

Forest Products Industry Update

Senate Resources Committee



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Alaska Department of Natural Resources
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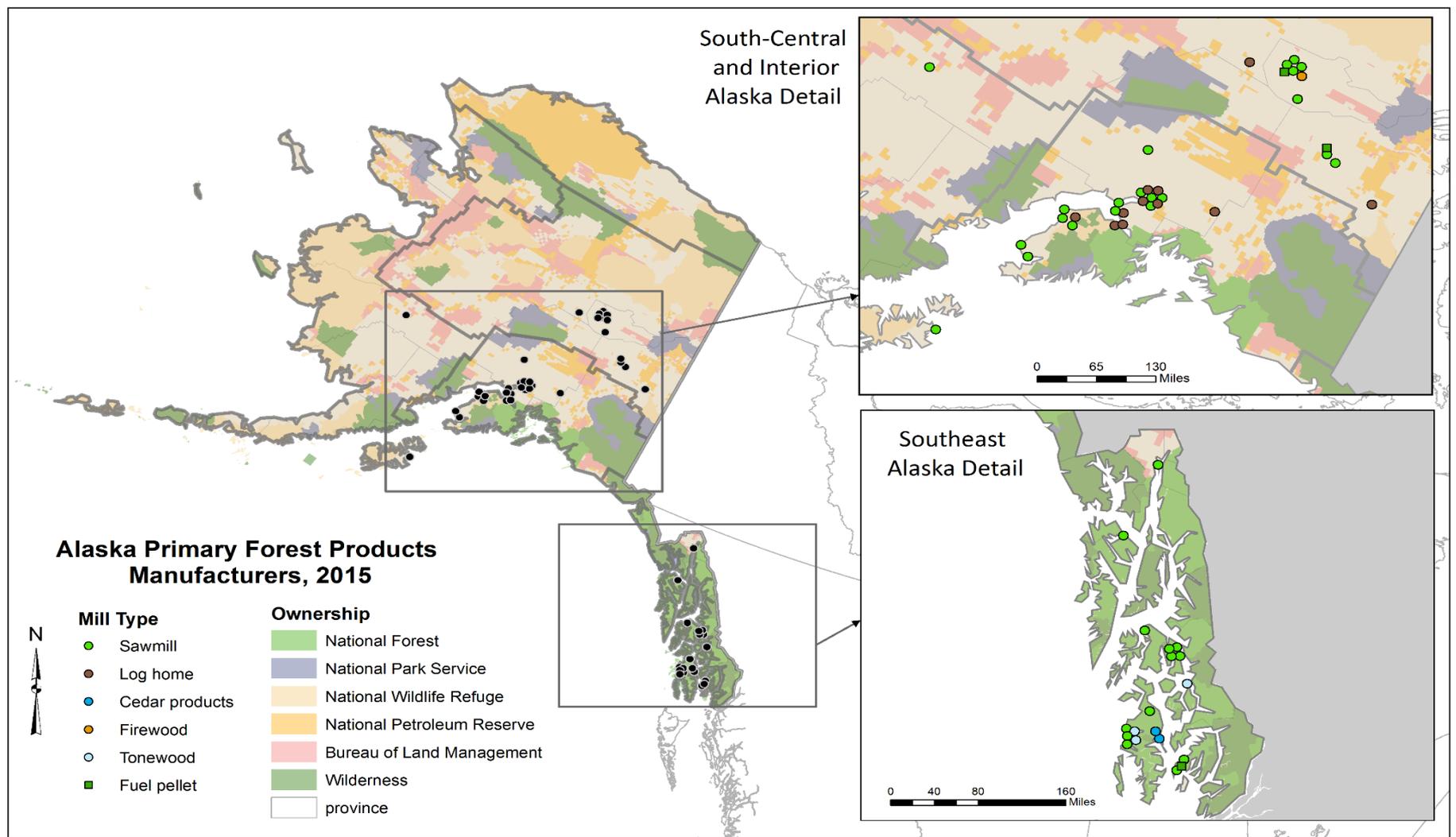


ALASKA'S FOREST PRODUCTS SECTOR

- 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**

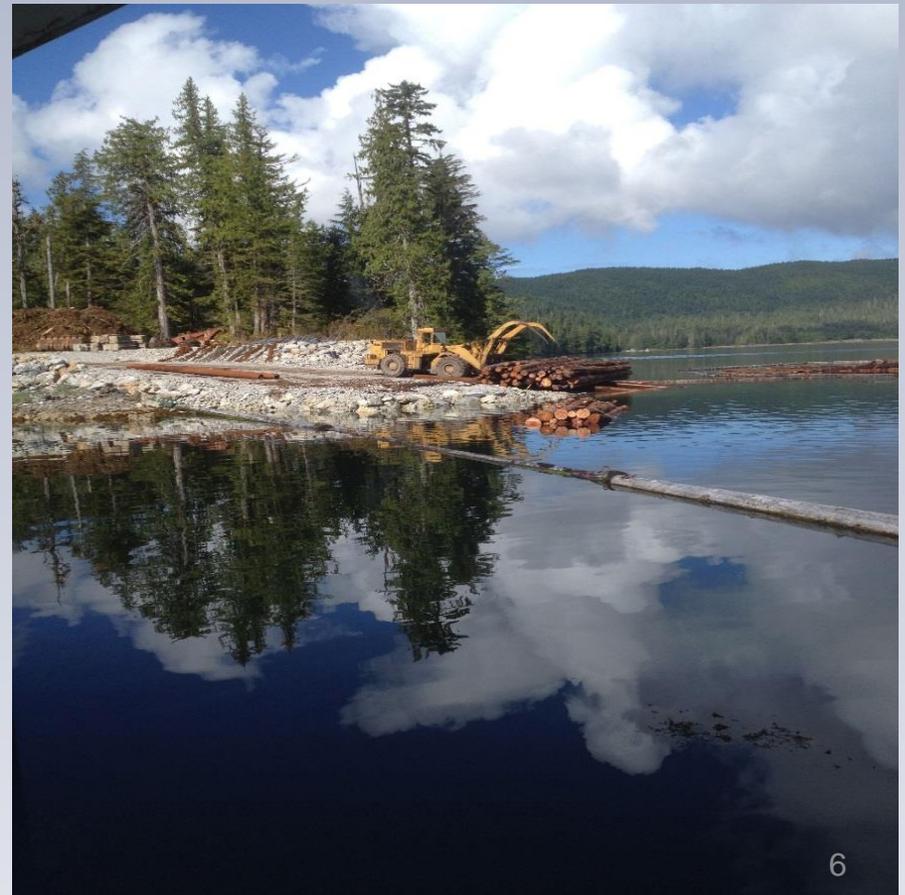


PRIMARY MANUFACTURING LOG EXPORT

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

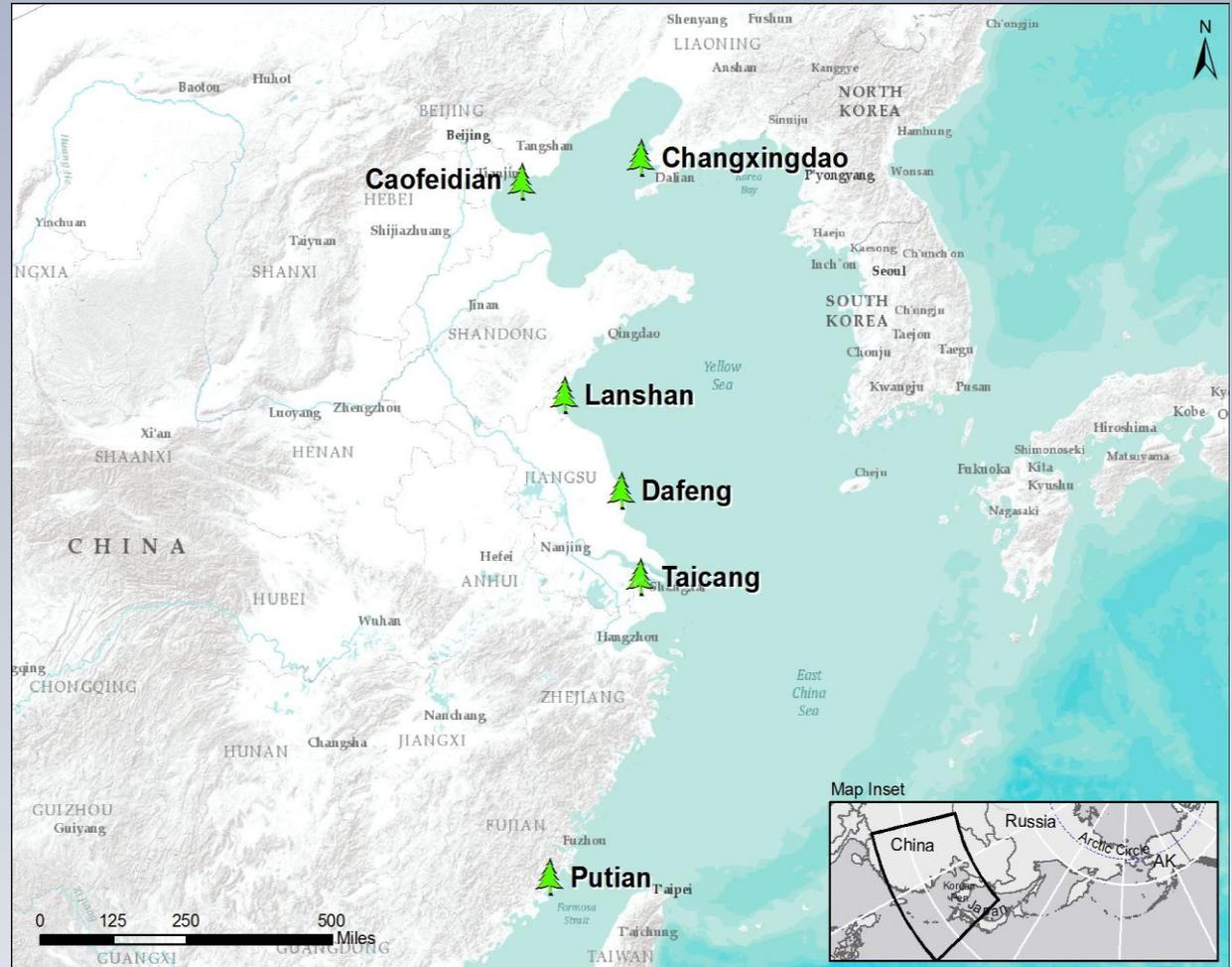


**Edna Bay Log Transfer Facility and
Young Growth Logs**



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

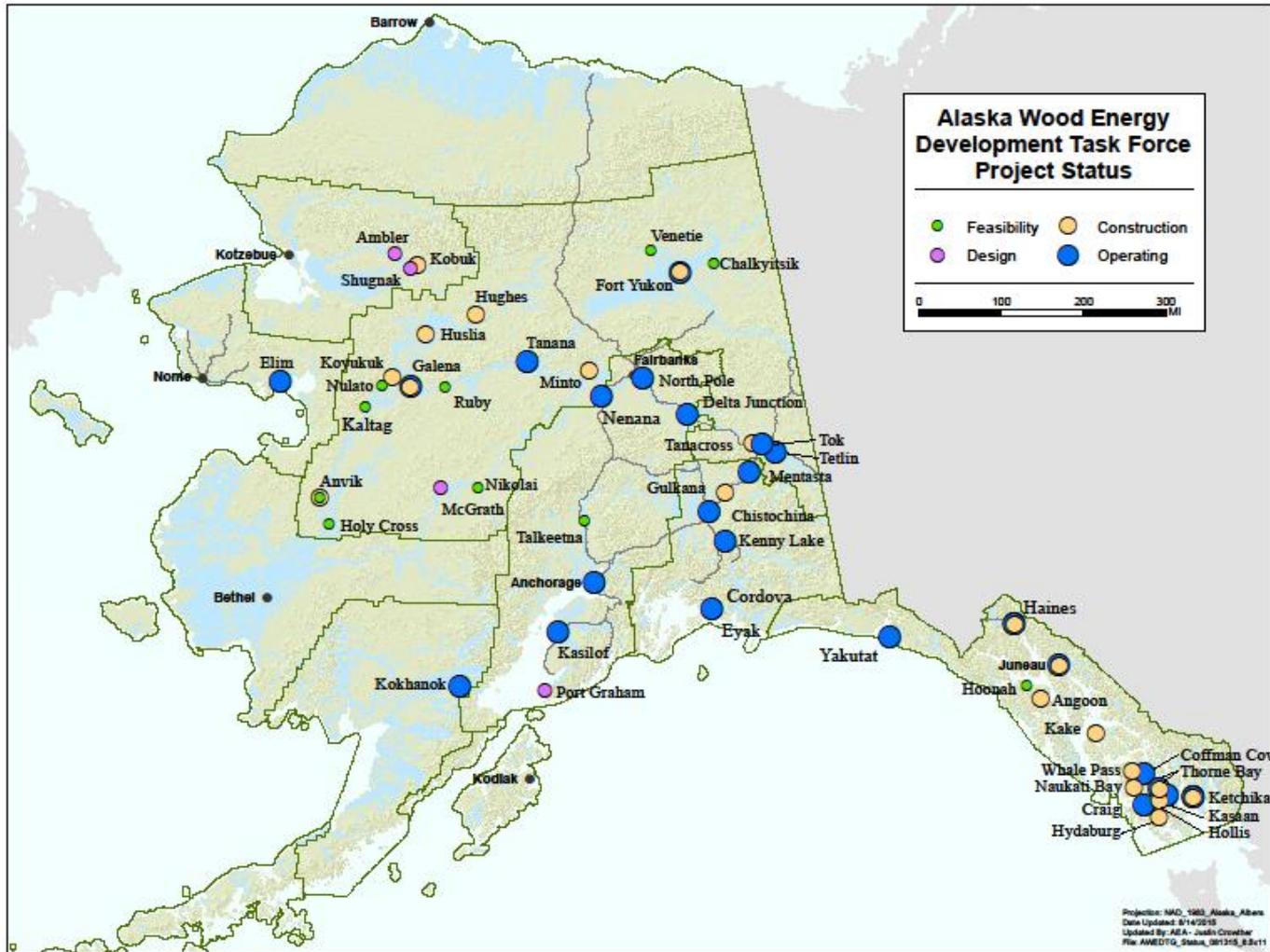
Solid Wood

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

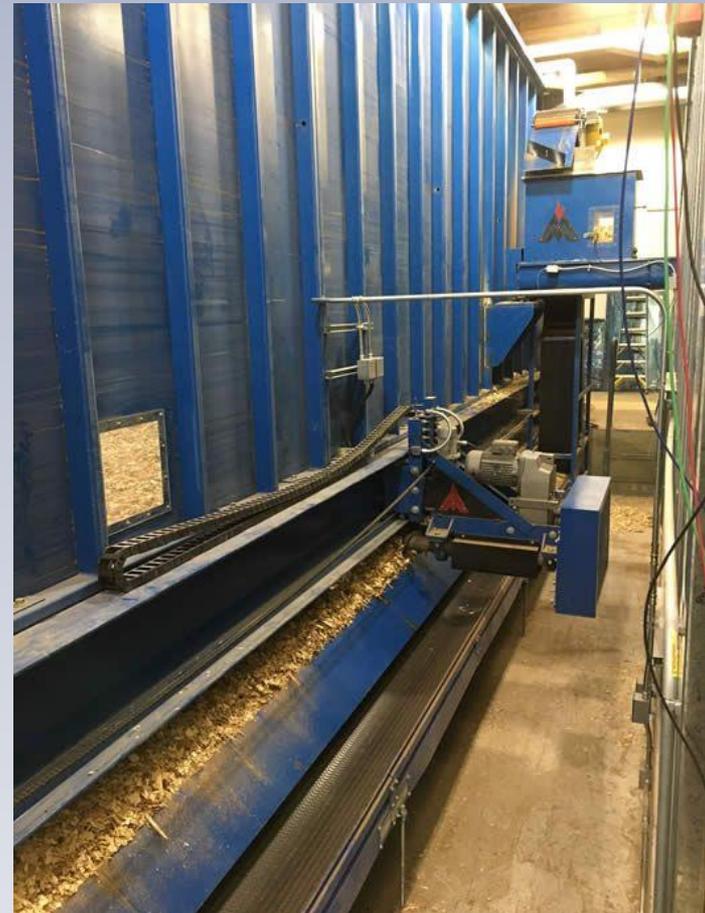


GALENA WOODY BIOMASS HEATING PROJECT

Wood Boiler



Chip Auger and Conveyer to Day Bin and Boiler



GALENA WOODY BIOMASS HEATING PROJECT

Covered Storage for Chips



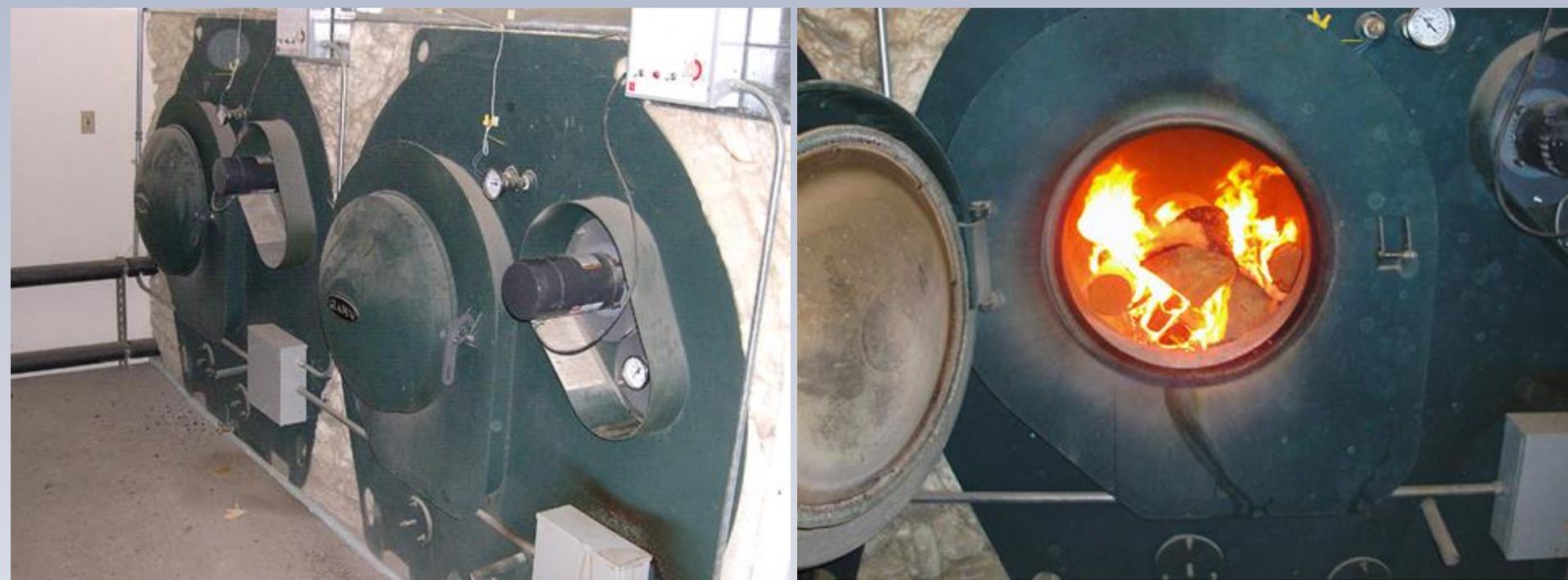
Timber Harvest Operations



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

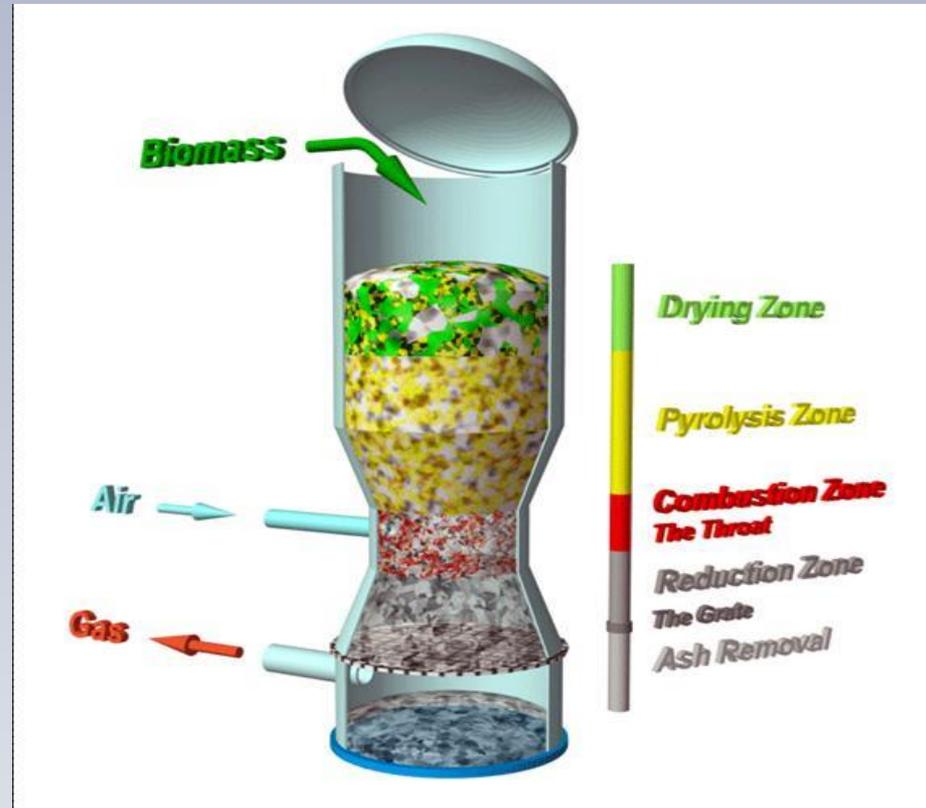


BIOMASS COMBINED HEAT AND POWER

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

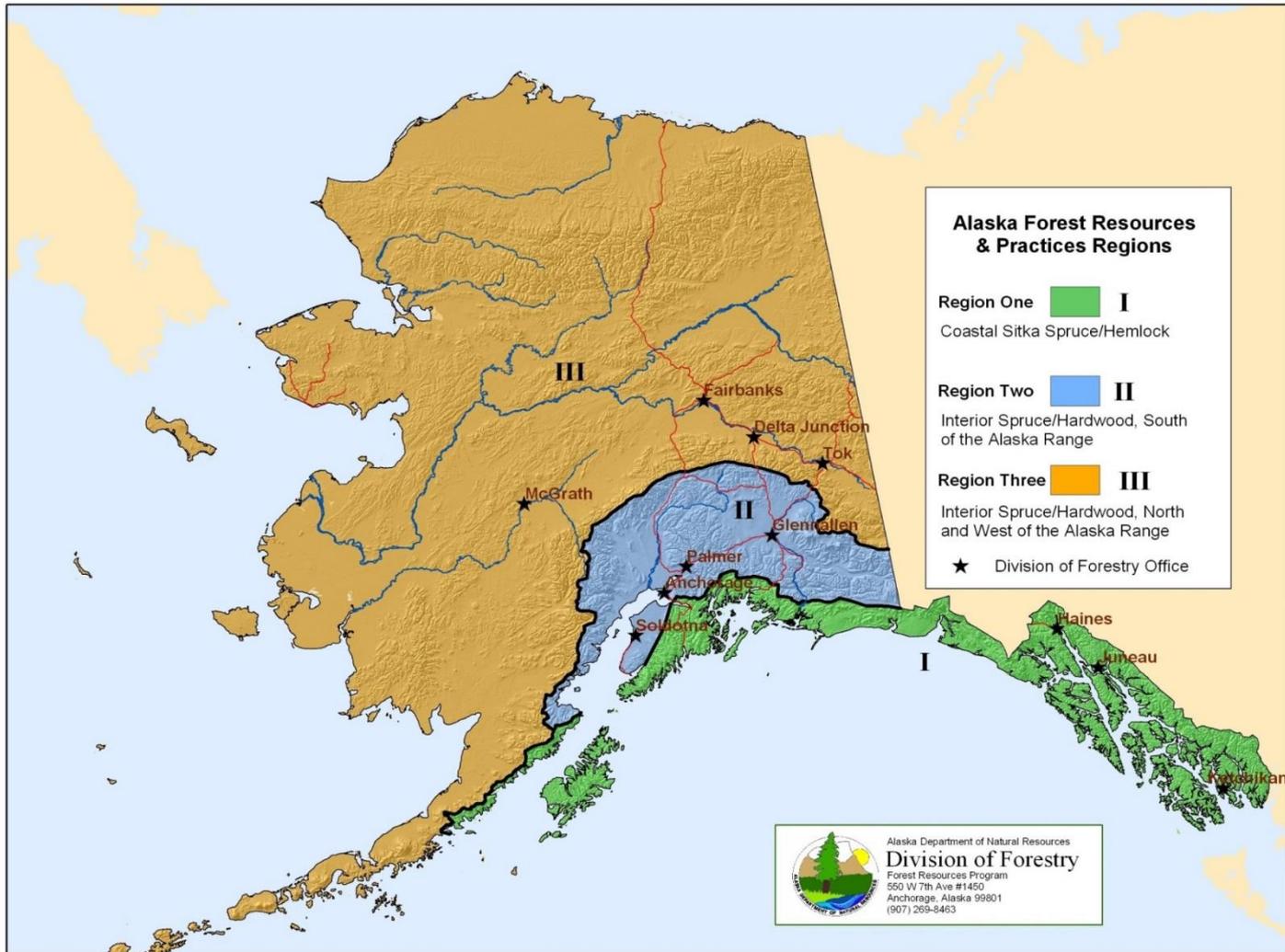


WHAT IS NEEDED TO MAINTAIN OR GROW THE FOREST PRODUCTS SECTOR IN ALASKA

- 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

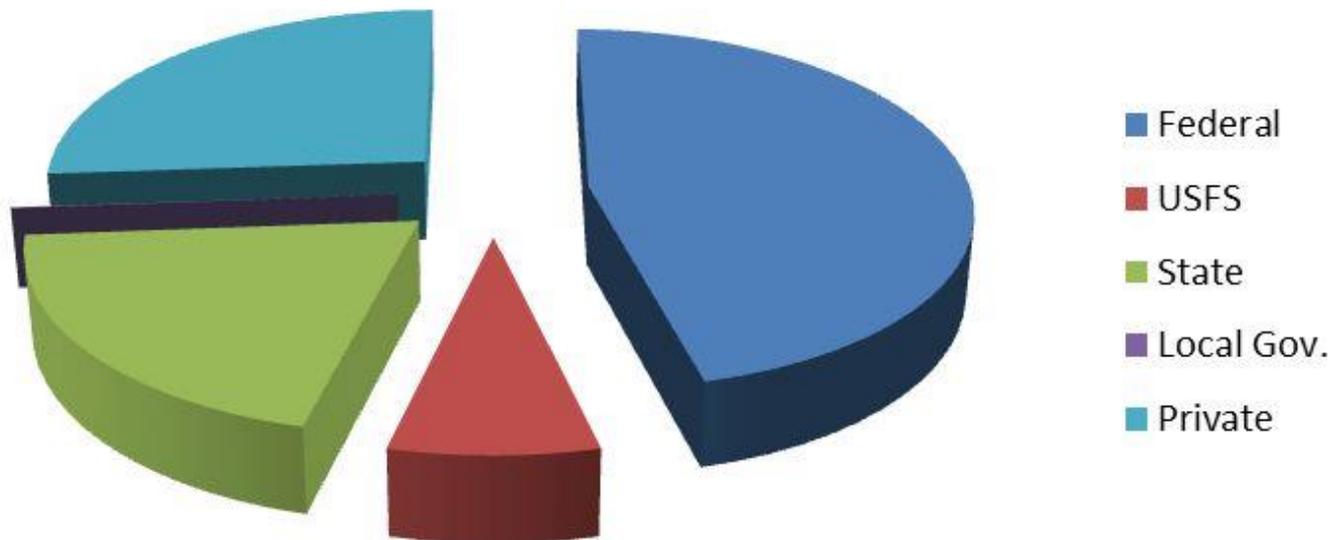
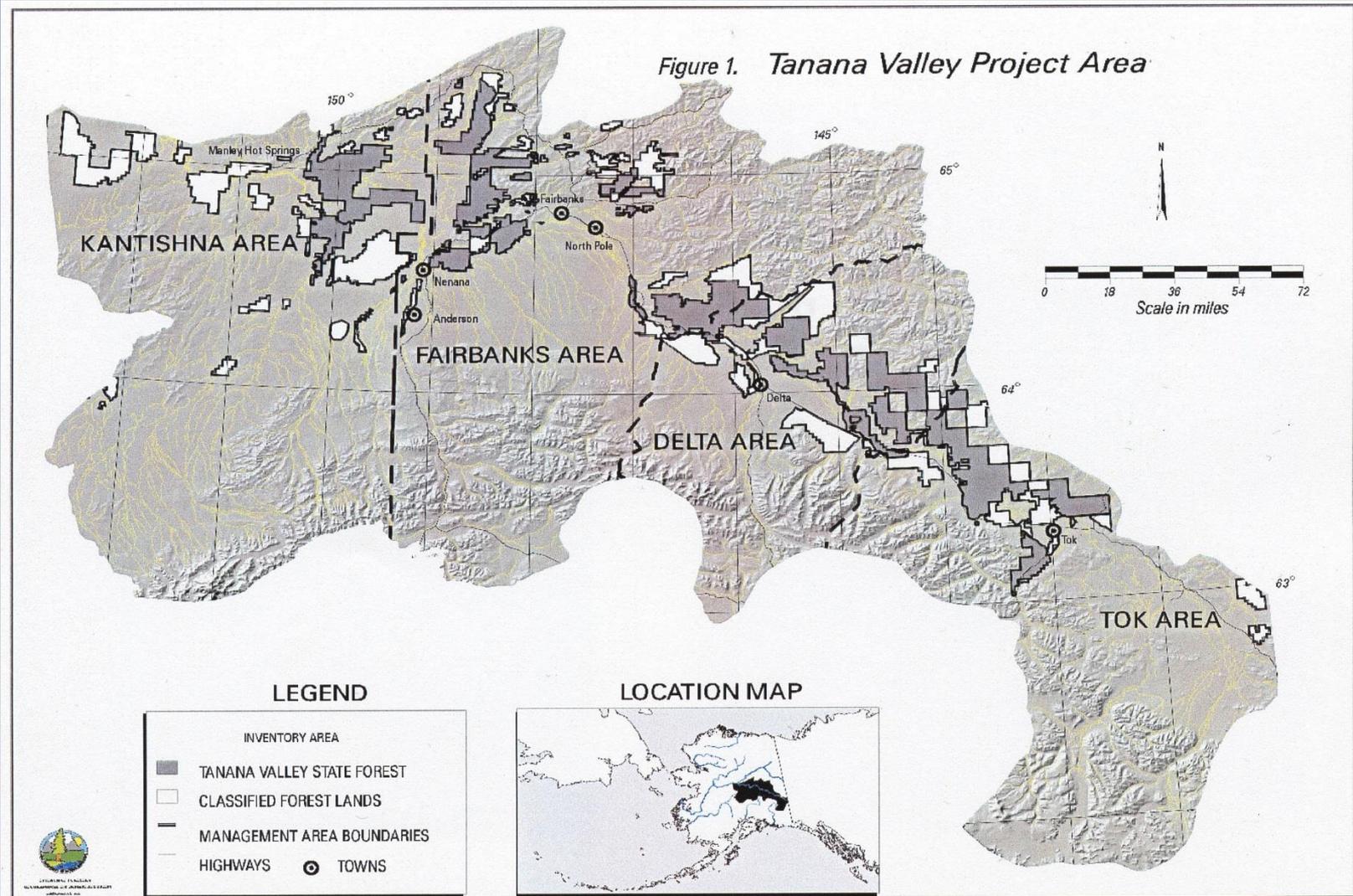


Figure 2 Alaska Forest Land Ownership

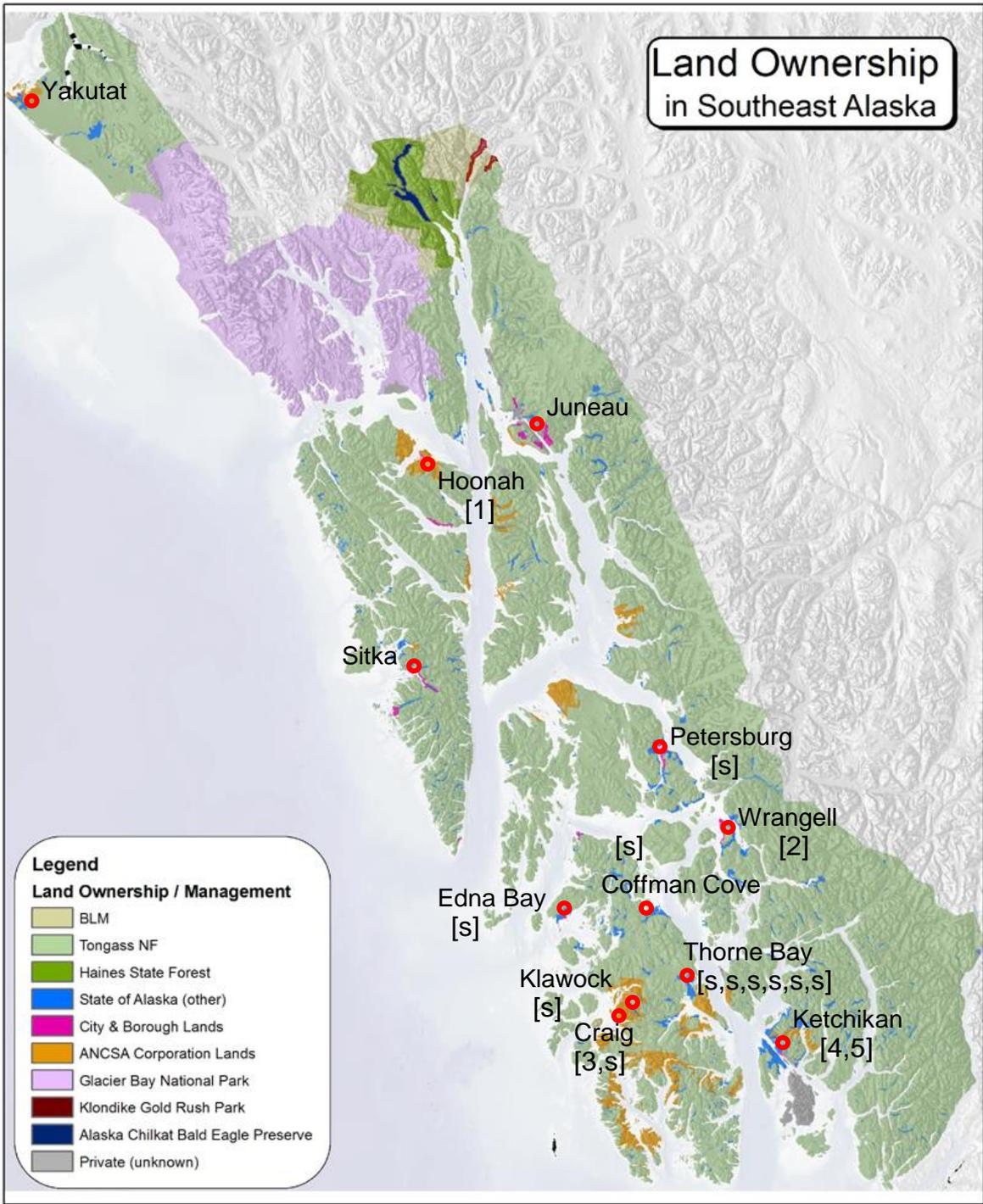
STATE FORESTS AND LAND CLASSIFIED FORESTRY IN DNR AREA PLANS

- 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



Land Ownership in Southeast Alaska



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 CO₂ 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

VALLENAR 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

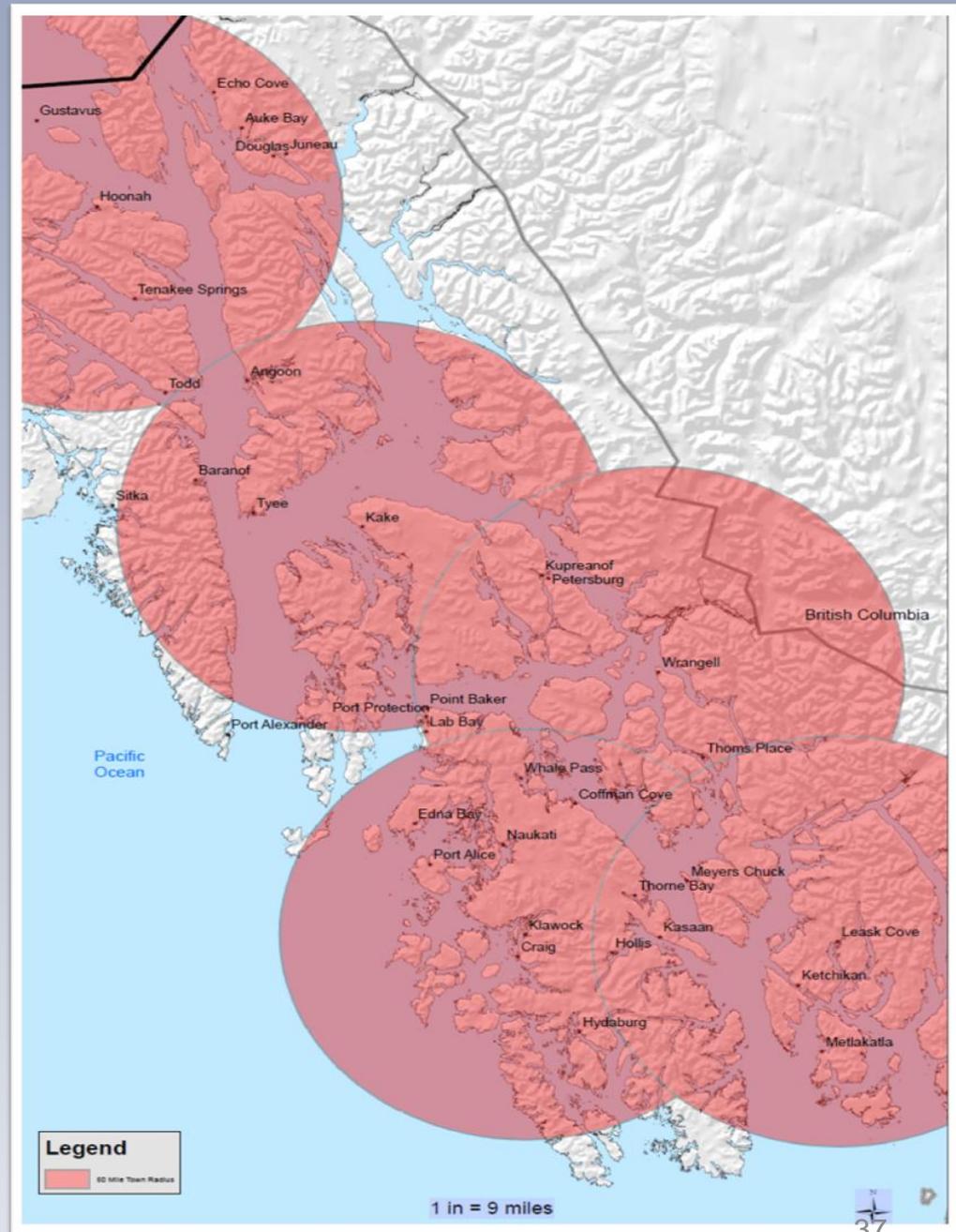
- Projects completed via Reimbursable Service Agreement (RSA) funding from DOT Roads to Resources:
 - Vallenar Road Access \$4.7MM
 - Bostwick Timber Access \$1.5MM
 - Shirley Towne Bridge \$317.0M
 - Willer-Kash Timber Access \$170.0M
 - Southeast Timber Access \$642.5M
 - Haines Bridge Porcupine Ck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

Indian Creek Bridge



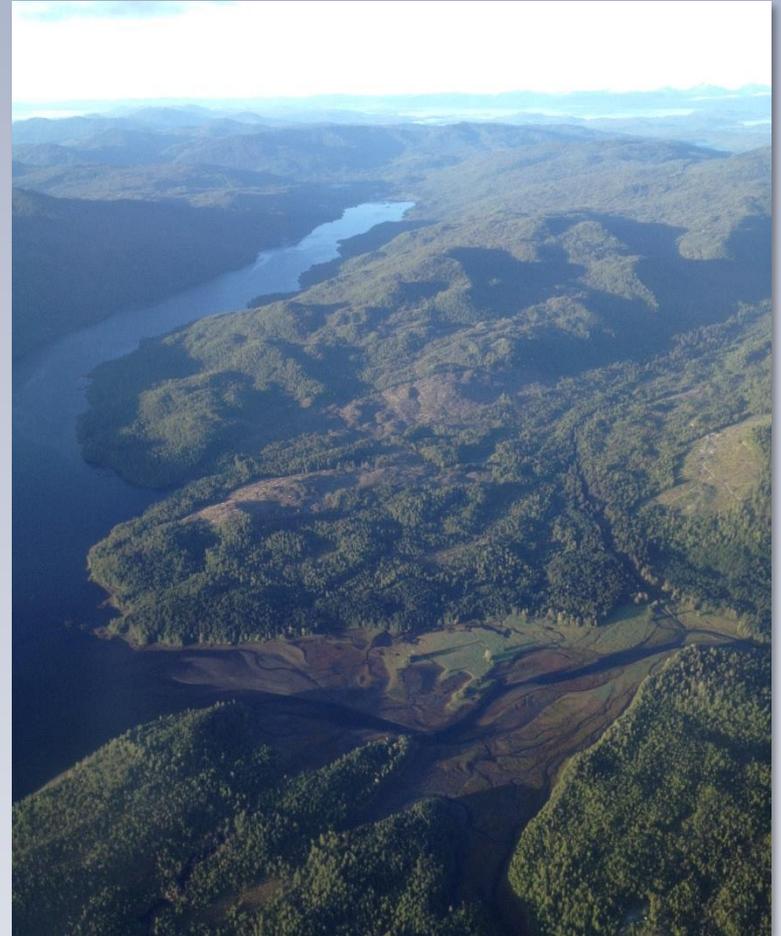
WORKING CIRCLES INFRASTRUCTURE NEEDS

- 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



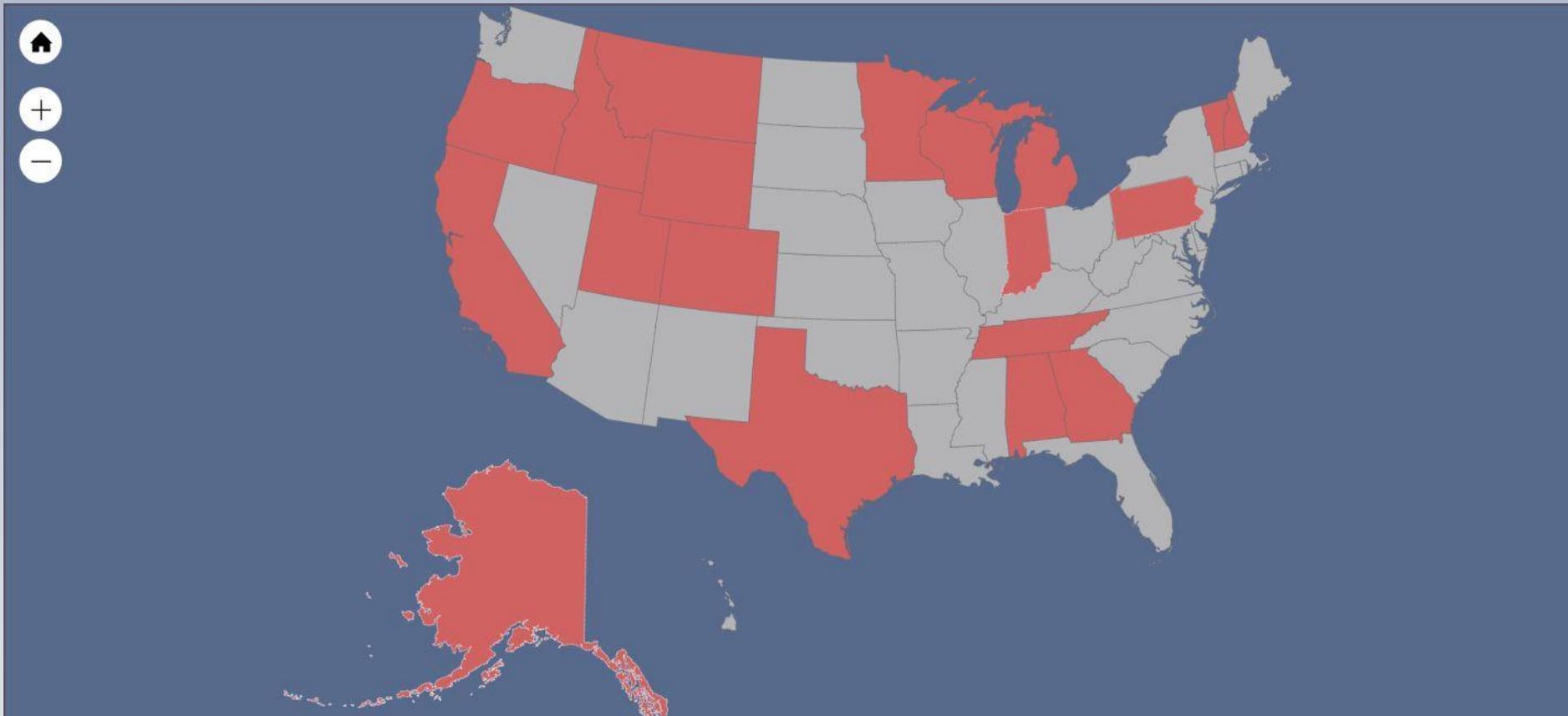
GOOD NEIGHBOR AUTHORITY (GNA) PROJECTS

- 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

