

Statewide Assessment of Forest Resources

Statewide Forest Resource Strategy

NRCS State technical Committee

May 26, 2010



Redesigning

State and Private Forestry





Redesign Components: OVERVIEW



- **National Themes—**
 - Conserve, Protect, Enhance**
- **Statewide Forest Resource Assessment**
- **Statewide Forest Resource Strategy**
- **Competitive funding allocation**
- **Monitoring and Communicating Results**

NATIONAL THEMES

Conserve Working Forest Lands

Protect Forests From Harm

**Enhance Public Benefits from Trees and
Forests**

Enhance Public Benefits from Trees and Forests

- Water quality
- Fish and wildlife habitat
- Forest resource markets
- Urban and community forests
- Air quality and carbon emissions
- Community wildfire protection plans



**Farm Bill Requirement & Redesign Components:
STATE ASSESSMENTS & RESOURCE STRATEGIES**
Final Guidance



October 20, 2008

State-Wide Forest Resource Assessment

- Analysis of forest conditions, trends, threats on all ownerships.
- Identify forest benefits and services.
- Delineate rural and urban forested priority landscapes.

A combination of qualitative,
quantitative, and geospatial data.

Stakeholder / Public Involvement

- State Forest Stewardship Committee
- State Technical Committee
- State wildlife agency
- State Urban Forestry Council
- Federal land management agencies
- Tribes
- Natural resource and related entities

June 18, 2010 deadline.

Phase I: Alaska Statewide Assessment and Preliminary Strategy

Prepared for the

**Alaska Department of Natural Resources,
Alaska Division of Forestry**

September 15, 2009

Prepared by



Northern Economics
880 H Street, Suite 210
Anchorage, Alaska 99501
Phone: (907) 274-5600
Fax: (907) 274-5601

114 W Magnolia Street, Suite 411
Bellingham, WA 98225
Phone: (360) 715-1808
Fax: (360) 715-3588
Email: mail@norecon.com

In association with

**Alaska Map Company, LLC
MCR Consulting, LLC**

Northern Economics, Inc.

- Interviewed 34 stakeholders.
- Identified 11 issue categories.
- Compiled 140 ArcGIS datasets.
- Narrative of issues, trends, conditions.
- Offered preliminary prioritization.

Stakeholders

7 Local Government

11 State Government

10 Federal Government

6 Alaska Native interests

Advisory groups

Forest Stewardship Committee

Urban and Community Forest Council

NRCS State Technical Committee

Alaska Board of Forestry

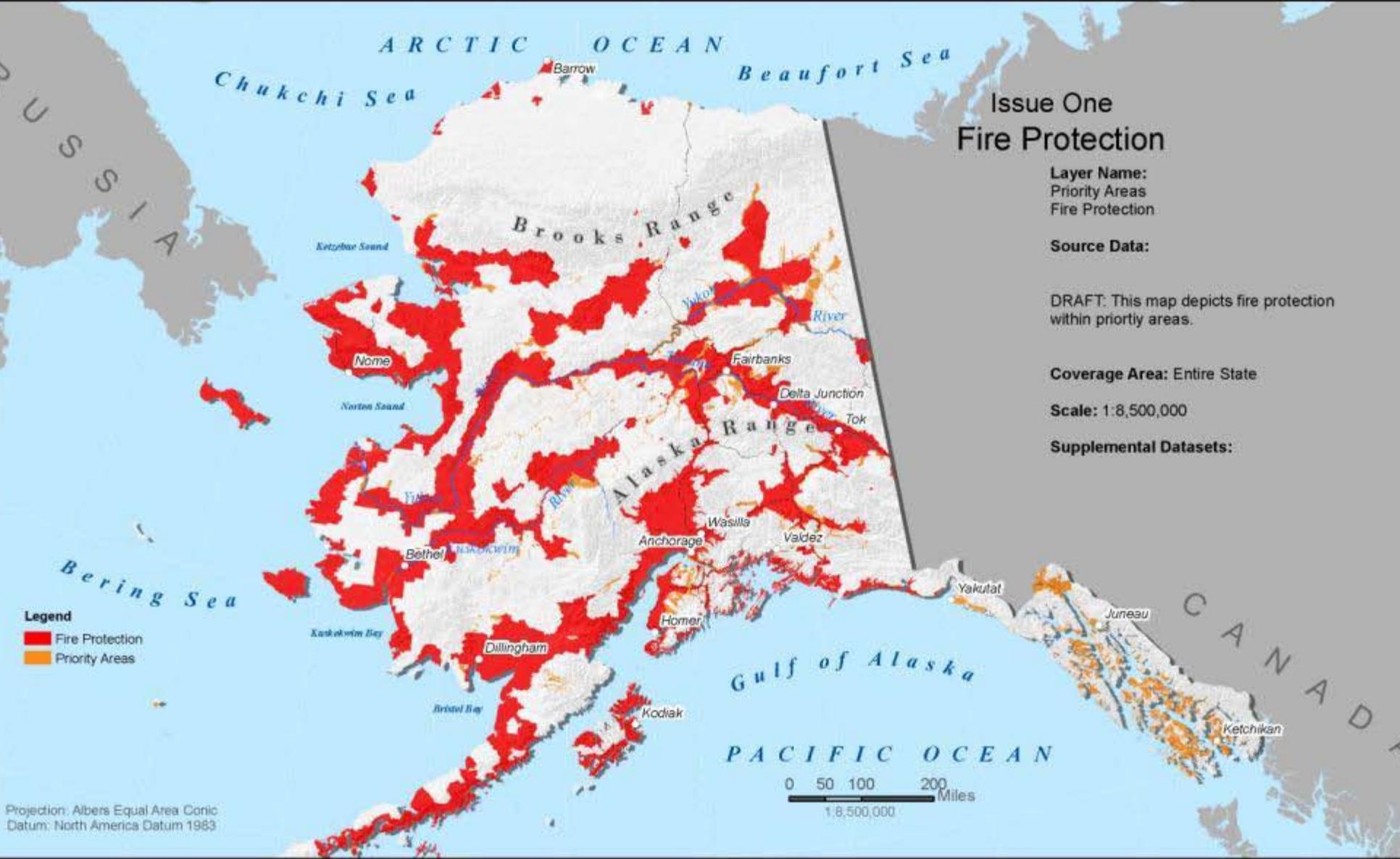
Issue 1: Wildfire

- Longer fire season and increased fire intensity resulting from climate change, “Mega Fires”.
- Expanding Wildland Urban Interface and associated challenges for fire management.
- Difficult fuel types resulting from spruce bark beetle epidemic.

Wildfire data sources:

- Alaska Interagency Fire Management Plan protection levels critical, full, modified.
- Community Wildfire Protection Plans (CWPP).

175°E 180° 175°W 170°W 165°W 160°W 155°W 150°W 145°W 140°W 135°W 130°W 125°W 120°W 115°W 110°



Issue One Fire Protection

Layer Name:
Priority Areas
Fire Protection

Source Data:

DRAFT: This map depicts fire protection within priority areas.

Coverage Area: Entire State

Scale: 1:8,500,000

Supplemental Datasets:

Legend
Fire Protection
Priority Areas

0 50 100 200 Miles
1:8,500,000

Projection: Albers Equal Area Conic
Datum: North America Datum 1983

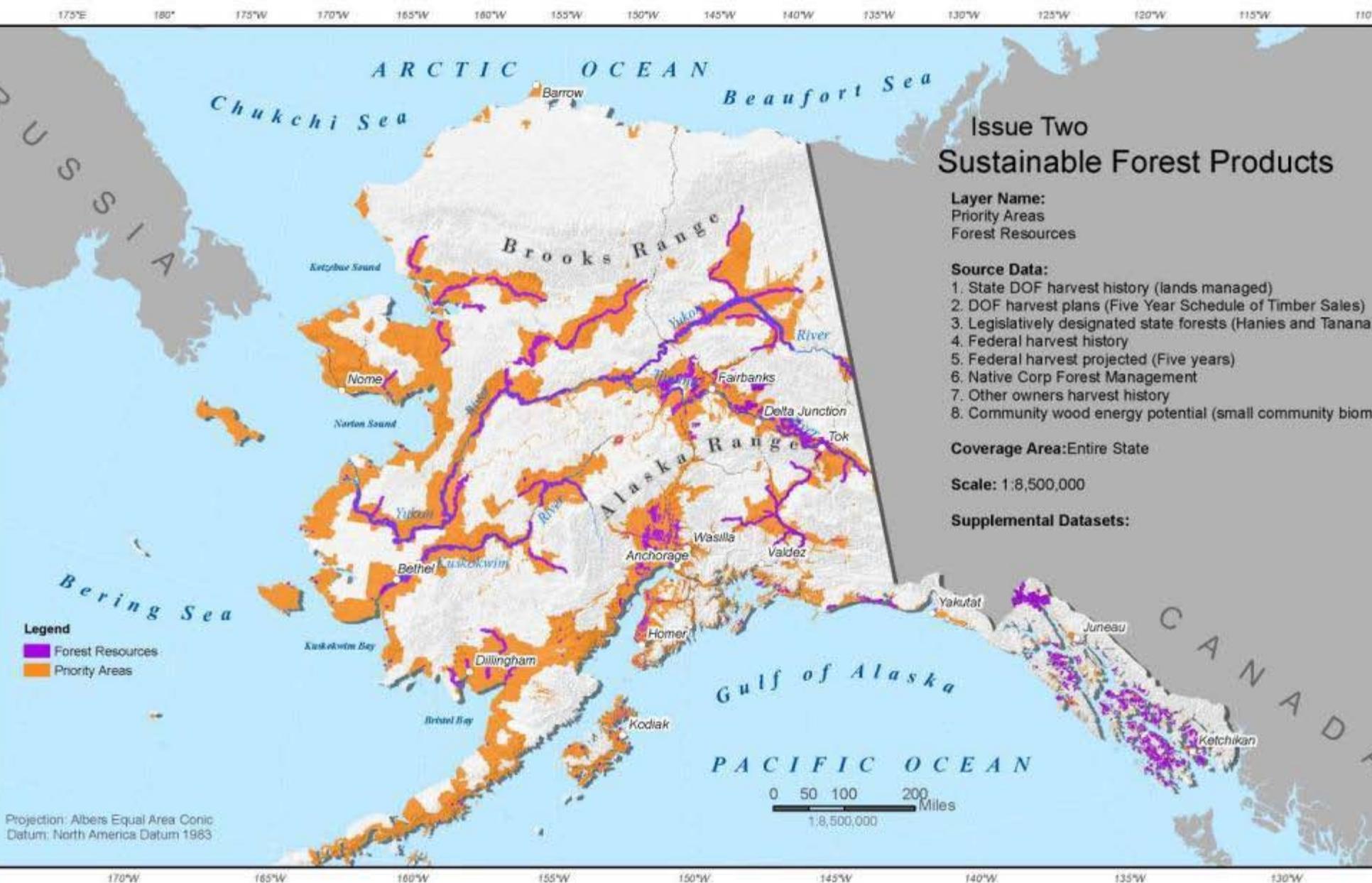
170°W 165°W 160°W 155°W 150°W 145°W 140°W 135°W 130°W

Issue 2: Forest Products

- Declining Timber supply resulting in Loss of industrial capacity and infrastructure to conserve working forest in Southeast Alaska.
- Barriers to effective management of second growth forest.
- Development of biomass energy facilities in rural Alaska.
- Need for dependable and sustainable timber supply to industry.
- Lack of Infrastructure constraining opportunities for public benefits.
- High Costs of Production and barriers to market entry.

Forest products data sources

- State DOF harvest history
- State DOF 5-year harvest plans
- State Forests (Tanana and Haines)
- Federal harvest history
- Federal 5-year harvest plans
- Native Corporation harvest history
- Borough, university,
and individual private harvest history
- Rural community biomass potential



Issue Two Sustainable Forest Products

Layer Name:
Priority Areas
Forest Resources

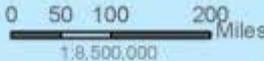
- Source Data:**
1. State DOF harvest history (lands managed)
 2. DOF harvest plans (Five Year Schedule of Timber Sales)
 3. Legislatively designated state forests (Hanley and Tanana)
 4. Federal harvest history
 5. Federal harvest projected (Five years)
 6. Native Corp Forest Management
 7. Other owners harvest history
 8. Community wood energy potential (small community biomass)

Coverage Area: Entire State

Scale: 1:8,500,000

Supplemental Datasets:

Legend
■ Forest Resources
■ Priority Areas



Projection: Albers Equal Area Conic
 Datum: North America Datum 1983

175°E 180° 175°W 170°W 165°W 160°W 155°W 150°W 145°W 140°W 135°W 130°W 125°W 120°W 115°W 110°

170°W 165°W 160°W 155°W 150°W 145°W 140°W 135°W 130°W

Issue 3: Forest Health

- Providing effective early detection and response to invasive forest pests.
- Mitigating impacts of damaging pest species (insects, pathogens, and plants).
- Adapting management to changing climate with uncertain and varying scenarios.

Forest health data sources

- 1980 to 2009 aerial detection surveys
- USFS forest health risk map
- USFS invasive beetle potential map

175°E 180° 175°W 170°W 165°W 160°W 155°W 150°W 145°W 140°W 135°W 130°W 125°W 120°W 115°W 110°

Issue Three Forest Health Protection

Layer Name:
Priority Areas
Forest Health

Source Data:

1. 1980-2009 Cooperative Aerial Detection Survey (USFS and AKDOF) forest pest activity mapping of Alaska's forests.
2. USFS Forest Health Monitoring Program, National Insect and Disease Forest Health Risk Map (NIDRM) for Alaska-2006 update NDIRM 2012 in progress (forest at risk to economic pests 15 year projection).
3. USFS, FHM/Forest Health Technology Enterprise Team, Non-native Invasive Bark Beetle (*Ips typographus*) Introduction Potential (based on hierarchical prioritization and modeling of specific risk factors-2007 dataset).

Coverage Area: Entire State

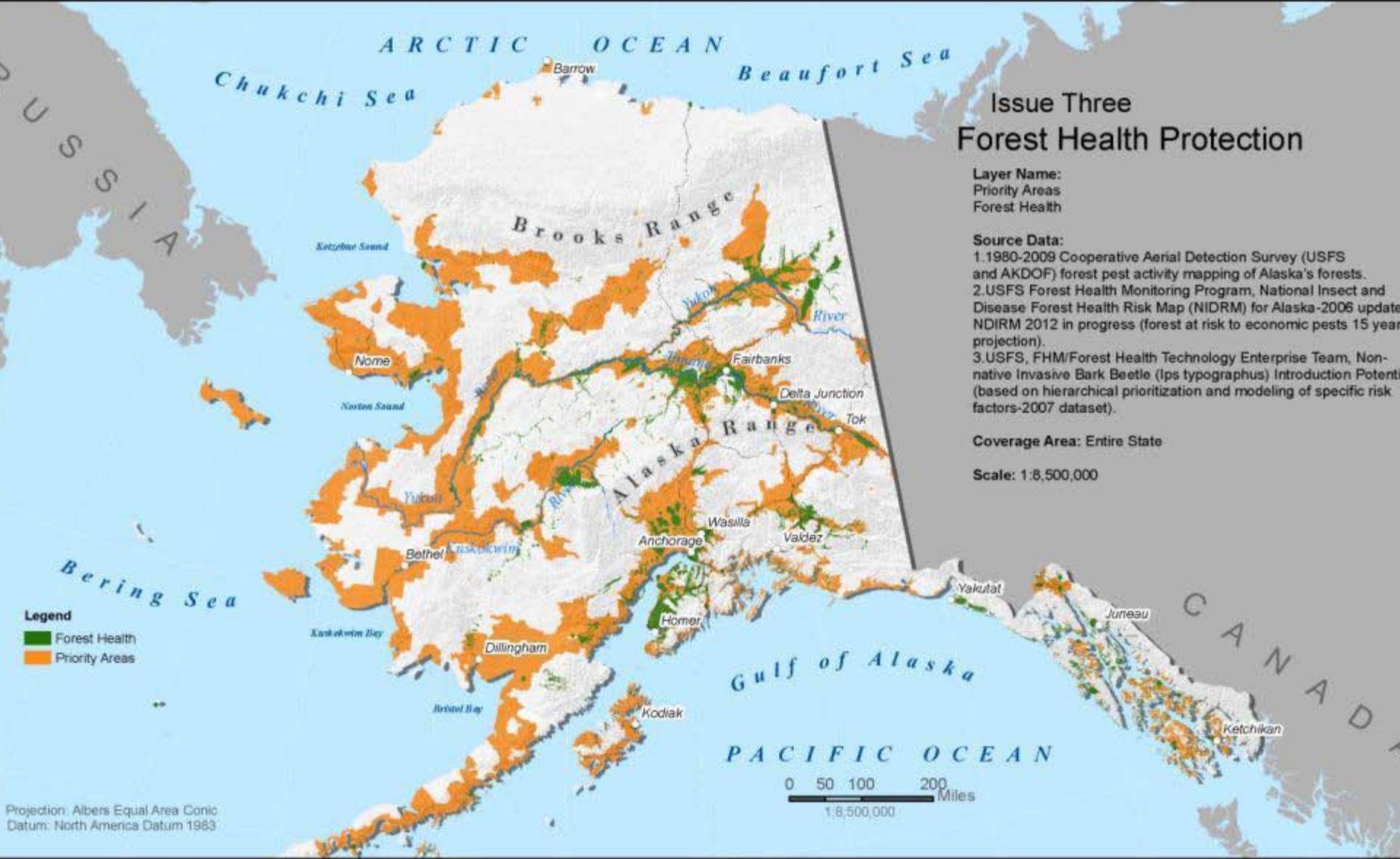
Scale: 1:8,500,000

Legend
■ Forest Health
■ Priority Areas



Projection: Albers Equal Area Conic
Datum: North America Datum 1983

170°W 165°W 160°W 155°W 150°W 145°W 140°W 135°W 130°W



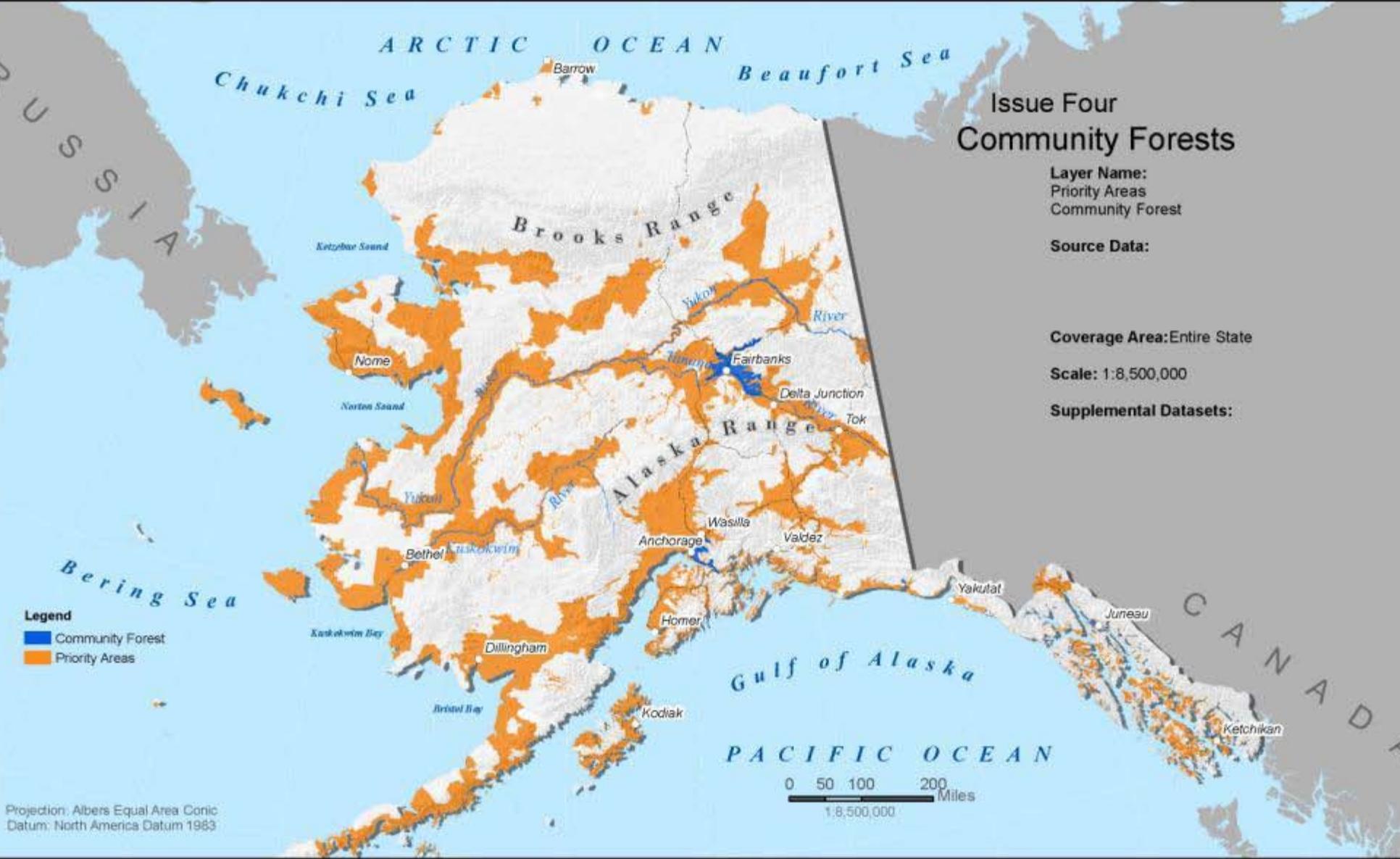
Issue 4: Community Benefits from Forests and Trees

- Need for urban and community forests management plans.
- Land Transfers, Forest Conversion, and Demographic Changes.
- Increasing demands for fire wood for home heating.

Community forests data sources

- Southeast Alaska communities with current or developing management plans.
- Major cities of Anchorage and Fairbanks and two miles from all public roads.
- All other communities within 10 miles of forest cover.

175°E 180° 175°W 170°W 165°W 160°W 155°W 150°W 145°W 140°W 135°W 130°W 125°W 120°W 115°W 110°



Issue Four Community Forests

Layer Name:
Priority Areas
Community Forest

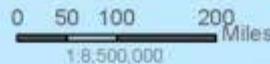
Source Data:

Coverage Area: Entire State

Scale: 1:8,500,000

Supplemental Datasets:

- Legend**
- Community Forest
 - Priority Areas



Projection: Albers Equal Area Conic
Datum: North America Datum 1983

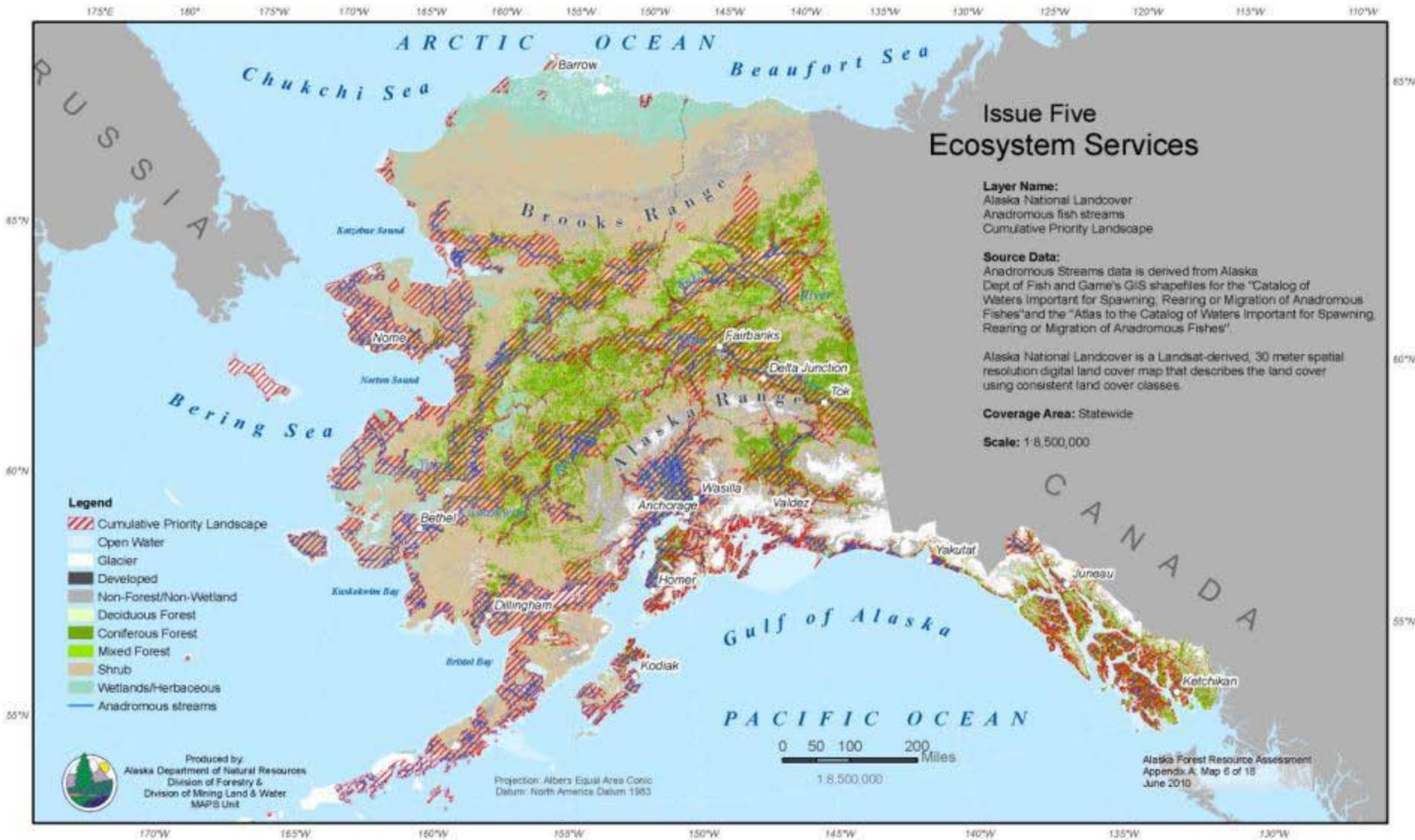
170°W 165°W 160°W 155°W 150°W 145°W 140°W 135°W 130°W

Issue 5: Ecosystem Services

- Maintain Best Management Practices on all ownerships through administration of the Forest Resources and Practices Act.
- Barriers to cost effective habitat management for subsistence.
- Recreation, tourism , fish and wildlife, water quality.

Ecosystem Services data source

- Catalogued anadromous streams for 2009 obtained from Alaska Department of Fish and Game.



Issue 6: Cross Cutting Issues

1. Maintaining and increasing public support of forest management (social license).
2. Need for better data and information (imagery, forest inventory, bibliographies, database to aid fire suppression).
3. Maintaining management capacity for fire and resource management (employee recruitment and retention, contractual costs, uncertain future funding, demands on fire personnel, rural village corporation planning).
4. Unique Alaska Challenges (rural training and assistance, fire suppression, vast and dynamic landscapes, access limitations).



Alaska Forest Resource Assessment Priority Landscape 2010

Layer Name:
Priority Landscape

Source Data:
Cumulative compilation of Priority Areas for four issues:
See detail of source data for Fire Protection, Sustainable
Forest Products, Forest Health Protection, Community
Benefits from Forests.

Coverage Area: Entire State

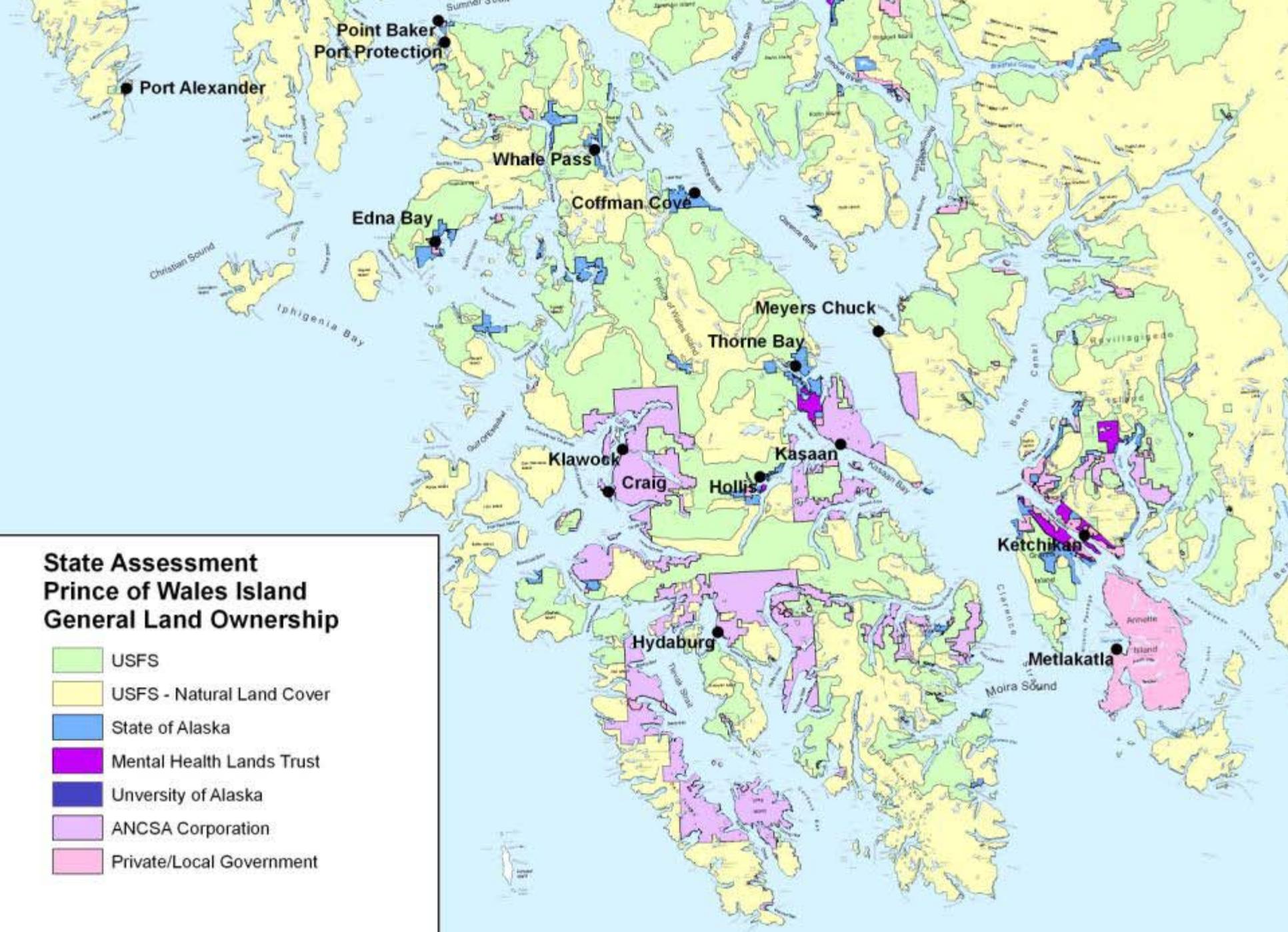
Scale: 1:8,500,000

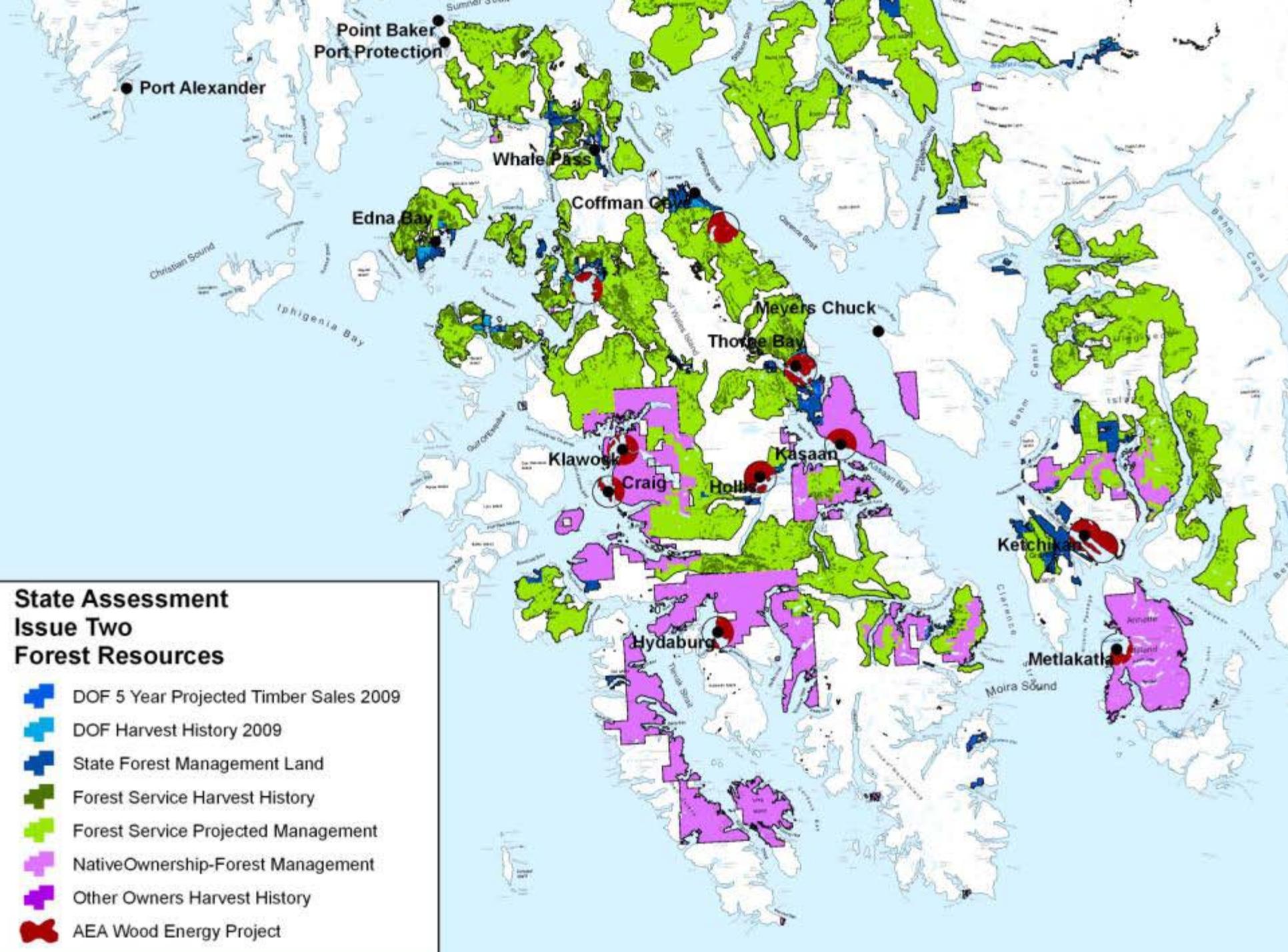
Produced by:
Alaska Department of Natural Resources
Division of Forestry &
Division of Mining Land & Water
MAPS Unit

Projection: Albers Equal Area Conic
Datum: North America Datum 1983

PACIFIC OCEAN
0 50 100 200 Miles
1:8,500,000

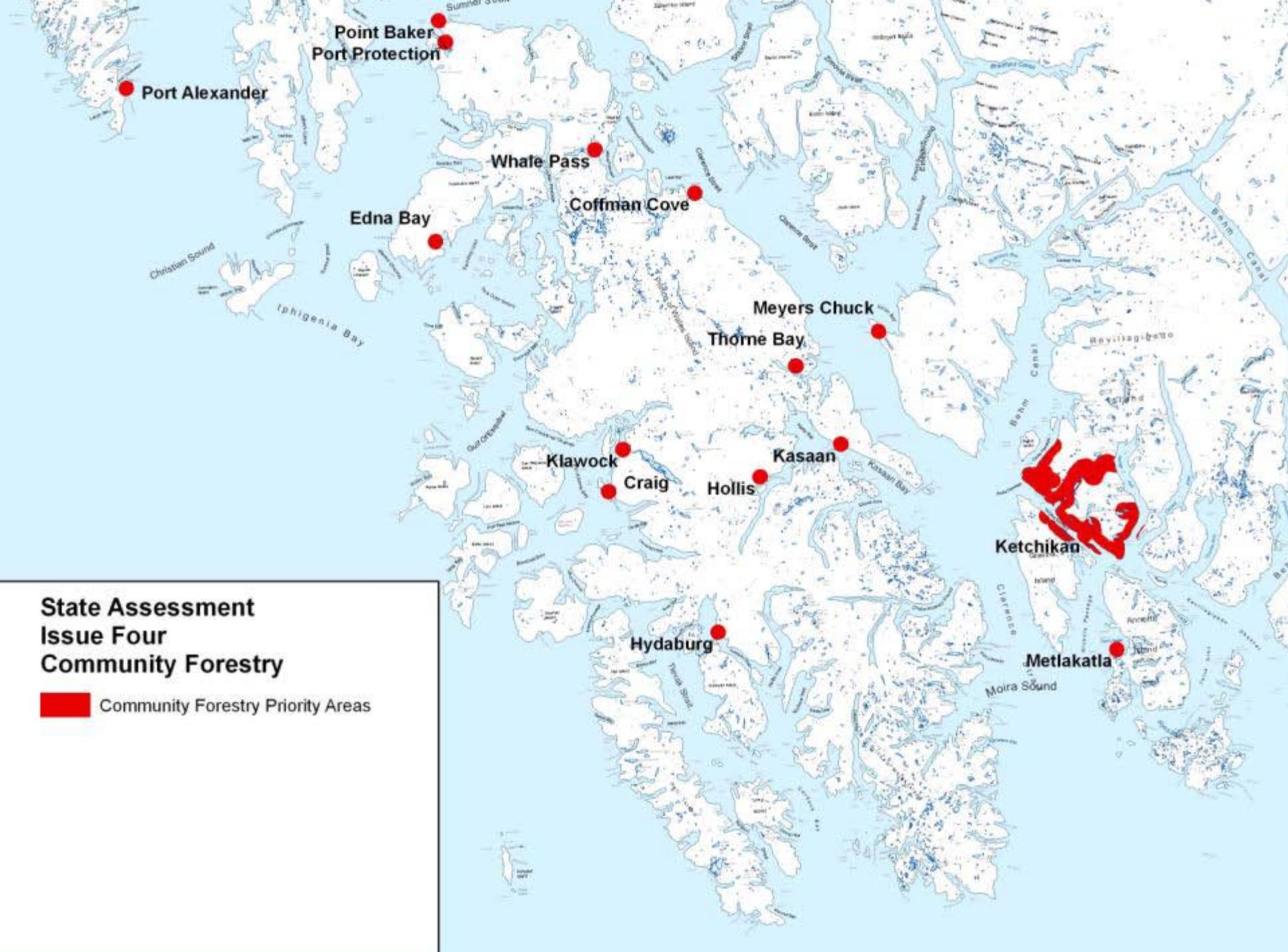
Alaska Forest Resource Assessment
Appendix A: Map 1 of 18
June 2010





**State Assessment
Issue Two
Forest Resources**

-  DOF 5 Year Projected Timber Sales 2009
-  DOF Harvest History 2009
-  State Forest Management Land
-  Forest Service Harvest History
-  Forest Service Projected Management
-  NativeOwnership-Forest Management
-  Other Owners Harvest History
-  AEA Wood Energy Project



**State Assessment
Issue Four
Community Forestry**

 Community Forestry Priority Areas

Alaska Forest Resource Assessment

Table of Contents

Executive Summary.....	4
Introduction.....	7
Alaska Land History.....	7
Forest Regions.....	8
Land Ownership.....	10
Population Demographics.....	17
Economy.....	19
Forest Conditions, Threats, Benefits, and Trends.....	20
Climate Change.....	21
Wildfire.....	23
Forest Products Industry.....	35
Forest Health Conditions.....	44
Urban and Community Forests.....	59
Wildlife.....	68
Non-Timber Forest Products and Ecosystem Services.....	69
Tourism and Recreation.....	70
Forest Conservation.....	72
Forest Issues.....	73
GIS Modeling and Priority Landscapes.....	75
Conclusion.....	79
List of Figures.....	80
Appendix A ~ GIS Maps.....	83
Appendix B ~ Stakeholder Process Summary.....	84
Northern Economics Interviews.....	84
Forest Stewardship Committee.....	85
Alaska Community Forest Council.....	86
NRCS state Technical Committee.....	86
The Alaska Board of Forestry.....	86
Citations.....	87

Statewide Forest Resource Strategy

National Guidance:

A strategy for investing state, federal, and leveraged partner resources for management and landscape priorities identified in the assessment.

**Alaska Division of Forestry
Statewide Forest Resource Strategy
2010 to 2015**

Table of Contents

Executive Summary

Introduction

Programs

1. Wildfire and Public Safety
2. Forest Resource and Practices Act
3. State Forest Resource Management
4. Federal Economic Timber Initiative
5. Forest Health Protection
6. Urban and Community Forestry
7. Conservation Education
8. Forest Stewardship
9. Forest Legacy

Matrix—Issues, Goals, and Strategies Identified with Programmatic Resources Required, Partners, and National Themes Supported

State-Wide Forest Resource Strategy

Issues: 6

Goals: 20

Strategies: 64

Issue 2: Maintaining and Expanding Sustainable Output of Forest Products.

Goal 1. Maintain timber supply to support industrial capacity and infrastructure to conserve working forest in Southeast Alaska.

Strategy 1. Engage the public and stakeholders regarding state forests in southeast Alaska.

Strategy 2. Assist the Tongass National Forest in timber sale planning and layout

Goal 2. Provide for effective management of second growth forest, including roads.

Strategy 1. Provide financial and technical assistance to Alaska Native Corporations for forest planning.

Strategy 2. Work with Federal partners for cost-share funding to private landowners.

Strategy 3. Develop cost effective management plans for second growth in coastal Alaska.

Strategy 4. Refine silviculture techniques for second growth in coastal Alaska.

Goal 3. Support development of biomass energy in rural Alaska.

Strategy 1. Provide financial and technical assistance to Alaska Native Corporations for forest planning.

Strategy 2. Meet growing demand for sustainable woody biomass from state lands.

Strategy 3. Develop forest regeneration techniques for woody biomass.

Goal 4. Develop and maintain infrastructure needed for resource management.

Strategy 1. Continue to partner with Alaska Department of Transportation for forest road development.

Strategy 2. Work with Federal partners for cost-share funding to private landowners.

Strategy 3. Maintain or increase industrial capacity for harvesting, silviculture practices and restoration.

Goal 5. Assist lowering high costs of production and barriers to market entry.

Strategy 1. Seek partners to demonstrate new construction, harvest, transportation, and utilization technologies suited to Alaska.

Goal 6. Engage a diverse set of partners to support sustainable forestry programs.

Strategy 1. Support and expand public process for state forest plans, five-years schedules of timber sales, and forest land use plans.

Strategy 2. Work with Federal partners for cost-share funding to private landowners

Goal 7. Administration of the Forest Resources and Practices Act (FRPA) to maintain Best Management Practices.

Strategy 1. Support and expand public process for state forest plans, five-years schedules of timber sales, and forest land use plans.

Strategy 2. Work with Federal partners for cost-share funding to private landowners

Each strategy linked to appropriate:

Programs (7)

Partners (11)

National Themes (3)

Issue		Fire	For Prod	For health	Comm	Ecol Serv	Cross Cut
Strategy		CWPP	TNF	EDRR	Plans	Legacy	C Ed
Cooperative	State Fire Assistance	X					X
	Forest Health			X	X		X
	Forest Stewardship					X	X
	Urban & Community Forestry	X		X	X		X
	Forest Legacy					X	
	Conservation Education	X			X		X
	Federal Timber Initiative		X				X
State	Forest Practices						
	State Wildfire Managemnt	X					X
	State Forest Resource Management						X
Partners	US Forest Service	X	X		X		X
	Natural Resource Conservation Service				X		X
	US Dept of Interior	X			X		X
	Other Federal			X	X		X
	State Agencies		X	X	X	X	X
	Alaska Native Corporations	X			X		X
	Cities and Boroughs		X		X	X	X
	Schools / Universities	X			X		X
	Local and Volunteer Fire Departments	X					
	Environmental & Conservation orgs		X		X	X	X
Forest Industry and Forestry Consultants		X	X	X		X	
Themes	Conserve	X	X			X	X
	Protect	X		X	X	X	
	Enhance		X		X	X	X

Comments ?