

**CORRESPONDENCE
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Information**

HEADWATERS ECONOMICS RESEARCH UPDATE

June 2008

www.headwaterseconomics.org



HEADWATERS
ECONOMICS

SOUTHEAST ALASKA

A NEW ECONOMIC ANALYSIS & THE FUTURE OF CONVERTING BIOMASS TO ENERGY

The Tongass National Forest in Southeast Alaska is the nation's largest national forest. Nearly 17 million acres in size, it encompasses the largest intact temperate rainforest on earth. The Tongass is also home to numerous communities and industries that are re-examining their future in light of high energy costs, population outmigration, and ongoing challenges to the timber industry.

Headwaters Economics is currently working with the Tongass Futures Roundtable in Southeast Alaska to better understand this region's unique challenges and find relevant solutions. This diverse group of conservationists, timber mill owners, native tribal members, elected officials and public lands managers is seeking a long-term balance of healthy and diverse communities, vibrant economies, and responsible use of resources while maintaining the natural values and ecological integrity of the forest.

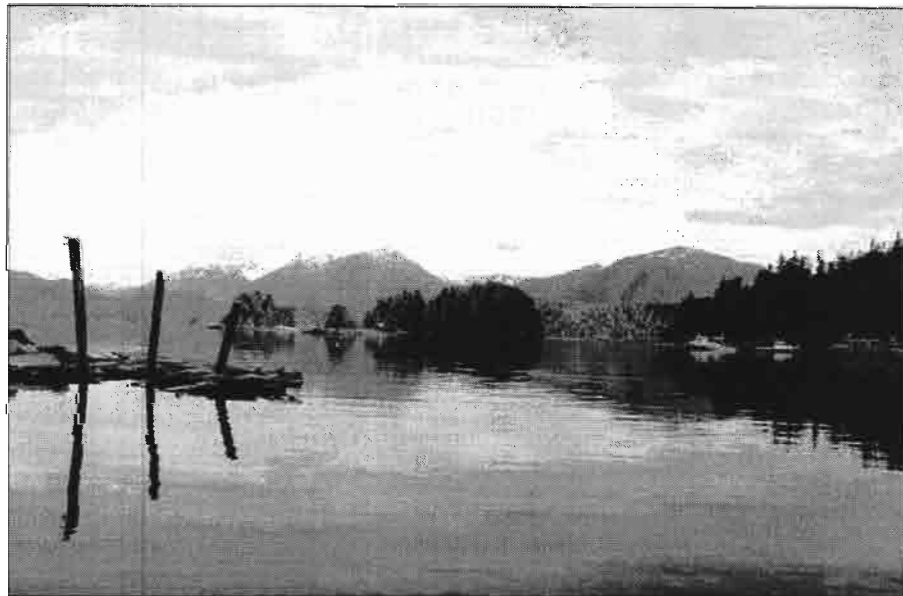
As a first step, Headwaters Economics prepared an extensive analysis of the economic challenges and opportunities facing Southeast Alaska. Titled *Socioeconomic Trends and Measures for Southeast*



Southeast Alaska

Alaska, the report offers a detailed view of Southeast Alaska's evolving economy and is designed to inform economic development planning.

The report shows regional economic trends and figures, and details the economies of local industries, boroughs, and census areas. While data disclosure restrictions can make representing local economic trends difficult, if not impossible, Headwaters Economics was able to make use of (Continued, over.)



Remoteness, dramatic meetings of forest and sea, and rugged mountain backdrops characterize Southeast Alaska's geography. The region's communities are seeking new ways to capture value from these resources. Photo: Ben Alexander.

(Continued from front page) multiple databases and statistical techniques to estimate most of these restrictions. As a result, the report conveys a broad range of detailed economic information that has been previously unavailable to the public. Not surprisingly, the report documents that Southeast Alaska is struggling economically. Trends include: slow economic growth, declining earnings, population outmigration, rising cost of living, and high unemployment. The report also illustrates that the region is highly dependent on government and non-labor sources of income. In addition, economic hardships disproportionately affect the region's native villages, which struggle to maintain the economic foundation of subsistence traditions.

The report also shows signs of economic resilience. Industries such as travel and tourism are holding steady, while information and health services are growing, pointing toward the region's ability to create jobs in sectors that are fast-growing nationally.

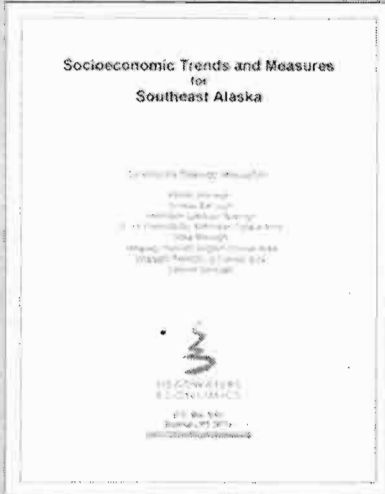
One solution that emerged from Headwaters Economics' report centers on shifting logging activities towards second-growth stands and restoration projects. Another involves converting previously low-value fiber and wood "waste" into biomass energy. Headwaters Economics is currently conducting a feasibility assessment for biomass-to-energy projects in the region (see next page).

ECONOMIC VOLATILITY CHALLENGES COMMUNITIES AND INDUSTRIES

The full report contains economic analysis of the region and its industries. Detailed information is available for local boroughs and census areas as well. Examples of the type of information contained in the report are shown on the right.

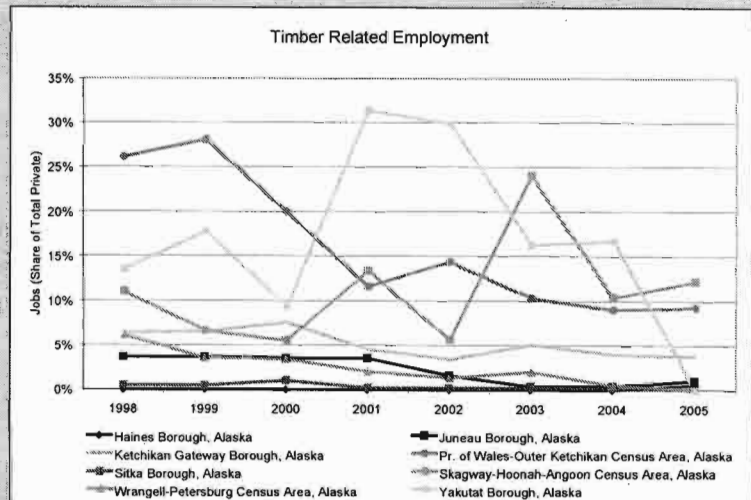
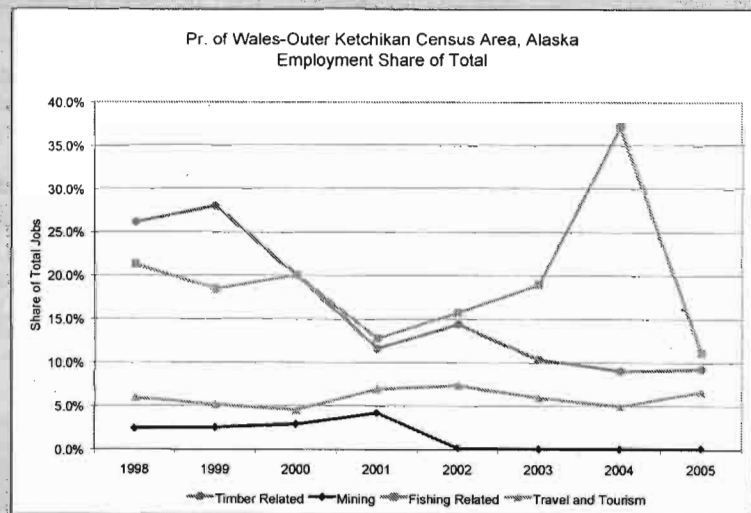
Access the report online:

www.headwaterseconomics.org/southeast



The upper chart details volatility in four employment sectors in the Prince of Wales-Outer Ketchikan Census Area.

The lower chart traces the volatility in timber-related employment, and the differences in its importance (share of total private-sector jobs) to different communities.



Biomass to Energy

As the cost of energy escalates dramatically, there is growing interest in efforts to convert biomass to energy and electricity in Southeast Alaska's communities.



"Nearly 50% of every log sawn in local mills was being wasted, either as sawdust, bark or discarded offcuts. For Southeast Alaska, looking to wood biomass as an alternative energy source just makes sense."

Karen H. Peterson
University of Alaska Cooperative Extension Svc.

In response, Headwaters Economics is working closely with members of the Tongass Futures Roundtable to implement biomass energy projects in the region. At the May, 2008 meeting in Hoonah, Alaska, the Roundtable adopted goals for biomass projects in the region that include:

- Improving regional energy self-reliance, community viability and prosperity
- Increasing resiliency and competitiveness of regional sawmills
- Reducing energy costs and carbon footprint
- Job-creation and stimulating secondary manufacturing of wood products
- Making forest restoration more economically viable

Over the summer we will be conducting feasibility assessments, supporting the start-up of a bio-brick manufacturing business, and developing partnerships designed to meet the supply, technical, and demand challenges of bringing biomass energy projects to fruition.

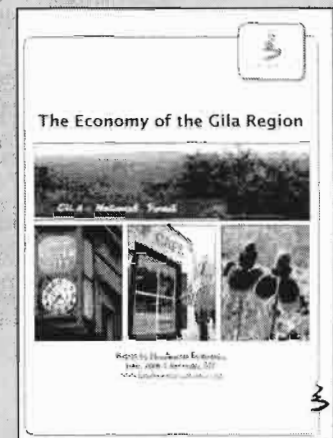
ALSO AT HEADWATERS ECONOMICS

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Recently released:

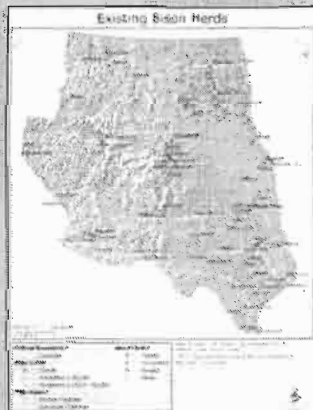
This report explores the question of whether and how rural, isolated communities can benefit from being gateways to large expanses of public lands. The Gila Region on the New Mexico-Arizona border is considered as a case study.

Contact Ray Rasker for more information
ray@headwaterseconomics.org



WORK IN PROGRESS:

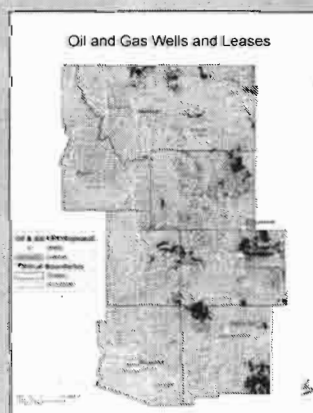
Bison Reintroduction Atlas



This collection of maps and analysis offers detailed descriptions of the human landscape where bison restoration may occur, and will serve as an important tool for bison conservation in North America.

Contact Patty Gude for more information
patty@headwaterseconomics.org

Energy Development & the West



We are studying the benefits and costs of energy development in the Intermountain West in order to highlight ways the region can profit from energy development while minimizing negative economic, fiscal, and social impacts.

Contact Ben Alexander for more information
ben@headwaterseconomics.org



WELCOME!

Yang-Yang Chen, an MBA candidate at UC-Berkeley's Haas School of Business, has joined Headwaters Economics for a summer research fellowship. Yang-Yang will be working to develop a business model for biomass energy ventures in Southeast Alaska.

Yang-Yang can be reached by phone 406.570.8937 or by e-mail: yangyang@headwaterseconomics.org.



**HEADWATERS
ECONOMICS**

MISSION STATEMENT

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions in the West.

HEADWATERS ECONOMICS

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Garry White

From: GregMillerInn2@aol.com
Sent: Friday, July 04, 2008 1:53 PM
To: garrywhite@gci.net
Cc: aigco%@worldnet.att.net; Schwindt@aol.com; ellis@oregonisonline.com; dbenneth@comcast.net
Subject: Building and Land Opportunities

Dear Gary:

We are working with Alaska Intrastate Gas Co. to lower utility costs for all industries and residents living in Sitka, Alaska. Preliminary research shows residential and industrial customers may save 30% to 40% off their current energy costs.

Our plans call for Sitka to be the first community to receive lower utility cost in Southeast Alaska..

Alaska Intrastate Gas (AIG) has an interest in sharing a portion of the land and building currently owned by Cove Partners. The preliminary plans call for AIG to establish a regional office in Sitka and use Sitka as a staging area for Southeastern Alaskan expansion.

Our initial plans calls for AIG to occupy the 2/3 's of the building True Alaska Bottling is not occupying plus utilize the additional land not under roof.

Our understanding is there was a rail loading and off loading facility at Saw Mill Cove. We will need to put in about 2000 feet of track. We need the plans for the previous facility.

I will be traveling this week, but you can reach me via my cell phone.

Sincerely,

Greg Miller
2070 SW Rose Lane
Portland, Oregon 97201
email: gregmillerinn2@aol.com
Ph: 503 243 2111
Cell: 503 702 9863
Fax: 503 243 2131

Gas prices getting you down? Search AOL Autos for fuel-efficient [used cars](#).

Garry White

From: Rod Bartlett [rbartlett@s2cglobal.com]
Sent: Wednesday, July 02, 2008 2:41 PM
To: garrywhite@gci.net
Cc: 'Jackie McClure'
Subject: Bulk Water facility

Garry,

Thanks for taking the time to explain the current situation at Saw Mill Cove to me. As indicated we are interested in negotiating a long term agreement where we develop and manage the bulk loading facility at our expense.

Please copy me in on your existing contract as discussed and we will table a proposal in short order.

Sincerely,

Rod Bartlett
S2C Global Systems, Inc.
USA 702-715-2001
Canada 778-996-0707
Office 604-629-2461
Fax 604-608-3562
www.s2cglobal.com

Table 4. What other sellers have received for water to be bottled

Seller	Purchaser	Source Type	Quantity (gallons)	Price	
				(\$/gal)	(\$/acre-ft)
MCS D-proposed	Nestlé	Spring	521,362,284	\$0.000081 ^a	\$26.40
Marietta, GA	Coca-Cola or Pepsi	Municipal	Unknown	\$0.002 ^b	\$652
Maine Department of Conservation	Nestlé (Poland Spring)	Spring	Unknown	\$0.005 ^c	\$1,629
City of Dunsmuir	Dunsmuir Bottling Co.	Spring	50,000,000	\$0.005 to \$0.01 ^d	\$1,629 to \$3,258
Unknown	Sierra Spring Water	Spring	Unknown	\$0.005 to \$0.015 ^e	\$1,629 to \$4,888
Pure Mountain Spring Co.	Nestlé (Poland Spring)	Spring	450,000,000	\$0.0067 ^f	\$2,183
Knoxville, TN	Coca-Cola or Pepsi	Municipal	Unknown	\$0.058 ^g	\$18,899
Twinsburg, OH	Coca-Cola or Pepsi	Municipal	Unknown	\$0.33 ^h	\$107,531

Source: ECONorthwest, based on the indicated sources.

^a Contract between the McCloud Community Services District and Nestlé Waters. The price per gallon rate show here is calculated using only Nestlé's annual water rate payment based on 200 HE and the rate in effect as of the date of the contract, excluding the other payments included in the contract. If we include the other payments (the exclusivity fee and the community enhancement payment), the rate increases to \$0.0005 per gallon or \$182.65 per acre-foot.

^b T. Clarke. 2005. *Cited Previously*. Pg. 29. *Rate effective in 2007*.

^c Maine Department of Conservation contract with Nestlé Waters for Range Pond State Park water extraction, as reported by H₂O for ME. Retrieved June 25, 2007, from <http://waterdividendtrust.com/information/waterprofit.php>

Date in which rate was effective is unknown.

^d Metcalf & Eddy, Inc. 1997. *Evaluation of Dannon Corporation's Spring Water Purchase Offer*. City of Mt. Shasta. August 20. *Rate effective in 1997*.

^e Metcalf & Eddy, Inc. 1997. *Cited Previously*. *Rate effective in 1997*.

^f T. Turkel. 2007. "Water Deal Too Sweet?" *Portland Press Herald/Maine Sunday Telegram*. April 1. Retrieved June 14, 2007, from <http://pressherald.maine.com/business/stories/070401cover.html>

This rate is an estimate based on Pure Mountain Springs Co.'s reported revenue generated between 2003 and 2007, which was approximately \$3,000,000, divided by an estimated 450,000,000 gallons sold to Poland Spring during that same period.

^g T. Clarke. 2005. *Cited Previously*. Pg. 29. *Date in which rate was effective is unknown.*

^h T. Clarke. 2005. *Cited Previously*. Pg. 29. *Date in which rate was effective is unknown.*

Prices Paid for Leasing or Purchasing Water for Other Uses

In an attempt to determine the marginal value of streamflow from national forests, an economist with the U.S. Forest Service summarized existing studies on the value of different uses of water and analyzed data from water leases and purchases in the U.S.⁴⁶ He found that in California, the median price paid for both water leases and water purchases that occurred between 1990 and 2003 was \$96 per acre-foot per year for municipal purposes, \$45 per acre-foot per year for irrigation purposes, and \$64 per acre-foot per year for environmental purposes.⁴⁷ These

⁴⁶ A purchase entails a one-time payment for permanent transfer of the right to the water; with a lease, the underlying water right remains unchanged, but the short-term usage of water is transferred from the seller to the purchaser for an annual payment.