

Juneau, Alaska  
February 28, 2018

# Alaska Minerals Commission

## 2018 priorities and mineral industry overview

- The 11-member Alaska Minerals Commission (AMC) serves in an advisory capacity to the Governor and the Alaska State Legislature. Five members are appointed by the Governor (one of whom must reside in a rural community), three members are appointed by the President of the Senate, and three members are appointed by the Speaker of the House of Representatives. The State of Alaska Division of Economic Development supports the AMC by facilitating their annual meetings and assisting with the annual report.
- The Commission's role is to recommend strategies to mitigate constraints on mineral development in Alaska. Created by the Legislature in 1986, the AMC's authorization was extended through 2024 by the Legislature in 2013 via House Bill 99. For over 30 years, the AMC has worked with the State and Legislature to successfully implement key recommendations that support a strong and sustainable Alaska minerals industry. This report builds upon past work with the intent to identify state and federal issues that can block responsible development.

# Discussion Topics:

- Top Priority = Fiscal Plan
  - State Priorities
  - Federal Priorities
- Industry overview
  - Timeline of projects
  - Competing for capital
  - Metal cycles
  - Majors v juniors
  - Infrastructure approaches
  - Local benefits
  - Global competitiveness

# Alaska Minerals Commission Priorities

## Top priority:

1. Establishment of stable state fiscal policy

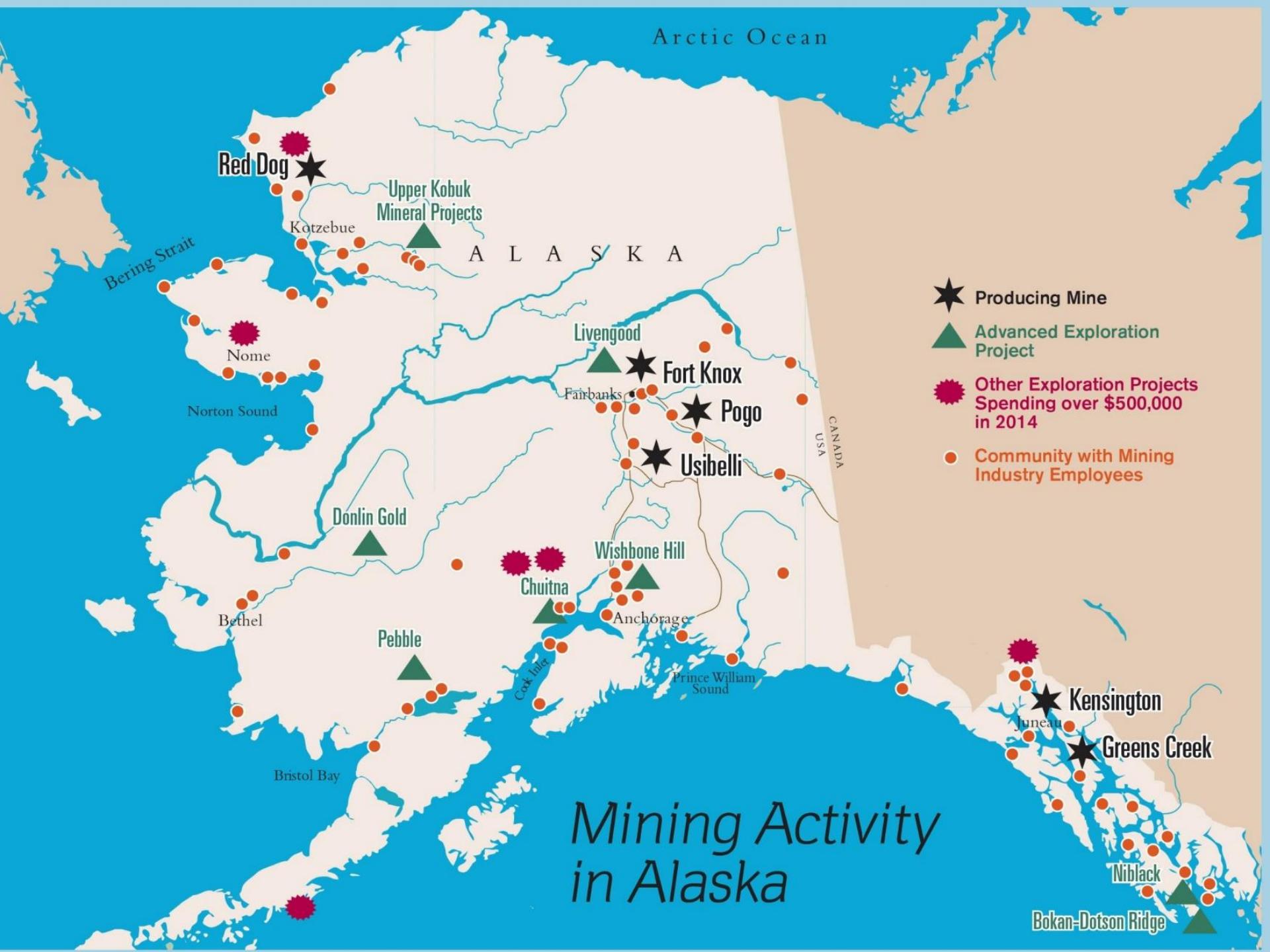
## State Priorities:

2. Reallocate portions of the state mining license tax to communities, while precluding targeted local severance taxes
3. Urge state leaders to be strong advocates for the minerals industry in Alaska
4. Encourage the Governor's Administration to challenge ballot initiatives that seek to regulate natural resource development
5. Address key state regulations governing water use
6. Ensure state defends the mining reclamation bond pool

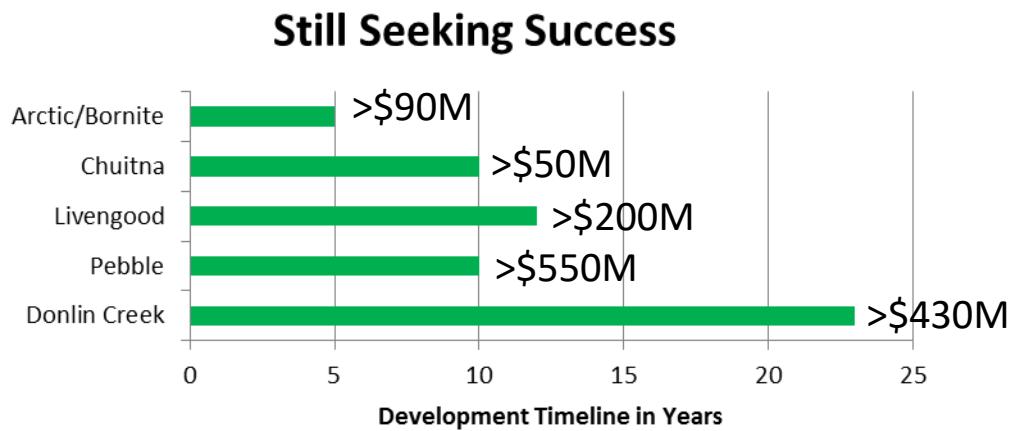
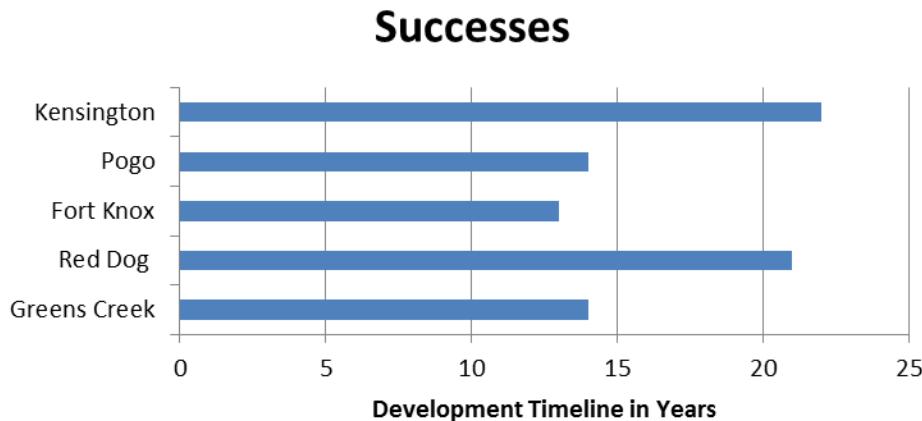
# Alaska Minerals Commission Priorities

## **Federal Priorities:**

7. Waters of the United States should be defined in accordance with the intent of the Clean Water Act
8. BLM Resource Management Plans are violating the “No More Clause” of the Alaska National Interest Lands Conservation Act
9. Lift onerous Public Land Orders
10. Ensure the state defends Alaska’s navigable waters and access corridors
11. Urge action on federal land withdrawals



# Alaska mineral development timelines & investment



# Typical project stages

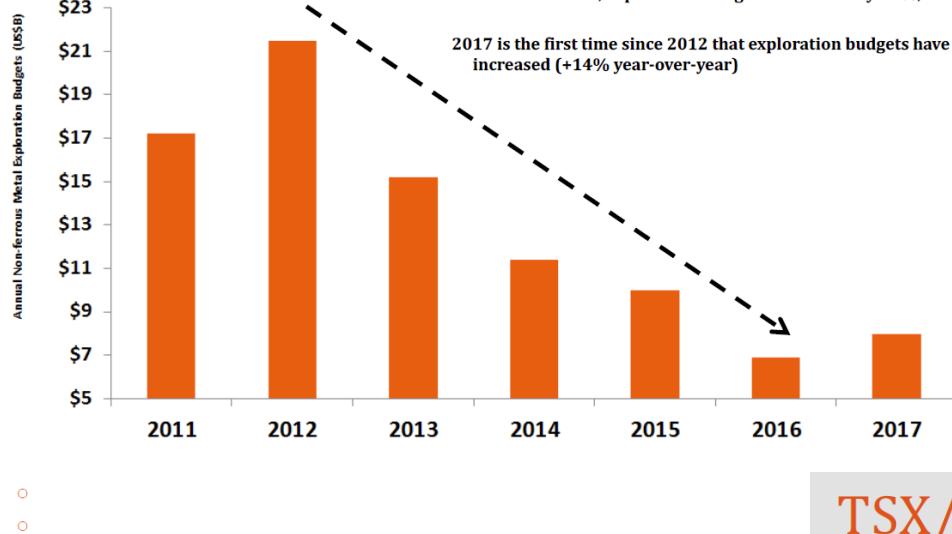
	Exploration	Prefeasibility	Feasibility	Permitting/Design	Construction
Resource	Inferred	Indicated	Measured	Measured	
Reserves	Assumed	Probable	Proven/Prob.	Proven	
Mine	Sketch	Preliminary	Firm	Final	
Processing	Assumed	Options	Selected	Optimized	
Market	Assumed	Options	Letter of Intent	Agreement	
Environment Impact	Concept	Approximate	Near Complete	Completed	
EIS	Conceptual	Scoped	Approved		
Closure Plan	Concept	Preliminary	Advanced	Final	
Permits	Assumed	Identified	Applied for	Granted	
Community	Fatal Flaws	Issues	Negotiations	Agreement	
Project Schedule	Assumed	Approximate	Firm	Final	
Cost Estimate	±30%	15-25%	±15%	±5%	
Economics	Est. ±30%	Probable ±15%	Firm ±15%	Finalized	
Finance	Assumed	Options	Negotiations	In place	
Time	A few years	1-2 years	A few years	???	
Cost of Stage	\$5-10M	\$10-30M	\$30 – 100M	\$5-10M	
		Positive Prefeasibility Study	Positive Feasibility Study	Positive Feasibility Study	Decision to Mine



## Competing for Capital on a global stage – depends upon project stage

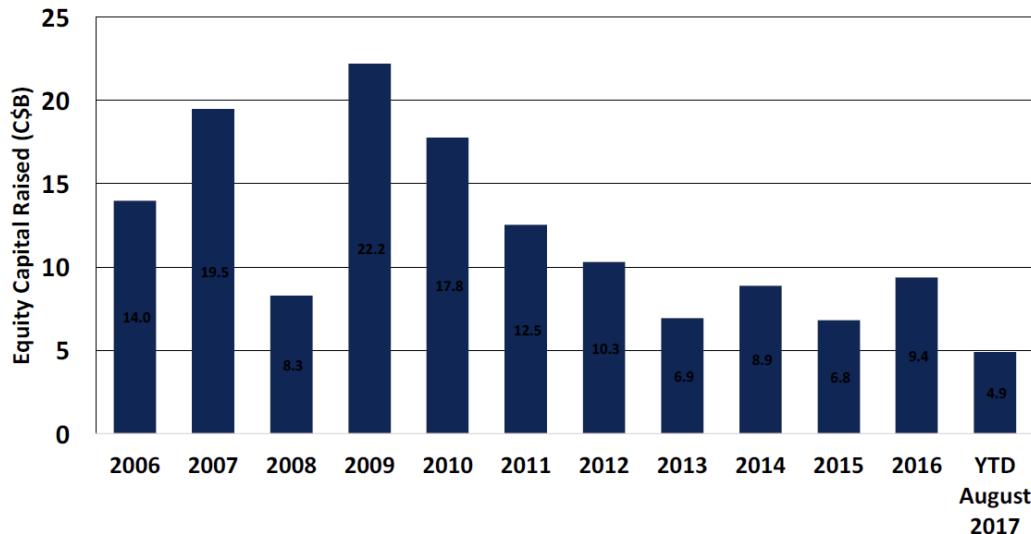
- Exploration stage, high risk/high return, funding is erratic, the political/regulatory environment is critical
- Final feasibility stage (and subsequent decision to build a mine), the return becomes more predictable, lower risk, more secure financing, the political/regulatory environment is still critical

# Exploration Budgets



## TSX/TSXV Mining Equity Capital Raised

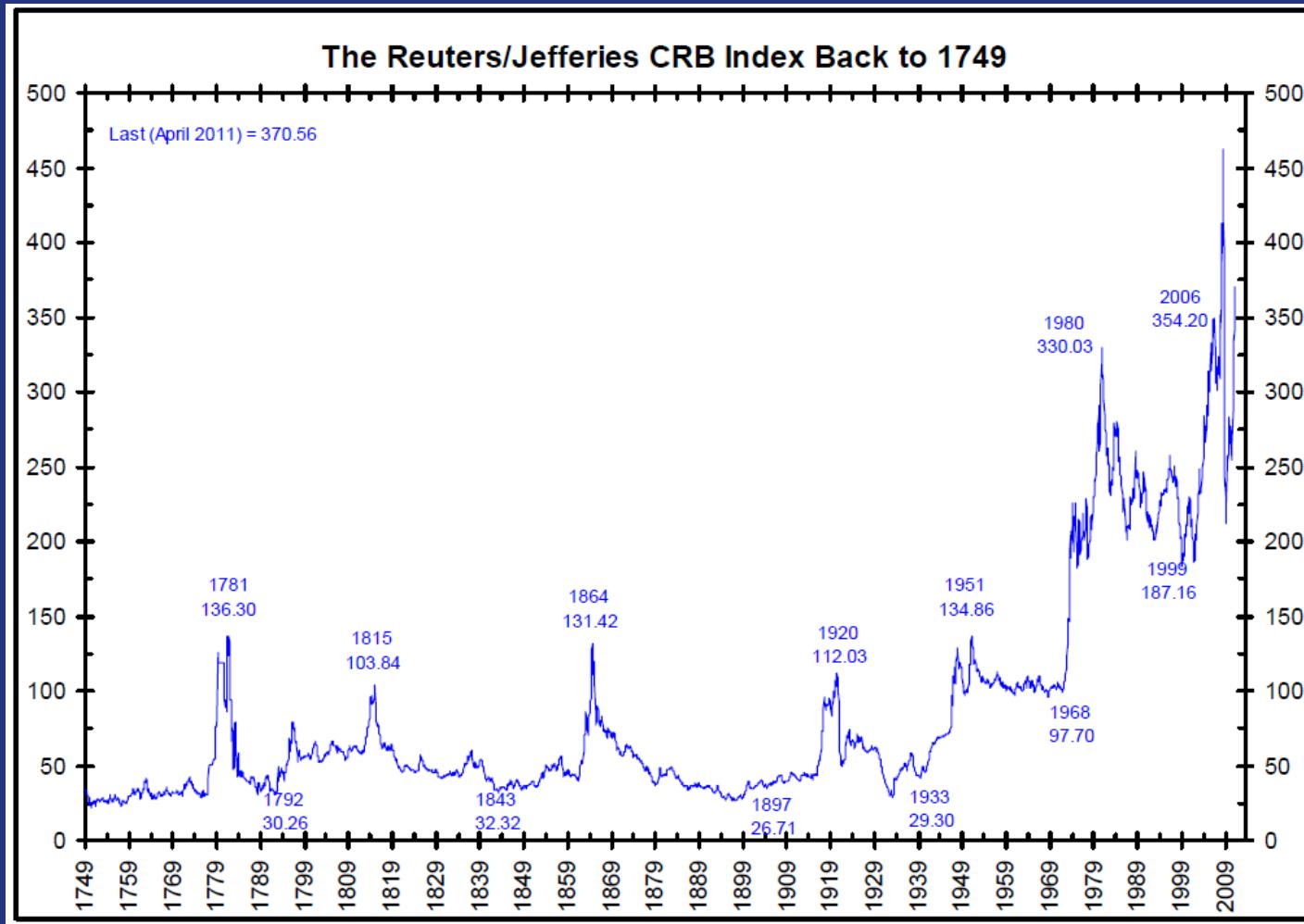
ORION | RESOURCE PARTNERS



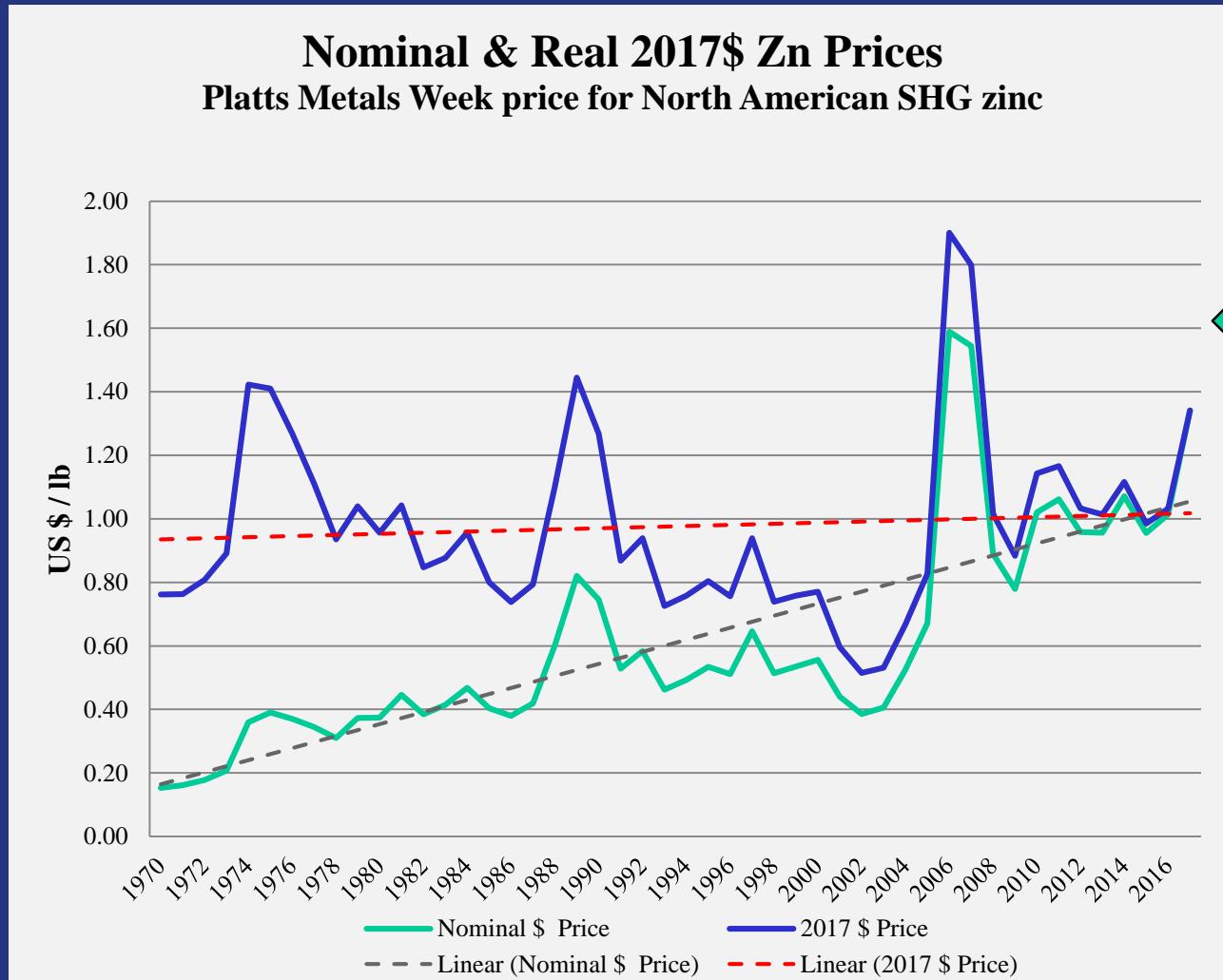
Reference: TMX Group, October 2017

ORION | RESOURCE PARTNERS

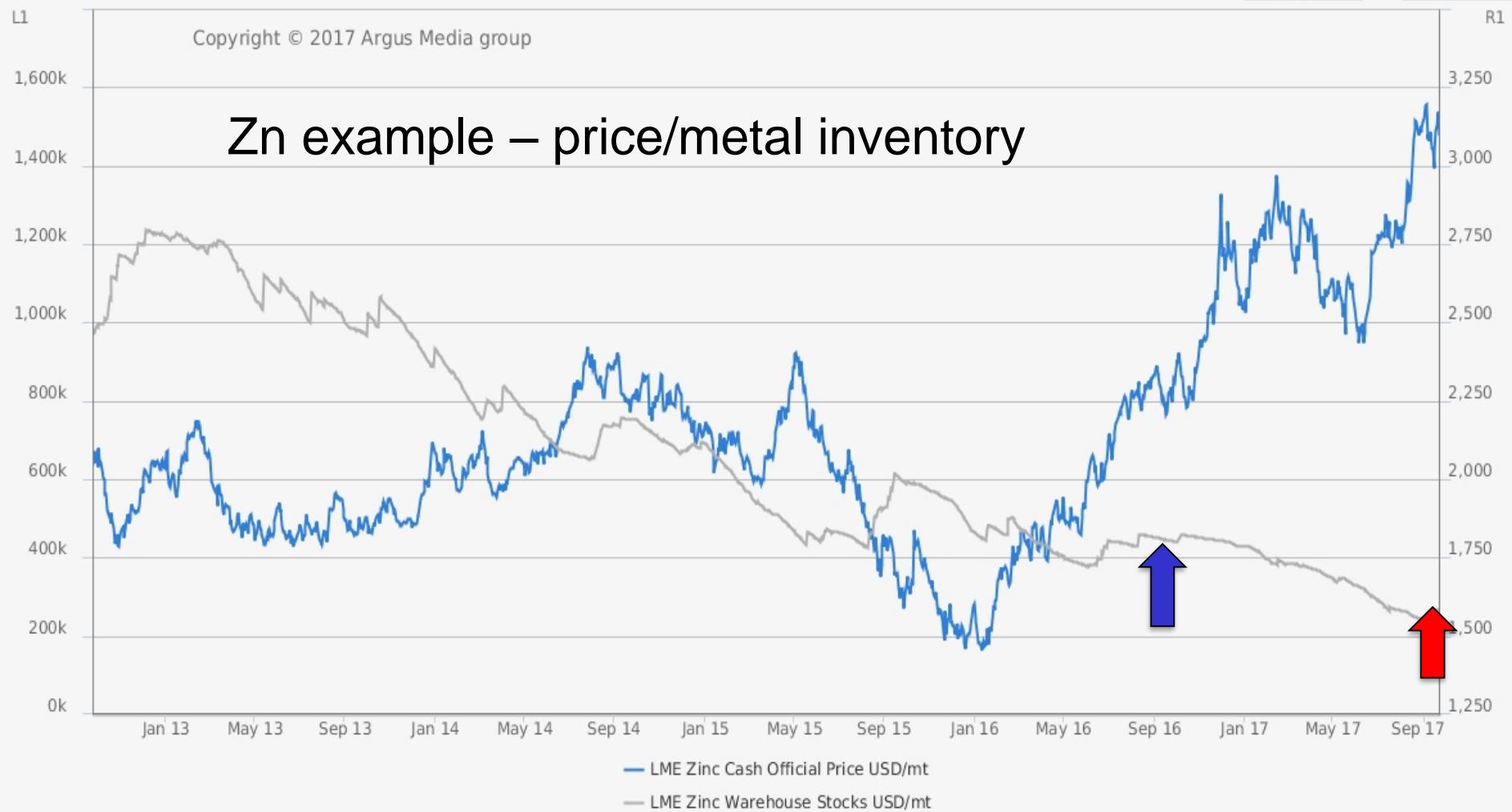
# Commodity prices over time:



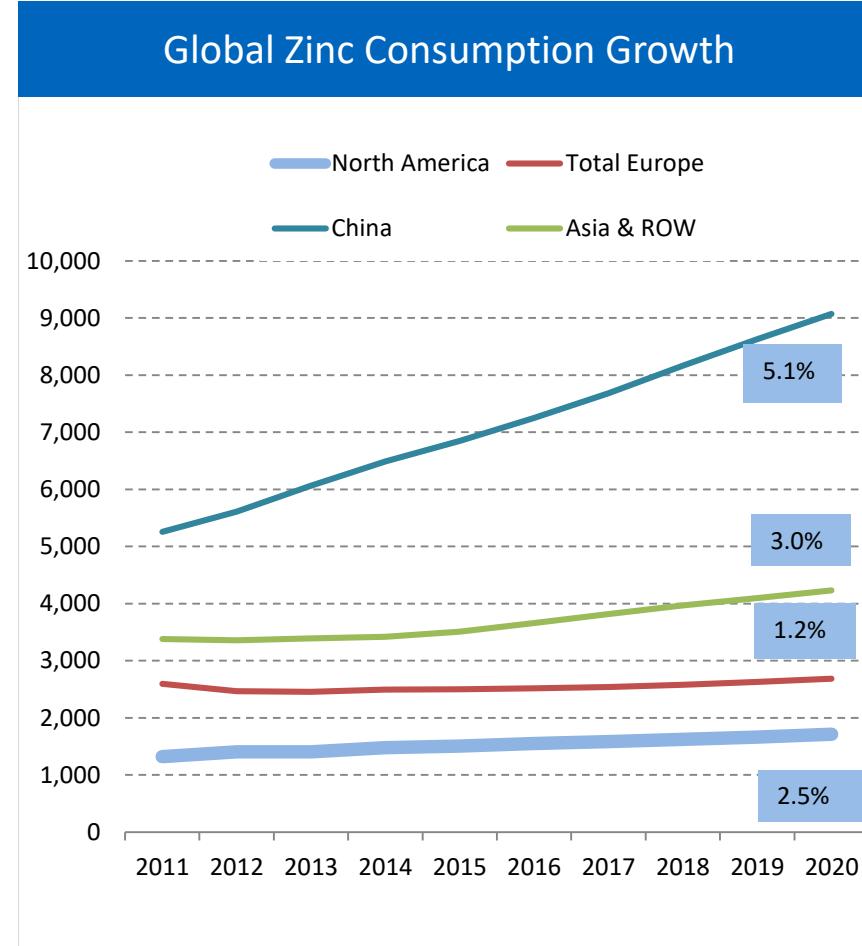
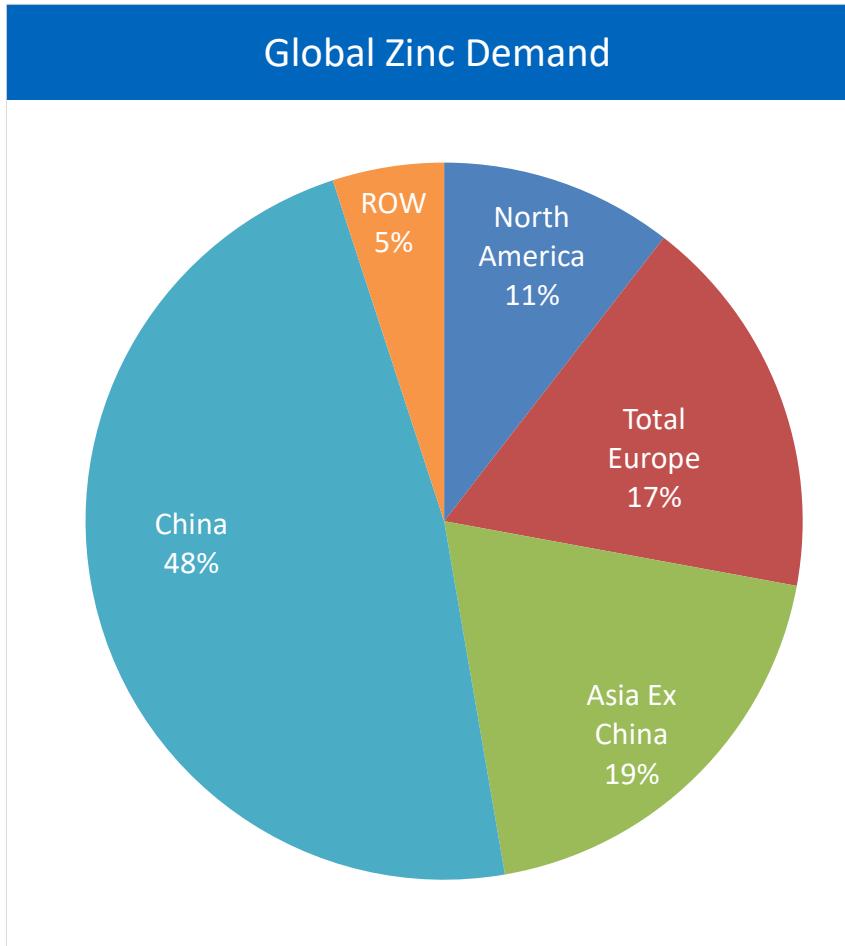
# Nominal & Real 2017\$ Zinc Price:



From 24 Sep 2012 To 22 Sep 2017



# Global Demand Growth will Continue Even at Lower Rates



# Types of mining companies

Player	Investment Purpose	Investment Strategy
Placer	Mostly gold	Family livelihood
Juniors	High risk exploration	Bet on the Team
Mid-Tier	Investment	Bet on the Project
Majors	Multiple commodity	Bet on the Commodity and surety of execution

# Characteristics of Junior Mining Companies:

- By far the main discoverer of new deposits
- Small market capitalization: \$1 - \$100 million
- Totally dependent on equity markets for funding
- Extremely high risk
- Examples: Nova Gold, Trilogy Metals, Millrock, Solitario, Constantine, International Tower Hill, Northern Dynasty

# Characteristics of Mid-Tier Mining Companies:

- Exploit small to medium sized mineral discoveries, bring them into production and operate
- Market capitalization \$50 million to \$2-3 billion
- Have access to public markets, banks, royalty firms and private equity companies for financing
- Examples: Hecla Mining, Usibelli Coal, Hudbay, Lundin

# Characteristics of Major Mining Companies:

- Develop and operate large capital intensive mining projects
- Can be vertically integrated through transportation, product fabrication and marketing
- Market capitalizations of \$5 to \$50 billion plus
- Enormous debt capacity
- Global footprints
- Examples: **TECK, Barrick, Anglo, RTZ, BHP, MMG, Glencore, Kinross**

# Infrastructure Examples ; Government v Private:

## Government funded initiatives

- Yukon Infrastructure program – CAD\$360M roads and bridges
- Northwest Transmission Line, BC Hydro - CAD\$737M lowers cost from \$.90/Kwh to \$.15/Kwh
- Rig of fire – Ontario CAD\$900M

## Alaska Privately Funded Infrastructure

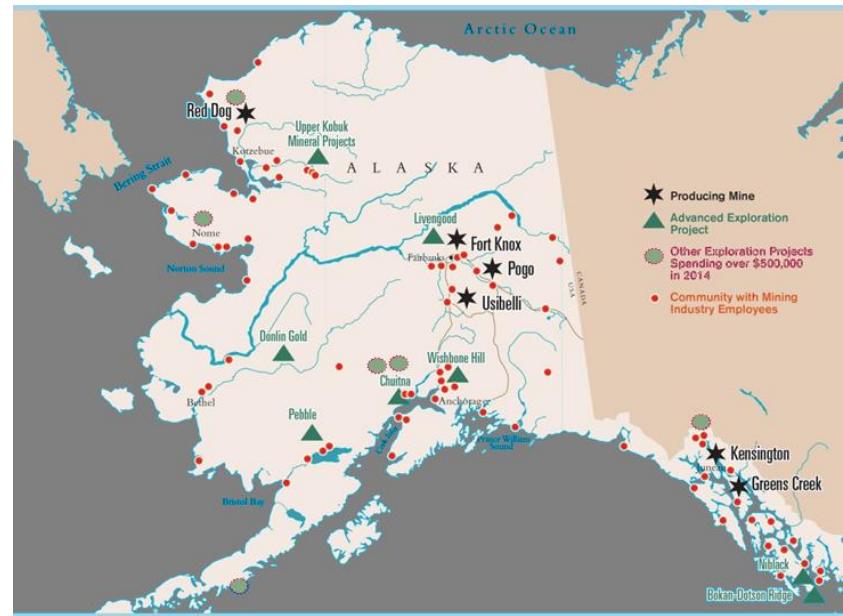
- Alaska – typically mining company builds its own – often with public benefit (e.g. Juneau Hydro, Copper River RR, Hatcher Pass, DMTS)

# Local & Community Benefits



2012

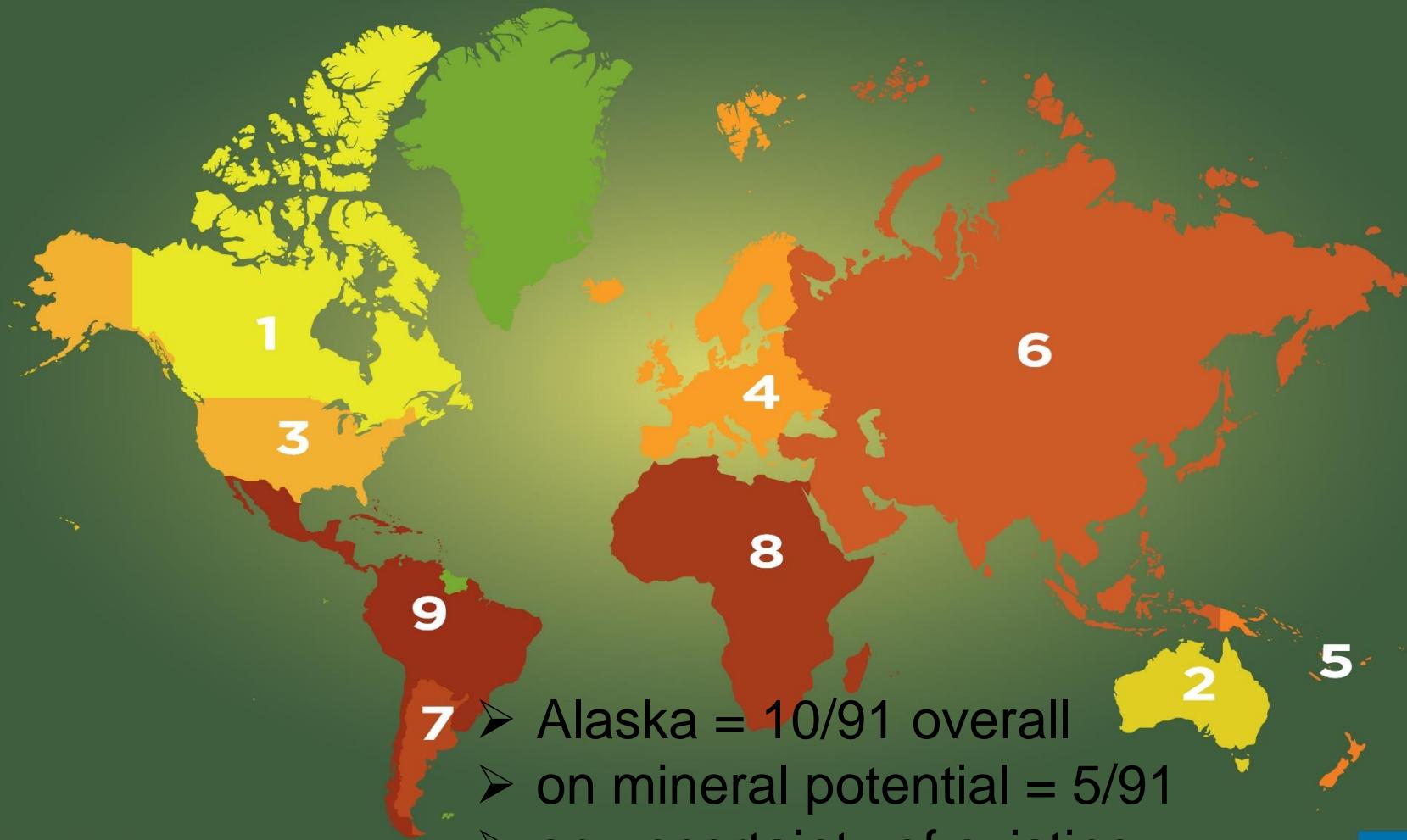
**120+** communities with  
mining industry employees



2014

**50+** communities with mining  
industry employees

# Global Mining Investment Attractiveness Ranking



- Alaska = 10/91 overall
- on mineral potential = 5/91
- on uncertainty of existing regulations = 41/91

# Alaska's mining industry has a history of supporting a *balance* of preservation and responsible resource extraction

Example – the 1982 **Haines Consensus** and subsequent legislation (Alaska Statute 41.21.610(c)) creating both the Chilkat Bald Eagle Preserve and the Haines State Forest Management Area “*determined to represent a proper balance between the reservation of state public domain land and water for bald eagle preserve purposes and state public domain land and water more appropriate for multiple use.*”

## Signatories

President of Schnabel Lumber Company  
President of Lynn Canal Conservation  
Executive Director SEACC  
Regional Director US Fish & Wildlife Service  
Alaska Miners Association Haines Branch  
Regional Vice President National Audubon Society  
Mayors of the Borough of Haines and the City of Haines

