USFS Presentation, May 24, 2011, Juneau



**Project Goals** 

# A Southeast Alaska Asset Map October to December 2010

# Key Industry Cluster Action Plans January to May 2011



## **Project Team**

- Juneau Economic Development Council, lead
- Southeast Conference strong collaborative regional network
- Sheinberg Associates regional planning and facilitation expert
- Alaska Map Company statewide GIS specialist
- Brian Kelsey leading national expert on asset mapping
- Ted Lyman award winning international consultant in cluster development



### Southeast Alaska Land Ownership

#### 94.6 percent federal

80 percent is the Tongass National Forest (16,800,000) 15 percent Glacier Bay National Park and Preserve (3,283,000 acres)

2.7 percent Native corporations (280,000 acres village/urban; 290,000 Sealaska)

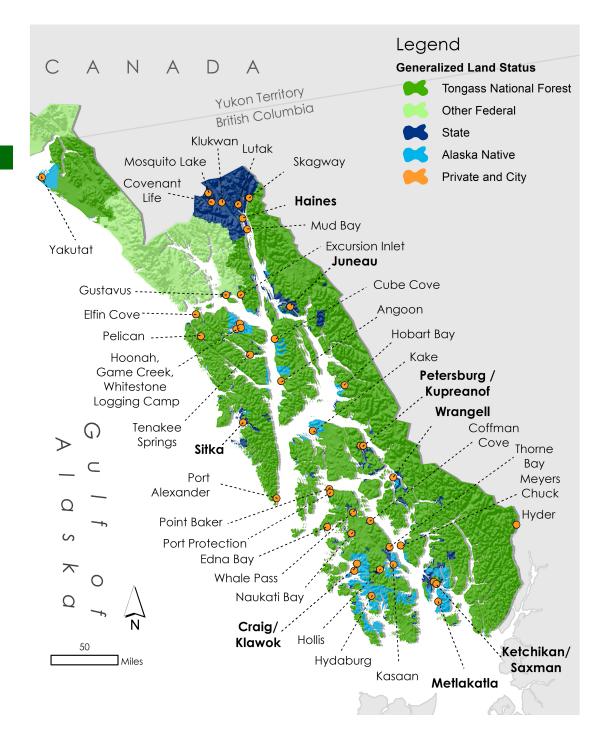
### 2.4 percent State & Mental Health Trust

(296,000 State, 196,000 MHT -This figure includes Mental Health Trust land and mineral rights)

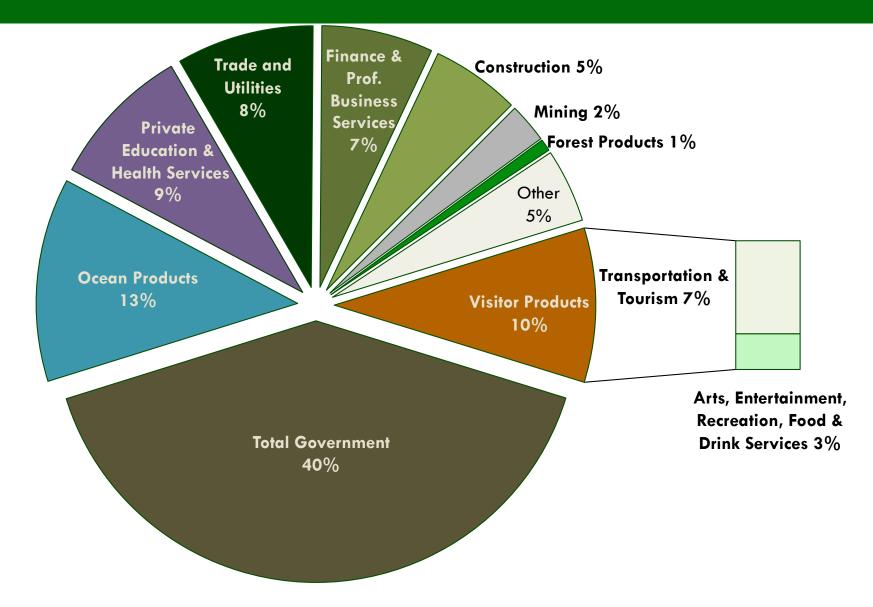
#### Less than 1 percent

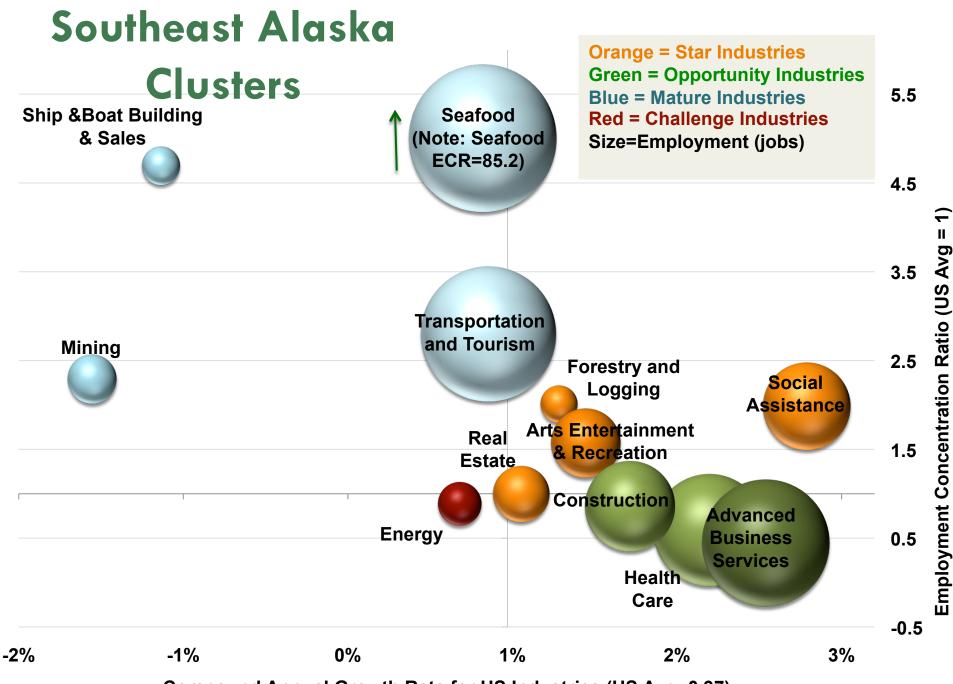
private and municipal land holdings





### Annual Average Southeast Alaska Employment 2009 by Industry Payroll





Compound Annual Growth Rate for US Industries (US Avg=0.97)

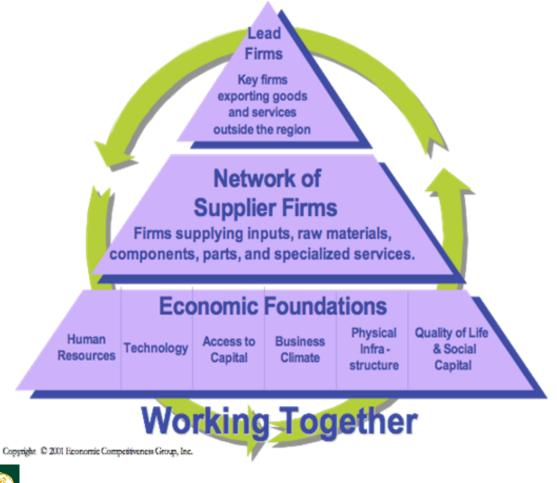
# Cluster Working Group Approach

#### □ An economic cluster:

- a set of firms in the same or related field
- Iocated in the same geographic area
- Inked by service or supplier relationships, common customers and/or supporting institutions
- share reliance on regional labor market
- complement but also compete with one another
- draw productive advantage from their mutual proximity



## Cluster Working Group Approach





# Meeting Schedule for Southeast Alaska Cluster Working Groups

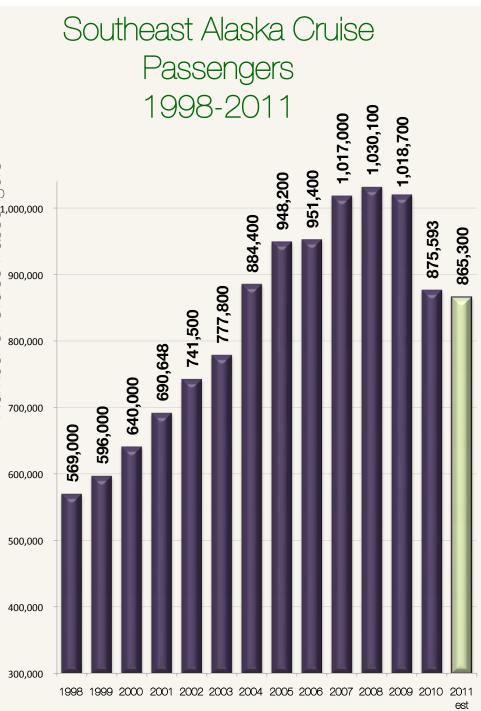
Date	Forest Products	Ocean Products	Visitor Products	Renewable Energy
February	CWG #1 Location: Juneau	Informational Teleconference	Informational Teleconference	
	CWG Teleconference	CWG #1 Location: Juneau		
		CWG Teleconference		
March	CWG #2 Location: Juneau	CWG #2 Location: Juneau	CWG #1 Location: Juneau	CWG #1 Location: Juneau
	Presentation in Thorne Bay, POW		CWG Teleconference	Steering Committee Location: Juneau
			CWG #2 Location: Juneau	
April	CWG #3 Location: Ketchikan and Teleconference	CWG #3 Location: Juneau	CWG #3 Location: Juneau	Steering Committee Location: Juneau
				Steering Committee Location: Juneau
Мау	CWG #4 Location: Craig, POW			CWG #2 Location: Juneau



# Visitor Products Industry

Between 1990 and 2009, the number of cruise ship passengers coming to Southeast Alaska more than quadrupled to over a million.





## Southeast Alaska Visitor Products Industry

Sector Name	NAICS Industry Code	Annual Average Monthly Employment 2003	Annual Average Monthly Employment 2009	SE Businesses 2009	Total SE Wages 2009	Avg. SE wage 2009
Transportation and Tourism		3,175	3,225	312	\$109,505,610	\$33,953
Air transportation	481	702	716	39	26,690,965	\$37,295
Water transportation	483	262	268	19	15,859,978	\$59,124
Truck transportation	484	189	214	21	8,497,920	\$39,787
Scenic and sightseeing transportation	487	488	727	100	25,185,358	\$34,639
Support activities for transportation	488	321	207	26	10,300,807	\$49,762
Accommodation	721	1,213	1,094	107	22,970,582	\$21,005
Arts, Entertainment, Recreation, Food, Drink		2,287	2,464	289	\$41,956,506	\$17,028
Performing arts and spectator sports, Museums, historical sites, zoos, and parks	711 712	69	159	19	3,805,743	\$23,986
Amusements, gambling, and recreation	713	584	691	83	12,599,820	\$18,243
Food services and drinking places	722	1,634	1,614	187	25,550,943	\$15,833
Total Cluster		5,462	5,689	601	\$151,462,116	\$26,624

# Southeast Alaska Visitor Products Cluster Working Group

Adventures Afloat Alaska Canopy Adventures Alaska Coastal Rainforest Center Alaska Department of Transportation Alaska Galore Tours Alaska Office of Tourism Development Alaska Rainforest Sanctuary Alaska Canopy Adventures Alaska Travel Adventures, Inc City of Juneau City of Wrangell Cruise Line Agencies of Alaska Cycle Alaska **Forest Service** Forest Service, Juneau District Ranger **Gaiptman Communications** 



Gastineau Guiding **Glacier** Gardens Goldbelt **Gustavus City Council** HAP Alaska-Yukon Huna Totem Corporation **Icy Strait Point** Juneau VCB/ SATC PNW Research Station, US Forest Service, Juneau Forestry Sciences Lab Princess Cruises Sealaska TEMSCO **UAS** Outdoor Studies UAS School of Professional and Technical Studies UAS, School of Arts and Sciences UAS, School of Management Weather Permitting Alaska

# Action Initiatives



### Visitors Products Cluster Working Group Action Initiatives List

- 1. Develop multi-purpose, multi-community land and water trails and support facilities
- 2. Increase guided access to land
- 3. Promote multi-community and regional visitor packages
- 4. Strengthen accountability for Tongass access fees
- 5. Integrate tourism course with UAS existing degree program



Support multi-purpose, multi-community
land & water trails & facilities

### **Objective:**

Examine SEAtrails accomplishments and proposals and develop a plan to move a coordinated plan to the next stage.



### 2. Increase guided access to public lands

**Objective:** Increase guided access to public lands to promote economic opportunity and job growth while maintaining a quality experience for all.

- Ability to adjust access levels: Permitting flexibility to make short term adjustments in capacity and access to Forest Service and other public lands.
- More people see and experience public lands: Add new and existing areas to access.
- □ More fees for the Forest Service. Possibly more hires in the public sector.
- Economic enhancement to business and their employees.
- Private business hiring more people and/or providing additional work opportunities for current employees: Immediate job creation of approximately 20 to 30 jobs over the course of a 2-3 year period.



# 3. Promote multi-community and regional visitor packages

### **Objective:**

This initiative is aimed at how to facilitate the independent tourist to design their own multi-community tour using ferry or small air carrier. Market & promote multi-community packages. Increase visitors to multiple communities.



# 4. Strengthen accountability for Tongass access fees

### **Objective:**

Develop a mechanism for more private sector input to decide where fees are allocated. Work with Forest Service to establish more affordable access and /or local control of fee structure and more accountability. More revenues from users reflected locally on user benefits: Secure a portion of the revenue collected to improve local infrastructure and enterprise support.

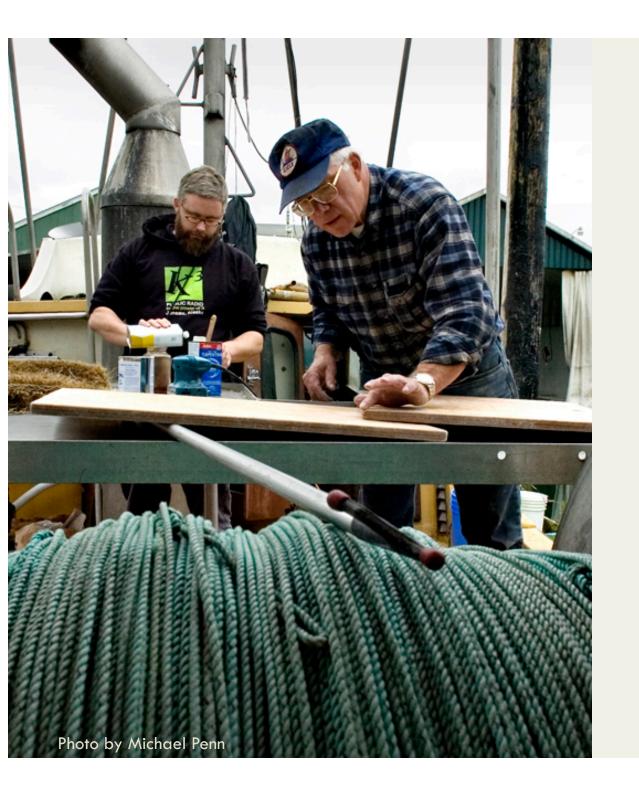


## 5. Integrate Tourism Course with UAS Existing Degree Programs

### **Objective:**

Create more employment and educational opportunities for Alaskans. Groom more prepared managers and guides to showcase the Tongass and other Southeast Alaska attractions. Provide an opportunity for UAS to attract and retain four year students.





# Ocean Products Industry

# Southeast Alaska Ocean Products Industry

Cluster/Industry Name	NAICS Industry Code	Annual Average Monthly Employment 2003	Annual Average Monthly Employment 2009	SE Businesses 2009	SE Wages 2009	Avg. SE wage 2009
Seafood		3,680	3,845	2,396	199,896,080	\$51,989
Animal aquaculture Seafood product preparation and	1125	136	131	16	4,827,371	\$36,968
packaging	3117	1,413	1,390	44	43,763,787	\$31,487
Fish and seafood merchant wholesalers	424460	52	43	20	2,246,922	\$52,052
Fishing	na	2,079	2,281	2,316	149,058,000	\$65,338



# Southeast Alaska Ocean Products Cluster Working Group

Alaska Airlines Alaska Coastal Rainforest Center Alaska Department of Fish and Game Alaska Seafood Marketing Institute Alaska Ship & Drydock Armstrong-Keta, Inc. DIPAC **Flfin** Cove **Forest Service** Grow Ketchikan Ha'ani/Sealaksa Icicle Seafoods National Marine Fisheries Service Northern Southeast Regional Aquaculture **Ocean Beauty** Oceans Alaska SSRAA Pacific Fishing Inc.



Petersburg Vessel Owner Assoc. Primo Prawns Sablefish SARDFA (Dive Fisheries Assoc) Sea Grant Marine Advisory Program Sealaska Seiner, UFA, Silver Bay, ASMI SFOS UAF Sitka Economic Development Southeast Alaska Fishermen's Alliance Southeast Conference Taku River Reds Taku Smokeries **Trout Unlimited UFA: National Seafood Marketing Coalition** United Southeast Alaska Gillnetter's Association University of AK Southeast Wells Fargo Yak Tat Kwaan

# Action Initiatives



## Ocean Products Cluster Working Group Action Initiatives List

- 1. Develop a Sea Otter Management Program in Southeast Alaska
- 2. Establish a Marine Industry Technology and Workforce Improvement Consortium
- 3. Ensure Southeast's Fishing Future: Targeted Education and Training in the Acquisition and Financing of Fishing Permits, Quota and Fishery Businesses
- 4. Increase Wild Salmon Production Through Habitat Restoration
- 5. Include the Seafood Industry in USDA Programs (Regulatory Review)
- 6. Enhance Salmon Production
- 7. Study the Conversion of Southeast Alaska Fish Byproduct to Biogas and Fertilizer through Anaerobic Digestion
- 8. Further Develop Renewable Energy
- 9. Protect Long Term Assured Access to Fishery Resources for Both Current and Developing Fisheries
  - 9A. Erosion Of The Fisheries
  - 9B. Marine Spatial Planning
  - 9C. Protect Long-Term Assured Access To Fishery Resources Through Research
  - 9D. Protect Long Term Assured Access To Fishery Resources Through Appointment Process/Conflict Of Interest
- 10. Establish Region-Wide Mariculture Zoning



# 1. Develop a Sea Otter Management Program in Southeast Alaska

#### **Objective:**

Southeast organizations have begun to form a Task Force to look at realistic management approaches to protect important shellfish species and to allow a less restrictive harvest of sea otters by Alaskan natives. Southeast organizations are requesting the Federal and State agencies examine the impact of sea otters with the ultimate goal of an ecosystem-based sea otter management plan benefiting all users of shellfish resources protecting shellfish resources from depletion, and allowing effective subsistence harvest of sea otters by the Alaska Native people.



# 2. Establish a Marine Industry Technology& Workforce Improvement Consortium

- The maritime industries sector, so far an unrecognized industry sector in Alaska, offers employment and economic development opportunities that can mitigate conditions that have produced declines in economic and employment growth in Southeast Alaska. Marine and Maritime Industry Sectors cut across (cross sectors) nearly all of Alaska's industry sectors suggesting opportunities for value adding growth in existing and attracting new marine industry businesses that could located in the region.
- Enhancements to the efficiency and capacity of Southeast Alaska's maritime industry sector can result in net positive economic gains which are shared by the wide array of industries reliant upon marine transportation (such as forest products, ocean products, and mining businesses). Such cross-cutting benefits will support the responsible development of Alaska's economy and increase America's overall economic competitiveness.
- In addition to enhancing existing businesses activities, a healthy and capable regional Maritime Industry Cluster is vital to supporting emerging opportunities, such as development in the renewable energy, energy efficiency, Arctic intra-coastal and inter-coastal shipping.
- The knowledge, skills and abilities required to operate, build, and repair marine vessels translates well to other career opportunities in all forms of energy exploration, production, transportation, ocean products, mining and other resource industry sectors.



## 3. Ensure Southeast's Fishing Future Through Targeted Education & Training

- The objective is to develop the awareness and capability of the local population to capitalize on economic opportunities within their communities. The industry has transformed over the years in both equipment and property rights. The next generation of business owners needs a new skill set to compete. They need to be innovative in structuring business deals, and proficient in financing to purchase these businesses.
- This initiative will provide residents with the necessary skills to acquire and operate successful businesses in the region. If this initiative is successful, local ownership of the businesses associated with the Ocean Products CWG will at a minimum be stable and hopefully increase.
- Develop education program to teach future business owners how to participate and invest in opportunities. Work with existing business owners to increase partnerships and joint ventures. Teach interested individuals how to finance business acquisitions.



## 4. Increase Wild Salmon Production Through Habitat Restoration

- Repair and improve salmon habitat through restoration activities.
- Increase the number of productive salmon streams from existing salmon systems that are low producing or non-producing due to damage caused by past management activities or natural blocks.
- Increase the number of jobs directly and indirectly stemming from wild salmon production for all sectors for salmon industries in SE Alaska.
- Temporarily increase the number of jobs for salmon restoration efforts 5 annually, and 20-30 seasonally.
- Increase the economic output of the SE region from wild salmon harvests for all sectors of the fishing industry. Increase the number of processing jobs in the region. Increase the number of jobs directly and indirectly relating to salmon harvests in SE Alaska while raising the overall value of the resource for all users.



## 5. Include the Seafood Industry in USDA Programs (Regulatory Review)

### **Objective:**

The objective is to change the regulatory definitions of fish, farm, farmer, rancher, livestock, agricultural operation, and co-producers (and any other regulations identified in the process) in order to include (rather than exclude) the seafood industry in USDA programs. The benefits would be felt in Southeast Alaska and across the nation primarily in coastal areas. Access to these programs would:

1) help stabilize some of the natural volatility of the industry,

2) help the industry compete on a level playing field with other U.S. food producers,

3) help the industry invest in improvements which will yield tangible economic benefits,

4) help stabilize coastal communities.



### 6. Enhance Salmon Production

- To lay the groundwork for additional permitted chum, pink, or sockeye salmon production on the order of 200 million eggs/fry using existing facilities where feasible and/or constructing new facilities where necessary. The benefits would begin with construction of a \$10 to \$15 million facility or perhaps two. Most importantly, when returns reach full production potential in approximately 8 to 10 years the first wholesale value would be \$40,000,000.00 per year. Total job equivalents for direct and indirect impacts a program of this size would provide 700 to 800 jobs in all sectors combined. Additional tax benefits are realized by state and local governments.
- A second objective is to define new sockeye production opportunities whether hatchery or lake based.



### 7. Study the Conversion of Fish Byproduct to Biogas & Fertilizer via Anaerobic Digestion

- This initiative will allow the ocean products industry cluster to determine if and how this method of fish byproduct utilization can meet the individual needs of a single processor, cluster of processors or entire community. Such a study will also include the identification of the specific bacteria ("psychrophiles") that currently break down fish waste in, and are uniquely adapted to, the anaerobic conditions [and pressure, depth, temperature and salinity] of Southeast Alaska waterways.
- If this initiative is successfully accomplished, several benefits to the Ocean Products Industry cluster could be realized in the long-term, including the following:
  - Renewable Energy Development
  - Fertilizer Product
  - Lower Byproduct Disposal Costs
  - Regulatory Compliance
  - Southeast Alaska Becomes An R&D Hub
  - Improved Marine Environment
  - Promotional Opportunity



# 8. Further Develop Renewable Energy Production

#### **Objective:**

The development of significant additional renewable energy resources will be a major boon to the ocean products as well as other energy intensive industries in SE Alaska in several ways:

1) renewables can currently generate power more inexpensively than fossil fuels in many areas of SE, especially smaller rural communities where the seafood industry is often the economic mainstay;

2) while requiring upfront capital investment, renewables protect against future fossil fuel price increases and disruptions by utilizing free fuels or (in the case of wood and biofuel feedstock) inexpensive waste products;

3) as the world copes with higher fossil fuel prices, a region like SE Alaska that has the potential to run 100% on renewable energy will gain a major competitive advantage for both harvesting and processing locally; and

4) the development of renewable energy to power Southeast Alaska will add considerable value over the long term to our locally harvested and grown ocean products, while lower energy costs and stable supply will be an important economic factor in creating more and better-paid jobs for this industry and this region.



9A. Protect Long Term Assured Access To Fishery Resources For Current & Developing Fisheries – Erosion of the Fisheries

#### **Objective:**

Maintain access to fishery resources for viable and vibrant commercial fisheries throughout Southeast Alaska, particularly in smaller rural communities where commercial fisheries are/were the backbone of the community. Let science be the driving force for decisions made in our management agencies based on the abundance of the resource. Commercial fishermen do not object to declining harvest limits when science based rather than a response to uncontrolled growth of sportfishing. The benefit to the region is the continuation of thousands of small businesses, maintaining important infrastructure within the communities such as harbors and processing facilities etc.



### 9B. Access to the Resource - Marine Spatial Planning

### **Objective:**

Maintain access to fishery resources for viable and vibrant commercial fisheries throughout Southeast Alaska, particularly in smaller rural communities where commercial fisheries are/ were the backbone of the community. Within the marine spatial planning, make sure that Alaska commercial fisheries footprint is documented and assured.



### 9C. Access to the Resource – Protecting Long-Term Assured Assess To Fishery Resources Through Research

### **Objective:**

Maintain access to fishery resources for viable and vibrant commercial fisheries throughout Southeast Alaska, particularly in smaller rural communities where commercial fisheries are/ were the backbone of the community. Let science be the driving force for decisions made in our management agencies based on the abundance of the resource. Increased research would lead to an increase in jobs.



9D. Access to the Resource - Protecting Long Term Assured Assess To Fishery Resources Through Appointment Process/Conflict Of Interest

### **Objective:**

Maintain access to fishery resources for viable and vibrant commercial fisheries throughout Southeast Alaska, particularly in smaller rural communities where commercial fisheries are/were the backbone of the community. Let science be the driving force for decisions made in our management agencies based on the abundance of the resource. Commercial fishermen do not object to declining harvest limits when science based, rather than a response to uncontrolled growth of sport fishing. The benefit to the region is the continuation of thousands of small businesses, maintaining important infrastructure within the communities such as harbors and processing facilities etc.



### 10. Develop Region-Wide Mariculture Zoning

- Reduce red tape, cost, time and energy associated with aquatic farm permitting new sites
- Create year round, sustainable jobs for the Region
- Create an economically viable Alaska shellfish industry

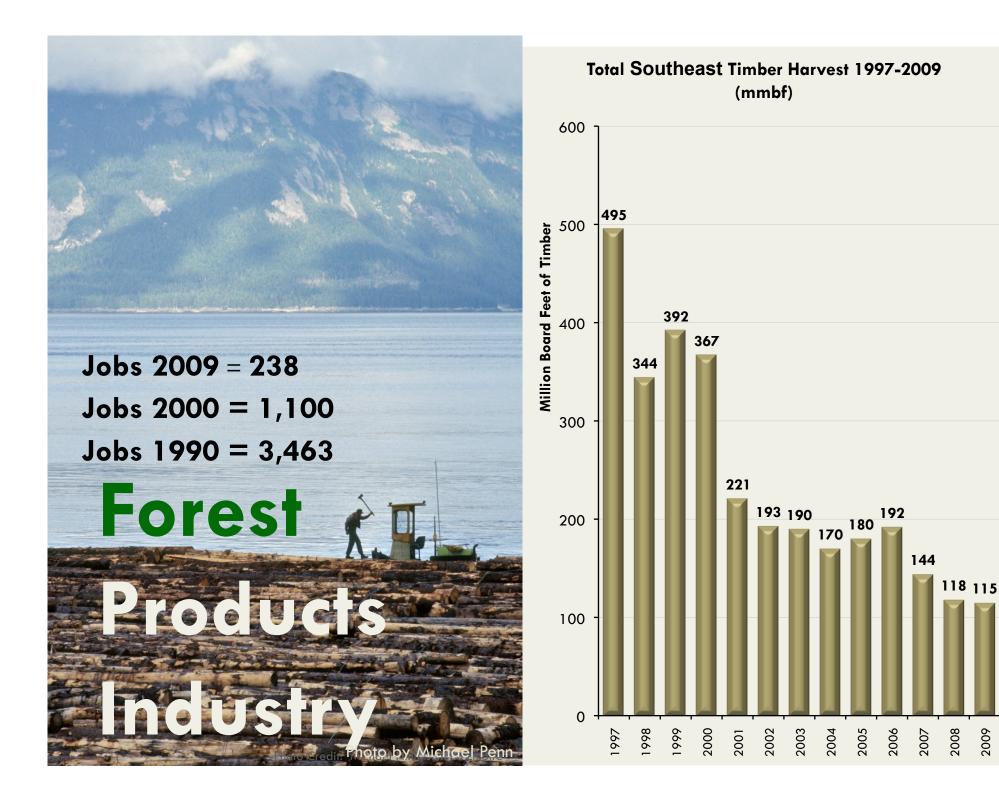


## Initiatives which did not receive full consensus

Simpler, Flexible Regulatory Environment for Direct Market Producers And Small Floating Processors

Rural Community Permits





### Southeast Alaska Forest Products Cluster

Cluster/Industry Name	NAICS Industry Code	Annual Average Monthly Employment 2003	Annual Average Monthly Employment 2009	SE Businesses 2009	SE Wages 2009	Avg. SE wage 2009
Forestry and Logging		510	238	32	\$11,759,446	\$49,375
Logging	1133	371	158	17	8,261,299	\$52,149
Support activities for forestry	1153	20	24	6	1,374,076	\$56,858
Wood product manufacturing	321	119	56	9	2,124,071	\$38,214



### Southeast Alaska Forest Products Cluster Working Group

Alaska Coastal Rainforest Center Alaska Forest Assn Alaska Wood Products City of Wrangell Div of Forestry DNR Don Abel Durette Construction Erickson Economics/SEACC Forest Service Icy Strait Lumber SEACC Sealaska Sitka Conservation Soc



Southeast Conference The Nature Conservancy The Trust Land Office Thuja Plicata Lumber Co Timber Sale Program Manager, Tongass National Forest Tongass Forest Enterprises UAF Cooperative Extension Service USCG - Civil Engineering Unit Juneau USDA Forest Service Viking Lumber Company Wood Cuts

### Action Initiatives



### Forest Products Cluster Working Group Action Initiatives List

- Use Young Growth Wood for Cabin and Recreational Structures on Prince of Wales Island.
- 2. Simplify Small Timber Sale Process to Allow Small Mills on Prince of Wales Island to Operate More Efficiently, Economically, and with More Supply Certainty.
- 3. Increase Knowledge about Building with Alaskan Wood and Influence Attitudes about Southeast Alaska Woodworking Industries
- 4. Continuously Improve Select USFS Processes
- Establish the "Tongass National Forest Congressionally Designated Timberlands" to Provide a Secure and Perpetual Working Forest Land Base Managed Under Forest Regulations and Guidelines that Streamline Process and Improve Predictable Delivery of Supply.
- 6. Substitute Biomass for Diesel to Meet Energy Needs of Southeast Alaska



### 1. Use Young Growth Wood for Cabin and Recreational Structures on Prince of Wales Island

- The objective is to work with the Forest Service to develop young growth cabins and structures (round log and/or milled) that meet Forest Service cabin and structure specifications and to ensure that future recreational structure RFPs will consider YG as a legitimate and desired building material. The Forest Service should specify regionally produced building materials for all of their building projects (this can be addressed by the In Region Processing AI).
- The benefits would be the development of a local (POW and regional) value-added industry for utilization of younggrowth materials.



2. Simplify Small Timber Sale Process to Allow Small Mills on Prince of Wales Island to Operate More Efficiently, Economically, and with More Supply Certainty

### **Objective:**

To help the small mills on POW to operate more efficiently, economically, and with more supply certainty.



3. Increase Knowledge about Building with Alaskan Wood and Influence Attitudes about Southeast Alaska Woodworking Industries

- Support existing local forest industries by creating demand for local timber and wood products through improved common marketing of Alaska forest products in cooperation with the sawmill industry, building materials and timber suppliers, and wood products manufacturers;
- Support the development of in-region, sustainable new industry-oriented products, processes and activities; and
- Develop solutions to major barriers inhibiting the startup or relocation of value-added processing facilities in Southeast Alaska.



### 4. Continuously Improve Select USFS Processes

### **Objective:**

The objective of the initiative is to improve product delivery. The benefits to Southeast Alaska would be improved confidence regarding that the Forest Service could deliver its products/permits/ partnerships cooperation timely and reliably. Improved confidence should translate into more activities taking place while ideas and opportunities are still fresh, which should lead to greater economic activity.



5. Establish the "Tongass National Forest – Congressionally Designated Timberlands" to Provide a Secure and Perpetual Working Forest Land Base Managed Under Forest Regulations and Guidelines that Streamline Process and Improve Predictable Delivery of Supply

#### **Objective:**

To sustain a Forest Products Industry in Southeast Alaska it is essential for transitional purposes that there is access to an old growth supply as well as a definitive, predictable and growing volume of 2<sup>nd</sup> growth timber. A fixed land base is essential, protected from encroachment of other uses is essential. The land base requires management under predominantly even aged harvesting with an overhaul of the process to bring sales to market: This solution benefits the current and future investors, creates sustainable employment, creates positive stumpage values to further invest in forest management and provides continuity of supply to our customers, potential for growth and diversification of the industry.



### 6. Substitute Biomass for Diesel to Meet Energy Needs of Southeast Alaska

### **Objective:**

To develop a vision and roadmap to the development of a vibrant and thriving biomass energy industry which economically meets the energy needs of the region's residents, while creating local jobs.

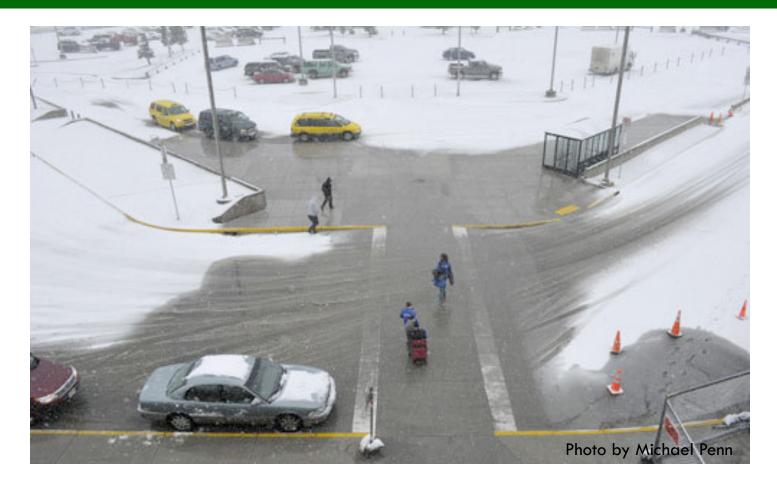


# Initiatives which did not receive full consensus

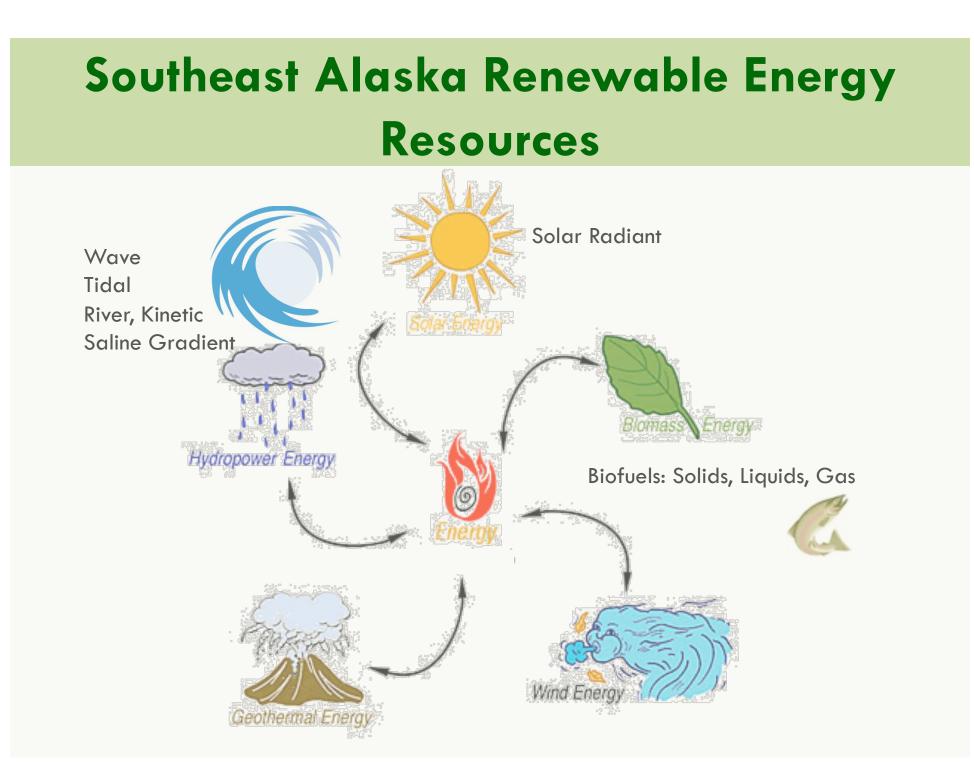
- Conduct a Timber Base Analysis to Determine the Volume of Young Growth and Old Growth Supply Available for Sustaining and Strengthening the Forest Industry in Southeast Alaska.
- Create a 1.5 Million Acre State Forest (from Tongass lands) to be Managed by State of Alaska
- Restore a Viable Timber Industry in Southeast Alaska



### Renewable Energy Industry Seed Cluster







### Southeast Alaska Renewable Energy Seed Cluster Working Group

	Juneau Hydropower, Inc.
AEL&P	Kootznoowoo
Alaska Brewing	Ma-Su owners representative
Alaska Canada Energy Coalition	National Renewable Energy Laboratory
Alaska Center for Energy and Power	SEACC
Armstrong-Keta, Inc	Self
Business Works	Southeast Conference
Coast Guard	SpringBoard
Elcon Corp	The Leighty Foundation/Alaska Applied
Fisherman's Daughter Biofuels	Sciences, Inc
Ha'ani/Sealaska	USCG
Haight & Associates	USDA Forest Service

Wind Turbine Company



### Draft Action Initiatives



### DRAFT Renewable Energy Seed Custer Working Group Action Initiatives

- 1. Propose Net Metering Legislation
- 2. Establish a Renewable Energy Revolving Loan Fund for Residences and Small Businesses to Promote Local Installation and Fueling Industries
- 3. Marketing SE Alaska to the existing and emerging renewable energy industry as a test venue for new technologies and specifically taking advantage of our diverse, unique RE Resources and high-cost energy markets
- 4. Conduct Renewable Energy Economic Modeling for Southeast Alaska
- 5. Explore Opportunities for Connecting SE Alaska Intertie to North American Grid to Improve the Economy and Quality of Life throughout the Region
- 6. Biomass Energy Demand Development
- 7. Discovering best practices from around the world to overcome barriers & what is being done to incentivize change regarding renewable energy and energy efficiency
- 8. Streamline Permitting and Schedule Acceleration
- 9. Renewable Energy Education for SE Alaska Residents, Students and Businesses



### 1. Propose Net Metering Legislation

### **Objective:**

Research, understand, and define improved legislation proposed to expedite application of renewable energy and CHP resources. Better understand the technical limitations experienced by the utilities. Foster technical solutions and promote better education of both the utilities and the rate payers. Develop new legislation improving the opportunities for application of renewable energy and CHP resources.



2. Establish a Renewable Energy Revolving Loan Fund for Residences and Small Businesses to Promote Local Installation and Fueling Industries

#### **Objective:**

Transitioning homes and businesses to renewable energy heating and transportation systems represents a major business opportunity for vendors and installers of new equipment (pellet and biofuel stoves; geothermal, water and air heat pumps; electric vehicles) and for providers of the local RE fuels (wood pellets and other biofuels; RE electricity from wind, small hydro, geothermal, tidal, wave, and hydrokinetic resources). These conversions would involve significant expenditures within the SE Alaska economy and could become the core of a new RE industry in this region. A widespread transition to RE fuels is capable of supporting many small businesses in several SE Alaska communities.



3. Marketing SE Alaska to the existing and emerging renewable energy industry as a test venue for new technologies and specifically taking advantage of our diverse, unique RE Resources and high-cost energy markets

- Inform companies and entrepreneurs of this opportunity, and to convince them of its value to them;
- Bring new renewable energy harvesting, gathering, transmission, and storage technologies to SE Alaska, and beyond;
- Build a SE AK centric renewables industry;
- Build State of AK interest in funding renewable energy systems R&D&Demonstrations, via enhanced funding for Emerging Energy Technology Fund, and other pathways.
- We anticipate research and other investment opportunities to follow these investments in demonstration projects.



## 4. Conduct Renewable Energy Economic Modeling for SE Alaska

- Credible business case(s) to encourage firms to consider investing in nascent SE AK RE industry be able to present and discuss
- Credibly promote SE AK as an R+D+Demo Site (Region)
- Raise funds for the modeling consulting study (IFS) necessary to accomplish the above



#### 5. Explore Opportunities for Connecting SE Alaska Intertie to North American Grid to Improve the Economy and Quality of Life throughout the Region

- Provide a means to fully utilize the developing and growing renewable energy resource in Southeast Alaska by providing the opportunity for the sale of 100% project potential capacity as a surplus export. Local cost savings are achieved economies of scale inherent with the full and wise use of resources. The certainty of full utilization of the energy resource significantly increases the viability of energy projects and provides increased incentive for public and private financing of high dollar investment energy projects.
- A North America interconnection would fully displace the need for future SE diesel electrification generation because the intertie could import electrical energy resources in periods that Southeast utilities and hydropower facilities experience high demand or low water periods thereby saving ratepayers of all diesel backed up SE utilities.
- An integrated intertie provides firming capabilities for small intermittent renewable energy developers to firm their resource with firm energy providers outside their immediate market space and thereby increase the value and economic viability of future wind, solar, and hydrokinetic energy developments.
- Southeast Alaska's resource peak and power needs are inverse to Western USA. Integrating renewable energy from Southeast Alaska provides better conservation of Western USA rivers by allowing utilities to purchase SE Alaska surplus during their periods of low water which occurs at our high water periods. This objective provides unique ecological benefits to Western USA river systems and aquatic species dependent in these systems.
- With an Alaska-Canada partnership and transmission line interconnection, we can enable Alaska and British Columbia to explore opportunities to bring more affordable renewable energy to economically depressed communities in both countries. This would resolve a social injustice while also serving small communities paying exorbitant costs for energy, but also serves as a financial means to develop infrastructure through the export of surplus energy generated in Southeast Alaska to the North American Grid.



#### 6. Biomass Energy Demand Development

- The objective of this initiative is to identify a transition strategy to biomass energy to complement our hydroelectric energy supply, with the ultimate goal to wean the region off of oil to the maximum extent possible.
- If successful, this region could shift from one of the most oil-dependent regions in the country to one of the least. We could be a model for the rest of the nation, and possibly the world. We have world class resources at our fingertips.
- What this initiative will NOT be focusing on is the biomass supply side of the equation. That is a key aspect to making biomass a successful energy player in the region, but this issue will be addressed by the biomass energy team in the Forest Products Cluster Working Group. The Supply and Demand teams will coordinate their efforts to grow this 'new' industry from the ground up, approaching it from both directions.



7. Discovering best practices from around the world to overcome barriers & what is being done to incentivize change regarding renewable energy and energy efficiency

### **Objective:**

Make renewable energy technologies (and energy efficiency technologies) cheaper and locally available. Technology and industries exists worldwide that are not present in Alaska today. A more aggressive objective would for products to be manufactured locally.



#### 8. Streamline Permitting and Schedule Acceleration

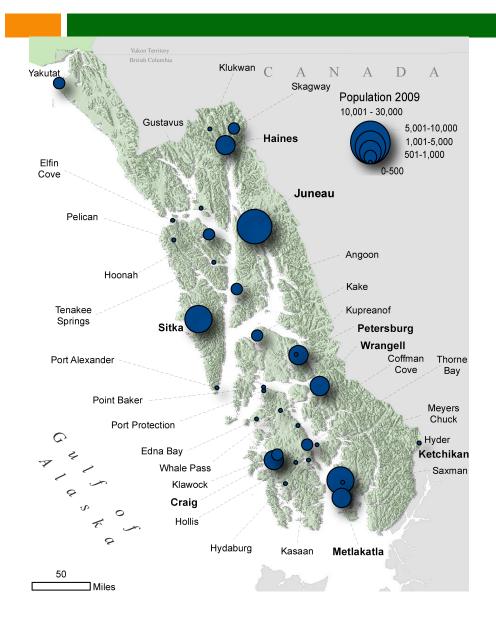
- A central authority must be established to consolidate all decision making, permitting and licensing associated with small and large scale renewable energy projects. This will allow all vested parties to convene at set times during the planning/permitting phase and discuss concerns and achieve measurable progress. As a mediator, this authority can act as a conduit of communication from the federal (FERC, Army Corp of Engineers) to the communal (owner, citizen) level. Having a central authority will provide and serve as a forum for all topics to be debated. It will also make it easier to execute tasks simultaneously to minimize time for project planning.
- Considering the interest in utilizing the abundant water & wind resources in Alaska to meet the state's energy needs, formation of an office is in the best interest of Alaska. This new assembly must consist of personnel who are highly educated in natural resource control. This will enable projects to reach fruition at a much faster rate in comparison to the current non-linear method. If established, you will see a revitalized interest in both standard and entrepreneurial efforts in addressing the energy needs of SE Alaska.



#### 9. Renewable Energy Education for SE Alaska Residents, Students and Businesses

- Increase the awareness of the public—including municipal and State leadership--of renewable energy through fact-driven informational campaigns. This education will increase public support for renewable energy issues and projects, which is especially important when public policy changes (regulations, etc.) will be required for the successful development of a renewable energy industry in Southeast Alaska.
- Develop renewable energy education programs targeted to different age groups within the State educational system (pre-K through university level), and work with the appropriate entities to implement these programs on an ongoing basis. This will help develop a base of future—and local renewable energy planners, innovators, and decision makers.
- Develop renewable energy informational programs that can be presented to Southeast ALaska businesses, showing the advantages of investing in and supporting renewable energy in the region. This would create critical demand-side support for the emerging industry.





Next Steps



JEDC Juneau Economic Development Council