



State of Alaska

Department of Natural Resources

Overview for House Resources Committee

January 18, 2017



PRESENTATION OUTLINE

PART I: Alaska's resource base

PART II: DNR overview & recent activities

PART III: AKLNG Project update

PART IV: 2017 priorities & activities

STATE OF ALASKA

- LAND BASE & OWNERSHIP -

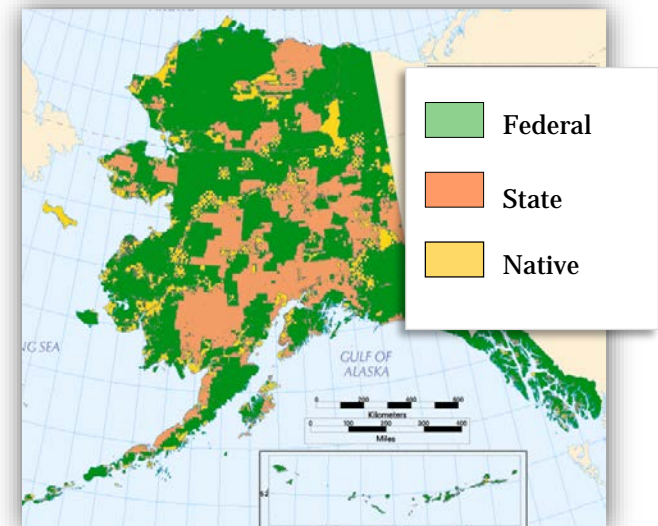


Land Base

- 586,412 sq. miles—more than twice the size of Texas
- Larger than all but 18 sovereign nations
- More coastline than all other 49 states combined
- More than 3 million lakes; half of world's glaciers
- Approximately 40% of the nation's freshwater supply

Land Ownership

- *Federal Land*: more than 200 million acres
- *State Land*: Approx. 100 million acres of uplands, 60 million acres of tidelands, shore lands, and submerged lands, and 40,000 miles of coastline
- *Native Corporation Land*: 44 million acres



STATE OF ALASKA

- RESOURCE POTENTIAL: OIL & GAS -

North Slope

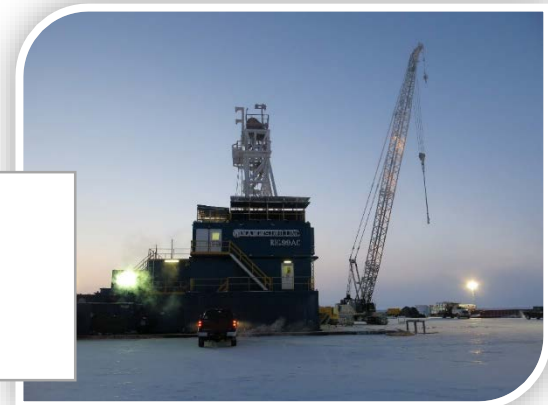
- More undiscovered, potentially recoverable oil than any other Arctic nation
 - **OIL:** Est. 40 billion barrels of conventional oil
 - **GAS:** Est. over 200 trillion cubic feet of conventional natural gas
- Untapped unconventional resource potential, including tens of billions of barrels of heavy oil, shale oil, and viscous oil, and hundreds of trillions of cubic feet of shale gas, tight gas, and gas hydrates

Cook Inlet

- Significant undiscovered resources remain
 - 19 trillion cubic feet of natural gas
 - 600 million barrels of oil
 - 46 million barrels of natural gas liquids

Sources: USGS & BOEM

Compared to most basins, Alaska is relatively underexplored, with 500 exploration wells on the North Slope, compared to Wyoming's 19,000.



STATE OF ALASKA

- RESOURCE POTENTIAL: MINERALS -



The State of Alaska ranks in the *Top Ten in the World* for important minerals including:

- **Coal:** 17% of the world's coal; *2nd most in the world*
- **Copper:** 4% of the world's copper; *8th most in the world*
- **Lead:** 4% of the world's lead; *6th most in the world*
- **Gold:** 8% of the world's gold; *5th most in the world*
- **Zinc:** 6% of the world's zinc; *6th most in the world*
- **Silver:** 4% of the world's silver; *9th most in the world*

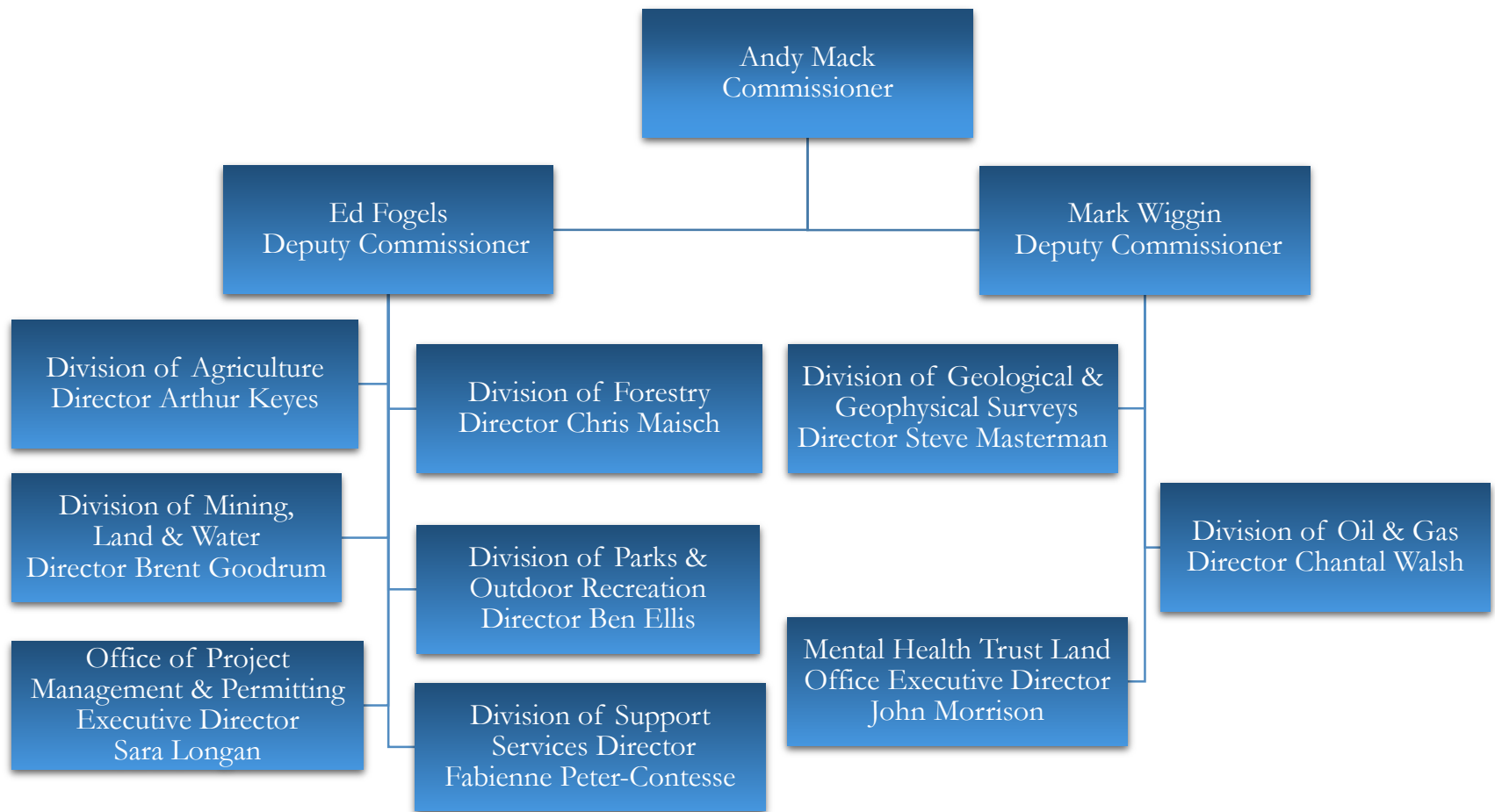
(USGS 2015 estimates)

Alaska ranked **2nd for mineral potential** in the 2015 Fraser Institute Survey of Mining Companies.

With more than **7,400 documented prospects**, Alaska has the potential to lead the nation in mineral production.

DEPARTMENT OF NATURAL RESOURCES

- ORGANIZATION CHART -



DIVISION OF AGRICULTURE

Mission: Promote and encourage development of an agriculture industry in Alaska.

FY2017 Operating Budget: \$6.97M (\$2.8M UGF) | **Positions:** 38 | **Director:** Arthur Keyes

The *Division of Agriculture* (*DoAg*) provides land sales, loans, inspections, the Alaska Grown program and other essential programs to the agricultural industry.

The division's *Plant Materials Center* (*PMC*) is the sole source of seed and plant material developed for Alaska's unique growing conditions.



The Alaska Grown marketing program has more than 800 members and is the 2nd longest-running agricultural marketing program in the nation.

DIVISION OF AGRICULTURE

In 2016, the division

- Led projects to treat 657 surface acres of Elodea-infested waterways (Anchorage, Mat-Su)
- Produced a record 1,837 lbs of certified seed potatoes, sold to producers in Southcentral, Interior, Kodiak and Southeast
- Processed more than 177,000 lbs of native seed, enough to revegetate/reclaim 3,900 acres
- Educated 14 communities and 175 producers about farm food safety practices
- Conducted 350 field inspections
- Facilitated RFP process to transition Mt. McKinley meat plant to private ownership
- Managed 66 loans for agricultural equipment, property and activities with principal loan balance of \$7.69M (6 new loans in 2016)
- Leveraged more than \$1.3M in grant funding for state and industry-driven projects
- Inspected more than 116 million board feet of timber to enable exports that generated ~ \$93M timber industry revenue

DIVISION OF FORESTRY

Mission: Serves Alaskans through sustainable forest management and wildland fire protection.

FY2017 Operating Budget: \$47M (\$24.2M UGF) | **Positions:** 239 | **Director:** Chris Maisch

The *Division of Forestry (DOF)* is the lead state agency for wildland fire management on 150 million acres with a primary goal to protect life and property.

DOF manages *47 million acres* of forest for commercial timber sales and public use.

In 2016, the division ...

- Responded to 354 fires in state protection areas that burned 104,482 acres
- Sold 8.2 million board feet of logs in 34 timber sales to 27 Alaska-based companies



DIVISION OF FORESTRY

Also in 2016, the division ...

- Managed large wildland fires on the outskirts of Tetlin and Anchorage
- Generated \$4.1 million in Emergency Firefighter (EFF) wages and \$1.4 million in local vendor contracts, primarily to rural Alaska
- Secured 94% Alaska hire in firefighting workforce
- Lower 48 firefighting assignments returned \$5.62M in wages to Alaskans
- Received 4 hazard fuel reduction grants in Caswell, McGrath area, and Delta Junction
- Conducted 54 inspections on private timber sales and 82 inspections on state timber sales for water quality & fish habitat compliance
- Worked with Forest Service on Tongass young growth forest inventory
- Signed Good Neighbor Authority agreement to provide timber sale layout and administration of timber sales on federal lands
- Participated in 1st year of USDA Forest Inventory & Analysis Program in Alaska (\$1.1M annual project)

DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

Mission: Determine the potential of Alaska land for production of metals, minerals, fuels, and geothermal resources; the locations and supplies of groundwater and construction material; and the potential geologic hazards to buildings, roads, bridges, and other installations.

FY2017 Operating Budget: \$8.5M (\$4.4M UGF) | **Positions:** 51 | **Director:** Steven Masterman

The *Division of Geological & Geophysical Surveys (DGGS)* collects, analyzes, and publishes data, maps and reports that stimulate development and identify geologic hazards.

The division's **Geologic Materials Center (GMC)** makes Alaska's invaluable collection of cores, samples, and data available to developers and the public.



DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

In 2016, the division ...

- Generated 36.9 million web page views, 11,301 downloads of geospatial data, and 895,647 publication downloads
- Mapped 480 square miles in Tok River area
- Spurred claim staking activity with data releases (Tok River and Bonnifield district)
- Began training Bristol Bay community residents to monitor shoreline change
- Monitored and collaboratively issued volcano alerts on eruptions at Cleveland, Pavlof, and Bogoslof volcanoes (141 flights canceled)
- Flew airborne magnetic survey over Icy Cape to locate heavy-mineral beach sands
- Worked with USGS to determine if Alaska coal can produce oil; first 4 samples produced oil, 2 in substantial amounts.



DGGS produced 54 publications including ...

- 17 reports on Cook Inlet and North Slope (Nanushuk) petroleum geology
- Geologic maps of Tyonek and Sag River areas
- Tsunami inundation maps and reports for 8 communities
- New high-resolution imagery and elevation data for 2,200 miles of Alaska's western coast

DIVISION OF MINING, LAND & WATER

Mission: Provides for the appropriate use and management of Alaska's state owned land and water, aiming towards maximum use consistent with the public interest.

FY2017 Operating Budget: \$26.4M (\$6.6M UGF) | **Positions:** 209 | **Director:** Brent Goodrum

The *Division of Mining, Land & Water (DMLW)* manages more than 160 million acres – a land base comparable in size to California and most of Oregon combined.

The division's responsibilities range from land acquisition and land-use planning to land sales, permitting, and stewardship.



DIVISION OF MINING, LAND & WATER

In 2016, the division ...

- Generated \$28.4M in revenues to the state through authorizations for use of state lands and waters, royalty payments, and land sales
- Issued 15 authorizations to facilitate a major fiber optic cable project on the North Slope, enabling improved communication opportunities to remote parts of Alaska
- Initiated North Slope Area Plan, which will support borough municipal entitlement decisions and adopted Eastern Tanana Area Plan
- Issued Lake and Peninsula Borough municipal entitlement preliminary decision impacting over 15,000 acres
- Confirmed state title to submerged lands beneath navigable water bodies (Stikine River, Mosquito Fork, Chisana River, Nabesna River) in proceedings and litigation with the federal government
- Conducted field investigation and aerial mapping to support state efforts to correct the ANWR boundary, which would enable Alaska to select 20,000 acres on the western edge of the refuge
- Defended against efforts by BLM to adopt new unproven survey technology which could transfer significant costs to the state
- Authorized ~173 miles of ice roads, 50 miles of snow roads, and 24 acres of ice pads in fiscal year 2016

DIVISION OF OIL & GAS

Mission: Manages lands for oil, gas & geothermal exploration and development in a fair and transparent manner to maximize prudent use of resources for the greatest benefit of all Alaskans; facilitates safe and environmentally conscious operation & maintenance of common carrier pipelines.

FY2017 Operating Budget: \$22.2M (\$8.9M UGF) | **Positions:** 112 | **Director:** Chantal Walsh

The *Division of Oil and Gas (DOG)* conducts lease sales, collects royalties, authorizes oil and gas activities, and regulates common-carrier pipelines on state land.

DOG provides commercial analysis, economic modeling, financial risk assessments, audits, and other professional services to ensure the State receives maximum value for its oil and gas resources.



DIVISION OF OIL & GAS

In 2016, the division ...

- Held 2nd largest North Slope lease sale by acreage (599,880) and 3rd largest by dollar amount (\$16.9M) since 1998; received \$17.8M in bids for 633,000 acres including Beaufort Sea
- Initiated the release of seismic and well datasets for oil and gas exploration projects that received tax credits under AS 43.55.025
- Prepared state's FY2018 production forecast using new methodology to increase accuracy; forecast previously was prepared by DOR contractor
- Receipted and verified \$920M in FY2016 royalties, rents and bonus bids
- Issued 7 royalty/NPSL audits resulting in additional \$27M in state revenue
- Processed revised 2009-2016 royalty reports as result of FERC-required TAPS tariff reduction, resulting in \$90M additional revenue
- Coordinated all state agency involvement in processing permits and finalized FERC-required Resource Reports for AKLNG and ASAP projects
- Negotiated two royalty-in-kind (RIK) contracts for sale of oil to PetroStar; combined sales will yield \$24M-\$37M in revenue over a 5-year period.
- Completed DR&R framework agreements with Chugach and ML&P

DIVISION OF PARKS & OUTDOOR RECREATION

Mission: Provides outdoor recreation opportunities and conserves and interprets natural, cultural, and historic resources for the use, enjoyment, and welfare of the people.

FY2017 Operating Budget: \$16.5M (\$3.1M UGF) | **Positions:** 177 | **Director:** Ben Ellis

The *Division of Parks and Outdoor Recreation (DPOR)* operates and provides public safety in the largest state park system in the United States (3.3 million acres), including more than 120 park units and 900 miles of hiking trails.

The division administers federal recreational trail grants and oversees the statewide programs for boating safety and historic preservation.



DIVISION OF PARKS & OUTDOOR RECREATION

In 2016, the division...

- Completed South Denali construction – 3,300-square-foot interpretive center, 35 full-hook-up campsites, 10 walk-in campsites, 3 public-use cabins, and a contact station opening Summer 2017
- Continued initiative to reduce reliance on general funds for state park operations
- Provided 4,041 loaner life jackets, taught 16,475 students through Kids Don't Float Life program
- Issued 57 archaeology survey permits and reviewed over 1,600 projects for impacts to historic properties
- Awarded \$360,000 in historical grants and more than \$1.4M in recreational grants.



OFFICE OF PROJECT MANAGEMENT & PERMITTING

Mission: Coordinates multi-agency regulatory reviews and authorizations, while collaboratively engaging federal agencies on land use planning and policy initiatives to maintain and enhance the state's economy, quality of life, and maximize the value of Alaska's vast natural resources.

FY2017 Operating Budget: \$7.8M (\$0.9M UGF) | **Positions:** 15 | **Director:** Sara Longan

The *Office of Project Management & Permitting (OPMP)* supports private industry, regulators, and the general public by implementing one-stop shop, multi-agency permit coordination to secure consistent, defensible, transparent, and timely permit decisions.

This model is unique to Alaska and offers a level of assurance to companies investing in Alaska that permit reviews are robust and transparent.



OFFICE OF PROJECT MANAGEMENT & PERMITTING

In 2016, the office ...

- Coordinated permitting, NEPA review, and construction and permit compliance activities for major projects including:
 - **Oil & Gas:** Nanushuk Project (Armstrong), Greater Moose's Tooth 1 and 2 (ConocoPhillips), Point Thomson (ExxonMobil), Liberty (Hilcorp), Smith Bay (Caelus Energy), Nikaitchuq (ENI)
 - **Mining:** Donlin Gold, Fort Knox, Kensington, Nixon Fork, Pogo, Red Dog
- Consistently engaged with federal agencies to advance State interests during federal land management planning, including NPR-A, Arctic OCS, ANWR-1002 Area
- Continued the multi-year process to develop a statewide wetlands mitigation in-lieu fee program to offset impacts to wetlands, as required by the Clean Water Act. This program would lower project development costs and generate state revenue
- Renewed an MOU with the North Slope Borough to address issues and coordinate activities relating to North Slope oil & gas development
- Coordinated Alaska Geospatial Council work to develop an accurate topographic base map of Alaska, which now covers 77% of the state

MENTAL HEALTH TRUST LAND OFFICE

Mission: Protect and enhance the value of Alaska Mental Health Trust Lands, including minerals, coal, oil and gas, timber, and real estate, while maximizing revenues from those lands over time to support mental health services.

FY2017 Operating Budget: \$4.4M (\$0 UGF) | **Positions:** 19 | **Executive Director:** John Morrison

The *Trust Land Office (TLO)* is responsible for managing the land and other natural resources owned by the Alaska Mental Health Trust Authority.

The TLO generates revenue for trust beneficiaries from land sales and leasing, real estate investment and development, timber sales, mineral, coal, oil and gas exploration and development, and sand gravel and rock sales.

In 2016, the TLO ...

- Generated \$9.1M to fund programs for ~85,000 Alaskan Mental Health Trust beneficiaries:
 - \$2.5M from land sales and rentals across the state (competitive and negotiated)
 - \$2M from real estate investments and leases
 - \$4.3M in oil, gas and mineral royalties
- Explored Icy Cape to better define mineral resources for future development

SUPPORT SERVICES DIVISION

Mission: Provide client-focused, efficient and cost-effective financial, budget, procurement, human resource, information technology, and recording services to DNR and the public.

FY2017 Operating Budget: \$13M (\$5.6M UGF) | **Positions:** 117 | **Director:** Fabienne Peter-Contesse

The *Support Services Division (SSD)* provides land records management for more than 160 million acres of state land.

SSD develops and supports software and hardware solutions and provides IT support throughout Alaska.

The division oversees DNR procurement, budget, and financial transactions, and ensures public funds from 22 different sources are managed with integrity and transparency.

In 2016, the division:

- Merged Dept. of Administration's desktop support into DNR's structure to improve service and reduce costs
- Upgraded IT services to streamline the permit application and management process for water use authorizations
- Completed Electronic Recording and Uniform Commercial Code online system implementation, enabling Recorder's Office to reduce costs and improve service delivery
- Participated in statewide initiatives to improve delivery of services and reduce costs

DNR BUDGET REDUCTIONS

- FY2016 AND FY2017 HIGHLIGHTS -

FY2016 DNR reductions

Cut more than \$7M (-9.8%) UGF and 75 positions

Agriculture	Cut 4 positions and removed base funding for Farm to School program, Natural Resources Conservation & Development Board, and ethnobotany program
Forestry	Cut 35 positions in forest management and wildland firefighting, eliminated wildland fire academy and reduced timber sale program
Geological & Geophysical Surveys	Cut 4 positions including 2 scientists evaluating coal/geothermal and energy resources, and administrative and publications staff; removed funding for airborne geophysics program
Mining, Land & Water	Cut 6 positions working on public land access/navigability and reduced budget for authorizations and inspections
Oil and Gas	Cut 9 positions by restructuring work processes
Parks & Outdoor Recreation	Cut 4 positions including Dillingham, Valdez and Sitka rangers; put 3 parks in passive management
Project Management & Permitting	Cut 1 position supporting ANILCA reviews and removed funding for coordination of Tongass plan reviews
Support Services	Cut 5 Recorder's Office positions and 1 IT position; closed 6 rural Recorder's Offices
Agency-wide	Mandatory furloughs for exempt/partially-exempt staff; delays in maintaining and replacing field and IT equipment

FY2017 DNR reductions

Cut \$3.2M (-4.6%) UGF and 27 positions

Agriculture	Cut 1 seasonal mechanic position at Plant Materials Center and reduced marketing, inspections, and on-farm assistance
Forestry	Cut 1 administrative position and reduced funding for forest road maintenance and fire suppression
Geological & Geophysical Surveys	Reduced funding for publications, software, and travel to events to market Alaska's resources potential
Mining, Land & Water	Cut 2 positions – realty services and IT – and reduced budget for inspections, compliance and stewardship activities
Oil and Gas	Cut 3 positions supporting best interest findings, lease sale preparation, public records requests, and information officer
Parks & Outdoor Recreation	Cut 1 position – Kodiak state park operations and reduced statewide support for permitting
Support Services	Cut 2 positions – administrative and accounting
Agency-wide	Mandatory furloughs for exempt/partially-exempt staff; reduced funding for Commissioner's Office; cut 2 positions and eliminated the Citizen's Advisory Commission on Federal Areas; reduced chargeback and facilities costs and cut 4 support function positions; cut 22 positions vacant for more than a year

Note: AKLNG funding is not included and not all position cuts are described in narrative.

AKLNG PROJECT

- STATUS UPDATE -

2016 Pivotal Year for AKLNG Project

- **Technical and regulatory accomplishments**
 - **Pre-FEED** technical work successfully completed
 - **FERC** Resources Reports completed and filed
 - **Equity-based** funding model deemed unworkable by some Producers in current economic environment
- **New Project structure developed**
 - **State** taking on more active role with AGDC completing transition into project lead
 - **Commercial** negotiations halted in early 2016 when Producers elected to slow project pace
 - **State gas team** resized based on reduced work scope, with core team skills retained



AKLNG PROJECT

- STATUS UPDATE -

DNR's primary AKLNG Project roles and responsibilities continue to include:

- Maximizing resource value to State of Alaska while commercializing natural gas
- Ensuring that State's interests are protected and State's policy objectives are advanced during resource development
- Maintaining State's sovereign responsibilities and duties relating to oil & gas lease royalty terms
- Making Royalty-in-Kind (RIK) vs. Royalty-in-Value (RIV) decision
- Promoting future North Slope hydrocarbon exploration & development

AKLNG PROJECT

- STATUS UPDATE -

State Gas Team Organization

- **Original DNR Gas Team had 10 positions, with 4 leads and 6 staff roles**
 - **Lead positions** were Upstream, Midstream, Commercial, and Marketing
 - **Staff positions** included Commercial Analyst, Gasline Liaison, Admin Officer, Project Coordinator, Resource Specialist, and Marketing Analyst
- **Current DNR Gas Team reorganized to meet statutory obligations and thoroughly manage State's interests**
 - **Upstream lead** (Steve Wright), Commercial lead (Deepa Poduval), Legislative Liaison and Commercial Support (Ed King); two team members transferred to AGDC
 - **DNR Team** is efficiently leveraging additional shared resources from Division of Oil and Gas for commercial, economic and subsurface technical analysis

AKLNG PROJECT

- STATUS UPDATE -

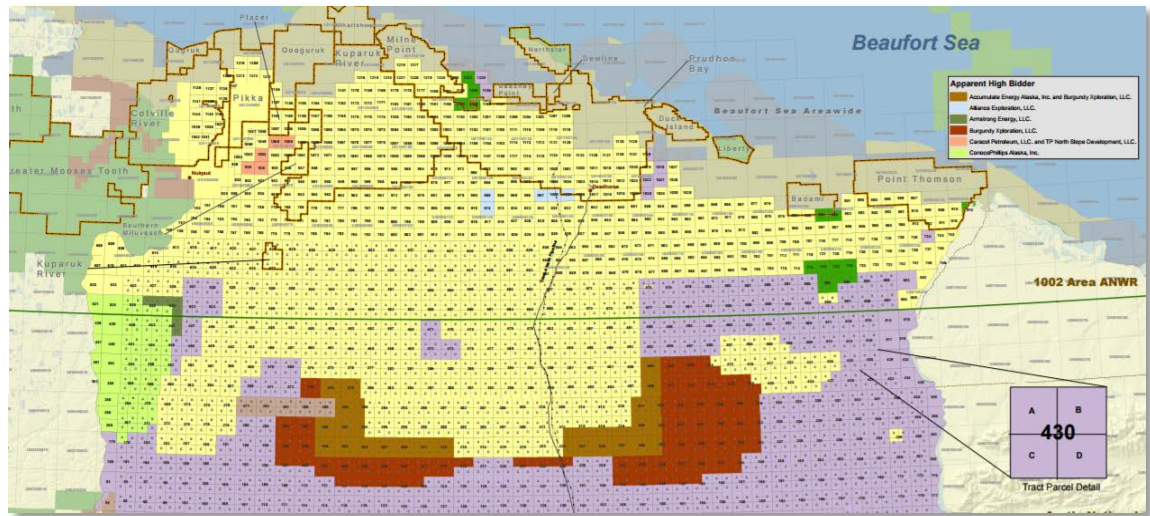
2017 Outlook for AKLNG Project

- **Focus on progressing pending FERC application**
 - **AGDC** preparing responses to FERC questions and comments on AKLNG Resource Reports filed in 2016
- **Continuing significant engagement with potential investors and markets**
 - **Soliciting** 3rd party investment in midstream infrastructure portion of AKLNG Project, some Producers may elect to retain equity interest in midstream
- **Global LNG** market demand window forecasted in mid-2020's and targeted by AKLNG Project
- **DNR project team** actively engaged with AKLNG Project
 - **Fully prepared** to meet current and future obligations and demands for key DNR project roles and responsibilities
 - **DNR core team** has retained expertise in upstream technical, commercial and analytical evaluation as project advances during 2017

DNR ISSUES & ACTIVITIES IN 2017

- OIL AND GAS -

- Work with North Slope communities, presidential administration, and Congressional delegation on Arctic energy policy and decision making that support responsible development (ANWR 1002 Area, OCS, NPR-A)
- Build on successful 2016 North Slope lease sale with focus on bringing leases into production
- Rationalize fees, regulations, and work processes necessary to release seismic and exploration well data to promote and accelerate oil and gas production
- Support appraisal and development activities by Cook Inlet independents
- Refine production forecast model



DNR ISSUES & ACTIVITIES IN 2017

- LAND MANAGEMENT & PERMITTING -

- Work with local stakeholders, presidential administration, and Congressional delegation to address recent federal actions including:
 - BLM land management plans
 - 1002 Area boundary & legislation
 - Submerged lands ownership (Knik River and other unresolved cases)
 - Controversial BLM method for surveying state land conveyances
- Obtain federal approval for a wetlands mitigation In-Lieu Fee Program that provides new alternatives for developers to meet mitigation requirements
- Clear the way to finalizing statehood land entitlement by pressing the federal government to lift obsolete public land orders and by updating the State's selection priorities
- Support federal permit reform and continue automating DNR's permitting processes
- Update fee regulations for land, water and mining authorizations

DNR ISSUES & ACTIVITIES IN 2017

- AGRICULTURE & FORESTRY -

- Complete transition of Mt. McKinley meat plant to private ownership while maintaining continuity of production and processing
- Collaborate with state partners, industry, and federal agencies to develop and implement a produce safety program for Alaska to meet the federal standards of the Food Safety Modernization Act
- Realign primary wildland fire service areas with federal partners to increase efficiencies and adjust workloads to compensate for budget reductions
- Work with the Forest Service on Tongass forest plan implementation, working through the Good Neighbor Authority to assume responsibility for timber sale layout and administration of sales on federal lands
- Continue federally-funded Forest Inventory and Analysis program in Interior Alaska which will collect physical data important for sustained yield management of state forests and will be particularly useful for biomass energy projects in rural Alaska

DNR ISSUES & ACTIVITIES IN 2017

- ALASKA STATE PARKS -

- Open South Denali campground, cabins, trails and interpretive center
 - First new state park campground in 20 years
- Increase state park revenue to reduce dependence on unrestricted general funds:
 - Online reservations through ReserveAmerica.com
 - Increase park merchandise sales
 - Raise specific park user fees
- Build Kenai River Special Management Area projects including Bings Landing floating dock and Eagle Rock boat launch (2-yr project)
- Continue riverbank stabilization to protect historic properties at Rika's Roadhouse (Big Delta State Historical Park)
- Build two new public use cabins at Eklutna Lake
- Work with Alaska Historical Commission on this year's 150th anniversary of the Treaty of Cession

DNR ISSUES & ACTIVITIES IN 2017

- GEOLOGICAL & GEOPHYSICAL SURVEYS -

- Conduct and publish results from USGS-funded airborne magnetic survey over the Porcupine River area
- Complete bedrock geology mapping in Iniskin–Tuxedni Bay area of Cook Inlet
- Train western Alaska residents to monitor coastal erosion and southcentral Alaska residents to monitor snow conditions for avalanche susceptibility
- Complete avalanche release zone maps for Alaska’s highway corridors and landslide risk maps for Sitka
- Work with USGS to publish results of recent testing that showed Alaska coal can produce oil
- Publish new geologic maps for Umiat, Tyonek, Tok, Styx River, Kivalina, Shaktoolik, Kasatochi, Chiginagak, and the Alaska Highway Corridor areas

CONCLUSION

Thank you, any questions?

