

# Forest Products Industry Update

## *Senate Resources Committee*



Heidi Hansen, Deputy Commissioner  
Chris Maisch, Division of Forestry Director & State Forester  
Alaska Department of Natural Resources  
January 19, 2018

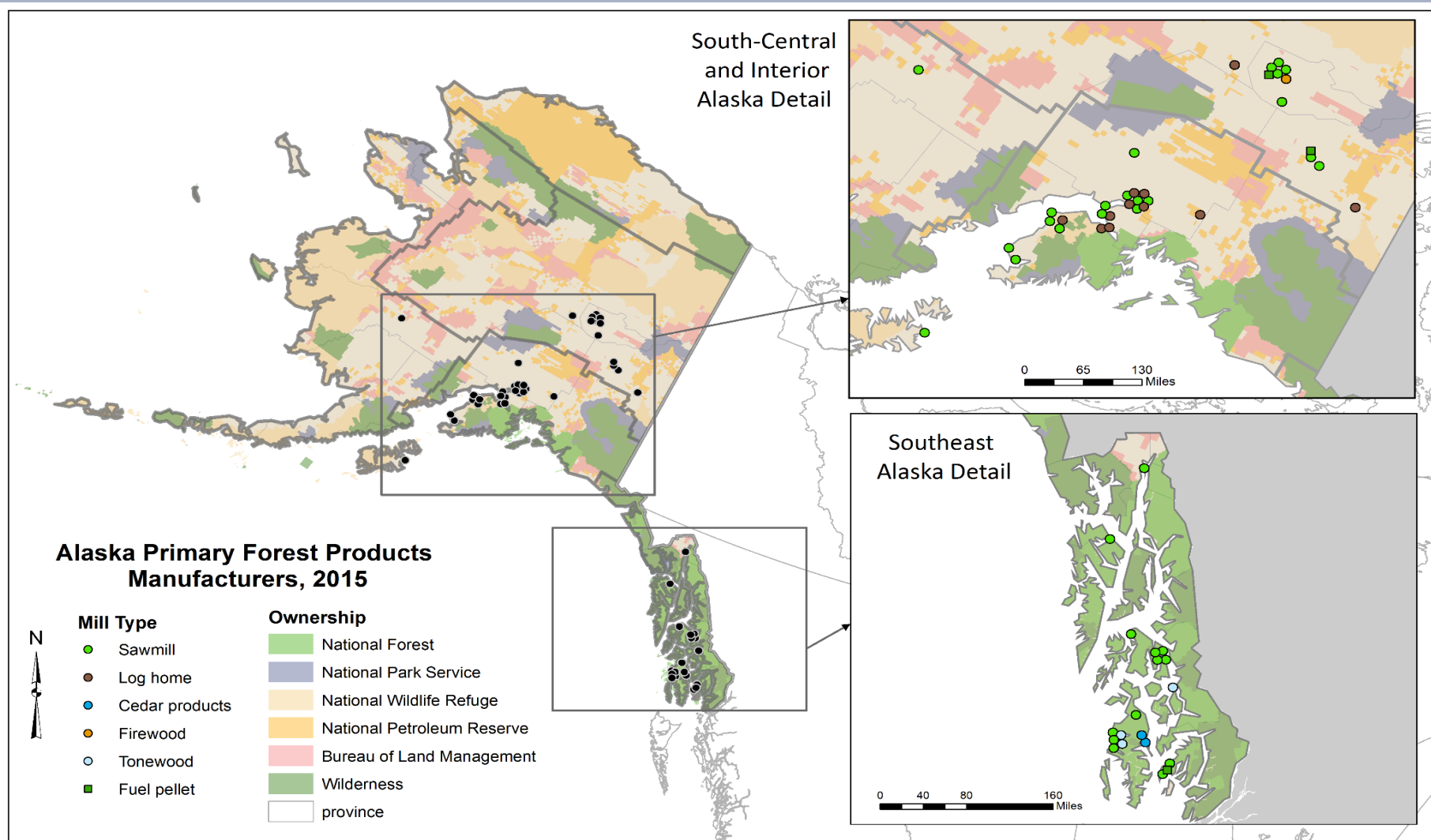


# ALASKA'S FOREST PRODUCTS SECTOR

## - STATEWIDE OVERVIEW -

- 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 FOREST PRODUCTS BUSINESS LOCATIONS



# PRIMARY MANUFACTURING FACILITIES

**Viking Sawmill in Craig**



**Tidewater and Road Access  
(Aerial view at Viking Sawmill)**





# PRIMARY MANUFACTURING FACILITIES

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



**Byproducts:  
Chips and Sawdust**

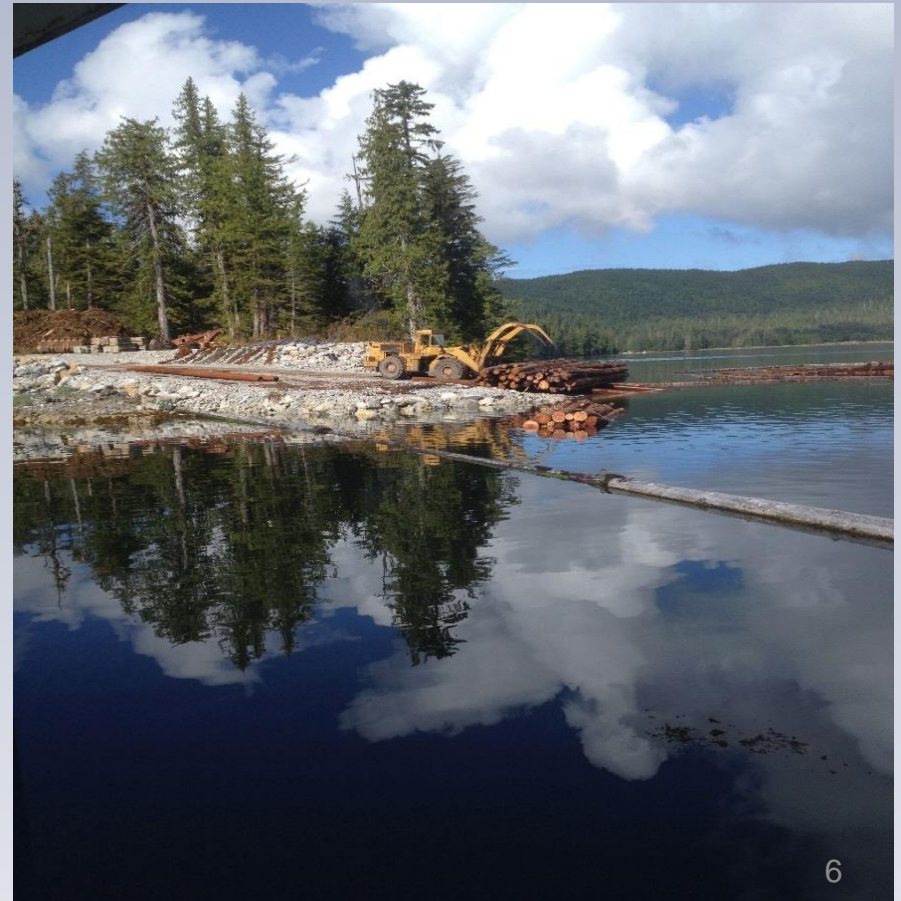


# PRIMARY MANUFACTURING LOG EXPORT

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



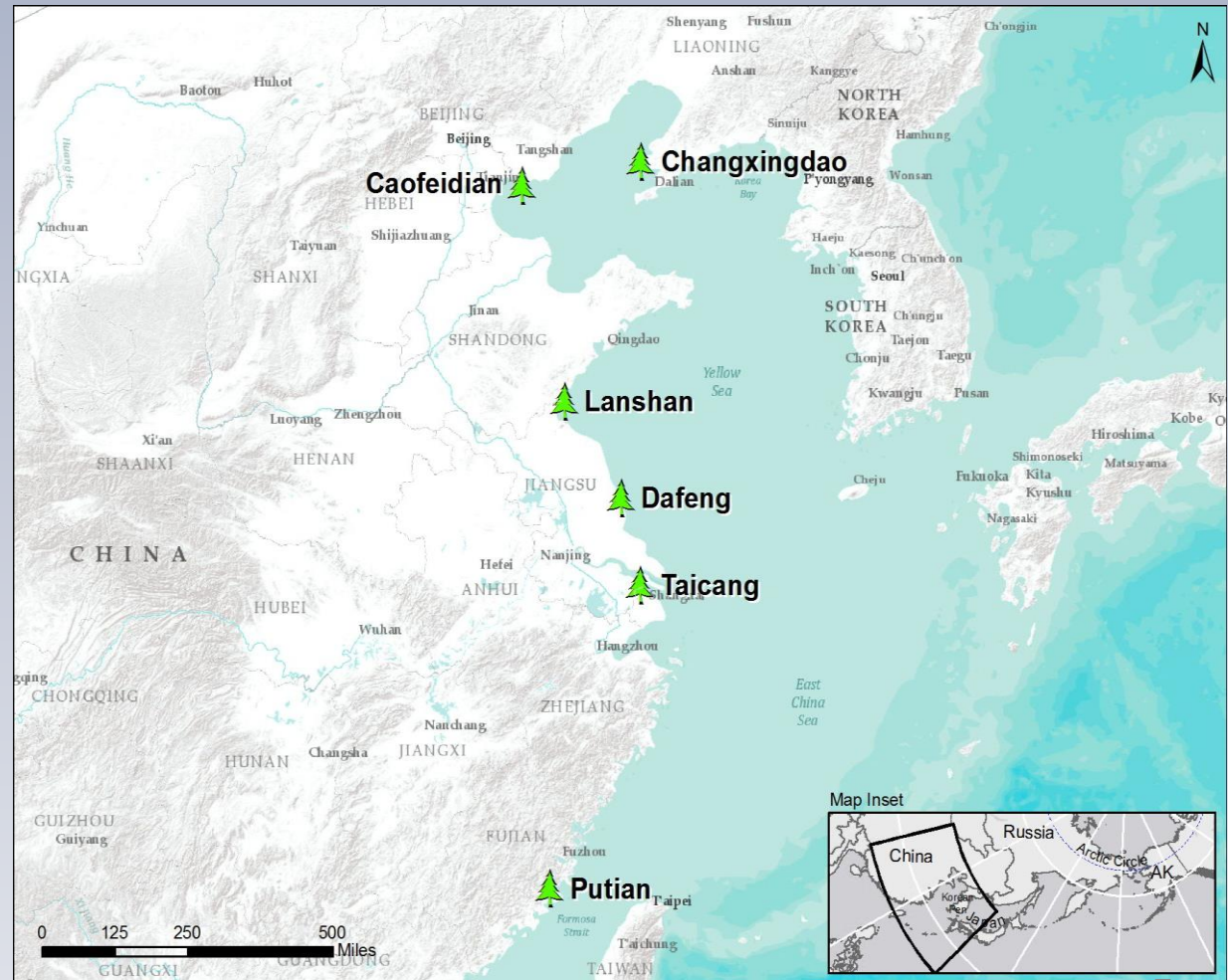
**Edna Bay Log Transfer Facility and  
Young Growth Logs**





# LOG EXPORTS AND PHYTOSANITARY INSPECTION

- DNR Division of Agriculture provides inspection service and third party fumigation inspections on-board ship in Korea for logs heading to China ports without onshore facilities
- Industry pays fee to cover inspections
- Onshore fumigation is now available in 6 ports
- Value last year: \$74.3 million in exports



# 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





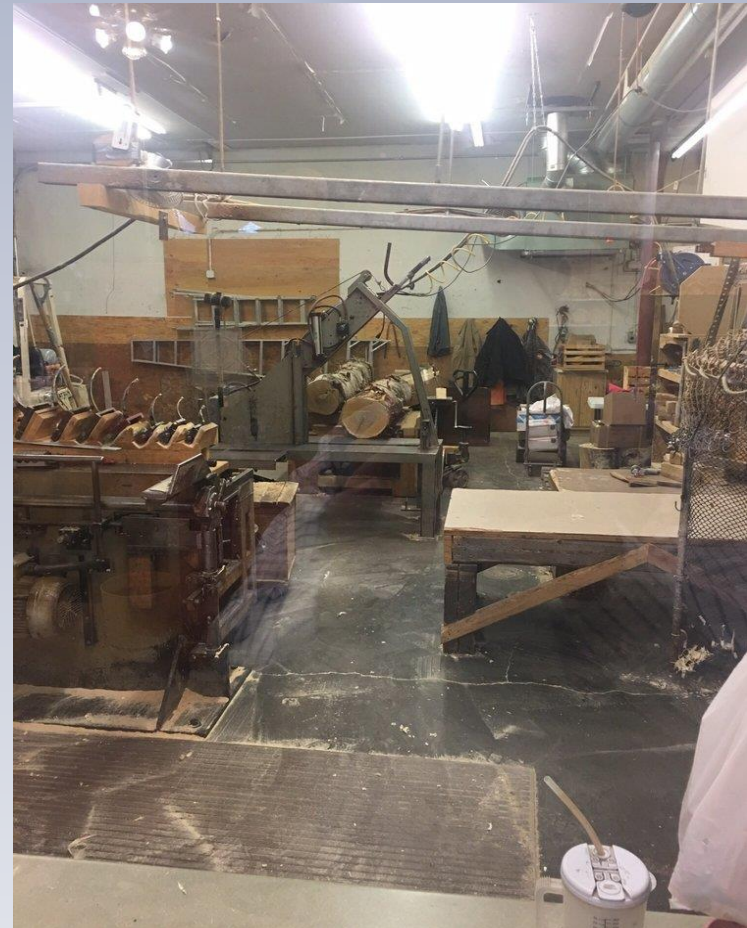
# SECONDARY MANUFACTURING FACILITIES

## GREAT ALASKA BOWL COMPANY - FAIRBANKS

### Nested Birch Bowls



### Production Floor



# Non Timber Forest Product Manufacturing Facilities

**Kahiltna Birch Works**



**Sap Evaporator**

**Sap to Syrup Ration 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**



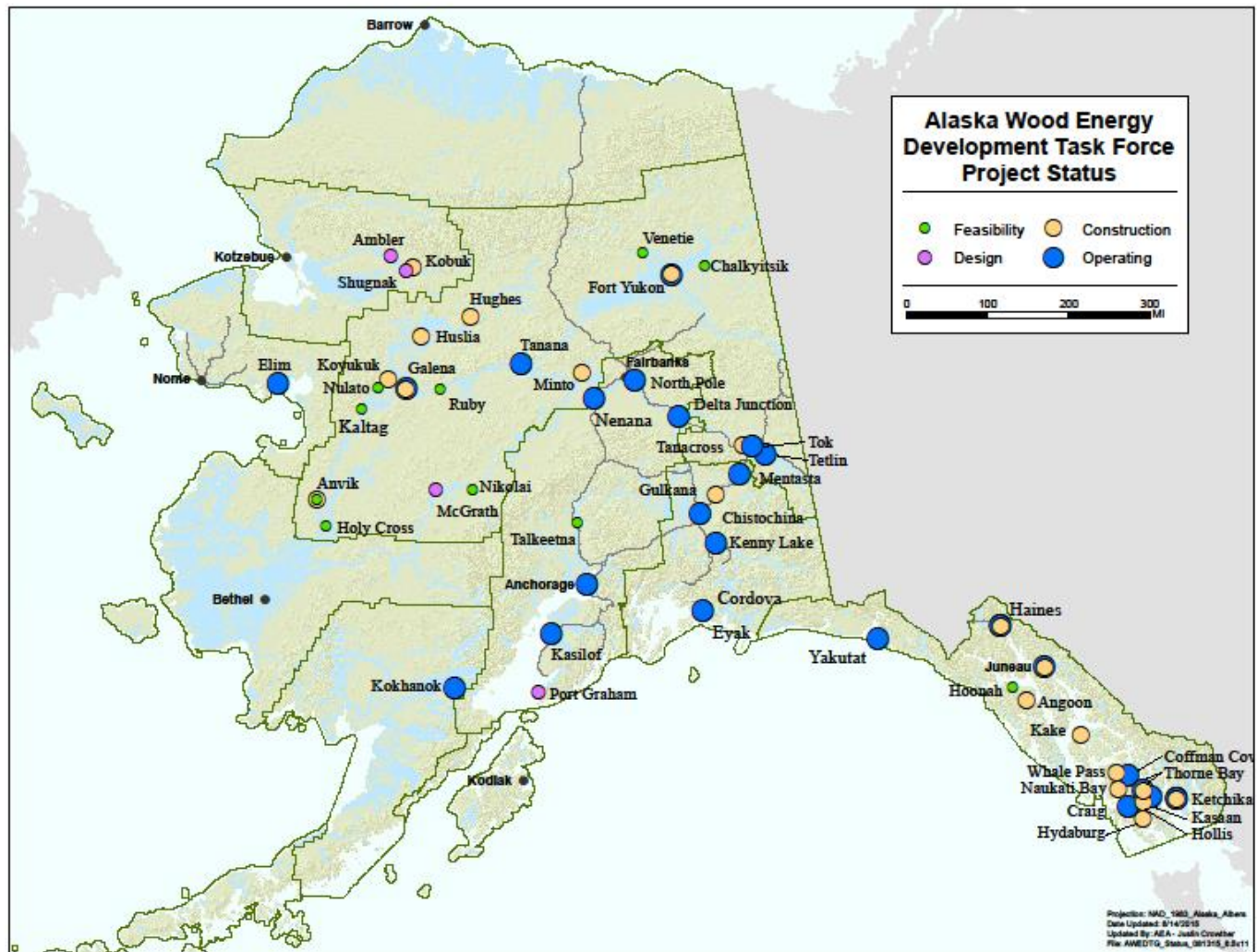
**Pellets**



# LOCATIONS OF BIOMASS ENERGY PRE-FEASIBILITY WORK



# LOCATIONS OF BIOMASS ENERGY PROJECTS

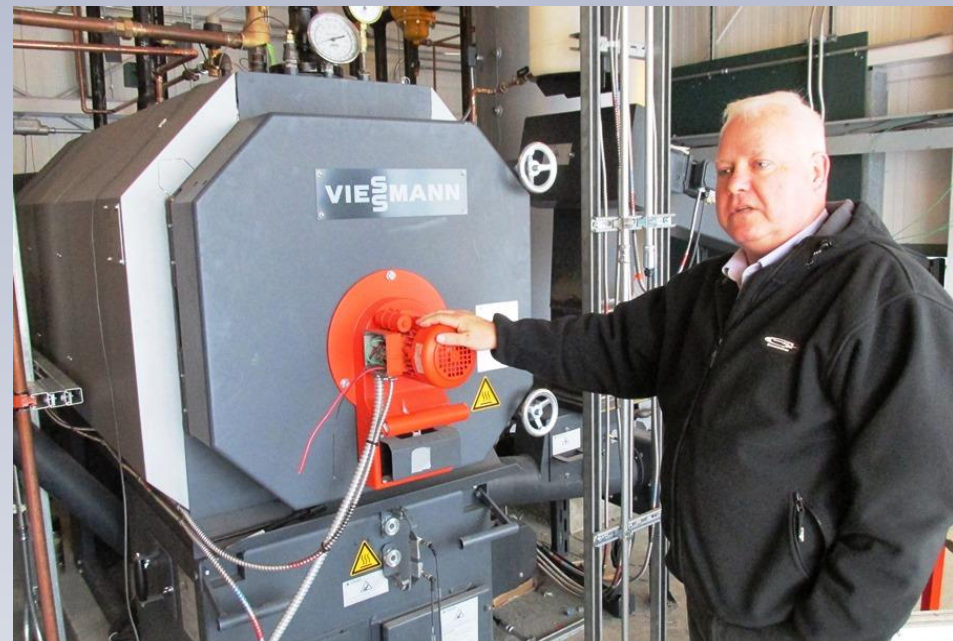


# KETCHIKAN AIRPORT PELLET FUEL HEATING PROJECT

**Pellet Silo Next to Boiler Building**



**Pellet Boiler**



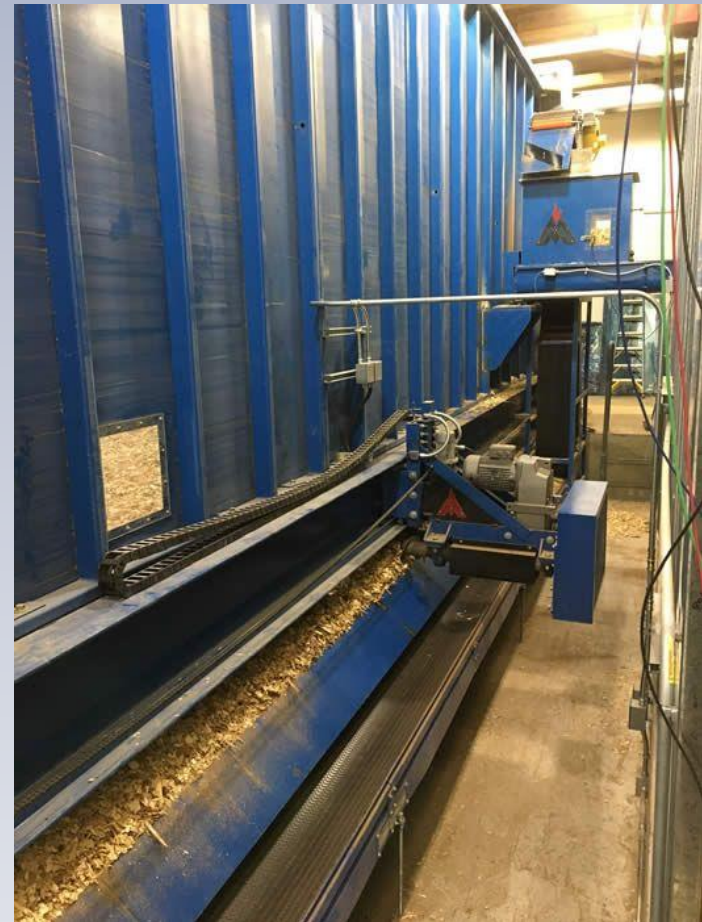


# GALENA WOODY BIOMASS HEATING PROJECT

**Wood Boiler**



**Chip Auger and Conveyor 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**

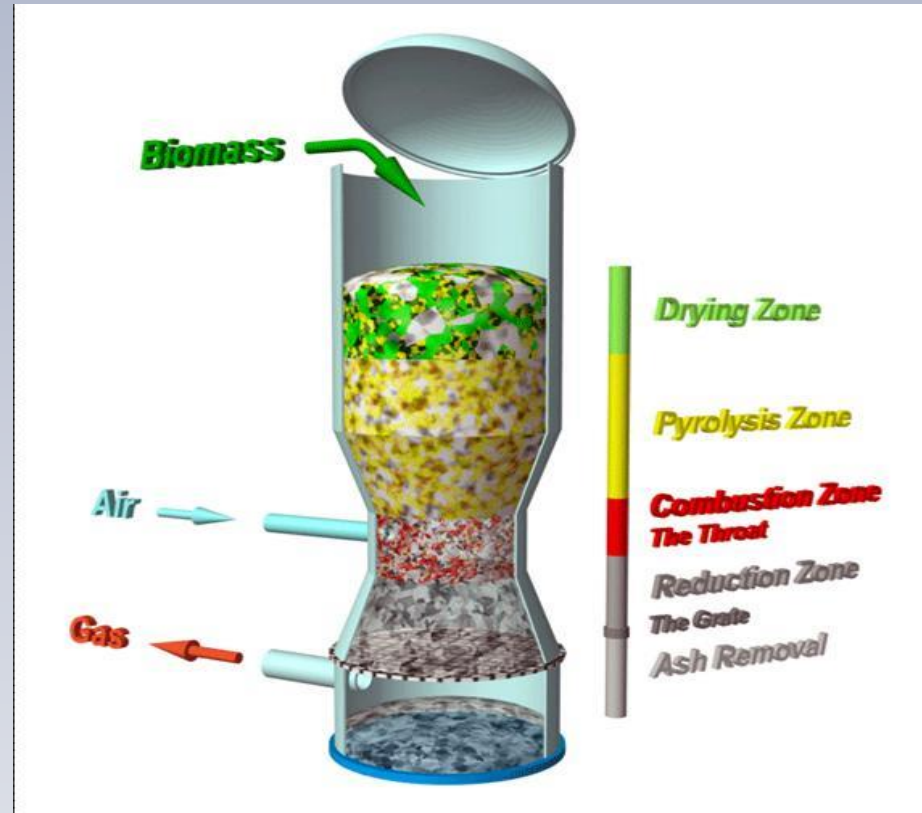


# BIOMASS COMBINED HEAT AND POWER

## SMALL SCALE VIA GASIFICATION OF WOOD CHIPS

Fairbanks Northstar Borough Will  
Install and Test a Volter 40 in the Big  
Dipper Ice Arena in 2018 - 2,380  
MMBTU and 280,000 kWh

General Process for Gasification of  
Biomass



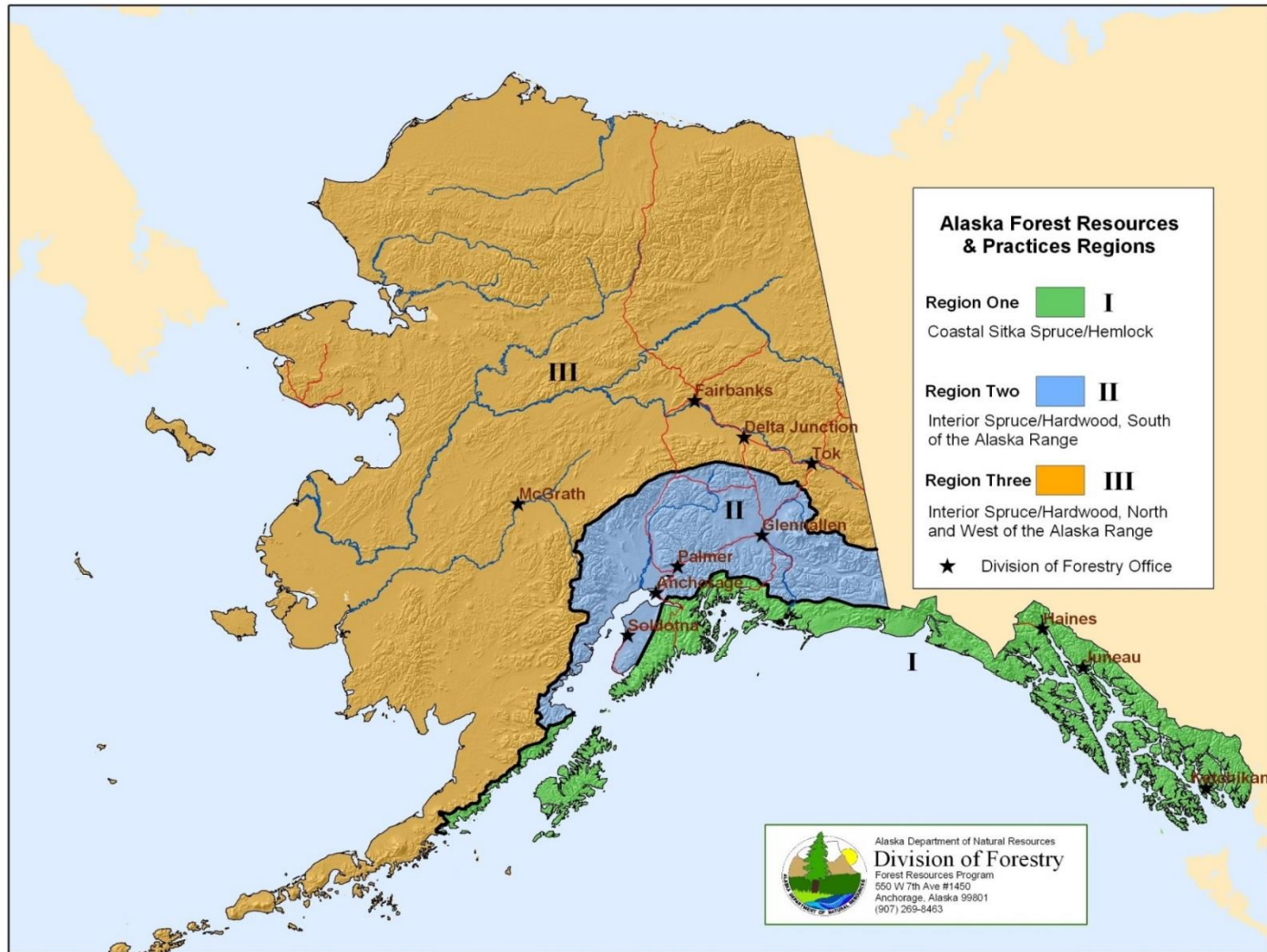
# WHAT IS NEEDED TO MAINTAIN OR GROW THE FOREST PRODUCTS SECTOR IN ALASKA

- A stable land base for forest management that produces a consistent offering of timber sales
- A mix of private, state, Mental Health Trust and University Land Trust, and federal land
- Access to domestic and international markets
- A range of timber sale options, including longer-term commitments of supply (10 to 20 years)
- Continued use of Good Neighbor Authority (GNA) to partner with the U.S. Forest Service to conduct work on national forest lands



# FOREST RESOURCES & PRACTICES ACT

## - FOREST TYPES ACROSS ALASKA -



# Who Owns Commercial Forest Lands

## Alaska Forest Land by Ownership 126 million acres total

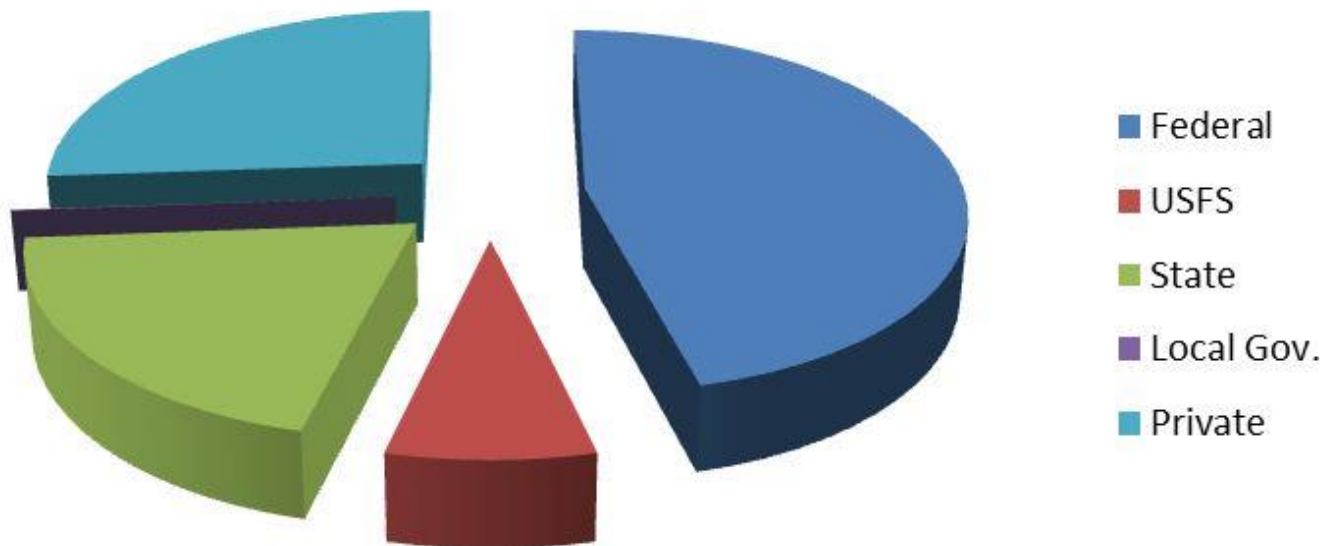


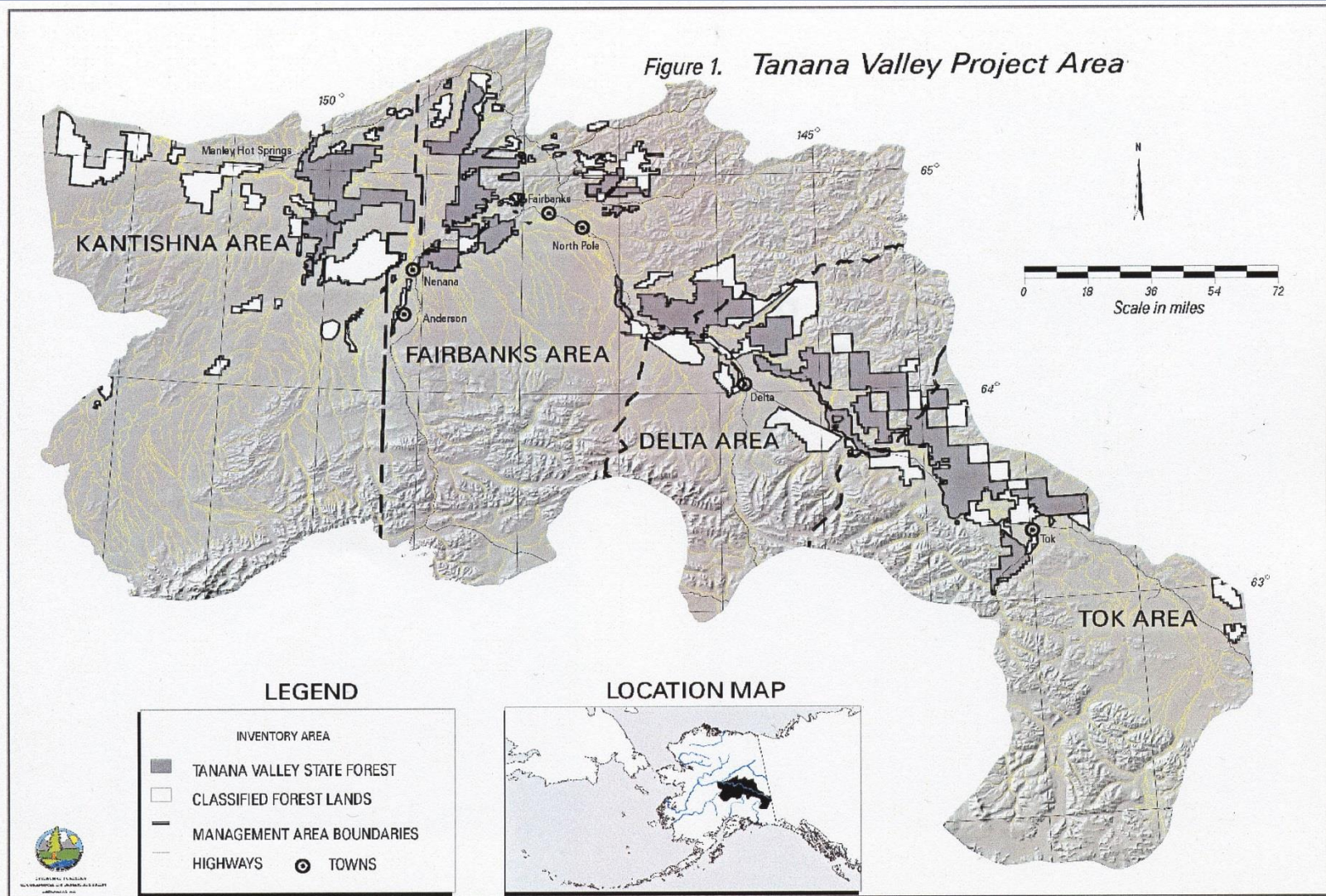
Figure 2 Alaska Forest Land Ownership



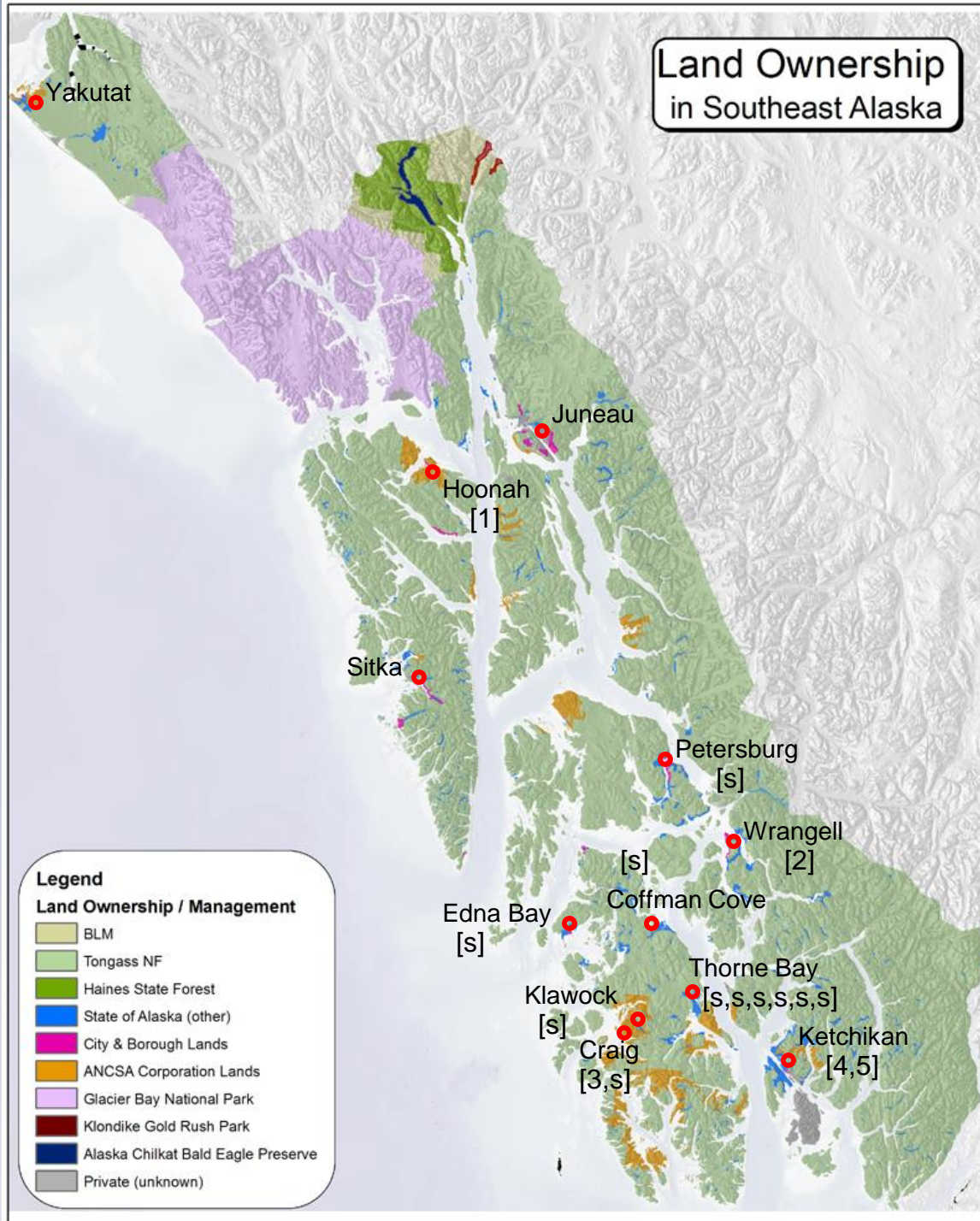
# STATE FORESTS AND LAND CLASSIFIED FORESTRY IN DNR AREA PLANS

- Haines State Forest (1982) – first in the system; established by AS 41.15.300 at 286.2 thousand acres
- Tanana Valley State Forest (1983) – established by AS 41.17.400 at 1.8 million acres
- Southeast State Forest (2010/11) – established by AS 41.17.500 at 48.5 thousand acres
- Candidate state forests: Susitna, Copper River, Icy Bay and Kenai per AO-258 recommendations

# TANANA VALLEY STATE FOREST AND FORESTRY CLASSIFIED LANDS IN THE TANANA BASIN







## SE Mills

[1] Icy Strait  
Lumber

[2] Silver Bay  
Logging

[3] Viking  
Lumber  
Company

[4] Pacific Log &  
Lumber

[5] Ketchikan  
Veneer Mill

[s] small mill

# STATE TIMBER SALE TYPES

## 5 METHODS TO ACCOMPLISH COMMERCIAL DISPOSAL

- Competitive Sales (AS 38.05.120)
- Small Negotiated Sales (AS 38.05.115)
- Negotiated Sales for Value Added Products (AS 38.05.123)
- Large Negotiated Sales (AS 38.05.118)
- Salvage Sales (AS 38.05.117)
- Personal Use Sales (AS 38.05.850)



# TIMBER SALE LEGISLATION SIGNING – VIKING LUMBER UPDATES TO AS 38.05.118 SALE CRITERIA



# STEPS IN THE TIMBER SALE PROCESS

- Five Year Schedule of Timber Sales (FYSTS) AS 38.05.113
  - Publish every two years and a sale must appear in one of the two FYSTS immediately proceeding the sale
- Best Interest Finding (BIF) AS 38.05.035 (e)(6)(A)
- Forest Land Use Plan (FLUP) AS 38.05.112
  - Must address site specific conditions and be consistent with guidance in Area and Forest Management Plans
- The BIF and FLUP Can Be Issued Concurrently or Separately
  - Each is an appealable document
  - The BIF requires a 21 day comment period and the FLUP a 30 day comment period
  - If issued concurrently, they both run 30 days



# LONG-TERM TIMBER SALES – SOME CHALLENGES

- DOF has prepared longer-term timber sales for several different projects under different authorities – some observations
- Tok Project for Combined Heat and Power Facility
  - Alaska Power and Telephone proposal for a power plant fueled by wood chips – began a .118 sale process
  - Competitive interest in the long-term sale by a second company Young's Timber
  - Switched to a .120 process, completed BIF and first set of FLUPs for five year period with three more five year cycles of FLUPs planned
  - Offered sale, no bids. Still available over-the-counter
- Galena Space Heating Project
  - Using .120 process for 20 year sale – process working well
- Superior Pellet Project
  - Long-term (10 year) wood supply for mill, used .123 sale process
  - Process completed and contract ready to sign, delayed due to energy price collapse making demand for wood pellets drop significantly

# LONG-TERM TIMBER SALES – SOME CHALLENGES

## SUSITNA VALLEY PROJECTS

- Recent interest in wood fiber for power generation in the Asian markets, Japan a potential big customer
- Several companies have expressed an interest in wood resources in the region and northward into the Interior
- Wood fiber for power generation is popular due to low CO<sub>2</sub> emission impacts, viewed as carbon neutral fuel source (EU market example)
- Wood supply must be certified sustainable – this requires third-party certification (Forest Stewardship Council (FSC) or Sustainable Forest Initiative (SFI) certifying bodies)



# FOREST CERTIFICATION PROCESS AND COSTS

## SFI EXAMPLE – SOUTHEAST STATE FOREST

- Dedicated land base with current forest inventory and management plan
- Phase I
  - Review SFI standard including document templates for evidence manual development
  - Third party consultant works with DOF to develop documents and procedures for preparation for an audit
  - Accredited Certification Body conducts third-party audit to the SFI Forest Management Standard
  - Close any gaps in the audit and complete the process
  - \$19,000 plus travel expenses – Partner Program will cover ~ \$9,375 in cost
- Phase II
  - Once certified, there is an ongoing annual audit process and fees to maintain certification
  - \$14,000 plus travel expenses
- Benefits and Risks .... discussion

# ACCESS DEVELOPMENT SUCCESSES AND CHALLENGES

## VALLÉNAR ROAD PROJECT GRAVINA ISLAND

**Third Bridge Placement**



**Hauling Rock on Mainline**





# ACCESS DEVELOPMENT SUCCESSES AND CHALLENGES FORMER DOF ROADS OFFICE (LOST IN BUDGET CUTS)

## Roads Office Within DOF

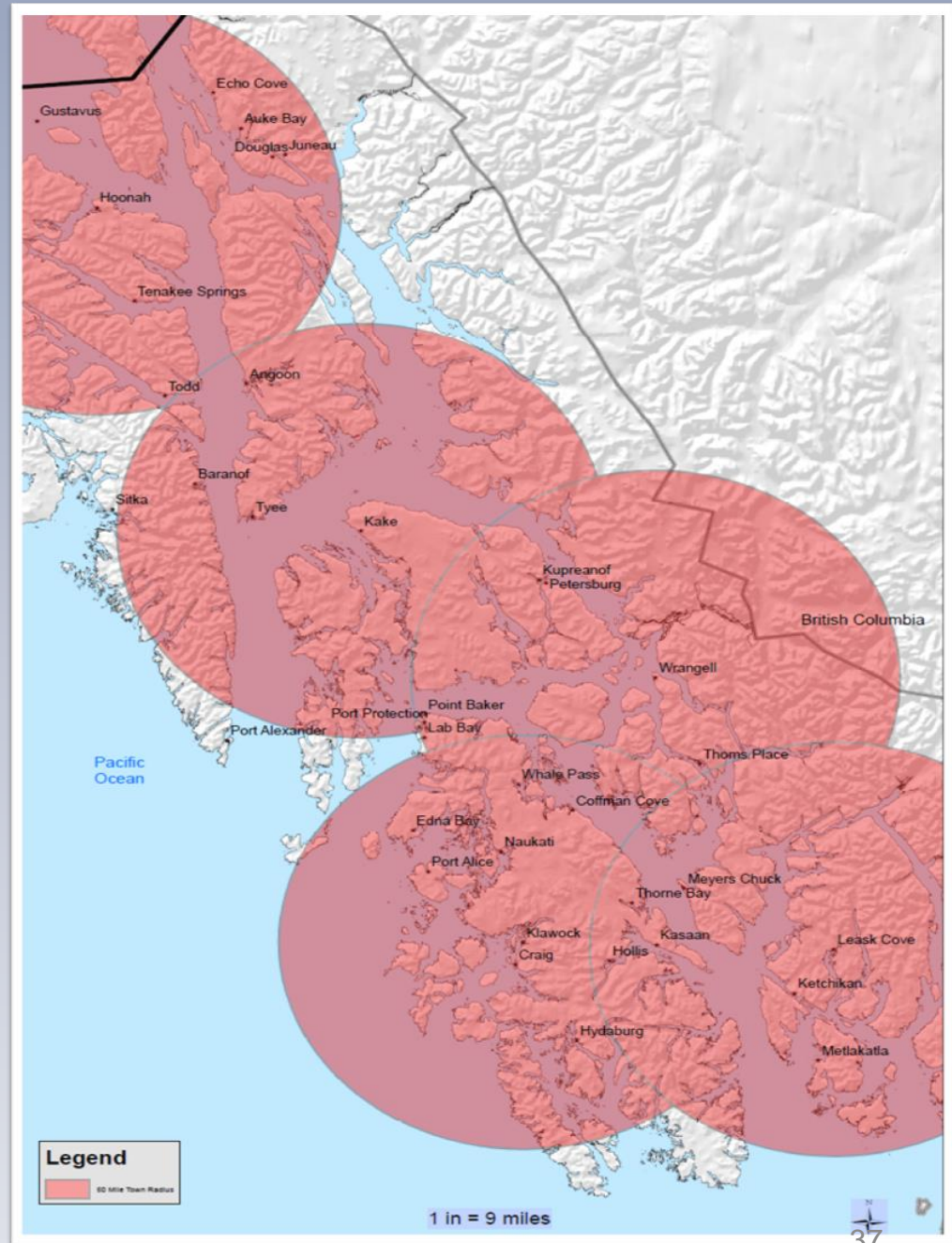
- Projects completed via Reimbursable Service Agreement (RSA) funding from DOT Roads to Resources:
  - Vallenar Road Access \$4.7MM
  - Bostwick Timber Access \$1.5MM
  - Shirley Towne Bridge \$317.0M
  - Willer-Kash Timber Access \$170.0M
  - Southeast Timber Access \$642.5M
    - Haines Bridge Porcupine Ck
    - Hollis Indian Creek

## Indian Creek Bridge



# WORKING CIRCLES INFRASTRUCTURE NEEDS

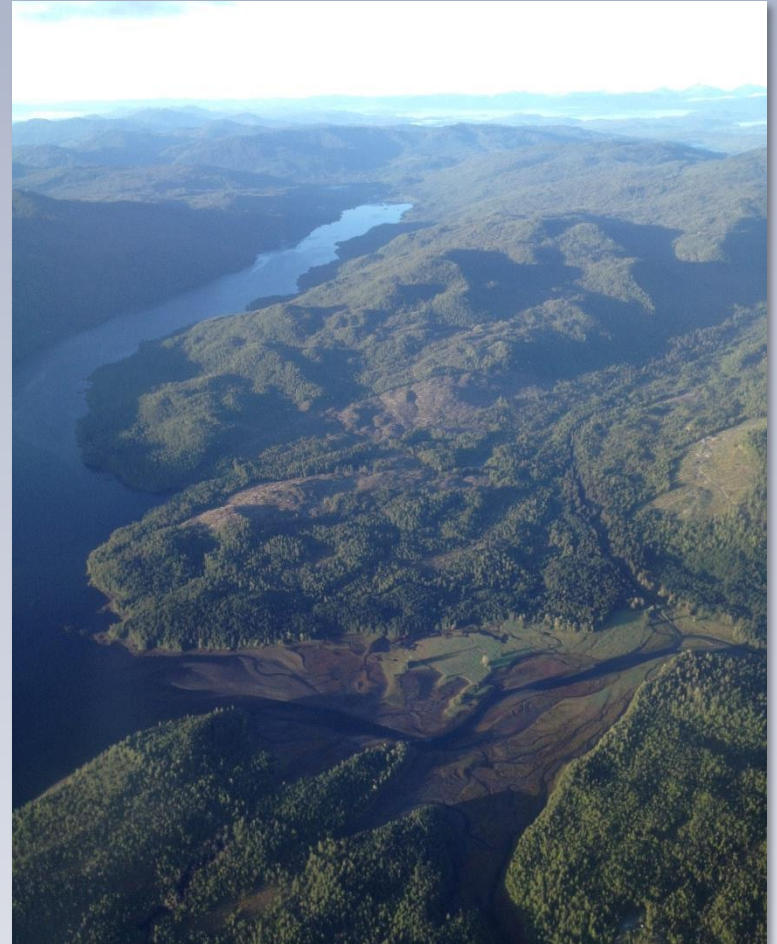
- Log Transfer Facilities (LTFs) in each working circle – serves as an appraisal point for federal timber sales
- Adding LTFs to Southeast State Forest
  - Edna Bay
  - Leask Cove
- Road connections, bridges and other major transportation items





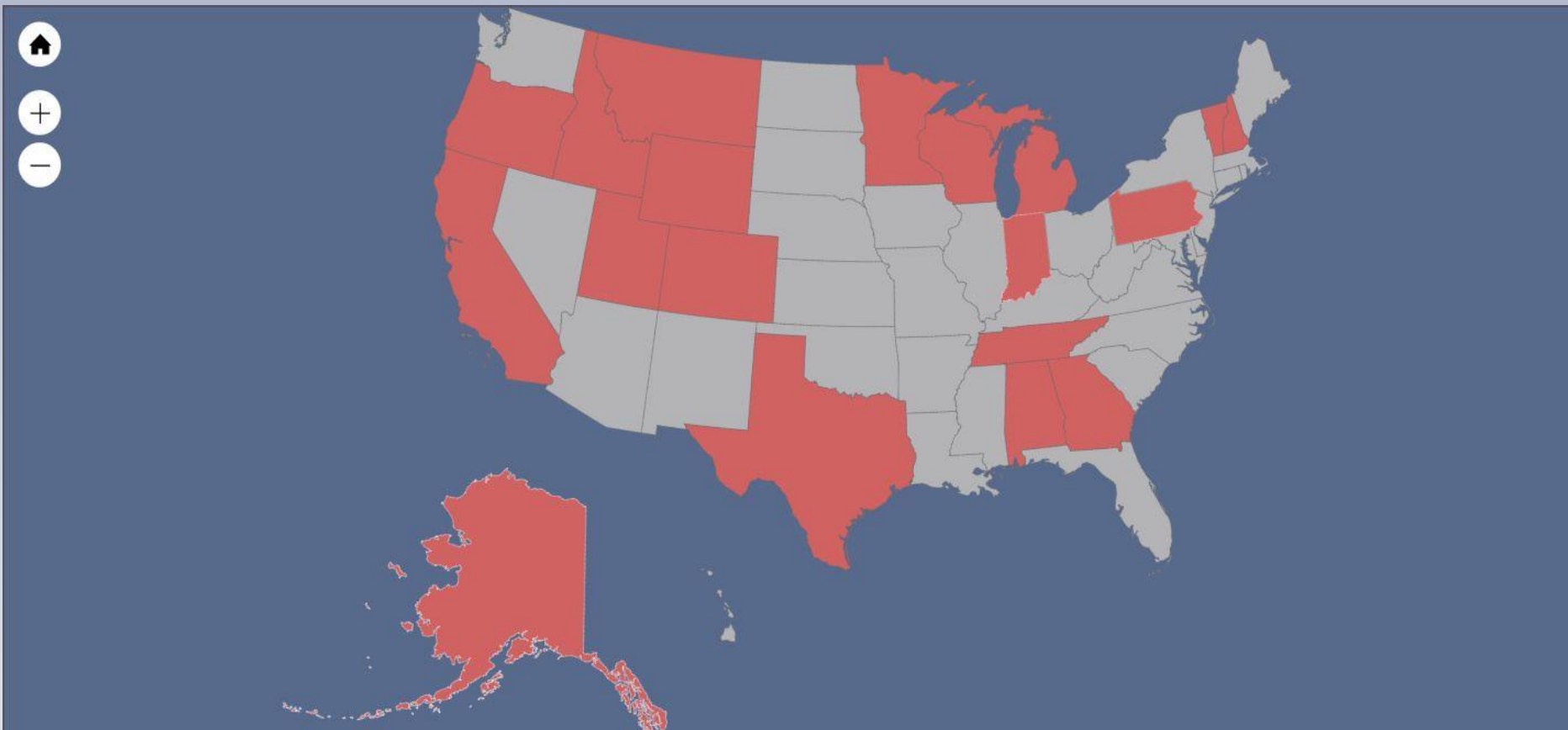
# GOOD NEIGHBOR AUTHORITY (GNA) PROJECTS

- Authorizes the Forest Service or Bureau of Land Management to enter into agreement with state foresters to carry out forest, rangeland, and watershed restoration, management and protection services
- Projects on Forest Service lands may include commercial timber harvesting or other mechanical vegetative treatments



# NATIONWIDE GNA STATUS

As of July 2016 the Forest Service had entered into 23 GNA agreements with 19 states.



# ALASKA'S FIRST GNA SUPPLEMENTAL PROJECT AGREEMENT (SPA)

## - KOSCIUSKO ISLAND -

- State has completed the cruise, appraisal, and administering of the contract
- State sold the 29 MMBF sale for double the appraised value \$2.8MM in September
- Two more SPAs planned in 2018:
  - Gravina Island young growth (YG) Sale
  - Heceta Island Salvage YG Sale
- Questions and Discussion

