

Coal in Alaska:

Mining, Transportation and Combustion

Alaska Collaborative on Health and the Environment

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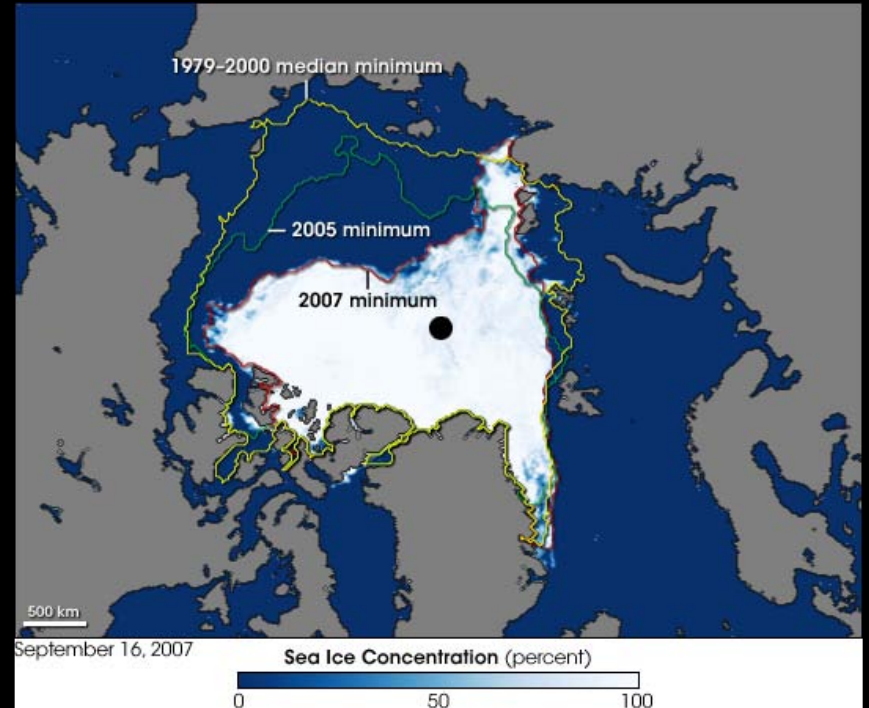
Context: Alaska's Energy Crossroads

- Statewide energy crisis
- AK gets less than 10% of power from coal
- AK possesses substantial coal reserves
- Global energy supply and demand pressures

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- High energy efficiency potential
 - World-class renewable potential

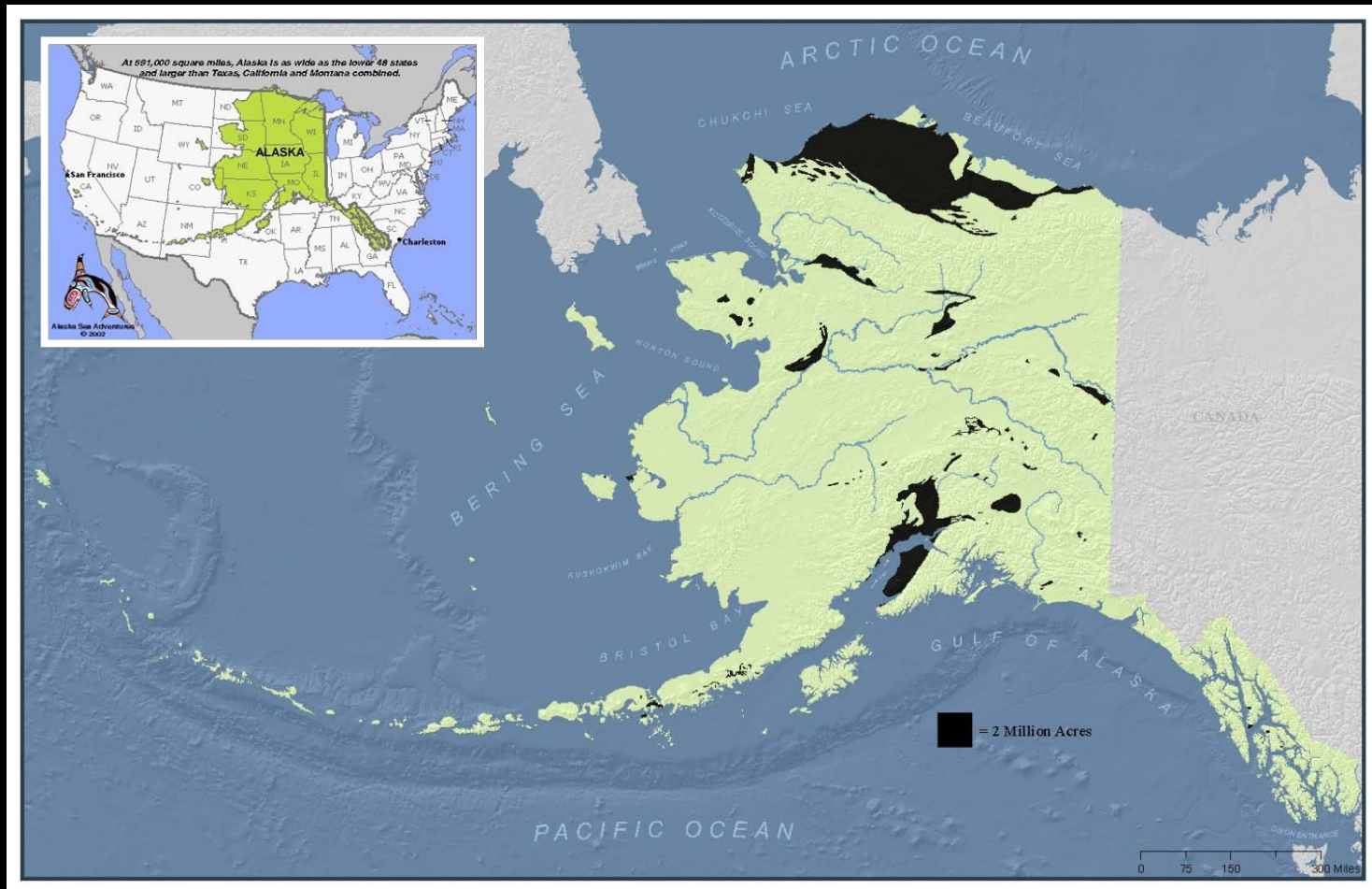


Context: Alaska's Energy Crossroads



Alaska is experiencing the disproportionate effects of Climate Change

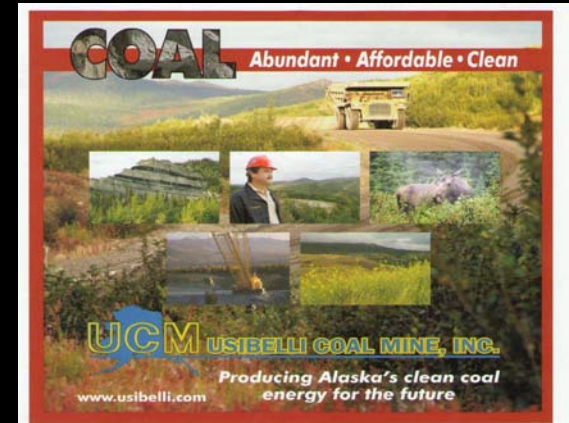
Alaska's Coal Reserves = 5 trillion metric tons



Flores, RM, GD Stricker, and SA Kinney. 2005. *Alaska Coal Geology, Resources, and Coalbed Methane Potential*: U.S. Geological Survey Digital Data Series DDS-77, Version 1.0, 140 p.

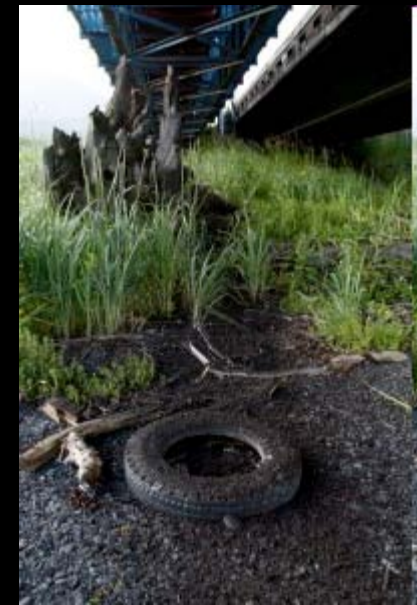
Proposed Coal in Alaska

- Coal Mining
 - Chuitna Coal
 - Matanuska – Wishbone Hill
 - Western Arctic
 - Nanushuk
- Coal Usage
 - Healy Coal Plant No. 2 *
 - Fairbanks Coal to Liquid
 - Underground Coal Gasification

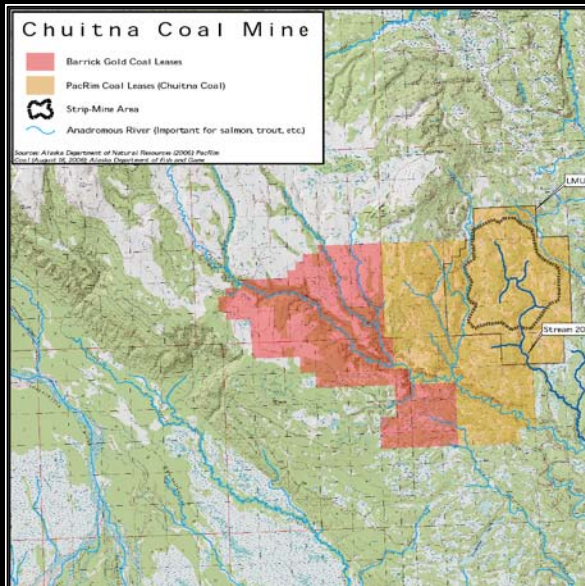


Current Coal Transportation and Storage

- Shipped from Healy by rail to Seward
- Stored in windrows on site for ships
- Coal dust has impacted community and contaminated water and air
- Aurora Energy is allegedly violating the Clean Water Act



Chuitna: Coal vs. Salmon

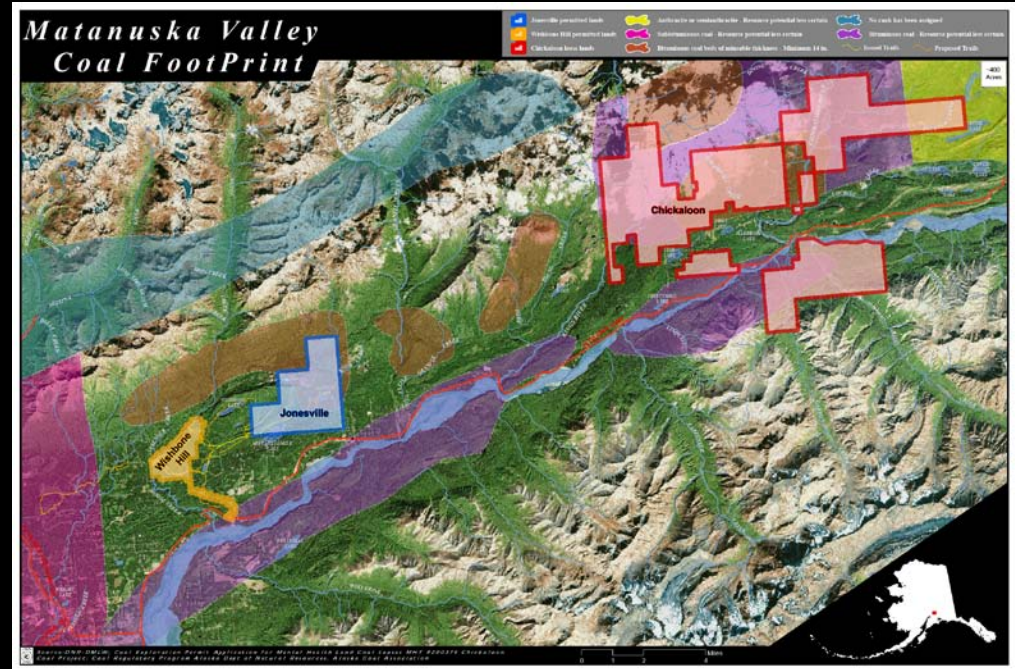


Total Leasing: 38,261 Acres or 59.78 Square Miles

Estimated reserve:

300 M tons coal = 673 M tons CO₂

Matanuska: Coal vs. Community



Total Lease Area: Approximately 30,880 acres

Inferred resource:

200 M tons coal = 511 M tons CO₂

Western Arctic: Coal vs. Climate



Total area: Western half of North Slope
Hypothetical Resource:
3.9 T tons coal = 8 T tons CO₂



Global Carbon Impact of AK Coal

- Matanuska Coal Field
 - 200 M tons coal = 511 M tons CO₂
- Chuitna Coal Field
 - 300 M tons coal = 673 M tons CO₂
- Western Arctic Coal Field
 - 3.9 T tons coal = 8 T tons CO₂*

* Hypothetical

- **In Context?**

Emission Equivalents



- It would take 240 years of CO₂ emissions from all human sources from all humans to reach 8 trillion tCO₂.

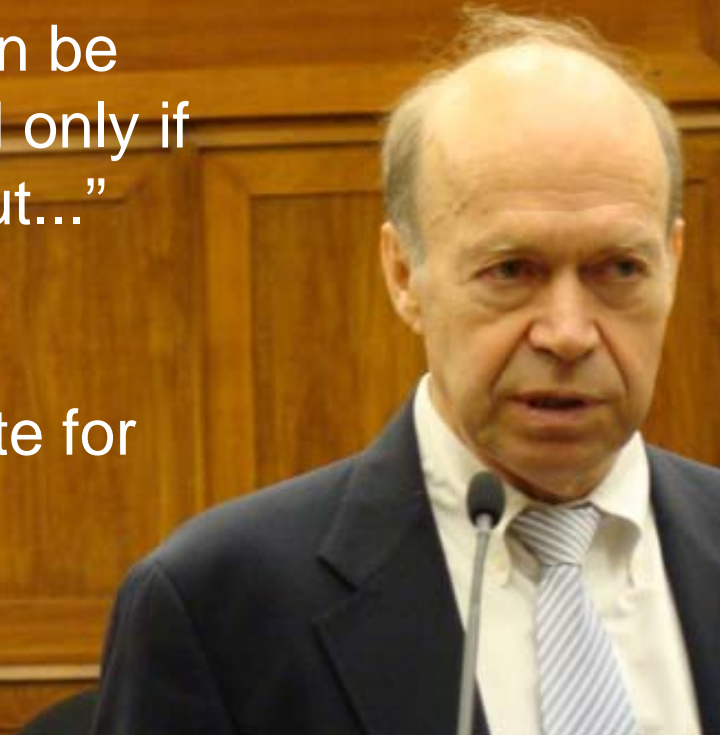
Do we have vision?

WHERE THERE IS NO VISION, THE PEOPLE PERISH.
PROVERBS 29:18

“Atmospheric CO₂ can be successfully constrained only if coal use is phased out...”

Dr. James Hansen

NASA Goddard Institute for
Space Studies



Which Road to take?

- Alaska possesses a substantial portion of the world coal supply
- Devastating local and global impacts if coal is mined and burned
- Alaska's world-class energy efficiency and renewable energy resources will produce sustainable jobs and clean power
- Do we trade our healthy fisheries, clean air and water for coal, or do we choose a cleaner path?



Thank You

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