

# Forestry Update

Senate Resources Committee

February 15, 2019



**Chris Maisch, Director and State Forester**  
**Division of Forestry**  
**Alaska Department of Natural Resources**

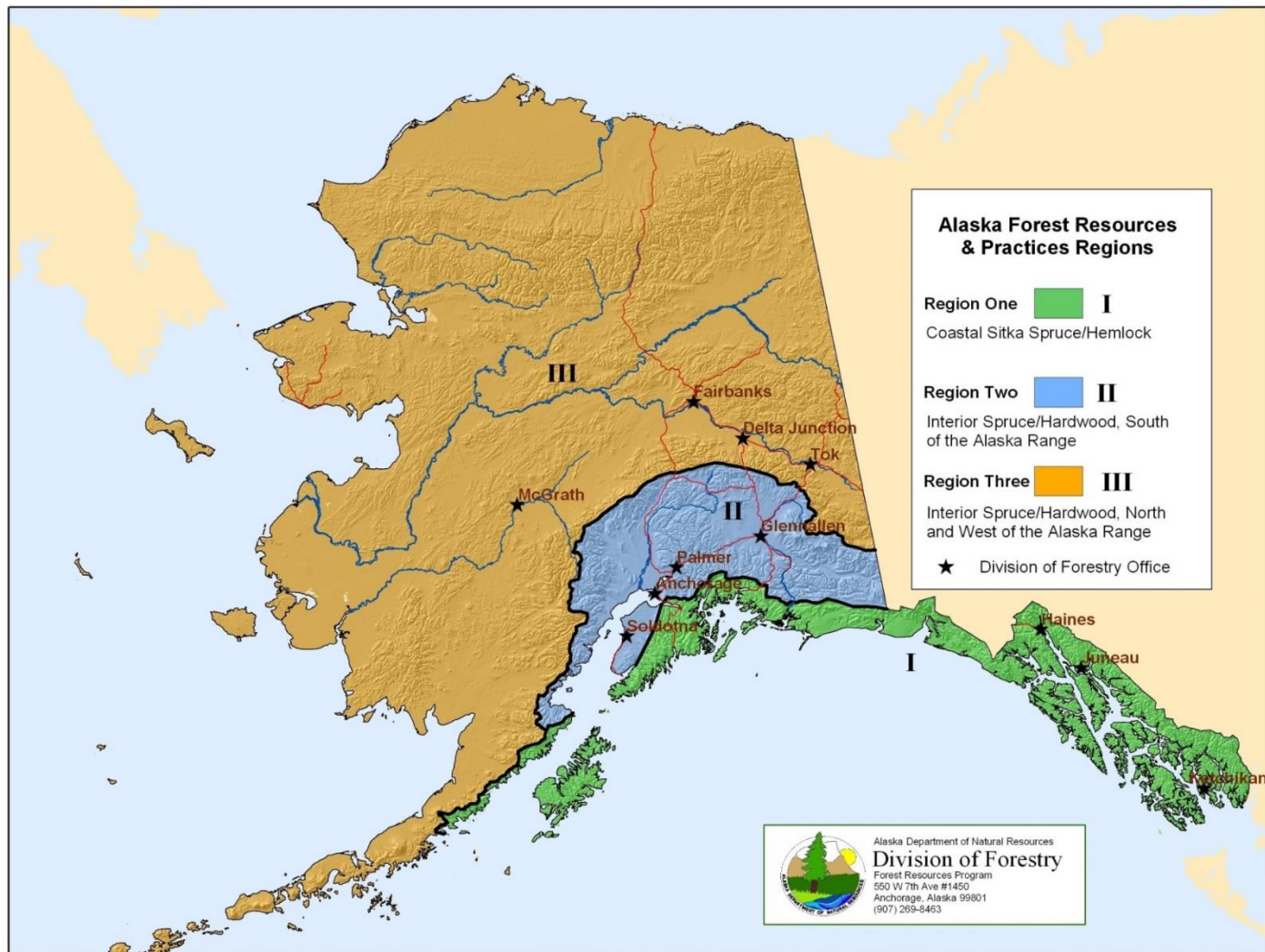


# What Conditions Maintain or Grow the Forest Products Sector in Alaska

- Stable land base for forest management that produces a consistent offering of timber sales
- A mix of private, state, Trust (MHT and UTL) and federal land
- Access to markets both domestic and foreign
- A range of timber sale options, including longer-term commitments of supply 10 to 20 years
- Use of Good Neighbor Authority (GNA) to partner with the U.S. Forest Service to conduct work on national forest lands
- Access to resources and the current state specific Roadless Rule effort between the State and USDA



# Forest Resources and Practices Act and Forest Types Across the State



# DOF Forest Health Program

## Spruce beetle efforts



**Adult spruce beetle**  
Photo: M. Schoofs, AKDOF

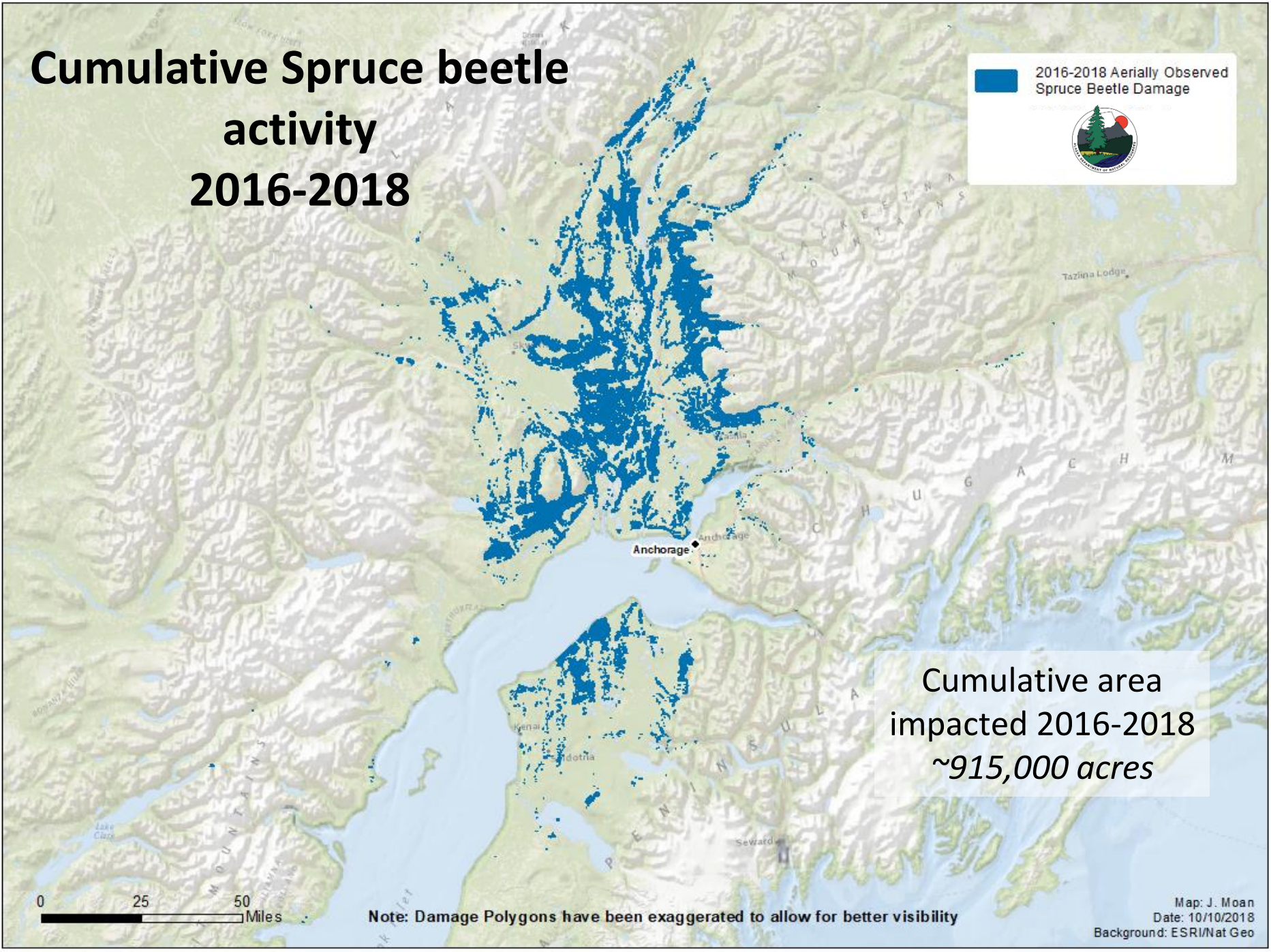


**A handful of spruce beetles**  
**Soldotna**  
Photo: H. Rinke, AKDOF



# Cumulative Spruce beetle activity 2016-2018

2016-2018 Aerially Observed Spruce Beetle Damage



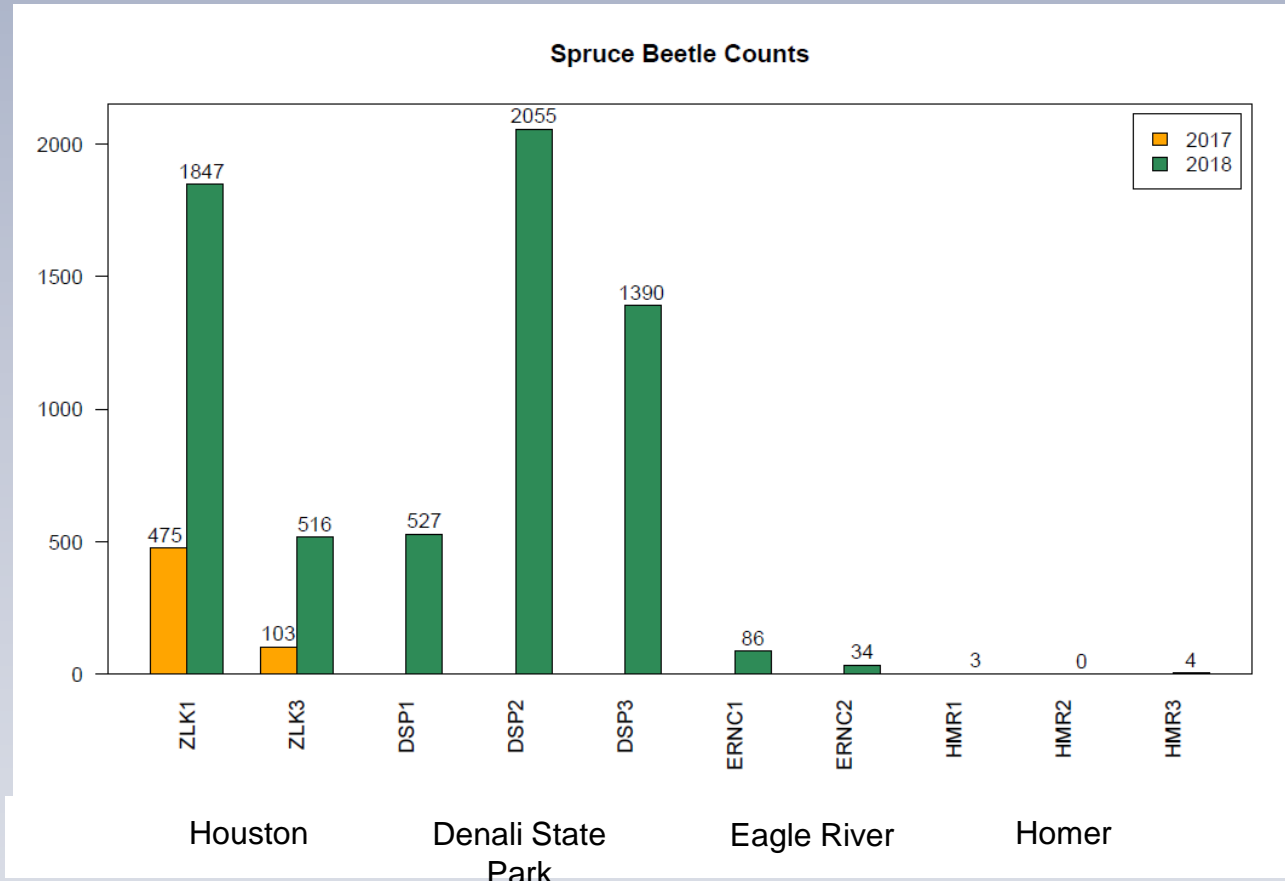
Cumulative area impacted 2016-2018  
~915,000 acres

Note: Damage Polygons have been exaggerated to allow for better visibility

Map: J. Moan  
Date: 10/10/2018  
Background: ESRI/Nat Geo

# DOF spruce beetle population monitoring, select locations

- Houston (2017-2018), Denali State Park (2018), Eagle River (2018), Homer (2018)



## Ground Surveys

Example of relative spruce beetle populations  
Figure: M. Schoofs, AKDOF



# Who Owns Commercial Forest Lands

## Alaska Forest Land by Ownership 126 million acres total

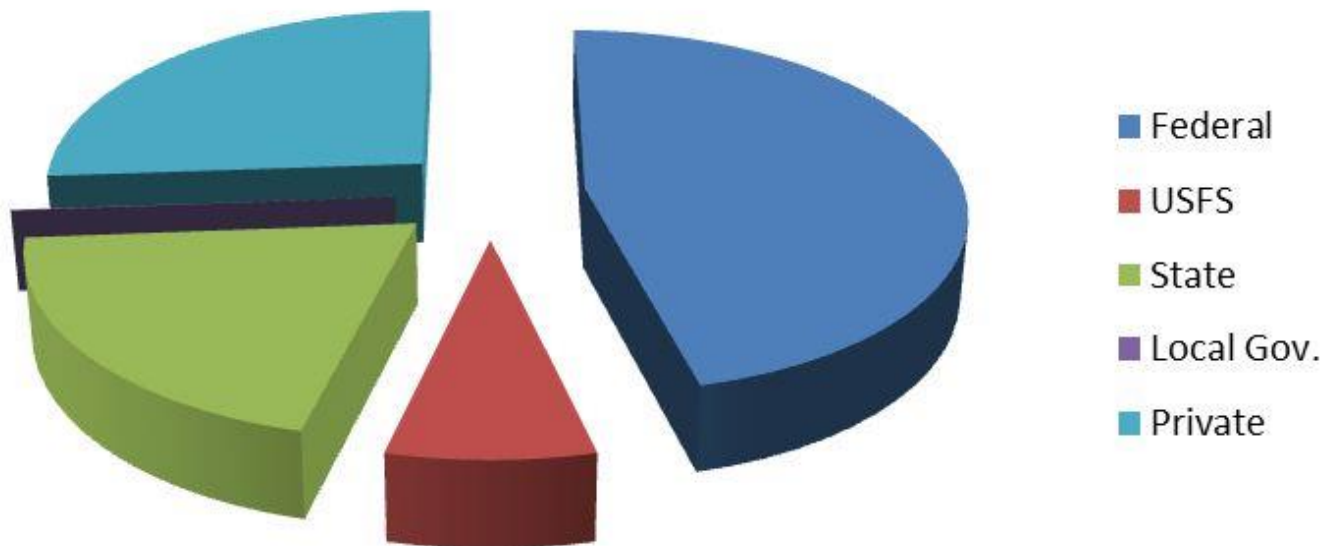


Figure 2 Alaska Forest Land Ownership



# Statewide Overview of the Forest Products Sector

- Regional differences in scale, markets, products and type of facilities
- Primary Manufacturing
- Log Export
- Secondary Manufacturing
- Non Timber Forest Products
- Woody Biomass Projects – scale and types of fuels





# Primary Manufacturing Facilities

**Viking Sawmill-Craig**



**Tidewater and Road Access**



# Primary Manufacturing Facilities

**Head Rig Cutting Old Growth Log  
Producing Lumber**



**By Products  
Chips and Sawdust**

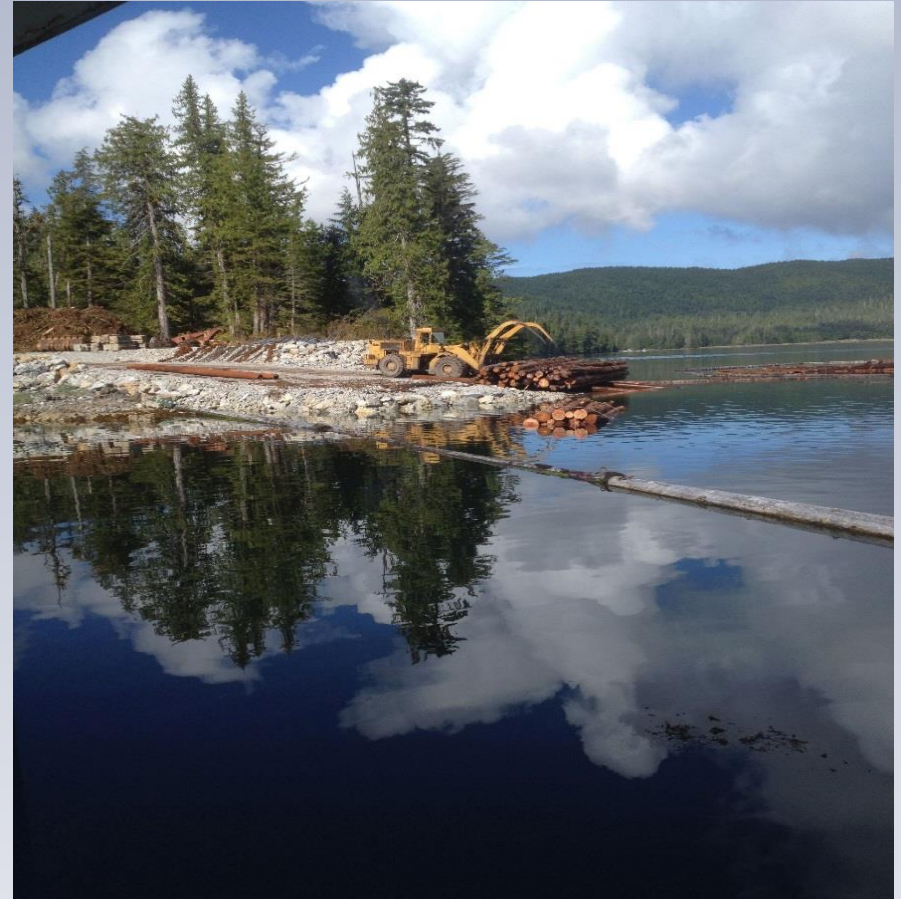


# Primary Manufacturing Log Export

**Loading Bundles of Young Growth  
Logs for Export**

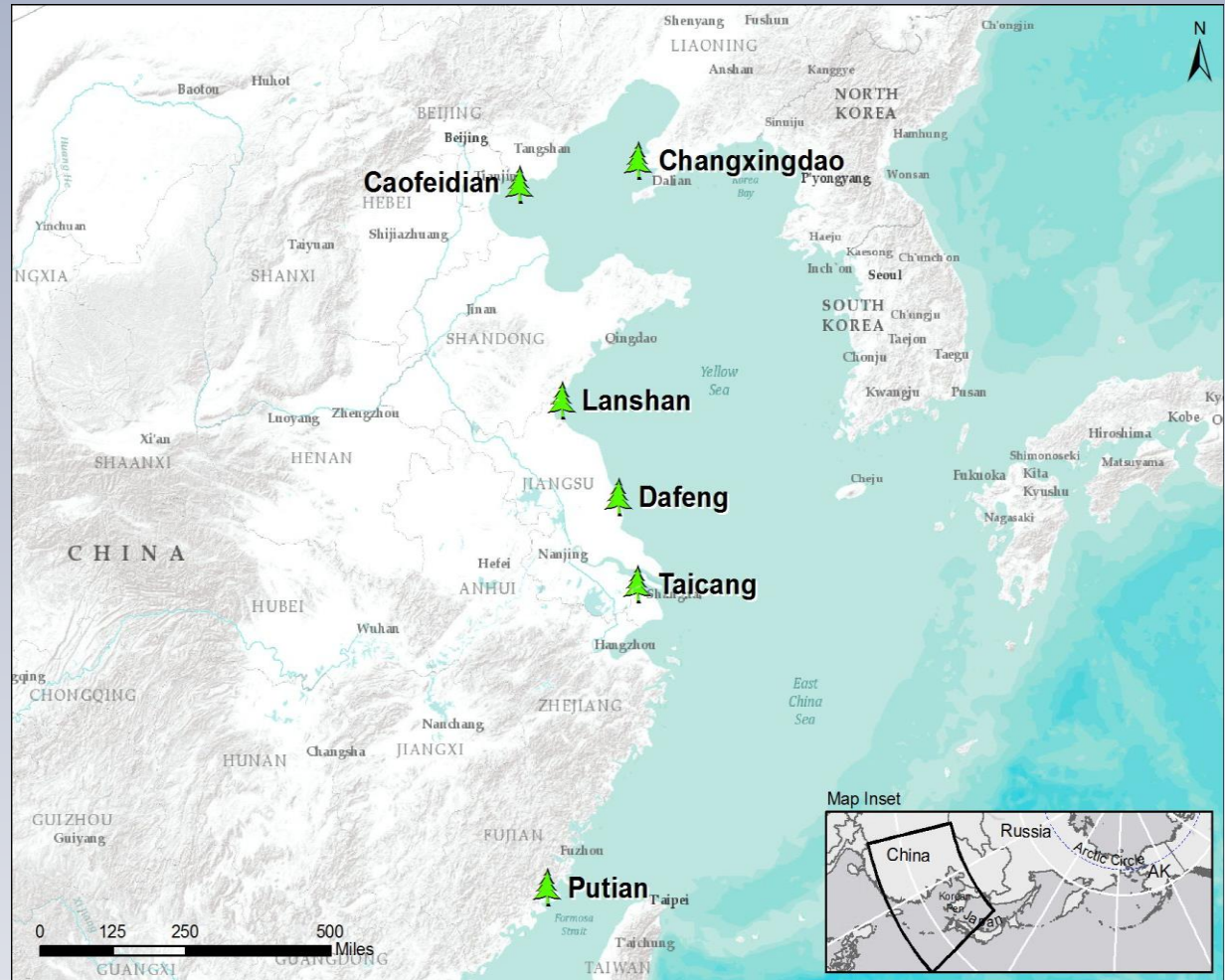


**Edna Bay Log Transfer Facility (LTF)  
And Young Growth Logs**



# Log Exports and Phytosanitary Inspection

- Agriculture program staff provides inspection service and third party fumigation inspections on-board ship in Korea for logs heading to China ports without on-shore facilities
- Industry pays travel costs
- On shore fumigation is now available in six ports
- Value last year \$74.3 million in exports
- Log tariff issue



# Primary Manufacturing Facilities

**Superior Pellet LLC- North Pole**



**Pellet Press Two Units**



# Primary Manufacturing Facilities

## Wood Pellets for Commercial and Residential Space Heating Markets



# Primary Manufacturing Facilities Smaller Scale

**Log Turning Mill**  
**Log Homes and Cabin Kits**



**Wood Miser Band Mill**  
**Lumber and Timbers**



# Secondary Manufacturing Facilities

## Fairweather Ski Works - Haines





# Secondary Manufacturing Facilities Great Alaska Bowl Company - Fairbanks

## Nested Birch Bowls



## Production Floor



# Non Timber Forest Product Manufacturing Facilities

**Kahiltna Birch Works**

**Sap Evaporator**

**Sap to Syrup Ratio 70:1**



# Woody Biomass and Energy

- **Types of Wood Fuels Used**
- **Scale of Operations From Commercial to Residential**
- **Space Heating - Most Common in AK**
- **Electrical Generation - Tentative Steps**
- **Combined Heat and Power - Larger Scale**



**Wood Chips**



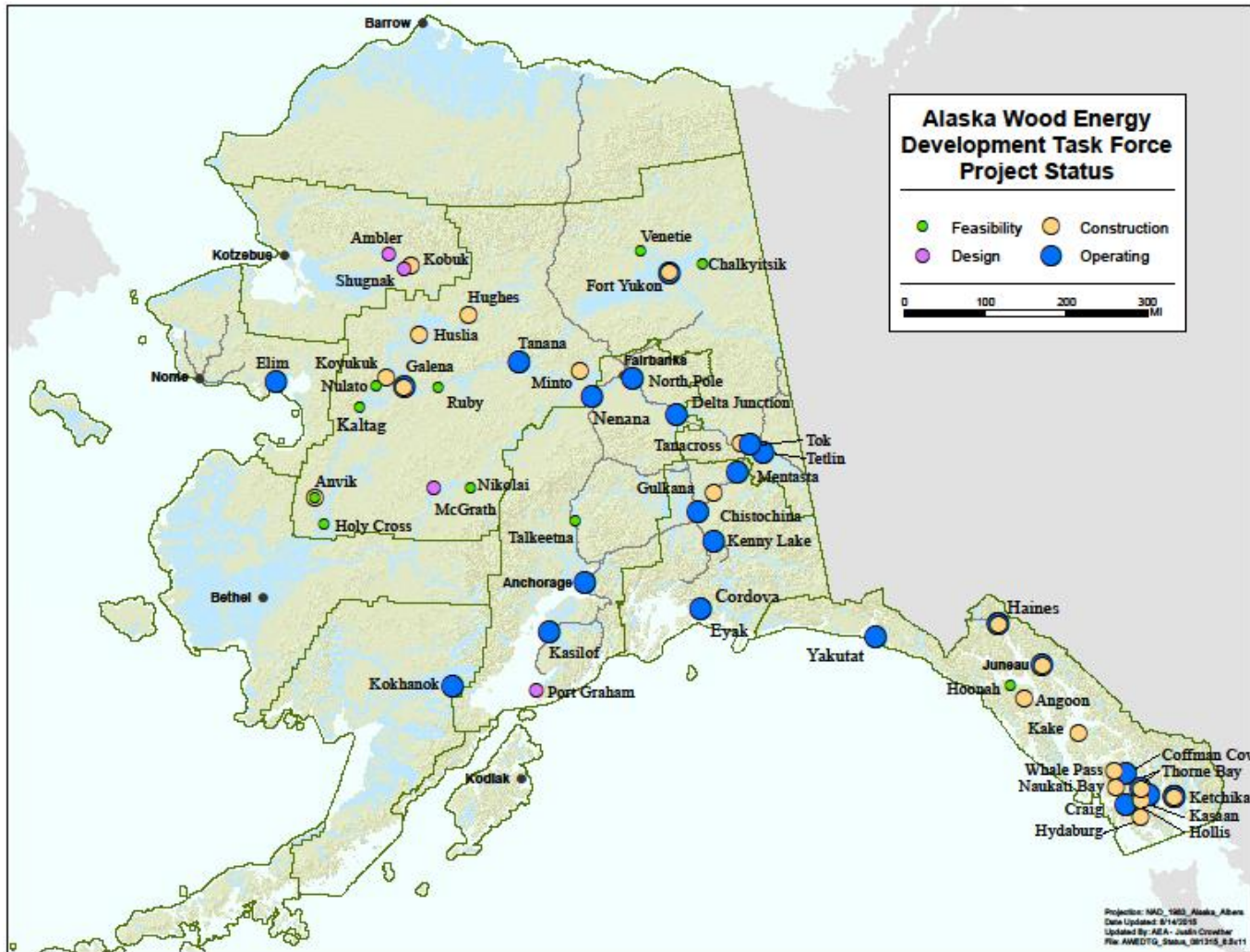
**Solid Wood**



**Pellets**



# Locations of Biomass Energy Projects

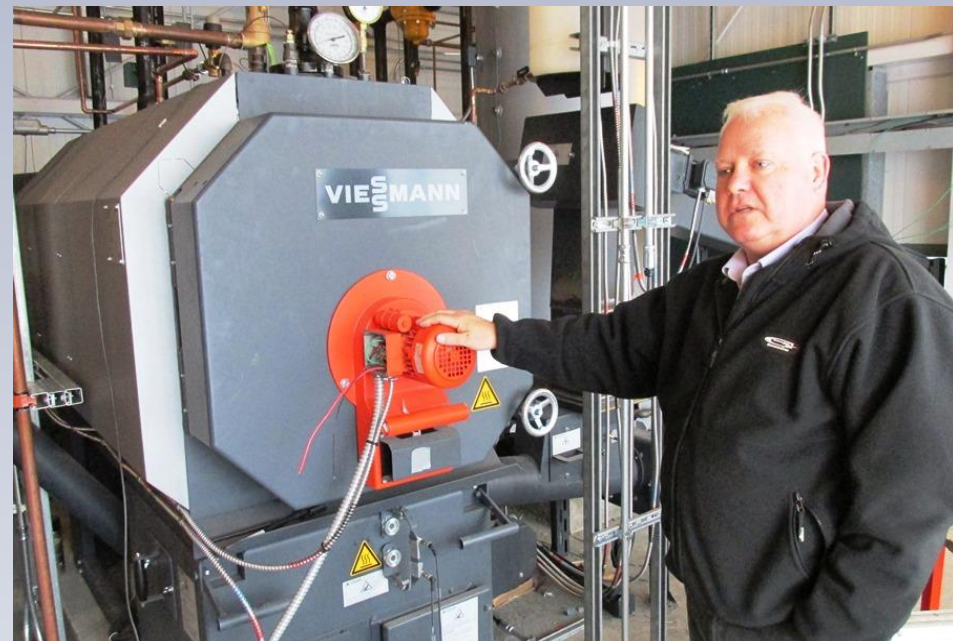


# Ketchikan Airport Pellet Fuel Heating Project

**Pellet Silo Next to Boiler Building**



**Pellet Boiler**



# Galena Woody Biomass Heating Project

**Wood Boiler**



**Chip Auger and Conveyer to Day Bin and Boiler**



# Galena Woody Biomass Heating Project

## Covered Storage for Chips



## Timber Harvest Operations



# Tanana Solid Wood Fuel Heating Project

**Garn Wood Fired Heating System  
Model 20000**

**Produces 450,000 BTUs per Hour  
Energy Stored in Water Jacket**






# Community Sustainability and Economy

**Tanana Resident Cuts and Hauls Wood to Sell to the City**



**Projects Create Jobs and Keeps More Dollars in the Community**



The image shows a large industrial facility, likely a timber mill or manufacturing plant. In the foreground, several large stacks of cross-laminated timber (CLT) panels are neatly arranged on a concrete floor. The panels are light-colored with a distinct layered wood grain. In the background, a yellow overhead crane with "20 TON" written on it spans across the high ceiling of the factory. The lighting is bright, and the overall atmosphere is industrial and clean.

## Cross Laminated Timber (CLT)

- A Future Manufactured Product for Alaska?
- Young Growth Timber in Southeast
- Finished Buildings Asian Markets



- Significant cost savings over steel and concrete
- Environmental footprint
- Esthetics



# Seismic Test CLT 7-Story Building

