



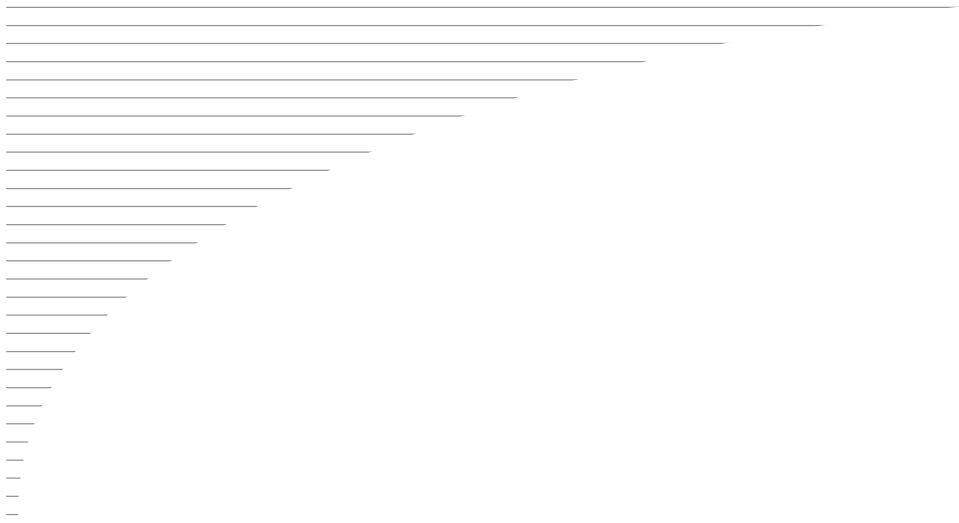
An Assessment of the Economic Development Support Needs of the Bristol Bay/Lake & Peninsula Region

*Prepared for:
The Pebble Partnership*



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Summary of Findings and Recommendations

Introduction and Purpose

The purpose of this report, *An Assessment of the Economic Development Support Needs of the Bristol Bay/Lake & Peninsula Region*, is to provide the Pebble Partnership with economic research that focuses a proposed Pebble Fund on areas of greatest economic need. The purpose of the Pebble Fund, according to the Pebble Partnership, is to provide economic development support funding that benefits the people, communities and businesses of the region.

The Pebble Partnership is a separate corporate entity, created as a joint venture between Northern Dynasty, a mineral exploration company based in Vancouver B.C., and Anglo American, a mining company headquartered in London, England. The Pebble Partnership is intended to explore, develop and operate a major mine located in the Lake & Peninsula Borough, on the eastern edge of the Bristol Bay drainage which reaches to the west from the mine site.

Recognizing that the scale of exploration, development and operations will have major and complex impacts on this remote rural region of Alaska, the Pebble Partnership plans to provide economic development support to the affected area. This support is being considered in several forms. These include economic planning support for nearby communities, contracts with local business interests, business partnerships, employee training, and economic development support funding. The latter concept is the basis for this research effort.

The concept of the economic development support fund being considered by the Pebble Partnership is an endowment that would be controlled by an appointed board of directors. The board would manage the fund independently and in perpetuity regardless of the actual outcome of mine development. The initial concept considered supporting only the Bristol Bay fishery, as it is by far the most significant economic influence in the region. Upon further examination, the Pebble Partnership recognized that the Bristol Bay salmon fishery is well recovered economically and yet involves only two months of intense economic activity. Conversely, the region has many other serious economic development needs, many of them year-round that would most certainly benefit from economic development support funding. These needs, like the region itself, are numerous, varied and complex.

In an effort to define the economic development themes and needs of the region, the Pebble Partnership retained the McDowell Group, Inc., an Alaskan research and consulting firm, to conduct *An Assessment of Economic Development Support Needs of the Bristol Bay/Lake & Peninsula Region*. For purposes of this assessment, the region is defined as including the Lake & Peninsula Borough, Bristol Bay Borough and Dillingham Census Area. The assessment includes four major research tasks, and it identifies priority economic development needs that might be met by the Pebble Fund. Study tasks are as follows:

- A regional economic overview that identifies major themes and needs common to the region overall.
- A current profile of participation, harvest and earnings in the Bristol Bay salmon fishery.
- An inventory of major entities both within and outside the region providing economic development support in to the region.
- A review of regional economic studies and plans that may identify relevant programs and efforts.
- A summary of significant economic development support needs in the region.

Summary of Findings

Regional Economic Overview

- **Economic decline:** The Bristol Bay/Lake & Peninsula region consists primarily of small remote local economies. Many of them are experiencing long-term decline in population and economic activity, with the exception of fishing. Only one community (Dillingham) has more than 1,000 residents and 23 of the 30 communities have less than 200 residents.
- **Population loss:** The region has lost over 7 percent of its population and 17 percent of its school enrollment between 2000 and 2006.
- **The Alaska Native presence is important and dominant.** Two out of three regional residents (66 percent) are Alaska Native, and many Alaska Native organizations and corporations contribute significantly to the region. In comparison, Alaska Natives account for 16 percent of the total state population.
- **Employment,** even when excluding commercial fishing, is extremely seasonal with January employment a mere 41 percent of the July seasonal peak. Anchorage January employment, by contrast, bottoms out just 4 percent lower than peak employment.
- **Regional wage levels** are well below Anchorage urban rates. Regional workers earn just \$2,762 per month, 25 percent less than the \$3,668 earned by Anchorage workers.
- **Educational attainment** in the region lags behind that of the state as a whole, particularly in the Lake & Peninsula Borough.
- **Unemployment:** True unemployment is of crisis proportions at several times the official rate, especially in winter months. Official regional unemployment is less than 10 percent, but this does not include the large proportion of residents termed “discouraged unemployed”, meaning those no longer officially looking for jobs in communities that lack opportunities.
- **Poverty:** The proportion of individuals living in poverty is nearly three times that of Anchorage.
- **Subsistence** activity and dependence is universal in the region. Ninety-four percent of Southwest region households use fish and 90 percent use game. A similar percentage is assumed to utilize berries and other edible plants as well. In the five communities nearest the mine site, over 80 percent of the households harvest fish, even though they are not located on the shores of Bristol Bay, where harvest of fish for subsistence is assumed to be even higher.

ENERGY: A DOMINANT ISSUE

- Energy costs have hindered rural Alaska economies for decades, but recent price increases have intensified the energy cost crisis to an intolerable level. Diesel prices exceed \$6 per gallon in many regional communities.

- The State of Alaska has invested little in renewable energy development.
- In 2007, the Denali Commission received applications for \$285 million in renewable energy projects in the Bristol Bay/Lake & Peninsula region alone. In contrast, the Denali Commission budget is about \$130 million for all programs statewide.

The Bristol Bay Salmon Fishery

IMPORTANCE

- The Bristol Bay salmon fishery is the state's single most important salmon fishery. In 2006, 2,319 permit holders and their crews received \$112 million in ex-vessel value (1/3 of the entire state total) for harvesting 181 million pounds of salmon (25 percent of the state total). In terms of first wholesale value, 2006 Bristol Bay production was valued at \$248 million.
- To understand the relative scale of the fishery, the entire regional payroll for all 12 months of 2006 (excluding harvest income) was \$154 million.
- The fishery is essentially a single-specie fishery (sockeye salmon) telescoped into a very short and intense time period of little more than one month (late June and July).
- Bristol Bay sockeye account for over 60 percent of the entire North American harvest, nearly seven times that of the entire Canadian sockeye harvest (2006).
- The market value premium enjoyed by Alaska and Bristol Bay salmon is based on Alaska's reputation for sustainable harvests of wild fish from pristine untouched rearing habitat. Alaska salmon are seen as healthy, high in Omega-3, sustainable, and responsibly managed.

TRENDS

As a result of positive product differentiation in the marketplace (healthy wild vs. industrial farmed), the Alaska and Bristol Bay salmon fisheries have made a very significant economic comeback after earlier value losses to the growth of farmed salmon on the market.

Between 2002 and 2006:

- Total ex-vessel harvest value increased by 245 percent.
- Per permit driftnet income increased by 203 percent.
- Per permit setnet income increased by 95 percent.
- Driftnet participation increased by 25 percent.
- Setnet participation increased by 24 percent.
- Market prices for Bristol Bay permits tripled for driftnet and doubled for setnet.

- Alaska resident participation increased more slowly than nonresident participation; 21 percent vs. 29 percent.

PARTICIPATION

- Participation and earnings by regional residents is critically important to the region. In 2006, 659 regional resident permit holders and their crews earned \$21 million in ex-vessel income.
- The major beneficiaries of the Bristol Bay fishery are nonresidents of the region who captured 81 percent of the harvest value in 2006. Nonresidents of Alaska took 53 percent and residents of other regions of Alaska, 28 percent.
- Regional residents accounted for 23 percent of active driftnet permits, 37 percent of setnet activity and 28 percent of all active Bristol Bay salmon permits in 2006.
- Residents of the region who exited the fishery during poor years have much difficulty buying back in at today's permit and vessel prices. Their earnings histories, necessary for borrowing money, are hindered by the limited earning opportunities in the region's non-fish economy.

OTHER FISHERY ISSUES

- The subsistence harvest of salmon by regional residents is absolutely essential. All subsistence harvest is by regional residents.
- Conversely, the sport harvest in the region is almost all taken by nonresidents of the region, and largely by nonresidents of Alaska. In addition, ownership of the sport fish guiding industry is predominantly by nonresidents of the region.
- The region also benefits from other fisheries to the west of Bristol Bay in the Bering Sea. In the Bering Sea, crab, Pollock, halibut, and sablefish are captured primarily in industrial fisheries, mostly by nonresidents of the region.
- Regional residents do receive significant economic benefits from the Bristol Bay Economic Development Corporation (BBEDC). The BBEDC represents 17 regional communities and holds harvesting rights to a portion of the giant Bering Sea Pollock harvest as well as rights to harvest selected other species.
- BBEDC also owns a large interest in Ocean Beauty Seafoods, Inc. (OBSI), a major seafood company marketing Alaska product worldwide. OBSI has significant processing operations in Bristol Bay and elsewhere in Alaska.

Major Organizations, Economic Development Programs and Studies

This document contains extensive profiles of major organizations affecting the region's economy. Profiles include the type of organization, geographic scope, focus of their support, listing of programs, and a study team assessment of their impact. Following are summary observations gained during this inventory of organizations with economic impact in the study region.

- Alaska Native corporations and organizations are perhaps the most significant contributors to the economic and social well being of the region.
- Statewide organizations and agencies also contribute, but their level of funding support tends to be modest at best.
- Most of the funding entering the region is of federal government origin.
- Several major organizations are often jointly involved, leveraging one another's funding and assets.
- The review of relevant studies and plans revealed the lack of constructive support this region has received.
- The number of meaningful studies and plans was surprisingly limited, often focused on fisheries, and somewhat outdated.

Regional Economic Development Support Funding Needs

The study team utilized the following criteria for identifying regional economic development support needs:

- A need that, with support funding, would create clear benefits to the people, communities and businesses of the region.
- A need that, if supported, increases the ability of regional residents, businesses and organizations to generate their own economic success.
- A need that is regional in nature, not confined to a single community or area.
- A need that would result in long-term benefits from support funding.
- A need not well supported by other organizations, corporations or agencies.
- A need that offers opportunities for leveraging other funding and assets.
- A need that, if supported, would have benefits exceeding the investment.

With these criteria for guidelines, the study team suggests two categories of regional needs – concepts and issues.

CONCEPT: An over-riding concept that provides clear direction for a potential Pebble Fund mission.

ISSUE: Specific regional topics that require both short-term urgent action and long-term resolution that fit within the framework of the three concepts.

Concepts:

Business Skill Development and Organizational Advisory Support

There is a great regional need for the full range of business and organizational skills necessary to experience economic success as well as success in government administration related to economic progress. Not only is this true as Pebble seeks contractors and partners for mine-related endeavors, but it is true for business and organizational competence in general. Funding support for executive development, board training, basic business skills, planning, and advisory support would be helpful. Alaska Native corporations and tribal councils, for example, are focused on self-determination and require essential skills to be successful and realize their missions. The same can be said for municipal governments in the region that would also benefit from an ongoing program that supports the capability to succeed in economic development efforts and organizational management.

The Pebble Fund may consider support for regional entities interested in enhancing their capability for success.

Rural Sustainable Economies Forum

The overwhelming issue that is brought to the forefront by the prospect of the Pebble development is the long-term decline in the economies of rural Alaska and especially the Bristol Bay/Lake & Peninsula region under study. This has focused the spotlight clearly on the overall issue of rural economic sustainability – a worldwide issue with no easy solutions. Mines and oil wells have limited life spans, and wild salmon runs fluctuate significantly over time but do not grow over the long term. The Pebble Fund might consider supporting research and discussion of rural sustainable economies, utilizing the Bristol Bay/Lake & Peninsula region as a location for study and evaluation of rural economic initiatives.

Alaska Native Interests

Alaska Native people and organizations are dominant in the region and are strongly focused on self-determination. They also have considerable corporate assets, strong nonprofit funding streams, and substantial political stature. No new entity can be successful, become an integral part of the region, or support the true needs of the region without considering the complex and important position of Alaska Native people and their organizations and businesses. Any Pebble Fund program and funding mechanism must respect this position and insure that Alaska Native interests are well served by its efforts.

Issues:

Energy

The single most critical need, in the short term and long term, is energy cost and supply. Support for alternative energy sources appears to be of top priority. Funding for research and pilot projects is important. An alternative energy fund also could be used for educating local energy workers of the future.

Employment

The decline in the non-fish economy (which is much of the economy) needs to be reversed. Any funding of programs that lead to employment by regional residents would have exceptionally high value.

Subsistence

Subsistence is universal among the regional households for both Alaska Native and non-native families. Funding in support of subsistence resource preservation may be helpful.

Fisheries Research

While the Bristol Bay fishery is healthy, the state of Alaska under-funds research and management, placing long-term health of the resource at some degree of risk, and does not allow for maximum economic utilization of the resource. Whether the Pebble Fund should, or could, become involved in supporting these improvements is an open question that, at this time, has less priority (in the opinion of the study team) than the preceding concepts and issues.

Regional Economic Evaluation

Overview

This part of the study describes the economy of the Bristol Bay/Lake & Peninsula region to better understand the economic development opportunities and challenges this region faces. By traditional standards of economic measurement the economy of the region lags behind the rest of Alaska, particularly the urban parts of the state. Economic data is sparse and often not suitable to describe the unique features of the economy of this region. Published economic information about the region varies from good to limited to non-existent. Due to the vast size, small population, remote location, and complexity of the economic structure of the region, the description is at best an approximation, constructed from available published sources.

Present-day inhabitants of the study area rely on subsistence resources for a substantial portion of their economy. They are among the last indigenous peoples in North America, who are culturally attached and economically dependent on a fishing, hunting and gathering way of life.¹ Subsistence is an integral part of the regional society—it is the glue that holds Native culture and society together.

The regional economy is difficult to put into a traditional economic framework. It is a mixed subsistence and market economy. Subsistence provides a major portion of the food supply in rural Alaska and provides subsistence-related jobs for locals within their kinship. But subsistence also shows interrelations and dependencies with the market economy. Cash plays a vital role for purchasing hunting and fishing equipment. The market economy has changed Alaska Native culture, its values, expectations, and family structure. For example, alcoholism, domestic abuse, teenage pregnancy, and high suicide rates are social problems apparent throughout rural (and urban) Alaska.

Sustainable development in the region must recognize cultural attributes of Alaska Native society (and of rural society overall), as they are different from the larger American culture and society. Given the remoteness, the low population, harsh climate, and limited infrastructure of this region, it is likely that a healthy subsistence economy constitutes a necessary condition for sustainable development.

This assessment of economic conditions in the region provides a starting point for the Pebble Partnership's economic development support effort to benefit the region in the long term. Any development effort requires a more comprehensive and holistic look at the cultural, social, and economic nature of the region. In order to provide a more comprehensive picture of the region, the study could expand on research beyond economic issues, with inclusion of the social issues in rural Alaska that are also apparent in the region.

¹ Worl, R. 2002. Alaska Subsistence Cultures and Economy—presented to U.S. Senate Committee on Indian Affairs, Oversight hearing on Subsistence Hunting and Fishing in the State of Alaska.

inhabitants, Naknek (Bristol Bay Borough) with 577 residents, and Nondalton (Lake & Peninsula Borough) with 196 people. Note the population of the Lake & Peninsula Borough is the most dispersed of the study area. Compared to the other two sub-regions, the Lake & Peninsula Borough has a large number of small communities, all of which have fewer than 200 inhabitants. While most residents of the area currently reside in the established communities some area residents live at remote sites.

Table 1
Study Area Population by Community, 2006

Community	Population
Lake & Peninsula Borough	1,557
Chignik City	85
Chignik Lagoon	70
Chignik Lake	120
Egegik	76
Igiugig	53
Iliamna	82
Kokhanok	168
Levelock	61
Newhalen	167
Nondalton	196
Pedro Bay	55
Perryville	120
Pilot Point	66
Pope-Vanoy Landing	6
Port Alsworth	112
Port Heiden	79
Ugashik	17
Remainder of Borough	24
Bristol Bay Borough	1,060
King Salmon	409
Naknek	577
South Naknek	74
Dillingham Census Area	4,796
Aleknagik	241
Clark's Point City	69
Dillingham	2,397
Ekwok	111
Koliganek	165
Manokotak	423
New Stuyahok	472
Portage Creek Togiak	20
Togiak	783
Twin Hills	77
Remainder of Census Area	38
Total Region	7,413

Source: ADOLWD, 2006

Between 2000 and 2006, the population of the study area declined by 7.4 percent (Table 2). The Bristol Bay and Lake & Peninsula Boroughs suffered the largest decline, both decreasing by 15 percent. The Dillingham Census Area population decline was more modest, at 3 percent.⁵ This is partly related to the economic changes of local salmon fisheries which are the backbone of the economy to this day. In the mid 1990s world salmon prices dropped dramatically due to an increase in farmed salmon mainly produced in Canada, Norway, and Chile. Overall, salmon prices recovered in recent years driven by consumer demand and product differentiation from farmed salmon. Alaska fish are now seen as deserving of a market premium because they are wild, sustainably managed, and spawn and rear in pristine untouched natural habitat. Any possible disruption to this marketing message has negative value consequences.

Table 2
Study Area Population, 2000 and 2006

	2000	2006	% Change
Dillingham Census Area	4,922	4,796	-2.6%
Bristol Bay Borough	1,258	1,060	-15.7
Lake & Peninsula Borough	1,823	1,557	-14.6
Total Region	8,003	7,413	-7.4

Source: ADOLWD, 2006

The region's population is aging. Since 1990 the proportion of middle-aged adults, 25 to 39 years of age, declined. In contrast, the population older than 40 years of age increased. For example, between 1990 and 2006 the Bristol Bay Borough's middle-aged population declined from 39 percent of the total population to 14 percent.⁶

The study region is part of *remote rural Alaska* as defined in a study by the Institute of Social and Economic Research (ISER). The study investigates current economic conditions in the remote rural part of Alaska and concludes that the population is becoming increasingly Alaska Native. Also, men outnumber women particularly outside regional centers such as Dillingham.⁷

Cultural Importance

The region's population is predominantly Alaska Native (Table 3). The Lake & Peninsula Borough has the largest proportion of Alaska Natives (73 percent) followed by the Dillingham Census Area (70 percent), and the Bristol Bay Borough (43 percent). For all of Alaska 15 percent are Alaska Native, whereas in the region 66 percent are of Alaska Native decent.⁸

⁵ Ibid.

⁶ Ibid. and U.S. Census Bureau. 2000. 2000 Census, available at: <http://factfinder.census.gov/>.

⁷ Goldsmith (2007) defines *remote rural Alaska* as the part of the state that is off the road system and has no access to the marine highway system.

⁸ U.S. Census Bureau. 2000. 2000 Census, available at: <http://factfinder.census.gov/>.

Table 3
Proportion of Alaska Native Population, 2000

Dillingham Census Area	70%
Bristol Bay Borough	43
Lake & Peninsula Borough	73
Total Region	66
Alaska	16

Source: U.S. Census Bureau, 2000

The region is culturally diverse and is located in the traditional homeland for three major language groups—the Yup'ik Eskimos, Aleuts, and Dena'ina Indians. The Yup'ik and Aleuts are related by language and share many cultural traits in common. The Dena'ina Indians are speakers of an Athabascan Indian language which is related to Interior Alaskan and Canadian languages.

Alaska Native lifestyle is different from western culture. Traditionally, Alaska Natives organize themselves in groups around subsistence activities and show a high degree of sharing among family and kinship. Sharing is the key element of subsistence and has cultural, social, and economic value.⁹ The type of social organization around subsistence varies among Alaska Native peoples of the region.

Besides cultural communalities, all three indigenous peoples also share economic and institutional ties through such regional entities as the Bristol Bay Economic Development Cooperation (BBEDC), Bristol Bay Native Association (BBNA), the Bristol Bay Native Corporation (BBNC), and the Southwest Alaska Municipal Conference (SWAMC).

Education

Between 2000 and 2006, school enrollment decreased in the Bristol Bay Borough (-35 percent) and the Lake and Peninsula Borough (-20 percent). School enrollment in the Dillingham Census Area increased by 7 percent during the same time period. The overall regional decrease (-5 percent) is mainly associated with the decline in population particularly the sharp decline of middle-aged adults (Table 4).

Table 4
School Enrollment (K-12) Trend by Sub-region, 2000 and 2006

	2000	2006	% Change
Dillingham Census Area	1,212	1,295	7%
Bristol Bay Borough	269	176	-35
Lake & Peninsula Borough	491	394	-20
Total Region	1,972	1,865	-5

Source: ADEED, 2007; and personal communication with Superintendent of local school districts

⁹ Worl, R. 2002. Alaska Subsistence Cultures and Economy—presented to U.S. Senate Committee on Indian Affairs, Oversight hearing on Subsistence Hunting and Fishing in the State of Alaska.

In addition to primary and secondary schools, the census area also has a College of Rural Alaska campus run by the University of Alaska Fairbanks. The UAF Bristol Bay Campus is located in Dillingham and has outreach centers in Togiak and King Salmon. In 2000 to 2006, enrollment ranged between a low of 406 enrolled students to a high of 736. The campus offers certificate programs as well as Associate’s and Bachelor’s degree programs.

Educational attainment in the region varies (Table 5). The level of education in the Bristol Bay Borough is higher than in the rest of the region and very similar to the level of education in Alaska overall. The Dillingham Census Area and Lake and Peninsula Borough have a higher percentage of persons who did not finish high-school (23 and 28 percent respectively compared to 12 percent statewide) and a lower percentage of persons with Bachelor’s degrees, compared to Alaska overall.

Table 5
Educational Attainment of Population 25 Years and Older by Sub-region, 2000

	Dillingham	Bristol Bay	Lake & Peninsula	Alaska
Less than high school	23%	11%	28%	12%
High school diploma	34	34	39	28
Some college, associate degree	26	34	20	36
Bachelor’s degree	11	13	9	16
Master’s degree and above	6	8	4	9

Source: U.S. Census Bureau, 2000 Census

Employment and Income

Employment

The study team uses employment data from the Alaska Department of Labor and Workforce Development (ADOLWD) and from the Bureau of Economic Analysis in the U.S. Department of Commerce (BEA). Note ADOLWD data does not include employment in commercial fisheries, self-employed individuals, and locals who have jobs outside the region, such as firefighting - an important seasonal employment for locals occurring outside the region. However, the ADOLWD includes employment in land-based fish processing and provides good seasonal employment information (Table 6).

The seasonal swings in employment over the year are associated with commercial fishing and recreation. In 2006, employment rose from 3,242 in January to 7,829 in July. Given that the total resident population only amounts to 7,413, it is obvious that a large portion of jobs in the region are taken by out-of-region residents. Seasonality is most apparent in Bristol Bay, the center for fish processing in the region, where summer employment can be seven times as large as winter employment (Table 6). Compared to the Bristol Bay Borough, employment does not swing as much in the other two sub-regions, due to a larger and more diversified economy in Dillingham, and due to strong local government employment in the Lake & Peninsula Region. However, the magnitude of seasonal employment change is approximately ten times that of Anchorage.

Table 6
Employment (excluding Fishing) and Average Monthly Wages by Sub-region, 2006

	January	July	% Change	Average	Wage
Dillingham Census Area	2,181	3,179	45%	2,577	\$2,643
Bristol Bay Borough	515	3,655	609	1,308	3,157
Lake & Peninsula Borough	538	995	85	752	2,488
Total Region	3,242	7,829	141	4,637	2,762
Anchorage	140,764	146,616	4	147,055	3,668

Source: ADOLWD, 2006

Note: Data excludes self-employed individuals, fishermen, unpaid family help, most individuals employed in agriculture, and domestics.

Employment by sector varies among sub-regions (Table 7). While the private sector (including fishing) accounts for 86 percent of employment in the Bristol Bay Borough and 75 percent in the Dillingham Census Area, the private sector is much smaller (53 percent) in the Lake & Peninsula Borough.¹⁰ Consequently, government jobs (especially local government jobs) play a larger role in the Lake & Peninsula Borough than in other parts of the region.

Table 7
Employment (Including Fishing) by Sub-region, 2005

	Dillingham Census Area	Bristol Bay Borough	Lake & Peninsula Borough	Total
Government Sector	992	253	412	1,657
Percent of Total	25%	14%	47%	25%
Private Sector	2,989	1,516	457	4,962
Percent of Total	75%	86%	53%	75%
Total Region	3,981	1,769	869	6,619

Source: BEA, 2005

Seasonal and part-time work are important elements of the labor market in the region. Many resident workers—particularly Alaska Natives—are employed part-time or work seasonal full-time jobs. This fact is in sharp contrast to urban Alaska where most workers are employed year-round.¹¹ Working part-time or working full-time during parts of the year is also more conducive to subsistence life styles.

The limited full-time year-round employment contributes to low average wages, particularly for Alaska Natives living in remote small places of the region. This issue is particularly prevalent in communities of the Lake & Peninsula Borough.

Reliable employment estimates by sector are difficult to obtain since they do not distinguish between local and non-local resident workers and do not include self-employed persons. Since the region has several protected areas, resource management offers important employment opportunities for local residents year-round.

¹⁰ Bureau of Economic Analysis. 2005.

¹¹ Goldsmith, S. 2007. The Remote Rural Economy of Alaska. Institute of Social and Economic Research, available at: www.iser.uaa.alaska.edu.

Local community government, tribal government, as well as state and federal jobs are the backbone of the job market in the smallest communities of the region. Education is the only industry in which employment peaks in the winter.¹²

Income

In 2006, total annual wages (excluding self-employed persons) amounted to \$82 million in the Dillingham Census Area, \$50 million in the Bristol Bay Borough, and \$22 million in the Lake & Peninsula Borough.¹³ In 2006 the average monthly wage per individual worker (excluding fishing) in each sub-region was highest in the Bristol Bay Borough (\$3,157), followed by the Dillingham Census Area (\$2,643), and Lake & Peninsula Borough (\$2,488). In 2006, the average monthly wage in the region overall, was equal to \$2,762 which is 25 percent lower than the average monthly wage in Anchorage (\$3,668).¹⁴ However, keep in mind that the high share of seasonal non-resident workers in the region might lower the amount of earnings that actually remain in the region. No evidence exists that would illustrate the difference in earnings of residents versus nonresidents. However, economists suggest that nonresidents' earnings are higher due to non-resident employment being concentrated in higher wage jobs, lowering the actual income that stays in the region.¹⁵

Alaska Native households earn less than non-Native households despite the fact that the former are larger in size with likely more labor force participants. Non-Native residents of rural Alaska earn more than their counterparts living in urban parts of Alaska. On the other hand, Alaska Native residents earn less than those working in urban Alaska.¹⁶

Cash from outside the region generates very little additional income and jobs within the region. About 10 percent of local income in rural Alaska can be traced back to local businesses providing goods and services to other local businesses and households.¹⁷ The small size and remoteness of most communities in the region means that most purchases come from outside the region.

Cash income in rural Alaska is important for several reasons. First, it drives the little economic activity that exists in the smaller communities and it feeds the increased need for cash to engage in subsistence activities.

Government transfer payments are important cash contributions to rural Alaska communities. They account for 28 percent of personal income. Transfer payments include Medicaid and Medicare payments, Alaska Permanent Fund Dividends, food stamps, temporary assistance for needy families, Unemployment Insurance, and Social Security payments.¹⁸

In the study region, the cost of living is higher and consequently the amount of disposable income is lower than in urban parts of Alaska. For example, high transportation and energy costs, as well as subsistence activities requiring significant expenditures on capital are related to the high cost of living in rural Alaska.¹⁹

¹² Haley, S. et al. 1999. Economics of Sport Fishing in Alaska. Institute of Social and Economic Research – University of Alaska Anchorage.

¹³ ADOLWD. 2006. Alaska Department of Labor and Workforce Development – Preliminary Annual Employment and Earnings—2006.

¹⁴ ADOLWD calculates the average monthly wage by dividing total annual earnings by average monthly employment.

¹⁵ Goldsmith, S. 2007. The Remote Rural Economy of Alaska. Institute of Social and Economic Research, available at: www.iser.uaa.alaska.edu.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid. Transfer payments received by elderly are often shared within the family to support subsistence activities.

¹⁹ Capital expenditures for subsistence include boats, snow machines, camping gear, ammunition, and other equipment.

The local impact of visitor expenditures is modest and compounded by seasonality in the visitor industry which peaks in the summer together with commercial fishing activities. This results in a need to bring in workers from outside the region. Only a fraction of wages, profits to local businesses, and local tax revenues sticks in the region.

Other sources of cash income for rural residents include the sale of Native art and crafts and the sale of fur from trapping activity. The total economic impact of these activities is difficult to estimate.

Unemployment

The measured unemployment rate varies seasonally and varies across the region. In the Dillingham Census Area unemployment is almost twice the Anchorage rate, whereas the Bristol Bay and Lake & Peninsula Boroughs show rates similar to Anchorage (Table 8).

Table 8
Average Annual Unemployment by Sub-region, 2006

	Unemployment Rate
Dillingham Census Area	9.6%
Bristol Bay Borough	5.5
Lake & Peninsula Borough	6.2
Anchorage	5.3

Source: ADOLWD, 2006;

However, the measured unemployment rate does not account for unique economic and cultural aspects of rural Alaska and potentially underestimates unemployment. The U.S. Department of Labor defines the labor force as *persons employed or actively looking for work*. This definition excludes “discouraged workers” who stopped looking for work, or workers that work outside the cash economy, for example in subsistence activities. If it is obvious that no job opportunities exist and other occupations like hunting and gathering require attention, it does not make sense to look for work. Due to the lack of jobs and the high participation in subsistence activities, particularly in smaller communities of rural Alaska, the definition applied is inadequate to reflect a shortage in jobs.

Poverty

The proportion of the local population below the poverty threshold varies by sub-region. Poverty is mainly prevalent in the Lake & Peninsula Borough and Dillingham Census Area, whereas the Bristol Bay Borough shows percentages similar to Anchorage (Table 9). The poverty estimate is based on the poverty *threshold* reported by the U.S. Census, and does not account for the higher cost of living in rural Alaska and the differing household consumption patterns specific to the subsistence lifestyle of rural Alaskans. Were we to adjust for these specific characteristics, the poverty rates would likely be higher.

Table 9
Percent of Population Below Poverty Threshold, 2000

	Poverty rate
Dillingham Census Area	21%
Bristol Bay Borough	10
Lake & Peninsula Borough	19
Anchorage	7

Source: U.S. Bureau of the Census, 2000 Census

Subsistence

Subsistence activity supports personal and household needs of families and small communities.²⁰ The subsistence system is complex and varies among the three indigenous peoples inhabiting the region. The value of sharing is essential to subsistence and deeply rooted in Alaska Native culture. For example, traditionally, elders were given special parts of animals even though they might not be actively engaged in hunting. The aspect of sharing resources and dividing subsistence tasks among the community result in a lower proportion of households engaged in harvesting than there is in using the resource (Table 10).

The study region is part of the Southwest subsistence region as defined by the Alaska Department of Fish and Game (ADF&G). Table 10 shows that the proportion of regional households engaged in subsistence activities is above the Alaska average with 65 percent of households engaged in harvesting of wild game and 86 percent involved in harvesting fish. The high proportion of households actively pursuing a subsistence lifestyle in hunting and fishing (65 percent and 86 percent respectively) and the high proportion of households dependent on these natural resources (90 percent and 94 percent respectively) shows the importance of subsistence foods in the region (Table 10).

Table 10
Percent of Households Participating in Subsistence Activities in the Region

	Harvesting Game	Using Game	Harvesting Fish	Using Fish
Southwest Region	65%	90%	86%	94%
Alaska Average	60	86	83	95

Source: ADF&G, 2000

Subsistence foods provide a significant portion of the diet for the people in the region. The annual wild foods harvest in 2000 equaled 373 pounds per person, more than three times the Alaska average. This amount of wild food per person serves 241 percent of the daily protein requirement per person (49g/day) and 35 percent of the caloric requirement based on a 2400 Calories per day diet.²¹ The Alaska Department of Fish and Game (ADF&G) Subsistence Division has valued the harvest of wild foods at \$5 per pound, which would equal a food replacement cost of \$1,865 per person per year. However, these estimates are dated and may significantly under-represent current per-pound values.

²⁰ Federal and state laws conflict over subsistence rights. While the Alaska Native Interests Land Claims Settlement Act (ANILCA) offers rural Alaskans subsistence priorities, the State's constitution makes wildlife accessible to all Alaskans equally.

²¹ ADF&G. 2000. Subsistence in Alaska: A Year 2000 update. Alaska Department of Fish and Game—Division of Subsistence.

Harvesting fish and game is only a small part of the subsistence network. The harvest is also used for manufacturing clothing, arts, crafts, and other products.

Subsistence activities are capital intensive. The typical equipment required may include, snow mobile, boat, truck, all terrain vehicle, canoe, kayak, dogsled team, GPS, VHF, CB, fishnets, rifle, camping gear, gasoline, ammunition, and other items.

Energy

Current Situation

The communities in the region are largely dependent on diesel fuel for electricity generation and home heating. Twenty-seven of the 30 communities in the region use diesel for generating electricity and three villages own a combined diesel/hydro electric plant. Most households in rural Alaska use diesel (79 percent) for heating their homes, followed by wood (8 percent), natural gas (5 percent) and other sources (8 percent). In contrast, home heating in Anchorage is heavily based on natural gas (83 percent) which is more than four times cheaper than diesel fuel.²²

Since 2000, energy costs have risen significantly, particularly in rural Alaska. Diesel prices have gone up more in remote regions of the state than in urban areas because of additional transportation and inventory costs. For example, between 2000 and 2005 diesel prices for home heating increased 83 percent in rural Alaska compared to 53 percent in Anchorage.²³ The price per gallon of diesel fuel varies throughout the region. For example, Chignik residents pay \$2.91 per gallon, 3 percent more than in 2005, whereas Kokhanok residents pay \$6.10 per gallon, an increase of 53 percent over the 2005 price.²⁴

Dependence on diesel fuel weighs heavily on rural communities of the region, exacerbated by lower income in rural communities. Researchers at the University of Alaska estimate that utility costs for poor households in rural Alaska can amount to more than one third of household income, which compares to 2 percent in Anchorage.²⁵

The issue of increasing energy costs is not new to rural Alaska. Oil price increases in earlier decades have also caused shocks in energy prices in the region.²⁶ The dependence on diesel fuel once again underlines the lack of self reliance of rural communities. Since the last sharp rise in oil prices in 1979, little has changed in respect to the energy make-up of rural Alaska communities.

However, long-term sustainable solutions to the energy make-up of rural communities, as well as to the financial health of the cash economy in the region, require investments that avoid leakages of cash to pay for imported fuel to the region.

²² In 2005 natural gas was priced at \$5.72 whereas diesel was \$24.40 per 1 million BTUs. Source: Saylor, B. and Haley, S. 2007. Effects of Rising Utility Costs on Household Budgets, 2000-2006. Institute of Social and Economic Research, available at: www.iser.uaa.alaska.edu.

²³ Ibid.

²⁴ Department of Commerce, Community, and Economic Development—Division of Community Advocacy report to the Commissioner. Current Community Conditions: Fuel Prices Across Alaska--2005 and 2007 reports.

²⁵ Saylor, B. and Haley, S. 2007. Effects of Rising Utility Costs on Household Budgets, 2000-2006. Institute of Social and Economic Research, available at: www.iser.uaa.alaska.edu.

²⁶ Nebesky, W. and Goldsmith, S. (1981). The Impact of Rising Energy Prices on Rural Alaska. Institute of Social and Economic Research.

Replacing conventional diesel generation with renewable energy sources will require significant capital investment in cost-efficient projects that stabilize long-term energy costs in the region rather than increasing costs.²⁷ A renewable energy fund could help support the large initial investments needed for alternative energy projects. It could also help fund programs for training and education local energy workers so that power plants can be efficiently maintained over time to guarantee self-reliant local energy production.

Alternative Energy Potential in the Region

The potential for alternative energy in the region includes biomass, geothermal, hydroelectric, tidal, and wind. The study region's wind resource is the best in the state of Alaska with parts of the region being the best in the United States. Wind resources of the region range from class 3 (fair) to class 7 (superb). Recently the Denali Commission, a federal development agency, received 180 letters of interest for renewable energy projects in rural Alaska, totaling \$1.3 billion.²⁸ In the study region, nine communities proposed 17 projects, totaling \$285.2 million (Table 11).

Table 11
Proposed Renewable Energy Projects in Region, 2007

	Cost (millions)	Hydro	Wind	Geothermal	Biomass	Solar	Tidal
Bristol Bay	\$251.9	2		2			1
Chignik	6.5	5	1				
Dillingham	0.3		1				
Ivanof	22.9				1		
Kokhanok	1.3	1					
Perryville	0.3		1			1	
Stuyahok	2.1		1				
Total Region	\$285.2	8	4	2	1	1	1

Source: Denali Commission, 2007, Renewable Letter of Interest Summary

Currently there are only two alternative energy projects under way that McDowell Group is aware of. These include an exploratory effort of Naknek Electric Association to find a geothermal energy source in the region, as well as the installation of a solar energy tracker in Ugashik.²⁹

Funding sources are very limited for renewable energy projects because they commonly require large upfront investments. The Denali Commission and the U.S. Department of Energy have offered funding for energy projects in the past. Since its inception in 1998, the Denali Commission focused its energy support heavily on financing bulk fuel facilities. Since 1998, \$383 million in total energy funds were spent, of which 82 percent went into bulk fuel, compared to 7 percent in wind and hydro. The Commission's alternative energy funds in 2007 totaled \$5 million, which is a fraction of the investments required for alternative energy projects throughout Alaska. For example, wind energy projects in Alaska are much costlier than in the lower 48 states due to the remote and harsh environment. While the cost of wind generation equipment in the lower 48 contributes 75 percent of the total project cost, its proportion to total project cost is only 25 percent in

²⁷ Alaska Energy Authority. 2007. Renewable Energy Atlas of Alaska, available at: <http://www.aidea.org/>.

²⁸ Denali Commission. 2007. Alternative—Renewable Energy Letter of Interest Summary, available at: <http://www.denali.gov/>.

²⁹ Bristol Bay Times. January 24 2008. High fuel costs prompt helping hand.

Alaska. The remaining 75 percent of funds are commonly spent to cover transportation and installation costs often requiring expensive techniques conducive to the Arctic environment.³⁰

Since funding sources are almost non-existent, most communities fund their renewable energy projects out of their own pockets. In the case of Naknek, the community has already spent \$1.2 million of their own funds for exploration of a geothermal energy source near the community.³¹

³⁰ Petrie, B. 2008. Alaska Village Electric Cooperative. personal communication.

³¹ Vukich, D. 2008. Naknek Electric Association. personal communication.

Bristol Bay Salmon Fishery

Overview

Bristol Bay is home to the world's largest sockeye salmon run. Each year tens of millions of sockeye return to the rivers and lakes around Bristol Bay to spawn. For over 100 years fishermen from all over the state and outside Alaska have been coming to Bristol Bay to harvest these salmon. The region's fishing industry has seen many changes throughout its history. The fleet has evolved from sail to diesel power, processing firms have come and gone, and seafood markets and product forms have radically changed. Participation rates in the fishery have fluctuated, along with salmon run strengths. In general, Bristol Bay's fishing-based economy has constantly adapted to a changing operating environment.

Sockeye salmon account for over 90 percent of the region's total harvest. Bristol Bay's sockeye salmon harvest typically accounts for over 60 percent of the statewide sockeye harvest. Sockeye is considered a high value salmon species. Historically the dominant product form has been as canned products. However, product forms have recently shifted in the last 20 years as consumers demand new products and quality improvements. Recent advances in salmon chilling technology have enabled improvements in quality, allowing more fish to be processed into high value products. These changes are leading the Bristol Bay salmon industry into the future.

Statewide, the salmon industry faced difficult times in the late 1990s and early 2000s. The value of salmon was declining due to strong competition from rapidly increasing farmed salmon production, along with low harvest volumes. The industry bottomed out in 2002 after several years of price decline. Since 2002, the Alaska salmon industry has been successful in increasing both the perceived and actual value of its products. The greatest progress has been in the marketing of salmon and in fish quality improvement. While all areas of the state have been able to increase the value of their salmon, Bristol Bay salmon values have increased to a lesser degree. This is due in part to the biology of the fishery. Bristol Bay salmon are harvested in large volumes during a short period of time, which presents challenges for quality control in harvesting and processing. However, in recent year's fishermen, processing companies, and other organizations have been taking steps to address this issue and the unit value of Bristol Bay salmon continues to increase.

To fully understand the importance of Bristol Bay sockeye, we must understand its role in the overall harvest of North American sockeye salmon. While run strength varies from year to year, the Bristol Bay sockeye harvest typically accounts for well over half of the total North American sockeye salmon harvest. The table below shows North American sockeye harvest in 1996, 2001, and 2006 for Alaska, Bristol Bay and Canada.

Table 12
North American Sockeye Salmon Harvests (millions of fish), 1996, 2001, 2006

	1996	2001	2006
Total Alaska	49.9	26.5	41.7
Bristol Bay	29.6	14.1	28.4
Canada	5.9	2.4	4.4
Total North America	55.8	28.9	46.1
Bristol Bay (%) of Total North America	53%	49%	62%

Bristol Bay Role in Alaska

The Bristol Bay salmon harvest accounts for the majority of Alaska’s sockeye salmon harvest, and is an important component of Alaska’s salmon industry as a whole. In any given year the value of the Bristol Bay salmon harvest accounts for one-quarter of the entire state’s salmon ex-vessel value. Only Prince William Sound and the Southeast region typically harvest more salmon. However, harvest volumes in these regions are composed of mostly low value species, such as pink salmon and chum salmon, and their value contribution per pound is comparatively lower.

In 2006, the total Bristol Bay salmon harvest accounted for 25 percent of the statewide harvest volume, and 32 percent of its ex-vessel value. In 2007, the total harvest increased by 4.1 million fish, and represented 20 percent of the total statewide harvest volume.

Table 13
Bristol Bay Role in Alaska Salmon Industry, 2006

	Harvest Volume (lbs.)	(%) of Total	Ex-Vessel Value	(%) of Total
Bristol Bay Salmon	181.2	25%	\$111.7	32%
Total Alaska Salmon	731.4	100%	346.4	100%

Source: ADF&G, 2006

Salmon in Bristol Bay are harvested by two means—drift gillnets (driftnets) and set gillnets (setnets). The driftnet fishery is fished from boats in the marine waters of Bristol Bay. The driftnets are set from the boat, and drift in the water column. Fishermen remain with the net until it is time to retrieve it and pull the fish from it. The boats typically have three or four people on board, including the vessel’s captain or “skipper.” The setnet fishery, on the other hand, is shore-based. One end of the net is secured to the shore, and the entire net is held in place by an anchoring system. Setnet fishermen use skiffs to move along the length of the net and retrieve the fish, but their living arrangements are typically on shore in a house or cabin. The number of participants in a setnet operation can vary widely, as the activity is often family-based, and does not suffer the same space limitations as exist upon the small driftnet boats.

In general, the driftnet fishery is far more capital-intensive than the setnet fishery, but also provides higher gross earnings. Available data on earnings, or ex-vessel value, are by permit holder. (There is typically one permit-holder per driftnet or setnet operation, though recent regulatory changes allow up to two permit-holders per vessel or setnet site. No data is available on the percentage of operations that have multiple

permit holders.) The gross earnings are presented by permit holder, but it is important to note that a portion of these earnings are distributed to crew as well—typically as a percentage, or share, of the gross. These earnings must also cover all operating expenses for the fishing operation, including vessel or gear maintenance, replacement, debt service, fuel, food, and other fixed or variable costs. No data on net earnings are available for the fisheries.

Participation in the Bristol Bay salmon fisheries has increased steadily since a low in the early part of this decade. The region’s driftnet fishery accounts for 63 percent of total participation. Participation in the driftnet fishery increased 25 percent between 2002 and 2006, while average permit earnings increased 203 percent during the same time period. Setnet participation climbed 24 percent between 2002 and 2006, and average permit earnings increased 95 percent.

Average earnings by Alaska residents have also increased in both the driftnet and setnet fishery in recent years. Average driftnet earnings were up 235 percent from 2002 to 2006, and by 106 percent in the setnet fishery. Participation rates also increased - by 21 percent in both gear types. However, participation increases have not kept pace with those by non-Alaska residents, who have seen their participation increase by 28 percent in the driftnet fishery and 31 percent in the setnet fishery.

Overall, 2,319 permit holders participated in the salmon fisheries in Bristol Bay in 2006, including 1,475 driftnetters and 844 setnetters. Historically, roughly 1,800 driftnet permits and roughly 900 setnet permits were fished during a given season. It is unclear why participation rates are relatively lower for driftnetters versus setnetters, when compared to historical averages. Some possible explanations include the high cost of entry, the capital-intensive nature of the driftnet fishery, and limited access to capital for many potential participants, especially regional residents. While there are loan programs to help fishermen access and secure funds to enter the fishery, many regional residents have a difficult time meeting traditional lending standards.

Table 14
Bristol Bay Salmon Participation and Average Earnings
by Gear type and Residence, 2001 and 2006

	2002		2006		Participants (%) Change	Earnings (%) Change
	Permit Holders	Avg. Permit Earnings	Permit Holders	Avg. Permit Earnings		
Total Participation						
Total Driftnet	1,184	\$21,480	1,475	\$65,128	25%	203%
Total Setnet	680	9,701	844	18,923	24%	95%
AK Resident						
Driftnet	587	\$16,563	709	\$55,472	21%	235%
Setnet	477	9,077	579	18,698	21%	106%
Non-Resident						
Driftnet	597	\$26,315	766	\$74,066	28%	181%
Setnet	203	11,167	265	19,415	31%	74%

Source: CFEC, 2001 and 2006

Regional Participation

Commercial salmon fishing is an important source of employment and earnings for Bristol Bay residents, as it is the largest basic industry (bringing outside money into the local economy) in the region. In 2006, regional residents fished 659 salmon permits, harvesting 35.6 million pounds of salmon, with an estimated ex-vessel value of \$21 million. While commercial fishing is important to local residents, it is important to note that local participation only accounts for 28 percent of the total permits fished, and captures only 19 percent of the region's total ex-vessel value. Most of the participants in the Bristol Bay salmon fishery are residents from outside the region. These participants harvest 80 percent of the fish, representing over 81 percent of the fisheries total value.

Table 15
Bristol Bay Salmon Harvest
Participation, Harvest, and Value by Area, 2006

Residency of Permit Holders	Permits Fished	(%) Total	Harvest Pounds (Millions)	(%) Total	Ex-Vessel Earnings (Millions)	(%) Total
Driftnet						
BB/L&P/Dillingham	344	23%	25.5	17%	\$15.3	16%
All Other	1,131	77%	127.9	83%	80.7	84%
Total	1,475		153.4		96.0	
Setnet						
BB/L&P/Dillingham	315	37%	10.1	37%	\$5.7	36%
All Other	529	63%	17.3	63%	10.3	64%
Total	844		27.4		16.0	
Total						
BB/L&P/Dillingham	659	28%	35.6	20%	\$21.0	19%
All Other	1,660	72%	145.2	80%	91.0	81%
Total	2,319		180.8		112.0	

Source: CFEC, 2006

Bristol Bay salmon permit holders are spread throughout many communities in the region. However, most of the region's permit holders are residents of the three major communities: Dillingham, Togiak, and Naknek, all three of which are located on major rivers. Dillingham, located at the mouths of the Nushagak and Wood Rivers, is home to the largest number of permit holders in the region. In 2006, 215 permit holders were Dillingham residents. They fished 179 of the 215 local permits (36 did not use their permit in 2006). Togiak, located at the mouth of the Togiak River is home to the second largest number of permit holders. Togiak residents held 115 permits, while fishing 110 of them in 2006. Naknek, the community with the third highest number of resident permit holders, is home to 102 permit holders. In 2006, 97 of those permits were fished. The remaining regional permit holders are spread among the various small communities in the region.

Table 16
Bristol Bay Salmon Permits by Community, 2006

	Permit Holders	Permits Fished
Lake & Peninsula Borough		
Chignik City	-	-
Chignik Lagoon	-	-
Chignik Lake	3	2
Egegik	21	19
Igiugig	2	1
Iliamna	15	14
Ivanof Bay	NA	NA
Kokhanok	6	7
Levelock	5	6
Newhalen	13	11
Nondalton	7	4
Pedro Bay	3	3
Perryville	-	1
Pilot Point	14	7
Port Alsworth	2	1
Port Heiden	13	13
Ugashik	5	4
Bristol Bay Borough		
King Salmon	38	39
Naknek	102	97
South Naknek	36	36
Dillingham Census Area		
Aleknagik	22	18
Clarks Point	10	9
Dillingham	215	179
Ekuk	NA	NA
Ekwok	3	1
Koliganek	18	13
Manokotak	64	49
New Stuyahok	25	14
Portage Creek	1	1
Togiak	115	110
Twin Hills	3	2

Source: CFEC, 2006

Subsistence Fishing

Subsistence fishing has been part of resident traditions since long before commercial fishing existed. The regional economy is a mixed cash and subsistence economy, making subsistence use essential to the survival of many local residents. Residents rely heavily on the salmon resource to provide them with food for the year. In a region where incomes are low and access to outside food sources is limited and expensive, subsistence is important. According to an Alaska Department of Fish and Game (ADF&G) household survey conducted in five communities in 2005, 76.3 percent of the households harvested fish for subsistence use. According to ADF&G, over the last 20 years regional subsistence salmon harvests averaged 150,000 salmon per year.

Conclusion

The Bristol Bay salmon fishery is critical to regional communities. The region's fishery brings outside money into the limited cash economy, allowing locals to purchase goods and services from outside the region. The fishery also provides salmon for subsistence use. Fishing has been a renewable resource for hundreds of years and the strength and sustainability of this resource is very important to the region's residents.

Since 2002, many industry participants have been working to increase the value of Bristol Bay salmon. Currently, there is continued effort by many in the industry to improve quality standards. Significant investment in chilling infrastructure is being led by the Bristol Bay Regional Seafood Development Association (BBRSDA), which is an association created by regional driftnet permit holders and funded by a landing tax on their catch. The goal of the organization is to increase the value of Bristol Bay salmon sockeye and decrease the costs to the fishery's driftnet fishermen.

Efforts to improve the economic strength of regional residents with respect to fishing could focus on stimulating local participation, perhaps through creating better access to capital. In addition, it is widely recognized that the State of Alaska under-funds both research and management of the Bristol Bay and other salmon fisheries. This results in some biological risk and in underutilization of some salmon runs, especially during peak times in Bristol Bay. Overall, the salmon industry has recovered well in recent years and many businesses and organizations are currently working to increase the value and economic stability of the Bristol Bay salmon fishery.

Major Organizations, Programs & Studies

Government, non-profit organizations, and private corporations are essential building blocks for the institutional framework that supports economic development in rural Alaska. They provide funding for programs in education and training, energy, health care, infrastructure, fisheries, tourism, and other areas. Small and remote communities are especially reliant on the funding and employment opportunities associated with these support efforts.

Millions of dollars are spent on economic development programs and projects in the Bristol Bay/Lake & Peninsula region each year by federal, state, and regional government agencies, non-profit organizations, private foundations, and for-profit corporations. In this section, the study team profiles the major entities in the region, detailing type of organization, regional scope, focus of support, programs, and level of impact in the region. The project team also provides contact information for each organization. It should be noted that some organizations profiled do not actually administer programming of their own, but are important entities to recognize due to their impact in the region.

Partnerships exist between many of the entities listed in this section. Often the larger funders, such as the Denali Commission, Rasmuson Foundation, or USDA Rural Development, provide grants or loans to state agencies, regional organizations, or local governments that administer the projects. The following profiles are organized into federal and state government agencies, public and private non-profits, Alaska Native entities, and regional governments. A matrix showing organizations by program areas is provided following the profiles. It gives an overview of where efforts are being concentrated and where additional support is needed.

A list of higher-level educational institutions and a list of recent studies relating to economic development issues in the study region are provided at the end of the section. Our review of relevant studies revealed the lack of attention this region has received. A number of Bristol Bay fishery-related studies were commissioned in the earlier part of this decade, when harvest values and earnings were low and there was general concern for the strength and stability of the industry. In very recent years the seafood industry has recovered. However, many efforts are continuing their work on improving the success of the fishery, and more studies are needed.

Statewide Agencies and Organizations

USDA Rural Development, Alaska Office

Contact (regional office): P.O. Box 1370, Dillingham, Alaska 99576

Tel (907) 842-3921, Fax (907) 842-3922, www.rurdev.usda.gov/ak

Leadership: William Williams, Area Director

Chad B. Padgett, Acting Alaska State Director (State Office, Palmer)

Mission: *Our goal at Rural Development is to work with other federal, state, and local partners to enhance the quality of life in rural Alaska and to ensure rural residents participate fully in the Alaska and global economy.*

- The US Department of Agriculture, Rural Development's Alaska Office administers over 40 loan and grant programs around the state. One of six regional offices is located in Dillingham and acts as a liaison between the state office, local communities, and partnering organizations.
- Through the provision of loans and grants, Rural Development programs focus on providing safe and sanitary housing, essential community facilities, business support, telecommunications, electrical service and energy efficiency.
- Partners with many statewide agencies and organizations, in addition to regional and local governments, non-profits, and businesses.
- During the 2006 fiscal year, the Alaska Office of Rural Development spent **over \$22 million in Southwest Alaska** (including the Dillingham Census Area and the boroughs of Bristol Bay, Lake & Peninsula, Aleutians East and Aleutians West).
- According to the Rural Development Dillingham Office, housing programs are widely accessed in Southwest Alaska.
- Rural Development has a **very significant impact** on the study region.

Programs (with amount spent in Southwest Alaska):

- Community and Business (\$8.6 million)
- Housing (\$500,000)
- Water and Environmental (\$3.0 million)
- Electric (\$300,000)
- Telecommunications (\$9.9 million)

Economic Development Administration

Contact: Jackson Federal Building, Room 1890, 915 Second Avenue, Seattle, Washington 98174-1001
Tel (206) 220-7660, Fax (206) 220-7669, www.eda.gov

Leadership: A. Leonard Smith, Regional Director

Mission: *To lead the federal economic development agenda by promoting innovation and competitiveness, preparing American regions for growth and success in the worldwide economy.*

- A federal agency within the US Department of Commerce. The Seattle regional office oversees programming in Alaska.

Programs:

- **Public Works and Economic Development Program:** Investments that help support the construction or rehabilitation of essential public infrastructure and facilities that generate or retain private sector jobs and investments, attract private sector capital, and promote regional competitiveness.
- **Economic Adjustment Assistance Program:** Provides a wide range of technical, planning and infrastructure assistance in regions experiencing adverse economic changes.
- **Local Technical Assistance:** This program helps fill the knowledge and information gaps that may prevent leaders in the public and nonprofit sectors in economically distressed regions from making optimal decisions on local economic development issues.
- **Planning Program:** Helps support planning organizations, including District Organizations and Indian Tribes, in the development, implementation, revision or replacement of comprehensive economic development strategies (CEDs).
- Rural Development has a **significant impact** on the study region.

Office of Economic Development, Alaska Department of Commerce, Community and Economic Development

Established in 2004 under the Alaska Department of Commerce, Community, and Economic Development (DCCED), the Office of Economic Development (OED) facilitates economic development and employment opportunities, particularly in rural Alaska. The OED houses the Division of Community and Regional Affairs (1), as well as three industry-specific development offices that offer specialized assistance in fisheries (2), tourism (3), and minerals (4) development sectors. Details on these four sections of OED are presented below.

DIVISION OF COMMUNITY AND REGIONAL AFFAIRS (1)

Contact (regional office): P.O. Box 790, Dillingham, Alaska, 99576-0790

Tel (907) 842-5135, Fax (907) 842-5140, www.dced.state.ak.us/dca

Leadership: Tara Jollie, Director

- The Division of Community and Regional Affairs is a statewide division with a regional office in Dillingham, which has the greatest impact on communities in the study region.
- It provides various forms of assistance to communities and boroughs, from financial assistance to help with local government management and land-use management.
- The Division is an important provider of socioeconomic information and technical assistance to individual communities in the study region.

Statewide Programs:

- **Grants Section:** Administration of state and federal development grants to communities and organizations.
- **Financial Assistance to Communities:** Facilitates annual sharing of funds from various state taxes.
- **Rural Utility Business Advisor (RUBA) Program:** Provides assistance in water and wastewater utilities management, enabling local utilities to provide communities with proper sanitation services. Many rural communities are without sufficient water systems to provide safe drinking water and properly handle wastewater.
- **Alaska Coastal Management Program:** Offers research, training, and technical assistance to coastal resource districts necessary for development, implementation and maintenance of district coastal management plans.

OFFICE OF FISHERIES DEVELOPMENT (2)

Contact: DCCED, PO Box 110804, Juneau, Alaska 99801-0804

Tel (907) 465-5464, Fax (907) 465-3767, www.dced.state.ak.us/oed/seafood/seafood.cfm

Leadership: Kevin O'Sullivan, Fisheries Development Specialist

- The Office of Fisheries Development serves as a catalyst for fisheries-related economic development projects throughout Alaska. The office partners with industry, as well as state, federal, and local agencies.
- Focus is on increasing the value of Alaska's seafood harvest and processing industry. Specific goals and tasks include:
 - Sustainable management of Alaska's fisheries
 - Greater value added production in Alaska
 - Development of innovative, market driven seafood products
 - Improved quality of Alaska seafood
 - Capital accumulation for seafood industry investment
 - Promotion of participation and investment by Alaskans and coastal communities
 - Improvements in technology to utilization of the fishery resource
 - Enhanced infrastructure to lower costs

OFFICE OF TOURISM DEVELOPMENT (3)

Contact: DCCED, PO Box 110804, Juneau, Alaska 99801-0804

Tel (907) 465-5478, www.dced.state.ak.us/oed/toubus/home.cfm

Leadership: Caryl McConkie, Tourism Program Manager

Mission: *The Alaska Office of Tourism endeavors to stimulate sustainable, diversified economic growth and job opportunities in Alaska through tourism development, while strengthening cultural values and maintaining quality of life for Alaskans.*

- The Office of Tourism Development provides training, research, and information, as well as planning and business development assistance to communities, businesses, agencies and residents.
- Promotes tourism planning that will help disperse economic benefits of tourism throughout the state and the calendar year, as well as retain significant benefits in the communities where visitation occurs.
- Provides \$5 million towards funding of the statewide marketing effort through the **Alaska Traveler Industry Association (ATIA)**.

Programs and Services:

- Tourism Planning
- Business Planning
- Funding of the Alaska Visitors Statistics Program
- AlaskaHost Program

OFFICE OF MINERALS DEVELOPMENT (4)

Contact: DCCED, PO Box 110804, Juneau, Alaska 99801-0804

Tel (907) 451-2738, www.commerce.state.ak.us/oed/minerals/mining.htm

Leadership: Rich Hughes, Minerals Specialist

- The Office of Minerals Development in OED is the primary advocacy agency in state government promoting mineral exploration and development.
- The office is a resource to companies and individuals seeking to and doing mineral-related business in Alaska and provides information, economic data, and technical assistance.
- It does not administer specific economic development programs.

Alaska Energy Authority

Contact: 813 West Northern Lights Blvd, Anchorage, AK 99503
Tel (907) 771-3000, Fax (907) 771-3044, www.akenergyauthority.org

Leadership: John T. Kelsey, Board Chair
Sara Fisher-Goad, Acting Executive Director

Mission: *Reduce the cost of energy in Alaska.*

- The Alaska Energy Authority (AEA) is a public corporation of the state that exists separately and independently.
- Coordinates most of the rural energy projects around the state; often receives Denali Commission funds to implement projects.
- 2007 operating expenses statewide totaled nearly \$73 million (this includes grants received from the Denali Commission).
- AEA provides for the operation and maintenance of existing Authority-owned projects, assists in development of safe, efficient, and sustainable energy systems, and attempts to reduce the cost of electricity in rural Alaska.
- The Alaska Energy Authority has a **significant** impact on individual communities in the study region as well as the Bristol Bay and Lake & Peninsula boroughs.

Programs:

- Alternative and efficient energy development
- Loan programs
- Rural energy system upgrades
- Operation and maintenance training programs
- Community funding assistance
- Power Cost Equalization (PCE)

Specific alternative and efficient energy projects include:

- End use efficiency (conservation)
- Geothermal
- Hydroelectric
- Ocean and river
- Solar
- Wind
- Others

Division of Commercial Fisheries, Alaska Department of Fish and Game

Contact (regional office): 546 Kenny Wren Road, P.O. Box 230, Dillingham, Alaska 99576-0230
Tel (907) 842-5227, www.cf.adfg.state.ak.us

Leadership: John Hilsinger, Director

Denby S. Lloyd, Commissioner of the Department of Fish and Game

Mission: *The mission of the Division of Commercial Fisheries is to manage, protect, rehabilitate, enhance, and develop fisheries and aquatic plant resources in the interest of the economy and general well-being of the state, consistent with the sustained yield principle and subject to allocations established through public regulatory processes.*

- Commercial Fisheries is a division of the Alaska Department of Fish and Game that is responsible for the management of commercial, subsistence, and personal-use fisheries statewide. They are also charged with enhancement of existing fishery resources and developing new fisheries. Specific duties include: stock assessment and applied research, harvest management, laboratory services, aquaculture permitting, data processing, and information services.
- There is a division office in Dillingham directly responsible for the Commercial Fisheries Division's tasks in the Bristol Bay region.
- The division's programs listed below are statewide programs, but implemented in the study region through the Dillingham office.
- Commercial Fisheries has a **significant** impact on residents in the study.

Programs:

- **Stock Assessment & Applied Research:** Maintains ongoing programs for the enumeration, assessment, and understanding of the state's ocean resources
- **Harvest Management:** Controls the harvest of fishery resources for commercial, subsistence, and personal-use according to sustainable plans and regulations.
- **Data Processing:** Develops and maintains electronic databases containing historic catch and production data, escapement, and other stock status information.
- **Laboratory Services:** Operation of three fisheries laboratories for genetic identification, fish pathology, and ageing/tagging research.

Alaska Seafood Marketing Institute

Contact: 311 N. Franklin Street, Suite 200, Juneau, AK 99801-1147
Tel (907) 465-5560, Fax (907) 465-5572, www.alaskaseafood.org

Leadership: Mark Palmer, Chair (Ocean Beauty Seafoods, Inc.)
Ray Riutta, Executive Director

Mission: *The Alaska Seafood Marketing Institute is a marketing organization with the mission of increasing the economic value of the Alaska seafood resource.*

- The Alaska Seafood Marketing Institute (ASMI) is a cooperative partnership between the Alaska seafood industry and state government to promote Alaskan seafood.
- ASMI is Alaska's "official seafood marketing agency", and is established under state law as a public corporation.
- Promotes Alaskan seafood in the U.S. and overseas, participates in trade shows, and provides public relations services, trade education, research, and technical support.
- 2005 annual expenditures were approximately \$14 million.
- ASMI has a **significant** impact on the Bristol Bay fishing industry and resident participants of the industry.

Programs:

- International Marketing
- Public Communication
- ASMI Marketing Collateral
- Technical
- Domestic Retail
- Food Service

Denali Commission

Contact: 510 L Street, Suite 410, Anchorage, AK 99501
Tel (907) 271-1414, Fax (907) 271-1415, www.denali.gov

Leadership: George Cannelos, Federal Co-Chair
Karen Rehfeld, State Co-Chair (Director of the Office of Management and Budget)

Mission: *To deliver the services of the Federal Government in the most cost-effective manner practicable by reducing administrative and overhead costs; and to provide job training and other economic development services in rural communities particularly distressed communities.*

- A federal-state partnership designed to provide critical utilities, infrastructure, and economic support to communities throughout Alaska.
- The Commission was introduced by the US Congress in 1998, attributed to the efforts of Senator Ted Stevens.
- Since inception, it has spent over \$850 million throughout the state and roughly **\$60 million of that in the Bristol Bay/Lake & Peninsula region** specifically. The Commission has funded over 150 projects in the region to date.
- A key characteristic of Denali Commission programs is that regional and/or local leadership and support must be involved in all project phases.
- They have three legacy programs: energy, health care, and employment training. Alternative energy projects are of growing interest to the Commission. Roughly \$5 million was allocated to alternative energy projects around the state in 2007.
- The Denali Commission has a **very significant impact** on individual communities in the study region as well as the Bristol Bay and Lake & Peninsula boroughs.

Programs:

- Energy
- Health care
- Employment Training
- Government coordination
- Multi-use facilities
- Washeterias
- Transportation
- Solid waste
- Economic development
- Elder housing
- Teacher housing
- Domestic violence facilities

Rasmuson Foundation

Contact: 301 West Northern Lights Boulevard., Suite 400, Anchorage, AK 99503
Tel (907) 297-2700, Fax (907) 297-2770, www.rasmuson.org

Leadership: Edward B. Rasmuson, Chairman
Diane Kaplan, President and CEO

Mission: *To promote a better life for Alaskans.*

- The Rasmuson Foundation is a private family foundation funding projects related to arts and culture, health issues, and social services throughout the state.
- Since 1955, the Foundation has awarded over \$132 million individuals and non-profit organizations.
- To date, over **\$2.3 million has been awarded to projects and programs in the Bristol Bay area.**
- Of particular interest to the Rasmuson Foundation is support of organizations with specific needs that can provide matching project support.
- The foundation has a 12-member volunteer board and assets in excess of \$500 million. In 2006, \$27.6 million was awarded to projects statewide.
- The Rasmuson Foundation has a **moderate impact** on individual communities in the study region.

Programs:

- Arts and culture
- Social services
- Health care

RurAL CAP

Contact: P.O. Box 200908, Anchorage, Alaska 99520
Tel (907) 279-2511, Fax (907) 278-2309, www.ruralcap.com

Leadership: Andrew Ebona, Board President
David Hardenbergh, Executive Director

Mission: *RurAL CAP ensures that all Alaskans have equal access to a high quality of life.*

- RurAL CAP is a private, statewide, nonprofit organization working to improve the quality of life for low-income Alaskans.
- Governed by a 24-member board and staffed by more than 500 Alaskans statewide, RurAL CAP had a 2006 budget of \$20 million.
- The organization provides resources and services statewide for a number of programs, including Head Start, home weatherization, and leadership development, among others.
- In the Bristol Bay region, RurAL CAP has fewer programs. Specifically, the organization facilitates a small number of AmeriCorps and VISTA volunteers in Manokotak and Perryville who work with city and tribal governments on solid waste, health, and planning issues.

Programs:

- **AmeriCorps/VISTA Programs:**
 - Building Initiatives in Rural Community Health (BIRCH) AmeriCorps
 - Rural Alaska Village Environmental Network (RAVEN) Youth Development AmeriCorps
 - Students In Service (SIS) AmeriCorps
 - VISTA Village Council Management Program (VCMP)
- **Environmental Program:** interconnected projects that address local environmental issues and are connected to the RAVEN AmeriCorps program. The program provides information to the public about the importance of subsistence hunting, fishing and gathering to many Alaska Natives.

Alaska Sea Grant Marine Advisory Program

Contact: 1007 West 3rd Ave, Suite 100, Anchorage, Alaska 99501

Tel (907) 274-9691, <http://seagrants.uaf.edu/map/>

Leadership: Brian Allee, Alaska Sea Grant Director

Paula Cullenberg, Program Leader and Coastal Community Development Specialist

Mission: *A statewide outreach and technical assistance program helping Alaskans wisely use, conserve, and enjoy Alaska's marine and coastal resources.*

- The Marine Advisory Program (MAP) is a statewide program based at the University of Alaska Fairbanks, School of Fisheries. It is an outreach program under Alaska Sea Grant.
- MAP has a statewide staff of 15 and annual budget of roughly \$3 million. Funding comes from U.S. Sea Grant, the University of Alaska Fairbanks, and outside grants. Its Dillingham regional office is currently vacant.
- MAP faculty and staff provide informal marine education and technical assistance related to economic development to coastal communities. Topics include seafood quality, business development, and fisheries issues.
- Additionally, they conduct applied research and serve as a link between the University of Alaska, Alaska Sea Grant, and resource users in many areas of the state not served by traditional faculty.
- MAP plays a **significant role** in the Bristol Bay/Lake & Peninsula study region.

Statewide Programs:

- **Alaska Seafood Processing Leadership Institute:** Training future leaders in the seafood processing industry.
- **Alaska Fisheries Business Assistance Project:** A seafood business training and education program for Alaska's seafood industry participants and dependent coastal communities.
- **Future Alaskans in Fisheries and Marine Science:** Helping more rural Alaskans and Alaska Natives become fishery biologists and marine scientists. This program trains individuals for fisheries and marine science positions with state and federal agencies.

Program partners:

- Alaska Department of Fish and Game
- Aleutian Pribilof Island Association
- Aleutian Pribilof Island Development Corp.
- Association of Village Council Presidents
- Bristol Bay Economic Development Corp.
- Chugach Regional Resources Commission
- The Rasmuson Foundation
- University of Alaska Fairbanks, School of Fisheries and Ocean Sciences
- University of Alaska Fairbanks, Cooperative Extension Service
- University of Alaska, Alaska Native

- Coastal Villages Region Fund
 - Kuskokwim Native Association
 - NOAA Fisheries, Alaska Region
 - NOAA National Center for Coastal Ocean Science
 - Norton Sound Economic Development Corp.
 - Science and Engineering Program
 - University of Alaska, Southeast Fishery Technology Program
 - USFWS, Office of Subsistence Management
 - Tanana Chiefs Conference
- **Tools for the Salmon Industry:** Provides resources for communities, groups and individuals involved in Alaska's salmon industry.
 - **Seafood Processing and Technology:** Provides resources to Alaska fishermen and processors for improving quality, safety and value of their products. Resources are available for new developments and improvements to existing operations on-board vessels and in processing plants, as well as training opportunities related to seafood processing and technology.

University of Alaska Center for Economic Development

Contact: UA/Center for Economic Development, Diplomacy Building, 5th Floor 507G, 3211 Providence Drive, Anchorage, AK 99508-8243

Tel (907) 786-5444, Fax (907) 786-5446, <http://ced.uaa.alaska.edu>

Leadership: Christi Bell, Executive Director

- Established in 1992, the Center for Economic Development at the University of Alaska leverages expertise and research capabilities of the UA campuses to promote economic development throughout the state.
- Funded primarily by the U.S. Department of Commerce, Economic Development Administration, with additional support from the University of Alaska. It is now a program of the Institute of Social and Economic Research (ISER).
- The Center for Economic Development has a **moderate role** in the study region.

Program:

- **Alaska Cooperative Development Program** aims to foster development of cooperative business enterprises in rural Alaska, and to aide Alaska producers and consumers to use cooperatives to spur rural economic development. Funded by USDA, through a Rural Cooperative Development Grant.

The program assists new and existing cooperative businesses in rural Alaska with educational programs on how to organize, manage, and develop cooperatives as businesses.

ACDP offers situational analysis, to determine if a cooperative is an appropriate business model for a group of consumers or producers and technical assistance aimed at more narrow issues including: business planning, board training.

Alaska Federation of Natives

Contact: 1577 C Street, Suite 300, Anchorage, AK 99501

Tel 907.274.3611, Fax 907.276.7989, www.nativefederation.org

Leadership: Albert Kookesh, Board Co-Chair (Sealaska Corporation)

Tim Towarak, Board Co-Chair (Bering Straits Native Corporation)

Julie Kitka, President

Mission: *To enhance and promote the cultural, economic and political voice of the entire Alaska Native community.*

- The Alaska Federation of Natives (AFN) is the largest statewide Native organization in Alaska.
- Membership: 178 villages (both federally-recognized tribes and village corporations), 13 regional Native corporations, and 12 regional nonprofit and tribal consortiums. AFN is governed by a 37-member Board
- AFN is an umbrella organization, striving to enhance the strength and success of Alaska Natives. In this regard, AFN has a **moderate role** in the Bristol Bay/Lake & Peninsula study region.

Program:

- Alaska Marketplace is an initiative aimed at harnessing innovative ideas for stimulating economic development in the bush by tapping into the deep cultural knowledge and skills of rural Alaska's residents. Practically speaking, Alaska Marketplace brings together experts and entrepreneurs in a competition where innovators pitch their ideas to a jury of representatives from public and private sectors for a chance to be awarded seed money for their projects.

Regional Organizations

Southwest Alaska Municipal Conference

Contact: 3300 Arctic Boulevard, Suite 203, Anchorage, AK 99503

Tel (907) 562-7380, Fax (907) 562-0438, www.swamc.org

Leadership: Tom Abell, Board President
Michael Catsi, Executive Director

Mission: SWAMC is a regional membership organization that advances the collective interests of Southwest Alaska people, businesses, and communities. SWAMC helps promote economic opportunities to improve quality of life and influences long-term responsible development.

- The Southwest Alaska Municipal Conference (SWAMC) is a non-profit regional economic development organization for Southwest Alaska. It serves three subregions of Southwest Alaska: the Aleutian/Pribilofs, Bristol Bay, and Kodiak.
- Formed in 1988, SWAMC is a partnership of municipal leaders from the region that advocates for the needs of rural communities and the responsible development of the region's core economic sector - commercial seafood harvesting and processing.
- While the seafood industry is the organization's primary focus, its scope has broadened since inception to include issues relating to aerospace and defense, health care, mining, Native corporations, oil and gas development, small business development, and tourism.
- SWAMC does not administer many programs itself, rather it works as a facilitator between entities in the region and the rest of the state.
- The organization plays a **significant** role in the study region.

Program:

- **Tourism Development:** SWAMC promotes a regional tourism marketing effort under the brand name "Alaska's Southwest," which includes a dedicated website, advertising and listings in travel planners, guides and publications, and ongoing travel media contacts and information.

Bristol Bay Regional Seafood Development Association

Contact: Tel (907) 770-6339, www.bbrsda.com

Leadership: Bob Waldrop, Executive Director
Robert Heyano, President

Mission: *Maximize the value of Bristol Bay fisheries.*

- The Regional Seafood Development Association (RSDA) for Bristol Bay fishermen, BBRSDA works to increase the value of Bristol Bay fish.
- It was created by a vote of permit holders, agreeing to pay 1 percent of the assessment on their harvests to fund the groups' efforts. Its 2007 budget was approximately \$870,000.
- BBRSDA is a newly formed organization and is still working on it's strategic plan. The group is planning to approve a new program aimed at chilling Bristol Bay fish at the point of harvest.
- The association has a **limited but growing impact** on the Bristol Bay/Lake and Peninsular region.

Program:

- **Point of Harvest Chilling:** A program working towards the ability to chill all Bristol Bay fish at the point of harvest, increasing its quality and market value. Currently, the lack of cold storage in the Bristol Bay area lessens the quality and value of the harvest, hindering a economic resource.

Bristol Bay Area Health Corporation

Contact: Administrative Offices & Kanakanak Hospital, 6000 Kanakanak Rd/Box 130, Dillingham, Alaska 99576

Tel (907) 842-5201, www.bbahc.org

Leadership: H. Sally Smith, Board Chair
Robert J. Clark, President and CEO

Mission: *To promote health with competence, a caring attitude, and cultural sensitivity.*

- The Bristol Bay Area Health Corporation (BBAHC) was formed by Bristol Bay tribes in 1973 to provide health services to residents of Southwest Alaska.
- BBAHC now serves 34 villages and employs over 360 health care professionals.
- Manages 29 village clinics, staffed by roughly 75 health aides.
- Partners with the Denali Commission and the Alaska Native Tribal Health Consortium (ANTHC), a statewide organization, on health facility improvement projects and trainings.
- BBAHC has a **very significant impact** on individual communities in the study region.

Programs:

- Alcohol and drug abuse
- Child Advocacy Center
- Community health aide program
- Diabetes prevention
- Emergency medical services
- Environmental health
- Infant learning program
- Mental health
- Tobacco cessation

Bristol Bay Housing Authority

Contact: P.O. Box 50, Tower Road, Dillingham, Alaska 99576
Tel (907) 842-5956, Fax (907) 842-2784, www.bbha.org

Leadership: Dave McClure, Executive Director

Mission: *To eliminate substandard housing conditions through the development of local capacities that will provide safe, decent and affordable housing opportunities for the Native population of Bristol Bay.*

- The Bristol Bay Housing Authority (BBHA) facilitates financing for single family homes and apartments.
- Funding partners include the U.S. Department of Housing and Urban Development's Office of Native American Programs, the Alaska Housing Finance Corporation, and the U.S. Department of Agriculture Rural Development Division.
- BBHA has a **significant impact** on individual communities in the study region, as well as on the Bristol Bay and Lake & Peninsula boroughs.

Bristol Bay Economic Development Corporation

Contact: P.O Box 1464, Dillingham, Alaska 99576
Tel (907) 842-4370, www.bbedc.com

Leadership: Robin Samuelsen Jr., President/CEO
Hattie Albecker, Board Secretary

Mission: *To promote economic growth and opportunities for residents of its member communities through sustainable use of the Bering Sea resources.*

- The Bristol Bay Economic Development Corporation is the regional Community Development Quota (CDQ) group for the Bristol Bay region. The CDQ program is a federal effort to sustain the Bering Sea's rich offshore fishery resources and more widely distribute their benefits to communities in Western Alaska. Specifically, it allocates a portion of the total allowable catch for all federally-managed Aleutian Island and Bering Sea fishery species to eligible communities in Western Alaska to use for community and economic development.
- It is a for-profit corporation with, in 2003, total assets estimated at over \$70 million and total revenue estimated at nearly \$20 million. BBEDC's 2003 annual report is the most recent available financial report for the corporation. CDQ groups are no longer required to publicly report financial details.
- More recently, the corporation purchased 50 percent of Ocean Beauty Seafoods shares (a company with \$500 million in revenue), adding its diverse investment portfolio.
- Responsible for managing fisheries quota for the Bering Sea, which it holds under the federal CDQ program.
- Provides economic development assistance and administers programs in business development, education, and job training. In 2007, BBEDC awarded over \$3 million in grants to improve fishing and other infrastructure.
- BBEDC has a **very significant impact** on the 17 individual communities it represents in the study region.

Programs:

- **Economic Development and Outreach:** Stimulating economic growth by providing local fishermen and communities access to capital and other opportunities for employment and business development.
 - Bristol Bay permit brokerage
 - Arctic Tern Program
 - Community Liason Program
 - Community Seed Fund
 - Infrastructure Matching Fund
 - Interest rate and tax assistance
 - Technical assistance

- **Regional Fisheries:** to improve product quality and enhance opportunities for regional fishermen already in existence.
 - Chilling Products Program
 - Bristol Bay Ice
 - 4E Halibut Program
 - Workshops for resident fishermen

- **Employment and Training:** An internship program with business partners and employment on-board partner vessels offers residents new opportunities.
 - Internships
 - Adult basic education
 - At-sea employment

- **Education Initiative:** Opportunities for local residents to receive financial assistance for higher education.
 - Harvey Samuelson Scholarship Trust
 - College Development Fund
 - Student Loan Forgiveness Program
 - High School Higher Education Program
 - College Development Fund
 - Salmon Camp

- **Bristol Bay Science and Research Institute (BBSRI):** An independent research institute established by BBEDC in 1999 to undertake scientific research and educational programs to greater understand the fisheries in the Bristol Bay region.
 - Salmon sampling and genetic stock identification
 - Operates Port Moller offshore test fishery
 - Operates Nuyakuk and Alagnak River counting towers
 - Apply genetic stock identification of Bristol Bay salmon
 - Conduct research to identify causes for Kvichak salmon decline and ways to restore stock
 - Operate Nushagak sonar project
 - Evaluated economic performance of Alternative management options
 - Assess economic and biological effect of large overescapment on the Alagnak River
 - Scholarship for students pursuing a natural resource career
 - Evaluate proposed baseline studies and monitor environmental permitting process for the Pebble Mine

Bristol Bay Native Corporation

Contact: 111 West 16th Avenue, Suite 400, Anchorage, AK 99501
Tel (907) 278-3602, Fax (907) 276-3925, www.bbnc.net

Leadership: Tom Hawkins, Sr. Vice President & CEO
April Ferguson, Vice President & General Counsel

Mission: *Enriching our Native way of life.*

- The Bristol Bay Native Corporation (BBNC) is a for-profit Alaska Native corporation formed under the Alaska Native Claims Settlement Act of 1971.
- It has approximately 8,000 shareholders who are Eskimo, Indian and Aleut, 45 percent of whom live in the Bristol Bay region. Another 28 percent live in other parts of Alaska.
- BBNC is a diversified holding company. Investments and services include a stock portfolio, architectural design, cardlock fueling, corporate services, corrosion inspection, environmental engineering and remediation, oilfield and environmental cleanup labor, and surveying and government services.
- Annual revenue is estimated to be at least \$100 million. Nearly 80 percent of this revenue comes from petroleum sales in the Pacific Northwest, while the remainder is attributable to government contracting, natural resources revenues, and investment income.
- BBNC has a **very significant impact** on the study region.

Programs:

- **Bristol Bay Village Leadership Workshop:** Develops and retains Bristol Bay Native Corporation and Choggiung Limited shareholders as managers and leaders for advancement of the Native community. The 2-day workshop usually draws about 200 village leaders from the 29 villages in the Bristol Bay region to hear speakers address current issues that are important to regional residents.
- **Training Without Walls:** A management training program open to all shareholders that works to bring Native Alaskans into leadership roles in various professions, including administration, law enforcement, health, business, the arts, telecommunications, cultural resources, education, and tribal governance.

Village Corporations

Most villages in the study area also have a village corporation, separate and distinct from the (regional) Bristol Bay Native Corporation. Village corporations were instituted under the same congressional act as regional Native corporations, the Alaska Native Claims Settlement Act of 1971. They are for-profit businesses and their shareholders receive rights in these corporations based on their historical community ties. Village corporations are responsible to their shareholders, who receive annual dividends from their profit-making business ventures and investments. While they have no direct responsibility to the welfare of their communities' residents, village corporations tend to be very connected and influential within their communities.

Bristol Bay Native Association

Contact: Box 310, Dillingham, Alaska 99576

Tel (907) 842-5257, Fax (907) 842-5932, www.bbna.org

Leadership: Ralph Andersen, CEO

Mission: *To promote self determination of regional native tribes.*

- Set up in 1973, the Bristol Bay Native Association (BBNA) is a non-profit association of native village councils and tribal governments in the Bristol Bay region.
- BBNA works to enhance the well-being, culture and interests of Native Alaskans in the region.
- 2007 annual budget: \$17 million (includes grants from other funders profiled in this section).
- BBNA has a **significant impact** on individual communities in the study region.

Programs:

- Economic Development Planning
- Land Management
- Indian Reservation Roads Program
- Natural Resources
- Subsistence Fisheries Monitoring
- Environmental Program
- Social Services
- Workforce Development
- Head Start
- Tribal Government Services

Regional Governance

Lake & Peninsula Borough

Contact: P.O Box 495, King Salmon, Alaska 99613

Tel (800) 764-3421, www.lakeandpen.com

Leadership: Lamar Cotten, Borough Manager

- Incorporated in 1989, the Lake & Peninsula Borough governs 17 communities within the borough. There are 11 remaining communities within the borough’s geographical boundaries that are governed by village or tribal councils. The Borough office is located in King Salmon, which is not part of the Lake & Peninsula Borough; it is in the Bristol Bay Borough.
- Services provided by the Borough include public schools, area-wide planning and land use regulation, technical assistance on government and economic development, and assistance on capital and infrastructure development.

Bristol Bay Borough

Contact: P.O Box 189, Naknek, Alaska 99633

Tel (907) 246-4224, www.theborough.com

Leadership: Dave Soulak, Borough Manager

- Alaska’s first incorporated borough in 1962, the Bristol Bay Borough is the chief governing body for the communities of Naknek, South Naknek, and King Salmon. The Borough offices are located in Naknek.

Borough Projects:

- **Dock Improvements:** The Department of Commerce, Community and Economic Development (DCCED) appropriated roughly \$1 million in grant funding for development of a fishermen’s dock and expansion of the industrial park and the Port of Bristol Bay dock in Naknek.
- **Community Mapping Project:** Denali Commission and DCCED are funding a \$150,000 effort to improve mapping of Bristol Bay Borough communities.
- **King Salmon Public Water Facility:** Feasibility assessment of building a public water facility for the community of King Salmon.

City of Dillingham

Contact: P.O Box 889, Dillingham, AK 99576
Tel (907) 842-5211, www.ci.dillingham.ak.us

Leadership: Chow Taylor, City Manager

- The City of Dillingham lies in an unorganized borough, meaning it does not have borough-level governance.

City Projects:

- **Water Facility Improvements:** The City is currently conducting water tower repairs and construction of a water treatment facility.
- **Harbor Improvements:** Installation of new piers, ramps, and power, and improvement of the harbor parking lot.
- **Landfill Expansion:** Working to open a new cell in the city landfill.

Village Governance

Each village with the Bristol Bay/Lake & Peninsula study region has either a city or tribal council, or both, governing its local affairs. The tribal councils are Native governments that have a government-to-government relationship with state and federal entities. They receive funding from the Bureau of Indian Affairs. Village councils in Lake & Peninsula Borough unincorporated communities receive funding in the form of local revenue sharing from the Borough. City councils are municipal government bodies, identical to any local municipal government in Alaska.

The table below gives an overview of the organizations affecting the Bristol Bay/Lake & Peninsula region by their main program areas. Based on this information, it is clear that energy and tourism are two areas lacking in support and funding.

Table 17
Program Areas and Scope by Organization

Programs	Education/ Training	Energy	Health Care	Infrastruc- ture	Fisheries	Other Econ. Dev.	Entity Type	Scope
USDA Rural Development	x	x	x	x		x	Govt.	Statewide/ Regional
EDA	x			x		x	Govt.	Statewide
OED	x			x	x	x	Govt.	Statewide
AEA	x	x		x			Govt.	Statewide
Commercial Fisheries	x				x		Govt.	Statewide/ Regional
ASMI					x		Govt.- Industry	Statewide
Denali Commission	x	x	x	x		x	Private- Public	Statewide
Rasmuson Foundation	x		x			x	Private foundation	Statewide
RurAL CAP	x		x			x	Non-profit	Statewide
MAP	x				x		Public	Statewide
UA Center for Econ. Dev.	x					x	Public	Statewide
SWAMC		x	x	x	x	x	Non-profit	Regional
BBRSDA					x		Non-Profit Assoc.	Regional
BBAHC			x				Public	Regional
BBHA				x			Public	Regional
BBEDC	x			x	x	x	Native Corp.	Regional
BBNC	x					x	Native Corp.	Regional
BBNA	x		x	x		x	Native Assoc.	Regional
AFN						x	Native Assoc.	Statewide
L&P Borough				x		x	Govt.	Regional
BB Borough				x		x	Govt.	Regional
City of Dillingham				x		x	Govt.	Regional

Education and Training Centers

College of Rural and Community Development, Dillingham Campus

Contact: 527 Seward Street, P.O. Box 1070, Dillingham, Alaska 99576
Tel (907) 907.842.5109, Fax 907.842.5692, www.uaf.edu/bbc

Leadership: Bernice Joseph, Vice Chancellor (Fairbanks Campus)

Mission: *The College of Rural and Community Development (CRCD) provides academic and vocational education and outreach that promote workforce preparation, economic development, life-long learning, and community development through Alaska, with an emphasis on Alaska.*

- An branch of the Univeristy of Alaska Fairbanks, CRCD offers various certificate programs, Associate degrees, Bachelor degrees, and a Master’s degree program in Rural Development.
- The Bristol Bay Campus has centers in Dillingham, King Salmon, and Togiak.

Southwest Alaska Vocational Education Center

Contact: P.O. Box 615, King Salmon, Alaska 99613
Tel (907) 246-4600, www.savec.org

Leadership: Dave McClure, Board Chairman (Bristol Bay Housing Authority)
Eldon Davidson, Executive Director

- The Southwest Alaska Vocational Education Center offers regional students the training needed to enter directly into the workforce.

Programs:

- Construction
- Health Care
- Computer Science
- Fisheries

Future Programs:

- Oil and Gas
- Mining

Existing Relevant Studies

Borough and Community Plans

Bristol Bay Borough Comprehensive Community Plan (2006), www.theborough.com

- **Summary:** An update to a 1985 Comprehensive Community Plan, the document outlines goals and development priorities for the Bristol Bay Borough and provides direction for future planning in Borough communities.

Bristol Bay Borough Coastal Management Plan (2006), www.theborough.com

- **Purpose:** The Alaska Coastal Management Act makes local governments responsible for managing the coast within their jurisdiction and requiring each to prepare a district coastal management plan.
- **Summary:** Part I contains information first printed in May 1981 as a Resource Inventory for the Bristol Bay Borough. This Section describes the regions physical characteristics as well as the animals, fish, birds, and plants which are native to the region. Part II contains the proposed coastal management program. It includes the community's goals and objectives, a resource analysis, management recommendations, a definition of areas which merit special attention, coastal policies, and an implementation process.

Bristol Bay Coastal Resource Service Area (CRSA) Coastal Management Plan (2008),

<http://alaskacoast.state.ak.us>

- **Summary:** This document provides coastal management planning to the Bristol Bay Coastal Resource Service Area. The Bristol Bay CRSA is a special service area created for the sole purpose of coastal management, enabling area residents to participate in local coastal management even though the area is not within an organized borough. The 2008 plan outlines issues, goals, and objectives of the area, implementation strategies, enforceable policies, as well as an updated resource inventory and analysis.

Lake & Peninsula Borough Comprehensive Economic Development Strategies (2002),

www.lakeandpen.com

- **Summary:** For both the borough and community levels, this study provides area descriptions, available human resources, economic conditions, existing infrastructure and transportation, and analyses of development strengths/weaknesses/opportunities/threats (SWOT). Goals and objectives of each community, and of the borough as a whole, are also outlined in the document.

Lake & Peninsula Borough Coastal Management Plan (2007), <http://alaskacoast.state.ak.us>

- **Summary:** The Lake and Peninsula Borough coastal management plan provides a general strategy for maintenance of the functions and values of coastal habitats and resources; protection of subsistence, personal use, and commercial and recreational activities dependent on coastal resources; and serves as a forum to resolve conflicts in the use of coastal resources.

Lake & Peninsula Borough Capital Improvement Project List (2006), www.lakeandpen.com

- **Summary:** This document lists in order of priority the borough's top 10 projects as of November 2005, as well as the highest priority projects in each community within the borough, as of January 2006. The community level projects are not listed in any particular order.

Lake & Peninsula Borough Technical Assistance to Address Issues for Fisheries Impacted Communities (2005), www.lakeandpen.com

- **Summary:** This technical assistance document examines issues related to the downturn in commercial fisheries affecting Lake & Peninsula Borough communities. In the document, recommendations, suggestions, and information are provided for possible changes to assist in energy cost reduction, development of infrastructure, transportation development and environmental concerns. The document's primary focus is to place past and current resource information in one document, making sources easily accessible when attempting to address a particular issue.

City of Dillingham Comprehensive Plan (2005), www.ci.dillingham.ak.us

- **Summary:** The Dillingham Comprehensive Plan shows an outline for address some of the city's needs and guidance for future development in Dillingham. The document discusses the City's goals, objectives, policies, and planned actions for various sectors of the local economy.

Community Comprehensive Strategic/Development Plans

- A number of communities in the study region have community comprehensive strategic or development plans as well. These plans are often required by funding organizations as part of the application for project funding process. In fact a number of funders help communities construct their comprehensive plans as an initial project step. Plans are likely available from the village or tribal councils.

Regional Studies

The Remote Rural Economy of Alaska (2007), Institute for Social and Economic Research, www.iser.uaa.alaska.edu

- **Summary:** Part of ISER's Understanding Alaska (UA) special series studies examining Alaska economic development issues, this report presents a comprehensive description of the economy of remote rural Alaska.

Economics of Wild Salmon Watersheds; Bristol Bay, Alaska (2006), Duffield, Patterson, Neher and Goldsmith, www.solutionsthatendure.com

- This 120-page report provides estimates of the economic values associated with sustainable use of wild salmon ecosystem resources, primarily fisheries and wildlife, of the major watersheds of the Bristol Bay, Alaska region. Both regional economic significance and social benefit-cost accounting frameworks are utilized. This study reviews and summarizes existing economic research on the key sectors in this area and reports findings based on original survey data on expenditures, net benefits, attitudes, and motivations of the angler population.

An Analysis of Non-participating Limited Entry Permits in the Bristol Bay Salmon Drift Gillnet Fishery 1990-2005 (2006), Commercial Fishing Entry Commission, www.cfec.state.ak.us

- **Summary:** This report offers analysis of unfished permits in the Bristol Bay drift gillnet salmon fishery. These permits are of interest to those pursuing fleet consolidation efforts in Alaska's commercial salmon fisheries. Discussion is focused on 2001 through 2005, and it should be noted that the start of this period is marked by dramatic declines in fishery-wide earnings and participation rates.

Bristol Bay Salmon Drift Gillnet and Set Gillnet Fisheries: Permit Holdings and Participation Rates by Age and Resident Type, 1975-2004 (2005), Commercial Fishing Entry Commission, www.cfec.state.ak.us

- **Summary:** This review of Bristol Bay permits and participation examines salmon drift and setnet participation rates by resident type and age, and focuses particularly on how participation rates change as economic returns in the fishery change.

Bristol Bay Salmon Drift Gillnet Fishery Optimum Number Report (YEAR), Commercial Fishing Entry Commission, www.cfec.state.ak.us

- **Summary:** This report determines that the optimum number of permits for the Bristol Bay salmon drift gillnet fishery is in the range of 800 and 1,200 permits.

Projections of Future Bristol Bay Salmon Prices (2004), Institute for Social and Economic Research, www.iser.uaa.alaska.edu

- **Summary:** The study predicts future ex-vessel prices for Bristol Bay sockeye, depending on harvest volume, farmed coho volume and Japanese Yen exchange rates, to aid in the estimation of the "optimum number" of limited entry permits in Bristol Bay.

Bristol Bay District and Community Needs and Ice Machine Assessment (2004), McDowell Group

- **Summary:** Estimating the potential demand for ice needed to chill Bristol Bay salmon, this report identifies the regional icing infrastructure: size, capital and operating costs. Providing infrastructure to chill fish at the point of harvest would increase the value of the Bristol Bay harvest. The report estimated potential ex-vessel value could increase between \$6 and \$10 million.

An Analysis of Options to Restructure the Bristol Bay Salmon Fishery (2003), LGL Alaska Research Associates, Inc., Northern Economics Inc., Redpoint Associates, Department of Agricultural and Resource Economics UC Davis, Jim Barnett (Attorney at Law), www.bbsalmon.com/FinalReport.pdf

- **Purpose:** The purpose of this study was to identify and examine the options available to restructure the Bristol Bay salmon fishery and compare them, in terms of anticipated effects, to the option of not making changes to the fishery.

Western Alaska Economic Diversification Strategy: Local Decisions About Local Economies (2002), DCCED, Division of Community and Business Development

- **Summary:** This report is offered to communities in Western Alaska as a tool to strengthen their economic self-sufficiency. It provides some ideas for how to better recognize opportunities in Western Alaskan communities and potential opportunities that may exist. It also provides information to help communities consider what direction they should take.

An Assessment of the Socioeconomic Impacts of the Western Alaska Community Development Quota Program (2002), Northern Economics

- **Summary:** This report provides an analysis of the socioeconomic effects of the Western Alaska Community Development Quota (CDQ) program.

Review and Summary of Community Development Plans and Annual and Quarterly Reports Submitted by CDQ Groups (2002), Northern Economics

- **Summary:** This document reviews and summarizes the comprehensive development plans and the annual and quarterly reports submitted by the six CDQ groups throughout Alaska. Various aspects of each CDQ group are examined, namely: administrative management organization, vision statement/purpose, quota share, harvest/processing partners, employment, training/scholarship programs, investment programs, and development programs.

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