil and gas property in the state. Corporate income tax is levied on oil and gas C-corporations as a percentage of their worldwide net income apportioned to Alaska.

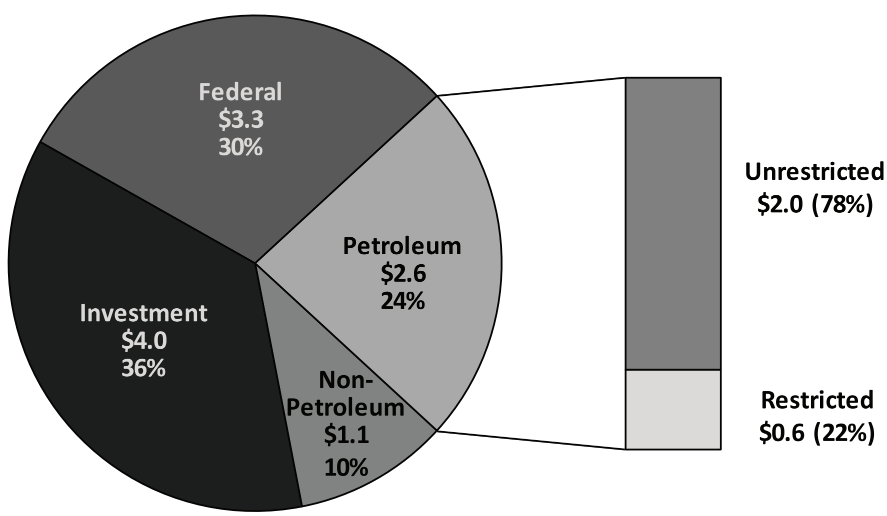
Revenue from oil and gas is unrestricted, with three exceptions:

- The Alaska Constitution requires that 25% of royalty revenue be deposited into the Alaska Permanent Fund. Alaska Statute 37.13.010(a) refers to 50% of royalty revenue from mineral leases issued after December 1, 1979, being deposited into the Permanent Fund. This additional amount is subject to appropriation from the general fund but is shown as restricted in this forecast. Additionally, the Public School Trust Fund receives 0.5% of royalty revenue.
- Payments received from the federal government representing a share of the bonuses, rents, and royalties derived from federal oil

Chapter 4 **A**

FY 2019 Petroleum Revenue

By restriction and type, in billions of dollars



Chapter 4
1

Total Petroleum Revenue

By restriction and type

	Millions of Dollars		
	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
Unrestricted Petroleum Revenue			
Petroleum Property Tax	119.5	121.6	117.9
Petroleum Corporate Income Tax	217.7	210.0	215.0
Oil and Gas Production Tax	595.5	380.7	328.1
Royalties (including bonuses, rents, and interest)	1,114.7	847.0	749.0
Total Unrestricted Petroleum Revenue	**2,047.3**	**1,559.4**	**1,410.0**
Change from Prior Period	107.2	-488.0	-149.4
Percent Change from Prior Period	6%	-24%	-10%
Restricted Petroleum Revenue			
Other Restricted			
Royalties, Bonuses, and Rents to the Alaska Permanent Fund	374.8	380.3	337.6
Royalties, Bonuses, and Rents to the Public School Trust Fund	7.5	6.2	5.5
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	181.2	200.0	75.0
Subtotal Other Restricted	**563.5**	**586.5**	**418.1**
Federal			
NPR-A Royalties, Rents, and Bonuses	12.3	11.3	9.5
Total Restricted Petroleum Revenue	**575.8**	**597.8**	**427.5**
Change from Prior Period	67.8	22.0	-170.3
Percent Change from Prior Period	13%	4%	-28%
Total Petroleum Revenue	**2,623.2**	**2,157.2**	**1,837.6**
Change from Prior Period	175.0	-466.0	-319.6
Percent Change from Prior Period	7%	-18%	-15%

and gas leases in the National Petroleum Reserve – Alaska (NPR-A) are deposited into a NPR-A special revenue fund.

- Payments received from settlements of tax and royalty disputes between the state and producers are deposited into the Constitutional Budget Reserve Fund (CBRF), after accounting for any applicable share of royalty settlements deposited into the Permanent Fund and Public School Trust Fund.

Table 4-1 shows both restricted and unrestricted petroleum revenue collected from each source for the most recent fiscal year and forecasts for the next two fiscal years. Table 4-2 shows the 10-year forecast of unrestricted revenue from these sources.

Production Tax

Oil and gas produced and sold from lands within Alaska are subject to a severance tax as the resources leave the land. This severance tax is commonly referred to as the "production tax." The production tax applies to oil and gas produced from any area within the boundaries of the state, including lands that are owned by the State of Alaska, the federal government (like NPR-A), or private parties, such as Native corporations. State ownership of submerged lands extends 3 nautical miles from the shore. Production tax applies only to oil and gas that the producer sells, so it excludes state royalties, gas used in lease operations or flared for safety reasons, and any production that is re-injected into a reservoir.

Chapter 4
2

Unrestricted Petroleum Revenue

FY 2019 actuals and FY 2020 – FY 2029 forecast

	Millions of Dollars										
	History	Forecast									
Fiscal Year	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Petroleum Property Tax	119.5	121.6	117.9	116.5	115.1	113.5	111.9	110.1	108.0	105.8	103.5
Petroleum Corporate Income Tax	217.7	210.0	215.0	240.0	245.0	250.0	255.0	260.0	265.0	270.0	275.0
Oil and Gas Production Tax [1]	595.5	380.7	328.1	319.4	299.3	306.3	324.1	311.7	327.5	331.6	358.4
Royalties – Net [2]	1,114.7	847.0	749.0	733.0	704.9	697.0	728.7	742.8	783.2	820.5	863.4
Total Unrestricted Petroleum Revenue	**2,047.3**	**1,559.4**	**1,410.0**	**1,408.9**	**1,364.2**	**1,366.8**	**1,419.7**	**1,424.6**	**1,483.7**	**1,527.9**	**1,600.3**
Change from Prior Period	107.2	-488.0	-149.4	-1.1	-44.7	2.6	53.0	4.8	59.2	44.1	72.4
Percent Change from Prior Period	6%	-24%	-10%	0%	-3%	0%	4%	0%	4%	3%	5%

[1] Includes hazardous release and conservation surcharge revenues.

[2] Includes bonuses, rents, and interest.

In 2013, the Alaska Legislature passed Senate Bill 21, which is the existing production tax regime applicable to oil and gas production in the state. Adjustments and refinements to the production tax system were made in both 2016 with House Bill 247, and in 2017 with House Bill 111. Table 4-3 lists the major provisions of the production tax as they exist in current law. The following narrative describes the current production tax system for various areas of the state and types of production.

North Slope

For North Slope oil and gas (gas shipped and sold outside the state), the tax uses the concept of "production tax value" (PTV), which is the gross value at the point of production minus allowable lease expenditures. PTV is similar in concept to net profit, but different in that all allowable lease expenditures can be deducted in the year incurred; that is, capital expenditures are not subject to a depreciation schedule. The production tax rate is 35% of PTV with an alternative minimum tax floor calculation of 0% to 4% of gross value, with the 4% minimum tax floor applying when average Alaska North Slope (ANS) oil prices for the year exceed $25 per barrel. Lower rates would apply if the yearly average ANS price is below $25 per barrel.

Several tax credits and other mechanisms are available for North Slope oil production to incentivize additional investment. A sliding scale Per-Taxable-Barrel Credit is available, which is progressively reduced from $8 per barrel to $0 as wellhead value increases from $80 per barrel to $150 per barrel. A company that chooses to take this credit may not apply it to any other tax credits in combination to reduce the tax paid below the gross minimum tax floor.

An additional incentive applies for qualifying new production areas on the North Slope. The gross value reduction (GVR) allows a company to exclude 20% or 30% of the gross value for that production from the tax calculation. Qualifying production includes areas surrounding a currently producing area that may not be otherwise commercial to develop, as well as certain new oil pools. Oil that qualifies for this GVR receives a flat $5 Per-Taxable-Barrel Credit rather than the sliding-scale credit available for most other North Slope production. As a further incentive, this $5 Per-Taxable-Barrel Credit can be applied to reduce tax liability below the minimum tax floor assuming that the producer does not seek to apply any sliding scale tax credit. The GVR is only available for the first seven years of production, and ends early if ANS prices exceed $70 per barrel for any three years.

Effective January 1, 2022, for North Slope gas, the tax rate will be 13% of the gross value at the point of production. This tax rate would apply to a major gas export project. Senate Bill 138, passed in 2014, allows for the state to accept payment of this 13% gross tax as gas in-kind. Until December 31, 2021, North Slope gas is taxed at 35% of PTV, and limited to a maximum value averaging 17.7 cents per 1,000 cubic feet.

A company may carry forward 100% of allowable lease expenditures not applied against tax as a carried-forward annual loss, and may apply all or part in a future year. A carried-forward annual loss may not reduce tax below the minimum tax, and can only be used after the start of regular production from the area in which the expenditures were incurred. This provision is known as "ring fencing" of the loss. An unused carried-forward annual loss will reduce in value by one-tenth each year beginning in the eighth or 11th year after it is earned, depending on whether the carried-forward annual loss was earned from a producing or non-producing area.

Cook Inlet

Cook Inlet oil production is officially subject to the same tax rate of 35% of PTV. However, the tax is limited by statute to a maximum of $1.00 per barrel.

For Cook Inlet gas production, the tax rate is 35% of PTV, and the tax is limited to a maximum value averaging 17.7 cents per 1,000 cubic feet.

Middle Earth

Areas outside the North Slope and Cook Inlet are commonly referred to as "Middle Earth." Middle Earth currently has no commercial production of oil or gas and a relatively small amount of exploration activity.

A 10% Qualified Capital Expenditure Credit and 20% Well Lease Expenditure Credit are available as incentives for activity in Middle Earth. Additionally, Middle Earth has a carried-forward annual loss provision similar to the North Slope's.

Should oil or gas be produced from Middle Earth, it would nominally be subject to the statewide tax rate of 35% of PTV. However, a tax ceiling of 4% of gross value would apply for the first seven years of production, provided production begins prior to January 1, 2027.

Other Provisions

A Small-Producer Credit of up to $12 million per company is available for certain companies statewide, but it is gradually being phased out. The credit expired on either December 31, 2016, or the ninth calendar year after production started, if production started before May 1, 2016. New companies, therefore, are not eligible to take the credit.

For oil and gas produced from private lands across the state, Alaska levies a production tax on the value of private landowner royalty interest in the amount of 5% of gross value for oil and 1.667% for gas. Tax credits cannot be used to offset this portion of the tax.

The production tax includes several other nuances and provisions beyond the brief description provided here. For more information about the various tax credits, see Chapter 8.

Revenue from production tax is estimated on a company-specific basis by forecasting the components used in the tax calculation, then subtracting estimated tax credits. Under a net tax regime, these components include oil prices, transportation costs, production costs and production volumes for each field.

Crude Oil Prices

The future price of crude oil is the most sensitive variable in the revenue forecast and is also the most prone to uncertainty. As a price-taker in the global market, Alaska cannot exert any significant pressure on the future price of oil by altering its level of production. Rather, oil prices are determined on a global basis, reflecting fluctuations in supply and demand.

A 10-year forecast of ANS oil prices, along with the inferred wellhead values, can be found in Table 4-5. Appendix B includes a 10-year history and a 10-year forecast of these values in nominal terms, as well as comparisons to the prior revenue forecast.

Beginning with fall 2019, the short-term oil price forecast (current and next fiscal year) is derived from futures market expectations for Brent crude. Brent is used because it is a widely followed global benchmark crude that is typically priced similarly to ANS crude. Beyond the next fiscal year, the price forecast is held constant in real terms, increasing with inflation. This approach to price forecasting allows the department to prepare a forecast with minimal

Chapter 4

3

Production Tax, Overview of Current Law

Key provisions under Senate Bill 21[1]

North Slope

Provision	Current Law
Base Tax Rate (applied to Production Tax Value)	35%
Minimum Tax Floor (applied to Gross Value at Point of Production)	Up to 4%. 4% rate applies when the Alaska North Slope price is more than $25/barrel. Some credits can apply against minimum.
Gross Value Reduction	20% or 30% of gross value excluded from the tax calculation; limited to first seven years of production; benefit ends early if the average ANS price exceeds $70 for any three years. For qualifying fields that began production prior to January 1, 2017, benefit ends January 1, 2023 or after three years of ANS price exceeding $70.
Per-Taxable-Barrel Credit for Non-GVR Production	Sliding scale $0/barrel to $8/barrel. $8 credit applies when wellhead price is less than $80/barrel. Cannot apply against the minimum tax.
Per-Taxable-Barrel Credit for GVR Production	$5/barrel, no sliding scale. Can apply against minimum tax.
True-Up of Per-Taxable-Barrel Credit	Unused Per-Taxable-Barrel Credits can be used to offset tax liability in other months of the calendar year.
Net Operating Loss Credit	Repealed January 1, 2018.
Lease Expenditures Carry-forward	Beginning January 1, 2018, a company may carry forward lease expenditures not deducted against tax, and may apply in a future year to reduce liability to minimum tax, contingent on the production from the area earned. Carry-forwards reduce in value by one-tenth each year beginning in the eighth or 11th year after earned.

Cook Inlet

Provision	Current Law
Base Tax Rate (applied to PTV)	35%
Tax Ceiling – Oil	$1/barrel, permanent tax ceiling.
Tax Ceiling – Gas	Average 17.7 cents/thousand cubic feet (McF), permanent tax ceiling.
Qualified Capital Expenditure Credit	Repealed January 1, 2018.
Well Lease Expenditure Credit	Repealed January 1, 2018.
Net Operating Loss Credit	Repealed January 1, 2018.

Chapter 4

3

Production Tax, Overview of Current Law

Key provisions under Senate Bill 21[1] *(Continued)*

Middle Earth

Provision	Current Law
Base Tax Rate (applied to PTV)	35%.
Tax Ceiling	4% of gross value for the first seven years of production if production begins before 2027.
Capital/Well Lease Expenditure Credits	Credits maintained at 2017 rates (10% QCE, 20% WLE).
Net Operating Loss Credit	Repealed January 1, 2018.
Lease Expenditures Carry-forward	Beginning January 1, 2018, a company may carry forward lease expenditures not deducted against tax, and may apply in a future year to reduce liability to minimum tax, contingent on production from the area earned. Carry-forwards reduce in value by one-tenth each year beginning in the eighth or 11th year after earned.
Exploration Tax Credits	30% or 40% for qualifying exploration, expires January 1, 2022, does not apply to seismic after January 1, 2018. Credits can be applied against a company's own corporate tax liability.

Statewide/Other

Provision	Current Law
Tax Ceiling for "Gas Used in State"	Qualifying gas is taxed at Cook Inlet rate, permanent tax ceiling.
Interest Rate on Delinquent Taxes	5.25% above the Federal Reserve discount rate, compounded quarterly, for all tax types.
Credits for Tax-Exempt Entities	Credits earned only for lease expenditures subject to tax.
Small-Producer Credits	Up to $12 million per company for first nine years of production, can apply against minimum tax; must begin production before May 1, 2016.
Retroactive Use of Credits	Tax credit certificates (including transferred) may be used to offset a liability or assessment for prior-year taxes.
Production Limit for Purchased Credit Eligibility	Companies with more than 50,000 barrels of oil-equivalent production are not eligible for state purchase of credits.
Alaska-Hire Preference for Tax Credits	Department of Revenue must give credit purchase priority based on ranking of Alaska-hire percentage, including contractors.
Per-Company Limit for Purchased Credits	$70 million per company per year. First $35 million at full value; next $35 million may be purchased at 75% of value at company option.
Phase-Out of Oil and Gas Tax Credit Fund	No eligibility for state purchase for any credits earned after July 1, 2017, except for refinery and LNG storage credits.

[1] Current law reflects Senate Bill 21 provisions after changes made in 2016 with House Bill 247, and changes made in 2017 with HB 111.

Chapter 4
4

ANS Oil and Gas Production Tax

Data summary

	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
North Slope Price (dollars per barrel)			
ANS West Coast	69.46	63.54	59.00
Transportation Costs and Other	8.02	9.06	9.78
ANS Wellhead	61.44	54.48	49.22
North Slope Production[1] (thousand barrels per day)			
Total ANS Production	496.9	492.1	490.5
Royalty and Federal[2]	60.9	58.3	56.1
Taxable Barrels	436.0	433.7	434.3
North Slope Lease Expenditures[3, 4] (millions of dollars)			
Allowable North Slope Lease Expenditures			
Operating Expenditures (OPEX)	2,871.7	2,792.1	2,666.7
Capital Expenditures (CAPEX)	2,158.7	2,616.2	3,377.1
Total Allowable North Slope Expenditures	**5,030.5**	**5,408.3**	**6,043.8**
Deductible North Slope Lease Expenditures			
Operating Expenditures (OPEX)	2,679.3	2,687.4	2,521.4
Capital Expenditures (CAPEX)	2,014.1	2,090.1	2,079.9
Total Deductible North Slope Lease Expenditures	**4,693.4**	**4,777.6**	**4,601.3**
State Production Tax Revenue[5]			
Tax Revenue (millions of dollars)	595.5	380.7	328.1
Production Tax Collected per Taxable Barrel (dollars per barrel)	3.74	2.40	2.07
Statewide Production Tax Credits[3, 6] (millions of dollars)			
Credits Used Against Tax Liability	1,030.2	966.0	786.0
Credits for Potential Purchase	99.9	1.1	770.0

[1] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

[2] Royalty and Federal barrels represent the Department of Revenue'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.

[3] Lease expenditures and credits used against tax liability for FY 2019 were prepared using unaudited company-reported estimates.

[4] Expenditure forecasts for FY 2020 and FY 2021 are compiled from company submitted estimates and other documentation as provided to DOR. Expenditures are shown in two ways: (1) total estimated allowable expenditures for all companies on the North Slope; and (2) estimated "deductible expenditures" defined for purposes of this analysis as the amount of total allowable expenditures for each company that does not exceed their gross value at point of production. Note that for producers with a net operating loss, only a portion of expenditures will be counted in the "deductible expenditures" category.

[5] 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 Tables E-1, E-2, and E-3.

[6] Production tax credits shown include all production tax credits from all areas of the state. Assumptions for the Small-Producer Credit are included in the table. Per-Taxable-Barrel Credits for oil not eligible for the gross value reduction may not reduce a producer's liability below the minimum tax; that limitation is reflected in these estimates.

expense to the state, while providing a transparent methodology that incorporates the most recent market information available at the time the forecast is produced.

Transportation Charges and Other Production Costs

The value of ANS crude oil at the wellhead is calculated by subtracting transportation costs from the sales price or the prevailing value at the point of delivery. Transportation components include marine costs, the Trans-Alaska Pipeline System (TAPS) tariff, feeder pipeline tariffs, quality bank adjustments, and other adjustments. The values used in this netback calculation are shown in Table 4-5.

Marine Transportation Costs

Oil production from the North Slope is delivered through TAPS to Valdez, Alaska, where it is stored and loaded onto tankers for shipment primarily to the West Coast (Washington, California, and Hawaii) and Alaska's Kenai Peninsula.

For tax purposes, companies are allowed to deduct the total costs under the charter or contract for shipping oil and certain other allowable costs borne by the shipper. For crude oil shipped on tankers that are owned or effectively owned by the producer of the transported oil, which is typically the case, allowable marine costs are depreciation, return on investment, fuel, wages and benefits, routine maintenance, tug and pilotage fees, and dry-docking costs. Marine costs can be broadly categorized as capital, fuel, and labor with each category accounting for roughly one-third of the total.

Pipeline Tariffs

Oil produced on the North Slope of Alaska is shipped down TAPS, an 800-mile, 48-inch oil pipeline from the North Slope to Valdez. Tariff rates on TAPS and other pipelines in the state are regulated to prevent carriers from exerting undue market power. The Regulatory Commission of Alaska (RCA) regulates intrastate rates and the Federal Energy Regulatory Commission (FERC) regulates interstate rates. FERC has established generic principles for oil pipelines to use a cost-of-service method for determining tariffs charged to transport oil.

With a cost-of-service method, rates are designed around what it costs a pipeline company to provide the service and have an opportunity to earn a reasonable rate of return on its investment. Major components are operation and maintenance expenses, depreciation, income taxes, cost of debt, and rate of return.

To forecast TAPS tariffs, the department projects cost-of-service components and sums them for each year to estimate the total cost of service or the total revenue required to operate the pipeline. This estimated total revenue requirement is divided by volume to calculate the average cost per barrel. The ratio is sensitive to the production profile and suggests that if production declines over time, the tariff will increase as costs are spread over fewer barrels of production.

Feeder pipelines are pipelines separate from TAPS that move crude oil produced from the various North Slope oil fields to Pump Station No. 1 at the northern terminus of TAPS. Shippers on these "jurisdictional pipelines" pay a tariff that covers pipeline operations costs and provides a reasonable rate of return.

Lease Expenditures

Due to the deductibility of costs in the production tax equation, the department must forecast allowable lease expenditures in addition to oil prices, production, and transportation costs. Lease expenditures are defined as the upstream costs that are directly related to exploring for, developing, or producing oil or gas.

The department receives information about lease expenditures on annual tax returns and monthly information filings from oil and gas companies operating in the state. Semi-annually, the department also receives projections of lease expenditures for each unit for up to five years in the future. These reports are provided by the operators of the properties and are a major component of the allowable lease expenditure portion of the revenue forecast.

In general, capital expenditures represent company investment in new developments that are included in the production forecast, as well as field major maintenance. Once new developments begin production, the ongoing costs of operating the fields are reflected as operating expenditures.

It should be noted that spending estimates are subject to many uncertainties, including oil prices, and the ability of projects to obtain final company approval, and financing. Many new developments included in the production forecast are included on a "risked" basis, meaning they are only partially counted in the forecast based on a probability of occurring within the

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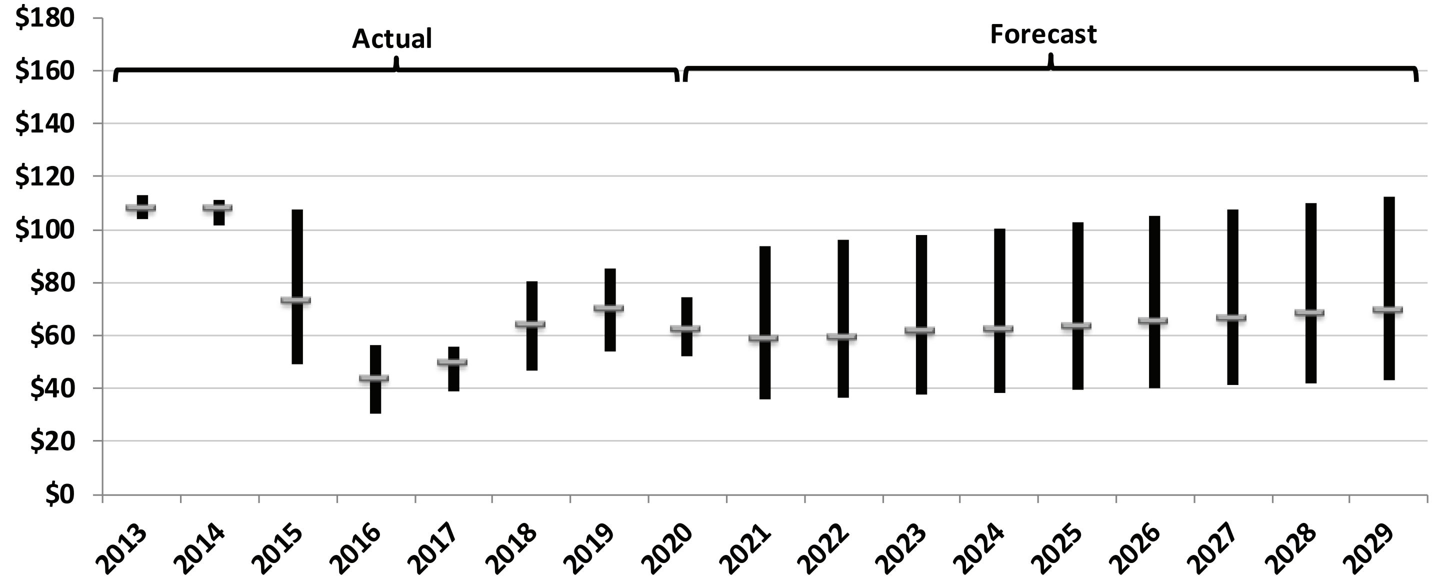
B

ANS West Coast Price Per Barrel

Actual price fluctuation and official fall 2019 forecast spread



10-year time horizon. Any associated costs for those fields are also included on a "risked" basis, using similar risk factors. Also, expenditures for developing potential discoveries from some of the exploration taking place in the state are not yet included in the forecast, and will not be until those developments meet the thresholds for inclusion in the production forecast.

The department reports lease expenditures in two ways. "Allowable lease expenditures" are specifically defined in statute and regulations and dictate what can and cannot be applied in tax calculations. Certain expenses incurred by producers fall outside this definition and are not tracked or reported by the department. Another term, "deductible lease expenditures," is not defined in statute or regulation, but rather is a term of art used to describe that portion of allowable lease expenditures actually applied in the tax calculation in the year incurred.

Appendix D-1 provides a 10-year history and 10-year forecast of allowable lease expenditures for the North Slope and non-North Slope.

Production Volumes

Future oil production is crucial to forecasting oil revenue, since it is a key variable used to calculate both production taxes and royalties. It is also a factor in determining future pipeline tariff rates, which impact the wellhead value on which both taxes and royalties are calculated. Future production also influences the economic life of the infrastructure, which is a factor in property tax assessments.

Geographic Impact

Production from different geographic areas has different implications for petroleum revenue. Oil produced within state boundaries is subject to state taxes, but oil produced beyond 3 nautical miles offshore is not. The state collects 100% of the royalties on state-owned lands while royalties from oil produced on federal lands are shared with the state. For royalties from oil produced on private lands, the state does not collect a share of royalty directly, but instead assesses a tax on the private landowner royalty interest as part of the production tax.

Offshore leases 3 to 6 nautical miles from shore are federal leases, under which the state is entitled to 27% of the amount the federal government collects in bonuses, rents, and royalties. The authority for this revenue sharing is the federal Outer Continental Shelf Lands Act, Section 8(g). This 3-nautical mile band is referred to as the "8(g) zone." The state does not receive a share of royalties from offshore leases beyond 6 nautical miles from shore.

The state is entitled to 50% of the bonuses, rents, and royalties that the federal government receives from the leasing of lands in the NPR-A. The federal government dictates that shared NPR-A revenue must be used for specific purposes, and therefore it is considered restricted revenue in this forecast.

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Oil Price and Transportation[1] Costs

FY 2019 actuals and FY 2020 – FY 2029 forecast

	Nominal Dollars per Barrel										
	History	Forecast									
Fiscal Year	2019	2020[2]	2021	2022	2023	2024	2025	2026	2027	2028	2029
ANS West Coast	**69.46**	**63.54**	**59.00**	**61.00**	**62.00**	**63.00**	**65.00**	**66.00**	**68.00**	**69.00**	**71.00**
Marine Costs	3.06	3.40	3.52	3.37	3.41	3.45	3.49	3.53	3.58	3.62	3.67
TAPS Tariff	4.49	5.24	5.83	6.34	6.69	6.53	6.36	6.47	6.59	6.62	6.74
Feeder Tariff	0.57	0.60	0.61	0.65	0.68	0.69	0.67	0.67	0.67	0.66	0.66
Quality Bank	-0.29	-0.31	-0.31	-0.32	-0.32	-0.33	-0.34	-0.34	-0.35	-0.36	-0.37
Other[3]	0.19	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Netback Costs Total	**8.02**	**9.06**	**9.78**	**10.17**	**10.59**	**10.46**	**10.31**	**10.45**	**10.62**	**10.68**	**10.83**
ANS Weighted Average All Destinations	**61.44**	**54.48**	**49.22**	**50.83**	**51.41**	**52.54**	**54.69**	**55.55**	**57.38**	**58.32**	**60.17**

[1] Field-specific transportation costs represent the average cost for all barrels, whether or not they incur a specific expense. For example, feeder costs represent the average cost for all barrels, including Prudhoe Bay production not using a feeder pipeline. Slope-wide costs are estimated based on reported relevant cost information.

[2] FY 2020 values include a combination of actual and forecast data for ANS price and transportation costs.

[3] This category primarily includes tanker and pipeline losses.

Forecast Methods

The oil production forecast is developed internally by the state. The Alaska Department of Natural Resources produces the forecast with assistance from the Department of Revenue. A presentation of key elements of the production forecast process can be found in Table 4-6.

The oil production forecast consists of oil volumes produced from three categories:

- Currently Producing (CP) – Oil wells and pools that are currently in production. This category includes production from wells that are already in service prior to the start date of the forecast.
- Under Development (UD) – New wells and pools that are planned, funded, and have partner alignment. Typically, production is expected in the first 12 months of the forecast period.
- Under Evaluation (UE) – New wells and pools that are expected to begin production in years two through 10 of the forecast period, and may not yet have final funding decisions or partner alignment.

The production forecast is focused specifically on oil production because that provides the majority of the state's revenue. The Department of Revenue uses a basic estimate of gas production for internal modeling purposes, based on current production volumes plus expected new fields.

Currently Producing Volumes

CP volumes are forecast at the pool-level using decline-curve analysis. Technical experts from the Department of Natural Resources utilize data from the Alaska Oil and Gas Conservation Commission to develop a time series dataset to assess the future production profile of fields that are already in production. This data is provided by the producers and includes information on reservoir characteristics, oil flow rates, gas/oil ratios, and water cuts. Using these data and decline-curve analyses, an expectation for future production is developed for each producing pool. Planned downtime is factored in for known facilities maintenance and summer turnaround work, and anticipated responses are incorporated into future production. This forecast category also incorporates the expected decline rate for each oil pool.

Production from CP areas is the least-speculative category in the production forecast, as production comes from developed reserves with known production characteristics, infrastructure, and constraints.

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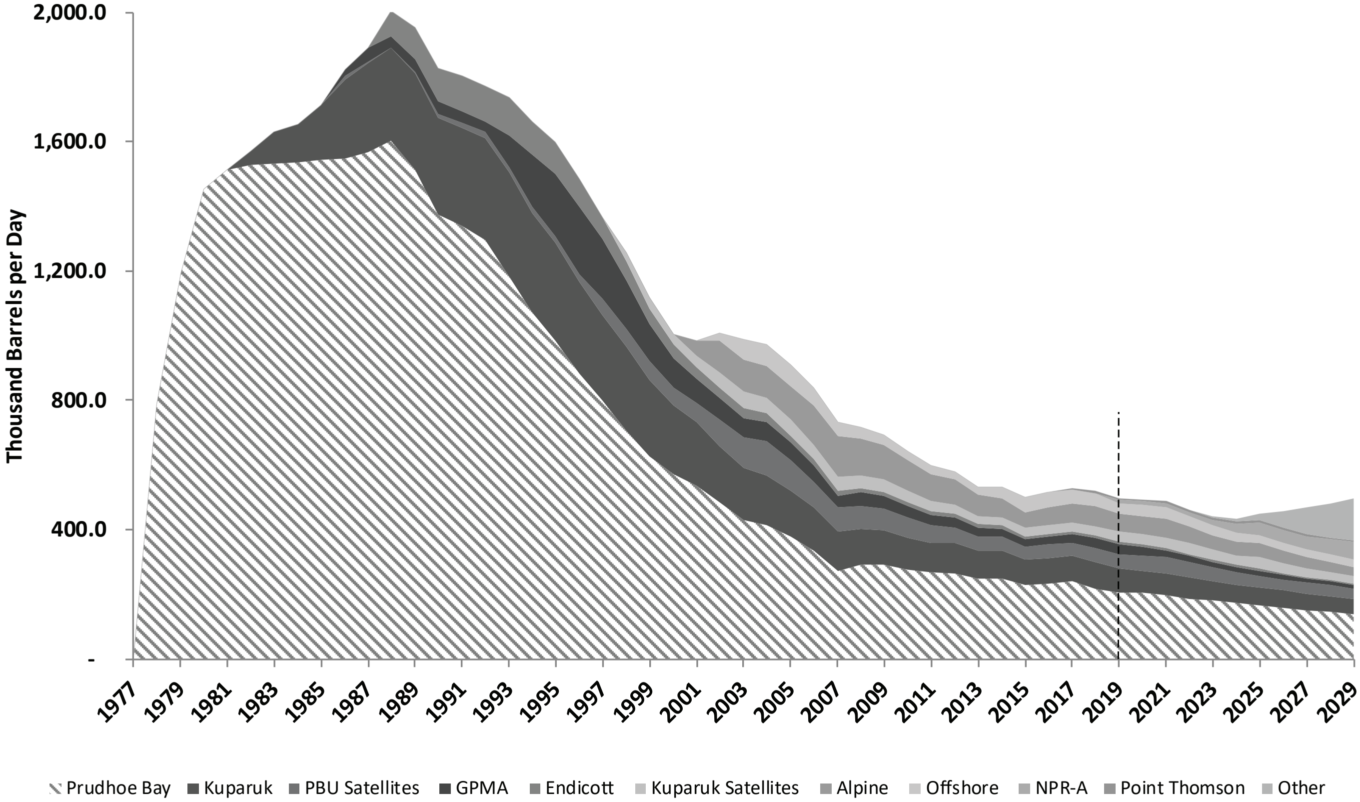
Alaska North Slope Production

By production area, FY 1977 to FY 2029



Under Development Volumes

UD volumes are forecasted using planned field development activities presented by the operator in the Plan of Development (POD) for each pool. Production from planned infill wells is determined using the well performance from historical analogue wells. When a project has funding, approval, and a drilling plan, but is not yet developed, the volumes from that project are categorized as UD if production is expected to begin in the first year of the forecast period. If a project does not have these qualifiers, the expected future volumes from it are not considered in the UD category.

Volumes in the UD category may include production from infill drilling within existing units and other activities that lead to incremental oil production within the next 12 months. New pools or areas of production expected to be in production within the next 12 months also fall within this category.

Because all oil in this category requires some level of capital investment and the use of equipment, there is potential for each of these projects to be delayed or abandoned. The actual performance of each project is also uncertain. Therefore, some consideration must be given to the associated risk, or else the forecast is prone to be overly optimistic. In the best-case scenario, all projects would come in on-time, on-budget, and on-target. The forecast incorporates an occurrence risk factor for each individual project.

Under Evaluation Volumes

UE volumes are forecast using development concepts and plans presented by operators, as well as production performance and expected ranges developed from analogue wells. Volumes in the UE category are from projects likely to start producing oil in the second through 10th year of the forecast period. Most of the oil in this category is from discovered but currently undeveloped oil accumulations, though conceptually, the category could also include future infill drilling and other activities that lead to incremental oil production from existing fields. Projects may still have hurdles to overcome in relation to funding, Working Interest Owners' sanctioning, regulatory approval, cash flow schedules, or drilling plans. Accordingly, a project-specific risk factor is applied for each individual project.

Because all oil in this category requires capital investment and the use of equipment, there is potential for each of these projects to be delayed or abandoned. The actual performance of each project is also uncertain, as typically there is insufficient production data or other data. Therefore, as with the UD category, consideration must be given to the associated uncertainty, or else the forecast is prone to be overly optimistic. Based on the forecast team's historical observations and technical judgment, the UE forecast category incorporates projects' individual risk of occurrence within the 10-year forecast window, along with statistical uncertainty ranges relating to the date of first production and potential production rates over time.

Production Forecast

Many of the projects reflected in the production forecast are still subject to uncertainty and final investment decisions. Some projects are marginally economic in the current environment and such projects are contingent on realization of lower costs, higher oil prices, or fiscal certainty. Depending on how these factors play out over time, combined with uncertainty about reservoir performance for new fields, future production could be substantially higher or lower than what is shown in the forecast. Thus in addition to the base case production forecast, a range is provided for potential production possibilities to reflect future uncertainty. The high case can be interpreted as values close to the highest production level that could reasonably be expected to occur, and the low case refers to the values close to the lowest production that could reasonably be expected to occur. The official forecast, or "mean," is a likely production path within this range, but actual production can and will be either higher or lower than this forecast.

This *Revenue Sources Book* includes an assumption that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in an ongoing large-scale enhanced oil recovery project. These NGLs are excluded from production forecasts reported in this publication, impacting comparisons to the Spring 2019 forecast which did not include this assumption. These estimated NGL shipments are excluded from Department of Revenue figures because they are not considered produced barrels for tax purposes. The reason for this exclusion is so that production is only counted once, as the relevant barrels will ultimately be produced from the Kuparuk reservoir in the future and taxed at that time. This treatment is consistent with how the department presented previous NGL shipments which had been suspended in 2014 and were not included in historical production volumes. Beginning in September 2018, NGL shipments resumed and these NGLs are again excluded from actual and forecast production volumes. Note that for royalty purposes the NGLs are subject to royalty and are considered produced barrels as reported by the Alaska Oil and Gas Conservation Commission (AOGCC) and forecasted by the Department of Natural Resources (DNR); this provision is incorporated into revenue forecast modeling.

Values for the forecasts can be found in Table 4-7. Figure 4-C shows historical ANS production by major area with expected production from those areas over the coming 10 years. Additional production forecast detail can be found in Appendix C.

Production Tax Revenue Forecast

In broad terms, future revenue from production tax is a function of the forecasts of the various components. The netback components, as shown in Table 4-5, are deducted from the West Coast destination price to determine an ANS wellhead price, which is multiplied by the projected volume to calculate a gross value at the point of production. Allowable lease expenditures are deducted from the gross value to calculate a net value to which the production tax is applied and adjusted for anticipated credits. The forecast of production tax revenue also accounts for various nuances and provisions of the tax code, including the gross minimum tax floor, GVR, company-specific differences in investment and field ownership, impacts of gas production, and non-North Slope activity.

For the North Slope, in lower price environments, companies are able to use sliding scale Per-Taxable-Barrel Credits for non-GVR oil to reduce tax liability down to the minimum tax of 4% of gross value. Depending on their specific tax situation, some companies may choose to forgo sliding scale Per-Taxable-Barrel Credits and instead reduce liability below the minimum tax using Per-Taxable-Barrel Credits for GVR-eligible oil, and any small-producer credits or carried forward annual loss that may be available.

For Cook Inlet, production tax is limited to $1 per barrel of oil. Gas limitations vary by field but average 17.7 cents per 1,000 cubic feet of gas. Cook Inlet taxes make a relatively small contribution to the revenue forecast.

These revenue estimates account for tax credits applied against tax liabilities that reduce the tax payments made to the state. Revenue estimates do not include the impact of tax credits purchased by

Chapter 4

6 Production Forecast, Key Elements

An overview

Element	Method
Forecaster	Department of Natural Resources' Resource Evaluation and Commercial Teams in collaboration with Department of Revenue staff.
Time Horizon of Forecast	A 10-year oil production forecast for DOR's *Revenue Sources Book* 10-year revenue forecast, and a 20-year forecast for DOR's internal planning purposes.
Modeling Method	Probabilistic forecast is likely value taken from a range of possible outcomes consistent with industry best practice.
Alternative Production Cases	Probabilistic modeling produces a high case that can be interpreted as the highest production level that could reasonably be expected to occur, and a low case that can be interpreted as the least production that could reasonably be expected to occur.
Currently Producing Method	Pool-level decline curve analysis.
Under Development Method	Based on planned field development activities presented by the operator in the Unit Plan of Development (POD) for each pool, generally for projects starting in next 12 months. Risk factors incorporated into production model.
Under Evaluation Method	Based on planned field development activities, and informed by operator forecasts, generally for projects starting in one to 10 years. Risk factors incorporated into production model.
Risking	Adjustments for various types of risk are incorporated into the production model. An additional risk factor is individually applied for each new field starting in the two- to 10-year window.
Spring Forecast Update	Pool by pool ground-up forecast based on new production data and operator plans.

the state from companies without a tax liability. Those additional tax credits are discussed in Chapter 8.

Hazardous Release Surcharge

Up to $0.05 per barrel of taxable oil is collected and customarily appropriated to the Oil and Hazardous Substance Release Prevention and Response Fund (often simply called the Response Fund). This revenue is reported as unrestricted revenue and collected as part of the production tax.

The Response Fund was created in 1986 and is intended to be a source of funds that can be drawn upon in the event of the release of a hazardous substance to be used for the abatement of damages. The fund is separated into two accounts – a response account and a prevention account. The surcharge paid to the response account is $0.01 per taxable barrel of oil produced in the state and applies when the response account has a balance of under $50 million. The surcharge paid to the prevention account is $0.04 per taxable barrel of oil produced in the state regardless of the current account balance. The forecast assumes that the full $0.05 per barrel surcharge will be in place for the entire forecast period.

Royalties

A royalty interest is an ownership of future production, and is a typical feature in oil and gas contracts with a landowner. When a company bids on a lease, it pays an up-front bonus payment, agrees to an annual rental payment, and typically offers a royalty interest in any discoveries that may be found. Thus, the bonus is a guaranteed payment to the state as the landowner, while the royalty is a contingent amount only paid once there is production.

In Alaska, the state retains ownership of all subsurface minerals on state lands and requires a minimum royalty rate of one-eighth (12.5%) of any production, although

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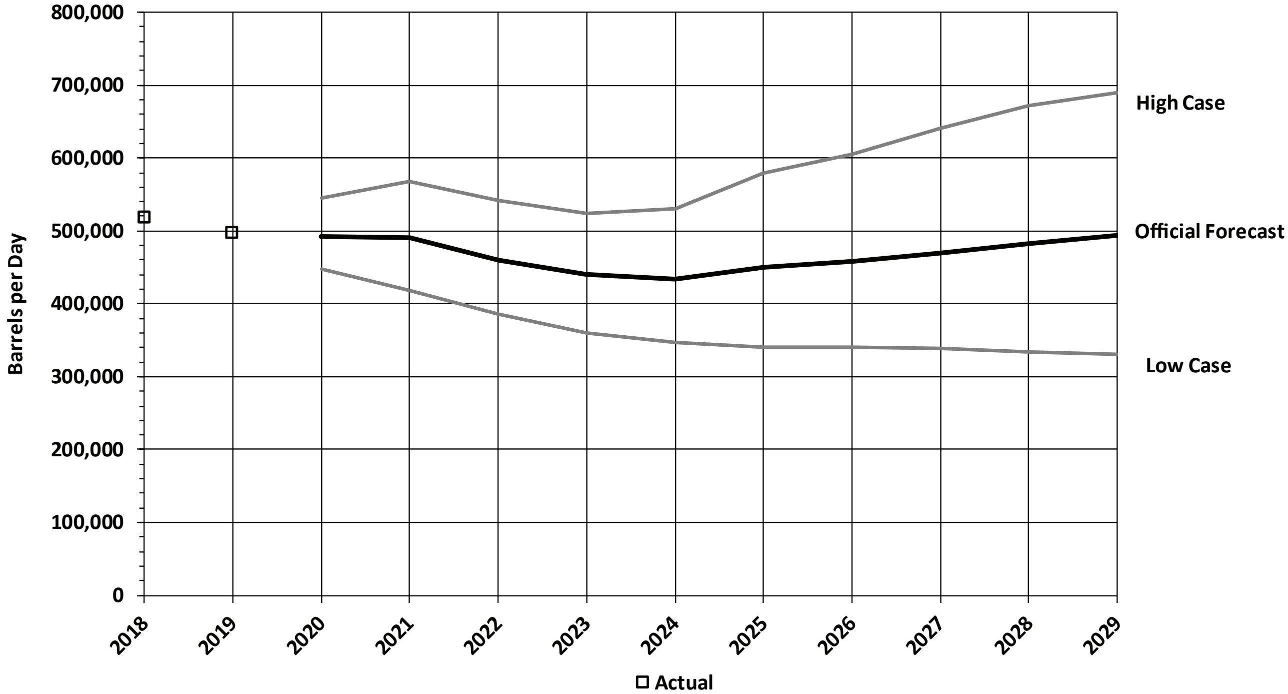
Alaska North Slope Petroleum Production Forecast [1]

FY 2018 to FY 2029



[1] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this figure. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

there are exceptions that can be made for economically challenged projects. In other U.S. oil producing areas, private citizens usually own these subsurface rights and the royalty is paid directly to the landowner, rather than the government. Occasionally, a company may enter into a net profits sharing lease, which contains a payment to the state based on a proxy of the net profits associated with the production of oil and gas from said lease, which is in addition to the royalty payment based on the gross value of the oil and gas. These profit-sharing lease bids reached as high as 93.2 % of company profits attributable to the specific lease, after the company's development costs are recovered. Most leases in Alaska are one-eighth (12.5%) or one-sixth (16.67%) royalty.

Alaska has the option of allowing the company to sell the royalty oil on its behalf (known as royalty in-value, or RIV) or to receive and sell the royalty oil itself (known as royalty in-kind, or RIK). The value the state accepts for RIK cannot be lower than the value it would receive for RIV. The state currently takes a portion of royalty as RIK and sells this oil to in-state refineries.

Most RIV oil comes from leases affected by royalty settlement agreements (RSAs), and the price received for that oil is a derived price based on the value of oil sold on the West Coast with certain adjustments. Deductions approximating the shipment of the oil on pipelines and a location adjustment are subtracted in order to determine the value of the oil for royalty purposes (called the wellhead value). An allowance for field costs is also applied for production from certain leases. As a result of the field costs allowance, as well as differences in statutes and regulations, the wellhead value for royalty purposes may be slightly different than the wellhead value for production tax purposes. A portion of RIV oil comes from leases not affected by RSAs. While the formulas used to determine value for this oil are similar to the formulas used in the RSAs, they are not necessarily the same.

Petroleum Property Tax

Property subject to state oil and gas property tax includes property used in the exploration, production, and pipeline transportation of unrefined oil and gas. Each year, the Department of Revenue determines the assessed value of taxable oil and gas property as of

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Alaska North Slope Oil Production [1]

By category, FY 2020 – FY 2029 forecast

	Barrels per Day									
	Forecast									
Fiscal Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Low Case	**447,952**	**418,438**	**386,290**	**360,519**	**346,952**	**340,425**	**339,979**	**338,891**	**334,639**	**330,107**
Percent Change from Prior Year	-10%	-7%	-8%	-7%	-4%	-2%	0%	0%	-1%	-1%
Official Forecast	**492,063**	**490,466**	**460,083**	**439,689**	**434,333**	**449,993**	**458,860**	**468,918**	**482,519**	**494,529**
Percent Change from Prior Year	-1%	0%	-6%	-4%	-1%	4%	2%	2%	3%	2%
High Case	**544,771**	**568,159**	**541,888**	**524,700**	**530,157**	**578,929**	**606,008**	**641,700**	**671,860**	**689,814**
Percent Change from Prior Year	10%	4%	-5%	-3%	1%	9%	5%	6%	5%	3%
Production from GVR-Eligible Fields under Official Forecast	42,512	51,170	46,967	38,434	44,011	69,255	96,637	123,461	146,936	150,077
Percent from GVR-Eligible Fields under Official Forecast	9%	10%	10%	9%	10%	15%	21%	26%	30%	30%

Note: GVR is an acronym for Gross Value Reduction.

[1] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

the January 1 assessment date. The state levies a tax at a rate of 20 mills (2%) of the assessed value. When the oil and gas property is located within the jurisdiction of a municipality, the municipality may also levy a tax on the department's assessments at the same rate it taxes all other non-oil and gas property. The tax paid to a municipality on oil and gas property acts as a credit toward the payment to the state. The North Slope Borough is the primary recipient of municipal petroleum property tax.

Forecasting state revenue from oil and gas property tax starts with the most recent certified assessed values for oil and gas property in Alaska. Assumptions are made regarding future capital investment and typical depreciation curves are applied. The state rate of 20 mills is applied to the forecast values, and estimates of payments to municipalities are then subtracted to estimate net receipts to the state. Table 4-8 shows the state share and local share of oil and gas property tax by jurisdiction.

Corporate Income Tax

C-corporations doing business in Alaska are subject to the corporate income tax (CIT). This tax applies to many, but not all, of the companies involved in oil and gas activity in Alaska.

For eligible companies, 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 income to Alaska, based on the average of three factors as they pertain to the corporation's Alaska operations – tariffs and sales, oil and gas production, and property. CIT revenue is one of the more volatile revenue sources for Alaska because of the year-to-year variation in the profitability of oil companies as well as the substantial lag time between estimated tax payments and the final annual true-up.

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Petroleum Property Tax[1]

Distribution and local mill rates, FY 2019

	Millions of Dollars			
Taxing Jurisdiction	Gross Tax	Local Share	State Share	Local Effective Mill Rate
Unorganized	62.2	0.0	62.2	N/A
North Slope Borough	419.5	377.4	42.2	17.99
Fairbanks North Star Borough	14.3	12.2	2.2	16.99[2]
Municipality of Anchorage	2.8	2.3	0.5	16.36
Kenai Peninsula Borough	31.3	15.5	15.8	9.90[2]
City of Valdez	39.0	39.0	0.0	20.00
Matanuska-Susitna Borough	0.2	0.1	0.1	11.92[2]
City of Whittier	0.0	0.0	0.0	8.00
City of Cordova	0.2	0.1	0.1	11.81
Total FY 2019	**569.5**	**446.6**	**123.0**	

[1] Tax amounts shown here represent the total certified tax roll for the 2019 tax year, due June 30, 2019. These amounts may not exactly match cash revenue received in the fiscal year as presented elsewhere in this book due to a combination of credits and late payments. Gross Tax is total tax paid to both the local government and the State of Alaska. The Local Share and State Share columns represent revenue primarily received in June 2019.

[2] The Fairbanks North Star Borough, Kenai Peninsula Borough, and Matanuska-Susitna Borough do not have a uniform mill rate for petroleum properties. The rate presented here is the weighted-average effective mill rate based on the 2019 certified tax roll.

Restricted Petroleum Revenue

While most oil and gas revenue is unrestricted, some revenue is deposited into special accounts for special purposes.

Restricted Royalties

The majority of restricted oil and gas revenue comes from royalties.

A portion of royalty revenue is deposited into the Permanent Fund, and the Public School Trust Fund. The Alaska Constitution requires that 25% of royalty revenue be deposited into the Permanent Fund. Alaska Statute 37.13.010(a) refers to 50% of royalty revenue from mineral leases issued after December 1, 1979 being deposited into the Permanent Fund. This additional amount is subject to appropriation, but is shown as restricted in this forecast. Additionally, AS 37.14.150 specified that 0.5% of royalty revenue be deposited into the Public School Trust Fund. Unless otherwise provided in budget legislation, this forecast assumes that the full statutory appropriation of minerals royalties will be deposited into the Permanent Fund.

NPR-A Fund

The state is entitled to 50% of the bonuses, rents, and royalties that the federal government receives from the leasing of federal lands in the NPR-A. This revenue is deposited into the NPR-A special revenue fund and restricted for specific uses. These funds can be appropriated to municipalities in the form of grants to compensate for impacts resulting from the development on those lands.

Revenue that is not appropriated to municipalities is treated like other royalty revenue (25% is deposited into the Permanent Fund, and 0.5% to the Public School Trust Fund), with the remaining revenue available for appropriation to the Power Cost Equalization Fund, Rural Electric Capitalization Fund or general fund. For purposes of categorization, these funds are considered federal restricted revenue within the category of petroleum revenue, as they are collected from oil activity.

Settlements to CBRF

Payments received from settlements of tax and royalty disputes between the state and producers are deposited into the CBRF, after accounting for any applicable share of royalty settlements deposited into the Permanent Fund and Public School Trust Fund.

Chapter 5
Non-Petroleum Revenue

Introduction

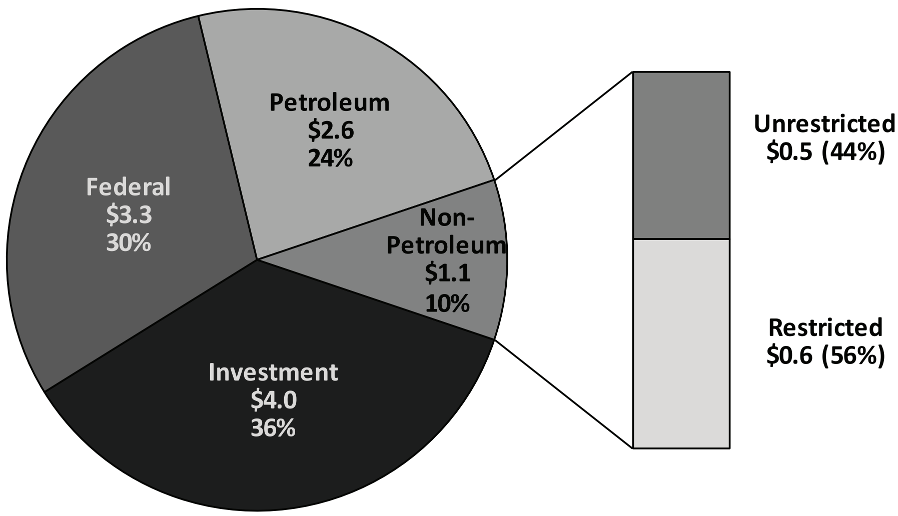
Revenue collections from in-state activities other than petroleum include non-petroleum taxes, charges for services, fines and forfeitures, licenses and permits, rents and royalties, and miscellaneous and transfer revenue sources such as dividends from public entities.

These sources are categorized as "Non-Petroleum Revenue, except federal and investment," sometimes shortened to "Non-Petroleum Revenue." (Federal and investment revenue are discussed in Chapters 6 and 7, respectively.)

The non-petroleum revenue sources are each subcategorized into unrestricted, designated general fund, and other restricted revenue in Table 5-1. Detail regarding each revenue type is reflected in Tables 5-2 through 5-7. This chapter also includes descriptions of each revenue source.

The Department of Revenue's Tax Division website and the division's annual report contain more comprehensive historical information about each type of tax the Tax Division collects. The Alaska Department of Administration's *Comprehensive Annual Financial Report* contains more detail about many non-tax revenue sources.

Chapter 5
A
FY 2019 Non-Petroleum Revenue
By restriction and type, in billions of dollars



Chapter 5
1

Total Non-Petroleum Revenue

By restriction and category

	Millions of Dollars		
	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
Unrestricted			
Unrestricted Non-Petroleum Revenue			
Taxes	346.0	356.2	350.3
Charges for Services	7.1	7.1	7.1
Fines and Forfeitures	19.0	12.8	12.8
Licenses and Permits	38.0	38.8	38.8
Rents and Royalties	5.6	5.0	5.0
Other	75.8	82.9	91.7
Total Unrestricted Non-Petroleum Revenue	**491.4**	**502.9**	**505.7**
Restricted			
Restricted Non-Petroleum Revenue			
Designated General Fund			
Taxes	141.9	146.1	147.1
Charges for Services	243.9	213.1	212.7
Fines and Forfeitures	4.6	5.1	5.0
Licenses and Permits	2.4	2.4	2.4
Rents and Royalties	20.9	18.3	18.4
Other	37.8	43.3	45.2
Subtotal Designated General Fund	**451.4**	**428.3**	**430.7**
Other Restricted			
Taxes	51.6	51.1	53.2
Charges for Services	46.6	111.9	112.2
Fines and Forfeitures	16.1	18.3	17.8
Licenses and Permits	41.1	41.0	41.2
Rents and Royalties	6.7	9.9	10.0
Other	18.1	18.1	18.1
Subtotal Other Restricted	**180.2**	**250.3**	**252.4**
Total Restricted Non-Petroleum Revenue	**631.6**	**678.6**	**683.1**
Total Non-Petroleum Revenue	**1,123.0**	**1,181.5**	**1,188.8**

Chapter 5
2

Non-Petroleum Tax Revenue

By restriction and source

	Millions of Dollars		
	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
Unrestricted			
Corporate Income Tax (Non-Petroleum)	**114.8**	**135.0**	**125.0**
Excise Tax			
Alcoholic Beverage	20.4	20.7	21.0
Tobacco Products – Cigarettes	26.5	24.4	23.5
Tobacco Products – Other	13.5	15.8	16.4
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium Tax [1]	71.9	56.7	58.5
Marijuana [2]	5.5	5.8	6.8
Motor Fuel Tax (Refined Fuel Surcharge)	6.3	6.1	6.1
Tire Fee	1.3	1.3	1.3
Subtotal Excise Tax	**145.7**	**131.2**	**133.7**
Fish Tax			
Fisheries Business	21.3	21.2	21.6
Fishery Resource Landing	6.5	5.4	5.5
Subtotal Fish Tax	**27.8**	**26.5**	**27.1**
Other Tax			
Charitable Gaming	2.6	2.6	2.7
Large Passenger Vessel Gambling	10.1	10.9	11.8
Mining License	45.1	50.0	50.0
Subtotal Other Tax	**57.7**	**63.5**	**64.5**
Total Unrestricted Non-Petroleum Tax Revenue	**346.0**	**356.2**	**350.3**
Restricted			
Designated General Fund			
Alcoholic Beverage (Alcohol and Drug Treatment and Prevention Fund)	20.4	20.7	21.0
Electric and Telephone Cooperative (Municipal Share) [3]	4.3	4.3	4.3
Fisheries Business (Municipal Share) [3]	24.1	25.0	24.1
Fishery Resource Landing (Municipal Share) [3]	6.0	6.7	7.3
Insurance Premium [1, 4]	8.0	7.1	6.4
Vehicle Rental	11.4	11.6	11.8
Marijuana (Marijuana Education and Treatment Fund) [2]	4.2	5.8	6.8
Marijuana (Recidivism Reduction Fund) [2]	9.4	11.7	13.5
Motor Fuel Tax (Non-Aviation)	34.6	34.2	33.8
Tobacco Products – Cigarettes (School Fund)	17.1	16.4	15.8
Tobacco Products – Cigarettes (Tobacco Use Education and Cessation Fund)	2.5	2.4	2.3
Subtotal Designated General Fund	**141.9**	**146.1**	**147.1**

(Table continued, next page)

Non-Petroleum Tax Revenue

By restriction and source *(Continued)*

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2019	2020	2021
Other Restricted			
Commercial Passenger Vessel Tax (State Share)	4.3	4.8	5.1
Commercial Passenger Vessel Tax (Municipal Share)	18.7	20.0	21.3
Cost Recovery Fisheries Assessment	0.0	0.0	0.0
Dive Fishery Management Assessment (designated management areas)	0.8	0.8	0.8
Motor Fuel Tax – Aviation (State Share)	4.7	4.8	4.8
Motor Fuel Tax – Aviation (Municipal Share)	0.1	0.1	0.1
Salmon Enhancement (Aquaculture Association Share)	6.6	6.7	6.9
Seafood Development (qualifying regional associations)	3.6	3.7	3.8
Seafood Marketing Assessment (seafood marketing programs)	10.0	10.3	10.5
Settlements to Constitutional Budget Reserve Fund (Non-Petroleum taxes)	2.9	0.0	0.0
Subtotal Other Restricted	**51.6**	**51.1**	**53.2**
Total Restricted Non-Petroleum Tax Revenue	**193.5**	**197.2**	**200.2**
Total Non-Petroleum Tax Revenue	**539.5**	**553.5**	**550.5**

[1] In FY 2016, House Bill 374 reclassified the previously unrestricted portion of the insurance premium tax to designated general fund revenue. Under current law, this portion of the insurance premium tax reverted to unrestricted revenue beginning in FY 2019.

[2] Fifty percent of marijuana tax revenue is deposited into the Recidivism Reduction Fund and treated as designated restricted revenue. Beginning in October 2018, an additional 25% of marijuana tax is deposited into the Marijuana Education and Treatment Fund, bringing the total designated general fund share of the marijuana tax to 75%.

[3] Beginning in FY 2019, shared taxes and fees are considered designated general fund revenue.

[4] In addition to the workers' compensation insurance premiums for the insurance premium tax, this amount also includes service fees from employers who are self-insured.

Taxes

Alcoholic Beverage 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. Beer from qualifying small breweries is taxed at a rate of \$0.35 per gallon.

Revenue from the alcoholic beverage tax is deposited into Alaska's general fund. Half of that amount is deposited in a subfund of the general fund, the Alcohol and Other Drug Abuse Treatment and Prevention Fund, and is treated as restricted in this forecast. The other half is treated as unrestricted in this forecast.

Charitable Gaming

Under Alaska law, municipalities and qualified non-profit organizations may conduct specific charitable legal gaming activities 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. While all charitable gaming receipts are shown as unrestricted revenue in this forecast, a portion is actually classified as program receipts in the budget, as the Tax Division is responsible for regulating charitable gaming in the state.

Commercial Passenger Vessel Taxes

The commercial passenger vessel (CPV) tax is a tax of \$34.50 on each passenger aboard a commercial passenger vessel with 250 or more berths that spends more than 72 hours in Alaska waters over the course of one voyage.

Five dollars of the tax can be appropriated to each of the first seven ports of call. Further, if a commercial passenger vessel visits a port that levies a tax similar to the CPV tax 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 (Juneau's fee is $8 per passenger and Ketchikan's is $7).

All funds received from the CPV tax must be spent on port facilities, harbor infrastructure, and other services provided to commercial passenger vessels and the passengers on board those vessels. All revenue from the tax is considered restricted and is deposited into a subfund of the general fund, the CPV tax account.

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.

Corporate Income Tax

Alaska levies the corporate income tax on corporations doing business in the state. Corporate tax rates are graduated, with a maximum rate of 9.4% applying to Alaska taxable income above $222,000.

S-corporations and limited liability corporations (LLCs) that file federally as partnerships are generally exempt from corporate income tax.

A non-oil and gas corporation computes its tax liability based on the federal taxable income of its water's edge combined report, with Alaska adjustments. U.S. income is apportioned to Alaska based on three factors – sales, property, and payroll. Alaska taxable income is determined by applying the apportionment factor to the corporation's modified federal taxable income.

Corporate income tax for oil and gas corporations is calculated differently and reported separately in Chapter 4.

Electric 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 designated general fund 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 of Alaska and treated as unrestricted revenue.

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 unprocessed fishery resource.

Tax rates vary from 1% to 5%, depending on whether a fish species is classified as "established" or "developing" in the geographic area where it was caught and whether it was processed by a shore-based processor, a floating processor, or a salmon cannery.

Revenue from the tax is deposited in the general fund. Half of that revenue (before credits) is shared with qualified municipalities and is treated as designated general fund revenue. The remainder (after credits) is treated as unrestricted revenue.

Tax credits for the fisheries business tax, including the Salmon and Herring Product Development Credit, apply only to the state portion of the tax.

Fishery Resource Landing Tax

The fishery resource landing tax is levied on fishery resources processed outside Alaska, but first landed in Alaska. Tax liability is based on the unprocessed statewide average price of each fish species. The tax is collected primarily from factory trawlers and floating processors that process fishery resources outside the state's 3-nautical mile limit and bring their products into Alaska for shipment.

The tax rates vary from 1% to 3%, based on whether the species is classified as "established" or "developing." All revenue derived from the tax is deposited in the general fund.

Half of the revenue (before credits) is shared with qualified municipalities, and is treated as designated general fund revenue. As with the fisheries business tax, most tax credits apply only to the state share. The exception is the Community Development Quota Credit, which applies only to the municipal share. The remaining revenue after credits and municipal share is treated as unrestricted revenue.

Insurance Premium Tax

Insurance companies in Alaska pay an insurance premium tax instead of corporate income tax or other taxes. The tax is levied as a percentage of the total insurance premiums for policies in the state.

Revenues from insurance premium taxes on workers' 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.

Prior to FY 2017, non-workers' compensation insurance premium taxes were considered unrestricted revenue. For FY 2017 and FY 2018, non-workers' compensation insurance premium taxes were deposited into a subfund of the general fund, the Alaska Comprehensive Health Insurance Fund, and were reflected as restricted in this forecast. However, beginning in FY 2019, these funds reverted to unrestricted revenue and are reflected as such in this forecast.

Marijuana Tax

The marijuana tax rate is $50 per ounce on marijuana bud/flower, $25 per ounce on immature, seedy, or failed bud/flower, and $15 per ounce on other parts of the plant ("trim"). The tax is paid by marijuana cultivators and is due the month after the sale of the product to a retail marijuana store or marijuana product manufacturing facility.

Fifty percent of the revenue from the marijuana tax is deposited into a subfund of the general fund, the Recidivism Reduction Fund, and is treated as restricted for purposes of this forecast. Beginning in October 2018, 25% of marijuana tax revenue is deposited into the Marijuana Education and Treatment Fund and is also treated as restricted for purposes of this forecast. The remaining 25% of marijuana tax revenue is considered unrestricted revenue.

Mining License Tax

The mining license tax is Alaska's severance tax on mining. The tax is based on mining net income and ranges from 0% to 7% of the net income of mining operations in the state, with the top tax rate applying to mining net income above $100,000. Several exemptions apply, including a 3½-year exemption period after production begins for new mining, and an exemption for sand and gravel operations. Also, small mining operations are provided with a tax benefit in that no tax is due when mining income is less than $40,000.

Motor Fuel Tax

The motor fuel tax is imposed on motor fuel sold, transferred, or used within Alaska. Motor fuel taxes are primarily collected from wholesalers and distributors licensed as qualified dealers.

Various fuel uses are exempt from tax, including fuel used for heating or international flights.

Per-gallon rates are $0.08 for highway use, $0.05 for marine fuel, $0.047 for aviation gasoline, $0.032 for jet fuel, and $0.08 or $0.02 for gasohol, depending on the season, location, and U.S. Environmental Protection Agency mandate.

The federal government requires that all aviation fuel tax revenue be used in direct support of the airports where the revenue is generated. As a result, both aviation gasoline and jet fuel revenue are shown as other restricted revenue. This includes the 60% of revenue attributable to aviation fuel sales at municipal airports that is shared with the respective municipalities.

Remaining motor fuel tax revenue is considered designated in the budget process, as AS 43.40.010 designates motor fuel taxes for specific infrastructure maintenance accounts.

The motor fuel tax includes an additional refined fuel surcharge of $0.0095 per gallon on non-aviation fuel as well as certain non-motor fuels such as home heating oil. Municipalities and certain cooperatives are exempt from the surcharge. While the surcharge is shown as unrestricted revenue in this forecast, it is intended to support the Alaska Department of Environmental Conservation's Spill Prevention and Response Division.

Seafood Assessments and Taxes

The department administers five different programs that collect funds 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 (ASMI), or by the department. 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. This assessment supports the operations of the ASMI.
- 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 common property fishery assessment, which allows hatcheries to establish a cost-recovery fishery and recoup costs through an assessment on fishery resources taken in the terminal harvest area.

The revenue received under these five assessments and taxes is deposited in the general fund and is treated as other restricted revenue in this forecast. It is set aside for appropriation for the benefit of the seafood industry, either in marketing, or for management and development of the industry.

Tire Fee

The tire fee has two components. The first component is a fee 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. Heavy studs are defined as being made of metal and weighing more than 1.1 grams each.

Tires sold to federal, state, or local government agencies for official use are exempt from the fee, as well as certain tires with lightweight studs.

Tobacco Tax

Alaska levies a tax on cigarettes and other tobacco products. The cigarette tax is levied on cigarettes imported into the state for sale or personal consumption. The other tobacco products tax is levied on tobacco products (other than cigarettes) imported into the state for sale.

The tax rate on cigarettes is $2.00 per pack. Of that, $0.76 per pack is deposited into the School Fund, and is considered designated restricted revenue. Money deposited into the School Fund is to be used for the rehabilitation, construction, repair, and associated insurance costs of state school facilities. Cigarette and tobacco products license fees are also deposited into the School Fund and considered designated restrictive revenue as well.

The remainder of the cigarette tax revenue ($1.24 per pack) is deposited into the general fund. Of that, 8.9% ($0.11 per pack) is deposited into a subfund of the general fund, the Tobacco Use Education and Cessation Fund, and is treated as designated restricted revenue.

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. It is unrestricted revenue.

Certain cigarettes and tobacco are exempted from the tax – those that are transported into the state by an individual for personal consumption, imported or acquired by one of the U.S. uniformed services, or imported or acquired by federally recognized Indian tribes. More specifically, sales that are not subject to the tax are sales to authorized military personnel by a military exchange, commissary, or ship store, and sales by an Indian reservation business located within an Indian reservation to members of the reservation.

Electronic cigarettes and "vaping" products are not subject to Alaska tobacco taxes under current statute.

Vehicle Rental Tax

The vehicle rental tax is a 10% tax on most passenger vehicle rentals of 90 days or less, and a 3% tax on recreational vehicle rentals of 90 days or less.

Exemptions include taxis, rentals to government agencies, and trucks used for transporting personal property.

Revenue from the vehicle rental tax is deposited into a vehicle rental tax subaccount within the general fund. The Alaska Legislature may appropriate the balance of that account for tourism

Chapter 5

3 Charges for Services Revenue

By restriction and source

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2019	2020	2021
Unrestricted			
Unrestricted Revenue from Charges for Services	**7.1**	**7.1**	**7.1**
Restricted			
Designated General Fund			
Department of Commerce, Community, and Economic Development Business Licenses	10.0	10.0	9.6
General Government – General Fund Subfunds	7.8	7.8	7.8
Marine Highway Receipts	49.7	30.0	30.0
Commercial Fisheries Entry Commission	6.9	6.9	6.9
Oil and Gas Conservation	7.1	7.7	7.7
Regulatory Commission of Alaska Receipts	10.8	11.5	11.5
Receipt Supported Services	150.6	138.2	138.2
Timber Sale Receipts	1.0	1.0	1.0
Subtotal Designated General Fund	**243.9**	**213.1**	**212.7**
Other Restricted			
Environmental Compliance Fees	1.3	1.3	1.4
General Government – Special Revenue Funds	0.6	0.6	0.6
Ocean Ranger Fees	4.2	5.0	5.2
Statutorily Designated	40.5	105.0	105.0
Subtotal Other Restricted	**46.6**	**111.9**	**112.2**
Total Restricted Revenue from Charges for Services	**290.5**	**325.0**	**324.9**
Total Revenue from Charges for Services	**297.6**	**332.1**	**332.0**

development and marketing. In this forecast, the revenue is shown as restricted revenue, in the designated general fund category.

Charges for Services

Charges for services include 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 services 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 collected. The only unrestricted revenue listed in this category comes 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 the department has grouped into the broad category, "general government."

Marine Highway Fund

The Alaska Marine Highway Fund is a subfund of the general fund and receives revenue from state ferry system operations. Because revenue is customarily appropriated for Alaska Marine Highway operations, it is considered restricted revenue for this forecast.

Chapter 5

4

Fines and Forfeitures Revenue

By restriction and source

Fiscal Year	History 2019	Forecast 2020	Forecast 2021
	Millions of Dollars		
Unrestricted			
Unrestricted Revenue from Fines and Forfeitures	**19.0**	**12.8**	**12.8**
Restricted			
Designated General Fund			
Tobacco Settlement (Tobacco Use Education and Cessation Fund)	4.0	4.5	4.4
Other – General Fund Subfunds	0.6	0.6	0.6
Subtotal Designated General Fund	**4.6**	**5.1**	**5.0**
Other Restricted			
Tobacco Settlement (Northern Tobacco Securitization Corporation)	15.8	18.0	17.5
Other – Special Revenue Funds	0.3	0.3	0.3
Subtotal Other Restricted	**16.1**	**18.3**	**17.8**
Total Restricted Revenue from Fines and Forfeitures	**20.7**	**23.4**	**22.8**
Total Revenue from Fines and Forfeitures	**39.7**	**36.2**	**35.6**

Environmental Compliance Fund

Commercial passenger vessel fees paid into the Environmental Compliance Fund come from two sources – Ocean Ranger Program 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.

The Ocean Ranger Program fee is levied on each voyage in Alaska by commercial passenger vessels with 250 or more berths at a rate of $4 per berth. This fee was imposed as part of a broader commercial passenger vessel-related initiative passed by Alaska voters in August 2006.

Environmental compliance fees are levied on commercial passenger vessels with more than 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. Both Ocean Ranger Program fees and environmental compliance fees are reflected as other restricted revenue to conform with budget documents.

Program Receipts

Under AS 37.05.142 - 37.05.146, receipts from authorized state programs are accounted for separately and appropriated to administer and implement laws related to the particular program, or to 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.

Program receipts listed in this section are:

- Receipt-supported services, which include state services such as Alaska Pioneer Homes and occupational licensing funded by program receipts.
- 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.

Chapter 5

5

Licenses and Permits Revenue

By restriction and source

	Millions of Dollars		
	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
Unrestricted			
Unrestricted Revenue from Licenses and Permits			
Motor Vehicles Fees	37.2	36.5	36.5
Other Fees	0.8	2.3	2.3
Total Unrestricted Revenue from Licenses and Permits	**38.0**	**38.8**	**38.8**
Restricted			
Designated General Fund			
Alcoholic Beverage License Share [1]	0.9	0.9	0.9
Other Fees – General Fund Subfunds	1.5	1.5	1.5
Subtotal Designated General Fund	**2.4**	**2.4**	**2.4**
Other Restricted			
Hunting and Fishing Fees	37.5	37.4	37.6
Other Fees – Special Revenue Funds	3.6	3.6	3.6
Subtotal Other Restricted	**41.1**	**41.0**	**41.2**
Total Restricted Revenue from Licenses and Permits	**43.4**	**43.3**	**43.6**
Total Revenue from Licenses and Permits	**81.4**	**82.1**	**82.4**

[1] Beginning with FY 2019, Alcoholic Beverage License Share is considered designated general fund revenue.

- Regulatory Commission of Alaska 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 Alaska Department of Natural Resources.
- Oil and Gas Conservation Commission receipts, which are fees and charges for regulation of oil and gas wells and pipelines.
- Business license fees, which are collected by the Alaska Department of Commerce, Community, and Economic Development.

Fines and Forfeitures

Fines and forfeitures include civil and criminal fines and forfeitures, as well as 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.

Tobacco Settlement

The tobacco Master Settlement Agreement 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, and is considered designated general fund revenue.

Tobacco settlement payments are based on a complex formula that uses several factors, including declines in cigarette consumption,inflation, and cer-

Chapter 5
6

Rents and Royalties Revenue

By restriction and source

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2019	2020	2021
Unrestricted			
Unrestricted Revenue from Rents and Royalties			
Mining Rents and Royalties	1.9	1.3	1.3
Other Non-Petroleum Rents and Royalties	3.7	3.7	3.7
Total Unrestricted Revenue from Rents and Royalties	**5.6**	**5.0**	**5.0**
Restricted			
Designated General Fund			
Mining Rents and Royalties	8.9	6.4	6.5
Other Non-Petroleum Rents and Royalties	11.9	11.9	11.9
Subtotal Designated General Fund	**20.9**	**18.3**	**18.4**
Other Restricted			
Mining Rents and Royalties	3.1	6.4	6.4
Other Non-Petroleum Rents and Royalties	3.5	3.5	3.5
Subtotal Other Restricted	**6.7**	**9.9**	**10.0**
Total Restricted Revenue from Rents and Royalties	**27.5**	**28.2**	**28.4**
Total Revenue from Rents and Royalties	**33.1**	**33.3**	**33.4**

tain 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 hunting and fishing license fees. Several other small license and permit fees are summarized in the other fees category.

Alcoholic Beverage Licenses

Alcoholic beverage licenses are required to manufacture or sell alcoholic beverages in Alaska, and are issued by the Alcoholic Beverage Control Board within the Alaska Department of Commerce, Community, and Economic Development.

All the revenue from biennial license fees collected within municipalities (excluding annual wholesale fees and biennial wholesale license fees) is shared with the municipalities and treated as designated general fund revenue for purposes of this forecast. The remaining revenue (annual wholesale fees and biennial wholesale license fees) is also treated as designated general fund revenue, as these funds are considered program receipts supporting the service of issuing alcoholic beverage licenses.

Hunting and Fishing License Fees

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

Chapter 5

7

Miscellaneous and Transfer Revenue

By restriction and source

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2019	2020	2021
Unrestricted			
Unrestricted Miscellaneous and Transfer Revenue			
Miscellaneous	37.1	25.6	25.6
Alaska Housing Finance Corporation Dividend[1]	17.4	27.0	33.6
Alaska Industrial Development and Export Authority Dividend	4.8	10.3	14.5
Alaska Municipal Bond Bank Authority Dividend	0.0	0.0	0.0
Alaska Student Loan Corporation Dividend	0.0	0.0	0.0
Alaska Energy Authority Dividend	0.0	0.0	0.0
Mental Health Trust Dividend	0.0	0.0	0.0
Unclaimed Property	16.5	20.0	18.0
Total Unrestricted Miscellaneous and Transfer Revenue	**75.8**	**82.9**	**91.7**
Restricted			
Designated General Fund			
Miscellaneous – General Fund Subfunds[2]	15.5	15.5	15.5
Alaska Capital Income Fund[3]	22.3	27.8	29.7
Subtotal Designated General Fund	**37.8**	**43.3**	**45.2**
Other Restricted			
Miscellaneous – Special Revenue Funds[2]	18.1	18.1	18.1
Total Restricted Miscellaneous and Transfer Revenue	**55.9**	**61.4**	**63.3**
Total Miscellaneous and Transfer Revenue	**131.7**	**144.3**	**155.0**

[1] The AHFC dividend for FY 2020 is an estimate as of December 5, 2019; it will be revised in the *Revenue Sources Book*'s spring 2020 update.

[2] These funds represent revenue shown under account codes for "other" or "contributions" in the Alaska State Accounting System for general fund subfunds and special revenue funds.

[3] Beginning with FY 2019, transfer revenue from the Alaska Capital Income Fund is considered designated general fund revenue.

portion of this revenue is a surcharge used for debt services for sport fish hatchery bonds, and is also considered other restricted revenue.

Motor Vehicle Registration Fees

Motor vehicle registration fees are collected by the Division of Motor Vehicles within the Alaska 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.

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 Chapter 4.

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 up-front bonuses, annual rent charges, and a retained royalty interest in mineral production.

For most mining rents and royalties, between 25% and 50% of revenue is deposited into the Alaska Permanent Fund, and 0.5% is deposited into the Public School Trust Fund. The Permanent Fund and Public School Trust Fund portions are treated as other restricted revenue.

Remaining revenue is either unrestricted or designated general fund. Examples of designated general fund mining revenues include certain fees, royalties, and material sales revenues that are designated as program receipts and used to support mining resource management.

Other Non-Petroleum Rents and Royalties

All revenue the state receives from the leasing, rental, and sale of state land is deposited into the general fund. From there, some is deposited into subfunds of the general fund and is treated as designated general fund revenue, which is restricted for purposes of this forecast. This category includes revenue from the leasing, rental, and sale of state land that does not fall into the oil and gas or mining categories.

Miscellaneous and Transfer Revenues

This category includes unclaimed property transfers to the state from component organizations, transfers from state funds, and miscellaneous revenue. Unclaimed property, transfers from component organizations, and transfers from state funds 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 over-payments, 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, and the Alaska Industrial Development and Export Authority, in the form of dividends. Component organizations are covered in more detail in Chapter 10. Because some component organizations do not make transfers to the state, not all component organizations are listed here.

Transfers from component organizations presented under this category may differ from those presented in Chapter 10 for two reasons – amounts in this section account differently for funds paid over time for multi-year capital projects, and amounts in this section include funds that are transferred to the state and then appropriated to the component unit for operations.

Transfers from State Funds

The Alaska Capital Income Fund is invested alongside the Permanent Fund, and in FY 2018, the earnings of the Alaska Capital Income Fund were transferred to the general fund for general appropriation. For FY 2019 and beyond, transferred earnings are designated for deferred maintenance purposes and are shown as designated general fund revenue.

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Chapter 6

Federal Revenue

General Discussion

Each year, the State of Alaska receives several billion dollars in federal funds, constituting a major portion of total state revenue. This federal funding is considered restricted revenue, as it is required to be used for specific purposes such as road improvements, Medicaid payments, and aid to schools.

The Alaska Legislature authorizes state agencies to receive and spend the maximum that federally funded programs might receive, while actual amounts received are historically somewhat lower. Also, some of the funding for multi-year capital projects is received and spent in years following the year that the money was procured. All federal funds, whether spent in the operating or capital budget, are limited in how they may be used; therefore, they are shown as restricted revenue.

Consistent with state budget protocol and past practice, the federal revenue forecast represents the total authorization. Actual revenue received is typically less than the forecast.

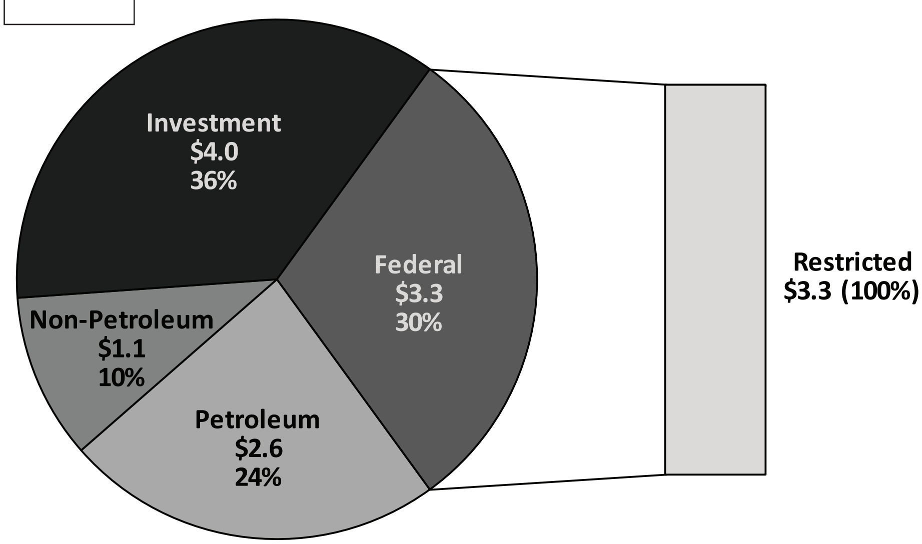
Distribution of Restricted Revenue

Federal funds support significant portions of both the operating budget and the capital budget. Typically, the Alaska Department of Health and Social Services is the largest destination for federal funds within the operating budget, and the Alaska Department of Transportation and Public Facilities is the largest destination for federal funds within the capital budget. Figure 6-B illustrates the allocation of federal funds the state was authorized to receive in the most recent fiscal year.

Chapter 6 A

FY 2019 Federal Revenue

By restriction and type, in billions of dollars

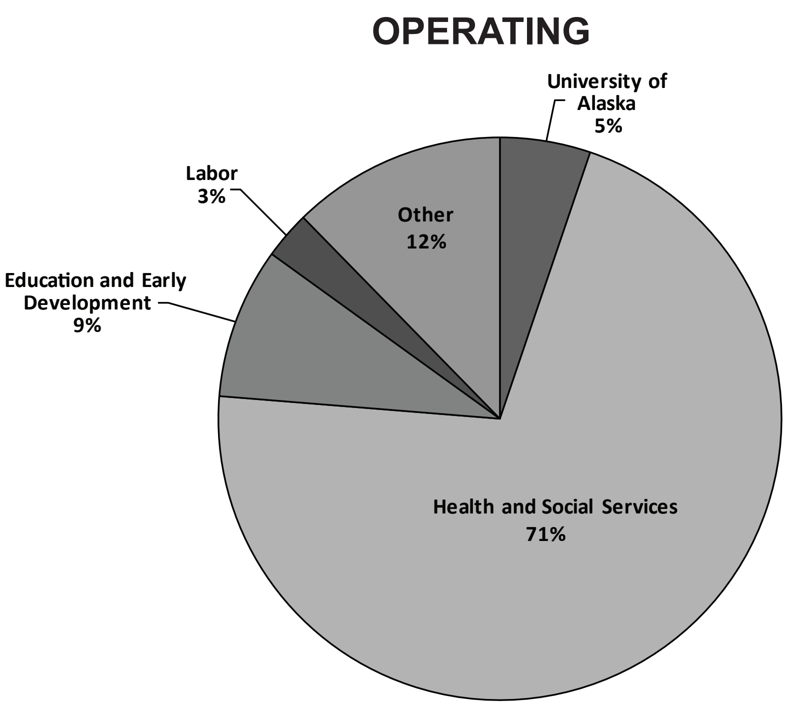


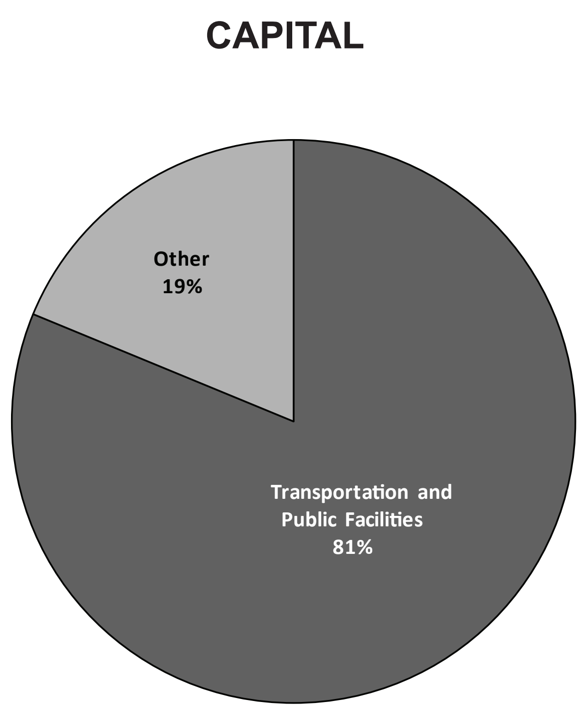
Chapter 6
1
Total Federal Revenue to the State
By restriction and type

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2019	2020	2021
Unrestricted General Fund			
Federal Receipts	0.0	0.0	0.0
Restricted (Federal)			
Federal Receipts Authorization [1]	3,311.4	3,715.9	3,715.9
Total Federal Revenue	**3,311.4**	**3,715.9**	**3,715.9**

[1] This amount includes federal receipts other than Alaska's share of the royalties from the National Petroleum Reserve – Alaska, which are presented in Chapter 2.

Chapter 6
B
FY 2019 Federal Revenue Allocation
Revenue in operating and capital budgets, by recipient agency





Chapter 7

Investment Revenue

Overview

Along with petroleum and federal revenue, investment revenue is typically one of the largest contributors to total state revenue. Table 7-1 shows investment returns for the most recent fiscal year and forecasts for the next two fiscal years. These forecasts are based on assumptions of projected returns and growth in the value of equities and other investments.

To forecast investment revenue, the Department of Revenue combines actual performance for the few months of the current fiscal year with a projection for the remainder of the fiscal year. Forecasts and capital-market median returns are based on information given in the five- to 10-year capital-market returns projection, provided by the state's investment consultant, Callan Associates, Inc.

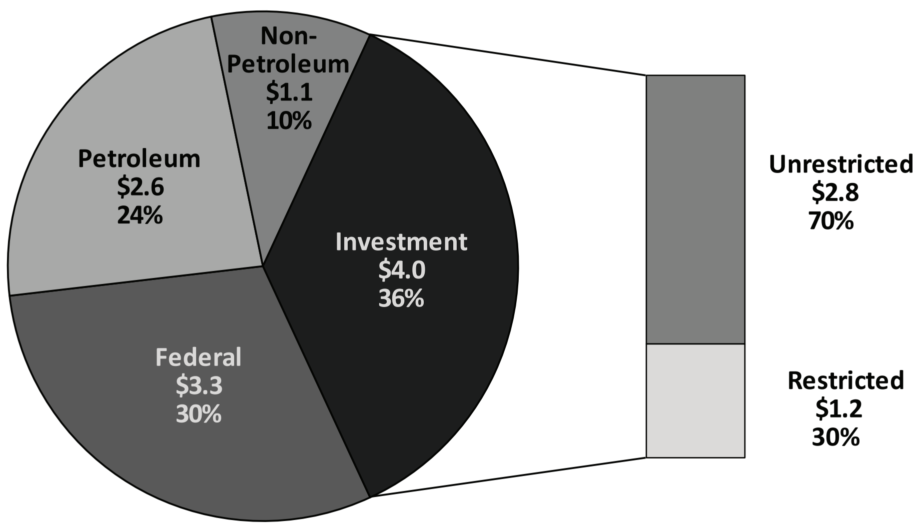
Table 7-2 shows a summary of Callan's long-term capital-market projections, as well as the benchmark against which performance for a specific asset class is measured in the state portfolios. The column titled "Projected Return" is the estimated annual rate of return. The numbers in the "Projected Risk" 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 the standard deviation to provide a range of possible outcomes at any desired level of confidence. With a bell-curve (normal) distribution, approximately 68% of the observed outcomes are expected to be one standard deviation from the mean. A greater level of confidence (for instance, 95%) would require a broader range (two standard devi-

Chapter 7 A

FY 2019 Investment Revenue

By restriction and type, in billions of dollars



Chapter 7
1

Total Investment Revenue[1]

By restriction and category

	Millions of Dollars		
	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
Unrestricted			
Unrestricted Investment Revenue			
Alaska Permanent Fund	2,722.6	2,933.1	3,091.5
Investments	93.3	54.1	51.8
Total Unrestricted Investment Revenue	**2,815.9**	**2,987.2**	**3,143.3**
Restricted			
Designated General Fund Revenue			
Investments – Designated General Fund[2]	5.3	3.0	3.0
Other Treasury – Managed Funds	48.0	40.7	42.1
Subtotal Designated General Fund	**53.3**	**43.7**	**45.1**
Other Restricted			
Alaska Permanent Fund[3]	1,043.0	1,188.3	1,379.2
Constitutional Budget Reserve Fund	74.8	46.0	32.3
Investments – Other Restricted	16.9	9.7	9.8
Subtotal Other Restricted Revenue	**1,134.7**	**1,244.0**	**1,421.3**
Total Restricted Investment Revenue	**1,188.0**	**1,287.7**	**1,466.4**
Total Investment Revenue	**4,003.9**	**4,274.9**	**4,609.7**

[1] Governmental Accounting Standards Board 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.

[2] Includes subfunds of the general fund.

[3] Starting in FY2019, Alaska Permanent Fund restricted revenue is total realized and unrealized gains, less the unrestricted revenue due to the transfer to the general fund.

ations). The probability that a particular asset class or portfolio will have a negative return over a given period of time reflects the downside risk of the asset class or portfolio.

Unrestricted and Restricted Investment Revenue

"Unrestricted investment revenue" is earned on some of the funds invested through the general fund and other non-segregated investments (GeFONSI) pool. These funds are managed by the department's Treasury Division.

The Alaska Legislature adopted a protocol to appropriate a portion of the value of the Alaska Permanent Fund to the general fund beginning in FY 2019. The estimated amount of this appropriation is shown as unrestricted revenue. Additional information about the protocol and the enabling legislation, Senate Bill 26 (SB 26), can be found in the narrative box later in this chapter.

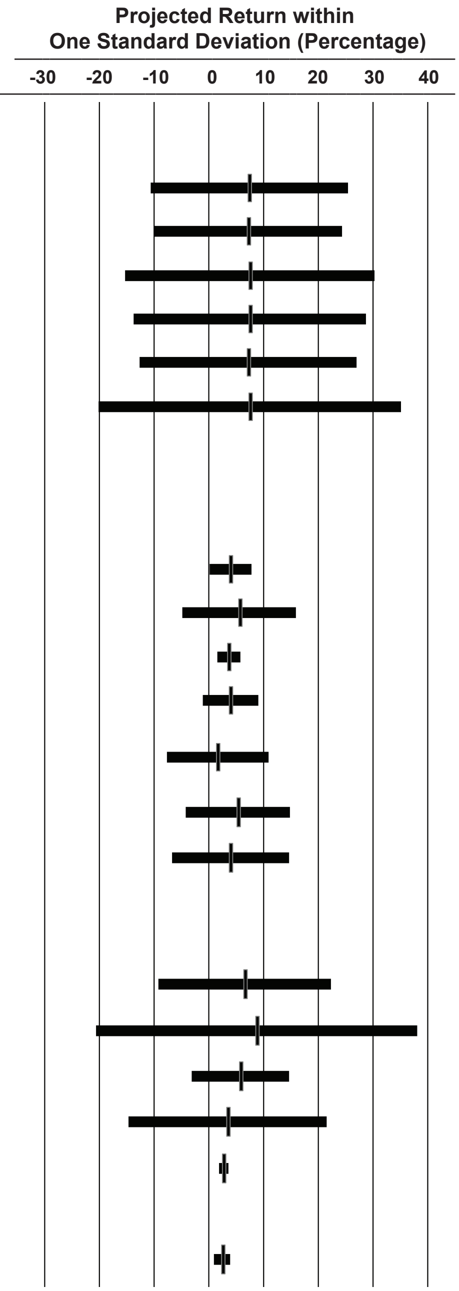
The Treasury Division invests general fund cash balances alongside cash balances from certain other funds in GeFONSI, a single investment pool. Earnings from GeFONSI are primarily unrestricted revenue, but also include some restricted revenue from balances in general fund subfunds and special revenue funds.

Chapter 7
2

2019 Summary of Callan Associates, Inc.

Long-term capital market projections

Asset Class	Benchmark for Asset Class	Projected Return: 10-Year Geometric[1]	Projected Risk: Standard Deviation
Equities			
Broad U.S. Equity	Russell 3000	7.15%	17.95%
Large Cap	S&P 500	7.00%	17.10%
Small / Mid Cap	Russell 2500	7.25%	22.65%
Global ex-US Equity	MSCI ACWI ex USA	7.25%	21.10%
Non-U.S. Equity	MSCI World ex USA	7.00%	19.75%
Emerging Markets Equity	MSCI Emerging Markets	7.25%	27.45%
Fixed Income			
U.S. Fixed	Bloomberg Barclays Aggregate	3.75%	3.75%
High Yield	Bloomberg Barclays High Yield	5.35%	10.35%
Short Duration	Bloomberg Barclays 1-3 Yr G/C	3.40%	2.10%
TIPS	Bloomberg Barclays TIPS	3.75%	5.05%
Non-U.S. Fixed	Bloomberg Barclays Global Aggregate ex U.S.	1.40%	9.20%
Emerging Market Debt	EMBI Global Diversified	5.05%	9.50%
Long Duration	Bloomberg Barclays Long G/C	3.75%	10.65%
Other			
Real Estate	NFI-ODCE	6.25%	15.70%
Private Equity	Cambridge Private Equity	8.50%	29.30%
Hedge Funds	Callan Hedge FoF	5.50%	8.85%
Commodities	Bloomberg Commodity	3.20%	18.00%
Cash Equivalents	90-Day T-Bill	2.50%	0.90%
Inflation	CPI-U	2.25%	1.50%



[1] Geometric returns are derived from arithmetic returns and associated risk (standard deviation).

Chapter 7
3

General Fund Investment Pool Revenue

Non-segregated investments invested alongside general fund

	Millions of Dollars		
	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
Unrestricted			
Unrestricted Investment Revenue	93.3	54.1	51.8
Restricted			
Restricted Investment Revenue			
Designated General Fund [1]	5.3	3.0	3.0
Investments – Other Restricted	16.9	9.7	9.8
Total	**115.5**	**66.8**	**64.6**

[1] Includes subfunds of the general fund.

Chapter 7
4

General Fund Investment Pool I

GeFONSI I, asset allocation and summary

Treasury Pool	**Target Percent Allocation**	**Performance Benchmark**
Short-term Fixed Income Pool	83%	Three-month U.S. Treasury Bill
Intermediate-Term Fixed Income Pool	17%	Bloomberg Barclays 1-3 Year Gov't Bond Index
Broad Fixed Income Pool	0%	Allocation up to 10%, Bloomberg Barclays Aggregate
Invested Assets as of October 31, 2019	$1,513.8	million
Long-Term Expected Rate of Return	2.65%	Callan's returns
Probability of Negative Return Over One Year	2.00%	From FY 2020 Asset Allocation

Note: GeFONSI is an acronym for general fund and other non-segregated investments.

Chapter 7
5

General Fund Investment Pool II

GeFONSI II, asset allocation and summary

Treasury Pool	Target Percent Allocation	Performance Benchmark
Short-Term Fixed Income Pool	53%	Three-month U.S. Treasury Bill
Intermediate-Term Fixed Income Pool	31%	Bloomberg Barclays 1-3 Year Gov't Bond Index
Broad Fixed Income	9%	Bloomberg Barclays Aggregate
Domestic Equity Pool	4%	Russell 3000
International Equity Pool	3%	MSCI ACWI ex-U.S.
Invested Assets as of October 31, 2019	$1,449.4	million
Long-Term Expected Rate of Return	3.30%	Callan's returns
Probability of Negative Return Over One Year	7.00%	From FY 2020 Asset Allocation

Note: GeFONSI is an acronym for general fund and other non-segregated investments.

Chapter 7
6

Public School Trust Fund

Asset allocation and summary

Treasury Pool	Target Percent Allocation	Performance Benchmark
Broad Fixed Income	32%	Bloomberg Barclays Aggregate
Domestic Equity Pool	41%	Russell 3000 Index
International Equity Pool	27%	MSCI ACWI ex-U.S.
Short-Term Fixed Income Pool	0%	Allocation up to 2%; Three-month U.S. Treasury Bill
Invested Assets as of October 31, 2019	$698.8	million
Long-Term Expected Rate of Return	6.58%	Callan's returns
Probability of Negative Return Over One Year	29.90%	From FY 2020 Asset Allocation

Chapter 7 **7**

Public School Trust Fund

By restriction and source

	Millions of Dollars		
	History	Forecast	
Fiscal Year	**2019**	**2020**	**2021**
Restricted			
Restricted – Designated General Fund			
Public School Trust Fund Total Investment Earnings	48.0	40.7	42.1
Public School Trust Fund Earnings Distributed [1]	28.4	26.5	30.0

[1] Projected distributions to the Department of Education and Early Development reflect total amount in the operating budget for FY 2020, and the statutory maximum calculation for FY 2021.

Chapter 7 **8**

Constitutional Budget Reserve Fund

Asset allocation and summary

Treasury Pool	Target Percent Allocation	Performance Benchmark
Short-Term Fixed Income Pool	75%	Three-month U.S. Treasury Bill
Broad Fixed Income	21%	Bloomberg Barclays Aggregate
Domestic Equity Pool	2%	Russell 3000
International Equity Pool	2%	MSCI ACWI ex-U.S.
Invested Assets as of October 31, 2019 [1]	$1,963.9	million
Long-Term Expected Rate of Return	3.01%	Callan's returns
Probability of Negative Return Over One Year	3.00%	From FY 2020 Asset Allocation

[1] This figure represents actual cash and securities in the fund as of the date given and does not represent the amount of the CBRF that can be appropriated.

Chapter 7
9

Constitutional Budget Reserve Fund

By restriction and source

Fiscal Year	History 2019	Forecast [1] 2020	Forecast [1] 2021
Restricted			
Restricted – Other Restricted			
Regular Account	74.8	46.0	32.3
Total	**74.8**	**46.0**	**32.3**

Millions of Dollars

[1] Projected balances and earnings of the CBRF are subject to change over the forecast period. The balance of the CBRF is available for appropriation by vote of the Legislature subject to certain conditions.

Chapter 7
10

Alaska Permanent Fund

By restriction and source

Fiscal Year	History 2019	Forecast 2020	Forecast 2021
Unrestricted			
Alaska Permanent Fund Draw	2,722.6	2,933.1	3,091.5
Restricted			
Restricted – Other Restricted			
Annual Unrealized Gain/Loss	438.2	39.6	0.0
Annual Realized Earnings/Loss	3,327.4	4,081.8	4,470.7
Reported Earnings Net of Unrestricted Draw [1]	1,043.0	1,188.3	1,379.2
Reported Earnings	**3,765.6**	**4,121.4**	**4,470.7**

Millions of Dollars

[1] Starting in FY 2019, Alaska Permanent Fund Restricted revenue is the total realized and unrealized gains, less the unrestricted revenue due to the transfer to the general fund.

Chapter 7

11

Alaska Permanent Fund

Asset allocation and summary

Treasury Pool	Target Percent Allocation	Performance Benchmark
Stocks	38%	Multiple Strategies
Fixed Income Plus	22%	Multiple Strategies
Real Estate	11%	Multiple Strategies
Private Equity	12%	Multiple Strategies
Absolute Return Strategies	5%	Multiple Strategies
Infrastructure	7%	Multiple Strategies
Asset Allocation Strategies	5%	Multiple Strategies
Invested Assets as of June 30, 2019	$66,300.3	million
Long-Term Expected Rate of Return	7.00%	Callan's returns

"Restricted investment revenue" consists of earnings from governmental funds, the Constitutional Budget Reserve Fund (CBRF), other Treasury Division-managed governmental funds, and net earnings of the Permanent Fund after subtracting the unrestricted portion appropriated to the general fund.

Constitutional Budget Reserve Fund

The CBRF was established in 1990, when Alaskans voted to amend the Alaska Constitution to create a separate fund for money received from the resolution of disputes involving oil and gas, and minerals – both from the settlement of lawsuits as well as additional tax payments resulting from audits.

Before revenue from royalty, rent, and bonus settlements or judgments is deposited in the CBRF, 25% to 50% of that revenue goes into the Permanent Fund, and 0.5% goes to the Public School Trust Fund. Other revenue, generally resulting from settlement of oil and gas production tax, petroleum property tax, minerals-related corporate income tax, and mining license tax disputes and audits, goes into the CBRF.

The CBRF was set up so that the Legislature may, under certain conditions, appropriate funds from the CBRF to pay for operating state government. The CBRF is also used to provide cash flow sufficiency to the general fund. These funds must eventually be repaid to the CBRF.

In 2014, the Legislature approved a $3 billion transfer from the CBRF to the Public Employees' Retirement System and Teachers' Retirement System. That transfer, as well as additional authorized withdrawals to balance the state's budget, will need to be paid back to the CBRF under law.

Statutory Budget Reserve Fund

The Statutory Budget Reserve Fund (SBRF) was established by the Legislature in 1986. This fund allows for state savings outside of the primary savings accounts (the Permanent Fund and the CBRF), with the fund balances and earnings available for appropriation for any purpose with a simple majority vote of the Legislature. The entire remaining unobligated balance of the SBRF was appropriated in the enacted FY 2020 budget. The fund will remain active until all obligations are fulfilled.

Alaska Permanent Fund

The Alaska Permanent Fund receives a portion of state royalty revenue from oil, gas, and other minerals. Over the decades, this fund has grown to become a major asset of the state. The fund has supported the Permanent Fund Dividend program, and now supports general government operations as well.

Fund earnings are estimated by applying Callan's five- to 10-year capital-market returns projection to the Alaska Permanent Fund Corporation's current asset allocation targets. Market fluctuations could result in the actual return being materially higher or lower than forecast.

The Legislature adopted a protocol to appropriate a portion of the value of the Permanent Fund to the general fund beginning in FY 2019. The entire amount of this appropriation is shown as unrestricted revenue; this forecast does not distinguish between whether the general fund draw is used for dividends or government spending. Barring further legislative changes, this split is not set and will need to be determined annually by the Legislature.

The remainder of the net earnings of the fund, after accounting for the unrestricted draw, are shown as restricted investment revenue. The total revenue attributable to the Permanent Fund, per Governmental Accounting Standards Board principles, is the sum of these two categories. The total revenue includes both realized and unrealized earnings of the fund.

Permanent Fund Changes: Senate Bill 26

During the 2018 legislative session, the Alaska Legislature passed Senate Bill 26 (SB 26), which created a framework for using a portion of the earnings of the Alaska Permanent Fund to support government operations. The impetus for this change was several years of low oil prices that led to the near-depletion of the Constitutional Budget Reserve Fund, the state's primary savings account. Accessing the Permanent Fund in this way allowed policymakers to continue providing government services while also largely avoiding new or increased taxes on Alaska residents and industry.

SB 26 provides for an annual appropriation from the Permanent Fund based on the "Percent of Market Value" (POMV) at the end of the fiscal year. To provide predictability and stability of the draw, the POMV is calculated on the average of the first five of the last six fiscal years. For example, the FY 2019 draw was based on the average ending market value in FY 2013 – FY 2017. For FY 2019, FY 2020, and FY 2021 5.25% of that POMV is appropriated to the general fund; for FY 2022 and beyond, the appropriation is 5.0%. Given that royalty deposits to the fund continue, and long-term market returns are expected to exceed the amount of the draw, the annual appropriation should be sustainable over the long term.

One provision not specified in SB 26 was how the annual draw is divided between dividends and government operations. Barring further legislative changes, this split is not set and will need to be determined annually by the Legislature.

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Chapter 8

Credits

Overview

Alaska's tax code provides for a wide range of credits. Depending on the particular credit, a company may choose to request the State of Alaska to purchase a credit, apply the credit against the company's own tax liability, or transfer it to another company.

Tax credits applied against liability are sometimes referred to as "tax expenditures," as the forgone revenue is similar to spending in that it reduces the amount of revenue available for the state budget. Because the state never receives this revenue, these credits are not directly visible in revenue and spending numbers. On the other hand, tax credits purchased by the state do show up directly as expenditures in the budget, when funds are appropriated for this purpose.

This chapter provides an overview of the various tax credits, how they are earned, their limitations, and their revenue impact. Discussion in this chapter also addresses historical credits that have expired. Other types of tax expenditures, such as deductions, exemptions, and exclusions, are not included in this chapter, but can be found in the Department of Revenue's *Alaska Indirect Expenditure Report* on the Tax Division's website.[1]

Recent Developments

The following are recent developments impacting the legal structure for tax credits since the publication of the Fall 2018 *Revenue Sources Book*.

House Bill 331 (HB 331), passed in 2018, created a tax credit bonding program that would allow the state to purchase outstanding oil and gas tax credits at a discount to face value, and spread the funding out over several years through issuance of subject to appropriation bonds. This program was envisioned as a win/win for the state and industry – the state can retire the outstanding tax credit liability at a discount, while tax credit holders benefit from immediate access to funds.

A legal challenge has delayed the tax credit bonding program. As of the writing of this *Revenue Sources Book*, pending litigation has paused any planned bond sales by the Alaska Tax Credit Certificate Bond Corporation. The Alaska Supreme Court heard oral arguments regarding the case on September 12, 2019. The court said it would make every effort to rule expeditiously, but it has not committed to a decision date.

The FY 2020 operating budget appropriated $700 million of bond proceeds to the Oil and Gas Tax Credit Fund. Contingent on a favorable outcome from the Alaska Supreme Court, the Alaska Tax Credit Certificate Bond Corporation will be able to issue bonds to finance purchase of tax credit certificates in FY 2020, up to the $700 million appropriation authority. No funds were appropriated for the purchase of tax credit certificates outside of the bonding program.

Oil and Gas Tax Credit Fund

Background

The Oil and Gas Tax Credit Fund, established under AS 43.55.028, was created to allow the State of Alaska to purchase certain transferable oil and gas tax credit certificates. Funds are available subject to annual appropriation by the Alaska Legislature for this purpose. Credits available for state purchase include the transferable production tax credits under AS 43.55.023, AS 43.55.025, and certain corporate income tax credits under AS 43.20 – the Gas Storage Facility Credit, In-State Refinery Tax Credit, and Liquefied Natural Gas (LNG) Storage Facility Credit. Nontransferable credits, generally those offered under AS 43.55.024, are not available for state purchase.

A statutory formula in AS 43.55.028(c) provides a calculation for an appropriation that may be made by the Legislature to the Oil and Gas Tax Credit Fund. The calculation is based on a share of taxes levied under AS 43.55.011, the production tax statute. That share is 10% of revenue from taxes levied when the Alaska North Slope (ANS) price for the fiscal year is forecast at $60 per barrel or higher, and 15% of revenue from taxes levied when the ANS price for the fiscal year is forecast at below $60 per barrel. The estimated statutory appropriation is shown in Figure 8-3. In recent practice, annual appropriations have been based on the Spring

[1] The *Alaska Indirect Expenditure Report* can be found at http://tax.alaska.gov/programs/reports.aspx.

Chapter 8
1

Tax Credits Claimed

FY 2017 – FY 2019

	Millions of Dollars		
	Total Credits Claimed		
Fiscal Year	**2017**	**2018**	**2019** [1]
Credits Applicable to the Oil and Gas Production Tax			
Alternative Credit for Exploration, Cook Inlet Jack-Up Rig Credit, and Frontier Basin Credit	<$1	$15	$15
Exploration Incentive Credit	$0	$0	$0
Per-Taxable-Barrel Credit	$536	$1,001	$1,002
Qualified Capital Expenditure Credit, Well Lease Expenditure Credit, and Carried-Forward Annual Loss Credit	$33	$78	$97
Small-Producer / New Area Development Credit	$33	$19	$15
Credits Applicable to the Corporate Income Tax			
Gas Exploration and Development Credit	$0	D/I	D/I
Gas Storage Facility Credit	This was a single-use credit.		
In-State Gas Refinery Credit	*	D/I	D/I
Internal Revenue Code Credits Adopted by Reference	D/I	D/I	D/I
LNG Storage Facility Credit	$0	D/I	D/I
Oil and Gas Industry Service Expenditures Credit	*	D/I	D/I
Veteran Employment Tax Credit	$0	D/I	D/I
Credits Applicable to Multiple Tax Programs			
Education Tax Credit	$5	D/I	D/I
Film Production Credit	$6	$6	$2
Minerals Exploration Incentive Credit	$0	D/I	D/I
Credits Applicable to Fisheries Taxes			
Winn Brindle Scholarship Contributions Credit	<$1	$0	D/I
Salmon and Herring Product Development Credit	$3	$4	D/I
Community Development Quota Credit	<$1	<$1	D/I
Other Taxes Credit	N/T	N/T	N/T
Total All Reportable Tax Credits	**$631**	**$1,124**	**$1,131**

[1] The FY 2019 credit totals are estimated pending annual tax filings.

* – Data cannot be reported due to confidentiality constraints.

D/I – Data incomplete.

N/T – Not tracked.

Note on Methodology:
This table presents credit numbers consistent with the DOR *Indirect Expenditure Report*. Some fiscal years have incomplete data for certain credits. To accurately attribute credits to the fiscal year they were "incurred," credits amounts are based on returns for filing periods beginning during the relevant fiscal year. For example, a calendar-year return with a filing period that began in January 2019 would be included in FY 2019 data, however, the return may not be filed until FY 2020 or FY 2021.

Chapter 8
2

History of Production Tax Credits
FY 2010 – FY 2019

	Millions of Dollars									
	History									
Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 [1]
Statewide Credits										
Credits Used against Tax Liability	412	361	363	550	919	585	125	572	1,036	1,030
Credits Purchased by the State [2]	250	450	353	369	592	628	498	30	78	100
Total Statewide Production Tax Credits	**662**	**811**	**716**	**919**	**1,511**	**1,213**	**624**	**602**	**1,114**	**1,130**

[1] FY 2019 credit totals are estimated pending annual tax filings.

[2] Credits Purchased by the State consists primarily of production tax credits purchased, but also includes corporate income tax credits available for state purchase from the Oil and Gas Tax Credit Fund. These include the Gas Storage Facility Credit, LNG Storage Facility Credit, and Refinery Credits.

Revenue Forecast, which is the last official forecast before the passage of the state's budget. However, the state may appropriate a lower amount, and it has in recent years.

State purchase is limited in several ways. Only companies that produced fewer than 50,000 British thermal units (Btu) equivalent barrels per day in the prior calendar year may request state purchase, and companies may only request purchases up to $70 million of credits per year. The first $35 million of this request may be purchased at full value and the second $35 million at 75% of their value.

Legislation passed in 2016 and 2017 enacted provisions that will eventually phase out the Oil and Gas Tax Credit Fund. The legislation eliminates the eligibility for state purchase for any credits earned on or after July 1, 2017, except for the LNG storage facility, and refinery tax credits, both of which sunset in 2020.

Allocation of Credit Funds

If insufficient funds are appropriated to fulfill all credit purchase requests, as has been the case the past several years, the Tax Division's regulations establish the following protocol to allocate allotted funds.

First, all credits for which purchase was requested prior to January 1, 2017, are funded on a pro-rata basis.

Once all pre-2017 credits have been used or purchased, credits earned on or after January 1, 2017, are to be funded, based on the year that the purchase was requested. For instance, all 2017 credits are to be paid before any 2018 credits are paid. In the case where purchase was requested in a single year, the applicants are to be ranked based on the companies' Alaska resident-hire percentage, including contractors.

Credits Forecast

HB 331 – discussed in the recent developments section earlier in this chapter – provides for bond sales to address the outstanding tax credits, and, as of publication of this *Revenue Sources Book* is subject to a legal challenge that has delayed the program. In the FY 2020 budget, the Legislature appropriated a total of $700 million in funding for the state purchase of tax credits from the Alaska Tax Credit Certificate Bond Corporation. No funds were appropriated to the Oil and Gas Tax Credit Fund to purchase oil and gas tax credits.

Given the uncertainty about timing and resolution of the bonding program litigation, this *Revenue Sources Book* uses an assumption that no credits are purchased in FY 2020[2], and that all remaining eligible credits are purchased in FY 2021 either through bonding or direct appropriation. This assumption is a forecast convention consistent with how credits have been presented for the past several years.

Companies may use certain transferred tax credits to offset a current or prior-year tax liability, contingent on that liability not being dedicated to the Constitutional Budget Reserve Fund (CBRF). This forecast assumes that no additional credits will be transferred or sold, and that all credits will be retired through bonding or direct appropriation. If credits are instead transferred, they could in certain circumstances be used by producers in

[2] The forecast includes $1 million of credits purchased in FY 2020.

Chapter 8

3

10-Year Forecast for Production Tax Credits

FY 2020 – FY 2029 forecast

	Millions of Dollars									
	Forecast									
Fiscal Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Statewide Credits										
Credits Used Against Tax Liability	966	786	709	643	598	642	630	727	826	953
Credits Purchased by the State[1]	1	770	15	0	0	0	0	0	0	0
Total Statewide Production Tax Credits	**967**	**1,555**	**724**	**643**	**598**	**642**	**630**	**727**	**826**	**953**
Statutory Appropriation to Oil and Gas Tax Credit Fund[2]	---	**166**	**102**	**94**	**90**	**96**	**93**	**105**	**115**	**130**

[1] Credits Purchased by the State consists primarily of production tax credits purchased, but also includes corporate income tax credits available for state purchase from the Oil and Gas Tax Credit Fund. These include the Gas Storage Facility Credit, LNG Storage Facility Credit, and Refinery Credits.

[2] Per AS 43.55.028(c), the statutory appropriation is 10% of taxes levied by AS 43.55.011 (oil and gas production tax) when the Alaska North Slope price forecast for the fiscal year is $60 per barrel or higher, and 15% of taxes levied by AS 43.55.011 when the ANS price forecast for the fiscal year is below $60 per barrel.

lieu of making tax payments that would otherwise go to the general fund. The net result of such a transaction would be a reduction to both production tax revenue and the total balance of credits outstanding.

Credits Applicable to the Oil and Gas Production Tax

Alternative Credit for Exploration

AS 43.55.025(a)(1)-(4)

The Alternative Credit for Exploration is a transferable and state purchase-eligible credit for expenditures for certain oil and gas exploration activities in Middle Earth (leases outside the North Slope and Cook Inlet), the North Slope, and Cook Inlet.

The credit for Middle Earth exploration drilling is the only element of this credit still in place for new activity as of publication of this *Revenue Sources Book*, with an expiration date of January 1, 2022. It is a 30% credit for drilling costs for wells greater than 25 miles from an existing unit, 30% for preapproved new targets greater than 3 miles from an existing well, and 40% for preapproved new targets greater than 3 miles from a well and greater than 25 miles from an existing unit. The 3-mile limit does not apply for wells in "Frontier Basins" as described under the Frontier Basin Credit below.

The credit for Middle Earth seismic was a 40% credit for seismic costs outside an existing unit, but expired January 1, 2018.

The credit for North Slope activity had the same rates and geographical limitations as the Middle Earth credit, but expired July 1, 2016.

The credit for Cook Inlet was a 40% credit for seismic costs outside an existing unit, 30% for drilling costs greater than 10 miles from an existing unit, 30% for preapproved new targets, and 40% for preapproved drilling costs for wells that were greater than 10 miles from an existing unit. The Cook Inlet credit expired July 1, 2016.

Carried-Forward Annual Loss Credit

AS 43.55.023(b)

This credit is a transferable and state purchase-eligible credit for a carried-forward annual loss, defined as a producer or explorer's adjusted lease expenditures that are not deductible in calculating production tax value for the calendar year.

On the North Slope, during 2014 and 2015, the credit for carried-forward annual losses incurred was 45% of the loss. On January 1, 2016, the credit for losses incurred on the North Slope decreased to 35%. Beginning January 1, 2017, a gross value reduction

Chapter 8
4

Historical Production Tax Credits and Forecast

Detail, FY 2010 – FY 2029

Millions of Dollars

	History									
Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019[1]
Credits Purchased by the State of Alaska										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	223	399	267	*	*	203	*	*	*	*
Credits under AS 43.55.025[2]	23	12	53	*	*	21	*	*	*	*
Total North Slope	**246**	**411**	**320**	**261**	**281**	**224**	**212**	*****	**51**	**68**
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	*	*	29	*	*	384	*	30	26	30
Credits under AS 43.55.025[2]	*	*	4	*	*	21	*	0	*	*
Credits under AS 43.20[3]	*	*	0	*	15	0	*	0	*	*
Total Non-North Slope	**4**	**39**	**33**	**108**	**312**	**404**	**287**	**30**	**27**	**32**
Total Credits Purchased by the State	**250**	**450**	**353**	**369**	**592**	**628**	**498**	**30**	**78**	**100**
Credits Used Against Tax Liability[4, 5]										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	339	313	306	486	332	0	*	*	*	*
Transitional Investment Credit: AS 43.55.023(i)	0	0	*	*						
Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j)[6]					516	524	86	536	1,001	1,002
Small-Producer Credit, AS 43.55.024(a) and (c)	*	*	*	*	*	*	*	*	*	*
Credits under AS 43.55.025[2]	*	*	*	*	*	*	*	*	*	*
Total North Slope	**402**	**345**	**347**	**536**	**907**	**575**	**120**	**570**	**1,034**	**1,026**
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	*	11	*	*	*	*	*	*	*	*
Small-Producer Credit, AS 43.55.024(a) and (c)	*	6	*	*	*	*	*	*	*	*
Total Non-North Slope	**10**	**17**	**16**	**14**	**12**	**10**	**5**	**1**	**1**	**4**
Total Credits Used Against Tax Liability	**412**	**361**	**363**	**550**	**919**	**585**	**125**	**572**	**1,036**	**1,030**
Total Credits North Slope	647	756	667	797	1,188	799	332	570	1,086	1,094
Total Credits Non-North Slope	14	56	49	122	323	414	292	32	28	36
Total Statewide Production Tax Credits	**662**	**811**	**716**	**919**	**1,511**	**1,213**	**624**	**602**	**1,114**	**1,130**
Tax Value of Carried-Forward Annual Losses and Credits[7]	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**190**

* Data cannot be reported due to confidentiality constraints.

[1] These numbers are preliminary pending annual returns.

[2] Credits under AS 43.55.025 include the Alternative Credit for Exploration, Frontier Basin Credit, and Cook Inlet Jack-up Rig Credit.

[3] Credits under AS 43.20 include the Gas Exploration and Development Credit, Gas Storage Facility Credit, In-State Gas Refinery Credit, and the LNG Storage Facility Credit.

[4] The Education Credit, AS 43.55.019, though not reported in its own credit category in the summary, was less than $1 million in each year reported and is calculated in the total.

[5] For historical credits against tax liability, geographic location was determined by attributing all .023(l) credits to Non-North Slope, all .025 credits

	Millions of Dollars									
	Forecast									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Credits Purchased by the State										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	0	299	0	0	0	0	0	0	0	0
Credits under AS 43.55.025 [2]	0	142	0	0	0	0	0	0	0	0
Total North Slope	**0**	**441**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	*	234	0	0	0	0	0	0	0	0
Credits under AS 43.55.025 [2]	*	25	0	0	0	0	0	0	0	0
Credits under AS 43.20 [3]	*	69	15	0	0	0	0	0	0	0
Total Non-North Slope	**1**	**329**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Credits Purchased by the State	**1**	**770**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Credits Used Against Tax Liability [4, 5]										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	16	0	0	0	0	0	0	0	0	0
Transitional Investment Credit: AS 43.55.023(i)										
Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j) [6]	922	769	693	630	585	629	619	718	818	945
Small-Producer Credit, AS 43.55.024(a)(c)	14	1	1	1	1	2	0	0	0	0
Credits under AS 43.55.025 [2]	0	0	0	0	0	0	0	0	0	0
Total North Slope	**951**	**771**	**695**	**632**	**586**	**631**	**619**	**718**	**818**	**945**
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	12	11	11	8	8	8	8	8	8	8
Small-Producer Credit, AS 43.55.024(a)(c)	3	4	4	3	3	3	2	0	0	0
Total Non-North Slope	**14**	**15**	**15**	**12**	**12**	**11**	**11**	**8**	**8**	**8**
Total Credits Used Against Tax Liability	**966**	**786**	**709**	**643**	**598**	**642**	**630**	**727**	**826**	**953**
Total Credits North Slope	951	1,211	695	632	586	631	619	718	818	945
Total Credits Non-North Slope	16	344	30	12	12	11	11	8	8	8
Total Statewide Production Tax Credits	**967**	**1,555**	**724**	**643**	**598**	**642**	**630**	**727**	**826**	**953**
Tax Value of Carried-Forward Annual Losses and Credits [7]	**355**	**818**	**1,361**	**1,869**	**2,253**	**2,505**	**2,543**	**2,568**	**2,587**	**2,593**

to North Slope, and the other credits were placed according to where the company primarily operated. Since multiple companies had operations in multiple areas, these numbers should be treated as rough estimates.

[6] For FY 2014, the Per-Taxable-Barrel Credit was in effect for only the last six months of the fiscal year. Credits applied against liability in the forecast are limited by a company's tax liability including the minimum tax.

[7] Tax value of carried-forward losses is calculated by multiplying the amount of carried-forward annual loss by the statutory 35% tax rate. This row also includes estimates of carried-forward credits for previous calendar years for companies with over 50,000 barrels of oil equivalent (BOE) of production.

(GVR) could no longer be used to increase the size of an annual loss for credit calculation purposes. This credit expired for the North Slope on January 1, 2018 and was replaced by a new carried-forward lease expenditures provision.

For areas outside the North Slope, the credit was repealed on January 1, 2018, as well. For Middle Earth, the credit was replaced by a carried-forward lease expenditures provision. For Cook Inlet, however, the credit was repealed.

Education, and Film Production Credits

See "Credits Applicable to Multiple Tax Programs."

Frontier Basin Credit

AS 43.55.025(a)(6)-(7)

The Frontier Basin Credit, which is expired, was a transferable, state purchase-eligible credit for the first four exploration wells and the first four seismic exploration projects within six specific areas designated in AS 43.55.025(o), also called the "Frontier Basins." For wells drilled or spudded prior to July 1, 2017, the credit was for 80% of qualified exploration drilling expenses or $25 million. For seismic projects, the credit, which expired July 1, 2016, was for the lesser of 75% of qualified seismic exploration expenditures or $7.5 million.

Per-Taxable-Barrel Credit

AS 43.55.024(i)-(j)

The Per-Taxable-Barrel Credit is a production tax credit for each taxable barrel of oil production on the North Slope. This credit is an integral part of the production tax calculation. It cannot be transferred or carried forward, and is not eligible for cash purchase. This credit does not have an expiration date.

In "new oil" areas that qualify for a Gross Value Reduction (GVR), the credit is $5 per taxable barrel. Those areas are defined in AS 43.55.160(f) and (g).

For areas that do not qualify for a GVR, the credit ranges from $0 to $8 per taxable barrel based on the average gross value at point of production (GVPP) per barrel produced in the tax year. The credit operates on a sliding scale ranging from $0 per barrel when the GVPP is more than $150 per barrel, to $8 per barrel when the GVPP is less than $80 per barrel.

The vast majority of oil produced on the North Slope is not GVR-eligible. Therefore, the structure of the Per-Taxable-Barrel Credit is such that as the price of oil increases, the dollar value of the credit decreases, and vice versa.

One important limit is that if a company chooses to utilize the $0 to $8 credit for non-GVR-eligible oil, that company may not use this credit and any other credits or deductions to reduce its tax liability to less than the minimum tax established under AS 43.55.011(f), currently 4% of the GVPP. The credit for GVR-eligible oil may not reduce the producer's liability for that production below zero.

Because they cannot be transferred or carried forward, these credits do not create a future liability for the state if they are not used in the year earned.

Qualified Capital Expenditure and Well Lease Expenditure Credit

AS 43.55.023(a) and (l)

These are transferable and state purchase-eligible tax credits for qualified oil and gas capital expenditures in the state outside the North Slope. They can be taken in lieu of Exploration Credits under AS 43.55.025, but are in addition to any Carry-forward annual loss credits under AS 43.55.023(b). Before January 1, 2017, companies could qualify for a credit of 20% of eligible capital expenditures, or 40% of qualified well lease expenditures. As of January 1, 2017, the Qualified Capital Expenditure Credit was reduced from 20% to 10% and the Well Lease Expenditure Credit was reduced from 40% to 20%. On January 1, 2018, both credits were repealed for Cook Inlet. There is no expiration date for Middle Earth.

Small-Producer and New Area Development Credit

AS 43.55.024(a) and (c)

The Small-Producer Credit is a nontransferable 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. The credit was available until May 1, 2016, or nine years after the first commercial production of oil and gas on the properties for which the credit applies, whichever is later. Therefore, as of publication of the *Revenue Sources Book*, the credit will gradually sunset over the next several years. The credit is capped at $12 million annually for producers with less than 50,000 Btu-equivalent barrels per day. For larger producers, the credit phases out, and is zero for producers with 100,000 or more Btu-equivalent barrels per day. The credit may only be used against tax liability, and only if the producer has a positive tax liability before the application of credits. It may not be carried forward.

The New Area Development Credit was a credit of up to $6 million per company annually, for oil or gas produced from Middle Earth, providing the producer had a positive tax liability on that production before the application of credits. The credit was available until May 1, 2016, or nine years after the first commercial production of oil and gas on the properties for which the credit applies, whichever was later. Because there has not been commercial production outside the North Slope and Cook Inlet, no companies qualified for this credit, and it was never used.

Transitional Investment Expenditure Credit

AS 43.55.023(i)

The Transitional Investment Expenditure Credit was a nontransferable credit for 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. The credit was only available until December 31, 2013.

Credits Applicable to Corporate Income Tax

Education, and Film Production Credits

See "Credits Applicable to Multiple Tax Programs."

Gas Storage Facility Credit

AS 43.20.046

The Gas Storage Facility Credit was a state purchase-eligible credit, paid out of the Oil and Gas Tax Credit Fund under AS 43.55.028, for costs incurred to establish an underground natural gas storage facility in Kenai. This credit was limited to one company and was taken in FY 2014.

The credit was $1.50 per 1,000 cubic feet of "working gas" storage capacity as determined by the Alaska Oil and Gas Conservation Commission. It did not apply to gas storage related to a gas sales pipeline on the North Slope. To qualify, the facility had to operate as a public utility regulated by the Regulatory Commission of Alaska (RCA) with open access for third parties. It was effective for facilities placed into service between January 1, 2011, and December 31, 2015. The maximum credit was the lesser of $15 million or 25% of costs incurred to establish the facility.

In-State Refinery Tax Credit

AS 43.20.053

The In-State Refinery Tax Credit began on January 1, 2015 and is a credit for qualified infrastructure expenditures for in-state oil refineries incurred after December 31, 2014, and before January 1, 2020. The credit may not exceed 40% of total qualifying expenditures or $10 million per tax year per refinery, whichever amount is less. The credit can be applied against corporate income tax liability and carried forward for up to five years, or purchased by the state. The authorizing statute will sunset on December 31, 2019.

Internal Revenue Code Credits Adopted by Reference

AS 43.20.021

Under Alaska's blanket adoption of the federal Internal Revenue Code, taxpayers can claim all federal incentive credits. Federal credits that refund other federal taxes are not allowed. Multistate taxpayers apportion their total federal incentive credits. In most cases, the credit is limited to 18% of the amount of the credit determined for federal income tax purposes that is attributable to Alaska.

LNG Storage Facility Credit

AS 43.20.047

The LNG Storage Facility Credit is a nontransferable, state purchase-eligible credit for the costs incurred to establish a storage facility for LNG. The credit is the lesser of $15 million or 50% of costs incurred to establish the facility and may be purchased by the state by direct appropriation. It applies to facilities with a minimum storage capacity of 25,000 gallons of LNG that are public utilities regulated by the Regulatory Commission of Alaska. It is for facilities placed into service after January 1, 2011. For a facility to qualify for the credit it must commence commercial operation prior to January 1, 2020.

Minerals Exploration Incentive Credit

See "Credits Applicable to Multiple Tax Programs."

Oil and Gas Industry Service Expenditures Credit

AS 43.20.049

The Oil and Gas Industry Service Expenditures Credit is a credit of 10% of qualified oil and gas industry service expenditures that are for in-state manufacture or in-state modification of oil and gas tangible personal property with a service life of three years or more. The credit may be applied to corporate income tax liabilities in amounts up to $10 million per taxpayer per year, and is effective for expenditures incurred after January 1, 2014. The credit is not transferable, but any amount of the credit that exceeds the taxpayer's liability may be carried forward up to five years. This credit does not have a sunset date in statute.

Urea/Ammonia/Gas to Liquid Facility Credit

AS 43.20.052

The Urea/Ammonia/Gas to Liquid Facility Credit was enacted in 2016. This credit allows an in-state company that produces urea, ammonia, or gas-to-liquids products to apply a credit to its corporate income tax based on natural gas purchased from state leases. The credit is equal to the amount of state royalty paid on natural gas purchased for the qualifying project. The credit cannot be carried forward to future years, is not transferable or eligible for state purchase, and cannot be used to reduce a tax liability below zero. The credit is scheduled to be repealed January 1, 2024.

Veteran Employment Tax Credit

AS 43.20.048

The Veteran Employment Credit is a nontransferable and state purchase-ineligible credit for corporate income taxpayers who employ qualified veterans in the state. A "qualified veteran" is a veteran who was unemployed for more than four weeks preceding the veteran's employment date and who was discharged or released from military service (1) not more than 10 years before his or her employment date for a disabled veteran, or (2) not more than two years before his or her employment date for a veteran who is not disabled. The credit is $3,000 for a disabled veteran or $2,000 for a veteran who is not disabled, for employment for a minimum of 1,560 hours during 12 consecutive months following the veteran's employment date. For seasonal employment, the credit is $1,000 for a veteran employed for a minimum of 500 hours during three consecutive months following the employment date. The credit does not have an expiration date.

Credits Applicable to Fisheries Taxes

Community Development Quota Credit

AS 43.77.040

The Community Development Quota (CDQ) Credit is a nontransferable credit for contributions to an Alaska nonprofit corporation that is dedicated to fisheries industry-related expenditures. The credit is available only for fishery resources harvested under a Community Development Quota. The credit is 100% of a taxpayer's contribution amount, up to a maximum of 45.45% of the taxpayer's tax liability on fishery resources harvested under a Community Development Quota. The sum of all CDQ Tax Credits is deducted from the amount that the state shares with municipalities under AS 43.77.060(a). The authorizing statute is scheduled to sunset December 31, 2020.

Education, and Film Production Credits

See "Credits Applicable to Multiple Tax Programs."

Other Taxes Credit

AS 43.77.030

The Other Taxes Credit is a nontransferable and state purchase-ineligible credit for taxes paid to another jurisdiction on fishery resources landed in Alaska. The credit is 100% of taxes paid with a maximum of 100% of the Alaska tax liability on the fishery resources. This credit does not have an expiration date.

Salmon and Herring Product Development Credit

AS 43.75.035

The Salmon and Herring Product Development Credit is a nontransferable and state purchase-ineligible credit for eligible capital expenditures to expand value-added processing of Alaska salmon and herring, including ice-making machines. Herring products were added to the credit in 2014. The credit is 50% of qualified investments up to 50% of tax liability incurred for processing salmon and herring during the tax year. It may be carried forward for three years, but the authorizing statute is scheduled to sunset on December 31, 2020.

Winn Brindle Scholarship Contributions Credit

AS 43.75.032, 43.77.035

The Winn Brindle Scholarship Contributions Credit was applicable to both the fisheries business tax and fishery resource landing tax. It was a nontransferable credit for contributions to the A.W. "Winn" Brindle Memorial Education Loan Account. The credit was 100% of the contribution amount, up to a maximum of 5% of tax liability. The credit sunset on January 1, 2017.

Credits Applicable to Multiple Tax Programs

Education Credit

AS 21.96.070, 43.20.014, 43.55.019, 43.56.018, 43.65.018, 43.75.018, 43.77.045

The Education Credit is a nontransferable and state purchase-ineligible credit applicable to the corporate income tax, fisheries business tax, fishery resource landing tax, insurance premiums tax, title insurance premiums tax, mining license tax, oil and gas production tax, and the oil and gas property tax.

Taxpayers can claim a credit for contributions to vocational educational programs, accredited nonprofit, public or private Alaska universities or colleges, Alaska public or private nonprofit elementary or secondary schools, annual intercollegiate sports tournaments, Alaska Native educational programs, facilities that qualify under the Coastal American Partnership, qualified apprenticeship programs, nonprofit regional training centers, the Alaska Higher Education Investment Fund, a postsecondary institution in the state providing dual-credit courses, a residential school in the state, and the Alaska Department of Education and Early Development.

In 2018, the credit was available for up to 50% of annual contributions up to $100,000, 100% of the next $200,000, and 50% of annual contributions beyond $300,000. The credit for any one taxpayer could not exceed $5 million annually across all eligible tax types. Beginning on January 1, 2019, the credit has been available for up to 50% of annual contributions up to $100,000, 75% of the next $200,000, and 50% of annual contributions beyond $300,000. The credit for any one taxpayer has not been allowed to exceed $1 million annually across all eligible tax types. Previously, only cash contributions were accepted for the Education Tax Credit, but the credit was expanded to accept contributions of equipment beginning in 2019. Beginning in 2021, the credit is reduced to 50% of all donations; the $1 million cap on the credit per taxpayer each year will remain the same. The Education Tax Credit is currently scheduled to sunset on December 31, 2024.

Film Production Credit

AS 43.98.030, under AS 21.09.210, 21.66.110, 43.20, 43.55, 43.56, 43.65, 43.75, and 43.77

The Film Production Credit is a transferable, but state purchase-ineligible, credit for expenditures on eligible film production activities in Alaska. For qualifying productions, the credit is 30% of eligible film production expenditures. The credit also has an additional 20% credit for wages paid to Alaska residents, an additional 6% credit for filming in a rural area, and an additional 2% credit for filming between October 1 and March 30. The credit applies to corporate income tax, the insurance premium tax, title insurance tax, oil and gas production tax, oil and gas property tax, mining license tax, fisheries business tax, and fishery resource landing tax.

Alaska's film credit program was being phased out as of publication of this *Revenue Sources Book*. The program stopped accepting new projects on July 1, 2015. The final film credit was issued in 2017; individual film credits expire six years from the date of issue.

Minerals Exploration Incentive Credit

AS 27.30.030, 43.20.044

The Minerals Exploration Incentive Credit is applicable to the corporate income tax, mining license tax, and mineral production royalty. It is a nontransferable and state purchase-ineligible credit for eligible costs of mineral or coal exploration activities, and requires the approval of the Alaska Department of Natural Resources Commissioner.

The credit is 100% of allowable exploration costs with a maximum of $20 million per mining operation and must be used within 15 years. For the mining license tax, the credit is limited to the lesser of 50% of the tax liability at the mining operation where the exploration occurred or 50% of total tax liability. For the corporate income tax, it is limited to the lesser of 50% of the mining license tax liability at the mining operation where the exploration occurred or 50% of the total corporate income tax liability. For the mineral royalty, the credit is limited to 50% of the royalty liability from the mining operation where the exploration activity occurred.

Chapter 9

State Endowment Funds

Overview

This chapter compares important attributes of five of the state's major endowment funds – the Alaska Permanent Fund, Alaska Mental Health Trust Fund, Public School Trust Fund, Power Cost Equalization Fund, and University of Alaska Endowment.

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 most endowments in the United States and Canada.

The fiduciary for each of these endowment funds has the responsibility for establishing an asset-allocation policy for each fund. Table 9-1 compares the current asset-allocation policies for these endowments. Table 9-2 compares recent fund values and appropriations for these endowments.

Under the standards adopted by the Governmental Accounting Standards Board, 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. These calculations are done 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, the Permanent Fund, Mental Health Trust Fund, and Public School Trust Fund use other measures of annual income for determining their distributions. The Permanent Fund and the Mental Health Trust Fund are both administered by the Alaska Permanent Fund Corporation (APFC).

In determining the amount of income available for distribution each year for the two funds managed by the APFC, gains or losses on individual investments are not recognized until the investment is sold. For calculating distributable income for the Public School Trust Fund, 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.

Missions, Deposits, and Distributions

Alaska Permanent Fund

The Alaska Permanent Fund receives a portion of the state's royalty revenue from oil, gas, and other minerals. Over the past several decades, these royalty deposits plus earnings have grown to be a major asset of the state of Alaska.

Each year, the APFC calculates the amount of net income realized by the Permanent Fund, and this amount, plus any surplus funds already in the Earnings Reserve Account, are available for appropriation by the Alaska Legislature. Beginning in FY 2019, legislation provides for a transfer from the Earnings

Chapter 9
1

State Endowment Funds

Target asset allocations, in percentages

Strategy-Based	Cash	Real Estate Investment Trusts	Broad Fixed Income	Domestic Equity	International Equity
Public School Trust Fund	0%	0%	32%	41%	27%
Power Cost Equalization Endowment Fund	0%	0%	32%	41%	27%

	Cash	Capital Appreciation	Diversifying Strategies	Inflation-Sensitive	Deflation-Sensitive
University of Alaska Endowment	0%	53%	20%	10%	17%

	Asset Allocation Strategies	Stocks/ Public Equities	Fixed Income Plus	Private Equity/Growth Opportunities	Absolute Return	Real Estate	Infrastructure/ Private Credit/ Income
Alaska Permanent Fund	5%	37%	20%	13%	5%	12%	8%
Mental Health Trust	5%	37%	20%	13%	5%	12%	8%

Reserve Account to the general fund that can be used for the payment of unrestricted general fund expenditures and/or Permanent Fund Dividends. The amount of the transfer is based on a percentage of the average market value of the fund at the end of the first five of the preceding six years. This amount is subject to annual appropriation by the Legislature.

Following the calculation of net income and any appropriated transfer of funds to the general fund, APFC calculates an amount sufficient to offset the effects of inflation on the principal of the Permanent Fund using a formula set out in statute. Subject to annual appropriation by the Legislature, APFC then transfers this amount from the Earnings Reserve Account to the principal of the Permanent Fund. The principal of the Permanent Fund is made up of all oil and gas royalty contributions and legislative appropriations to the principal or corpus of the Permanent Fund.

Mental Health Trust

During Alaska's transition to statehood, Congress passed the Mental Health Trust Enabling Act of 1956 that transferred the responsibility for providing mental health services from the federal government to the territory of Alaska and ultimately the state. Through the 1956 act and subsequent litigation in 1982, the Mental Health Trust was capitalized with over 1 million acres of prime land and $200 million in cash that has been used to generate income to help pay for mental health programs and services in Alaska.

Earnings from the Alaska Mental Health Trust Fund, which is managed by the APFC, are for use in ensuring an integrated comprehensive mental health program for the state. Current statute requires net income earned on the principal of the fund to be calculated in the same manner as the Permanent Fund. Only realized income is ultimately made available for distribution to the Mental Health Trust.

The Alaska Mental Health Trust Authority Board of Trustees has established a percent-of-market-value distribution model where distributions from cash investments managed by APFC and the Department of Revenue are limited to 4.25% of the four-year moving-average net asset value. This reduces the volatility of program funding while budget reserves ensure funding continues even when markets are down.

Funding is also made available for mental health programs from spendable income generated by the Mental Health Trust's directly owned commercial real estate portfolio as well as other revenue generated from land that is managed by the Alaska Department of Natural Resources' Trust Land Office.

Chapter 9
2

State Endowment Funds

Market values as of September 30, 2019, and appropriations

Endowment Fund	Market Value (Millions of Dollars)	Most Recent Statutorily Calculated Maximum Appropriation (Millions of Dollars)	For Fiscal Year
Public School Trust Fund	685.8	30.0	FY 2021
Power Cost Equalization Endowment Fund	1,073.8	51.2	FY 2021
University of Alaska Endowment[1]	147.6	6.1	FY 2019
Alaska Permanent Fund	64,107.1	2,933.1	FY 2020
Mental Health Trust	539.8	23.3 [2]	FY 2019

[1] Market value as of June 20, 2019. The total market value does not include private endowment funds managed by the University of Alaska Foundation.
[2] Represents the amount transferred by the Alaska Permanent Fund Corporation from the Alaska Mental Health Trust Fund to the Alaska Mental Health Trust.

The balance of funding consists of both interest earned on cash holdings, and the unexpended balance of expired appropriations lapsing back to the fund. The Mental Health Trust has a policy to periodically make transfers and/or assign funds to offset the effects of inflation in order to preserve the purchasing power of the fund.

Public School Trust Fund

The Public School Trust Fund was established as a separate endowment trust fund through transfer of the balance of the Public School Permanent Fund by the Legislature on July 1, 1978. Annual contributions are comprised of 0.5% of State of Alaska receipts from minerals royalty, bonuses, rents, and interest. The principal of the fund, and all capital gains/losses thereon, are perpetually retained in the fund and the remaining net income of the fund must be used for Alaska's public school program.

On July 1 of each year, the Department of Revenue Commissioner determines the monthly average market value of the fund for the previous five fiscal years preceding the previous fiscal year. The Legislature may appropriate not more than 5% of this amount. The appropriated amount may be expended the following fiscal year to support Alaska's public school system.

Power Cost Equalization Endowment Fund

The Power Cost Equalization Endowment Fund was created and capitalized in FY 2001 with funds from the Constitutional Budget Reserve, and Four Dam Pool Project sale proceeds, and further capitalized in FY 2007 and FY 2012 with General Funds. The purpose of the Power Cost Equalization Endowment Fund is to provide for a long-term, stable financing source for power cost equalization to support affordable levels of electric utility costs in otherwise high-cost service areas of the state.

Distributions from the Power Cost Equalization Endowment Fund are based on the monthly average market value of the fund for the previous three closed fiscal years. Five percent of this amount may be appropriated for the fiscal year beginning the following July 1 to fund the Power Cost Equalization and Rural Electric Capitalization Fund, the reimbursement to the department for the costs of establishing and managing the fund, and the reimbursement of administrative costs of the fund. If the amount appropriated is insufficient to achieve all three purposes, the amount shall be prorated among the first two purposes. If the earnings of the fund exceed the appropriation for the current fiscal year, the Legislature may appropriate certain amounts for other purposes further defined in statute.

University of Alaska Endowment

The University of Alaska Endowment consists of two separate funds that are invested together – the Land Grant Endowment Trust Fund and the University of Alaska Foundation Pooled Endowment Fund. The University of Alaska Land Grant Endowment has its origin in the federal land grant acts of 1915 and 1929, and subsequently the Alaska Statehood Act. Approximately 110,000 acres of land were transferred to the territory of Alaska and eventually to the Board of Regents to be held in trust for the university. The net proceeds from the sale, lease, exchange, and other uses of these lands have been deposited in the University of Alaska Endowment Trust Fund. The University of Alaska Foundation's Pooled Endowment Fund principal includes solicited gifts and donations that have been given to the endowment fund.

The overall objectives of the funds are to provide a stream of relatively stable earnings in support of the annual budgetary needs of the University of Alaska while maintaining the real (inflation-adjusted) purchasing power of the fund to the extent practicable. In order to meet these objectives, the goal of the fund is to achieve an average annual real return of 5% of its market value, net of investment management expenses.

The spending allowance rate for the Land Grant Endowment Trust Fund is 4.5% of the five-year moving average market value, while the University of Alaska Foundation's spending allowance rate ranges from 0%-4.0% of the five-year moving average market value, depending on the financial health and maturity of the assets.

Chapter 10

Public Entities and the University of Alaska

Overview

The State of Alaska has established several public corporations and entities to carry out certain public policy goals. This chapter discusses the following major public corporations and entities:

- Alaska Aerospace Corporation (AAC)
- Alaska Energy Authority (AEA)
- Alaska Gasline Development Corporation (AGDC)
- Alaska Housing Finance Corporation (AHFC)
- Alaska Industrial Development and Export Authority (AIDEA)
- Alaska Mental Health Trust Authority (AMHTA)
- Alaska Municipal Bond Bank Authority (AMBBA)
- Alaska Railroad Corporation (ARC)
- Alaska Seafood Marketing Institute (ASMI)
- Alaska Student Loan Corporation (ASLC)
- University of Alaska (UA)

These 11 entities are components of state government presented in the state's *Comprehensive Annual Financial Report*. This chapter summarizes the missions, financing, and dividends of these corporations and other public entities, with information largely being provided by the relevant entities.

Missions, Financing, and Dividends

Alaska Aerospace Corporation

The Alaska Aerospace Corporation (AAC) operates and maintains the Pacific Spaceport Complex – Alaska, an FAA-licensed multi-user spaceport on Kodiak, Alaska. Pacific Spaceport Complex – Alaska provides commercial rocket vehicle launch support services for government and commercial customers for orbital, suborbital and complex test and evaluation missions. In addition, AAC also delivers launch operations services and expertise to other emerging spaceports enabled by their specialized knowledge and equipment. AAC promotes space-related business, research, education, and economic growth in the state.

The state has supported AAC in the past through funding for capital and operating expenses. AAC does not currently pay a dividend or return capital to the state.

Alaska Energy Authority

The AEA provides loans and grants to utilities, communities, and individuals to pay for the purchase or upgrade of equipment. Additionally, the agency

Chapter 10
1

Public Entities, Financial Facts

FY 2019

	Millions of Dollars				
	Total Assets	Assets Less Liabilities Book Value	FY 2018 Operating Budget	FY 2019 Operating Budget	Total Positions[1]
Alaska Aerospace Corporation	93.9	79.8	11.0	11.0	10
Alaska Energy Authority	1,609.6[2]	443.0	46.8	42.0	See AIDEA[3]
Alaska Gasline Development Corporation[4]	29.3	21.4	10.4	10.4	25
Alaska Housing Finance Corporation	4,135.8[2]	1,571.4[5]	94.8	98.7	350
Alaska Industrial Development and Export Authority	1,501.1[2]	1,374.9[5]	11.7	11.7	82
Alaska Mental Health Trust Authority	701.1	670.5	4.0	4.2	18
Alaska Municipal Bond Bank Authority	11,94.9	57.5	1.0	1.0	2
Alaska Railroad Corporation[6]	10,95.8	356.7	118.9	121.6	685
Alaska Seafood Marketing Institute	19.5	14.3	21.6	20.6	20
Alaska Student Loan Corporation[7]	264.5	219.4	12.1	11.7	82
University of Alaska	2,243.1	1,546.3	879.1	856.7	4183

[1] Permanent full time, permanent part time and temporary are included in total positions.

[2] AIDEA, AEA, and AHFC's asset totals include deferred outflow of resources.

[3] AIDEA provides staff for the activities of the AEA. A significant portion of AIDEA's staff is engaged in AEA programs.

[4] AGDC's numbers are unaudited and subject to revision.

[5] Assets and deferred outflows of resources less liabilities and deferred inflows of resources.

[6] The Alaska Railroad reports financial data on a calendar-year basis. Assets and book value shown in this table are from audited Dec. 31, 2018 financial statements. The revised operating budgets figure shown here is for calendar year 2018 and CY 2019.

[7] 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.

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

The AEA was established in 1976 to finance and operate power projects. This corporation has also administered rural energy programs at various times in the past, including in FY 2019. As a result of legislatively mandated reorganizations, capital has moved into and out of the corporation.

AEA does not pay a dividend or return capital to the state on a regular basis.

Alaska Gasline Development Corporation

The AGDC has early beginnings dating back to 2009, when declining Cook Inlet gas supplies resulted in energy brownouts and crippling Interior energy costs in communities across Alaska. In 2010, the Legislature passed House Bill 369, creating AGDC.

Today, AGDC is an independent, public corporation of the state. Its corporate mission is to maximize the benefit of Alaska's vast North Slope natural gas resources through the development of infrastructure necessary to move the gas into local and international markets, including advancing the development, financing, construction, and operation of a North Slope natural gas system capable of delivering natural gas for the maximum benefit of Alaskans.

AGDC is pursuing only one option for delivery of North Slope natural gas to Alaskans and potential international markets: the Alaska Liquefied Natural Gas (LNG) Project.

AGDC does not pay a dividend or return capital to the state on a regular basis.

Alaska Housing Finance Corporation

The AHFC was created in 1971 to assist in the financing, development and sale of dwelling units, operate the state's public housing, offer various home loan programs emphasizing housing for low- and moderate-income and rural residents, and administer federally and state-funded multi-residential housing, energy efficiency and weatherization programs within Alaska.

Generally, AHFC accomplishes its mortgage-related objectives by issuing its own bonds and other debt related instruments to finance qualified loans originated by financial institutions in Alaska. Interest and principal receipts from financed loans coupled with investment earnings repays bondholders and contributes toward the corporation's income, enabling the corporation to pay an annual dividend and/or return of capital to the state.

Alaska Industrial Development and Export Authority

AIDEA provides various means of financing and investment to advance economic growth, diversification, and job opportunities in Alaska. AIDEA's financing tools include loan participations, direct loans, credit enhancements, issuing of tax-exempt and taxable conduit revenue bonds, and preferred equity investments in projects. AIDEA's financing is available for enterprises in the commercial, industrial, resource, and nonprofit sectors, as well as public entities in certain instances. The corporation generates income from interest on its loans, investments, and leases, and the operation of its properties.

Between 1981 and 1986, the State of Alaska capitalized the Authority with approximately $333 million in cash and loans. Since then, the AIDEA has not required state assistance to fund operations; instead, it has paid annual dividends to the state.

Alaska Mental Health Trust Authority

AMHTA, a public corporation of the state within the Department of Revenue, carries out the state's obligations under the Mental Health Enabling Act of 1956, namely to ensure an integrated comprehensive mental health program.

The Mental Health Enabling Act established the Alaska Mental Health Trust as a perpetual trust and capitalized it with 1 million acres of land that are to be managed to generate income for mental health services in Alaska.

During the course of class-action litigation, the Alaska Supreme Court concluded the state breached its fiduciary duty while managing Trust land. A 1994 settlement created the AMHTA and established a seven-member board of trustees to oversee it. The settlement recapitalized the Mental Health Trust with $200 million and 1 million acres of land consisting of original Trust land as well as replacement land.

Earnings on this asset base are used to fund a variety of programs and are accounted for separately in the annual Mental Health budget, which is typically passed in conjunction with the state's operating budget. The Alaska Permanent Fund Corporation manages the cash principal. The Alaska Department of Natural Resources manages the land assets and a portfolio of directly owned real estate investments.

AMHTA operates similar to a private foundation to administer, protect, and enhance the Mental Health Trust. The Trust Authority provides leadership in the advocacy, planning, implementation, and funding of services and programs to help improve the lives of Trust beneficiaries. The Trust Authority also coordinates with other state agencies.

The Trust Authority does not pay a dividend or return capital to the state.

Alaska Municipal Bond Bank Authority

AMBBA lends monies to authorized borrowers within the state to finance capital projects, primarily through the issuance of AMBBA bonds. Bond proceeds are used to purchase authorized borrowers' debt instruments. Limited State of Alaska credit support, combined with a cross-collateralized loan portfolio and pooled reserve fund structure, result

Chapter 10
2

Public Entities, Revenue and Dividends
FY 2019

	Millions of Dollars				
	Revenue	Expenditures	Net Income	Dividend	State Contribution
Alaska Aerospace Corporation	25.5	26.0 [1]	-0.5	0.0	0.0
Alaska Energy Authority	103.7	72.4	7.7	0.0	-23.6 [2]
Alaska Gasline Development Corporation [3]	1.0	27.1	-26.1	0.0	0.0
Alaska Housing Finance Corporation	256.0	221.2 [4]	32.7	45.6	2.1
Alaska Industrial Development and Export Authority	84.5 [5]	38.2	46.3	4.8	3.3 [6]
Alaska Mental Health Trust Authority	47.5	30.3	17.2	0.0	0.0
Alaska Municipal Bond Bank Authority	55.9	52.6	3.3	0.0	0.0
Alaska Railroad Corporation	187.4	169.4	18.0	0.0	0.0
Alaska Seafood Marketing Institute	14.3 [7]	15.3	-1.0	0.0	0.0
Alaska Student Loan Corporation	10.7	13.1	-2.4	0.0	0.0
University of Alaska	758.1	788.4	-30.3	0.0	334.6 [6]

[1] For AAC, insurance payments and capitalized expenditures for rebuilding the launch complex are included.

[2] State Contribution includes State of Alaska operating and capital expenditures by AEA and also State of Alaska appropriations of fund balances to other State of Alaska funds (excluding the PCE Endowment Sweep to the State of Alaska General Fund/CBRF of $1,053.6 million).

[3] AGDC's numbers are unaudited and subject to revision.

[4] For AHFC, the Expenditures amount includes operating expenses, non-operating expenses, special items, and transfers, as applicable.

[5] Includes State of Alaska non-employer contribution for pension and Other Post-employment Benefits for the AIDEA contribution.

[6] Does not include on-behalf payments made by State of Alaska for pensions. Does not includes OPEB for AIDEA.

[7] Revenue from the seafood marketing assessment tax of $10.0 million is included in the Revenue column, not the State Contribution column.

in a strong credit rating and enable AMBBA to sell bonds with lower interest rates than authorized borrowers could potentially obtain on their own.

AMBBA does not pay a dividend or return capital to the state on a regular basis.

Alaska Railroad Corporation

The ARC operates 683 track miles, providing both freight and passenger rail services between Seward and Fairbanks, including a spur line to Whittier and the Anchorage airport. The ARC serves the ports of Whittier, Seward, and Anchorage, as well as Denali National Park and military installations. In addition, the corporation generates revenues from its real estate assets.

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. The corporation does not pay a cash dividend to Alaska's general fund, as the corporation's net position is restricted for reinvestment in infrastructure.

Alaska Seafood Marketing Institute

ASMI is a marketing organization with the mission of increasing the economic value of Alaska seafood. It conducts advertising campaigns and public relations for the seafood industry, and works directly with food service distributors, retailers and restaurants to build the "Alaska seafood" brand. ASMI is a public-private partnership that receives funding from the state, federal government, and private industry.

The state levies the seafood marketing assessment, a 0.5% assessment on fisheries, to support ASMI's operations.

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

Alaska Student Loan Corporation

The ASLC issues debt and recycles student loan payments to finance other student loans. Payments on student loans also provide funding for the corporation's operations.

In FY 1988, the State of Alaska transferred $260 million of existing student loans to the corporation. Additional appropriations of cash between FY 1988 and FY 1992 totaled $46.7 million.

The 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.

University of Alaska

The University of Alaska is a constitutionally created corporation of the State of Alaska that is authorized to hold title to real and personal property and to issue debt in its own name.

The University of Alaska system is the only public institution of higher learning in the state. It has a university in Anchorage, another in Fairbanks and a third in Juneau. The universities have extended satellite colleges and sites throughout the state. The system's main administrative offices are located on the Fairbanks campus. The University of Alaska system is governed by an 11-member Board of Regents, which is appointed by the governor and confirmed by the Legislature.

The University of Alaska system is primarily supported by the state's general fund appropriations, student tuition and fees, as well as grant and contract revenue from the State of Alaska, federal agencies, and private sponsors, including the University of Alaska Foundation.

The University of Alaska does not pay a dividend or return capital to the state.

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Appendices

Glossary

Allowable Lease Expenditures

Lease expenditures are upstream costs that are directly related to exploring for, developing, or producing oil or gas. Allowable lease expenditures are specifically defined in statute and regulations, and dictate what can and cannot be applied in production tax calculations. Certain expenses incurred by taxpayers fall outside this definition and are not tracked or reported by the Department of Revenue.

Constitutional Budget Reserve Fund (CBRF)

Created by voters in 1990, the CBRF receives proceeds from oil, gas, mining tax ,and royalty settlements . The Alaska Legislature may, with a three-quarters majority vote in each chamber, withdraw money from the fund.

Deductible Lease Expenditures

Deductible Lease Expenditures is a term of art, not defined in any statute or regulation, used to describe that portion of allowable lease expenditures actually applied in the tax calculation in the year incurred.

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 unrestricted general fund revenue, general fund subaccount 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.

Other Restricted State Revenue

Other Restricted State Revenue is on-federal revenue that is not deposited to the general fund or a subaccount of the general fund. This revenue is restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or by customary practice.

Percent of Market Value

Percent of market value (POMV) is a mechanism that is used to determine withdrawal amounts based on a percentage of a fund's total fair-market value balance, on preset dates, such as year-end.

Senate Bill 26, which the Legislature passed in 2018, uses a POMV framework to determine the amount of Permanent Fund earnings that is transferred out of the Permanent Fund each year.

Permanent Fund GASB (or Market) Income

Under standards adopted by the Governmental Accounting Standards Board (GASB), 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

Historically, 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 fiscal year, plus interest, dividends and rents earned by the fund. 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, Alaska Marine Highway receipts, payments to various revolving loan funds, and public corporation receipts. Some of this revenue is actually dedicated as a consequence of provisions 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 funds are categorized as designated general funds.

Restricted Revenue

Restricted revenue represents revenue that is restricted by the Alaska 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 subaccounts 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, the department presents three categories of restricted revenue – designated general fund revenue, other restricted state revenue, and federal revenue.

Revenue Available for Current-Year Appropriation

This is all revenue that is technically available for the Legislature to appropriate, regardless of customary practice. That includes unrestricted general fund revenue, designated general fund revenue, deposits to and earnings from the CBRF, a portion of deposits to the Permanent Fund, and realized earnings from the Permanent Fund.

Unrestricted General Fund Revenue

Unrestricted General Fund Revenue is revenue not restricted by the Alaska 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 of Revenue's unrestricted revenue figure from total general fund revenue, the department has excluded general fund subaccount revenue, as well as customarily restricted revenue such as shared taxes and pass-through revenue for qualified fisheries associations. The department has also added specific revenue, such as transfers to the state treasury from the Unclaimed Property Trust and dividends from component units.

Appendices

Acronyms

AAC	Alaska Aerospace Corporation
ACWI	All Country World Index
AEA	Alaska Energy Authority
AGDC	Alaska Gasline Development Corporation
AHFC	Alaska Housing Finance Corporation
AIDEA	Alaska Industrial Development and Export Authority
AMBBA	Alaska Municipal Bond Bank Authority
AMHTA	Alaska Mental Health Trust Authority
ANS	Alaska North Slope
ANWR	Arctic National Wildlife Refuge
AOGCC	Alaska Oil and Gas Conservation Commission
APFC	Alaska Permanent Fund Corporation
ARC	Alaska Railroad Corporation
AS	Alaska Statutes
ASLC	Alaska Student Loan Corporation
ASMI	Alaska Seafood Marketing Institute
bbl	Barrel of oil
BOE	Barrels of oil equivalent
Btu	British thermal unit
CAFR	*Comprehensive Annual Financial Report*
CAPEX	Capital expenditures
CBRF	Constitutional Budget Reserve Fund
CDQ	Community development quota
CFAL	Carried-Forward Annual Loss
CIT	Corporate income tax
CP	Currently producing
CPI-U	Consumer Price Index for All Urban Consumers
CPV	Commercial passenger vessel
CY	Calendar year
D/I	Data incomplete
DNR	Department of Natural Resources
DOR	Department of Revenue
EMBI	Emerging Markets Bond Index
FBT	Fisheries business tax
FERC	Federal Energy Regulatory Commission
FTSE	Financial Times Stock Exchange
FY	Fiscal year
GASB	Governmental Accounting Standards Board
G/C	Government/Credit index
GeFONSI	General fund and other non-segregated investments
GPMA	Greater Point McIntyre Area
GVPP	Gross value at point of production
GVR	Gross value reduction
HB 111	House Bill 111, passed in 2017
HB 247	House Bill 247, passed in 2016
HB 331	House Bill 331, passed in 2018
LLC	Limited liability corporation
LNG	Liquefied natural gas
mcf	Thousand cubic feet
MSCI	Morgan Stanley Capital International
NAREIT	National Association of Real Estate Investment Trusts
NEWS	North East West Sak
NGLs	Natural gas liquids
NPR-A	National Petroleum Reserve – Alaska
N/T	Not tracked
OMB	Office of Management and Budget
OPEX	Operating expenditures
PBU	Prudhoe Bay Unit
PCE	Power Cost Equalization
POD	Plan of Development
POMV	Percent of Market Value
PTV	Production tax value
QR	Quick response
RCA	Regulatory Commission of Alaska
REIT	Real Estate Investment Trust
RIK	Royalty in kind
RIV	Royalty in value
RSA	Royalty settlement agreement
RSB	*Revenue Sources Book*
S&P	Standard & Poor's
SB 21	Senate Bill 21, passed in 2013
SB 26	Senate Bill 26, passed in 2018
SB 138	Senate Bill 138, passed in 2014
SBRF	Statutory Budget Reserve Fund
SOA	State of Alaska
TAPS	Trans-Alaska Pipeline System
TIPS	Treasury Inflation Protected Securities
UA	University of Alaska
UD	Under development
UE	Under evaluation
UGF	Unrestricted General Fund

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Appendix A 1

Unrestricted General Fund Revenue Matrices

Revenue sensitivity to oil price

Millions of Dollars

FY 2020		FY 2021		FY 2022	
At forecast ANS production of 492,100 barrels per day [1]		At forecast ANS production of 490,500 barrels per day [1]		At forecast ANS production of 460,100 barrels per day [1]	
Alaska North Slope Dollars per Barrel[2]	Unrestricted General Fund Revenue Not Including Permanent Fund Transfer	Alaska North Slope Dollars per Barrel	Unrestricted General Fund Revenue Not Including Permanent Fund Transfer	Alaska North Slope Dollars per Barrel	Unrestricted General Fund Revenue Not Including Permanent Fund Transfer
$30	$1,160	$30	$1,120	$30	$1,130
$40	$1,390	$40	$1,420	$40	$1,370
$50	$1,680	$50	$1,710	$50	$1,680
$60	$1,970	$59.00	$1,967	$60	$1,940
$63.54	$2,116	$60	$2,000	$61.00	$1,976
$70	$2,410	$70	$2,340	$70	$2,270
$80	$3,090	$80	$2,740	$80	$2,640
$90	$3,800	$90	$3,460	$90	$3,220
$100	$4,590	$100	$4,230	$100	$3,920
$110	$5,400	$110	$4,890	$110	$4,630
$120	$6,130	$120	$5,640	$120	$5,350
$130	$6,860	$130	$6,400	$130	$6,060

[1] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

[2] Alaska North Slope (ANS) dollars per barrel values for FY 2021 are fiscal year averages that incorporate a combination of actual and forecast monthly prices. Averages shown here include a price for the remaining months of the fiscal year such that the average for the fiscal year finishes at the price shown in the table.

Note:

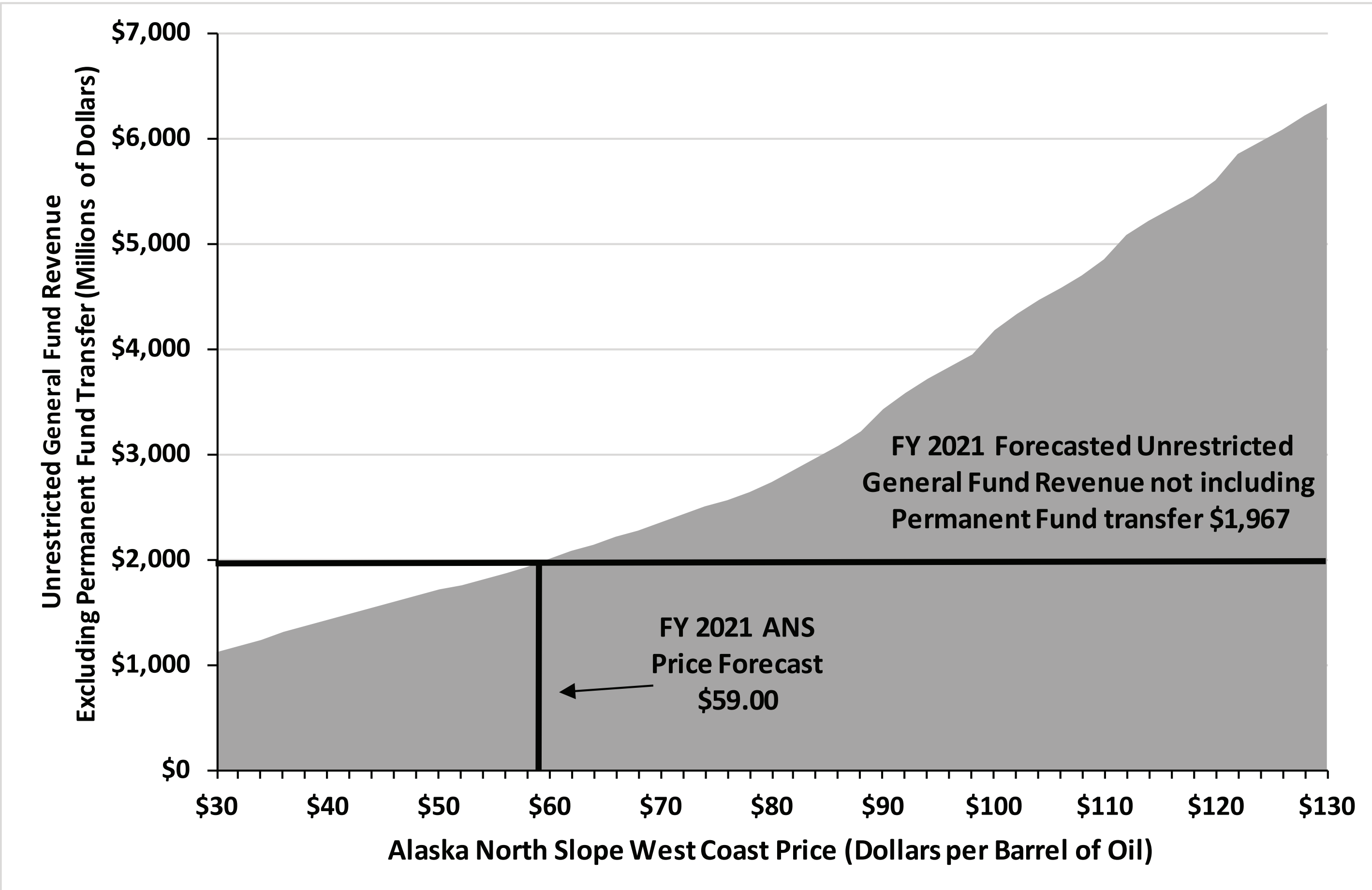
This table presents estimated unrestricted general fund revenue at a range of ANS prices, holding all other variables constant. Analysis assumes that the given price is in place for all three years shown. Only production tax, royalties, corporate income tax, and lease expenditures are adjusted for purposes 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 volumes and netback costs. In addition, revenues may vary from the amount shown due to changes in company decision-making, company-specific tax calculation issues, month-to-month variations in price or production, and changes in non-oil revenue.

Appendix A

A

UGF Revenue Relative to Price Per Barrel

Price sensitivity for FY 2021



Appendix A
2

History of Unrestricted General Fund Revenue[1]

By type and category

Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Millions of Dollars									
	History									
Unrestricted General Fund Tax Revenue										
Petroleum Property Tax	**118.8**	**110.6**	**111.2**	**99.3**	**128.1**	**125.2**	**111.7**	**120.4**	**121.6**	**119.5**
Excise Tax										
Alcoholic Beverages	19.5	19.4	19.4	19.8	18.3	17.7	22.2	20.1	19.6	20.4
Tobacco Products	45.1	46.5	45.6	44.8	42.8	40.5	45.5	43.4	37.4	40.1
Insurance Premium[2]	50.4	49.6	54.8	52.4	54.6	59.1	0.0	0.0	0.0	71.9
Electric and Telephone Cooperative	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2
Marijuana[3]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.9	5.4	5.5
Motor Fuel Tax	28.8	39.5	40.9	41.9	41.9	41.8	44.3	41.3	6.3	6.3
Vehicle Rental Tax[4]	7.3	8.3	8.5	8.4	8.3	9.7	0.0	0.0	0.0	0.0
Tire Fee	1.4	1.5	1.4	1.4	1.3	1.5	1.5	1.4	1.4	1.3
Total Excise Tax	**152.6**	**164.9**	**170.8**	**168.9**	**167.5**	**170.5**	**113.6**	**107.3**	**70.4**	**145.7**
Income Tax										
General Corporate	81.9	157.7	98.5	112.5	99.9	136.2	90.2	86.5	119.6	114.8
Petroleum Corporate	446.1	542.1	568.8	434.6	307.6	94.8	-58.8	-59.4	66.4	217.7
Total Income Tax	**528.0**	**699.8**	**667.3**	**547.1**	**407.5**	**231.0**	**31.4**	**27.1**	**185.9**	**332.5**
Oil and Gas Production										
Oil and Gas Production Tax	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6	176.8	125.9	741.2	587.3
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Hazardous Release	10.3	9.7	9.4	7.8	8.8	8.1	9.2	8.6	8.7	8.2
Total Oil and Gas Production	**2,871.0**	**4,552.9**	**6,146.1**	**4,050.3**	**2,614.7**	**389.7**	**186.0**	**134.4**	**749.9**	**595.5**
Fish Tax										
Fisheries Business Tax	14.0	20.1	26.4	19.2	25.1	21.3	22.3	15.5	21.2	21.3
Fishery Resource Landing Tax	8.3	2.7	6.3	5.5	7.1	5.1	0.3	4.9	3.5	6.5
Total Fish Tax	**22.3**	**22.8**	**32.7**	**24.7**	**32.2**	**26.4**	**22.6**	**20.3**	**24.7**	**27.8**
Other Tax										
Mining	29.7	49.0	40.7	46.7	23.3	38.6	10.7	41.4	46.9	45.1
Charitable Gaming	2.6	2.5	2.6	2.5	2.5	2.5	2.6	2.5	2.4	2.6
Large Passenger Vessel Gambling	0.0	5.8	5.2	6.0	6.7	6.6	7.7	8.2	8.6	10.1
Total Other Tax	**38.6**	**57.3**	**48.5**	**55.2**	**32.5**	**47.7**	**21.1**	**52.0**	**57.9**	**57.7**
Total Unrestricted General Fund Tax Revenue	**3,731.3**	**5,608.3**	**7,176.6**	**4,945.5**	**3,382.5**	**990.5**	**486.4**	**461.6**	**1,210.5**	**1,278.6**

(Table continued, next page)

Appendix A
2

History of Unrestricted General Fund Revenue[1]

By type and category *(Continued)*

	Millions of Dollars									
	History									
Fiscal Year	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Unrestricted General Fund Non-Tax Revenue										
Licenses and Permits[5]	**39.5**	**42.8**	**42.3**	**41.9**	**42.7**	**34.4**	**41.2**	**45.6**	**37.1**	**38.0**
Intergovernmental Receipts										
Federal Shared Revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Charges for Services	**17.1**	**18.5**	**29.2**	**25.2**	**24.2**	**20.1**	**21.5**	**21.5**	**6.8**	**7.1**
Fines and Forfeitures	**10.4**	**7.0**	**10.9**	**15.8**	**11.3**	**11.5**	**11.4**	**13.2**	**8.7**	**19.0**
Rents and Royalties										
Oil and Gas Royalties[6]	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1	840.3	676.2	977.8	1,077.2
Oil and Gas Bonuses, Rents, Interest[6]	8.0	22.0	8.9	19.4	27.4	26.1	30.3	5.3	24.5	37.5
Other[7]	13.2	17.6	20.4	24.7	34.5	36.3	24.7	27.4	5.8	5.6
Total Rents and Royalties	**1,490.2**	**1,860.9**	**2,052.1**	**1,792.5**	**1,746.9**	**1,114.5**	**895.3**	**708.9**	**1,008.1**	**1,120.2**
Investment Earnings (not including Permanent Fund transfer)	**184.0**	**96.3**	**107.8**	**28.1**	**130.2**	**47.9**	**22.5**	**17.3**	**16.3**	**93.3**
Miscellaneous Revenue	**40.8**	**39.1**	**66.3**	**79.5**	**52.3**	**37.5**	**54.4**	**86.5**	**126.1**	**75.8**
Total Unrestricted General Fund Non-Tax Revenue	**1,782.0**	**2,064.6**	**2,308.6**	**1,983.0**	**2,007.6**	**1,265.8**	**1,046.3**	**893.0**	**1,203.0**	**1,353.4**
Total Unrestricted General Fund Revenue (not including Permanent Fund transfer)	**5,513.3**	**7,672.9**	**9,485.2**	**6,928.5**	**5,390.1**	**2,256.3**	**1,532.7**	**1,354.6**	**2,413.5**	**2,632.0**
Permanent Fund Transfer	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**2,722.6**
Total Unrestricted General Fund Revenue (including Permanent Fund transfer)	**5,513.3**	**7,672.9**	**9,485.2**	**6,928.5**	**5,390.1**	**2,256.3**	**1,532.7**	**1,354.6**	**2,413.5**	**5,354.6**

[1] Unrestricted general fund revenue includes revenue that is 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 website at www.tax.alaska.gov/sourcesbook/qr.aspx?Chapter=15&FY=2019.

[2] From FY 2016 – FY 2018, these revenues were deposited into a subfund of the general fund and were considered restricted.

[3] In November 2014, Alaska voters voted to legalize marijuana. The state's first collections from the marijuana excise tax were in FY 2017.

[4] Starting in FY 2016, to be consistent with other budget documents, vehicle rental tax is now classified as designated general fund revenue.

[5] Starting in FY 2016, for consistency with other budget documents, alcoholic beverage license revenue is classified as designated general fund revenue.

[6] Net of Permanent Fund, Public School Trust Fund, and Constitutional Budget Reserve Fund deposits.

[7] Includes non-petroleum rents and royalties.

Appendix A 3

Petroleum Revenue

By restriction and type

Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Millions of Dollars									
	History[1]									
Unrestricted Petroleum Revenue										
Petroleum Property Tax	118.8	110.6	111.2	99.3	128.1	125.2	111.7	120.4	121.6	119.5
Petroleum Corporate Income Tax	446.1	542.1	568.8	434.6	307.6	94.8	-58.8	-59.4	66.4	217.7
Production Tax	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6	176.8	125.9	741.2	587.3
Oil and Gas Hazardous Release	10.3	9.7	9.4	7.8	8.8	8.1	9.2	8.6	8.7	8.2
Oil and Gas Royalties[2]	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1	840.3	676.2	977.8	1,077.2
Bonuses, Rents and Interest[2]	8.0	22.0	8.9	19.4	27.4	26.1	30.3	5.3	24.5	37.5
Total Unrestricted Petroleum Revenue	**4,912.9**	**7,048.9**	**8,857.8**	**6,352.0**	**4,762.8**	**1,687.9**	**1,109.5**	**876.9**	**1,940.2**	**2,047.3**
Cumulative Total Unrestricted Petroleum Revenue[3]	86,340	93,389	102,247	108,599	113,362	115,050	116,159	117,036	118,976	121,024
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	21.3	3.0	4.8	3.6	6.8	3.2	1.8	1.4	23.7	12.3
Royalties to Permanent Fund	696.1	857.3	904.9	842.1	773.7	510.4	390.5	334.5	356.1	374.8
Royalties to Public School Trust Fund	11.1	13.6	14.7	13.8	12.5	7.9	6.4	5.5	7.0	7.5
Constitutional Budget Reserve Fund Deposits[4]	552.7	187.2	102.8	357.4	177.4	149.9	119.1	481.9	121.3	181.2
Total Restricted Petroleum Revenue	**1,281.2**	**1,061.1**	**1,027.2**	**1,216.9**	**970.4**	**671.4**	**517.8**	**823.2**	**508.0**	**575.8**

(Table continued, next page)

Appendix A 3

Petroleum Revenue

By restriction and type *(Continued)*

	Millions of Dollars									
	Forecast									
Fiscal Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Unrestricted Petroleum Revenue										
Petroleum Property Tax	121.6	117.9	116.5	115.1	113.5	111.9	110.1	108.0	105.8	103.5
Petroleum Corporate Income Tax	210.0	215.0	240.0	245.0	250.0	255.0	260.0	265.0	270.0	275.0
Production Tax	372.6	319.9	311.8	292.0	299.1	316.8	304.3	320.0	323.8	350.6
Oil and Gas Hazardous Release	8.2	8.2	7.6	7.3	7.2	7.3	7.4	7.5	7.7	7.9
Oil and Gas Royalties [2]	816.0	718.0	702.0	673.9	666.0	697.7	711.8	752.2	789.5	832.4
Bonuses, Rents and Interest [2]	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
Total Unrestricted Petroleum Revenue	**1,559.4**	**1,410.0**	**1,408.9**	**1,364.2**	**1,366.8**	**1,419.7**	**1,424.6**	**1,483.7**	**1,527.9**	**1,600.3**
Cumulative Total Unrestricted Petroleum Revenue [3]	122,583	123,993	125,402	126,766	128,133	129,553	130,977	132,461	133,989	135,589
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	11.3	9.5	10.5	20.0	36.3	52.4	58.7	59.9	71.5	89.0
Royalties to Permanent Fund	380.3	337.6	330.4	317.6	319.4	343.2	373.9	418.1	458.3	499.3
Royalties to Public School Trust Fund	6.2	5.5	5.3	5.1	5.1	5.4	5.6	6.0	6.4	6.8
Constitutional Budget Reserve Fund Deposits [4]	200.0	75.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Total Restricted Petroleum Revenue	**597.8**	**427.5**	**396.2**	**392.8**	**410.7**	**451.0**	**488.3**	**534.0**	**586.3**	**645.2**

[1] Historical petroleum revenue can be found on the Tax Division's website at www.tax.alaska.gov/sourcesbook/qr.aspx?Chapter=16&FY=2019.

[2] Net of Permanent Fund, Public School Trust Fund, and Constitutional Budget Reserve Fund deposits.

[3] Based on revenue beginning in FY 1959.

[4] The FY 2011 and FY 2012 Constitutional Budget Reserve Fund Deposits have been revised to include deposits from royalty settlements.

Appendix A 4

Unrestricted General Fund Revenue

Petroleum versus non-petroleum revenue

	Millions of Dollars									
	History									
Fiscal Year	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Unrestricted General Fund Revenue										
Total Unrestricted Petroleum Revenue	4,912.9	7,048.9	8,857.8	6,352.0	4,762.8	1,687.9	1,109.5	876.9	1,940.2	2,047.3
Unrestricted General Fund Non-Petroleum Revenue	600.4	624.0	627.4	576.5	627.3	568.4	423.2	477.7	473.3	3,307.3
Total Unrestricted General Fund Revenue	**5,513.3**	**7,672.9**	**9,485.2**	**6,928.5**	**5,390.1**	**2,256.3**	**1,532.7**	**1,354.6**	**2,413.5**	**5,354.6**
Percent of Total Unrestricted General Fund Revenue from Petroleum	89%	92%	93%	92%	88%	75%	72%	65%	80%	38%
Total Unrestricted General Fund Revenue (not including Permanent Fund transfer)	**5,513.3**	**7,672.9**	**9,485.2**	**6,928.5**	**5,390.1**	**2,256.3**	**1,532.7**	**1,354.6**	**2,413.5**	**2,632.0**
Percent of Total Unrestricted General Fund Revenue from Petroleum (not including Permanent Fund transfer)	89%	92%	93%	92%	88%	75%	72%	65%	80%	78%

(Table continued, next page)

Appendix A 4

Unrestricted General Fund Revenue

Petroleum versus non-petroleum revenue *(Continued)*

	Millions of Dollars									
	Forecast									
Fiscal Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Unrestricted General Fund Revenue										
Total Unrestricted Petroleum Revenue	1,559.4	1,410.0	1,408.9	1,364.2	1,366.8	1,419.7	1,424.6	1,483.7	1,527.9	1,600.3
Unrestricted General Fund Non-Petroleum Revenue	3,490.1	3,649.0	3,662.5	3,842.7	3,968.7	4,061.2	4,163.5	4,265.3	4,365.5	4,471.3
Total Unrestricted General Fund Revenue	**5,049.4**	**5,059.0**	**5,071.4**	**5,206.9**	**5,335.5**	**5,481.0**	**5,588.0**	**5,749.0**	**5,893.4**	**6,071.7**
Percent of Total Unrestricted General Fund Revenue from Petroleum	31%	28%	28%	26%	26%	26%	25%	26%	26%	26%
Total Unrestricted General Fund Revenue (not including Permanent Fund transfer)	**2,116.3**	**1,967.5**	**1,976.4**	**1,944.9**	**1,957.5**	**2,021.0**	**2,043.0**	**2,117.0**	**2,172.4**	**2,260.7**
Percent of Total Unrestricted General Fund Revenue from Petroleum (not including Permanent Fund transfer)	74%	72%	71%	70%	70%	70%	70%	70%	70%	71%

Appendix B 1

Nominal Netback Costs, Actual and Forecast

By netback segment

	Dollars per Barrel									
	History									
Fiscal Year	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Alaska North Slope West Coast	**74.90**	**94.49**	**112.65**	**107.57**	**107.57**	**72.58**	**43.18**	**49.43**	**63.61**	**69.46**
Netback Costs [1]										
Marine Costs	2.21	2.44	3.24	3.64	3.70	3.25	3.15	3.18	3.28	3.06
TAPS Tariff	3.81	4.02	5.06	5.93	6.52	6.11	6.25	6.09	5.84	4.49
Feeder Tariff	0.31	0.29	0.31	0.35	0.38	0.42	0.39	0.45	0.41	0.57
Quality Bank	-0.41	-0.54	-0.68	-0.67	-0.59	-0.37	-0.04	-0.16	-0.17	-0.29
Other [2]	0.09	0.46	0.44	0.51	0.41	0.33	0.13	0.15	0.17	0.19
Total of Netback Costs	**6.01**	**6.67**	**8.37**	**9.76**	**10.42**	**9.74**	**9.88**	**9.70**	**9.52**	**8.02**
ANS Wellhead Weighted Average All Destinations	**68.89**	**87.82**	**104.28**	**97.81**	**97.15**	**62.83**	**33.30**	**39.73**	**54.09**	**61.44**

(Table continued, next page)

Appendix B 1

Nominal Netback Costs, Actual and Forecast

By netback segment *(Continued)*

	Dollars per Barrel									
	Forecast									
Fiscal Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Alaska North Slope West Coast	**63.54**	**59.00**	**61.00**	**62.00**	**63.00**	**65.00**	**66.00**	**68.00**	**69.00**	**71.00**
Netback Costs [1]										
Marine Costs	3.40	3.52	3.37	3.41	3.45	3.49	3.53	3.58	3.62	3.67
TAPS Tariff	5.24	5.83	6.34	6.69	6.53	6.36	6.47	6.59	6.62	6.74
Feeder Tariff	0.60	0.61	0.65	0.68	0.69	0.67	0.67	0.67	0.66	0.66
Quality Bank	-0.31	-0.31	-0.32	-0.32	-0.33	-0.34	-0.34	-0.35	-0.36	-0.37
Other [2]	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Total of Netback Costs	**9.06**	**9.78**	**10.17**	**10.59**	**10.46**	**10.31**	**10.45**	**10.62**	**10.68**	**10.83**
ANS Wellhead Weighted Average All Destinations	**54.48**	**49.22**	**50.83**	**51.41**	**52.54**	**54.69**	**55.55**	**57.38**	**58.32**	**60.17**

[1] Field-specific transportation costs represent the average cost for all barrels, whether or not they incur a specific expense. For example, feeder costs represent the average cost for all barrels, including Prudhoe Bay production not using a feeder pipeline. Slope-wide costs are estimated based on reported relevant cost information. The Department of Revenue's data sources are variable and the department has not been able to confirm that these calculations are consistent for all years.

[2] Primarily tanker and pipeline gains or losses.

Appendix B 2

Price Difference from Prior Forecast

Spring 2019 forecast and fall 2019 forecast

Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	Dollars per Barrel										
Spring 2019 Forecast											
ANS West Coast	68.90	66.00	66.00	67.00	69.00	70.00	72.00	74.00	75.00	77.00	79.00
ANS Wellhead Weighted Average All Destinations	60.49	57.19	57.09	57.60	59.07	59.90	61.84	63.80	64.70	66.43	68.05
Fall 2019 Forecast											
ANS West Coast	69.46	63.54	59.00	61.00	62.00	63.00	65.00	66.00	68.00	69.00	71.00
ANS Wellhead Weighted Average All Destinations	61.44	54.48	49.22	50.83	51.41	52.54	54.69	55.55	57.38	58.32	60.17
Dollar Amount Change from Prior Forecast											
ANS West Coast	0.56	-2.46	-7.00	-6.00	-7.00	-7.00	-7.00	-8.00	-7.00	-8.00	-8.00
ANS Wellhead Weighted Average All Destinations	0.95	-2.72	-7.87	-6.77	-7.66	-7.36	-7.15	-8.26	-7.32	-8.10	-7.88
Percent Change from Prior Forecast											
ANS West Coast	0.8%	-3.7%	-10.6%	-9.0%	-10.1%	-10.0%	-9.7%	-10.8%	-9.3%	-10.4%	-10.1%
ANS Wellhead Weighted Average All Destinations	1.6%	-4.7%	-13.8%	-11.8%	-13.0%	-12.3%	-11.6%	-12.9%	-11.3%	-12.2%	-11.6%

Appendix C 1

Production Difference from Prior Forecast

Spring 2019 forecast and fall 2019 forecast

	Thousand Barrels per Day										
Fiscal Year	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Spring 2019 Forecast (adjusted) [1]											
Alaska North Slope	501.5	519.5	501.7	481.4	465.4	459.1	462.4	474.8	484.5	490.6	494.2
Non-North Slope	14.4	11.6	10.0	9.0	8.2	7.5	6.8	6.2	5.6	5.1	4.6
Total	**515.8**	**531.1**	**511.7**	**490.4**	**473.5**	**466.6**	**469.2**	**481.0**	**490.1**	**495.7**	**498.8**
Fall 2019 Forecast [2]											
Alaska North Slope	496.9	492.1	490.5	460.1	439.7	434.3	450.0	458.9	468.9	482.5	494.5
Non-North Slope	14.9	16.2	15.7	13.7	12.4	11.3	10.5	9.8	9.5	9.5	9.2
Total	**511.8**	**508.3**	**506.1**	**473.8**	**452.1**	**445.7**	**460.4**	**468.7**	**478.4**	**492.0**	**503.7**
Volume Change from Prior Forecast											
Alaska North Slope	-4.5	-27.4	-11.2	-21.3	-25.7	-24.8	-12.4	-15.9	-15.6	-8.1	0.3
Non-North Slope	0.5	4.6	5.6	4.8	4.2	3.9	3.6	3.6	3.8	4.4	4.6
Total	**-4.0**	**-22.7**	**-5.6**	**-16.6**	**-21.4**	**-20.9**	**-8.8**	**-12.3**	**-11.7**	**-3.7**	**4.9**
Percent Change from Prior Forecast											
Alaska North Slope	-0.9%	-5.3%	-2.2%	-4.4%	-5.5%	-5.4%	-2.7%	-3.4%	-3.2%	-1.7%	0.1%
Non-North Slope	3.7%	40.1%	56.3%	53.1%	51.6%	51.8%	53.6%	57.9%	68.2%	86.1%	100.9%
Total	**-0.8%**	**-4.3%**	**-1.1%**	**-3.4%**	**-4.5%**	**-4.5%**	**-1.9%**	**-2.6%**	**-2.4%**	**-0.8%**	**1.0%**

[1] For purposes of this table, Spring 2019 Forecast for Alaska North Slope production has been adjusted downward by 10,000 barrels per day to provide a more direct comparison to Fall 2019 Forecast values.

[2] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large scale enhanced oil recovery project. These NGLs are excluded from production forecasts reported in this table.

Appendix C 2

Annual Average Daily Crude Oil Production

By production area

	Thousand Barrels per Day									
	History									
Fiscal Year	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**[1]	**2019**
Alaska North Slope										
Prudhoe Bay[2]	276.7	267.6	265.2	247.4	247.5	228.5	232.1	239.8	218.2	206.4
PBU Satellites/Milne Point[3]	63.1	55.4	50.7	46.5	44.3	41.4	44.0	38.9	41.8	44.3
Greater Point McIntyre Area[4]	34.0	30.8	29.7	26.3	26.2	22.4	23.3	27.7	30.5	30.3
Kuparuk	99.2	91.0	91.6	86.4	85.9	78.5	78.4	80.6	82.8	72.2
Kuparuk Satellites[5]	35.0	31.9	27.5	25.3	25.1	26.6	26.0	24.4	27.5	32.7
Endicott[6]	12.7	11.7	11.3	10.4	9.5	9.0	9.1	8.6	8.1	9.2
Alpine[7]	93.5	84.6	78.2	64.5	56.8	47.8	55.2	58.9	64.6	52.5
Offshore[8]	28.4	27.0	25.2	24.8	35.0	46.8	46.4	44.3	40.4	35.0
NPR-A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	8.3
Point Thomson	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.1	4.5	6.1
Other[9]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Alaska North Slope	**642.6**	**599.9**	**579.4**	**531.6**	**530.4**	**501.0**	**514.7**	**526.4**	**518.5**	**496.9**
Cook Inlet	**8.9**	**10.4**	**10.7**	**12.2**	**16.3**	**18.3**	**16.6**	**14.1**	**15.7**	**14.9**
Total Alaska	**651.5**	**610.3**	**590.1**	**543.8**	**546.6**	**519.2**	**531.3**	**540.5**	**534.1**	**511.8**

(Table continued, next page)

Appendix C
2

Annual Average Daily Crude Oil Production

By production area *(Continued)*

	Thousand Barrels per Day									
	Forecast									
Fiscal Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Alaska North Slope										
Prudhoe Bay [2]	202.2	195.4	187.3	179.6	172.0	164.6	157.8	151.5	145.6	139.9
PBU Satellites/Milne Point [3]	46.2	51.9	47.0	42.0	38.8	36.5	34.7	33.4	32.3	31.4
Greater Point McIntyre Area [4]	27.0	21.4	19.2	17.5	16.1	14.9	13.9	13.0	12.2	11.5
Kuparuk	70.4	67.7	64.2	61.1	58.2	56.6	53.6	51.1	48.9	46.8
Kuparuk Satellites [5]	32.7	31.9	33.8	32.1	28.4	36.5	29.0	25.8	23.7	22.1
Endicott [6]	8.1	7.2	6.6	6.1	5.7	5.4	5.0	4.7	4.4	4.2
Alpine [7]	54.2	56.9	50.2	44.9	43.4	42.3	39.2	34.8	30.8	28.0
Offshore [8]	34.3	36.4	32.2	28.9	26.8	26.1	26.3	26.6	26.3	25.1
NPR-A	11.5	13.4	11.3	17.8	27.9	36.9	40.2	39.3	44.7	52.6
Point Thomson	5.6	8.2	8.2	8.2	8.1	7.9	7.5	6.5	5.4	4.9
Other [9]	0.0	0.1	0.1	1.4	9.0	22.4	51.5	82.2	108.1	128.1
Total Alaska North Slope	**492.1**	**490.5**	**460.1**	**439.7**	**434.3**	**450.0**	**458.9**	**468.9**	**482.5**	**494.5**
Cook Inlet	**16.2**	**15.7**	**13.7**	**12.4**	**11.3**	**10.5**	**9.8**	**9.5**	**9.5**	**9.2**
Total Alaska	**508.3**	**506.1**	**473.8**	**452.1**	**445.7**	**460.4**	**468.7**	**478.4**	**492.0**	**503.7**

[1] FY 2018 production figures have been revised from the *Fall 2018 Revenue Sources Book* due to revised company submissions.

[2] Includes Natural Gas Liquids (NGLs) from Central Gas Facility shipped to TAPS. Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of NGLs will be shipped from Prudhoe Bay to Kuparuk for use in a large scale enhanced oil recovery project. These NGLs are excluded from production actuals and forecasts reported in this table.

[3] Aurora, Borealis, Midnight Sun, Orion, Polaris, Sag River, Schrader Bluff, Ugnu, Milne Point.

[4] Lisburne, Niakuk, Point McIntyre, Raven, West Beach, West Niakuk.

[5] Meltwater, NEWS, Tabasco, Tarn, West Sak.

[6] Endicott, Minke, Sag Delta, Eider, Badami.

[7] Alpine, Fiord, Nanuq, Qannik, Mustang, Fiord West.

[8] Northstar, Oooguruk, Nikaitchuq, Liberty, Nuna.

[9] Projects under development and under evaluation that are outside of the preceding areas. Includes Alkaid, Guitar, Narwhal, Pikka, Placer, Smith Bay.

Note: Totals may show slight differences from other sources due to rounding and aggregation differences.

Appendix D 1

Allowable Lease Expenditures[1]

Operating and capital expenditures by geographic region

	Millions of Dollars									
	History									
Fiscal Year	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
North Slope Lease Expenditures										
Operating Expenditures (OPEX)	2,270	2,614	3,001	3,110	3,254	3,439	3,267	2,925	2,774	2,872
Capital Expenditures (CAPEX)	2,389	2,317	2,383	2,969	3,738	3,992	3,387	1,875	1,696	2,159
Total North Slope Lease Expenditures	**4,659**	**4,931**	**5,385**	**6,079**	**6,992**	**7,431**	**6,654**	**4,801**	**4,470**	**5,030**
Non-North Slope (includes Cook Inlet)										
Operating Expenditures (OPEX)	165	191	245	261	252	242	285	285	285	282
Capital Expenditures (CAPEX)	168	123	350	415	595	640	382	314	248	169
Total Non-North Slope Lease Expenditures	**332**	**314**	**594**	**676**	**848**	**881**	**668**	**598**	**533**	**452**
Total Statewide Lease Expenditures										
Operating Expenditures (OPEX)	2,435	2,805	3,246	3,370	3,506	3,680	3,552	3,210	3,059	3,154
Capital Expenditures (CAPEX)	2,557	2,440	2,733	3,384	4,333	4,632	3,769	2,189	1,944	2,328
Total Statewide Lease Expenditures	**4,991**	**5,245**	**5,979**	**6,754**	**7,839**	**8,312**	**7,322**	**5,399**	**5,003**	**5,482**
Additional Detail for North Slope Lease Expenditures										
Operating Expenditures (OPEX)										
Producing Non-GVR Eligible Units	2,182	2,488	2,838	2,879	3,021	3,161	2,921	2,575	2,426	2,476
Other Operating Expenditures	88	126	163	231	233	278	346	350	348	396
Total North Slope OPEX	**2,270**	**2,614**	**3,001**	**3,110**	**3,254**	**3,439**	**3,267**	**2,925**	**2,774**	**2,872**
Capital Expenditures (CAPEX)										
Producing Non-GVR Eligible Units	1,343	1,370	1,367	1,563	2,191	2,454	1,921	1,450	1,178	1,352
Other Capital Expenditures	1,046	947	1,016	1,406	1,547	1,538	1,466	425	518	807
Total North Slope CAPEX	**2,389**	**2,317**	**2,383**	**2,969**	**3,738**	**3,992**	**3,387**	**1,875**	**1,696**	**2,159**

(Table continued, next page)

Appendix D 1

Allowable Lease Expenditures[1]

Operating and capital expenditures by geographic region *(Continued)*

	Millions of Dollars									
	Forecast									
Fiscal Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
North Slope Lease Expenditures										
Operating Expenditures (OPEX)	2,792	2,667	2,681	2,791	2,961	3,047	2,990	2,907	2,914	2,942
Capital Expenditures (CAPEX)	2,616	3,377	3,604	3,312	2,968	2,811	2,554	2,339	2,207	2,123
Total North Slope Lease Expenditures	**5,408**	**6,044**	**6,284**	**6,103**	**5,928**	**5,858**	**5,543**	**5,246**	**5,122**	**5,065**
Non-North Slope (includes Cook Inlet)										
Operating Expenditures (OPEX)	279	272	278	282	275	277	281	285	292	297
Capital Expenditures (CAPEX)	155	204	147	100	102	105	107	109	112	114
Total Non-North Slope Lease Expenditures	**434**	**476**	**426**	**382**	**378**	**382**	**388**	**395**	**403**	**411**
Total Statewide Lease Expenditures										
Operating Expenditures (OPEX)	3,071	2,939	2,959	3,072	3,236	3,325	3,270	3,192	3,206	3,238
Capital Expenditures (CAPEX)	2,771	3,581	3,751	3,412	3,070	2,915	2,661	2,449	2,319	2,237
Total Statewide Lease Expenditures	**5,842**	**6,520**	**6,710**	**6,485**	**6,306**	**6,240**	**5,931**	**5,641**	**5,525**	**5,476**
Additional Detail for North Slope Lease Expenditures										
Operating Expenditures (OPEX)										
Producing Non-GVR Eligible Units	2,386	2,253	2,243	2,386	2,606	2,641	2,556	2,446	2,362	2,293
Other Operating Expenditures	406	414	438	405	355	406	434	461	552	649
Total North Slope OPEX	**2,792**	**2,667**	**2,681**	**2,791**	**2,961**	**3,047**	**2,990**	**2,907**	**2,914**	**2,942**
Capital Expenditures (CAPEX)										
Producing Non-GVR Eligible Units	1,515	1,330	1,371	1,470	1,471	1,482	1,527	1,371	1,301	1,245
Other Capital Expenditures	1,102	2,047	2,232	1,842	1,497	1,329	1,027	968	907	878
Total North Slope CAPEX	**2,616**	**3,377**	**3,604**	**3,312**	**2,968**	**2,811**	**2,554**	**2,339**	**2,207**	**2,123**

[1]All lease expenditures in this table represent claimed or forecast allowable lease expenditures, as defined in production tax statutes.

Appendix E 1

Production Tax Estimate for FY 2019

Using income statement format

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

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Average ANS Oil Price (dollars per barrel) and Daily Production	$69.46	496.9	$34.5
Annual Production			
Total [1]		181,369	$12,597.9
Royalty, Federal and Other Barrels [2]		-22,350	($1,552.4)
Taxable Barrels		159,019	$11,045.4
Downstream (Transportation) Costs (dollars per barrel)			
ANS Marine Transportation	-$3.06		
TAPS Tariff	-$4.49		
Other	-$0.47		
Total Transportation Costs	-$8.02	159,019	($1,275.3)
Gross Value at Point of Production (GVPP)			$9,770.1
Deductible Lease Expenditures [3]			
Deductible Operating Expenditures	-$16.85		($2,679.3)
Deductible Capital Expenditures	-$12.67		($2,014.1)
Total Lease Expenditures	-$29.51	159,019	($4,693.4)
Production Tax			
Gross Minimum Tax (4%*GVPP)			$390.8
Production Tax Value (PTV)			$5,076.7
Gross Value Reduction (GVR)			($107.1)
Production Tax Value (PTV) after GVR			$4,969.6
Base Tax (35%*PTV after GVR)			$1,739.4
Current-Year Tax Before Credits (base tax or minimum tax)			**$1,739.4**
Per-Taxable-Barrel Credits			**($1,002.0)**
Current-Year Tax After Per-Taxable-Barrel Credits			**$737.4**
Adjustments [4]			**($141.9)**
Total Tax After Credits and Adjustments			**$595.5**

[1] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

[2] Royalty, Federal and Other Barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production.

[3] Deductible Lease Expenditures represents the portion of allowable lease expenditures actually applied in the tax calculation in the year incurred. The per-barrel expenditures reflect expenditures per taxable barrel and are higher than if this was shown as expenditures per all barrels produced.

[4] Adjustments include:

- Any credits other than Per-Taxable-Barrel Credits, such as Small-Producer Credits or Net Operating Loss Credits from prior years.
- Private landowner royalty tax, and conservation surcharge.
- Cook Inlet production tax.
- Any prior-year tax payments other than those deposited into the Constitutional Budget Reserve Fund.
- Additional detail captured in company-specific revenue models that produces results that can differ slightly from the estimates in the simple model above.

Appendix E 2

Production Tax Estimate for FY 2020

Using income statement format

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

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Average ANS Oil Price (dollars per barrel) and Daily Production	$63.54	492.1	$31.3
Annual Production			
Total [1]		180,095	$11,443.3
Royalty, Federal and Other Barrels [2]		-21,347	($1,356.4)
Taxable Barrels		158,748	$10,086.9
Downstream (Transportation) Costs (dollars per barrel)			
ANS Marine Transportation	-$3.40		
TAPS Tariff	-$5.24		
Other	-$0.42		
Total Transportation Costs	-$9.06	158,748	($1,438.7)
Gross Value at Point of Production (GVPP)			$8,648.2
Deductible Lease Expenditures [3]			
Deductible Operating Expenditures	-$16.93		($2,687.4)
Deductible Capital Expenditures	-$13.17		($2,090.1)
Total Lease Expenditures	-$30.10	158,748	($4,777.6)
Production Tax			
Gross Minimum Tax (4%*GVPP)			$345.9
Production Tax Value (PTV)			$3,870.6
Gross Value Reduction (GVR)			($104.1)
Production Tax Value (PTV) after GVR			$3,766.5
Base Tax (35%*PTV after GVR)			$1,318.3
Current-Year Tax Before Credits (base tax or minimum tax)			**$1,318.3**
Per-Taxable-Barrel Credits			**($921.8)**
Current-Year Tax After Per-Taxable-Barrel Credits			**$396.5**
Adjustments [4]			**($15.8)**
Total Tax After Credits and Adjustments			**$380.7**

[1] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

[2] Royalty, Federal and Other Barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production.

[3] Deductible Lease Expenditures represents the portion of allowable lease expenditures actually applied in the tax calculation in the year incurred. The per-barrel expenditures reflect expenditures per taxable barrel and are higher than if this was shown as expenditures per all barrels produced.

[4] Adjustments include:

- Any credits other than Per-Taxable-Barrel Credits, such as Small-Producer Credits or Net Operating Loss Credits from prior years.
- Private landowner royalty tax, and conservation surcharge.
- Cook Inlet production tax.
- Any prior-year tax payments other than those deposited into the Constitutional Budget Reserve Fund.
- Additional detail captured in company-specific revenue models that produces results that can differ slightly from the estimates in the simple model above.

Appendix E 3

Production Tax Estimate for FY 2021

Using income statement format

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

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Average ANS Oil Price (dollars per barrel) and Daily Production	$59.00	490.5	$28.9
Annual Production			
Total [1]		179,020	$10,562.2
Royalty, Federal and Other Barrels [2]		-20,492	($1,209.0)
Taxable Barrels		158,528	$9,353.2
Downstream (Transportation) Costs (dollars per barrel)			
ANS Marine Transportation	-$3.52		
TAPS Tariff	-$5.83		
Other	-$0.43		
Total Transportation Costs	-$9.78	158,528	($1,549.7)
Gross Value at Point of Production (GVPP)			$7,803.4
Deductible Lease Expenditures [3]			
Deductible Operating Expenditures	-$15.90		($2,521.4)
Deductible Capital Expenditures	-$13.12		($2,079.9)
Total Lease Expenditures	-$29.02	158,528	($4,601.3)
Production Tax			
Gross Minimum Tax (4%*GVPP)			$312.1
Production Tax Value (PTV)			$3,202.2
Gross Value Reduction (GVR)			($130.2)
Production Tax Value (PTV) after GVR			$3,072.0
Base Tax (35%*PTV after GVR)			$1,075.2
Current-Year Tax Before Credits (base tax or minimum tax)			**$1,075.2**
Per-Taxable-Barrel Credits			**($769.1)**
Current-Year Tax After Per-Taxable-Barrel Credits			**$306.1**
Adjustments [4]			**$22.0**
Total Tax After Credits and Adjustments			**$328.1**

[1] Fall 2019 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

[2] Royalty, Federal and Other Barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production.

[3] Deductible Lease Expenditures represents the portion of allowable lease expenditures actually applied in the tax calculation in the year incurred. The per-barrel expenditures reflect expenditures per taxable barrel and are higher than if this was shown as expenditures per all barrels produced.

[4] Adjustments include:

- Any credits other than Per-Taxable-Barrel Credits, such as Small-Producer Credits or Net Operating Loss Credits from prior years.
- Private landowner royalty tax, and conservation surcharge.
- Cook Inlet production tax.
- Any prior-year tax payments other than those deposited into the Constitutional Budget Reserve Fund.
- Additional detail captured in company-specific revenue models that produces results that can differ slightly from the estimates in the simple model above.

Revenue Sources Book Fall 2019

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