

# Southeast Alaska by the Numbers 2013

A Publication of Southeast Conference

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September 2013

## Changes in Southeast Alaska: 2010 to 2012



THE REGIONAL POPULATION INCREASED BY 2,800 PEOPLE - TO 74,423. A NEW RECORD HIGH.



THE LABOR FORCE INCREASED BY 1,800 JOBS.



JOB EARNINGS INCREASED BY 10%.



280 NEW MINING JOBS WERE CREATED, AN INCREASE OF 50%.



37,000 MORE PEOPLE DEPLANED IN SE TOWNS.  
61,000 MORE CRUISE SHIP PASSENGERS VISITED.

## Southeast Alaska's Economy 2013: Significant Growth

It is a good time to live and work in Southeast Alaska, and not just because of 2013's epic summer weather. The economy of Southeast Alaska is in an expansion phase, and has been since 2008. Between 2010 and 2012 the economic growth of the region has intensified—nearly every single economic indicator for the region is up, and continuing to rise.

In 2012 the region reached a new record population, easing past the former record set in 1997. In the last two years, the regional labor force increased by 1,800 jobs. Leading the way were employment gains in mining, professional & business services, the visitor industry, and construction.

Due to these increases, the region has more workers than ever before (46,000), along with the highest total payroll—even when adjusted for inflation.

The number of cruise passengers is up—and expected growth will set visitor records over the next few years. The number of passengers traveling in and to Southeast Alaska by plane and ferry are also up—albeit below peak levels.

The 2013 salmon fishing season is shaping up

to be the best ever, already surpassing the 1999 record for total harvest.

The unemployment rate for the region is down. Housing starts are up slightly, and school enrollment is flat (although it increased in 2011 for the first time in 14 years). Both of these indicators are far below peak levels, but continued improvement is expected.

Falling economic indicators over the last two years were minor. Employment losses were mostly confined to the retail sector and local government losses in Juneau (although total wages remained up). A handful of job losses were also reported in the timber and information sectors.

While most parts of the economy will continue to improve, there are some areas of concern. The price of metals—although up between 2010 and 2012—have begun to drop in 2013, which could have a chilling effect on the mining industry. Sequestration is resulting in cuts to federal programs. Perhaps most worrisome looking forward is the dwindling oil production upon which state revenues are so dependent, along with continued reductions in federal and local government expenditures.

In the meantime, take a moment to enjoy one of the strongest economies the region has experienced.



# A Message from Southeast Conference's Executive Director

## Greetings-

One of the many functions of Southeast Conference is to disseminate economic and socioeconomic information, and this year I am proud to present you with our 2nd annual Southeast Alaska by the Numbers publication.

I hope this report will be valuable to you as you make decisions for your community, business, non-profit, or other government entity. Our consultant, Sheinberg Associates, waded through nearly 150 reports and data sets so that you didn't have to. This year the report provides a two-year snapshot of the regional economy. The story it tells is a great one. It shows that finally, after a great deal of effort from many of you, many economic gains have been realized, and the upward trends appear poised to continue.

No one did this alone—these positive economic trends are materializing because all of us are working together to overcome obstacles. We are Southeast Alaskans, and by working together we have proven that we can overcome adversity. We've learned through difficult times that people and community leaders of Southeast Alaska must think locally and plan regionally. Each component of our economy needs continued support if we are going to maintain these upward trends.

In the past year, Southeast Conference has been working on several initiatives to grow the regional economy. We have been continuing our work with the Alaska Energy Authority, regional electricity providers, and alternative energy providers, to increase the capacity of all of the communities in our region in the quest for energy stability and security. We are working to establish a sustainable and renewable timber industry in Southeast Alaska through collaborating with the U.S. Forest Service, the State of Alaska, and Alaska Native Organizations to reinstate the responsibility of establishing a predictable and reliable timber supply sufficient to sustain the region's timber economy and communities. We also are working to enhance the efficiency and capacity of Alaska's Marine Technology and Trades Industry, which will support a wide array of existing and emerging economic activity dependent upon marine transportation. On that note, don't forget to check out our other September 2013 publication: *The Maritime Economy of Southeast Alaska*.

The mission of Southeast Conference is to undertake and support activities that promote strong economies, healthy communities and a quality environment in Southeast Alaska. Southeast Conference began more than 50 years ago with a group of people supporting the establishment of a regional transportation system in Southeast Alaska. After that success Southeast Conference stayed together through more than a half-century to focus not only on transportation issues but on many other concerns unique to the region. Our membership now includes nearly every community in Southeast Alaska. If you are not a member please join, and join us in growing the economy of the region. We need all the help we can get.

Shelly Wright  
Southeast Conference, Executive Director



Southeast Conference



# The Past Two Years At a Glance

The following table tracks key Southeast Alaska indicators over the past two years, along with associated changes.

DEMOGRAPHICS	2012	2010	% CHANGE*
Population <sup>1</sup>	74,423	71,664	+4%
60 to 79 year olds <sup>2</sup>	11,949	10,262	+16%
Non Juneau Population <sup>1</sup>	41,591	40,389	+3%
Median Age <sup>2</sup>	39.5	39.3	+0.5%
K-12 School District Enrollment <sup>3</sup>	11,490	11,517	-0.2%
GENERAL ECONOMIC CONDITIONS			
Total Labor Force (jobs, includes self-employed & USCG) <sup>6,5</sup>	45,996	44,195	+1,801/ +4%
Total Job Earnings (includes self-employment earnings & USCG) <sup>6,5</sup>	\$2.1 billion	\$1.9 billion	+10%
Total Private Sector Payroll <sup>6,5</sup>	\$1.35 billion	\$1.2 billion	+11%
Average Annual Wage <sup>1</sup>	\$43,371	\$40,881	+6%
Annual Unemployment Rate <sup>1</sup>	6.8%	7.7%	-0.9%
TOP ECONOMIC SECTORS	2012	2010	% CHANGE
GOVERNMENT	<b>TOP SECTOR: 36% OF ALL EMPLOYMENT EARNINGS</b>		
Total Government Employment <sup>1,5</sup>	13,882	13,958	-76 jobs / -0.5%
Federal Employment <sup>1,5</sup>	2,246	2,230	+0.7%
State Employment <sup>1</sup>	5,574	5,563	+0.2%
City and Tribal Employment <sup>1</sup>	6,062	6,165	-1.7%
Total Government Payroll (includes USCG) <sup>1</sup>	\$745 million	\$691 million	+8%
COMMERCIAL FISHING & SEAFOOD	<b>SECOND SECTOR: 12% OF ALL EMPLOYMENT EARNINGS</b>		
Total Seafood Employment (includes fishermen) <sup>6</sup>	4,122	3,966	+156 jobs/+4%
Total Seafood Employment Earnings <sup>6</sup>	\$245.8 million	\$209.5 million	+17%
Shorebased Processing Wholesale Value <sup>7</sup>	\$518.8 million	\$467.7 million	+11%
Pounds Landed (commercial seafood pounds by SE residents) <sup>8</sup>	267,316,798	279,864,836	-4%
Estimated Gross Earnings (ex-vessel value of pounds landed) <sup>8</sup>	\$335,036,429	\$291,748,083	+15%
VISITOR SECTOR	<b>THIRD SECTOR: 8% OF ALL EMPLOYMENT EARNINGS</b>		
Total Visitor Industry Employment <sup>6</sup>	6,267	5,871	+396 jobs / 7%
Total Visitor Industry Wages/Earnings <sup>6</sup>	\$174 million	\$157 million	+10%
Cruise Passengers <sup>10</sup>	937,000	875,600	+7%
Total Air Passenger Arrivals in Southeast (includes inter-region travel) <sup>11</sup>	898,467	861,451	+4%
Total Southeast AMHS Passengers Arrivals <sup>12</sup>	262,931	251,503	+5%
HEALTH CARE SECTOR (COMBINING PUBLIC & PRIVATE HEALTH)	<b>FOURTH INDUSTRY: 8% OF ALL EMPLOYMENT EARNINGS</b>		
Health Care Employment <sup>6</sup>	3,223	3,089	+134 jobs / +4%
Health Care Wages <sup>6</sup>	\$162 million	\$149 million	+9%
MINING SECTOR	<b>TOP GROWTH INDUSTRY</b>		
Total Mining and Exploration Employment <sup>6</sup>	815	536	+279 jobs/ +52%
Total Mining and Exploration Wages <sup>6</sup>	\$79 million	\$51 million	+56%
Price of Gold <sup>15</sup> (Note: metal prices are down in 2013)	\$1,669 per ounce	\$1,225 per ounce	+36%
OTHER SELECTED STATISTICS	2012	2010	% CHANGE
Professional and Business Services Employment <sup>6</sup>	2,781	2,581	+200 jobs/+8%
Total Retail & Wholesale Trade Employment <sup>6</sup>	5,140	5,291	-151 jobs/-3%
Construction Employment <sup>6</sup>	2,226	2,107	+119 jobs/+6%
Housing Starts <sup>4</sup>	103	100	+3%
Total Timber Harvest (mmbf) <sup>9</sup>	121	147	-16%
Net generation of MwH in Southeast (2010-2011) <sup>13</sup>	408,469	397,457	+3%
Avg. Daily Volume TAPS <sup>14</sup>	547,866	619,655	-12%

Sources: <sup>1</sup>Alaska Department of Labor (ADOL); <sup>2</sup>ADOL Southeast Alaska Population by Age, Sex and Borough/Census Area, 2010 to 2012; <sup>3</sup>Alaska Department of Education and Early Development; <sup>4</sup>Building Permits Survey, US Census; <sup>5</sup>US Coast Guard FOIA; <sup>6</sup>Combination of ADOL 2012 Employment and Wage data; 2011 US Census Nonemployer (self-employment) Statistics; <sup>7</sup>ADF&G Seafood Production of Shorebased Plants in Southeast Alaska, 2000 through 2012; <sup>8</sup>ADF&G Southeast Alaska Commercial Seafood Industry Harvest and Ex-Vessel Value Information, 2010-2012; <sup>9</sup>Alaska Forest Association; <sup>10</sup>McDowell Group; <sup>11</sup>US Bureau of Transportation Statistics (RITA); <sup>12</sup>Alaska Marine Highway System; <sup>13</sup>Annual Electric Power Industry Report. U.S. Energy Information Administration; <sup>14</sup>Alyeska Pipeline Service Company; <sup>15</sup>Kitco Metals Inc. Special thanks to the Alaska Department of Labor for providing many specialized datasets for this publication.

\*Note: These figures are total change between 2010 & 2012, not the compound annual growth rate.

# The Whole Economy

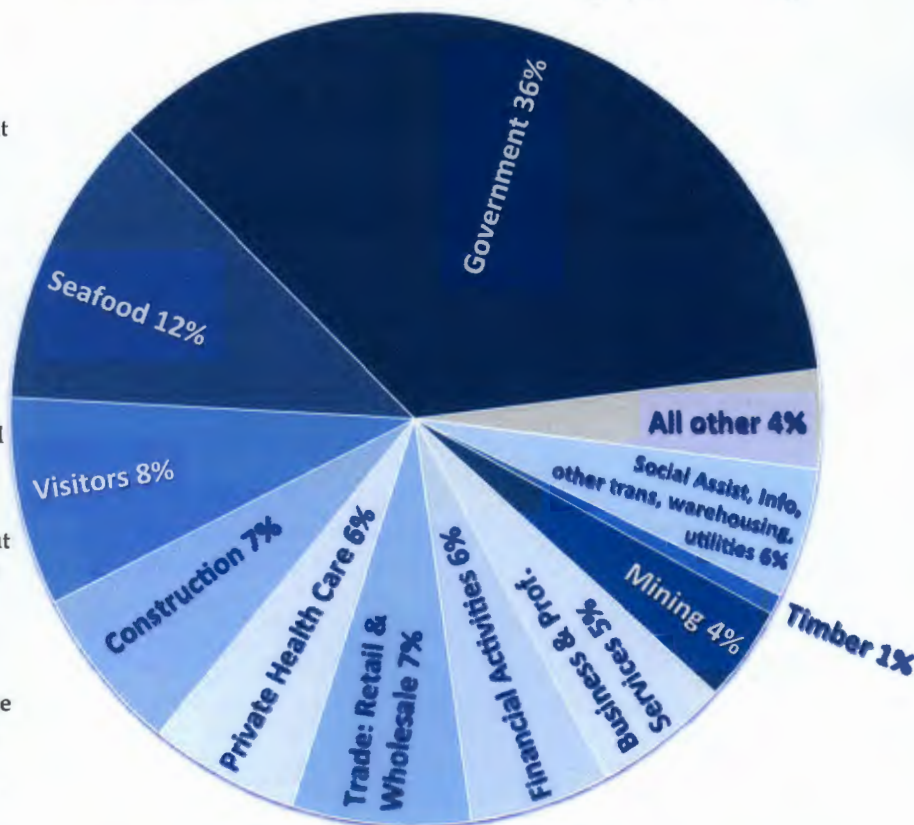
One of the challenges of measuring the Southeast Alaska economy is that Alaska Department of Labor employment and wage data does not include self-employed individuals or their earnings. Nor does it include active duty armed forces. In Southeast this means that commercial fishing efforts and our significant active duty Coast Guard population are often omitted due to lack of data. These groups represent approximately 8,500 people—18 percent of all regional employment.

This publication includes the self-employed and all Coast Guard employees. Self-employment is measured using the US Census Nonemployer Statistics, which track self-employment earnings by compiling tax return data. It lags employee wage data by a year, so to develop a complete picture we used 2012 ADOL and full USGS data, along with 2011 self-employment data.

There are important differences in how employment, self-employment, and active duty data are measured, but combining the data finally provides a clear and accurate picture of the regional economy as a whole. The methodology used here is readily reproducible on an annual basis.

The bulk of all self-employment earnings (39%) are in the seafood sector (mostly commercial fishermen). The pie chart to the right shows the Southeast Alaska regional economy as a whole based on all work related earnings, while the data below provides a detailed breakout of employment and employment earnings.

## 2012 Southeast Alaska Employment Earnings Includes US Coast Guard Payroll & Self-Employment Earnings<sup>1</sup>



## 2012 Southeast Alaska Employment and Employment Related Earnings

	EMPLOYMENT RELATED EARNINGS			EMPLOYMENT NUMBERS		
	Wages (2012)	Self Employment Earnings (2011)*	Total Earnings	Annual Average Employment (2012)	Self-Employed (2011)*	Total Employment
Seafood Industry	\$63,071,138	\$182,707,000	\$245,778,138	1,781	2,341	4,122
Visitor Industry	\$146,657,061	\$26,892,000	\$173,549,061	5,481	786	6,267
Construction Industry	\$98,772,374	\$40,190,000	\$138,962,374	1,550	676	2,226
Health Care Industry (private only)	\$115,624,024	\$10,303,000	\$125,927,024	2,405	208	2,613
Trade: Retail and Wholesale	\$127,401,697	\$21,945,000	\$149,346,697	4,576	564	5,140
Financial Activities	\$60,386,295	\$57,293,000	\$117,679,295	1,320	578	1,898
Professional and Business Services	\$71,124,303	\$42,885,000	\$114,009,303	1,547	1,234	2,781
Mining Industry	\$78,405,118	\$947,000	\$79,352,118	806	9	815
Warehousing, Utilities, & Non-Visitor Transport	\$32,606,429	\$7,891,000	\$40,497,429	732	181	913
Social Services	\$42,775,212	\$3,948,000	\$46,723,212	1,505	230	1,735
Information	\$19,257,088	\$2,121,000	\$21,378,088	442	51	493
Timber Industry	\$14,289,945	\$2,410,000	\$16,699,945	270	61	331
Government (includes all Coast Guard)	\$704,174,162	\$41,062,510*	\$745,236,672	13,318	564*	13,882
All Other	\$52,036,627	\$31,072,000	\$82,623,247	1,771	1,009	2,780
<b>Total</b>	<b>\$1,626,581,471</b>	<b>\$471,666,510</b>	<b>\$2,097,762,603</b>	<b>37,504</b>	<b>8,492</b>	<b>45,996</b>

Sources: <sup>1</sup>Alaska Department of Labor 2012 Employment & Wage data; 2011 US Census Nonemployer (self-employment) Statistics; 2012 US Coast Guard employment & wage data. \* There are no self employed government workers. These columns in Government refer to 2012 active duty Coast Guard personnel employment and wages.

Notes: **Seafood Industry** includes animal aquaculture, fishing, & seafood product preparation (NAICS 1125,1141,3117) and Southeast Alaska resident commercial fishermen (nonresident fishermen & crew that did not report income are excluded).

**Visitor Industry** includes leisure and hospitality and visitor transportation (air, water, scenic) (NAICS 71, 72, 481, 487, 483) McDowell Group includes a portion of retail jobs in their visitors analysis - that was not done here.

**Timber** includes forestry and logging support activities for forestry, and wood product manufacturing (NAICS 113, 1153, 321).

# Southeast Alaska Overview

Southeast Alaska is a maritime region and economy. The Southeast Alaska Panhandle, extends 500-miles along the coast from Metlakatla up to Yakutat, encompassing 35,000 square miles. The saltwater shoreline of Southeast Alaska is approximately 18,500 miles. Islands make up 40 percent of the total land area. The region is home to 34 communities. The three largest communities—Juneau, Ketchikan, and Sitka— together are home to 75 percent of the regional population. Native Alaskans make up nearly a quarter (22%) of the region's population.

More than a quarter of all Southeast Alaska wages are directly earned through ocean related employment in 2012. Taken together, the more than 400 businesses and government agencies that are directly tied to the ocean comprise Southeast Alaska's largest economic sector.

## LAND OWNERSHIP

Southeast Alaska's land ownership is dominated by the Federal government, which manages 95 percent of the land base. Most of this (80%) is the Tongass National Forest. An additional 15 percent is Federal land managed primarily by the National Park Service (mostly in the Glacier Bay area) and the Bureau of Land Management.

The State manages 2.4 percent of the total land base, and this figure includes the Alaska Mental Health Trust and University lands. Boroughs and communities own only 53,000 acres—a quarter of one percent of the entire regional land base. Alaska Native Regional and Village Corporations own just under three percent of the remaining land base. Other private land holdings account for about 11,000 acres of all Southeast lands—or 0.05%. The lack of privately owned land and land available for development is unique in Southeast Alaska and impedes the ability of the region to nurture the private sector.

## LOOKING BACK

Until the mid-1990's, the population of Southeast Alaska had enjoyed nearly a century of growth that intensified after Alaska statehood in 1959. During that period the population and employment levels in Southeast more than doubled as the workforce expanded in the areas of mining, government, fishing, tourism, and timber. However, the mid to late 1990's and early 2000's were difficult years in Southeast Alaska.

In the early-1990's, seafood and timber directly accounted for a fifth of the regional economy. However, over the next decade pulp mills and sawmills in the region closed laying off more than 3,000 workers. During the same period, the value of salmon declined worldwide, and by 2002 regional ex-vessel values had fallen by two-thirds below the 1994 peak.



Total Southeast Alaska wages hit bottom in 1997. It would be another ten years before the negative economic consequences of timber industry losses worked their way through the regional economy. Population levels continued to decline through 2007, and 2008 marked the region's timid start to an economy recovery.

When the regional economy began to show signs of recovery, the national recession caused a slump in the visitor industry. Cruise passenger traffic dropped by 15 percent between 2008 and 2010.

It has taken nearly two decades, but the Southeast economy is now in a cycle of growth and is stronger than ever, and in 2010 the region embarked upon a new period of economic expansion.

# Demographics



Photo by Meilani Schijvens

## UP 2,800 PEOPLE OVER 2 YEARS +4%

In 2012, Southeast Alaska reached a new population record. The region population reached 74,423, surpassing the previous peak population level set in 1997.<sup>1</sup>

Between 1997 and 2007, the regional population outside of Juneau plummeted by nine percent (while Juneau population levels remained flat). The long-term population forecasts for the region were bleak—ADOL projected losses of up to 20 percent over 30 years. However instead of continuing to fall, the region's population decline bottomed out in 2007. Between 2008 and 2012, the Southeast population increased each year, for a total increase of 4,200 people (5.5 percent).<sup>1</sup>



The growth intensified and between 2010 and 2012 Southeast Alaska was the fastest growing region of the state, increasing by 2,800 people. The majority of this growth took place in Juneau, which gained 1,600 additional residents during this period. Ketchikan, Sitka and Haines gained a combined 800 new residents. The two fastest

growing communities in that time (among communities larger than 100) were Tenakee Springs and Gustavus with population gains of 16% and 11% respectively.<sup>1</sup> The regional compound annual growth rate was 1.9%.

### WHO ARE THESE NEW PEOPLE?

On average, those who arrived from outside the state between 2009 and 2011 were young, single, and educated: 70% were single; 75% had some college education or more; and two-thirds were under the age of 30.<sup>6</sup> They moved here for jobs in the visitor, seafood, mining, and construction industries, as well as for health care and Coast Guard positions.

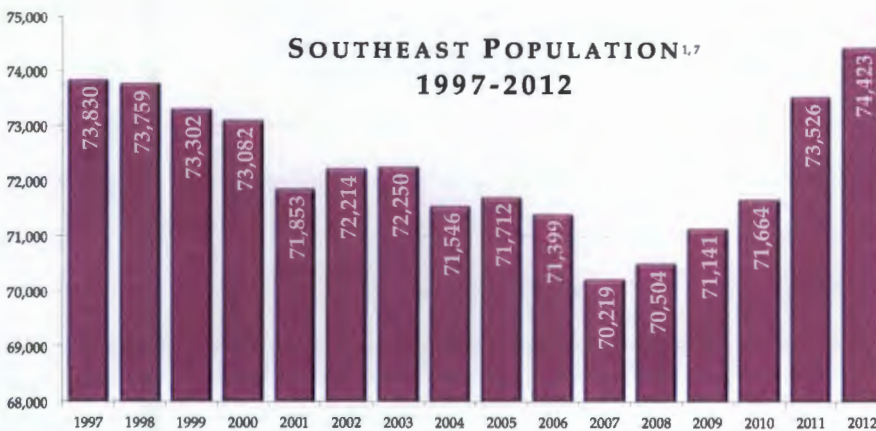
## POPULATION OUTLOOK

The population will continue to increase. Based on 5-year trends expect to see a 1.1% population increase in 2013. The population will also continue to age. Between 2010 and 2012 the number of residents over the age of 60 increased by 16 percent (1,800) and will continue to rise as baby boomers grow older.<sup>2,5</sup> As the grandchildren of baby boomers enter

the school system in larger numbers, expect the K-12 population to rise. Between 1997 and 2010, the number of school children in the region decreased each year for a total loss of 3,000 students.<sup>4</sup> The losses have flattened out, and in 2011 student numbers increased slightly for the first time in 14 years. Unfortunately, these increases will be coming too late for some schools in the region, which are facing closure now due to low enrollment.

### POPULATION CHANGE 2010 TO 2012<sup>1,2</sup>

	2010	2012	Change* 2010 to 2012
Juneau City and Borough	31,275	32,832	5%
Ketchikan Borough	13,477	13,938	3%
Sitka City and Borough	8,881	9,084	2%
Petersburg	2,948	2,972	1%
Haines Borough	2,508	2,620	4%
Wrangell City and Borough	2,369	2,448	3%
Metlakatla	1,405	1,463	4%
Craig	1,201	1,243	3%
Skagway Municipality	968	961	-1%
Klawock	755	799	6%
Hoonah	760	777	2%
Yakutat City and Borough	662	622	-6%
Kake	557	598	7%
Thorne Bay	471	508	8%
Gustavus	442	489	11%
Angeon	459	456	-1%
Saxman	411	432	5%
Hydaburg	376	367	-2%
Coffman Cove	176	181	3%
Tenakee Springs	131	152	16%
Naukati Bay	113	115	2%
Hollis	112	109	-3%
Hyder	87	98	13%
Klukwan	95	93	-2%
Pelican	88	82	-7%
Kasaan	49	69	41%
Port Alexander	52	66	27%
Port Protection	48	42	-13%
Whale Pass	31	39	26%
Edna Bay	42	39	-7%
Kupreanof	27	34	26%
Elfin Cove	20	20	0%
Game Creek	18	19	6%
Point Baker	15	16	7%
<b>Total</b>	<b>71,664</b>	<b>74,423</b>	<b>4%</b>



Sources: <sup>1</sup>Alaska Department of Labor (ADOL); <sup>2</sup>ADOL Southeast Alaska Population by Age, Sex and Borough/Census Area, 2010 to 2012; <sup>3</sup>Alaska Department of Education and Early Development; <sup>4</sup>Alaska Population Projections 2010 to 2035, April 2012; <sup>5</sup>2009-2011 American Community Survey; <sup>6</sup>2010 US Census. \*Note: These percentages are total change, not the compound annual growth rate.

# Southeast Alaska Visitor Industry



Visitors have been coming to Southeast Alaska since John Muir wrote about the region in the 1870's.

## UP 400 JOBS OVER 2 YEARS +7%

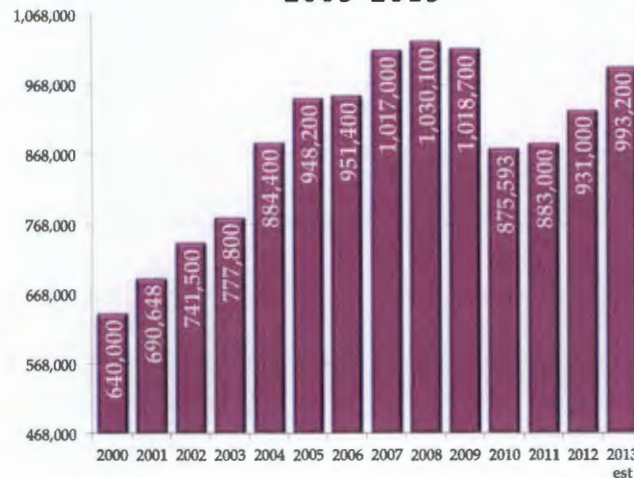
The Southeast Alaska Visitor Industry is experiencing significant growth. Between 2010 and 2012, visitor industry employment increased by seven percent in Southeast Alaska—400 jobs—while tourism-related employment income increased by 10 percent—a \$16.5 million increase in job earnings.<sup>1</sup> Southeast Alaska is the most visited region of the state, attracting nearly 70% of all Alaska summer visitors.<sup>2</sup>

According to McDowell Group, out-of-state visitors spent \$524 million in Southeast Alaska in 2012. On average, visitors spend \$485 per person in the region.<sup>3</sup>

For this publication we define the Visitor Industry as including leisure and hospitality businesses, along with air, water and scenic transportation companies. With this aggregation, the Visitor Industry emerges as the region's largest private sector employer in terms of jobs, accounting for 14% (6,300 jobs) of all employment. Those working in the visitor industry earned \$174 million in 2012—8% of all income earned in Southeast Alaska.<sup>4</sup>

Between 2010 and 2012, cruise passenger traffic to the region increased by seven percent.<sup>5</sup> In 2013, 993,200 cruise ship passengers are projected to visit the region, making 500 voyages on 30 large cruise ships in

## SE CRUISE PASSENGERS 2003-2013<sup>5</sup>



Southeast Alaska.<sup>5</sup> This represents a 110,000-passenger increase from 2010—13% more cruisers. Cruise passenger traffic had increased steadily and significantly for 35 years, but the number of visitors to the region declined in 2009 and 2010 in response to the global recession and a head tax. Approximately five percent of all 2013 cruise ship passengers worldwide visited Southeast Alaska.<sup>6</sup>

It is not just cruise passengers that are visiting the region. Air and ferry passenger numbers are increasing as well.<sup>3,4</sup> Southeast Alaska is becoming a more popular destination for independent travelers as the region gains more a national spotlight. Petersburg was named one of the top 10 yachting communities in the US by Yachting magazine in 2013. The Top Chef season 10 finale aired

earlier this year was filmed in Juneau; as were episodes of the Amazing Race that will air this fall; and Gold Rush—a popular reality TV show filmed in Haines—has begun airing its 4th season.

The volume of visitors attracted to the region has given rise to a rich variety of visitor focused regional businesses that the economy has come to depend on.

## VISITOR INDUSTRY OUTLOOK



The visitor industry in Southeast Alaska tends to follow national and international trends.

As the US economy continues to rebound, so will the Southeast Alaska visitor industry. Along with visitors, the number of jobs and related income in this sector should continue to improve.

In 2014, the number of cruise visitors visiting Southeast Alaska may be slightly lower—by 23,000 passengers—than 2013 projections. Two Princess Cruises ships will be replaced resulting in a 35,000 capacity decrease.<sup>7</sup>

However, expect the region to hit a new cruise passenger record within the next three years, as cruise passenger levels slowly increase.

Worldwide, the projected passenger annual average growth rate of cruise industry is expected to be seven percent through 2017, although growth in the Alaska market is expected to occur more gradually.<sup>6</sup>

Sources: <sup>1</sup>Combination of ADOL 2012 Employment and Wage data; 2011 US Census Nonemployer (self-employment) Statistics; <sup>2</sup>McDowell Group; <sup>3</sup>US Bureau of Transportation Statistics (RITA); <sup>4</sup>Alaska Marine Highway System; <sup>5</sup>Cruise Line Agencies of Alaska, Cruise Ship Calendar for 2013; <sup>6</sup>Cruise Market Watch; <sup>7</sup>Princess Cruises. Note: Visitor Industry includes leisure and hospitality and visitor transportation (air, water, scenic) (NAICS 71, 72, 481, 487, 483) McDowell Group includes a portion of retail jobs in their visitors analysis - that was not done here.



# Southeast Alaska Seafood Industry

Photo Credit: Seafood Producers Cooperative

## UP 150 JOBS OVER 2 YEARS + 4%

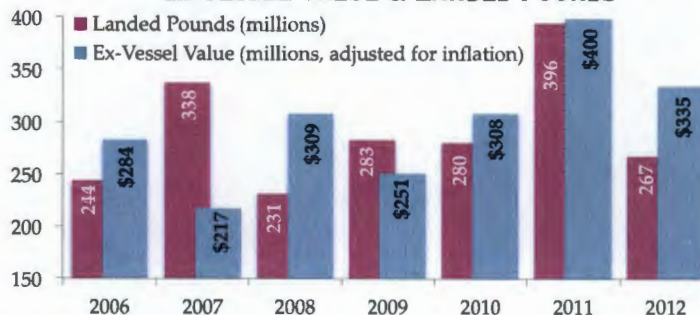
In 2012, the Southeast Alaska total seafood harvest was 267 million pounds, and the 2012 ex-vessel value was \$335 million.<sup>4</sup>

The seafood industry (commercial fishing and seafood processing) is the largest private sector employer in Southeast Alaska in terms of wages, accounting for 12% of all regional wages, and 9% of all employment. In 2012, the average monthly employment for the Southeast Alaska seafood industry was 4,120 (these figures exclude nonresident commercial fishermen, and unreported crew members).<sup>1</sup>

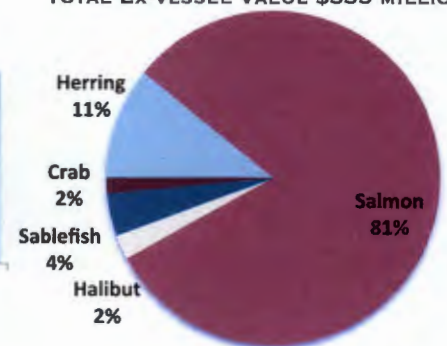
Seafood trends cannot be discussed based on only a year of data because there can be dramatic variations from year to year due to the strength of returning runs and market prices. Case-in-point, in comparison to 2011, 2012 was down significantly. Total pounds landed in Southeast Alaska were down 32% and associated ex-vessel value of that catch was down by 14%. If, on the other hand, 2010 is used as the yardstick by which to compare (as it is throughout this publication) the catch value was up by 15%.<sup>4</sup> The changes in 2012's pounds harvested and value can be largely attributed to the reduced pink return that year; but 2012 prices were generally strong, and chum salmon harvest numbers were 38% higher than 2011.<sup>5</sup>



**2006 TO 2012 SOUTHEAST ALASKA SEAFOOD  
EX-VESSEL VALUE & LANDED POUNDS<sup>4</sup>**



**2012 POUNDS LANDED IN SE<sup>1</sup>  
TOTAL HARVEST 267 MILLION POUNDS  
TOTAL EX-VESSEL VALUE \$335 MILLION**



In 2012, the five salmon species represented more than four-fifths of the region's catch in terms of volume, and 57% of the total ex-vessel value.<sup>4</sup> Halibut and blackcod (sablefish)—while just 6% of total pounds landed—accounted for 34% of the total value of 2012's regional catch.<sup>4</sup>

Shore-based seafood plants in Southeast Alaska processed 196 million pounds of seafood in 2012, with a wholesale value of \$518.8 million.<sup>3</sup> The wholesale value was 16% lower than the year before, but represented a 11% increase over 2010. State shared fisheries taxes on processing activity in 2012 provided \$5.2 million to 18 communities in Southeast Alaska.<sup>7</sup>

Southeast Alaska bested the other regions of the state and was the top salmon harvester in 2012, both in terms of salmon harvested and total value.

## SEAFOOD INDUSTRY OUTLOOK

The 2013 fishing season is shaping up to be one of the best ever.<sup>6</sup> By the end of August

2013, the Southeast commercial salmon catch reached a record total of 98 million fish (surpassing the 1999 record of 97.6 million).<sup>8</sup> Most of the salmon harvested were pinks. Regional fishermen landed 85 million pink salmon—30 million more than projected (and 7 million more than the 1999 record levels). In addition, Southeast Alaska fishermen delivered 9.9 million chum, 2.4 million coho, 867,000 sockeye and 224,000 king salmon to processors. Coho and sockeye came in near projected levels; king harvests were 57% higher; while four million fewer chum were captured.<sup>5,6</sup> Expect the 2014 salmon forecast to be below 2013 levels due to the two-year pink salmon life cycle.

The salmon market has expanded significantly in the US, with strong demand and prices. Salmon is now on 39% of all restaurant menus in the U.S.<sup>9</sup> For halibut, the federal Catch Share Plan being devised now will shift halibut quota between commercial and charter fishing. The outcome of these 2014 decisions will impact future Southeast Alaska halibut related harvest and revenue.

**Sources:** <sup>1</sup>Combination of ADOL 2012 Employment and Wage data; 2011 US Census Nonemployer (self-employment) Statistics; <sup>2</sup>McDowell Group; <sup>3</sup>ADF&G Seafood Production of Shorebased Plants in Southeast Alaska. <sup>4</sup>ADF&G Southeast Alaska Commercial Seafood Industry Harvest and Ex-Vessel Value Information; <sup>5</sup>Run Forecasts and Harvest Projections for 2013 Alaska Salmon Fisheries and Review of the 2012 Season; ADF&G February 2013; <sup>6</sup>ADF&G 2013 Preliminary Alaska Commercial Salmon Harvest - Blue Sheet Updated August 30, 2013; <sup>7</sup>Shared Taxes and Fees Annual Report FY12, ADOR; <sup>8</sup>Alaska Commercial Salmon Harvests and Exvessel Values, ADF&G; <sup>9</sup>Seafood.com 2013. **Seafood Industry** includes animal aquaculture, fishing, & seafood product preparation (NAICS 1125,1141,3117) and Southeast Alaska resident commercial fishermen (nonresident fishermen & crew that did not report income are excluded).



# Southeast Alaska Mining Industry



Photo Credit: Kensington Mine

Mineral exploration and mining have been a part of the Southeast Alaska economy since gold was first discovered here in the 1860s.

## UP 280 JOBS OVER TWO YEARS +52%

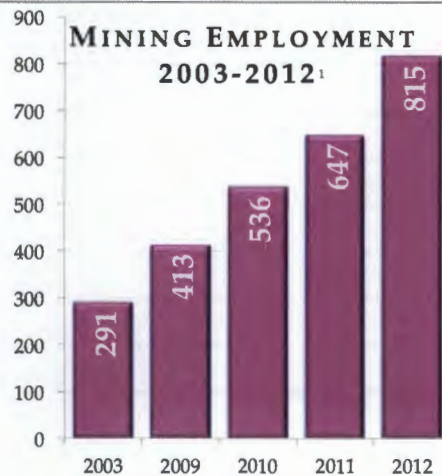
The role of mining in the Southeast economy has significantly increased over the last decade. In 2012, there were 815 mining jobs in Southeast Alaska with a \$79 million payroll. Mining employment in the region was up 52% over 2010 levels, and nearly triple from a decade earlier.<sup>1</sup> With an average annual mining wage of \$97,000, mining wages pay the highest wages of any sector, and are 2.5 times higher than the average private sector wage.<sup>8</sup>

However, the news for mining is not all positive. After rising each year for 11 years in a row, metal prices are falling. The average price of silver in the first half of 2012 was \$25.14 an ounce, a 19% decrease over the 2012 average price. Gold dropped in value by 10% over the same period.<sup>2</sup> Meanwhile, the parent companies of Kensington and Greens Creek mines posted preliminary losses in the 2nd quarter of 2012.

### SIGNIFICANT MINING ACTIVITY AND EXPLORATION IN SOUTHEAST ALASKA INCLUDES:

**GREENS CREEK MINE** (+20 jobs in 2012) is the largest silver mine in the United States, and the sixth largest silver producer in the world. This mine is Juneau's top private employer with 390 permanent year round employees in 2013.<sup>4</sup>

**KENSINGTON MINE** opened in 2010. In 2013, the company employs 310 permanent year-round employees. In 2012, the Kensington mine produced 82,000 ounces of gold (6,000 ounces less than the previous year).<sup>3</sup>



**BOKAN MOUNTAIN PROJECT** is located on southern Prince of Wales Island. The mine plan estimates that 5.2 million tons of rare earth elements will be extracted over an 11 year period, once the mine begins operations. The total cost of building the mine is expected to be \$221 million. The company has announced a 2016 mine completion goal.<sup>5</sup>

**NIBLACK PROJECT** is a copper-zinc-gold-silver-lead deposit located on Prince of Wales Island with an estimated 5.6 million tons of mineral resources. There has been \$87 million invested in the project, and the mine has the potential of creating 200 full time jobs. The company expects to complete the permitting process in 2016, at which time it will begin mill construction.<sup>6</sup>

**HERBERT GLACIER PROJECT** is 18-miles north of downtown Juneau. Initial estimates indicate 182,400 ounces of gold. Claims were staked in 1986 after the deposit was exposed by the retreat of the Herbert Glacier.<sup>7</sup>

Other prospects include the copper-rich **Palmer Project** adjacent to the Haines Highway; the **Poorman Prospect** near Kaasan; **Woewodski** and **Zaremba** gold, silver and zinc prospects located on separate islands near Petersburg and Wrangell; the **Admiral Calder Calcium Carbonate Mine** on Prince of Wales Island; and the historic **AJ mine** in Juneau.

## MINING OUTLOOK

With metal prices falling in 2013 and a softening of the global mining industry, the staggering growth in mining that the region has seen will not likely continue into 2014.



Southeast Alaska's mining industry has always risen and fallen based on mineral prices. If metal prices continue to decline, mining employment levels will become flat, exploration will decrease, and interest in historic mining sites will wane. Other challenges include difficulty securing exploration and development financing as well as environmental permits (Greens Creek currently reports that without a needed tailing expansion permit, the mine cannot operate past 2016). Also, the imposition of the Roadless Rule on the Tongass makes it more difficult both to access mines and for mines to connect to lower-cost renewable energy resources—such as hydropower—in order to supply the intensive energy requirements that accompanies mining.

In the meantime, Southeast Alaska is enjoying the largest mining boom since the days of the goldrush.

Sources: <sup>1</sup>Combination of ADOL 2012 Employment and Wage data; 2011 US Census Nonemployer (self-employment) Statistics; <sup>2</sup>Kitco Metals Inc; <sup>3</sup>Kensington Mine personal communication; <sup>4</sup>Greens Cree Mine personal communication; <sup>5</sup>Preliminary Economic Assessment Bokan Mountain Rare Earth, January 2013, Tetra Tech; <sup>6</sup>Niblack Overview Aug. 2013; <sup>7</sup>Technical Report on the Herbert Glacier Gold Property, April 2013, DuPre and Associates Inc.; <sup>8</sup>ADOL 2012 Employment and Wage data.



U.S. Coast Guard photo: Air Station Sitka, Alaska MH-60 Jayhawk rescue helicopter.

# Southeast Alaska Government

## DOWN 75 JOBS OVER 2 YEARS -0.5%

- State +10 jobs
- Federal +15 jobs
- Local/Tribal -100 jobs

As a whole, government employment was flat between 2010 and 2012.

Government wages make-up 36% of all regional employment earnings (\$745 million) and 30% of the region's jobs (13,900).<sup>1,2</sup>

Forest Service employment has continued to decline. USDA jobs in the region have dropped by more than 150 employees over the past five years, including 30 jobs over the past two years. Since 2010, local government jobs have declined the most, as state and federal budget cuts trickle down to the local level. The City and Borough of Juneau lost 158 workers over the past two years alone.

### TOP FEDERAL EMPLOYER: THE COAST GUARD

The US Coast Guard is now the top federal employer in the region with approximately 700 employees, displacing the Forest Service as USDA jobs decline.

Coast Guard employment in the region has risen slightly over the past two years as Alaska and the Arctic region become increasingly important to U.S. national interests.<sup>2</sup> Retreating sea ice has opened up new possibilities for maritime trade, tourism, and natural resource exploration, resulting in a significant corresponding increase in ship traffic and need for Coast Guard services.<sup>3</sup> Southeast Alaska, despite its distance from the

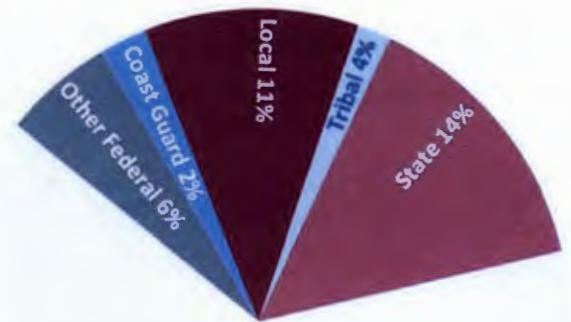
Arctic, has benefited from these development as the USCG builds up its Alaska presence to respond to these changing dynamics in the Arctic.

### DECREASING STATE REVENUE

The Trans-Alaska Oil Pipeline System has been funding 90% of Alaska's unrestricted government funds for most of 35 years. However, the decline in oil production and climbing state General Fund spending have put the state on an unsustainable economic course.<sup>4</sup> North Slope oil fields flow has declined to nearly a quarter of its peak with an average of 547,900 barrels a day in 2012 (down from more than 2 million).<sup>3</sup> According to Alaska Department of Revenue's forecasts, total oil revenues to the state in FY13 are expected to drop by \$2 billion from FY12 levels.<sup>5</sup>

### GOVERNMENT OUTLOOK

The economy of the region is highly dependent on both government employment and spending. In addition to declining state revenue, federal budget cuts will continue to reduce State, local and tribal government programs in the region—recent examples include closure of the SEARHC substance abuse treatment center in Sitka, and reduced Head Start operations in 15



## GOVERNMENT WAGES MADE UP 36% OF ALL SOUTHEAST ALASKA EMPLOYMENT EARNINGS IN 2012<sup>1,2</sup>

towns across the region, both due to sequestration. The near elimination of earmarks (designated Federal spending) will compound upcoming cuts and losses.

Additionally, the region is facing the likely prospect that the federal Payments In Lieu of Taxes (PILT) and Secure Rural Schools (SRS) programs will be reduced or eliminated. Communities receive SRS and PILT funding to compensate for the federal government's ownership of 95% of the regional land base. In 2012, these programs paid local governments \$16.2 million that cannot be easily replaced.<sup>7,8</sup>

Federal, State, local, and tribal government will continue to face revenue challenges in 2014, with negative consequences for the Southeast economy.

Sources: <sup>1</sup>ADOL 2012 Employment and Wage data; <sup>2</sup>United States Coast Guard Response to FOIA 2013-1848; <sup>3</sup>Alyeska Pipeline Service Company; <sup>4</sup>ADOL Southeast Alaska Government Departments 2010-2012; <sup>5</sup>Alaska Department of Revenue, Spring 2013 Forecast; <sup>6</sup>ISER, Maximum Sustainable Yield: FY2014 Update Scott Goldsmith; <sup>7</sup>USFS FY12 ASR 10-1, Payment Summary Secure Rural Schools Act State Payment; <sup>8</sup>FY12 Alaska Payments in Lieu of Taxes (PILT) program; <sup>9</sup>United States Coast Guard Arctic Strategy May 2013.



Photo by PeaceHealth Ketchikan Medical Center.



Photo by Meilani Schijvens

## Southeast Health Care Industry

**UP 130 JOBS OVER 2 YEARS +4%**

When both private and local hospital health care services are taken into account, the health care industry employment accounted for eight percent of all Southeast employment (3,200 workers) and wages in 2012.<sup>1</sup>

The largest health care provider in the region is the Southeast Alaska Regional Health Consortium (SEARHC)

followed by the Bartlett Regional and Ketchikan General hospitals.

## HEALTH CARE INDUSTRY OUTLOOK

Due to the aging Southeast Alaska population, health

care needs are rising, and the health care industry is expected to continue to expand in response to these trends.

Statewide, Ambulatory Health Care Service jobs are forecasted to increase 37% between 2010-2020, while hospital employment is expected to rise 28%. As the demands to age in place (at home and in home communities) become stronger, demand for workers in the health care industry will translate into long-term continued growth for this industry region-wide through 2020.<sup>2</sup>

## Southeast Timber & Wood Products Industry

**DOWN 11 JOBS OVER 2 YEARS -3%**

Between 2010 and 2012 timber related employment in Southeast Alaska decreased by 11 jobs (3%), and the total timber harvest fell by 16 percent.<sup>3</sup> Despite these losses total wages attributed to this sector grew by 5% to \$16.7 million over this two-year period.<sup>1</sup>



Today's Southeast Alaska timber industry looks more like it did in the early 1900's than the 1990's. Once the economic backbone of the region accounting for almost 4,500 direct jobs, timber related employment now is only a fraction of the regional economy. In 2012, timber accounted for one percent of jobs and wages in the region with 331 jobs in Southeast (sawmill, logging, logging support and wood product manufacturing jobs).<sup>1</sup>

## TIMBER OUTLOOK

Due to the timing of timber sales (including the Tonka sale) there will be timber harvesting gains in 2013.<sup>3</sup> However, the 2011 reinstatement of the Roadless Rule makes timber harvesting increasingly difficult over

the long-term; while continued uncertainty and the current investment climate threaten the region's remaining capacity, infrastructure, and timber industry expertise. A successful timber industry requires changes to the federal timber harvest policy, a predictable timber supply with sufficient volumes to support industry, the timely release of the four 10-year timber sales, and passage of the Sealaska Land Bill.

## Alaska Native Organizations

Southeast Alaska's Native Corporations (ANCs) are the region's largest private landowners with almost 700,000 acres of land collectively. Augmenting its timber harvest activity, Sealaska and other corporations have instituted large scale forest management programs. ANCs are investing in the reopening of the Kake Fish Processing plant (Rocky Pass Seafoods) and in the operation of several oyster farms (Haa Aani). The Haida Corporation is now investing in a hydroelectric facility at Reynolds Creek to provide energy to Prince of Wales Island. The region's ANCs are making major investments in the resurgence of and recognition of Native art and culture—which is becoming a key differentiator in the region - beyond the scenic majesty, as tourism 'must sees'. Sealaska Heritage Institute just broke ground on its \$20 million Walter Soboleff Center in the heart of downtown Juneau, which will both showcase Southeast's Native cultures and provide resources for scholarly research. Huna Totem Corporation's Icy Strait Point cruise ship destination is in its 10th year of operation. This year they've launched Alaska Native Voices, a consulting service to help others develop cultural tourism ventures. Goldbelt Corporation's Mount Roberts Tram is a top tourist destination, and just one of their many visitor related businesses

Southeast Alaska's Tribes are also part of these collective efforts to build sustainable communities. Several have made new capital improvements in their communities and are working to strengthen cultural programs. The Organized Village of Kasaan is restoring the Chief Son-i-Hat Whale House to preserve the Haida architectural form and culture, already making Kasaan an Alaskan Dream Cruise destination. The Sitka Tribal Tannery is a business that tans sea otter, seal, bear, wolf and other hides. It is poised for growth as it capitalizes on lessons learned and gets ready to expand operations with direct sales and marketing. Southeast Alaska Native Corporation's land, commitment to culture, and business acumen are having a growing economic impact in our region.

Sources: <sup>1</sup>Combination of Alaska Department of Labor 2012 Employment and Wage data and 2011 US Census Nonemployer (self-employment) Statistics; <sup>2</sup>Industry and Occupational Forecasts 2010 to 2020, Alaska Trends, October 2012; <sup>3</sup>Alaska Forest Association; <sup>4</sup>Sealaska Forester Brian Kleinhenz.

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# The Maritime Economy of Southeast Alaska

Photo Credit: Jo Ellen Wendel [alaskafloatsmyboat.com](http://alaskafloatsmyboat.com)

## A Publication of Southeast Conference

September 2013

### Our Ocean-Based Economy

*Southeast Alaska's maritime sector is a vibrant spectrum of businesses and organizations dependent on ocean related commerce.*

Southeast Alaska is a maritime region. Nearly every element of our economy is intermingled with the maritime economy. We depend on barges to import most commodities, including food and fuel. Our seafood industry depends on the wealth of the sea and the flotilla of 3,000 commercial fishing vessels home-ported in the region. A million visitors come to Southeast Alaska on 500 cruise ship voyages in the summer. Freight ships move logs and ore laden with precious metals to market. Alaska Marine Highway ferries provide transportation between communities.

Government employees regulate the fishing industry, guard our coasts, teach fisheries courses, manage coastal areas, operate docks and harbors, and research ocean species and habitat.

Due to the way economic data is typically quantified, the Southeast Alaska maritime industry has not previously been measured as an independent sector. As a result its contributions to the regional economy have not been recognized. This publication quantifies Southeast Alaska's maritime economy and provides an in-depth focus on one of the region's fastest growing segments: maritime manufacturing in the form of ship & boat building and repair.



#### HOW MUCH OF SOUTHEAST ALASKA'S ECONOMY IS MARITIME?

Just over one-quarter of all Southeast Alaska wages are directly earned through ocean related employment in 2012. In Southeast Alaska there are 8,200 "blue jobs" as maritime jobs are sometimes called, with \$475 million in associated wages. Taken together, the more than 400 businesses and government agencies that are directly tied to the ocean comprise Southeast Alaska's largest economic sector.

#### WHAT ARE MARITIME OR "BLUE" JOBS?

Maritime jobs are all jobs related to the ocean. In Southeast Alaska this includes ship and boat builders, fishermen, cannery workers, barge line operators, Coast Guard employees, ferry workers, marine welders, builders of breakwaters, whale watching cruise staff,

marine biologists, fishing lodge owners, sports fishing crew, marine regulation enforcers, kayak guides, boat dealers, salmon hatchery staff, fish permit clerks, fishing gear retailers, and more.

Both private and public sector employment are part of the regional maritime economy, although the region's private sector's contribution is larger. There are nearly three private sector maritime jobs for each public sector job. When all maritime categories are added together, the Southeast Alaska maritime sector directly accounts for 26% of all employment related income and 21% of all Southeast Alaska employment in 2012.

#### A UNIQUELY MARITIME ECONOMY

Maritime employment sets Southeast Alaska apart from the rest of the United States. Private maritime jobs are **49 times more prevalent** in Southeast Alaska than in the US as a whole according to the Bureau of Labor Statistics. Even excluding commercial fishing, which is 95 times more common here than in the US as a whole, the region's maritime businesses are 35 times more concentrated (or specialized) in Southeast Alaska than the nation as a whole. When economists look at an economy to identify the economic drivers, they look at this "location quotient" in order to understand what makes a region unique compared to national norms. The national average is 1.0, and anything over 2.0 is considered to be significant. Southeast Alaska's maritime sector off the charts.

# A Message from Southeast Conference's Executive Director

## Greetings-

We think this publication will change the way you think about the regional economy. We have often grappled with the question: What is Southeast Alaska's top economic driver, and what is it that makes the Southeast economy unique? Some said it was government, or fishing, or tourism, or extractive industries.

The ocean and ocean-related jobs play such a big role in our regional communities and we at Southeast Conference wanted to better understand the role of the Southeast Alaska maritime economy as a whole. Until now, no one had quantified just how big and important that role is. This publication marks the first time that all aspects of our maritime economy have been combined and examined together, and it finally answers those questions above.

**We are a maritime economy.** It is what most marks our identity and what fuels our economic engine. Our maritime economy permeates into every aspect of our economy and includes tourism jobs and fishing jobs; government jobs and natural resource development.

As part of this publication, we want to highlight some of the success stories from across the region related to maritime. Since much has been written about our commercial fishing sector, for this publication we chose to focus on the ship, boat building, and repair sector, as so much exciting growth and change has happened in those areas over the last decade. However, we hope this publication stands as a tribute to all maritime workers and businesses across Southeast Alaska.

New maritime opportunities are emerging across Alaska. Retreating sea ice has increased the accessibility of the Arctic, generating new economic opportunities and an increased US Coast Guard presence. Initiatives, such as those listed in this publication, are occurring that will help us to collaborate as a region and as a State to better recognize the value of maritime opportunities, and to prioritize development of the marine infrastructure necessary to bring higher paying jobs to our rural communities. Success will require industry leadership, strategic planning, and a willingness to work towards new worthwhile opportunities.

Southeast Conference will continue to push forward in this direction on behalf of our membership.

Shelly Wright  
Southeast Conference, Executive Director

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# Southeast Maritime Employment & Wages, 2012



	NUMBER OF FIRMS	TOTAL WAGES	ANNUAL AVG. EMPLOYMENT	AVERAGE ANNUAL WAGES
<b>SEAFOOD</b> (INCLUDING SELF-EMPLOYED SOUTHEAST ALASKA BASED FISHERMEN)	93 (+ 2,330 fishermen)	\$245,882,790	4,130	\$59,536
<b>WATER TRANSPORTATION</b>	97	\$39,051,375	755	\$51,724
<b>MARINAS AND BOAT DEALERS</b>	12	\$1,549,550	49	\$31,623
<b>SHIP, BOAT BUILDING &amp; REPAIR</b>	7	\$10,001,800	183	\$54,655
<b>MIXED MARINE RECREATION</b> (SPORTS FISHING, KAYAKING, BOATING, FISHING LODGES, SPORTING GOODS STORES, MARINE RECREATION)	114	\$16,888,750	594	\$28,432
<b>MIXED MARINE CONSTRUCTION, ENGINEERING, MANUFACTURING, &amp; RESEARCH</b>	51	\$12,094,190	192	\$62,991
<b>SUBTOTAL PRIVATE REGIONAL MARITIME</b>	<b>374</b>	<b>\$325,468,455</b>	<b>5,903</b>	<b>\$55,136</b>
<b>FEDERAL MARITIME EMPLOYMENT</b> (NMFS, US COAST GUARD, FISHERIES COMPONENT OF US FISH & WILDLIFE)	4	\$70,120,050	897	\$78,172
<b>LOCAL GOVERNMENT MARITIME EMPLOYMENT</b> (INTER-ISLAND FERRY AUTHORITY, DOCKS AND HARBORS STAFF)	20	\$4,665,990	100	\$46,660
<b>STATE MARITIME EMPLOYMENT</b> (AMHS, UNIVERSITY OF ALASKA - UAF, UAS; FISHERIES COMPONENT OF ADF&G)	4	\$74,192,475	1,300	\$57,071
<b>SUBTOTAL PUBLIC REGIONAL MARITIME</b>	<b>28</b>	<b>\$148,978,515</b>	<b>2,297</b>	<b>\$64,858</b>
<b>TOTAL SOUTHEAST MARITIME JOBS &amp; WAGES</b>	<b>402</b>	<b>\$474,446,970</b>	<b>8,200</b>	<b>\$57,860</b>

Primary Source: Alaska Department of Labor.

Seafood Includes: Mariculture, Seafood Product Preparation and Packaging, Merchant Wholesalers, Seafood Markets (NAICS codes 1125, 1141, 3117, 42446, 44522) 2012.

Water Transportation includes: Water Transportation, Support Activities for Water Transportation, Scenic and Sightseeing Transportation (NAICS codes 483, 4883, 4872) 2012.

Marinas and Boat Dealers includes: Marinas and Boat Dealer (NAICS codes 441222, 71393) 2012.

Ship, Boat Building & Repair includes: Ship, Boat Building & Repair (NAICS code 3366) 2012.

Mixed Marine Recreation includes NAICS codes 42391, 532292, 71211, 71212, 71213, 71399, 721214, 81149 for 2012.

Mixed Marine Construction/Manufacturing/Engineering/Research includes NAICS codes 23621, 2379, 311119, 31491, 332999, 333923, 42383, 54133, 541712, 541990, 611519 for 2012.

**Other data sources:** **Commercial Fishermen:** Data for this category includes 2011 US Census Nonemployer (self-employment) statistics. **US Coast Guard:** US Coast Guard employment and wage data provided by the US Coast Guard, 2012. **AMHS Employment:** AMHS employment and wage data provided by AMHS, 2012. **Alaska Department of Fish and Game** provided fish related job data, 2012. **US Fish and Wildlife and National Marine Fisheries Service:** Provided by the the United States Office of Personnel Management, 2012. **University of Alaska:** University of Alaska System Institutional Research & Analysis provided wage and labor information for UAS and UAF maritime related employment. **Dock and Harbors City Employees:** Survey by Sheinberg Associates, April 2013. Some rounding has occurred.

**Notes:** The goal of this analysis is to incorporate and measure the entire Southeast Alaska maritime economy. However, there is maritime-related employment in the supply chain base that provides specialized goods and professional services to the maritime industry that these figures do not include, such as plumbing and heating businesses that work on homes as well as boats, locksmiths with marine clientele, seafood restaurants, and employment agencies that hire ferry workers. Nor do these figures take into account the multiplier effects of maritime jobs on the region—each maritime dollar spent or job created leads to additional spending and employment as dollars working their way through the regional economy.

The 26% percent of work income from chart on page one is based on \$1.85 billion earned. This is slightly lower than the "Southeast by the Numbers" value because self-employment data (other than commercial fishing) could not be analyzed in enough detail to separate maritime from non-maritime employment, and thus was excluded from this analysis.

# "Blue" Jobs in the Region's Public & Private Sectors



Photo Credit: Jo Ellen Wendel [alaskafloatsmyboat.com](http://alaskafloatsmyboat.com)

*Southeast Alaska's maritime industry and related economic activity comprise the regional "Blue Economy."*

## PRIVATE SECTOR MARITIME JOBS AND WAGES

There are 5,900 private sector employees and commercial fishermen in Southeast Alaska, earning \$326 million annually, whose livelihood is linked to maritime industries. Their earnings account for 30% of all Southeast Alaska private sector employment income.

Some private sector "blue" jobs are solely linked to the oceans. These include commercial fishermen, and those employed by seafood plants, mariculture operations, barge and marine freight services, whale watching and other ocean-based excursions, charter fishing, marinas, boat dealers, and ship and boat building and repair craftsmen.

A smaller component—representing about 10% of private maritime employment—is mixed maritime; where jobs cannot be seamlessly separated from non-maritime jobs. Examples are construction firms that do work in marine construction (breakwater and seawall work, dock repair, pile driving, or boat lift installation) as well as non-marine construction; or "commercial recreational" lodges, which is a category that includes fishing lodges as well as hunting lodges. Other ocean-dependent businesses included in mixed categories are fishing guide services, sailing clubs, marine engineering, oceanographic research, boat and kayak rentals, marine and fishing equipment suppliers, dry-bag manufacturers, marine surveyors, and outboard motor repair shops. Employment in this category is more likely to be connected to the visitor industry and is highly seasonal.

## GOVERNMENT SECTOR JOBS MARITIME AND WAGES

The public sector also has a significant amount of maritime employment, including 2,300 government jobs with a direct maritime component.

### STATE MARITIME EMPLOYMENT

The largest share of these public sector



maritime positions—1,300—are with the State of Alaska. This is linked to the enormous investment the State has made in marine public transportation. The Alaska

Marine Highway System has 900 employees in Southeast Alaska. Among the many duties AMHS employees are responsible for include operating ships, providing shore support, ensuring that engine rooms are operating properly, and providing housekeeping services. In 2012, 263,000 passengers and 85,000 vehicles sailed on ferries in Southeast Alaska.

The Alaska Department of Fish and Game provides a significant number of State maritime jobs in the region. These jobs include boat officers; fisheries biologists, scientists, and analysts; and serve the Commercial Fisheries Entry Commission, and the divisions of the Sport Fisheries, Habitat,

Subsistence, or support the Board of Fish. The University of Alaska's School of Fisheries and Ocean Science also has a small presence in Southeast Alaska, and other University employment are the UAS professors who teach Marine Technology, Diesel, and Fisheries Technology courses.

### FEDERAL MARITIME EMPLOYMENT

Forty percent of all federal wages paid to Southeast Alaskans are maritime wages. There are 700 US Coast Guard personnel stationed in Southeast Alaska—including both active duty and civilian staff, with associated wages of \$51 million.



The National Marine Fisheries Service (NMFS) also is a significant employer here, with 180 average annual employees. Most NMFS employees are involved in scientific research of fish stocks, fish habitats, or the chemistry of marine environments through the Ted Stevens Marine Research Institute laboratories, opened in Juneau in 2007.

US Fish and Wildlife maritime positions round out this category, albeit with a smaller presence than the other two federal organizations with maritime employment.

### LOCAL GOVERNMENT MARITIME EMPLOYMENT

Two percent of all local government wages are directly tied to maritime employment. These include our municipal docks and harbors staff and Inter-Island Ferry employees.



# Our Rich Maritime Heritage



State of Alaska Digital Archives: Mr. Lawson standing in front of combination fishing seine and tugboat that he built in 1938.

## 10,000 YEARS OF A MARITIME ECONOMY

The most dominant feature of Southeast Alaska is its ocean. Southeast Alaska consists of a narrow strip of mainland and a chain of 1,100 islands that make up the Alexander Archipelago. While the region stretches just 500 miles from the southern Dixon Entrance waters to Yakutat in the north, the saltwater shoreline of Southeast Alaska is approximately 18,500 miles. Nearly every community in the region is next to the ocean, and many places in Southeast are accessible only by boat or seaplane.

Maritime jobs are not new to Southeast Alaska. Southeast Alaska's maritime sector is the region's largest sector as well as its oldest. Southeast Alaska has been a maritime economy for over 10,000 years linked to the seafaring, canoe building and tidal wealth of the Tlingit, Haida, and Tsimshian—the Alaska Native groups that dominated the region for millennia. In modern times, the sea was a critical element in the rise of most of our industries. Indeed, every economic turn of the region's history was either enabled by, or directly resulting from, the region's connection to the ocean.

**TLINGIT TRADING:** The coastal lands of Southeast Alaska provided an ideal setting for the Tlingit—often called the "Tides People"—to thrive. The ocean provided abundant fish and sea mammals, as well as a transportation corridor. Highly-skilled navigators, the Tlingit developed ocean trade routes, using large ocean-going canoes for trading, visiting neighboring villages and waging war—



Canoe travelers arrive at the 2013 Chief Shakes Tribal House rededication

building onshore aids to navigation to help Southeast's first people find their way. In contrast to other indigenous peoples who often struggled just to survive, the Tlingit spent relatively little time harvesting and storing easily obtained marine foods and instead were able to focus on becoming sophisticated traders and craftsmen.

**FUR TRADE:** When the Russians descended on the region in the eighteenth century in a fleet of boats in pursuit of fur-bearing animals, they brought with them ship-building skills and operations. During the period of Russian control of the region, Sitka became a global destination for ships, making repair and marine fabrication skills essential during the Russian period.

**SEAFOOD:** Fishing and fish processing have long historical roots in the region. By the late 1800s, commercial fishing and canneries had become the largest economic driver in Southeast. Today seafood related jobs to account for 12% of all regional earnings.



Hecla Photo: Miners waiting for the boat to take them to Juneau from the Greens Creek Mine.

**MINING:** The discovery of gold brought thousands of miners and their families to the area by ship. By 1920, the Juneau-based AJ Mine was the largest low-grade gold mine in the world. Today, nearly a million tons of zinc, lead, gold, and silver continue to ship out of Southeast Alaska annually by ore carrier freight ships.

**TIMBER:** Once the economic backbone of the region, timber operations have always relied on waterways to move logs to market. Logging camps themselves were often floating communities, built directly on the ocean. In 2011, log carriers made 31 port calls to Southeast Alaska communities to ship timber.



**TOURISM:** Visitors have been coming to Southeast Alaska via marine transport since John Muir wrote about the region in the 1870's. In 1890, steamships brought 5,000 travelers. In 2013, cruise ships will bring more than a million passengers to the region on separate 500 voyages. The volume of visitors attracted to the region has given rise to a rich variety of local visitor businesses that benefit from the sea, from sports fishing to whale watching to guided kayak tours and more.

September 2013

# The Barnard Monthly

Newsletter for the Employees and Friends of the Barnard Companies

## Busy Blue Lake Crews Place Concrete Atop Dam, Line Tunnel, Build Powerhouse



### Inside this issue:

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*A Barnard crew uses an 8 CY Gar-bro concrete bucket to place the concrete on the dam's right abutment. (Photo by Derik Olsen Photography.)*

(Sitka, Alaska) At the **Blue Lake Expansion Project**, Barnard crews are busy placing mass concrete on the right abutment of Blue Lake Dam. Visitors from the Home Office got a great view of the concrete placement from the scaffolding in early and late September. By the end of the month, our crews had placed 10 monolith blocks on the left and right abutments of the existing 145-foot dam that we're raising 83 feet for the *City and Borough of Sitka*. We have been coordinating our work on the abutments with subcontractor *Crux Subsurface, Inc.* We will soon begin working on the dam's left side as well as the left abutment thrust block.

the six required pressure relief wells in the plunge pool below Blue Lake Dam. These wells allow the City of Sitka to monitor water leakage under the new dam as well as relieve additional water pressure under the dam from the additional 83 feet of head pressure. Crux also completed the consolidation grouting program on the left abutment thrust block and cutoff wall. They have demobilized from the site until early next year when they'll begin a curtain grouting program after our concrete work on the abutments is complete.

At the same time, Barnard crews have been working in the intake tunnel

Crux recently completed installation of

*(continued on page 2)*

## Blue Lake *(continued from page 1)*

behind a temporary concrete plug. This has allowed us to complete additional work this year as the water level in Blue Lake rises. We have now completed all of the tunnel floor and wall concrete placements, and have begun setting up the shored decking required for tunnel crown concrete. Our crews are working with *Rebar Placement Company, Inc. (RPC)* to install the extensive reinforcing steel in the tunnel chamber.

Downstream, subcontractor *ASRC McGraw* continues with the concrete work at the new Blue Lake powerhouse. They have placed over 1,500 CY of concrete to date. Electrical (*NAES Power Contractors*), mechanical (*Schmolck Mechanical Contractors, Inc.*) and rebar (*RPC*) crews have been working hand-in-hand with ASRC to install all of the required embedments. *Southeast Earthmovers, Inc.* has continued excavation for the new powerhouse access road as well as excavation for the new penstock piping.

Barnard crews have recently joined the mix at the powerhouse, installing two penstock segments that enter the



*Crews work on the new Blue Lake powerhouse.*

new powerhouse. Soon, we'll install a third and later in the project when the powerhouse building is complete we'll also complete the penstocks.

Also in September, the Blue Lake Team held an Executive Level Partnering meeting in Sitka led by industry Partnering expert, Chuck Cowan. The meeting included executives from the

City and Borough of Sitka, *McMillen, LLC* (project CM), Barnard and ASRC McGraw. The group openly discussed the status of the project as well as any concerns. Our Team continues to use the Partnering approach at Blue Lake. We hold monthly meetings to discuss how well the Team is doing at achieving the project goals.

— *Blue Lake Team*



*Participants in Sept. 5, 2013 Executive Partnering meeting, l to r: Jay Sweeney, City and Borough of Sitka Interim Municipal Administrator; Richard Linden, McMillen Resident Project Representative; Jim Mendenhall, ASRC CEO; Andrew Pharis, McMillen Project Administrator; Chuck Cowan, Charles Cowan & Assocs., Partnering Facilitator; Michael Harmon, Sitka Director of Public Works; Rick Taylor, Barnard Superintendent; Jeff Higgins, Barnard CEO; Chuck McGraw, ASRC Vice President; Dean Orbison, City and Borough of Sitka Project Manager; Clif Stump, Barnard Project Manager; Derek Tisdell, Barnard VP/Operations Manager; and Tracey Chambers, Barnard Superintendent. (photo by Derik Olsen Photography)*

## Snoqualmie Update: Plants 1 and 2 Are Operating!



A look at the Plant 1 Powerhouse Pelton units. Needle valves and controls are on the left and Units 2 and 3 and testing personnel can be seen on the right.

(Snoqualmie, Washington) There's a lot to be done to commission an enlarged and restored power plant, particularly if it was built 100 years ago in a cavern 270 feet below ground level. Our Team at the **Snoqualmie Falls Hydroelectric Redevelopment Project** has accomplished the task! Puget Sound Energy has now granted Commercial Operations for Plant 1 upon successfully testing and synchronizing all five turbine-generator units in the cavern. Plant 1 HVAC and fire alarm systems were commissioned last week. The final piece of commissioning, testing Unit 5 load rejection, is on hold due to low river flows. We anticipate adequate flows for these tests in the beginning of October.

After being protected for nearly three years, the historic Plant 1 generators are turning once again. Commissioning required a long, thorough process. On July 13, Unit 3 was watered and moved for the first time since construction began. Under the watch of many observers, water was added from the turbine isolation valves to needle valves that control water flow for the unit. PSE operators on standby listened for any leakage inside the turbine. When the signal was given to start the lube oil pumps and provide water flow, the initial startup sounded very similar to an old locomotive. It

lasted only a few seconds before the needle valves were closed and listening for any noises began. Only minor adjustments were needed. The mechanical tuning continued to monitor bearing temperatures at different stages before reaching full speed. This exercise provided light at the end of the tunnel – it was the moment many had been working toward for years.

Leading up to this point, many additional pieces of equipment had also been energized for the first time, including a new 115kV transformer, switchgear at the surface and in the cavern, intake gate hoists, flow measurement,

and also filling of the new 270-foot vertical penstock with over 25 flanged connections for the first time.

At Plant 2, PSE held a grand opening for the recently constructed parks, which opened to the public on Sept. 14.

Barnard crews and subcontractors are making their way through punch list items to close out the project and demobilize this fall. Barnard worked on the project's design in a Design-Assist capacity with Engineer *Klohn Crippen Berger*.

— Snoqualmie Team



Left to right, Dave Johnson (PSE), Adam Schrock (Barnard), and Byron Kurtz (PSE) stand at Unit 3's local controls.

### Barnard Heads Back to Texas!

The Lower Colorado River Authority (LCRA) Board of Directors voted unanimously on Sept. 18 to award its Lower Basin Reservoir CM at Risk Contract to Barnard. We were selected from among six teams that prequalified for the project.

Our Team will begin working immediately with LCRA and Design Engineer CH2M Hill under a pre-construction services contract. Construction is anticipated to start in April 2014.

This new off-stream above-ground reservoir will be located near Lane City, Texas, southwest of Houston. At present, it is planned to have a 40-foot-high earthen



embankment stretching 28,000 LF, creating a reservoir capable of holding 40,000 acre-feet of water. For frame of reference, Reservoir No. 2 at Peace River holds 18,420 acre-feet of water. The project also includes rebuilding a 560 cfs pump station and canal system, construction of a new 560 cfs lift station and rehabilitation of an existing in-stream concrete dam on the Lower Colorado River.

Congratulations to all involved!

### The View from Central T

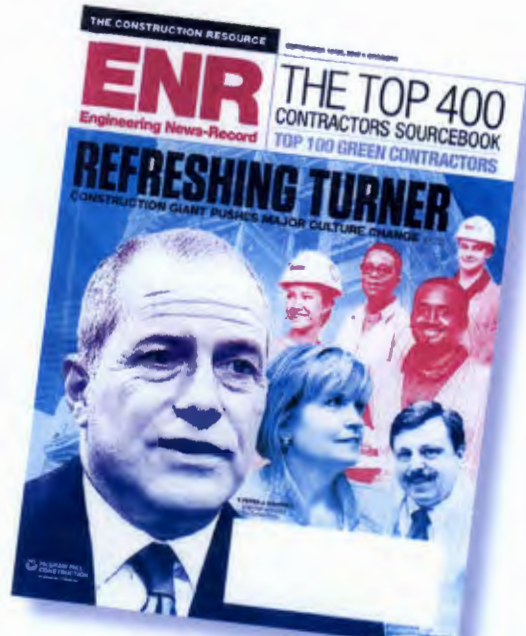
(San Francisco, California) At the Central Subway Tunnel Project for the San Francisco Municipal Transportation Agency, our Barnard Impregilo Healy JV Team moves forward on southbound tunnel construction, shown here on the left while assembling the Tunnel Boring Machine for the northbound tunnel on the right. This is taking place in the launch box directly under San Francisco's I-80 overpass. The project was designed by PB/Telamon JV.

— Central T Team



### New ENR Rankings

We have a Barnard first! The latest Engineering News-Record (ENR) Sourcebook came out this month, listing some additional ranking categories as well as reiterating the year's standings. For the first time, Barnard ranked among the Top 5 Contractors in Hydro Plants; we're #4.



We also ranked #13 out of the Top 20 Contractors in Water Supply, which falls under ENR's Environment category.

Our other two 2013 ENR rankings include: #49 nationally among the Top 200 Environmental Contractors and #245 nationally among the Top 400 Contractors.

## Montrose Project Team Wraps Up and Moves Out

(Toba Valley, British Columbia)  
 With winter fast approaching and the penstock repair complete, our subcontractors have demobilized and our equipment is moving out. At the **Montrose Penstock Repair Project** in a remote valley in British Columbia, we reached our ultimate goal recently when the second generator at the Montrose powerhouse began its ramp up and sent power to the grid. Happy days!

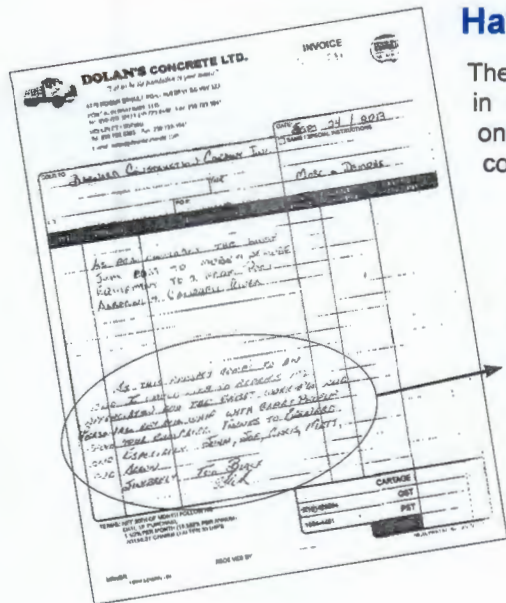
Pipe fit up, welding, coating, and CLSM backfill have all been completed on this project for owner *Toba Montrose General Partnership*. Our subcontractors have demobilized along with 80 percent of our Barnard equipment, trailers, etc.

It's fitting that our expansion into Canada took place in such a remote location; British Columbia's Sunshine Coast is similar to many other wild areas where Canadians plan to draw their energy from in coming years through production of more hydroelectric power.

— Montrose Team



Top: Crews complete penstock replacement at the Montrose project.  
 Bottom: Wildlife in the Toba Valley is sure to miss our Team – they visited almost daily.



### Hats Off to the Montrose Team!

The **Montrose Team**, including **Jill Barclay** in Accounting, received hearty thanks from one of several subcontractors on our recently completed job. We offer congrats as well!

*“As this project comes to an end, I would like to express my appreciation for the great working and personal relationship with great people from your company. Thanks to Barnard and especially **John, Joe, Chris, Matt and Aaron.**”*

Sincerely,  
 Tom Black

*“When people keep telling you that you can't do a thing, you kind of like to try it.”*

—Margaret Chase Smith,  
 American politician

## Our PG&E Alliance Team Hard at Work throughout Northern California

(Northern California) Our PG&E Alliance Team has been busy this month with projects stretching from Orland and Chico in the north to Woodland, Davis and West Sacramento at the south end. Two of these projects currently focus on West Sacramento, where one crew on the 16-inch L172A Replacement Project is installing approximately 16,447 LF of new 16-inch steel gas pipeline. The second, the T-282-13 West Sacramento Hydrotest Project, involves hydrostatically testing two 12-inch lines that travel under the Sacramento River. These are slated to be tied into our R-037 replacement project.



Welders weld a 16-inch tie-in assembly.

Our Team began working with Pacific Gas & Electric in February 2013 as part of the development of a multi-year "Alliance" partnership created to construct PG&E's Natural Gas Pipeline Modernization Program. This Program is dedicated to strengthening and improving the integrity and safety of PG&E's natural gas transmission system over the next decade. At present, our Team has been assigned to manage and work in a region in Northern California.

The 16-inch L-172A Replacement Project mobilized on Aug. 20. Work there occurs six days a week on double shifts. It includes eight APS crews and eight subcontractors onsite. Upcoming subcontracted work on the project includes two Horizontal Directional Drills (HDDs) that require a total of 1,407 LF of HDD work set to begin in early October. The drill sites are divided into two sections: one consisting of 717 LF and another is 690 LF. Additionally, we have one jack/bore scheduled to begin in mid-October at Jefferson St/I-80. This bore will require two bore pits dug to a depth of roughly 18 feet on either side of an I-80 overpass.

section of the City was important to West Sacramento during the design phase.

The far east end of our project requires a tie-in back to the existing L-172a line. This tie-in occurs within a couple hundred feet of the Sacramento River. The T-282 project is being performed to test the existing pipe that we will be tying into. Crews at this project also mobilized in late August and have been excavating and fabricating tie-in spools. The project consists of hydrostatically testing two 12-inch lines that travel under the Sacramento River, to be tied into our R-037 replacement project mentioned earlier. The testing extends roughly 0.79 miles from the west side of the Sacramento River to PG&E's Sacramento Load Center on the river's east side.



Along with installation of the new 16-inch steel gas pipeline, this project includes the retirement of the existing L-172a line, which follows a different alignment through residential neighborhoods. Moving the new line out of these residential areas and into the more industrial

L-172a Replacement has been a challenge due to the poor soil conditions, groundwater and heavy traffic, but with the expertise of the craft and our management team, both of these projects will be successful.

— PG&E Alliance Team

Excavation at the West Sacramento project.

## Barnard's PG&E Alliance Team in Woodland Co-Hosts Cub Scout Tour

Curious about the construction work going on in their neighborhood, Cub Scouts in Packs 90 and 133 requested a project visit at our Woodland, California, jobsite. So, on Aug. 29, the boys, ages 8 to 10, and their chaperones met at the Barnard Yard in Woodland, where they learned about PG&E and specifically PG&E Safety before heading out on a tour of the Line 220 Replacement Project to view heavy equipment, welding, backfilling and the excavation. They were very excited to learn about the project and also to receive safety vests, safety glasses and hard hats, as well as a PG&E bag filled with goodies. Pictured from left to right: **Dianna Combs**, Barnard Safety Educator; **Tony Moua**, Barnard Project Engineer; **Josh Montgomery**, Canus Lead Inspector; the **Cub Scout Pack**; **Paul Shupe**, G&C/APS Assistant Superintendent; and **Nav Dosanjh**, PG&E Customer Outreach.



## Remembering Bill Hruza

We're so sorry to note the passing of **Bill Hruza**, 67, on Sept. 14, 2013. He died in Pomona, California, after a four-year battle with cancer.

Bill worked as a Foreman for Barnard for many years on projects throughout the country, including Saluda Dam,

EAA A-1 Reservoir, and Owens Lake Phases V and VII.

His obituary in the Lincoln, Nebraska, *Journal Star* noted that "Bill loved life, his family; and he enjoyed the many people he met along the way." He is survived by many sisters, brothers,

nieces and nephews and will be missed by his many friends in the field.

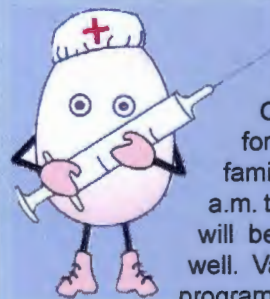
You can read his obituary and find out additional information at the newspaper's website: [www.journalstar.com](http://www.journalstar.com).

### Bid Results

**EAA A-1 FLOW EQUALIZATION BASIN**  
**West Palm Beach, Florida**  
**South Florida Water Management District**  
**September 18, 2013**

Florida Equipment Rental.....	\$59,921,483
MCM.....	\$62,260,000
<b>Barnard.....</b>	<b>\$75,650,000</b>
Archer Western.....	\$80,860,000
Douglas & Higgins.....	\$82,874,800
Harry Pepper.....	\$87,431,403

### Flu Clinic



It's that time again – time to boost your immune system as we enter "flu season." The Home Office will hold a vaccination clinic for Barnard employees and their families on Tues., Oct. 15, from 7:30 a.m. to 9:30 a.m. The mist immunization will be available for small children as well. Vaccines are part of our wellness program, so there will be no charge.

"Logic will take you from A to B. Imagination will take you everywhere."

—Albert Einstein,  
 theoretical physicist



## Trash Talk with Kathi Jenkins, *Corporate Environmental Director*



### Let's Talk Trash.

This column is called "Trash Talk with Kathi Jenkins" for a reason. Let's talk some trash!

What can we put into our regular dumpster and what has to be disposed of separately? This may seem like an easy question, but the answer actually is complicated.

Regulations vary by state and sometimes even by county. As a rule, construction debris wastes and hazardous wastes are separate entities.

In the box below is a quick breakdown of what is typically okay to put into a regular dumpster and what you must deliver to a landfill. While I'm on my soapbox, consider asking the disposal company what they do for landfill diversion? Please ask if they offer any recycle or reuse programs for your construction debris, because many times clean wood, paper, plastics, and even concrete and rebar can be diverted from the landfill easily and cost-efficiently.

And while we're at it, the following household hazardous waste requires special disposal methods. If you're unsure of

how to dispose of something hazardous at your home, call your local city solid waste department for guidance.

Typical household hazardous wastes include: paints and solvents; motor oil, antifreeze and other automotive wastes; pesticides; fluorescent light bulbs (they contain mercury); electronics such as computers, televisions and phones; propane cylinders; appliances containing refrigerants; batteries containing nickel cadmium or lithium; ammunition; and radioactive wastes, which can be found in many smoke detectors.



Please remember to think before you toss things into the trash. Ask yourself, "Does it belong in a trash can or does it require some more effort?" Don't hesitate to contact me if you have any questions!



Typically suitable for disposal in a dumpster:

- Office wastes
- Food wastes
- Packaging such as plastic wrap or cardboard boxes
- Demolished concrete
- Rebar
- Wood

Check your local regulations before throwing these into the dumpster:

- Used oil
- Used oil filters
- Spill cleanup materials, including soil, rags and pads
- Respirator cartridges
- Chemical containers, even if they're empty (epoxy, paint, concrete cure compound, etc.)
- Batteries
- Fluorescent light bulbs
- Compressed gas cylinders (oxygen, propane, etc.)

"The pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty."

—Winston Churchill,  
former British Prime Minister

## Keeping Halloween “Spooky” but Safe

Just as we plan for safety on our projects, you should plan for safety at home. With Halloween coming up, now is a good time to think about the safety of your family during this holiday.

One great resource that can assist you with this planning can be found at: <http://www.halloween-safety.com>

This website offers tips for both kids



and adults – everything from pumpkin carving, costume selection, and night visibility safety, to what has become a most critical aspect of Halloween Safety, stranger safety.

Several other websites are available as well. A little safety planning is not as spooky as it seems!



— Safety Department

## Gilboa Dam Team Helps the Gunlock Family Support the USO

*“Millions of times each year at hundreds of locations around the world, the USO lifts the spirits of America’s troops and their families. A nonprofit, congressionally chartered, private organization, the USO relies on the generosity of individuals, organizations and corporations to support its activities.”* [www.uso.org](http://www.uso.org)

Some of that generosity and support noted on the USO Home Page comes from our Team at the Gilboa Dam Reconstruction Project where **Teresa** and **Sam Gunlock** have spearheaded USO fundraising through a “mini-store” set up on shelves next to Teresa’s desk. Teresa is our Project Secretary and Sam is a Project Engineer at Gilboa.

They decided to begin selling snacks in July, just after their son, **Tyler Gill**, 20, deployed to Bagram, Afghanistan. Tyler is currently serving as an MP Specialist E4 in the U.S. Army there. He began his service in the Army in August 2011. He spent a year stationed in Seoul, South Korea, before being sent to Afghanistan, where he is a border and customs clearance agent. When Teresa asked him how family and friends could show support for our troops, Tyler chose the USO.



*Teresa and Sam Gunlock with their children, Shelby Gill, 16, and Tyler Gill, 20, at Tyler’s deployment.*

The Gunlocks buy the goods as their donation and then charge a little extra when selling them at the jobsite. All proceeds go to the USO. Teresa said the Gilboa Team has been very supportive and the store keeps growing.



*Tyler Gill (right) in Afghanistan.*

### Celebrate Barnard's "Next Generation"

### Wedding Bells!



Be sure to congratulate Tyler and Jess Askin on the birth of their daughter, Lucile Bean Askin, born Aug. 27 at Bozeman Deaconess Hospital! Lucy weighed 7 lbs. 11 oz. at birth and was 20 inches long. Mom and baby are doing well. Grandparents include Jill and Jerry Askin. Tyler is currently estimating at the Home Office.



Let's congratulate newlyweds, Mike Sinon and Anya Graa! The two were married on July 27 back where they met in Butte, Montana, in a ceremony witnessed by loved ones. Now, they're currently in the Bay Area, where Mike is working at the Central Subway Tunnel Project and Anya is practicing her cooking while looking for work. They both look forward to continuing their journey through life together.

"You look ridiculous if you dance. You look ridiculous if you don't dance. So you might as well dance."

—Gertrude Stein, American writer

### Blue Lake Tour Thank You Notes

Few remote projects are toured as often as the Blue Lake Expansion Project in Sitka, Alaska, it would seem. Over the last six months, the City and Borough of Sitka has hosted six tours for local residents, as well as tours for the EPA, Alaska Dept. of Environmental Conservation (ADEC), DNR, Renewable Energy Alaska Project (REAP), Alaska Energy Authority (AEA), FERC, Alaska Bond Bank, Stanford University, and various Alaska Assembly members. Possibly the most enthusiastic was the 5th grade class from Keet Gooshi Heen Elementary School, who sent personal thank you notes to Dean Orbison, Sitka's Project Manager. We regret that we have space for only two.

Dear Mr. Orbison  
I thought our field trip was  
awesome! My favorite thing about  
the field trip was how nice your  
employees were to us.  
I learned a lot about dams!  
Oh and I also learned that  
I am not scared of heights.  
I wish you to learn  
more about how scary  
your job is. Do you like  
spaghetti? TTYL, Madison

Dear Mr. Orbison,  
Thank you for letting our class and I go see  
the crane and the Dam. I learned that  
adding more water is called the head.  
I loved when you let us go on the  
scaffolding to look at the Dam.  
I want to learn more about the tunnel  
and where it goes.  
Eric  
Atunado  
Sincerely,  
Eric

## The Month in Photos



(Above left) Congratulations to four-year-old **Ethan Arvidson** on taking 3rd in the "5 and Under Class" at Montana's State Championship BMX race held Aug. 25 in Bozeman. Ethan is the son of **Gerry and Tracy Arvidson**. (Middle) A group from the Home Office toured the Blue Lake Expansion Project recently. This group in the manbasket went down the shaft to the tunnel. L to r: photographer **Derik Olsen**, Massive website designer **Ben Bennett**, and **Jean Conover**, accompanied by Superintendent **Tracey Chambers**. (Right) **Lee Marcus** does some reconnaissance in the Atlantic Ocean during an EAA site tour earlier this month.



(Above left) **Chris Eckhardt** had a good outing with a muzzleloader, taking this buck in Colorado. (Above middle) **Bill Macy** (left) went to Reno this month to cheer on his uncle **Nick Macy** at the Reno Air Races. Nick flies an AT-6 named Six-Cat. Bill is pictured with his parents, **Rosemary and Mike**, and brother **TJ**. (Above right) Way to go! The **Afong family** wound up the summer running in the Sacramento Rebel 5K on Aug. 24 with (l to r) **Isabel** finishing 1st, husband **Zach** finishing 2nd, and **Nevin** finishing 3rd in their respective age categories. (Right) The Afongs recently began school in Woodland with **Isabel** now in 8th grade, **Nevin** in 7th, and **Natalie** starting Prekinder. **Adriana** (not pictured) is a Project Engineer at our PG&E office in Woodland.

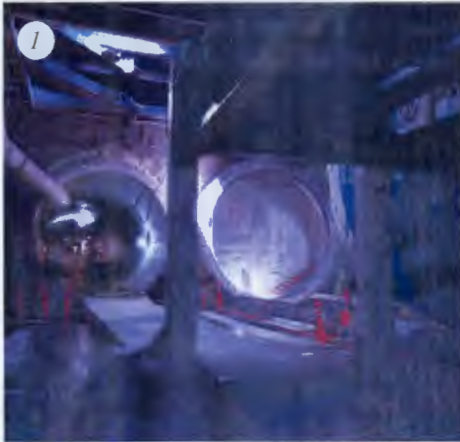


(Left) Congrats to Barnard's Rotary Club 2013 Golf in the Dark Team on their Third Place victory at the tournament held at Riverside Country Club in Bozeman. Rotary International uses the event to raise funds for community service efforts in the Gallatin Valley. This year the focus is on improvements to the East Gallatin Recreation Area. Our team included (l to r): **Clay Spellman**, **Lyle McClellan**, **Jim Tilleman** and **Jimmy McGauley**.





## Project Photo Album



1. Taken earlier in the month at Central T, this is a look at our southbound tunnel on the left and the starter ring for the northbound tunnel on the right.
2. The scenery on a rare clear day at Blue Lake is unparalleled. See pages 1 and 2 for our team's challenging work on the dam in the steep canyon just out of this frame on the right.
3. This updated photo of the partially dismantled Glines Canyon Dam near Port Angeles, Washington, shows that our work at this dam decommissioning project is nearly complete. Sediment

- movement and fish protection are dictating the scheduling of our remaining work there.
4. The West Sacramento laydown yard for our PG&E work is adjacent to our largest excavation on that project at Location A on the left side of the photo.
5. Foreman **Bryon Graaskamp** talks to project visitors atop Blue Lake Dam.
6. **Tim Barnard** (center) meets a crew just coming off of Blue Lake Dam via manbasket.