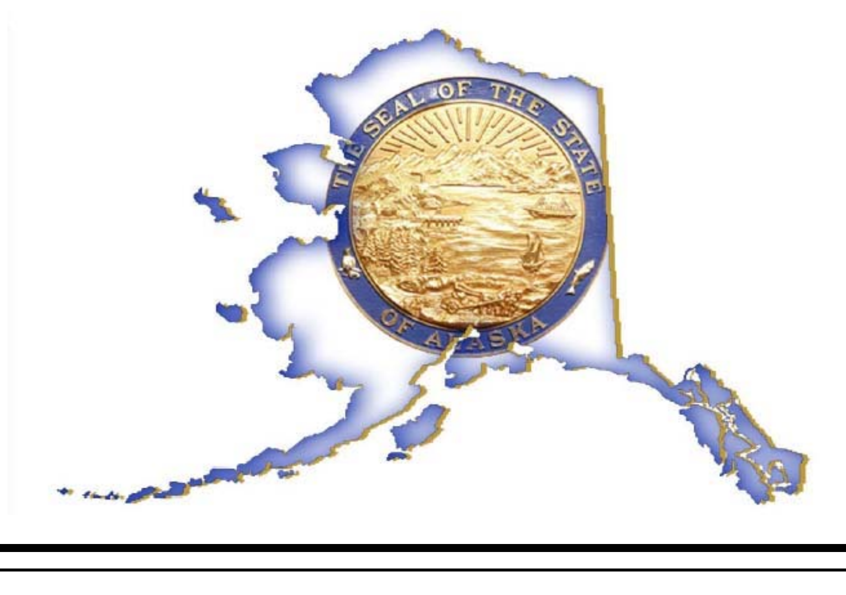
STATE OF ALASKA

STATE BOND COMMITTEE

TO BE HELD AT
Department of Revenue
Commissioner's Conference Room
333 Willoughby Avenue, 11th Floor
Juneau, Alaska 99801

December 4, 2017

8:30 AM ADT



STATE BOND COMMITTEE
AGENDA FOR BOARD OF DIRECTOR'S MEETING

Alaska Department of Revenue
Commissioner's Conference Room
333 Willoughby Avenue
State Office Building, 11th Floor
Juneau, Alaska 99811

December 4, 2017 at 8:30 A.M.

I. Call to Order

II. Roll Call

III. Public Meeting Notice

IV. Approval of Agenda

V. Minutes of June 16, 2017 State Bond Committee Meeting

VI. Public Participation and Comment

VII. New Business

  A. Resolution 2017-02 – Renewing the Letter of Credit with State Street Bank for the Alaska International Airport System Revenue Bonds
  B. Resolution 2017-03 – Clean Water/ Drinking Water
  C. Resolution 2017-04 – 2017 Private Activity Cap Allocation
  D. Resolution 2017-05 – Qualified Energy Conservation Bond Cap Allocation
  E. Debt Manager's Report

VIII. Committee Member Comments

IX. Schedule Next Meeting

X. Adjournment

NOTICE OF MEETING - Alaska State Bond Committee

Notice is hereby given that the State of Alaska, State Bond Committee will hold a meeting at the Alaska Department of Revenue Commissioner's Office, 333 Willoughby Ave., 11th Floor, Juneau, Alaska 99811, on December 4, 2017 at 8:30 AM ADT. Below is a summary of the Agenda, please see attached PDF for the full Agenda.

1. **Resolution 2017-02 – Renewing the Letter of Credit with State Street Bank for the Alaska International Airport System Revenue Bonds**
2. **Resolution 2017-03 – Clean Water/ Drinking Water**
3. **Resolution 2017-04 – 2017 Private Activity Cap Allocation**
4. **Resolution 2017-05 – Qualified Energy Conservation Bond Cap Allocation**
5. **Debt Manager's Report**

The public is invited to attend and will be given the opportunity for public comment and participation. The State Bond Committee complies with Title II of the Americans with Disabilities Act of 1990 and the Rehabilitation Act of 1973.

Dated November 20, 2017

Ryan Williams

Attachments, History, Details

Attachments

SBC Agenda 12-4-17.pdf

Revision History

Created 11/20/2017 1:07:30 PM by rswilliams

Details

Department:	Revenue
Category:	Agency Meetings
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	11/20/2017
Archive Date:	12/5/2017
Events/Deadlines:	

MINUTES of the
STATE BOND COMMITTEE
June 16, 2017

A meeting of the State Bond Committee (SBC) was held at 11:01 a.m. ASDT on June 16, 2017 at the Department of Revenue, Commissioner's Conference Room, Juneau, Alaska (333 Willoughby Avenue, State Office Building, 11th Floor, Juneau, Alaska 99811), and telephonically.

SBC Members present were:
- Jerry Burnett, Deputy Commissioner, Department of Revenue
- Fred Parady, Deputy Commissioner, Department of Commerce, Community & Economic Development
- Leslie Ridle, Deputy Commissioner, Department of Administration

Also present were:
- Deven Mitchell, Debt Manager, Department of Revenue
- Ryan Williams, Op. Research Analyst, Department of Revenue

Present telephonically were:
- Susan Barry, Orrick, Herrington & Sutcliffe, LLP
- Angela Trout, Orrick, Herrington & Sutcliffe, LLP
- Les Krusen, Orrick, Herrington & Sutcliffe, LLP
- Ken Vassar, Law Office of Kenneth Vassar, LLC

I. Call to Order

Mr. Parady called the meeting to order at 11:01 a.m. ASDT on June 16, 2017.

II. Roll Call

Mr. Mitchell took roll call. Mr. Parady, Mr. Burnett, and Ms. Ridle were present - there was a quorum.

III. Public Meeting Notice

A copy of the Affidavit of Publication concerning the date, location, and purpose of the meeting was reviewed and made a part of the minutes of the meeting. Mr. Mitchell stated the meeting notice was advertised in the State's Online Public Notice - The notice was officially published on June 8, 2017 through the Department of Commerce, Community and Economic Development, for the June 16, 2017 meeting date.

IV. Approval of Agenda

The Agenda was reviewed by the committee. Mr. Burnett moved approval of the agenda as written and Ms. Ridle seconded. The agenda was approved.

V. Public Comment

Mr. Parady asked for public participation and comment. There was none.

VI. Minutes of the October 11, 2016 SBC Meeting

Mr. Burnett moved and Ms. Ridle seconded approval of the October 11, 2016 minutes as written. The minutes were approved.

VII. New Business

Resolution 2017-01 – State of Alaska Allocation of a portion of the Private Activity Bond Volume Limit for Calendar Year 2017 to Alaska Housing Finance Corporation (AHFC)

Mr. Mitchell noted that Resolution 2017-01 relates to the State of Alaska's allocation of a portion of the Private Activity Bond Volume Limit for calendar year 2017. Other issuers in the State have not come forward with requests at this time. Mr. Mitchell stated that under requirements related to issuance of tax-exempt private activity bonds, some private activity bonds need to obtain volume cap under Section 146 of the IRS Code. Mr. Mitchell noted that the code limits the amount of private activity bonds that may be issued, and every year Alaska, through the State Bond Committee, allocates the limit or volume cap among issuers in the State. AHFC and AIDEA are the two main issuers, but over the last several years there has been less competitiveness for allocation. Of the State of Alaska's calendar year 2017 volume cap available of $305,315,000, AHFC has specifically requested $8.2 million for a conduit revenue bond issue, comprised of paying for construction of a 45-unit low-income housing complex and pay miscellaneous costs required for the financing in Anchorage, Alaska. Resolution 2017-01 specifically identifies the $8.2 million allocation to this project, but allocates a *total* of $100 million to AHFC for multi-family housing financing. Mr. Burnett moved Resolution 2017-01 to the table for discussion purposes, and Ms. Ridle seconded. Mr. Parady questioned how the total allocation to AHFC of $100 million (multi-family) was based, and if AHFC is expected to be the primary user of cap for calendar year 2017. Mr. Mitchell responded that the $100 million for multi-family projects would allow AHFC to cover projects already contemplated, and if additional projects came up there's flexibility for use of the excess in the current allocation without further administrative action. Additionally, AHFC has been the primary user of volume cap in the State, most recently requesting cap for a multi-family project in December 2016. AIDEA has also seen sizeable allocations over the past few years. Mr. Mitchell noted that we can change or reallocate before the end of the calendar year certain unused portions of the cap, and there would be another committee meeting to discuss other requests, potentially in the Fall of 2017. Mr. Mitchell also mentioned that volume cap is available for use through the end of the calendar year in which it arises and then may be carried forward for an additional period of three years if carryforward forms are filed with the IRS no later than February 15th of the following year. A memo from AHFC requesting the cap was included in the SBC packet. Mr. Parady questioned if there was any AHFC and AIDEA analysis showing outstanding projects related to the previous use of cap. Mr. Mitchell responded that staff would gather information regarding this inquiry. There was no further discussion. Mr. Burnett moved Resolution 2017-01, and Ms. Ridle seconded that motion. Mr. Mitchell called roll, and the motion was unanimously adopted by all members with 3 yes / aye votes.

VIII. Committee Member Comments

Mr. Burnett, Ms. Ridle, and Mr. Parady had no additional comments.

IX. Adjournment

The meeting was adjourned at 11:42 AM ASDT.

____
Mike Navarre, Commissioner, Department
Of Commerce, Community and Economic Development – Chair

ATTEST:

____
Sheldon Fisher, Commissioner, Department of Revenue – Secretary

STATE BOND COMMITTEE

RESOLUTION NO. 2017-02

A Resolution of the State Bond Committee of the State of Alaska authorizing an extension of the letter of credit for the State's International Airports System Variable Rate Demand Revenue Refunding Bonds, Series 2009A and the execution of related documentation.

WHEREAS, the State Bond Committee of the State of Alaska (the "State") adopted Resolution No. 99-01 on January 28, 1999 and Supplemental Resolution No. 2008-08 on December 22, 2008 (together, the "Bond Resolution"), authorizing the issuance and sale of $50,000,000 of State of Alaska International Airports System Variable Rate Demand Revenue Refunding Bonds, Series 2009A (the "Bonds"); and

WHEREAS, the Bonds are secured by an Irrevocable Letter of Credit (the "Letter of Credit") issued by State Street Bank and Trust Company (the "Bank"); and

WHEREAS, the State and the Bank have previously entered into a Letter of Credit and Reimbursement Agreement (the "Agreement"), dated as of January 1, 2009, relating to the Bonds, pursuant to which the Bank issued the Letter of Credit; and

WHEREAS, the Letter of Credit was extended in accordance with a First Amendment to Letter of Credit and Reimbursement Agreement, dated as of November 15, 2011, between the State and the Bank; and

WHEREAS, the Letter of Credit was extended in accordance with a Second Amendment to Letter of Credit and Reimbursement Agreement, dated as of December 5, 2014, between the State and the Bank; and

WHEREAS, the Letter of Credit will expire on January 8, 2018; and

WHEREAS, the Bank has offered to extend the Letter of Credit for four additional years; and

WHEREAS, the State Bond Committee wishes to approve the extension of the Letter of Credit for the Bonds and authorize the Debt Manager to sign documents related to the extension;

NOW, THEREFORE, BE IT RESOLVED BY THE STATE BOND COMMITTEE OF THE STATE OF ALASKA, as follows:

Section 1. Authorization of Extension of Letter of Credit and Signature of Documents. The Debt Manager is authorized and directed to negotiate the extension of the Letter of Credit for the Bonds for an additional four years. The Debt Manager is further authorized and directed to sign all documentation in connection with the extension of the Letter of Credit including, but not limited to, the Third Amendment to Letter of Credit and Reimbursement Agreement, the Second Amended and Restated Letter Agreement and related certificates, and give notices required by the Resolution. Upon the adoption of this resolution, the proper officials of the State including the Debt Manager, are authorized and directed to undertake all other actions necessary for the extension of the Letter of Credit and further to execute all closing certificates and documents required to effect the extension.

Section 2. Effective Date. This resolution shall become effective immediately upon its adoption.

ADOPTED AND APPROVED by the State Bond Committee of the State of Alaska, the 4th day of December, 2017.

STATE OF ALASKA
STATE BOND COMMITTEE

____

MIKE NAVARRE
Commissioner, Department of Commerce
Community and Economic Development
Chair and Member
Alaska State Bond Committee

____

LESLIE RIDLE
Commissioner, Department of Administration
Member
Alaska State Bond Committee

____

SHELDON FISHER
Commissioner, Department of Revenue
Secretary and Member
Alaska State Bond Committee

Approved as to form:

____

Alaska Department of Law
State of Alaska

CERTIFICATE

I, the undersigned, Secretary of the State Bond Committee of State of Alaska (the "State"), and keeper of the records of the State Bond Committee (the "Committee"), DO HEREBY CERTIFY:

1. That the attached resolution is a true and correct copy of Resolution No. 2017-02 of the Committee (the "Resolution"), duly passed at a meeting thereof held on December 4, 2017.

2. That said meeting was duly convened and held in all respects in accordance with law, and to the extent required by law, due and proper notice of such meeting was given; that a legal quorum was present throughout the meeting and a legally sufficient number of members of the Committee voted in the proper manner for the passage of said Resolution; that all other requirements and proceedings incident to the proper passage of said Resolution have been duly fulfilled, carried out and otherwise observed; and that I am authorized to execute this certificate.

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of December, 2017.

____
Secretary

STATE BOND COMMITTEE
OF THE STATE OF ALASKA

RESOLUTION NO. 2017-03

Providing for the Issuance of

Alaska Clean Water Fund Revenue Bond Anticipation Note, 2017 Series A
and of
Alaska Drinking Water Fund Revenue Bond Anticipation Note, 2017 Series B

Approved on December 4, 2017

Prepared by:

ORRICK, HERRINGTON & SUTCLIFFE LLP

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* This Table of Contents is not a part of the following resolution.

STATE BOND COMMITTEE

RESOLUTION NO. 2017-03

A Resolution of the State Bond Committee of the State of Alaska relating to the issuance and sale of two series of notes to be designated as Alaska Clean Water Fund Revenue Bond Anticipation Note, 2017 Series A in the aggregate principal amount of up to $1,585,940 and Alaska Drinking Water Fund Revenue Bond Anticipation Note, 2017 Series B in the aggregate principal amount of up to $1,651,260; fixing the place of payment and other covenants with respect to said notes; and authorizing the Debt Manager to solicit proposals from banks for the purchase of the notes, to approve the final interest costs and maturity dates for the notes and to execute a purchase contract, under the terms and conditions set forth herein.

WHEREAS, the Federal Water Quality Act of 1987 (the "Clean Water Act") established a state revolving fund program in order to replace the United States Environmental Protection Agency ("EPA") construction grants program with revolving loan programs operated by the individual states; and

WHEREAS, the Safe Drinking Water Act Amendments of 1996, amending the Safe Drinking Water Act (the "Drinking Water Act") also established a state revolving fund program in order to permit states to establish revolving fund loan programs; and

WHEREAS, in order to capitalize state revolving funds, the EPA may make annual capitalization grants to the states, on the condition that each state provide a state match for such state's revolving funds; and

WHEREAS, Chapter 141 of the Session Laws of Alaska of 1996, as amended in 2000 by the Alaska Legislature in House Bill 304(FIN) and as codified at AS 37.15.560-.605 and AS 46.03.032-.039 (the "Act"), authorized the issuance and sale of Alaska Clean Water Fund revenue bonds of the State of Alaska (the "State") in the principal amount of up to $15,000,000 per Fiscal Year or up to $150,000,000 total to provide financial assistance to municipalities and other qualified entities through the Alaska Clean Water Fund Loan Program (the "Authorized Clean Water Bonds"); and

WHEREAS, the Act authorized the issuance and sale of Alaska Drinking Water Fund revenue bonds of the State in the principal amount of up to $15,000,000 per Fiscal Year or up to $150,000,000 total to provide financial assistance to municipalities and other qualified entities through the Alaska Drinking Water Fund Loan Program (the "Authorized Drinking Water Bonds"); and

WHEREAS, AS 37.15.300-.390 authorizes the State Bond Committee (the "Committee"), when the Committee considers it in the best interests of the State, to borrow money in anticipation of the sale of revenue bonds if money to be derived from the sale of the bonds has been appropriated and if the revenue bonds have been authorized by law; and

WHEREAS, the Committee wishes to delegate authority to the Debt Manager of the State to solicit proposals from banks for the purchase of the notes authorized herein, approve the interest costs and maturity dates for the Notes within the parameters described in this resolution;

NOW, THEREFORE, BE IT RESOLVED BY THE STATE BOND COMMITTEE OF THE STATE OF ALASKA, as follows:

Section 1. Defined Terms. In this resolution, the following terms shall have the following meanings.

Act means Chapter 141 of the Session Laws of Alaska of 1996, as amended by House Bill No. 304 (FIN), codified at AS 37.15.560-.605 and AS 46.03.032-.039.

Alaska Clean Water Fund or ***Clean Water Fund*** means the fund established pursuant to AS 46.03.032(a).

Alaska Drinking Water Fund or ***Drinking Water Fund*** means the fund of that name established pursuant to AS 46.03.036.

Bank means the bank selected and identified by the Designated Representative in accordance with the authority granted to him pursuant to Section 5 hereof.

Bond Fund – Clean Water means the Alaska Clean Water Fund Revenue Bond Redemption Fund, established pursuant to AS 37.15.565.

Bond Fund – Drinking Water means the Alaska Drinking Water Fund Revenue Bond Redemption Fund, established pursuant to AS 37.15.565.

Bonds mean Clean Water Bonds or the Drinking Water Bonds.

Clean Water Act means the Federal Clean Water Act, as amended by the Federal Water Quality Act of 1987, 33 U.S.C. 1251-1387.

Clean Water Bonds means the bonds payable from Clean Water Revenues which include interest on loan repayments and investment interest and issued under authority of AS 37.15.560-.605 pursuant to authorization of the Committee.

Clean Water Maturity Date means the date of maturity of the Clean Water Note, which date of maturity shall be specified in the Purchase Contract and shall be no later than December 31, 2017.

Clean Water Note, as further defined in Section 4(a), means the Alaska Clean Water Fund Revenue Bond Anticipation Note, 2017 Series A in the aggregate principal amount of up to $1,585,940.

Clean Water Project means any one of the following categories of projects:

(a) planning, designing, building, constructing and rehabilitating a public wastewater collection, treatment or discharge system;

(b) implementing a management program for controlling water pollution from nonpoint sources under 33 U.S.C. 1329, including planning, designing, building, constructing and rehabilitating a solid waste management system; and

(c) developing and implementing an estuary conservation and management program under 33 U.S.C. 1330.

Clean Water Rate means the per annum interest rate payable on the Clean Water Note, which interest rate shall be specified in the Purchase Contract.

Clean Water Revenues means the money on hand in the Clean Water Fund, including money appropriated by the State Legislature to meet federal matching requirements, federal capitalization grants, loan repayments, interest received from loan repayments and interest received from investment of money in the Clean Water Fund and the proceeds and accrued interest received from the sale of Clean Water Bonds issued under AS 37.15.560-.605 and secured by the Clean Water Fund.

Committee means the state bond committee, created pursuant to AS 37.15.110, whose members include the commissioner of commerce, community and economic development, the commissioner of administration and the commissioner of revenue.

DEC means the State of Alaska Department of Environmental Conservation, or a successor.

DEC Representative means the Commissioner of DEC or such other official of DEC as shall be designated by the Commissioner in writing to the Designated Representative.

Designated Representative means the Debt Manager of DOR or such other person as may be designated from time to time by resolution of the Committee.

DOR means the State of Alaska Department of Revenue, or a successor.

Drinking Water Act means the Federal Safe Drinking Water Act, as amended by the Safe Drinking Water Act Amendments of 1996, 42 U.S.C. 300j *et. seq*.

Drinking Water Bonds means the bonds payable from Drinking Water Revenues which include interest on loan repayments and investment interest and issued under authority of AS 37.15.560-.605 pursuant to authorization of the Committee.

Drinking Water Fund means the separate fund established by AS 46.03.036(a).

Drinking Water Maturity Date means the date of maturity of the Drinking Water Note, which date of maturity shall be specified in the Purchase Contract and shall be no later than December 31, 2017.

Drinking Water Note, as further defined in Section 4(b), means the Alaska Drinking Water

Fund Revenue Bond Anticipation Note, 2017 Series B in the aggregate principal amount of up to $1,651,260.

Drinking Water Rate means the per annum interest rate payable on the Drinking Water Note, which interest rate shall be specified in the Purchase Contract.

Drinking Water Project means drinking water system projects, including projects to plan, design, build, construct, or rehabilitate a public drinking water collection, storage, treatment or distribution system.

Drinking Water Revenues means the money on hand in the Drinking Water Fund, including money appropriated by the State Legislature to meet federal matching requirements, federal capitalization grants, loan repayments, interest received from loan repayments and interest received from investment of money in the Drinking Water Fund and the proceeds and accrued interest received from the sale of Drinking Water Bonds issued under AS 37.15.560-.605 and secured by the Drinking Water Fund.

Fiscal Year means the fiscal year of the State, which currently is July through June of each year.

Note Account – Clean Water means the Alaska Clean Water Fund Revenue Bond Anticipation Note Account, created within the Bond Fund – Clean Water for the payment of principal and interest on the Clean Water Note.

Note Account – Drinking Water means the Alaska Drinking Water Fund Revenue Bond Anticipation Note Account, created within the Bond Fund – Drinking Water for the payment of principal and interest on the Drinking Water Note.

Note Register means the books or records maintained by the State containing the name and mailing address of the owner of each Note or nominee of such owner and the principal amount and number of Notes held by each owner or nominee.

Notes means either or both of the Clean Water Note and the Drinking Water Note.

Pledged Clean Water Revenue means Clean Water Revenues consisting of interest received from investment of money in the Clean Water Fund and the interest portion of loan repayments.

Pledged Drinking Water Revenue means Drinking Water Revenues consisting of interest received from investment of money in the Drinking Water Fund and the interest portion of loan repayments.

Purchase Contract means a purchase contract or agreement executed by the Designated Representative and the Bank in connection with the sale and purchase of the Notes as authorized to be executed pursuant to Section 5 hereof.

Regulations means the regulations promulgated by DEC with respect to the Alaska Clean Water and Drinking Water Revolving Loan Funds, under 18 AAC 76, as the same may be hereafter amended or modified and supplemented from time to time.

Series means all of the Bonds authenticated and delivered on original issuance and identified as being a part of a separate series.

State means the State of Alaska.

Section 2. Authorization of Series of Clean Water Bonds. The State shall issue Clean Water Bonds in Series from time to time to implement the Act. The proceeds of the Clean Water Bonds shall be used for the purposes described in AS 46.03.032(d). The Clean Water Bonds shall be authorized by resolution of the Committee which shall fix the principal amount, denomination, date, maturities, manner of sale, place or places of payment, rights of redemption, if any, terms, form, conditions and covenants of said Clean Water Bonds.

Section 3. Authorization of Series of Drinking Water Bonds. The State shall issue Drinking Water Bonds in Series from time to time to implement the Act. The proceeds of the Drinking Water Bonds shall be used for the purposes described in AS 46.03.036. The Drinking Water Bonds shall be authorized by resolution of the Committee which shall fix the principal amount, denomination, date, maturities, manner of sale, place or places of payment, rights of redemption, if any, terms, form, conditions and covenants of said Drinking Water Bonds.

Section 4. Authorization of Notes.

(a) *Clean Water Note*. In anticipation of the issuance of the Clean Water Bonds authorized by Section 2 hereof, the Committee hereby authorizes the issuance of a revenue bond anticipation note to finance certain Clean Water Projects (the "Clean Water Note"). The Clean Water Note shall be issued in the aggregate principal amount of up to $1,585,940 and shall be designated as the Alaska Clean Water Fund Revenue Bond Anticipation Note, 2017 Series A. The Clean Water Note shall be dated as of the date of its issuance and delivery; shall be fully registered as to both principal and interest, shall be in the denomination of up to $1,585,940, shall be numbered N-1, and shall bear interest on unpaid principal from its date at a rate equal to the Clean Water Rate and shall mature on the Clean Water Maturity Date.

(b) *Drinking Water Note*. In anticipation of the issuance of the Drinking Water Bonds authorized by Section 3 hereof, the Committee hereby authorizes the issuance of a revenue bond anticipation note to finance certain Drinking Water Projects (the "Drinking Water Note"). The Drinking Water Note shall be issued in the aggregate principal amount of up to $1,651,260 and shall be designated as the Alaska Drinking Water Fund Revenue Bond Anticipation Note, 2017 Series B. The Drinking Water Note shall be dated as of the date of its issuance and delivery; shall be fully registered as to both principal and interest, shall be in the denomination of up to $1,651,260, shall be numbered N-1, and shall bear interest on unpaid principal from its date at a rate equal to the Drinking Water Rate, payable at maturity and shall mature on the Drinking Water Maturity Date.

(c) *Place and Medium of Payment*. The principal of and interest on the Notes shall be payable in lawful money of the United States of America. Interest on the Notes shall be calculated on the basis of a 365-day year and actual days elapsed. Upon presentation and surrender of the Clean Water Note, principal and interest shall be transferred from the Note Account – Clean Water to the Bank on the date when due. Upon presentation and surrender of the Drinking Water Note, principal and interest shall be transferred from the Note Account – Drinking Water to the Bank on the date when due. Interest and principal of the Notes shall, upon request of the Bank, be payable by wire transfer to the account of the Bank on the date due (upon confirmation that the Notes shall have been presented to the Designated Representative for payment).

Section 5. Designated Representative. The Committee hereby designates the Debt Manager of the Department of Revenue to act on its behalf as the "Designated Representative" and to exercise the authority granted to the Designated Representative hereunder.

The Committee has determined that it may be inconvenient to meet before the proposed time on which money may be required from the sale of the Notes. Accordingly, the Designated Representative is hereby authorized to prepare a solicitation for proposals to be circulated to local, Alaska banks for the purchase of the Notes and to review and negotiate terms for the purchase of the Notes consistent with the terms of this section. The Committee has determined that it would be in the best interest of the Committee to delegate to the Designated Representative for a limited time the authority to approve the final interest costs and maturity dates for the Notes and other terms and conditions of the Notes. The Designated Representative is hereby authorized to approve the final interest costs (to be expressed as an interest rate for each Note) and maturity dates of Notes and the total of all other costs to be incurred in connection with the financing in the manner provided hereafter.

If the Designated Representative elects to prepare a solicitation and in preparing the solicitation for proposals, evaluating the responses, negotiating a Purchase Contract and determining the final interest rates, maturity dates and total costs of issuance for the Notes, the Designated Representative, in consultation with the Deputy Commissioner of the Department of Revenue and the State's financial advisor, shall take into account those factors that, in his judgment, will result in the lowest true interest cost on the Notes to their maturity, including, but not limited to current financial market conditions and current interest rates for obligations comparable in tenor and quality to the Notes. The date of issuance and final maturity date shall occur no later than December 31, 2017, and the total costs of the Notes, including total interest payable on the Notes, shall not exceed $12,000. Subject to the terms and conditions set forth in this Section 5, the Designated Representative is authorized to reject any proposal received (including all proposals) and to re-advertise and accept the proposal deemed most responsive and cost effective. The Designated Representative is hereby authorized to execute the final form of the Purchase Contract. Following the execution of the Purchase Contract, the Debt Manager shall provide a report to the Committee, describing the final terms of the Notes approved pursuant to the authority delegated in this section. The authority granted to the Debt Manager by this Section 5 shall expire 75 days after the date of adoption and approval of this resolution. If the Purchase Contract for the Notes has not been executed within 75 days after the date of adoption and final approval of this resolution, the authorization for the issuance of the Notes shall be rescinded, and such Notes shall not be issued nor their sale approved unless such Notes shall have been re-authorized by resolution of the Committee. The resolution re-authorizing the issuance and sale of such Notes may be in the form of a new resolution repealing this resolution in whole or in part (only with respect to the Notes not issued) or may be in the form of an amendatory resolution approving a purchase contract or establishing terms and conditions for the authority delegated under this Section 5.

The Designated Representative and the State's financial advisor are hereby authorized to review and approve on behalf of the Committee a request for qualifications/proposal to be distributed to eligible banking institutions relative to the Notes with such additions and changes as may be deemed necessary or advisable to them. The proper State officials are hereby authorized and directed to do everything necessary for the prompt execution and delivery of the Notes to the Bank and for the proper application and use of the proceeds of sale thereof.

The Designated Representative is hereby designated as the registrar and authenticating agent for the Notes. The Designated Representative is hereby further authorized to contract with and arrange for the printing and delivery of the Notes.

<u>Section 6</u>. <u>Sale of Notes</u>. The Notes shall be sold to the Bank in accordance with its proposal for the purchase of the Notes and the Purchase Contract, as authorized to be delivered under Section 5 of this resolution. The Designated Representative is hereby authorized and directed to do all things necessary for the prompt delivery of the Notes to the Bank.

<u>Section 7.</u> <u>Form of Notes.</u>

(a) *Clean Water Note*. The Clean Water Note shall be in substantially the following form:

UNITED STATES OF AMERICA

NO. 1 $_________________

STATE OF ALASKA
ALASKA CLEAN WATER REVENUE BOND ANTICIPATION NOTE,
2017 SERIES A

INTEREST RATE: _____% MATURITY DATE: ______________, 2017

DATED DATE: ______________, 2017

REGISTERED OWNER: _________________

TAX ID NUMBER: ________________

PRINCIPAL AMOUNT: ____

The State of Alaska (the "State") hereby acknowledges itself to owe and for value received promises to pay to the Registered Owner identified above, or its registered assigns, but solely from the Note Account – Clean Water (hereinafter defined) on the Maturity Date identified above, the Principal Amount indicated above together with interest thereon from the Dated Date payable on the Maturity Date. Such Principal Amount, together with accrued interest, shall be paid only upon presentation and surrender of this note at the office of the Debt Manager of the State of Alaska, as registrar and authenticating agent (the "Registrar"). Both principal of and interest on this note are payable in lawful money of the United States of America solely out of the Note Account – Clean

Water (the "Note Account – Clean Water") created within the special fund of the State known as the "Alaska Clean Water Fund Revenue Bond Redemption Fund" (the "Bond Fund –Clean Water") established pursuant to AS 37.15.565 and in accordance with the terms of Resolution No. 2017-03 (the "Resolution") of the State Bond Committee (the "Committee"). The definitions contained in the Resolution shall apply to capitalized terms contained herein.

This note is issued pursuant to the Constitution and statutes of the State of Alaska and duly adopted resolutions of the Committee in anticipation of the issuance of clean water fund revenue bonds for the purpose of implementing the Alaska Clean Water Fund Loan Program for the State and its municipalities. This note is payable solely from the Note Account – Clean Water, into which shall be deposited Clean Water Revenues consisting of interest earnings on Clean Water Revenues in the Clean Water Fund and the interest portion of loan repayments (collectively, "Pledged Clean Water Revenue") deposited in the Clean Water Fund and/or the proceeds of Clean Water Bonds or of refunding bond anticipation notes on or prior to the maturity of this note.

> THIS NOTE SHALL NOT BE DEEMED TO CONSTITUTE A GENERAL OBLIGATION OF THE STATE OF ALASKA OR ANY OF ITS DEPARTMENTS, OR A PLEDGE OF THE FAITH AND CREDIT OF THE STATE OF ALASKA OR OF ANY SUCH DEPARTMENT, BUT SHALL BE PAYABLE SOLELY FROM THE NOTE ACCOUNT – CLEAN WATER WITHIN THE BOND FUND – CLEAN WATER AND FROM THE CLEAN WATER REVENUES. THE STATE OF ALASKA SHALL NOT BE OBLIGATED TO PAY THE SAME NOR INTEREST THEREON EXCEPT FROM SUCH PAYMENTS AND PROCEEDS PLEDGED THEREFOR, AND NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF ALASKA OR OF ANY DEPARTMENT THEREOF IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF OR THE INTEREST ON THIS NOTE.

The interest on this note is <u>not</u> exempt from federal income taxation. The interest on this note is includible in federal gross income.

This note shall not be validly issued until duly authenticated by the manual signature of the Registrar in the Certificate of Authentication below.

It is hereby certified that all acts, conditions and things required by the Constitution and statutes of the State of Alaska, and resolutions of the State to be done precedent to and in the issuance of this note have happened, been done and performed.

IN WITNESS WHEREOF, the State of Alaska has caused this note to be executed with the facsimile signature of the Governor of the State of Alaska and to be countersigned by the Lieutenant Governor, this ___ day of __________, 2017.

STATE OF ALASKA

By ____________________________________
Governor

Countersigned:

____
Lieutenant Governor

The Certificate of Authentication on the Clean Water Note shall be in substantially the following form:

Date of Authentication:

CERTIFICATE OF AUTHENTICATION

This note is the note described in the within-mentioned Resolution and is the Alaska Clean Water Fund Revenue Bond Anticipation Note, 2017 Series A of the State of Alaska, dated ________ ___, 2017.

STATE OF ALASKA

DEPARTMENT OF REVENUE

By__________________________________
Debt Manager

(b) *Drinking Water Note*. The Drinking Water Note shall be in substantially the following form:

UNITED STATES OF AMERICA

NO. 1 $_________________

STATE OF ALASKA
ALASKA DRINKING WATER REVENUE BOND ANTICIPATION NOTE,
2017 SERIES B

INTEREST RATE: _____% MATURITY DATE: ______________, 2017

DATED DATE: ______________, 2017

REGISTERED OWNER: _________________
____
____

TAX ID NUMBER: ________________

PRINCIPAL AMOUNT: ____

The State of Alaska (the "State") hereby acknowledges itself to owe and for value received promises to pay to the Registered Owner identified above, or its registered assigns, but solely from the Note Account – Drinking Water (hereinafter defined) on the Maturity Date identified above, the Principal Amount indicated above together with interest thereon from the Dated Date payable on the Maturity Date. Such Principal Amount, together with accrued interest, shall be paid only upon presentation and surrender of this note at the office of the Debt Manager of the State of Alaska, as registrar and authenticating agent (the "Registrar"). Both principal of and interest on this note are payable in lawful money of the United States of America solely out of the Note Account – Drinking Water (the "Note Account – Drinking Water") created within the special fund of the State known as the "Alaska Drinking Water Fund Revenue Bond Redemption Fund" (the "Bond Fund – Drinking Water") established pursuant to AS 37.15.565" and in accordance with the terms of Resolution No. 2017-03 (the "Resolution") of the State Bond Committee (the "Committee"). The definitions contained in the Resolution shall apply to capitalized terms contained herein.

This note is issued pursuant to the Constitution and statutes of the State of Alaska and duly adopted resolutions of the Committee in anticipation of the issuance of drinking water fund revenue bonds for the purpose of implementing the Alaska Drinking Water Fund Loan Program for the State and its municipalities. This note is payable solely from the Note Account – Drinking Water, into which shall be deposited Drinking Water Revenues constituting interest received from investment of money in the Drinking Water Fund and the interest portion of loan repayments (collectively, "Pledged Drinking Water Revenue") and/or the proceeds of Drinking Water Bonds or of refunding bond anticipation notes on or prior to the maturity of this note.

THIS NOTE SHALL NOT BE DEEMED TO CONSTITUTE A GENERAL OBLIGATION OF THE STATE OF ALASKA OR ANY OF ITS DEPARTMENTS, OR A PLEDGE OF THE FAITH AND CREDIT OF THE STATE OF ALASKA OR OF ANY SUCH DEPARTMENT, BUT SHALL BE PAYABLE SOLELY FROM THE NOTE ACCOUNT – DRINKING WATER WITHIN THE BOND FUND – DRINKING WATER AND FROM THE DRINKING WATER REVENUES. THE STATE OF ALASKA SHALL NOT BE OBLIGATED TO PAY THE SAME NOR INTEREST THEREON EXCEPT FROM SUCH PAYMENTS AND PROCEEDS PLEDGED THEREFOR, AND NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF ALASKA OR OF ANY DEPARTMENT THEREOF IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF OR THE INTEREST ON THIS NOTE.

The interest on this note is <u>not</u> exempt from federal income taxation. The interest on this note is includible in federal gross income.

This note shall not be validly issued until duly authenticated by the manual signature of the Registrar in the Certificate of Authentication below.

It is hereby certified that all acts, conditions and things required by the Constitution and statutes of the State of Alaska, and resolutions of the State to be done precedent to and in the issuance of this note have happened, been done and performed.

IN WITNESS WHEREOF, the State of Alaska has caused this note to be executed with the facsimile signature of the Governor of the State of Alaska and to be countersigned by the Lieutenant Governor, this ____ day of __________, 2017.

STATE OF ALASKA

By ____________________________________
Governor

Countersigned:

____
Lieutenant Governor

The Certificate of Authentication on the Drinking Water Note shall be in substantially the following form:

Date of Authentication:

CERTIFICATE OF AUTHENTICATION

This note is the note described in the within-mentioned Resolution and is the Alaska Drinking Water Fund Revenue Bond Anticipation Note, 2017 Series B of the State of Alaska, dated _________ ___, 2017.

STATE OF ALASKA

DEPARTMENT OF REVENUE

By___________________________________
Debt Manager

Section 8. Execution and Delivery of Notes. The Notes shall be executed with the facsimile signature of the Governor and countersigned by facsimile signature of the Lieutenant Governor. The Designated Representative is hereby authorized and directed to authenticate and thereafter to deliver the Notes to the Bank.

Section 9. Disbursement of Note Proceeds.

(a) *Alaska Clean Water Fund*. The Alaska Clean Water Fund has been established as a State fund by AS 46.03.032. The net proceeds of the Clean Water Note shall be deposited in the Clean Water Fund and shall be disbursed as directed by legislative appropriation to pay costs of Clean Water Projects and for such additional purposes as provided in AS 46.03.032, including but not limited to the provision of state matching funds. Costs of issuance for the Clean Water Note shall be paid from gross proceeds of the Clean Water Note and shall be paid on the date of issuance of the Clean Water Note.

(b) *Alaska Drinking Water Fund*. The Alaska Drinking Water Fund has been established as a State fund by AS 46.03.036. The net proceeds of the Drinking Water Note shall be deposited in the Drinking Water Fund and shall be disbursed as directed by legislative appropriation to pay costs of Drinking Water Projects and for such additional purposes as provided in AS 46.03.036, including but not limited to the provision of state matching funds. Costs of issuance for the Drinking Water Note shall be paid from gross proceeds of the Drinking Water Note and shall be paid on the date of issuance of the Drinking Water Note.

Section 10. Repayment of Notes.

(a) *Note Account – Clean Water*. The Bond Fund – Clean Water has been established as a State fund within the State by AS 37.15.565. There is authorized to be created within the Bond Fund – Clean Water an account to be named the "Note Account – Clean Water." The Note Account – Clean Water shall be a trust fund used for paying and securing the payment of principal of and interest on the Clean Water Note.

On or prior to the date the Clean Water Note becomes due and payable, and in the event that money is not otherwise on hand in the Note Account – Clean Water, the State shall cause to be deposited in the Revenue Account – Clean Water, sufficient Pledged Clean Water Revenue to pay and redeem the Clean Water Note.

On or before the date on which the Clean Water Note matures, the Designated Representative shall cause to be deposited Pledged Clean Water Revenue in the Note Account – Clean Water or the Committee shall cause Clean Water Bonds to be issued or issue a refunding bond anticipation note to provide amounts sufficient to pay and redeem the Clean Water Note. The Designated Representative is hereby authorized to transfer Pledged Clean Water Revenue from the Revenue Account – Clean Water to the Note Account – Clean Water amounts sufficient to pay and redeem the Clean Water Note when due.

The Clean Water Note shall be an obligation only of the Note Account – Clean Water created and maintained within the Bond Fund – Clean Water and shall not constitute a general obligation of the State. When principal of and interest of the Clean Water Note has been paid in full, any remaining amount in the Note Account – Clean Water shall become part of the entire Bond Fund – Clean Water, and the Note Account – Clean Water shall be closed.

(b) *Note Account – Drinking Water*. The Bond Fund – Drinking Water has been established as a State fund within the State by AS 37.15.565. There is authorized to be created within the Bond Fund – Drinking Water an account to be named the "Note Account – Drinking Water." The Note Account – Drinking Water shall be a trust fund used for paying and securing the payment of principal of and interest on the Drinking Water Note.

On or prior to the date the Drinking Water Note becomes due and payable, and in the event that money is not otherwise on hand in the Note Account – Drinking Water, the State shall cause to be deposited in the Revenue Account – Drinking Water, sufficient Pledged Drinking Water Revenue to pay and redeem the Drinking Water Note.

On or before the date on which the Drinking Water Note matures, the Designated Representative shall cause to be deposited Pledged Drinking Water Revenue in the Note Account – Drinking Water or the Committee shall cause Drinking Water Bonds to be issued or issue a refunding bond anticipation note to provide amounts sufficient to pay and redeem the Drinking Water Note. The Designated Representative is hereby authorized to transfer Pledged Drinking Water Revenue from the Revenue Account – Drinking Water to the Note Account – Drinking Water amounts sufficient to pay and redeem the Drinking Water Note when due.

The Drinking Water Note shall be an obligation only of the Note Account – Drinking Water created and maintained within the Bond Fund – Drinking Water and shall not constitute a general obligation of the State.

When principal of and interest of the Drinking Water Note has been paid in full, any remaining amount in the Note Account – Drinking Water shall become part of the entire Bond Fund – Drinking Water, and the Note Account – Drinking Water shall be closed.

Section 11. Further Documents and Certificates. The Chair, Secretary and Designated Representative, as may be appropriate, are authorized and directed to execute any and all documents and do any and all things determined necessary to effect the accomplishment of the issuance, placement and delivery of the Notes and to deliver the necessary documents to the proper parties as requested to carry out the intended purposes of this resolution.

Section 12. Limitations on Liability. Nothing contained in this resolution nor in the Notes, nor any other instrument, shall be construed with respect to the State as incurring a charge upon the general credit of the State or against the taxing power of the State, nor shall the breach of any agreement contained in this resolution, the Notes or any other instrument or document executed in connection therewith impose any charge upon the general credit of the State or the taxing power of the State.

ADOPTED AND APPROVED by the State Bond Committee of the State of Alaska, the 4th day of December, 2017.

STATE OF ALASKA
STATE BOND COMMITTEE

____
MIKE NAVARRE
Commissioner, Department of Commerce
Community and Economic Development
Chair and Member
Alaska State Bond Committee

____
LESLIE RIDLE
Commissioner, Department of Administration
Member
Alaska State Bond Committee

____
SHELDON FISHER
Commissioner, Department of Revenue
Secretary and Member
Alaska State Bond Committee

Approved as to form:

____
Alaska Department of Law
State of Alaska

<u>CERTIFICATE</u>

I, the undersigned, Secretary of the State Bond Committee of the State of Alaska (herein called the "Committee") DO HEREBY CERTIFY:

1. That the attached Resolution numbered 2017-03 (herein called the "Resolution") is a true and correct copy of a resolution of the Committee as adopted at a meeting held on December 4, 2017, and duly recorded in my office.

2. That said meeting was duly convened and held in all respects in accordance with law, and to the extent required by law, due and proper notice of such meeting was given; that a legal quorum was present throughout the meeting and a legally sufficient number of members of the Committee voted in the proper manner for the adoption of the Resolution; that all other requirements and proceedings incident to the proper adoption of the Resolution have been duly fulfilled, carried out and otherwise observed, and that I am authorized to execute this certificate.

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of December, 2017.

____
Secretary

STATE BOND COMMITTEE

RESOLUTION NO. 2017-04

A Resolution of the State Bond Committee of the State of Alaska Allocating the Private Activity Bond Volume Limit of the State of Alaska for Calendar Year 2017

WHEREAS, Alaska Statute 37.15.800 directs the State Bond Committee (the "Committee") to allocate the private activity bond volume limit for the State of Alaska (the “volume cap”) as authorized under 26 U.S.C. 146(e); and

WHEREAS, the volume cap for calendar year 2017 is $305,315,000; and

WHEREAS, the Alaska Housing Finance Corporation (AHFC) has received an allocation of $8,200,000 of volume cap for a conduit revenue bond issue of exempt facility bonds to provide a qualified residential rental project under 26 U.S.C. Section 142(a)(7), comprised of paying for construction of a 45-unit low-income housing complex and to pay miscellaneous costs required for the financing in Anchorage, Alaska; and

WHEREAS, over the last five years there have been very limited requests for volume cap, with annual year end allocations to AHFC of the majority of each year’s cap for potential use in future years; and

WHEREAS, private activity bond calendar year volume cap is available for use through the end of the calendar year in which it arises and then may be carried forward for an additional period of three years if carryforward forms are filed with the Internal Revenue Service no later than February 15 of the following year; and

WHEREAS, there have been no requests by municipalities and no other requests for volume cap for calendar year 2017 other than those referenced in this Resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE STATE BOND COMMITTEE:

Section 1. The Committee hereby reaffirms the June 16, 2017 allocation of $100,000,000 of the 2017 private activity volume limit for the State of Alaska to AHFC.

Section 2. The Committee hereby allocates the remaining $205,315,000 of the 2017 private activity bond volume limit for the State of Alaska to AHFC.

Section 5. This Resolution is effective immediately.

DATED AND ADOPTED this 4th day of December, 2017.

____
Mike Navarre, Commissioner
of the Department of Commerce, Community and Economic Development, Chair

____
Sheldon Fisher, Commissioner of the
Department of Revenue, Secretary

____
Leslie Ridle, Commissioner of the
Department of Administration, Member

APPROVED AS TO FORM:

____
Attorney General of the
State of Alaska

STATE BOND COMMITTEE
RESOLUTION NO. 2017-05
A Resolution of the State Bond Committee
of the State of Alaska Allocating the
Qualified Energy Conservation Bond Volume Limit of the State of Alaska

WHEREAS, Alaska Statute 37.15.800 directs the State Bond Committee (the "Committee") to allocate the tax credit bond volume limits for the State of Alaska (the "volume cap") as authorized under 54D(e)(1) and (3) of the Internal Revenue Code.

WHEREAS, in 2010 the qualified energy conservation bond volume cap available for allocation was $7,120,000; and

WHEREAS, in 2010 the Municipality of Anchorage was determined to be a large local government under 54D(e)(2)(A) and was allocated a portion of the State of Alaska's allocation at the same ratio as the population of the large local government bore to the population of the State of Alaska at such time; and

WHEREAS in 2010 the population of the Municipality of Anchorage was 284,994 and the population of the State of Alaska was 679,720; and

WHEREAS, in 2010 the Alaska Housing Finance Corporation (AHFC) had requested that up to $7,120,000 of the available volume cap be allocated to it, or a subsidiary of AHFC for use in qualified conservation purposes; and

WHEREAS on June 6, 2010 the Committee allocated $2,990,000 of the qualified energy conservation bond volume cap to the Municipality of Anchorage; and

WHEREAS on June 6, 2010 the Committee allocated $4,130,000 of the qualified energy conservation bond volume cap to the AHFC; and

WHEREAS on April 2, 2012 the AHFC waived the 2010 qualified energy conservation bond allocation; and

WHEREAS as of December 4, 2017 the Municipality of Anchorage has not utilized the $2,990,000 of the qualified energy conservation bond volume cap allocated to it.

NOW, THEREFORE, THE COMMITTEE RESOLVES, that:

Section 1. In accordance with Alaska Statute 37.15.800, and for all purposes of Section 54D(e)(2)(A) and (3), $X,XXX,000 of the qualified energy conservation bond volume is allocated to the Alaska Energy Authority.

Section 2. The allocation made by this Resolution is effective immediately upon the date of adoption of this Resolution.

DATED AND ADOPTED this 4th day of December, 2017.

____
Mike Navarre, Commissioner
of the Department of Commerce, Community and
Economic Development, Chair

____
Sheldon Fisher, Commissioner of the
Department of Revenue, Secretary

____
Leslie Ridle, Commissioner of the
Department of Administration, Member

APPROVED AS TO FORM:

____
Attorney General of the
State of Alaska

ALASKA ENERGY AUTHORITY

November 17, 2017

Commissioner Mike Navarre
Alaska State Bond Committee Chair
Department of Commerce Community and Economic Development
PO Box 110800
Juneau, AK 99811-0800

RE: Request for Qualified Energy Conservation Bond Volume Cap Allocation

The Alaska Energy Authority (AEA) is requesting the maximum available amount of volume cap to allow for the authorization and issuance of Qualified Energy Conservation Bonds (QECBs). Proceeds of the QECBs would be used for purposes of financing costs of the Battle Creek Diversion Project (Diversion Project). Please see Exhibit A attached for a complete description of the Diversion Project.

AEA applied for, and received, an allocation of volume cap to allow for the authorization and issuance of $40,000,000 of New Clean Renewable Energy Bonds (NCREBs) under the Internal Revenue Code Section 54C(a); proceeds of the NCREBs will be used to finance costs of the Diversion Project. Subject to an allocation of QECB volume cap, AEA intends to apply these proceeds to the remaining costs of the Diversion Project.

AEA currently estimates the costs of the Diversion Project to be approximately $47,000,000 (including costs of issuance); construction is expected to begin in June 2018. The estimated savings resulting from the issuance of QECBs exceeds $1 million dollars over the life of the bonds (excluding interest earnings).

Allocating QECB volume cap for the Diversion Project allows Alaskans to benefit from this tax credit program before a potential expiration of the authorization. Federal tax reform legislation has included language which, among other things, terminates the authority to issue tax credit bonds after December 31, 2017. Given the uncertainty of Federal tax reform, AEA has chosen to accelerate financing of the Diversion Project. AEA is working with potential lenders on final terms and conditions with the intent to have a final financing package presented at the December 7, 2017 AEA board meeting for approval and issue bonds by December 31, 2017.

Thank you for your consideration of our request. Please contact Brenda Applegate, AEA's Chief Financial Officer with any questions on this request. Her direct number is (907) 771-3021 and her e-mail is bapplegate@aidea.org.

Sincerely,

John Springsteen
Acting AEA Executive Director

CC: Commissioner Sheldon Fisher, DOR
Commissioner Leslie Ridle, DOA
Deven Mitchell, Debt Manager AMBBA
Senator Bert Stedman, Legislative Budget & Audit Chair

Attachment: Exhibit A

EXHIBIT A

DESCRIPTION OF THE PROJECT

The Alaska Energy Authority (the "Authority"), in conjunction with the Bradley Project Management Committee (the "BPMC"), has undertaken efforts to develop and finance the Battle Creek Diversion Project (the "Battle Creek Project") associated with the Bradley Lake Hydroelectric Project (the "Bradley Lake Project"). The West Fork Upper Battle Creek Diversion Project is located on the south end of the Kenai Peninsula near the Bradley Lake Dam, which is the impoundment structure for the Bradley Lake Hydroelectric Project.

The Battle Creek Project includes the construction of a concrete diversion dam, three miles of road, and a five-foot diameter pipe under the road. Road access to the project will be from the existing Bradley Lake Dam access road near the Bradley Lake Dam to a new access road system constructed to provide access to key locations in the diversion project. This will allow for construction and long-term maintenance. Construction of the Battle Creek Project will divert into Bradley Lake sufficient water from the West Fork of Upper Battle Creek to increase by 37,300 MWh the average annual production of energy from the Bradley Lake Project, roughly equivalent to a ten percent (10%) increase in Bradley Lake energy efficiency.

Development activities undertaken or funded to date include an application to the Federal Energy Regulatory Commission ("FERC") to amend the Bradley Lake FERC license to add the Battle Creek Project, final engineering, estimation of construction costs, financial analysis of the Battle Creek Project's economics, analysis of financing options available to the Authority and the BPMC, and environmental and hydrological studies and field investigations.

In September 2016, FERC approved an amendment to the Bradley Lake FERC license to incorporate the Battle Creek Project into the Bradley Lake Project. The February 24, 2017 Opinion of Probable Construction Cost by Engineering Solutions, LLC, estimates a total construction cost (without interest during construction) of $46.4 million, consisting of $41.9 million of capital costs (bid plus contingency), and $4.5 million of indirect costs (the Authority's labor, engineering during construction, environmental survey), and subsequent development work identified an additional $0.2 million of construction costs for stream gaging, resulting in a total estimated construction cost (without interest during construction) of $46.6 million. With costs of issuance factored into the total amount financed, the costs are projected to be $47.2 million.

STATE BOND COMMITTEE
RESOLUTION NO. 2010-02

A Resolution of the State Bond Committee of the State of Alaska Allocating the Qualified Energy Conservation Bond Volume Limit of the State of Alaska

WHEREAS, Alaska Statute 37.15.800 directs the State Bond Committee (the "Committee") to allocate the tax credit bond volume limits for Alaska (the "volume cap") as authorized under 54D(e)(1) and (3) of the Internal Revenue Code.

WHEREAS, the qualified energy conservation bond volume cap available for allocation is $7,120,000; and

WHEREAS, the Municipality of Anchorage is a large local government under 54D(e)(2)(A) and shall be allocated a portion of Alaska's allocation as the population of the large local government bears to the population of Alaska; and

WHEREAS the population of the Municipality of Anchorage is 284,994 and the Statewide population is 679,720; and

WHEREAS, the Alaska Housing Finance Corporation (AHFC) has requested up to $7,120,000 of the available volume cap be allocated to it, or a subsidiary of AHFC for use in qualified conservation purposes.

NOW, THEREFORE, THE STATE BOND COMMITTEE RESOLVES, that:

Section 1. In accordance with Alaska Statute 37.15.800, and for all purposes of Section 54D(e)(2)(A) and (3), $2,990,000 of the qualified energy conservation bond volume is allocated to the Municipality of Anchorage.

Section 2. In accordance with Alaska Statute 37.15.800, and for all purposes of Section 54D(e)(3), $4,130,000 of the qualified energy conservation bond volume is allocated to the AHFC or a subsidiary of AHFC.

Section 3. The allocation made by this Resolution is effective immediately upon the date of adoption of this Resolution.

DATED AND ADOPTED this 3rd day of June, 2010.

____
Emil Notti, Commissioner
of the Department of Commerce, Community and Economic Development, Chair

April 2, 2012

Mr. Deven Mitchell
Debt Manager
Alaska Department of Revenue
P.O. Box 110405
Juneau, AK 99811-0405

Dear Mr. Mitchell:

On June 3, 2010, the Alaska Housing Finance Corporation ("Corporation") received from the Alaska State Bond Committee ("Committee") a volume cap allocation of $4.13 million of Qualified Energy Conservation Bonds (the "2010 QECB allocation"). After considering a variety of issuance scenarios, management has determined that the Corporation cannot utilize the 2010 QECB allocation to maximum economic benefit. Therefore, the Corporation hereby waives its 2010 QECB allocation to allow for its potential use by such other entity as the Committee may deem appropriate.

Sincerely,

Michael L. Strand
CFO/Finance Director (Acting)

Fund	Net Asset Value
2008 Transportation Project Govt Bonds (AY2Q)	$6,539,220
2016B – 2012 Transportation Bond Act (AY3Q)	$128,587,234
2010-A GO Bonds (AY3R)	$8,729
2010-C GO Bonds (AY3V)	$183,090
2013-C GO Bonds (AY3Y)	$6,028,908
2013-B GO Bonds (AY3Z)	$43,105,470
Total	**$184,452,650**

FITCH DOWNGRADES ALASKA'S IDR TO 'AA'; RATES $29MM AMBB 'AA-'; OUTLOOK TO STABLE

Fitch Ratings-New York-02 November 2017: Fitch Ratings has assigned a 'AA-' rating to $28.955 million Alaska Municipal Bond Bank Authority (AMBB or the bond bank) general obligation (GO) bonds 2017 Series Three.

The bonds are scheduled to sell via competitive bid on Nov. 14, 2017.

In addition, Fitch has downgraded the following ratings linked to the state of Alaska:

--Issuer Default Rating (IDR) to 'AA' from 'AA+';
--Approximately $777 million state GO bonds to 'AA' from 'AA+';
--Approximately $243 million state appropriation bonds to 'AA-' from 'AA';
--Approximately $1 billion bond bank 2005 resolution bonds to 'AA-' from 'AA';
--Approximately $4 million bond bank 2010 resolution bonds to 'A+' from 'AA-';
--Approximately $140 million bond bank 2016 resolution bonds to 'A+' from 'AA-'.

The Rating Outlook has been revised to Stable from Negative.

SECURITY
The bonds are general obligations of the bond bank, for which the state maintains an annual standing appropriation of state general fund resources to replenish the bonds' reserve fund in the event of borrower default. GO bonds issued under the 2005 resolution also incorporate multiple layers of security on both the borrower and state level. The standing appropriation is the basis for the assigned rating on the 2005 resolution bonds.

State GO bonds are general obligations of the state of Alaska to which the full faith, credit and resources of the state are pledged. Lease-purchase obligations are secured by annual appropriations from the state's unrestricted general fund (UGF).

ANALYTICAL CONCLUSION

The downgrade of Alaska's IDR and GO rating to 'AA' from 'AA+' incorporates a material decline in financial resilience over the past several years as the state struggled with the economic and revenue effects of the downturn in energy markets. Despite significant expenditure reductions and the recent halving of the statutorily determined permanent dividend payment to residents, the state has relied on one-time resources, primarily reserve fund draws, to address large remaining revenue shortfalls, and prospects for growth in its petroleum-based operating revenue system remain constrained by the extended low price environment, which Fitch expects to continue. The state has applied balances in its substantial accessible reserves, principally the Constitutional Budget Reserve Fund (CBRF) and the Statutory Budget Reserve Fund (SBRF) to close budget gaps, depleting the SBRF and reducing the balance in the CBRF to a level that provides much reduced cushion.

The state expects to turn to its accessible permanent fund earnings reserve (PFER), an accessible reserve that accumulates realized earnings on the state's sizable permanent fund, to aid the operating budget and projects a continual reliance on appropriations from this reserve over the medium term. Fitch believes that this reliance could further weaken the state's resilience in the absence of changes to the state's current fiscal policies if the PFER is gradually reduced. Under certain assumptions, Fitch projects PFER depletion could occur as early as fiscal 2027, though depending on decisions for inflation proofing, growth in annual draws, and amount of dividend payout, the PFER could remain sufficient well beyond this date, providing the basis for the Stable Outlook.

The 'AA' rating continues to incorporate the state's ongoing reliance on revenues tied to oil production and related volatility, a moderate liability burden, and substantial independent control over revenue raising and expenditure decisions.

Economic Resource Base
Alaska's economy is largely based on the development and application of its abundant natural resources, the production of crude oil and natural gas deposits, prominent fishing industry, and mining and tourism. The oil and gas sector has a broad impact on the state's economy due to the direct, indirect, and induced impacts from the drilling and production effects of the turbulent oil and natural gas sectors; a primary source of vulnerability for the state. The state's gross state product (GSP) has notably declined in three of the last four years, reflecting the rapid deterioration in crude oil prices that began in late 2014 that reduced related employment and grew the state's 2016 unemployment rate to 135% of the nation's. Crude oil production continues to approximate recent averages despite ongoing soft prices reflecting the long-term nature of mostly conventional oil drilling in Alaska as compared to shale development in the lower 48 states.

The significant downturn in the state's operating revenues over this time has led to large cuts in state expenditures, further eroding the economic base, as government employment remains a key input for the state's economy, accounting for 19.5% of GDP. Federal employment contributes 7.7% to state GDP and has also declined over the past several fiscal years. Trade and transportation is a significant component of the economy, providing 18% of GDP. Overall employment growth as compared to the nation remains subdued with above-the-nation unemployment rates YTD through 2017.

KEY RATING DRIVERS

Revenue Framework: 'a'
The state is expected to continue to derive an outsized proportion of its operating revenues from taxation, leasehold interest, and royalty payments related to petroleum development. These narrow revenue sources will continue to reflect the economic volatility tied to the extensive natural resources sector. The state plans to supplement these sources by annual draws from the state's PFER over the medium term. The state has complete control over its revenues, with an unlimited independent legal ability to raise operating revenues as needed.

Expenditure Framework: 'a'
The state maintains solid expenditure flexibility with a manageable burden of carrying costs for liabilities and the broad expense-cutting ability common to most U.S. states. As with most states, Medicaid remains a key expense driver and Fitch believes the state will be challenged in meeting expenditure growth well above the pace of natural revenue growth.

Long-Term Liability Burden: 'aa'
Debt levels are low but on a combined basis, the state's net tax-supported debt and unfunded pension obligations are well above the median for U.S. states as a percentage of personal income. Given the sizable support of the budget by natural resource activity, liabilities are viewed as a more moderate burden on GDP. Other post-employment benefit (OPEB) obligations are sizable but well-funded. Both pension and OPEB liabilities are constitutionally protected benefits.

Operating Performance: 'aa'

Historically, the state's strong management of its financial operations and extraordinarily sizable reserve balances has offset volatility in its revenue sources; however, the state ended fiscal 2017 with its fifth consecutive operating deficit, balancing its budget through an appropriation from its reserves, and sizable annual deficits are projected through the forecast horizon. Absent revenue reform, the state anticipates relying on annual draws from reserves to balance its budget through the forecast period. Based on Fitch's analysis, this could result in reserve depletion as early as fiscal 2027, although Fitch believes the many options available to the state in managing these reserves extend that date and could remove depletion risk. While the state's permanent fund is robustly funded, the corpus may only be accessed through an amendment to the state constitution.

RATING SENSITIVITIES

LINKAGE TO STATE OF ALASKA: The rating on obligations of the bond bank is sensitive to movement in the state's IDR to which they are linked.

FINANCIAL RESILIENCE: The Stable Outlook at the 'AA' level incorporates the sustainability of continued draws on the state's accessible reserves and Fitch's expectation that the state will act in a way so as to remain adequately positioned to address potential fiscal stress through a moderate downturn. An unexpected slump in crude oil prices that severely impacts the state's financial operations would put pressure on the rating.

CREDIT PROFILE

Revenue Framework

Historically, the state's operating budget (UGF) has been almost entirely supported by volatile petroleum-related revenues. In fiscal 2014, at the peak of oil prices, 88% of UGF revenues were derived from this sector; this ratio has declined to about 65% in fiscal 2017 due to the substantial decline in oil prices. Modest, additional sources of UGF revenue include various excise taxes, corporate income taxes, and fisheries and mining taxes. The state does not levy a personal income or sales tax. Historically, the state has applied funds from its accessible reserves to fund operations when petroleum-related revenue has fallen short.

Petroleum-related revenues include the state's tax on the value of oil and gas production and the collection of oil and gas royalties, lease payments, and bonuses. The state receives these revenues on its land leased for natural resource development as well as 50% of royalties and leases from development on federal land in the National Petroleum Reserve (NPR). A portion of these revenues are restricted with constitutional and statutory requirements for deposits to certain accounts including the state's permanent fund, the public school fund trust, and special revenue funds for municipalities that are affected by development in the NPR.

Oil and gas production tax revenue is a function of both price and production with significant declines in oil prices that began in late 2014 eroding recent collections. The state's preliminary 2017 fall oil production forecast continues to project long-term declines in production but at a much reduced rate compared to prior forecasts due to better operator performance as well as methodology changes, improving the outlook for future UGF revenue collections.

Historical growth in the state's revenues, after adjusting for the estimated impact of tax policy changes, was well ahead of national GDP growth over the 10 years through 2014, with solid growth in oil prices that reached a recent peak of $113 per barrel (bbl) in June 2014, more than offsetting some fiscal year declines, producing increasing but volatile state tax revenues. However, the loss of state tax revenues related to the dramatic decline in oil prices that began after this peak to lows reaching $30/bbl has resulted in sizable, annual operating deficits since fiscal 2015. The state's revenue forecast assumes steady growth in oil prices from the $49.43/bbl base in fiscal 2017; however, while the gradual price escalation to $75/bbl by 2027 and revenue performance expectations would result in positive growth, they build from a base that is insufficient to fund the state's current expenditures.

The governor has proposed a number of recurring revenue measures to reduce the reliance on petroleum-based revenues; however, most proposals have not received sufficient traction in either regular or special legislative sessions to move ahead. Sufficient support was received for implementing changes to the state's oil and gas production credit system that eliminated the ability of producers to significantly reduce their tax burden, resulting in a positive impact to revenues. The legislature is currently debating the governor's payroll tax proposal in a special session that would produce about $300 million in annual UGF revenue, an amount well below the state's current budget gap. Fitch believes it is unlikely that the tax will pass in the current special session.

Fitch's Analysis of PFER Draws

As noted above, the state expects to rely on draws from its PFER to fund operations and the state anticipates these annual draws to continue indefinitely. The state may choose to offset the magnitude of the draws by continuing to reduce the dividend payments and continuing to suspend the statutorily required inflation proofing of the permanent fund, a tactic taken over the past two fiscal years. Under these scenarios, the state forecasts continued growth in the PFER despite the annual draws, premised on a 6.75% annual return assumption on permanent fund investments and no UGF expenditure growth through 2026.

Fitch tested the state's expectations by applying a range of return assumptions for the Permanent Fund's investments, selecting a 6% investment return for the base case and assuming what Fitch views as a more realistic 2% annual growth in expenditures. Fitch considered scenarios where annual inflation proofing was implemented and those when it was not, as well as testing varying levels of annual dividend payments given the state's recent reductions.

Fitch's analysis determined a depletion date as early as fiscal 2027 based on the state making the full statutorily determined dividend payment, full inflation proofing, and a 2% growth rate in the annual draw on the PFER. Additional potential outcomes include depletion dates in the mid-2030s based on full inflation proofing and the recent reductions in the annual dividend, absent more robust revenue growth or actions by the state. These outcomes consider a dividend payment at 50% of the statutorily determined rate, full inflation proofing, and a 2% annual growth in the draw from the PFER, or a scenario with a 67% dividend payout ratio, full inflation proofing, and no growth in the draw rate. Variations around these forecasts depend on the level of annual investment return as well as the decision to inflation-proof the fund's corpus with possible outcomes either shortening or lengthening the life of the PFER, including outcomes that determined no depletion of the PFER. Note that this analysis, which is intended to provide general guidance as to the sustainability of drawing from the PFER, is predicated on numerous assumptions in a forthcoming Fitch special report on this subject.

The state has no legal limitations on its ability to raise revenues through base-broadenings, rate increases, or the assessment of new taxes or fees.

Expenditure Framework
As in most states, education and health and human services spending are Alaska's largest operating expenses. Education is the larger line item, as the state provides significant funding for local school districts and the public university. Health and human services spending is the second largest area of spending, with Medicaid being the primary driver. Beginning in fiscal 2017, the permanent fund dividend payment to residents is a UGF appropriation rather than a direct payment from the PFER ($695.7 million in fiscal 2017 and increasing to $760 million in fiscal 2018). The payment has been funded by a transfer from the PFER to the UGF.

Fitch expects that spending growth, absent policy actions, will be ahead of natural revenue growth, driven primarily by Medicaid, and require regular budget adjustments to ensure ongoing balance. The fiscal challenge of Medicaid is common to all U.S. states and the nature of the program as well as federal government rules that limit the states' options in managing the pace of spending growth. Fitch believes the state will be particularly hard-pressed to fund program requirements and other spending priorities from its recurring revenues given its forecast for an extended low oil price environment.

Federal action to revise Medicaid's programmatic and financial structure remains a possibility given recent federal legislative and administrative efforts. Most proposals to date include a basic restructuring of federal Medicaid funding to a capped amount. Whether a change in federal Medicaid funding has consequences for Fitch's assessment of a state's credit quality would depend on the state's fiscal response to those changes. Responses that create long-term structural deficits or increase liability burdens could negatively affect both the expenditure framework assessment and the IDR.

Alaska retains a solid ability to adjust expenditures to meet changing fiscal circumstances although that strength has been weakened by recent actions to reduce expenditures. While Medicaid remains a notable cost pressure, spending requirements for debt service and pension obligations are manageable. The state has taken important steps to improve pension funding through deposits from the CBRF to lower its actuarially determined employer contribution (ADEC). Pension and OPEB benefits for state employees and teachers are constitutionally protected, reducing the state's flexibility to make cuts as an employer or in additional contributions that are required by state statute; SB125 commits the state, subject to the annual appropriation process, to funding the difference between specified employer contributions and the ADEC.

Long-Term Liability Burden
The state has been an infrequent debt issuer, meeting most capital needs from annual revenues. The debt burden as of June 30, 2017 is low, with just over $1 billion in net tax-supported debt measuring 2.6% of personal income after excluding guaranteed debt of the Housing Finance Corporation's Veteran's Mortgage Program, which has never required state support, and reimbursable municipal general obligation debt issued for school construction.

The state has undertaken multiple pension reforms in recent years, including switching to defined contribution plans for new employees beginning July 1, 2006, and enacted legislation in 2007 obligating the state to consider appropriating for local government and school district contributions over a fixed percentage of payroll. The application of $3 billion of CBR funds in 2015 accelerated funding progress for the state employees' (PERS) and teachers' (TRS) systems. As of the June 30, 2016 financial statements, PERS' assets covered 66.4% of liabilities and TRS' assets covered 75.8% of liabilities, incorporating the one-time payments to the system and other programmatic adjustments.

Using a more conservative 6% return assumption for pensions, instead of the 8% rate assumed under the state's accounting valuation, results in a state liability burden of 22.1% of 2016 personal income; one of the highest among U.S. states. Fitch notes that the majority of state debt is currently repaid from petroleum-related revenue, so the debt-to-income ratio, with lower personal income metrics, is not as meaningful for Alaska as for other states. Retiree healthcare trusts were established for both PERS and TRS, and as of June 30, 2016, were funded at 96% and 101%, respectively.

Operating Performance
The state's financial performance has been tied closely to trends in its natural resource base with sizable accessible reserves bolstering operations during downturns. Fluctuating global energy prices have led to sharp surges and drops in the state's UFG revenues, with strong revenue growth

increasing balances in the state's various reserve funds. The CBRF and SBRF together grew from $8.1 billion in fiscal 2009 to $17.6 billion in fiscal 2014 prior to declining to about $4.7 billion in fiscal 2017. Funds in the SBRF were depleted in fiscal 2015 in response to the revenue shortfall and the state currently forecasts only a modest balance remaining in the CBRF, which is funded by legal settlement revenue, by fiscal 2020 due to anticipated operating deficits. A 3/4 majority vote of the legislature is required to access the CBRF unless the current year's proposed budget is less than the prior year's budget, in which case a simple majority rule applies; a simple majority rule also applies to accessing the PFER, which receives ongoing funding from investment earnings on the permanent fund. The PFER balance totaled $12.8 billion in fiscal 2017. Combined, available balances in fiscal 2017 were equal to 3.4x of the state's total annual UGF budget and are anticipated to increase in fiscal 2018 largely from investment earnings on the permanent fund.

Including the PFER, the state's Permanent Fund held a fund balance of $59.8 billion as of June 30, 2017. The fund receives an annual allocation of state-derived oil royalties, rents, and bonuses. Access to the almost $47 billion fund corpus itself would require an amendment to the state's constitution, a path the state has not pursued to date.

Through the current period of financial stress, the state has implemented substantial cuts to its expenditures and roughly halved the permanent fund dividend the past two fiscal years, yet these meaningful actions have been insufficient to balance the state's budget. Revenue proposals to date have not received sufficient traction for passage, resulting in the rapid depletion of the state's reserves and weakening its resiliency. While accessible reserves are expected to remain considerable in the short term, providing a buffer for prospective action, the balance reductions and their potential depletion in the absence of offsetting action is concerning given the state's limited economy and ongoing reliance on revenues tied to oil production.

Financial operations continue to be supported by fiscal management that closely tracks revenue collections and expenditures during the year. The state updates its revenue forecasts twice yearly and each forecast extends for 10 years. The forecast employs the state's extensive knowledge of ongoing and planned natural resource development.

Recent Operating Performance

Not inclusive of the permanent fund dividend of $695.7 million that was half of the statutorily determined allocation, UGF expenditures in fiscal 2017 totaled almost $4.5 billion, a 13.7% reduction from fiscal 2016. The budget incorporated continued soft crude oil prices and a planned $2.5 billion draw from the CBRF to fund operations but did not include any significant revenue raising measures despite the governor's proposals to increase taxes. Crude oil prices remained subdued but were fairly close to the state's expectations at $49.43/bbl.

The UGF budget for fiscal 2018 totals $4.3 billion, a 3.6% reduction from fiscal 2017, and does not contain any significant revenue-raising measures. The legislature is currently meeting in a special session to consider the imposition of a payroll tax for funding the budget although Fitch views prospects for passage as slim. Without enacting new revenue measures, the budget as approved by the legislature relies upon an additional $2.5 billion allocation from the state's reserves (57% of the UGF budget).

Alaska Municipal Bond Bank

In addition to the standing state appropriation, GO bonds issued under the 2005 resolution also incorporate multiple layers of security on both the borrower level and the state level. Issuance requires either a borrower's GO or revenue pledge or other evidence of pledged revenues for allowable debt obligations, with a borrower reserve available for revenue bonds. Bond bank borrowers must demonstrate project essentiality and ability to repay in order to access financing.

The 2017 series three bonds will be loaned to the Kenai Peninsula Borough's Central Peninsula General Hospital for various capital projects.

The bond bank maintains a pooled program reserve fund for the 2005 resolution bonds of approximately $63.2 million as of Sept. 1, 2017. No additional deposit to the reserve fund is required by the current issue, as existing assets, including cash and surety policies, exceed the post-issuance reserve requirement. The program reserve fund is backed by a moral obligation of the state established by state statute requiring establishment of a reserve and requiring that the bond bank chair seek a general fund appropriation to restore the program reserve to the required level in the event of a borrower's payment default. This pledge was strengthened with the bond bank's commitment in 2009 to seek an annual standing appropriation for these bonds and the state's subsequent annual appropriations, including in the fiscal 2018 budget. There have been no payment defaults under the program to date.

Payments by the borrowers are due seven days prior to a debt service payment, providing sufficient timing to access bond bank resources in the event of a missed payment. Further protections include a state intercept of local aid for borrowers and the ability to access the bond bank's unrestricted funds held in the custodian account. The custodian account is currently funded at approximately $11 million and is expected to be maintained at this approximate level in future years, although direct loans by the bond bank and deposits to reserve funds may diminish the custodian account balance.

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In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis and InvestorTools.

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Additional information is available on www.fitchratings.com

Applicable Criteria
U.S. Public Finance Tax-Supported Rating Criteria (pub. 31 May 2017)
https://www.fitchratings.com/site/re/898466

Alaska and the Permanent Fund

Exploring the Sustainability of Long-Term Draws for Operations

Special Report

On Nov. 2, 2017, Fitch downgraded the state of Alaska's Issuer Default Rating (IDR) from 'AA+' to 'AA' as, among other factors, the state has struggled with the economic and revenue effects of the downturn in energy markets. The Rating Outlook was also revised to Stable from Negative, reflecting the additional financial flexibility from earnings generated by the state's Permanent Fund. This report expands on that analysis.

Expected Reliance on Reserve Funds: Due to weakness in natural resource-based revenue sources, Fitch Ratings projects Alaska faces an approximately $2.5 billion annual prospective unrestricted general fund (UGF) budget deficit, representing nearly 60% of the $4.3 billion UGF budget in fiscal 2018. Fitch expects draws on accumulated reserve earnings to provide substantial support of operations over the long term.

Permanent Fund Unique Asset: The state's Permanent Fund (PF) is an investment fund created 40 years ago and funded annually from dedicated oil royalties that currently has a total value of approximately $60 billion. This provides significant financial flexibility to the state given its ability to tap into the earnings generated by the PF through the permanent fund earnings reserve (PFER), the account to which accumulated PF earnings accrue; accessing the corpus of the PF itself requires a state constitutional amendment. The current value of the PFER is about $13 billion.

Treatment as an Endowment: Given the importance of the reserve funds to Alaska's credit profile, it is critical to analyze the sustainability of potential draws. In this report, Fitch examines if and when the PFER might be exhausted should the state choose to fund operations in this fashion. While the existence of the PF is viewed as a positive credit factor, this study seeks to determine the extent of credit support provided by earnings on this asset.

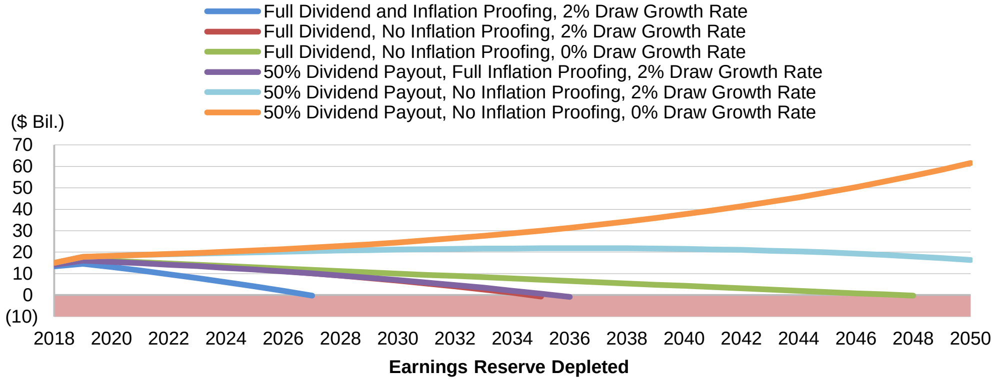
Significant Financial Flexibility: While in the most conservative scenario, the PFER could fund the prospective budget shortfall for approximately the next 10 years, the state has significant levers available in the form of managing dividend payments to residents and "inflation proofing" of the PF corpus that could extend its ability to fund operations for many decades and potentially indefinitely. Beyond taking appropriate policy action, this assumes that state expenditures do not grow more than Fitch's forecast, state-forecast UGF revenues do not materially decrease and the PF investment returns achieved are adequate.

Assumptions Key to Analysis: As this is a mathematical exercise, Fitch assumes a set of scenarios regarding the initial PFER draw rate, growth in the draw rate, resident dividend payout rate (which also uses the PF earnings as its source), use of inflation proofing to preserve the value of the corpus in real terms and the long-term investment rate of return, all of which are paramount for determining how much and for how long the state can draw on this resource.

Related Research

[Fitch Downgrades Alaska's IDR to 'AA'; Outlook to Stable (November 2017)]

Permanent Fund Earnings Reserve Under Varying Assumptions I
Different Dividend, Inflation Proofing and Draw Growth Rate Assumptions [a]



[a]Assumes $2.5 billion initial draw and 6% long-term return rate. Approximation only.
Source: Alaska Permanent Fund Corporation, Fitch.

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Alaska's Budget and the Alaska Permanent Fund

Fitch forecasts a continuing approximate $2.5 billion annual UGF budget deficit for Alaska, before application of reserve earnings, due to soft crude oil prices that have diminished operating revenues, combined with modestly growing expenditures. Based on the state's current projections, the state expects to draw on the Constitutional Budget Reserve Fund (CBRF) to close that gap in fiscal years 2018 and 2019; however, the full amount will be largely unfunded for fiscal 2020.

The state has a unique financial asset in the form of the PF, which is invested across diverse asset classes and generates significant investment income. Alaska's PF provides significant additional financial flexibility to the state given its ability to tap into the earnings generated by the fund.

The PFER is the account where statutory earnings accumulate; from this account, annual dividend payments are made to state residents and the state may also draw on it to fund state expenses with a simple majority vote of the legislature. As the (approximately $47 billion) corpus of the PF cannot be spent without a constitutional amendment, the principal focus of this report is on the PFER, which represents the "spendable" portion of the PF.

Analyzing the Sustainability of Funding the Budget

Fitch treats the PF as an endowment in this analysis, which is essentially a mathematical exercise dependent on the PF's current structure and critical assumptions.

Determining Assumptions

This analysis is built on various significant assumptions, including the initial PFER draw (initial annual amount drawn to fund the budget), annual percentage growth in the draw (if any), resident dividend payout rate, use of inflation proofing (to preserve the value of the corpus in real terms) and the PF long-term investment rate of return. Other assumptions, including constitutionally mandated deposits to the PF from oil royalty revenue, generally reflect state projections. Key to this analysis is determining reasonable assumptions to generate a realistic range of possibilities for how much and how long the state can draw on this resource.

Assumptions include:

Initial PFER Draw Rate: Fitch tested an initial annual draw of between $2.0 billion and $3.0 billion. Given the anticipated funding shortfall (based on Fitch's expectation of annual 2% growth in expenditures and the state's revenue forecast), the base case starts at an annual draw of $2.5 billion commencing in fiscal 2020.

Draw Growth Rate: Fitch tested the sustainability of the initial draw assuming no growth, (which, as noted, assumes the state's revenue forecast and Fitch's expected 2% expense growth over time), as well as a 2% annual growth rate over time in the amount drawn, which reflects the potential for oil price or production weakness beyond the state's forecast or expense growth beyond that anticipated. Both scenarios are considered in our analysis.

Investment Returns: The Alaska Permanent Fund Corporation's (PFC), the PF's investment manager, assumed long-term investment return assumption is 6.5%; Fitch estimates a return of between 5.5% and 7.0% as reasonable and assumes a base case of 6.0%. This is based on the PF's current asset allocation and historical returns for various asset classes.

Inflation Proofing: At present, the legislature may suspend the statutory requirement to preserve, in real terms (inflation proof), the PF corpus, and for fiscal years 2016 and 2017,

Related Criteria

U.S. Public Finance Tax-Supported Rating Criteria (May 2017) funds were not set aside for this purpose. While Fitch believes an ongoing suspension may be an option, pressures to preserve the value of the corpus in real terms may ultimately result in this policy being reinstated. In fact, a recently distributed projection for the PF from the PFC indicates a higher than normal amount of inflation proofing for fiscal 2018 to compensate for the lack of this in the two prior years. Consequently, a reasonable scenario could assume either no or complete inflation proofing; for the latter, the same 2.2% inflation assumption as the PFC was assumed in our analysis, with this also the assumed base case.

Dividend Payments: The state makes dividend payments to residents, but the legislature has control over the amount of the payments. There will likely be political pressure to continue making such payments, at least at some level. The annual dividend is formulaically determined and is roughly equal to half the PF's statutory net income averaged over the five most recent fiscal years, subject to override by annual legislative appropriation. Given the state's recent dividend reduction, Fitch believes that testing a payout of between 50% and 25% of prior-year annual statutory income (a simplification of the statutory formula), implying a range between the full statutory dividend payment and a 50% reduction in the same, respectively, is reasonable.

Results

Various combinations of these assumptions are shown in the chart on the first page. Ideally, the size of the PFER will be stable through time or grow; otherwise, it will ultimately run out and could no longer be relied on for closing budget holes or any other purpose (at least until the balance is rebuilt from PF earnings.)

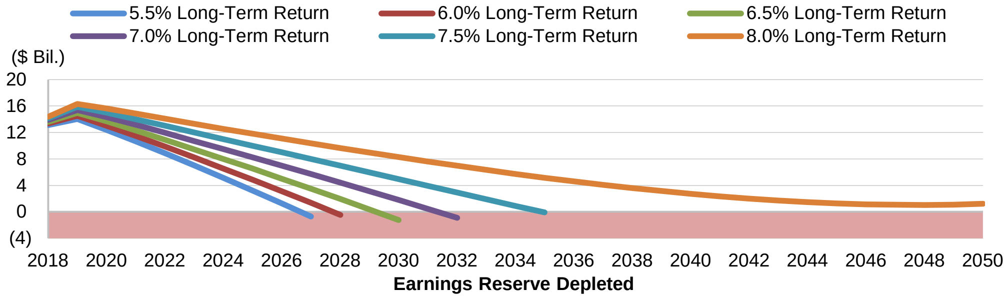
Dividend Payout and Inflation Proofing Powerful Levers

The state has several tools available that would effectively allow it to use a greater amount of earnings generated by the PF for the purpose of funding state expenses. First, the state, subject to legislative approval, has the ability to lower the amount of statutory earnings allocated to dividends to residents, which it has done recently. Second, the state can choose not to inflation proof the PF, effectively freeing up an additional approximately $1 billion annually to fund expenses.

As shown in the chart on page 1, changing these key assumptions can dramatically alter the results, potentially making the funding of a budget shortfall possible for many additional decades, if not indefinitely. However, practical limitations may come into play with regard to what policy actions are politically palatable over the long term. For example, reducing the value of the corpus in real terms on an ongoing basis by not inflation proofing may be politically untenable, while the extent of the reduction of resident dividend payments permitted over the long term is also an open question.

Another significant factor is the long-term rate of return achieved by the PF; the chart below illustrates the impact on the PFER balance by assuming rates of return ranging from 5.5% to 8%.

Permanent Fund Earnings Reserve Under Varying Assumptions II
Different Long-Term Return Rates Assumed[a]



[a]Analysis assumes a flat $2.5 billion draw, and full dividend payment and inflation proofing.
Source: Alaska Permanent Fund Corporation, Fitch.

Impact of Investment Returns

In the chart above, Fitch assumes a constant $2.5 billion draw through time to close the budget gap (the approximate amount of the deficit for fiscal 2020, the first year of the full draw), as well as the full dividend and inflation proofing (implying the corpus of the PF will be preserved in real terms.)

Holding these assumptions constant, the lines indicate the impact over time of different long-term return assumptions. There is a significant difference between assuming the lower return rates (5.5% to 6.5%), which would imply the earnings reserve would be depleted in the next 10 to 15 years, and the higher return rates shown. Under this scenario (full dividend payout and inflation proofing of the corpus), to be fully sustainable through time, a long-term rate of return of at least 8% would be required. However, achieving such a high return over an extended period may not be realistic

Determining a Reasonable Range of Fund Longevity

In the table on the following page, there are 12 scenarios outlining the year that the PFER would be exhausted. Under some scenarios, the fund is stable or can grow appreciably, implying that the amount drawn is sustainable over time.

Approximate Year Permanent Fund Earnings Reserve Is Exhausted Under Various Assumptions[a]

Initial Draw ($ Bil., Starting in 2020)		Year Permanent Fund Earnings Reserve Exhausted $2.0 Bil.	$2.5 Bil.	$3.0 Bil.
Assuming Full Dividend, Full Inflation Proofing, Draw Growth Rate = 2%				
Return	5.5%	2029	2027	2025
Assumption	6.0%	2030	2027	2026
	6.5%	2032	2028	2026
	7.0%	2035	2030	2027
Assuming Full Dividend, No Inflation Proofing, Draw Growth Rate = 2%				
Return	5.5%	2041	2033	2029
Assumption	6.0%	2046	2035	2030
	6.5%	Declining	2038	2032
	7.0%	Stable	2041	2033
Assuming Dividend Reduced by 1/3, Full Inflation Proofing, Draw Growth Rate = 2%				
Return	5.5%	2035	2030	2027
Assumption	6.0%	2040	2032	2028
	6.5%	Declining	2035	2030
	7.0%	Growing	2040	2032
Assuming Dividend Reduced by 1/3, No Inflation Proofing, Draw Growth Rate = 2%				
Return	5.5%	Stable	2041	2033
Assumption	6.0%	Growing	2048	2036
	6.5%	Growing	Stable	2040
	7.0%	Growing	Growing	2045
Assuming Dividend Reduced by 50%, Full Inflation Proofing, Draw Growth Rate = 2%				
Return	5.5%	2042	2032	2028
Assumption	6.0%	Declining	2036	2030
	6.5%	Growing	2044	2033
	7.0%	Growing	Stable	2037
Assuming Dividend Reduced by 50%, No Inflation Proofing, Draw Growth Rate = 2%				
Return	5.5%	Growing	2049	2037
Assumption	6.0%	Growing	Stable	2041
	6.5%	Growing	Growing	2048
	7.0%	Growing	Growing	Stable

		Year Permanent Fund Earnings Reserve Exhausted $2.0 Bil.	$2.5 Bil.	$3.0 Bil.
Assuming Full Dividend, Full Inflation Proofing, Draw Growth Rate = 0%				
Return	5.5%	2030	2027	2025
Assumption	6.0%	2033	2028	2026
	6.5%	2037	2030	2027
	7.0%	Declining	2032	2028
Assuming Full Dividend, No Inflation Proofing, Draw Growth Rate = 0%				
Return	5.5%	Stable	2039	2031
Assumption	6.0%	Growing	2048	2033
	6.5%	Growing	Stable	2036
	7.0%	Growing	Growing	2042
Assuming Dividend Reduced by 1/3, Full Inflation Proofing, Draw Growth Rate = 0%				
Return	5.5%	Declining	2032	2028
Assumption	6.0%	Growing	2036	2030
	6.5%	Growing	Stable	2032
	7.0%	Growing	Growing	2038
Assuming Dividend Reduced by 1/3, No Inflation Proofing, Draw Growth Rate = 0%				
Return	5.5%	Growing	Growing	2042
Assumption	6.0%	Growing	Growing	Declining
	6.5%	Growing	Growing	Growing
	7.0%	Growing	Growing	Growing
Assuming Dividend Reduced by 50%, Full Inflation Proofing, Draw Growth Rate = 0%				
Return	5.5%	Growing	2038	2030
Assumption	6.0%	Growing	Stable	2033
	6.5%	Growing	Growing	Declining
	7.0%	Growing	Growing	Growing
Assuming Dividend Reduced by 50%, No Inflation Proofing, Draw Growth Rate = 0%				
Return	5.5%	Growing	Growing	Declining
Assumption	6.0%	Growing	Growing	Growing
	6.5%	Growing	Growing	Growing
	7.0%	Growing	Growing	Growing

[a]Assumes the corpus of the permanent fund remains untouched; analysis embeds various assumptions, as detailed in the report. Note: Full dividend, dividend reduced by 1/3 and dividend reduced by 50% equals payout to residents of 50%, 33.3% and 25%, respectively, of (the prior year's) statutory income; this is an approximation of the state methodology. Analysis assumes state assumptions as of July 31, 2017 with regard to inflation rate used for "inflation proofing," dedicated oil royalty revenues contribution, unrealized gain allocation and statutory/actual net income percentage and is intended to gauge approximate PFER life under various assumptions.
Source: Alaska Permanent Fund Corporation's fund financial history and projections, Fitch.

The table above illustrates a range of results subject to varying assumptions regarding the extent of dividend payments made to residents, whether the PF corpus is held constant in real terms and if the amount drawn annually to close the budget gap is assumed to remain constant over time or is increased by inflation (assumed to be 2%). For each of these, the initial draw starts in fiscal 2020 and ranges from $2.0 billion to $3.0 billion, while the assumed long-term rate of return ranges from 5.5% to 7.0%. The highlighted cell in each table represents an initial draw of $2.5 billion and a long-term rate of return of 6%; both are Fitch's base case assumptions, though it is better to examine a range of results that we believe plausible.

Assuming a full dividend payment and the use of inflation proofing, Fitch would expect the PFER to be exhausted in about 10 to 12 years. However, if less is paid out to residents in dividends, more would be available to fund state expenses. Consistent with recent history, the state could pay out less than the full statutory dividend amount over the long term. Fitch tested additional scenarios that reduced the dividend payment over this amount by either 1/3 or 50%. Assuming the former, as well as full inflation proofing of the PF corpus, Fitch would expect the PFER to be exhausted in about 15 to 20 years. However, assuming a 50% reduction in the dividend, the PFER could be sustained for 20 years to indefinitely, depending on whether the annual draw ($2.5 billion) increases at a 2% annual rate or remains constant through time, respectively.

These results assume a $2.5 billion initial draw and a 6% long-term investment return rate. At higher return rates, the ability to fund expenses would be extended, particularly if the amount drawn through time is held flat. Without inflation proofing, the PFER would last substantially longer and, in many cases, would last indefinitely; however, while this may be an option available to the state, Fitch's base case assumption is that the state will return to inflation proofing the corpus of the PF.

Analysis Parameters

A wide range of outcomes is possible under this analysis, with various plausible scenarios resulting in a PFER life of 10 to 20 years. However, Fitch acknowledges the state may have tools at its disposal, in particular, dividend payout and inflation-proofing policies, that could significantly extend the feasibility of funding the budget over the long term and expects the state to endeavor to keep the PFER adequately funded.

Importantly, Fitch's analysis is predicated on several critical assumptions and is meant to provide guidance on the sustainability of the PFER under different scenarios. Assumptions beyond dividend payout and inflation proofing policies include investment return rates realized over time, which are held constant and could be higher or lower than Fitch's base case, and the base case initial draw of $2.5 billion and growth assumptions, which are predicated on Fitch's expectation of 2% expenditure growth and the state's revenue forecast. The manner in which these and other factors evolve over time may significantly impact, in either direction, the ability of the state to finance expenses out of PF reserves and future earnings.

Consequently, while Fitch views the ability of the state to draw on the assets of the PFER as a significant budget cushion (and views favorably the assets of the PF corpus as well), it is subject to reasonable limits under the current structure and, further, may represent a decreasing source of financial cushion in the future should its balance decline.

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CREDIT OPINION
13 July 2017

Update

Rate this Research

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State of Alaska

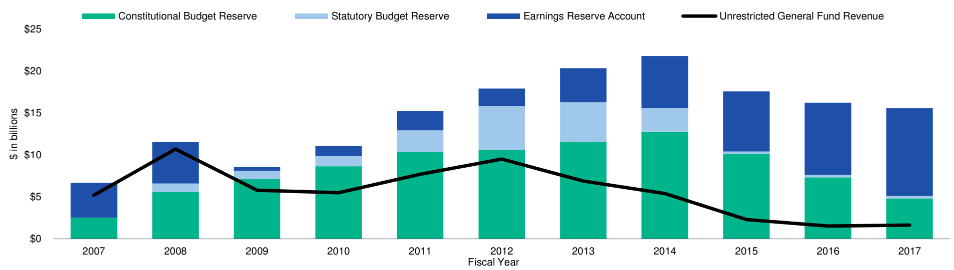
Update - Moody's Downgrades Alaska to Aa3; Outlook Remains Negative

Summary Rating Rationale

Moody's Investors Service has downgraded the State of Alaska's general obligation debt to Aa3 from Aa2. The outlook is still negative. We have also downgraded the state's lease revenue bonds, to A1 from Aa3, and its moral obligation bonds, to A2 from A1. In a separate action, we have affirmed the Alaska Municipal Bond Bank's general obligation rating at A1 (see separate report published concurrently with this one).

The downgrade reflects the state's ongoing structural budget imbalance, a small economy with concentration in energy production, large fixed costs, and heavy pension burden. The rating recognizes that Alaska still has the means to solve its fiscal problems (see a summary of the governor's proposed plan on page 4), and our baseline expectation remains that the state will do so before exhausting its still-considerable liquid reserves.

Exhibit 1
Alaska Still Has Abundant Reserves



The reserves shown above are all available for appropriation into the budget. The decline in reserves above include a one-time $3 billion transfer to the state's pension fund.
Source: State of Alaska

Credit Strengths

» Considerable liquid reserves

» Identifiable path toward structural balance

Credit Challenges

» Large pension burden

» Large imbalance between general fund spending and unrestricted revenues

Rating Outlook

The negative outlook incorporates the large structural imbalance that the state has still not rectified, and the ongoing spending of the state's reserves. As the state's reserves diminish, its options to close the budget gap narrow and the consequences should it fail to do so intensify.

Factors that Could Lead to an Upgrade (Removal of Negative Outlook)

» Passage of a plan to close the structural budget imbalance

» Significant rebound in revenues, bringing revenues closer to expenditures

Factors that Could Lead to a Downgrade

» Continued reliance on reserves to finance large deficits

» Failure to enact a plan to close the structural budget gap

Key Indicators

Exhibit 2

Alaska	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Operating Fund Revenues (000s)	10,785,224	8,577,583	7,706,982	3,678,644	2,251,963
Balances as % of Operating Fund Revenues	211.0%	301.6%	353.2%	579.0%	786.6%
Net Tax-Supported Debt (000s)	914,900	1,156,400	1,097,200	1,050,300	1,254,600
Net Tax-Supported Debt/Personal Income	2.8%	3.2%	3.0%	2.7%	3.0%
Net Tax-Supported Debt/Personal Income 50 State Median	2.8%	2.6%	2.5%	2.5%	2.5%
Debt/Own-Source Governmental Funds Revenue	8.3%	8.6%	7.7%	18.9%	51.1%
Debt/Own-Source Governmental Funds Revenue Median	37.4%	36.1%	35.8%	34.4%	N/A
ANPL/Own-Source Govt Funds Revenue	90.8%	117.4%	99.9%	241.1%	N/A
ANPL/Own-Source Govt Funds Revenue Median	92.6%	90.8%	83.0%	84.9%	N/A
Total Non-Farm Employment Change (CY)	1.6%	0.4%	0.4%	0.3%	-1.9%
Per Capita Income as a % of US (CY)	118.9%	115.6%	117.5%	116.6%	111.6%

Source: Moody's Investors Service

Recent Developments

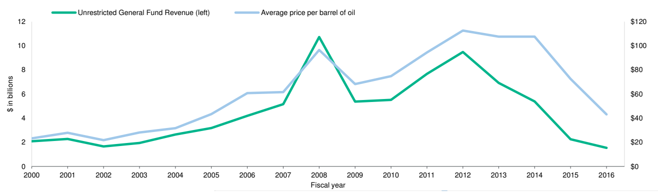
Entering fiscal 2018, Alaska finds itself in much the same position as last year. Its budget is still imbalanced by several billion dollars, and the legislature has yet to adopt a plan to remedy that.

How Alaska Got Here

How Alaska got here is basically a story about the price of oil. More than 80% of Alaska's unrestricted revenues since 1980 have come from taxes, royalties and other types of revenues generated from oil production in the state. When the price of oil went up, Alaska's revenues went up. Then, when the price of oil went down, Alaska's revenues went down. Meanwhile, when Alaska's revenues went up, its spending went up, too. But when its revenues went down, the spending didn't go down as much.

Exhibit 3

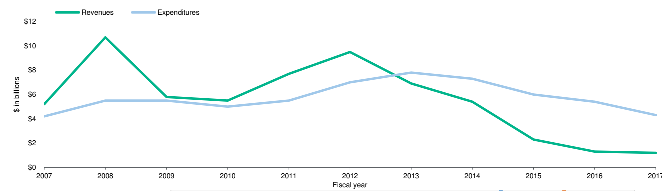
Higher Oil Prices Drove Higher Revenues



Source: State of Alaska

Exhibit 4

Spending Hasn't Fully Adjusted to the Decline in Revenues



Source: State of Alaska

Alaska has yet to fully adjust to the lower-revenue[1] environment. The state has cut spending by $3.5 billion (44%) since 2013. But with unrestricted revenues down so sharply over the past few years, a multibillion dollar surplus has morphed into a multibillion dollar deficit.

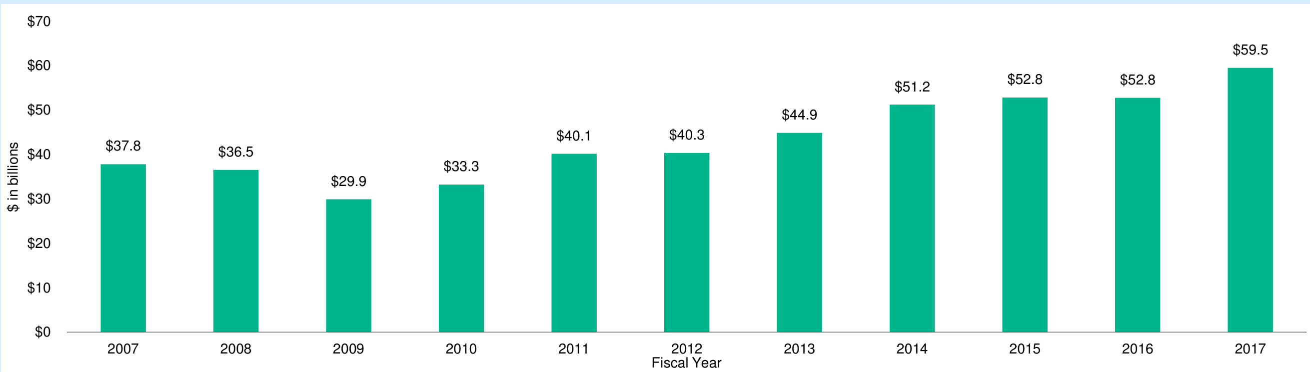
Our baseline expectation remains that Alaska will adjust its unrestricted revenues and expenditures back into balance, and maintain a strong credit profile overall. The governor has identified exactly how he wishes to do so (see sidebar on next page). However, uncertainties about what the state's fiscal future will look like and the risk that the state will not fully rectify its fiscal situation soon continue to apply downward pressure on Alaska's rating.

The Governor's Plan to Balance the Budget

Alaska's governor has put forth a proposal for exactly how the state will close its $2.5 billion budget gap: the Alaska Permanent Fund Protection Act.

The Alaska Permanent Fund is a public trust created in 1976, into which the state deposits about 30% of its oil revenues. After 40 years of deposits and investment gains, the total fund balance has grown to $59.5 billion.

Exhibit 5
Alaska's Permanent Fund Continues to Grow



(2017 balance is as of May 2017)
Source: Alaska Permanent Fund Corp.

The above balance includes both the principal (which cannot be spent) and the fund's realized investment income (which can). Since 1982, the state has used the fund's earnings primarily to pay dividends to citizens. The state had paid almost $24 billion of dividends cumulatively through 2015, when the dividend peaked at $2,072 per person.

The governor has concluded that the annual earnings of the permanent fund are the best revenue source to sustainably close the general fund's $2.5 billion gap. These earnings are available for appropriation, and represent a significant source of funds in addition to the state's unrestricted general fund revenues. Favorably, the state has stopped following the statutory dividend formula, and the past two years has paid approximately half of the statutory amount in dividends, preserving the rest for a potential budget solution.

Under the governor's proposal, the state would use about $2.5 billion of annual earnings from the permanent fund (a 5.25% percent of market value draw) to top up the general fund, closing that gap. The state would also restructure its dividend format: annual dividends of about $1,000 would be funded from a combination of permanent fund earnings and oil revenues, instead of solely from permanent fund earnings. This change would shift the volatility risk inherent to oil revenues to dividend recipients and away from the general fund.

What the governor calls the “New Sustainable Alaska Plan” has a few other elements, such as tax increases. The state's progress in implementing this plan or any plan that brings the budget into balance will be integral to the state's rating going forward.

Detailed Rating Considerations

Economy

Alaska's economy is struggling. The state's unemployment rate (6.7% as of May) is the highest in the nation. Lower oil prices have soured the outlook for capital spending and employment in the energy industry, and the economy is in recession. Population trends are weak, and we expect the state's $52 billion economy to be a below-average performer economically for the time being.

In the five years from the end of 2011 to the end of 2016, US real gross domestic product grew 10.2%. During that time, Alaska's economy shrank 6.9%, the worst of any state. The worst-performing states economically during that period were generally energy states, but Alaska's economy stacks up poorly against even these and other underperforming peers.

Alaska's economic performance looks particularly poor relative to its peers in the Far West region, which on the whole have been among the best-performing of all.

Exhibit 6

Alaska's Economy Has Fared Poorly Against the Worst-Performing ...

From 2011 to 2016	Rating	Real GDP Growth	Personal Income Growth (Rank)
Alaska	Aa3 negative	-6.9%	49
Wyoming	No rating	-5.2%	45
Louisiana	Aa3 negative	-1.7%	33
West Virginia	Aa2 stable	-0.7%	50
Connecticut	A1 stable	1.0%	47
Vermont	Aaa stable	1.6%	44
United States	Aaa stable	10.2%	Not applicable

Source: Bureau of Economic Analysis

Exhibit 7

... And Against the Best-Performing

From 2011 to 2016	Rating	Real GDP Growth	Personal Income Growth (Rank)
Alaska	Aa3 negative	-6.9%	49
Far West	Not applicable	15.0%	Not applicable
California	Aa3 stable	17.2%	3
Hawaii	Aa1 stable	7.8%	13
Nevada	Aa2 stable	6.4%	9
Oregon	Aa1 stable	4.4%	4
Washington	Aa1 stable	15.6%	2

Source: Bureau of Economic Analysis

Finances and Liquidity

Alaska continues to spend substantially in excess of its unrestricted general fund revenues.

In fiscal 2018 (ending 6/30/2018), Alaska has appropriated $4.2 billion of operating expenditures. Meanwhile, it forecasts unrestricted general fund revenue of $1.8 billion. That deficit – about $2.5 billion – will once again be closed with a draw from reserves. This will be the fifth straight year that Alaska has financed a large operating deficit with reserves.

Exhibit 8

Alaska Continues to Finance Deficits with the Constitutional Budget Reserve
($ in billions)

Fiscal Year	Change in Operating Reserves	Remaining Operating Reserves
2013	($0.6)	$16.3
2014	($1.9)	$15.6
2015	($2.5)	$10.4
2016	($3.7)	$7.6
2017	($2.7)	$5.1

"Operating Reserves" above excludes the Earnings Reserve Account of the Permanent Fund, which consists of investment income and has not been used to finance deficits. See sidebar on next page for more details.
Source: State of Alaska

Excluding the investment income of the Permanent Fund (more information on that on the next page), Alaska has drawn more than $10 billion from reserves that once totaled more than $16 billion. While this is still a very large reserve position (and includes a one-time $3 billion contribution to the pension fund), Alaska continues to burn through cash each year.

Alaska's Reserves Explained

Alaska has many billions of dollars of reserves with varying degrees of accessibility. Understanding the reserves is important to understanding the state's structural imbalance as well as the remedies it is considering.

Exhibit 9

Alaska's Many Reserve Funds

Reserve	$	Description	Role in Fiscal Overhaul
Permanent Fund (Principal)	$47 billion	Cannot be accessed except to generate investment income	The plan is for the general fund to be primarily funded by investment income from the Permanent Fund ERA
Permanent Fund (Earnings Reserve Account)	$12.5 billion	Investment income and realized earnings from Permanent Fund; available for appropriation	The plan is for the general fund to be primarily funded by investment income from the Permanent Fund ERA
Constitutional Budget Reserve Fund	$4.8 billion	Liquid reserve available for appropriation	Original plan was to deposit some of these funds into the Permanent Fund, but as they are depleting this appears less likely
Statutory Budget Reserve	$288 million	Liquid reserve available for appropriation	None

All figures are as of May 2017.
Source: State of Alaska, Moody's Investors Service

When we talk about Alaska's reserves, we are generally referring to the Constitutional Budget Reserve (CBR), the Statutory Budget Reserve (SBR), and the Permanent Fund Earnings Reserve Account (ERA). The Permanent Fund principal, which is invested in equities and other longer-term strategies, cannot be spent under the state's constitution.

Alaska's Structural Imbalance

Each year, Alaska spends in excess of its unrestricted general fund revenues, which is expressed in the decline in the SBR and the CBR (the state has not yet drawn from the ERA to fund operations).

However, because the Permanent Fund has been generating investment income into the ERA, Alaska's total reserves have not been declining at a rate equal to the annual deficits. In other words, each year Alaska draws from its liquid reserves to fund operations, but adds investment income into liquid reserves from the Permanent Fund. The Permanent Fund's investment gains have been partially offsetting the state's operating deficits, with the result that total reserves have only declined $6 billion from their peak in 2014 (compared with more than $10 billion excluding gains in the ERA). Of that $6 billion draw, half is explainable by a one-time pension contribution of $3 billion in 2015.

Exhibit 10

ERA's Investment Gains Have Sustained Alaska's Reserves
($ in billions)

Fiscal Year	2013	2014	2015	2016	2017
Change in CBR/SBR	$0.4	($0.7)	($5.2)	($2.8)	($2.5)
Change in ERA	$2.0	$2.2	$1.0	$1.4	$1.9
Net change in total reserves	$2.4	$1.5	($4.2)	($1.3)	($0.7)

The $4.2 billion draw in 2015 included a one-time $3 billion contribution to the pension fund.
Source: State of Alaska

Debt and Pensions

Alaska's long-term liabilities are heavy, mainly because of a large pension burden. Although pension reform will prevent these liabilities from growing much more, for now Alaska is carrying heavy pension liabilities with a weak economy amid a troubled budget environment.

DEBT STRUCTURE

Alaska's debt burden is about average. The state's net tax supported debt (NTSD) consists mainly of general obligation bonds. Not included in the below are an additional $1.3 billion of moral obligation bonds (mostly local government borrowings through the Municipal Bond Bank) and some other debt that is self-supporting from other sources.

Exhibit 11

Alaska's Net Tax Supported Debt

Debt Type	Rating	Security	Par Outstanding (6/30/2016)
General Obligation	Aa3 negative	Full faith and credit	$823.2 million
Sport Fishing Revenue Bonds	A1 stable	Fishing licenses and fees	$27.9 million
Leases	A1 negative	Appropriations	$255.6 million
		Total	**$1.11 billion**

Leases include both bonds secured by lease payments and capital leases. The A1 rating shown above applies only to rated bonds.
Source: State of Alaska

A $1.1 billion debt burden is not especially large relative to the state's economy or budget. Debt is not much higher than regional peers, and is significantly lower than the highest-debt states.

Exhibit 12

Alaska's Debt is Lower than Some Regional Peers ...

State	Rating	NTSD to State GDP (rank)	NTSD per capita (rank)
Alaska	Aa3 negative	2.38% (24)	$1,691 (16)
US Median	Not applicable	2.23%	$1,006
California	Aa3 stable	3.51% (12)	$2,217 (9)
Hawaii	Aa1 stable	8.92% (2)	$5,018 (3)
Nevada	Aa2 stable	1.24% (37)	$587 (37)
Oregon	Aa1 stable	3.46% (14)	$1,842 (14)
Washington	Aa1 stable	4.45% (7)	$2,717 (6)

A lower-number rank is a higher debt burden
Source: Moody's Investors Service

Exhibit 13

... And Much Lower than the Highest-Debt States

State	Rating	NTSD to State GDP (rank)	NTSD per capita (rank)
Alaska	Aa3 negative	2.38% (24)	$1,691 (16)
US Median	Not applicable	2.23%	$1,006
Connecticut	A1 stable	9.2% (1)	$6,505 (1)
Hawaii	Aa1 stable	8.92% (2)	$5,018 (3)
Massahcusetts	Aa1 stable	8.4% (3)	$5,983 (2)
New Jersey	A3 stable	6.91% (4)	$4,388 (4)
Mississippi	Aa2 negative	5.22% (5)	$1,847 (13)

A lower-number rank is a higher debt burden
Source: Moody's Investors Service

Debt service of about $90 million annually represents a moderate share of revenues (roughly 5%), a figure that would become even lower should the state increase its revenues as part of a budget solution.

DEBT-RELATED DERIVATIVES

None of Alaska's direct debt is variable rate, and the state is not party to any derivative agreements through its direct debt. Some state agencies whose debt we do not consider state debt – such as the airport system and student loan and housing corporations – have variable rate debt outstanding.

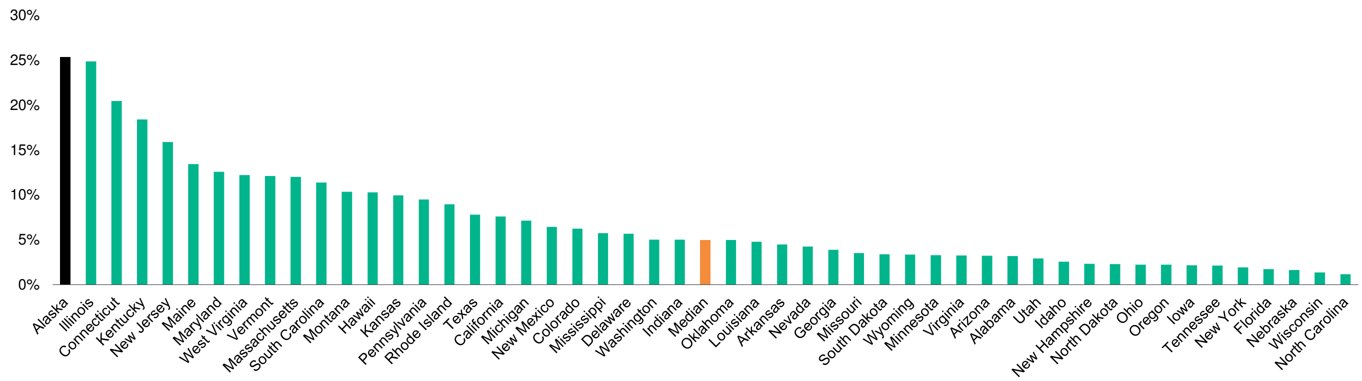
PENSIONS AND OPEB

Alaska's pension burden is extremely high, by many measures the highest of all states. Relative to personal income, Alaska's Moody's-adjusted net pension liability (ANPL) is higher than Illinois' (Baa3 review for downgrade), almost twice as high as New Jersey's (A3 stable), and more than five times as high as the national median. Alaska's ANPL is the highest of all states relative to personal income, state GDP, and on a per-capita basis.

Exhibit 14

Alaska Has the Highest Pension Burden of Any State

ANPL relative to state GDP



Source: Moody's Investors Service

The above figures attempt to measure the capacity of each state's economy to generate enough revenues to service pension liabilities, based on income and economic activity. We recognize that Alaska's revenue-generating dynamics are different from most other states, because of its substantial natural resources and the income-producing potential of the permanent fund discussed on page 4.

Therefore, Alaska probably has more capacity to fund its pension liabilities than would be communicated in the above exhibit. Neither the cost of servicing pensions nor total fixed costs are overly onerous on the overall state budget, particularly if the governor's plan to begin funding the general fund with permanent fund income takes effect.

Governance

Fiscal 2018 will prove a crucial year for Alaska's governance as the governor and the legislature work toward a fiscal overhaul to put unrestricted general fund revenues and ongoing expenditures on a more balanced path.

Legal Security

Alaska's general obligation bonds are secured by the full faith, credit and resources of the state. By law, the funds necessary to pay debt service on GO bonds are automatically appropriated from the general fund.

The state's certificates of participation are secured by lease payments that are made subject to appropriation by the legislature.

Lastly, bonds secured by the state's moral obligation are backed by the state's pledge to replenish any draws on the debt service reserve fund for the bonds.

Use of Proceeds

Not applicable.

Obligor Profile

Alaska is the 48th-largest state, with a population of 740,000.

Methodology

The principal methodology used in the general obligation rating was US States Rating Methodology published in April 2013. The principal methodology used in the lease rating was Lease, Appropriation, Moral Obligation and Comparable Debt of US State and Local Governments published in July 2016. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

Endnotes

1 When we talk about Alaska's revenues, we will frequently be referring to its unrestricted general fund revenue. Alaska has various revenues in addition to unrestricted revenue, some of which are vital to its fiscal future.

REPORT NUMBER 1081757

MOODY'S INVESTORS SERVICE

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Credit Profile		
Alaska approp		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska GO		
Long Term Rating	AA/Negative	Downgraded, Removed from CreditWatch
Alaska Energy Auth, Alaska		
Alaska		
Alaska Energy Auth (Alaska) pwr rev (Bradley Lake Hydroelectric Proj)		
Long Term Rating	A/Negative	Downgraded, Removed from CreditWatch

Rationale

S&P Global Ratings has lowered its rating on Alaska's general obligation (GO) debt to 'AA' from 'AA+', and its ratings on the state's appropriation-backed debt to 'AA-' from 'AA'. We also lowered our rating to 'A' from 'A+' on bonds that were issued by the Alaska Energy Authority and are backed by a moral obligation pledge from the state. At the same time, we removed the state's ratings from CreditWatch where it had been placed with negative implications. The outlook on all the ratings is negative.

The rating actions reflect continued lack of agreement on fiscal reforms to return the state to structural balance. While we recognize the state's sizable reserve position is intended to offset volatile economic cycles, continued reliance on reserves (its constitutional budget reserve [CBR]), coupled with the state's economic contraction since 2012 and the fallout of oil prices in mid-2015, have reached an unsustainable level. The state maintains sizable reserves in its Permanent Fund earnings account, but these have not been used as unrestricted general fund revenue. The 2017 legislative session ended without agreement on reforms for the third consecutive year and the state's adopted fiscal 2018 budget further relied on the state's diminishing CBR. The continued reliance on budgetary reserves that have significantly diminished over the years places the state in a more vulnerable position. Deteriorated reserves and continued dependence on revenues from natural resources will only exacerbate budgetary pressures as the state's revenue, categorized as unrestricted general fund revenue from oil production is likely to remain modest.

Further of concern, Alaska is relying on reserves during a prolonged period of state economic contraction. According to IHS Markit, employment declined 2.1% year over year in the first quarter of 2017, the second-worst-performing state. It continues to experience significant job loss as a majority of sectors saw losses. Manufacturing, natural resources and mining, and the construction sectors suffered double-digit year-over-year losses of 17.3%, 15.5%, and 10.9%, respectively, as the professional/business services sectors also felt the blow-back from the declining energy sector. In our opinion, the heavy reliance on oil revenues is constraining the economy of the state. The economy has been contracting since 2012, with most of the decline reflecting the oil and gas sector, the effects are being felt in other areas. We expect the state to experience limited employment and private-investment growth or possibly decline consistent with the trend over the past five years following the collapse of the price per barrel of oil. The state overly relies on an energy sector that has experienced structural decline in both output and employment and which affects other areas of employment and investment.

The negative outlook continues to reflect our opinion that if lawmakers fail to enact significant fiscal reforms to reduce the state's unrestricted general fund revenue fiscal imbalance during the 2018 legislative session or fiscal 2019 budget, Alaska's downward rating transition will likely persist, possibly by multiple notches as its structural imbalance becomes more protracted. Future downward rating action could accelerate if the state's budget reserves (not including the permanent fund) approach depletion faster than expected.

Despite the lack of agreement, we recognize that there has been incremental progress. During the 2017 legislative session, lawmakers agreed to a $1,100 permanent fund dividend, whereas the prior year, a $1,022 dividend was enacted through a veto by the governor. The amounts are approximately 50% of the statutorily required dividend amount and have resulted in approximately $1.3 billion of retained earnings in the Permanent Fund earnings reserve. While not adopted as part of the 2018 budget, the House of Representatives passed HB 115 to levy a broad-based personal income tax to generate an estimated $700 million. In addition, the House and Senate each passed budgets within their respective chambers to use some portion of the permanent fund earnings reserve to fund general fund operations. Absent revenue changes, the state has already made significant expenditure reductions of $1.9 billion since fiscal 2015, a 27% decrease in three years. A few days ago, the legislature reached a compromise on HB 111 (drilling subsidies) to create tax write-offs in future years. According to a fiscal analysis of the bill by the Alaska Department of Revenue (DOR), savings of $95 million are expected beginning in fiscal 2019 and $185 million in 2020.

The state's large reservoir of permanent fund earnings provides it with options that we believe have the potential to stabilize its credit quality and prevent further deterioration. However, this becomes irrelevant as other reserve funds are depleted or drawing on the earnings reserve is done in such a manner that depletes that account without adequate replenishment. Governor Bill Walker's fiscal year 2017 and 2018 budget proposals have included measures to potentially reduce the effect of oil price volatility on state finances, but have not gained approval by the legislature. These reforms include: an education head tax, a motor fuels tax, and the Permanent Fund Protection Act. The politics of enacting what amounts to an austerity-based overhaul of state finances continue to render enactment of structural reforms uncertain. In our view, until the state's budgetary trajectory and reliance on non-recurring revenues are significantly removed from future budgets, the state's credit quality is under negative pressure.

The state's credit quality nevertheless continues to benefit from several strong features, including its:

- Still otherwise very strong reserves in its permanent fund earnings accounting for at least 3x annual appropriations (May 31, 2017);
- Potential to resolve much of the unrestricted general fund structural imbalance by overhauling the flow and customary treatment of various legally unrestricted state revenues; and
- Moderate debt burden and closed defined-benefit retirement system that should benefit actuarially from a recent large asset infusion.

Traditionally, the state's vast reserves have been an offset to its economic volatility. Reflecting its linkage to the commodity markets, Alaska's economy has begun to contract and is out of step with the U.S. economy, which continues to expand. For many of the past 40 years, taxes and royalties on oil production have been sufficient to pay for a majority of the state's general fund expenses. For instance, in fiscal 2012 when Alaska North Slope (ANS) west coast spot prices averaged $112.65 per barrel, the state brought in nearly $9.5 billion in total unrestricted general fund revenue. Based on April 2017 projections, the state's ANS oil price forecast--$50.05 per barrel in fiscal 2017--was projected to produce just $1.6 billion in unrestricted general fund revenue. The state DOR estimates an average price per barrel of $54.00 in fiscal 2018; however, if projections fall short, the state will need to further use its remaining constitutional budget reserve balance, further narrowing fiscal margins into the next fiscal year.

Based on the analytic factors evaluated for Alaska, on a four-point scale of '1.0' (as the strongest) to '4.0' (as the weakest), S&P Global Ratings has assigned a composite score of '1.9' to the state, which is associated with an 'AA' indicative credit level. The indicative score has worsened from '1.8' at the time our last review due to our revised view of its budget management framework as the state continues to rely on diminishing reserves (not including the Permanent Fund earnings reserve) and its inability to reach agreement on fiscal reforms to address its structural imbalance, coupled with the state's continued economic contraction with a significant concentration in the energy sector that could make fiscal reforms more difficult to implement if not timely adopted.

Outlook

The negative outlook reflects the state's deteriorating credit quality as it continues to rely on its budgetary reserves (not including the Permanent Fund earnings reserve) to fill its structural gap. Lawmakers again have not reached agreement on using fiscal reforms to stabilize the state's financial position. While the state's historically very strong reserve are intended to offset its reliance on the volatile energy sector, in our opinion, continued reliance absent resurgence in the energy sector, will leave the state stuck in an environment that continues to contract. If lawmakers fail to enact significant fiscal reforms to reduce the state's fiscal imbalance during the 2018 legislative session or fiscal 2019 budget, we will likely lower the state's ratings further. Future downward rating action could accelerate if the state's budget reserves approach depletion faster than expected. However, if agreement can be reached on structural reforms that allow to the state to operate without reliance on non-recurring revenues, we may revise the outlook to stable.

Budgetary Performance

The state's 2018 budgetary outlook looks largely similar to the prior two fiscal years of persistent depressed oil prices and a significant reliance on budgetary reserves (its CBR). Evidenced by continued lack of agreement on fiscal reforms, the politics of enacting what amounts to an austerity-based overhaul of state finances threatens the state's credit quality. Continued reliance on reserves during a prolonged period of state economic contraction, coupled with reliance on volatile commodity-based revenues, make the future of Alaska's budgetary performance uncertain. In our view, until its budgetary trajectory and reliance on non-recurring revenues are significantly removed from future budgets, we have a negative view of the state's overall budgetary performance which may further diminish if structural reforms are not implemented in a timely manner.

Fiscal 2017 projections

Based on April 2017 forecasts, unrestricted general fund revenue is now forecast to be $1.6 billion in fiscal 2017, an increase from the fall 2016 forecast of $200 million. The revenue forecast is based on an annual ANS oil price of $50.05 per barrel for 2017 (up from $46.81 per barrel in the fall 2016 forecast) and expectations for North Slope oil production to average 523,700 barrels per day. Based on these improved revenue projections form the time the budget was enacted, the state should see a surplus. However, the budget totaled $4.4 billion relying on $3.2 billion of reserves (73% of undesignated general fund revenues).

While we recognize that the interest and investment earnings generated through the Permanent Fund and deposited into the earnings reserve account exceeded the fiscal 2017 reserve appropriation, the earnings reserve has never been used for general fund operations despite being available with an affirmative majority vote of the Legislature and the governor's consent. In addition, by definition, investment earnings are economically sensitive and may create volatility year to year should the U.S. as a whole enter into an economic recession. While proposals have been put forward to use these untapped reserves for budgetary balance, it could be viewed as a credit weakness if not adequately implemented in such a way that ensures the funds' solvency during periods of economic contraction.

Fiscal 2018 adopted budget

To avoid shuttering government services, the legislature and governor agreed on a $4.1 billion unrestricted general fund budget during its second special session, a roughly 6% decline from fiscal 2017 and 21% decline from fiscal 2016. While the governor had proposed various other reforms, including an education head tax, a motor fuels tax, and the Permanent Fund Protection Act, none of the bills were acted on during the regular or special sessions. In the adopted budget, the state continues to draw on its CBR by $2.4 billion, leaving it with approximately one year of reserves in that fund entering into fiscal 2019 unless further expenditure cuts are made, petroleum-related revenues rebound, or a draw on Permanent Fund earnings is approved.

Alaska's dwindling reserves

Alaska has traditionally been vulnerable to economic cycles due to its dependence on natural resources. In 1976, the state created the Alaska Permanent Fund to hedge against the risk of declining oil revenues. Subsequently, the state established two reserve accounts: The statutory budget reserve (SBR) and the CBR were created in 1986 and 1991, respectively. The SBR and CBR have acted as rainy day funds to stave off budget shortfalls and commodity price volatility. However, after five consecutive years of budget gaps, significant amounts of the funds have been used while the balance in the Permanent Fund earnings fund reserve has increased.

The SBR fund had no assets as of October 2015, down from a $4.7 billion balance of June 30, 2013. At that time, the remaining $287 million in the SBR was transferred to the CBR after use for balance prior budget shortfalls. The CBR fund (CBRF) had a balance of $4.81 billion as of May 31, 2017, down from a high of $10.1 billion at the end of fiscal 2015. In fiscal years 2015 and 2016, $3 billion and $3.1 billion, respectively, were drawn from the funds. For fiscal 2015, $3 billion was appropriated from the CBRF in the form of a transfer to the pension system and a year-end transfer from the SBR to the general fund of $2.5 billion. It is expected, based on current projections provided by the state, that the ending fiscal 2017 CBR balance will be approximately $4.3 billion. Adoption of the fiscal 2018 budget included approximately $2.4 billion of CBR to balance the budget, continuing the erosion of the fund. If projections based on the budget hold, the state will have only about one year left of revenues in the CBR to balance the budget.

The state also maintains the Permanent Fund, which (as of June 30, 2016) was comprised of a non-spendable principal balance of $44.2 billion and a spendable earnings reserve account (ERA) balance of $8.6 billion. Based on current figures (May 31, 2017), the principal balance was $47.0 billion and the ERA balance was $12.5 billion, an improvement based on earnings. Proceeds of the ERA can be appropriated by the legislature for any purpose. However, the funds have not been appropriated in the past to balance the budget, but have typically been re-deposited into the Permanent Fund for inflation-proofing, paying for the expenses of managing the fund, and providing for the annual Permanent Fund dividend. Absent adoption of structural reforms to fund state government, the ERA will likely need to be used to balance future budgets within the next two years. If the ERA balance is zero or less, a dividend cannot be paid. The governor's 2018 proposed baseline scenario estimates the ERA will have insufficient cash flow to pay dividends beginning in fiscal 2023. However, as the statutory amount of dividend payments have been reduced in 2017 and 2018, dividends may likely be paid out beyond fiscal 2023. Despite over $40 billion in the Permanent Fund, constitutionally, this principal deposit cannot be spent.

Based on a current projected balances and the 2018 draw on the CBR, the ending balance is expected to be $2.2 billion (without additional deposits). While the ERA is available for appropriation, it has never been used to pay for the general government. In our view, drawing on a previously untapped reserve source is not a structural reform.

We have assigned a score of '1.7' to Alaska's budgetary performance, where '1.0' is the strongest score and '4.0' the weakest.

Economy

While the U.S. economy continues its state of expansion, Alaska shows signs of contraction with nearly all of the loss reflecting the decline in the oil and gas sector. Year-over-year real gross state product declined 5% from 2015 to 2016 compared to 1.5% growth for the U.S. and negative 1.4% the last five years compared to nearly 2% growth for the US. This decline has been occurring on a nominal basis since 2012, when state GDP reached a high of $60.9 billion. This has also resulted in declining income levels with personal income per capita as a percentage of the U.S. declining the past five years from 119% in 2012 to 112% in 2016. However, the population growth has been steady at 0.5% over the past five years.

The state also has seen elevated unemployment levels at 6.6% in 2016 compared to 4.9% nationally, remaining above the national level for the past three years and ranking as the highest nationally. According to the Department of Revenue, oil makes up 90% of the mining sector in Alaska, and even at its diminished 2016 value, mining represented 14% of Alaska's total gross domestic product. Between 2012 and 2016, the sector's overall value fell by nearly two-thirds, from $21.4 billion to $7.5 billion. Oil and gas was the only industry whose GDP value was less in 2016 than in 2012. In our opinion, it is unlikely the state will experience significant economic expansion in the near term to suggest resurgence in the oil and gas sector. However, we note that other sectors of the economy have been relatively static to slightly improving.

According to IHS Markit, employment declined 2.1% year over year in the first quarter of 2017, the second-worst-performing state. The state continues to experience significant job loss as a majority of sectors saw losses. Manufacturing, natural resources and mining, and the construction sectors suffered double-digit year-over-year losses of 17.3%, 15.5%, and 10.9%, respectively, as the professional/business services sectors also felt the blow-back from the declining energy sector.

In our opinion, the heavy reliance on oil production is constraining the economy of the state. The economy has been contracting since 2012, with most of the decline reflecting the oil and gas sector, while the effects are being felt in other areas. We expect the state to experience limited employment and private-investment growth or possibly decline, consistent with the trend over the past five years following the collapse of the price per barrel of oil. The state overly relies on an energy sector that has experienced structural decline in both output and employment and affects other areas of employment and investment.

On a four-point scale on which '1' is strongest, we have assigned a score of '1.8' to Alaska's economy. The score has weakened from '1.5' since our last review due to our revised view of the state's economic development, which relies heavily on a contracted oil and gas sector the past several years.

Financial Management Assessment

We consider Alaska's formal management practices "good" under our Financial Management Assessment (FMA) methodology. An FMA of "good" indicates our view that the state maintains many best practices we consider critical to supporting credit quality, particularly in the finance department. These practices, however, may not be institutionalized or formalized in policy, may lack detail or long-term elements, or may have little recognition by decision-makers outside of the finance department.

The state has a statutory budget reserve in its general fund that, although not always funded, is available to provide liquidity. In addition, it has established the CBR fund, which voters approved. Funds may be appropriated for certain purposes by a vote of three-fourths of each house of the legislature, but money can be used for interfund borrowing for general fund expenditures. All appropriations from the fund are recorded as a general fund liability. Per the state's constitution, this fund receives all oil and gas tax dispute settlements. Until recently, the state's forecast of its leading predictor of state revenue, the price per barrel of oil, has tended to err on the low side. (This changed in fiscal 2015 following the unanticipated collapse in global commodity prices.) The state also forecasts production and has recently enhanced its methodology on this front. Budget amendments can occur throughout the year.

Alaska produces detailed revenue forecasts, with the focus being the price of oil, which--unless the governor's reform package is adopted--remains the leading determinant of unrestricted general fund revenue. Other revenue sources are also included in the revenue source book, which is released twice each year. The tax division of the Alaska DOR prepares the book, using numerous outside sources of information to help predict the price of oil.

In addition to the revenue forecast, the Office of Management and Budget (OMB) maintains a 10-year fiscal forecast, which is updated annually. Expenditure projections are less detailed, although the state accounts for some inflationary and caseload pressures on spending levels.

The state's debt management policy is updated annually with the public debt report and debt affordability analysis as required by statute. The debt report describes the different types of debt that Alaska issues, mainly certificates of participation and GO bonds. For general fund-supported bonds, the state has a debt capacity that it determines, by policy, to be 8% of unrestricted revenue.

Investment management is also covered by the investment policy statement, and the performance of the state's investment portfolio is monitored daily. Each year, the portfolio undergoes a fiduciary audit, which includes a review of legal and administrative constraints for each invested fund. The audit policy's stated goal is to keep Alaska's investment process intact during periods of market upheaval.

Alaska enacts an annual capital budget. Expenditure assumptions for the state's operating budget are adjusted as appropriate when capital projects begin. A transportation agency capital plan provides an annually prioritized plan detailing three years of projects and funding sources.

We have revised our view of the state's budgetary management. In our opinion, the framework is adequate with established budget monitoring. However, as the state continues to rely on an ever-diminishing reserve positon (its CBR), coupled with its reliance on economically volatile revenues, it is our opinion that such measures under consideration to achieve structural balance have not been implemented in a timely manner. While we recognize the state has flexibility through investment and interest earnings in its Permanent Fund earnings reserve account, the unrestricted general fund revenue generated is also economically sensitive.

We have assigned a score of '2.5 ' out of '4.0' to the state of Alaska's financial management, where '1.0' is the strongest score and '4.0' the weakest. The score has diminished from '2.0' at the time of our last review due to our revised opinion of the state budget management framework.

Government Framework

The DOR issues formal revenue forecasts twice a year, in the spring and fall. The forecast is based on consultation with an engineering firm and the state department of natural resources. As noted above, the methodology for forecasting oil production has been revised to incorporate the greater variability associated with production forecasts from some oil fields that are still under development or are in the evaluation phase of development. The net effect of these changes has been to increase the long-term rate of production decline. The revenue forecast has historically been used as presented for budget adoption and not been adjusted during the budget-adoption process.

Historically, Alaska has used existing high fund balances to carry deficits and is not legally required to make midyear budget adjustments if a midyear gap develops. The governor has the discretion to hold back spending in the middle of the fiscal year if a budget gap appears to be developing. Such adjustments were last made in fiscal 2009, during oil price fluctuations. The governor can unilaterally prioritize such holdbacks, but the holdbacks have no formal requirement or schedule. Since oil prices and the state's oil-related revenues collapsed in mid-2015, the state's lawmakers have stopped short of approving comprehensive fiscal reforms. To date, they have responded by reducing general fund expenditures, the Permanent Fund dividend, and recently diminished oil and gas tax credits.

We have assigned a score of '1.5' out of '4.0' to the state of Alaska's government framework, where '1.0' is the strongest score and '4.0' the weakest.

Debt And Liability Profile

Total tax-supported debt per capita is $1,560 (as of fiscal 2016 audited financial and population figures) and tax-supported debt (GO and appropriation) to personal income at 2.8%. Tax-supported debt service as a percentage of general fund spending was low, at about 1.1%, in fiscal 2016. The state's debt principal amortizing in 10 years is 92.7% following permanent financing of an outstanding bond anticipation note.

At June 30, 2016, the state had about $823.2 million of GO debt, but about $11.6 million of this is considered self-supporting veterans' mortgage revenue-secured debt, leaving about $820.6 million in net tax-supported GO debt. At the end of fiscal 2016, Alaska also had about $333.8 million of annual appropriation-supported debt.

Pension And Other Postemployment Benefit (OPEB) Liabilities

In 2006, Alaska moved all new employees to a defined-contribution retirement plan from a defined-benefit plan, but employees hired before that continue under the state's defined-benefit pension plan. In addition, unlike those of most other states, Alaska's OPEBs are constitutionally protected. Also, unlike most states, however, the state has an OPEB trust fund and a track record of funding the liability on an actuarial basis. Thanks to a large, extraordinary $3 billion contribution from the state's CBRF to its pension systems, its funded ratios--for both its defined-benefit pension and OPEB liabilities--improved markedly in fiscal 2015. The contribution was split between the Public Employees' Retirement System (PERS; $1 billion) and the Teachers' Retirement System (TRS; $2 billion). Following the increased contributions, PERS and TRS actuarial funding ratios as of June 30, 2015, were 78.3% and 83.3%, respectively. However, these funding ratios combine pension and OPEB reporting.

Based on the plan, June 30, 2016 CAFRs and GASB 67 reporting requirements for pension plans only, the Alaska PERS multiemployer plan had a 60% funded ratio (not including OPEBs) at June 30, 2016, down from 64% the prior year. We estimate that, as of fiscal 2016, the state's proportionate net pension liability related to PERS is $5.6 billion. The separate TRS had a 68% pension-funded ratio as of fiscal 2016, down from a 74% ratio in fiscal 2015. Both PERS and TRS employ an 8.0% assumed rate of return on invested assets.

Combined with the liabilities associated with much smaller pension systems for judicial officials and retired National Guard and naval militia members, the total PERS and TRS net pension liability was $6.35 billion as of June 30, 2016. The net pension liability on this basis remains high, in our view, at $8,599 per capita and 15.3% of total state personal income.

Annual employer contributions to PERS and TRS have been set at 22% for PERS and 12.56% for TRS. However, on July 1 of each year or as soon as funds are available thereafter, the state is required by statute to contribute sufficient additional funds to bring the total pension contribution for the prior fiscal year to the actuarially determined level, which we view favorably.

The OPEB liability also includes those of other participating local governments. The state is required by statute to fund the annual contributions to the pension system at the actuarially recommended level.

In addition to the state's direct debt, since 1970, Alaska has supported the bonds issued by prequalified school districts, with the legislature able to reimburse municipalities for 60% to 100% of debt service costs. The actual program funding depends on annual legislative appropriations. We note the state debt service reimbursement program for school districts has been suspended Jan. 1, 2015 through Jan. 1, 2020; partial payments have also been made in past years.

The state also has about $1.2 billion of self-supporting state moral obligation debt issued by the Alaska Municipal Bond Bank (AMBB), the Alaska Energy Authority, and the Alaska Student Loan Corp. Our rating on the AMBB debt recognizes features we view as strengthening related to its 2005, 2010, and 2016 resolution requiring an annual open-ended appropriation to backfill the reserve, if necessary.

We have assigned a score of '2.2' out of '4.0' to the state of Alaska's debt and liability profile, where '1.0' is the strongest score and '4.0' the weakest.

Ratings Detail (As Of July 18, 2017)		
Alaska GO		
Long Term Rating	AA/Negative	Downgraded, Removed from CreditWatch
Alaska GO		
Unenhanced Rating	AA(SPUR)/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank, Alaska		
Alaska		
Alaska Mun Bnd Bank (Alaska) approp		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) approp		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) approp		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) approp (AMBAC)		
Unenhanced Rating	AA-(SPUR)/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) master resolution GO bnds (Alaska)		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) GO and rfdg bnds (Alaska) ser 2016 FOUR due 12/01/2035		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) GO and rfdg bnds (Alaska) ser 2016 FOUR due 12/01/2035		
Unenhanced Rating	AA-(SPUR)/Negative	Downgraded, Removed from CreditWatch

Ratings Detail (As Of July 18, 2017) (cont.)		
Alaska Mun Bnd Bank (Alaska) GO and rfdg bnds (Alaska) ser 2016 THREE due 12/01/2037		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) GO and rfdg bnds (Alaska) ser 2016 THREE due 12/01/2037		
Unenhanced Rating	AA-(SPUR)/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) GO bnds (Alaska) 2017 ser ONE due 05/01/2037		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank (Alaska) GO bnds (Alaska) 2017 ser TWO (AMT) due 05/01/2043		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Alaska Mun Bnd Bank GO		
Unenhanced Rating	AA-(SPUR)/Negative	Downgraded, Removed from CreditWatch
Matanuska-Susitna Boro, Alaska		
Alaska		
Matanuska-Susitna Boro (Alaska) lse rev rfdg bnds (Alaska) (Goose Creek Correctional Ctr Proj)		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Matanuska-Susitna Boro (Alaska) l(Goose Creek Correctional) approp		
Long Term Rating	AA-/Negative	Downgraded, Removed from CreditWatch
Preliminary Rating	NR(prelim)	
Matanuska-Susitna Boro (Alaska) (Goose Creek Correctional) approp (ASSURED GTY)		
Unenhanced Rating	AA-(SPUR)/Negative	Downgraded, Removed from CreditWatch

Many issues are enhanced by bond insurance.