2011

Native Village of Barrow – Iñupiat Traditional Government

Comprehensive Economic Development Strategy

The Native Village of Barrow would like to thank the

Economic Development Administration

for funding the preparation of this CEDS

and for the guidance from our community partners who

volunteered their exceptional knowledge and valued time.

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Barrow Economic Development Committee (BEDC) Members

Sam Okakok, NVB Housing Director, President

John Gleason, Wells Fargo Manager, Vice President

Cynthia Toop, NVB Economic Development Manager, Secretary

Mayor Harcharek, City of Barrow, member

Pearl Brower, Dean of Students & Institutional Development,

Ilisagvik College, member

Dan Forster, North Slope Borough Planning Department, member

Mary Sage, Small Business Owner, member

Nathanial Rexford, Small Business Owner, member

Vernon Edwardsen, Small Business Owner, member

Robin Mongoyak, Small Business Owner, member

Delbert Rexford, Land Chief, UIC, member

BECD Mission Statement

The mission of the Barrow Economic Development Committee is to mentor the Native Village of Barrow and their membership in the economic development process that incorporates subsistence activities and resources that perpetuates the Tribes' vision for self-sufficiency and responsible economic growth.

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EXECUTIVE SUMMARY

The intent of the CEDS is to provide an understanding of the area's economy and how the Native Village of Barrow (NVB) relates to the economic structure. Community and private sector participation in economic development efforts, and in the CEDS process, has been more than adequate. Over this past year, community meetings and a visioning session was held to understand the priorities of the membership along with how to incorporate the Iñupiat values into the economic development process.

This community development and capacity building garnered a thoughtful response from the membership. They wanted to see subsistence natural resources protected while seeking a culturally based business development. Therefore, this review of the environmental, social, and infrastructure analysis takes into account the memberships concerns.

A list of projects to implement into a plan of action has been developed along with the goals and objectives. The long term goal of this plan is move the tribal government and its membership into economic development that is self-sustaining.

Vision:

"Our vision for development is to become a tribe that is self-sustaining, rich in culture and tradition that will blend the paths of the old and the new in a way that preserves the Iñupiat traditional knowledge and way of life that unites us as one people in the respect, values, and memory of our ancestors."

Why Develop a Comprehensive Economic Development Strategy CEDS?

The Native Village of Barrow recognized that in order to meet the needs of its membership a Comprehensive Development Strategy needed to be in place. A CEDS will:

- Give the tribe the best possible chance for success
- Make the process manageable and effective
- Determine projects that are feasible
- Attract investment to well defined projects

This process involves an environmental scan which analyzes local conditions; evaluates through a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis; through public and private participation develop goals and objectives; identifies activities needed to implement projects; identifies potential drawbacks; and evaluates accomplishments.

The results will include:

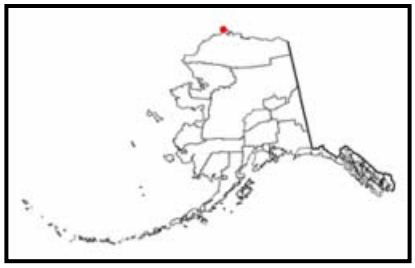
- Jobs
- Stable and diversified economy
- Improvement of living conditions
- Cultural and historical project consideration
- Creation of partnerships with the community and its organizations

How was this CEDS developed?

Using the U.S. Department of Commerce, Economic Development's Administration (EDA) Guidelines the Native Village of Barrow reached out to its membership and community partners to indentify the elements put into this document. A committee was formed and named Barrow Economic Development Committee (BEDC). Through committee and community meetings, along with a survey, the elements needed to prepare this document were gathered. EDA representatives worked closely with NVB and supported the efforts in the process.

Background/Overview of Barrow's Community

Location



Barrow, a village situated within the North Slope Borough, is located at the northern most tip of Alaska, only a few miles southwest of Point Barrow where the Beaufort and Chuckchi seas join. Barrow's traditional name "Ukpeagvik," means "the place for hunting snowy owls.'' Beechey, a British sailing officer named the community after Sir John Barrow of the British admiralty.

History and Culture

There is evidence of man in this area dating back to about 50,000 years B. C. It has been established that the Iñupiat Eskimos have permanently resided in this area for over 4,000 years.

Traditionally, the Iñupiat were a nomadic tribe that actively traded between tribes located in what is now known as Alaska and Canada. Subsistence activities of hunting for seal, caribou, polar bear, walrus, whale, and migratory birds were practiced then and are still actively practiced today. This rich and dynamic culture has been maintained despite westernized influences experienced during the European whaling camps in the 1840's, and the discovery of oil in 1968.

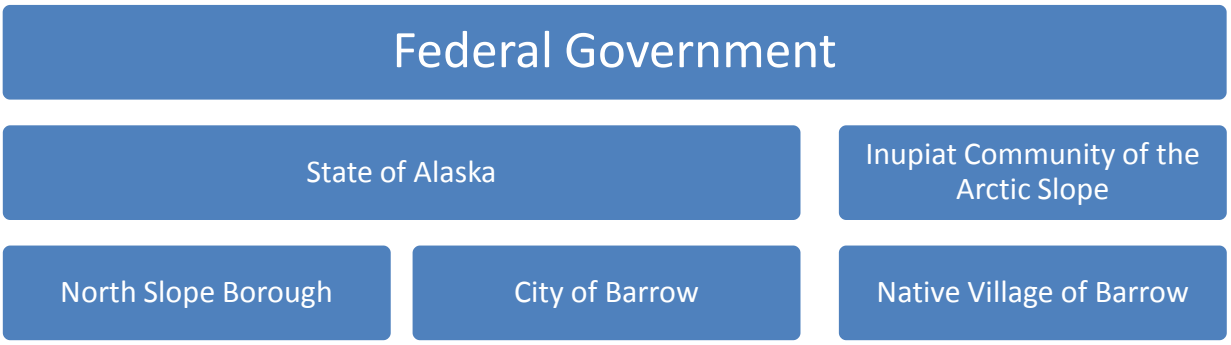
Climate

Weather observations are available for Barrow dating back into the late 1800s. Currently there is a National Weather Service (NWS) Office and a National Oceanic and Atmospheric Administration (NOAA) Climate Monitoring Lab in Barrow.

Owing to its location 320 miles (515 km) north of the Arctic Circle, Barrow's climate is cold and dry and is classified as a polar climate. Winter weather can be extremely dangerous because of the combination of cold and wind, while summers are cool even at their warmest. Barrow experiences the lowest average temperatures in Alaska. While recording the lowest temperatures statewide during cold waves is rare, extremely low wind chill and "white out" conditions from blowing snow are very common. Temperatures remain below freezing from early October through late May. There are freezing temperatures on an average of 324 days per year.

On November 18 or 19 the sun goes down, and remains below the horizon for about 65 days until it re-appears, normally on January 22 or January 23. During the first half of the polar night there is a decreasing amount of twilight each day, and on the winter solstice, December 21 or December 22, civil twilight in Barrow lasts for a mere 3 hours. (Wikipedia, online)

Local, State and Federal Government



Federal: The federal government has many agencies working with Barrow directly, indirectly, and through grants; these include but are not limited to the Department of Interior, Bureau of Indian Affairs; Bureau of Land Management; U.S. Fish and Wildlife, HUD; and the U.S. Department of Commerce, Economic Development Administration.

State: The State of Alaska also has involvement directly, indirectly, and through grants; these include but are not limited to the State of Alaska Court System, State of Alaska Troopers, and Health and Welfare programs.

Regional: The North Slope Borough was incorporated as a first class Borough on July 2, 1972 under the laws of the State of Alaska. A Home Rule Charter was adopted by the Borough on April 30, 1974. This municipal government is responsible for regional governing of the area that is comprised of seven villages and has a land mass that is 89,000 square miles; it is the largest county-level political subdivision in the United States.

City: The City of Barrow was incorporated as a 1st Class City in 1958, as the local government. The City of Barrow is responsible for harbors and docks, recreation and cemeteries. Their recreational facilities include Piuraagvik Recreation Center, and the Barrow Hockey and Curling Association Ice Skating Rink.

Federally Recognized Regional Tribe: The Iñupiat Community of the Arctic Slope (ICAS) is an Alaska Native tribe governed by the Indian Reorganization Act of 1934, as amended, that represents and is selected by the Iñupiat people of the Arctic Slope region. ICAS was established as an IRA in August 26, 1971. The mission of ICAS is to exercise its sovereign rights and powers for the benefit of tribal members, to conserve and retain tribal lands and resources including subsistence and environmental issues, to establish and carry-out justice systems including social services pursuant to Iñupiat Tribal law and custom, and to increase the variety and quality of services provided to current tribal members and for our future generations. Economic development to generate sustainable funding sources for ICAS as a regional tribal government will be pursued to enhance the existing human resource services.

Federally Recognized Local Tribe: The Native Village of Barrow, the longest standing local government in Barrow, is a federally recognized tribe incorporated in 1940 under the Indian Reorganization Act of 1934 (48 Stat. 984) as amended for Alaska Natives in 1936 by the United States Congress. The Native Village of Barrow meets a variety of tribal member needs including adult basic, secondary, and higher education; realty; wildlife; housing; Indian reservation roads; social services and child protection; environment protection; and economic development. This is accomplished through its Self-Governance Funding Agreement with the US Department of Interior Bureau of Indian Affairs, various grants, and pull-tab gaming.

Corporations and Associations

Arctic Slope Regional Corporation (ASRC): ASRC was incorporated in Alaska on June 22, 1972. Headquartered in Barrow, Alaska, with subsidiary offices globally; Arctic Slope Regional Corporation is a for-profit corporation with nearly 9,000 shareholders, mostly comprised of Alaska native decent.

Ukpeaġvik Iñupiat Corporation (UIC): UIC is the village corporation of Barrow, Alaska. It was incorporated on April 19, 1973 under provisions of the Alaska Native Claims Settlement Act. ANCSA mandated the creation of 13 regional and 200 village corporations, each charged with corporate stewardship of money and lands provided under the settlement. UIC ranks 8th (2008) among Alaskan owned and based companies, according to Alaska Business Monthly.

Arctic Slope Native Association (ASNA):. "The Arctic Slope Native Association, Ltd., (ASNA) was formed in 1964 by the Eskimo leaders of Barrow in order to have a voice in the settlement of land issues in the State of Alaska. It was active in this mission until 1972 at which time the Iñupiat Community of the Arctic Slope was formed. ASNA was dormant as an organization until 1991 when it was re-activated due to demands by the Iñupiat people for self-

determination. ASNA is a non-profit corporation recognized by the IRS as a 501 (c)(3) organization and our main mission is to provide self-determination for the Iñupiat people of the Arctic Slope in all aspects of their lives....”(tribalconnections.org). The administration of the local hospital falls under ASNA and they provide tribal membership services to Barrow and the other villages within the North Slope Borough.

Land Ownership

Background on Alaska Native Corporations and Associations

Under ANCSA the state was originally divided into twelve regions, each represented by a "Native association" responsible for the enrollment of past and present residents of the region. Individual Alaska Natives enrolled in these associations, and their village level equivalents, were made shareholder in the Regional and Village Corporations created by the Act. The twelve for-profit regional corporations, and a thirteenth region representing those Alaska Natives who were no longer residents of Alaska in 1971, were awarded the monetary and property compensation created by ANCSA. Village corporations and their shareholders received compensation through the regional corporations. The fact that many ostensibly Alaska Native villages throughout the state were not empowered by the ANCSA to form village corporations later led to a number of lawsuits.

The regional and village corporations are now owned by Alaska Native people through privately owned shares of corporation stock. Alaska Natives alive at ANCSA's enactment on December 17, 1971 who enrolled in a Native association (at the regional and/or village level) received 100 shares of stock in the respective corporation. In 2006, the 109th Congress passed S.449 which amended ANCSA, and allowed for shares to be more easily issued to those who had missed the

enrollment, or were born after the enrollment period by reducing the requirement for voting from a majority of shareholders to a majority of attending shareholders at corporation meetings.

During the 1970s, ANCSA regional and village corporations selected land in and around native villages in the state in proportion to their enrolled populations. Village corporations own the surface rights to the lands they selected, but regional corporations own the subsurface rights of both their own selections and of those of the village corporations. (Wikipedia online)

Socioeconomic Data

The largest city in the North Slope Borough, Barrow has 4,429 residents, of which approximately 61 percent are Iñupiat Eskimo. (North-Slope.org)

Population in Barrow's census area

www.localcensus.com

Total population (2000)	4,581
Total white population (2000)	1,000
Total black population (2000)	46
Total asian population (2000)	431
American Indian & Alaska Native population (2000)	2,620
Native Hawaiian & Pacific Islander popualtion (2000)	62
Hispanic population (2000)	153
Total population over 18 yrs (2000)	2,901
White population over 18 yrs (2000)	809
Black population over 18 yrs (2000)	36
American Indian & Alaska Native population over 18 yrs (2000)	1,526
Asian population over 18 yrs (2000)	316
Native Hawaiian & Pacific Islander population over 18 yrs (2000)	33
Total male population (2000)	2,369
Total female population (2000)	2,212
Male median age (2000)	29
Female median age (2000)	28
Both sexes median age (2000)	29

Economy: Barrow is the economic center of the North Slope Borough. It is the primary employer and numerous businesses provide support services to oil field operations. State and federal agencies also provide employment. The midnight sun has attracted tourism in which the local artisans sell their arts and crafts to provide seasonal cash income. Seven residents hold commercial fishing permits. Many residents rely upon subsistence food sources: whale, seal, polar bear, walrus, duck, caribou, along with grayling and whitefish that are harvested from the coast or nearby rivers and lakes. (Community Profile Alaska.gov)

In 2003, approximately one-third of the working population of 1,935 was employed in the private sector. Only a few work for oil companies at Prudhoe Bay. The borough employs 46 percent of the work force and the NSB School District employs another 19 percent. (North-slope.org)

Cost of Living:*

Example of goods	Barrow	Seattle
Milk – 1 gallon plastic container	$9.99	$2.49
Skippy Peanut Butter 28oz	$8.95	$3.99
Cereal (Special K frosted flakes) box	$8.65	$4.99
Toilet Paper (Charmin 12 roll)	$13.69	$6.99
Drywall per sheet	$43.00	$10.82

Cost of living is extremely high in Barrow. Living in Alaska is expensive but living in Barrow is 50% higher than living in the lowest priced index of Anchorage.

Geographic Cost Differentials
By Alaska communities, 2008

6

Anchorage	**1.00**
Homer	1.01
Ketchikan	1.04
Petersburg	1.05
Valdez	1.08
Cordova	1.13
Sitka	1.17
Dillingham	1.37
Nome	1.39
Barrow	1.50
Bethel	1.53
Unalaska/Dutch Harbor	1.58
Kotzebue	1.61

Note: Anchorage was used as the base city and assigned a value of 1.00 from which comparisons of the other areas could be made. For example, Mat-Su's index number of 0.95 means that living costs there are 95 percent as high as Anchorage's; the Aleutian region's 1.50 index number means costs there are 150 percent as high as in Anchorage.

Source: The McDowell Group

The U.S. Department of Defense produces a cost of living index for all of its overseas locations which include Alaska, Afghanistan, Hawaii and many other places. According to the cost of living index Barrow is high on the list as one of the most expensive places to live.

Allowances paid to service members, stationed in high-cost areas, help them maintain the same purchasing power as they would have in the United States, when buying similar goods and services. The Department of Defense collects pricing data on approximately 120 goods. The index does not include housing which is handled through an allowance program. Also, this cost-of-living adjustment is only calculated for spendable income and not total income. Spendable income is calculated by taking household income and subtracting housing expenses, taxes, savings, life insurance, gifts and contributions. The strength of the index is its broad geographic

coverage of 24 areas in Alaska. The highest prices were in Barrow, Bethel, Nome and Wainwright; and the lowest were in Wasilla, Anchorage, Fairbanks, Clear and College (within the Fairbanks, North Star Borough). (Alaska.gov website)

As a result of these prices and limited product selection, caused in part by high shipping costs, residents are forced to shop outside of Barrow, often taking several plastic totes as luggage to purchase items in Anchorage and Fairbanks when they fly out. This causes the money to bleed away from the community instead of sustaining it.

Military Cost-Of-Living Allowance
OCONUS[1] Index, Alaska 2010

Location	Index
Anchorage	126
Barrow	152
Bethel	152
Clear Air Force Station	128
College	128
Cordova	138
Delta Junction	130
Fairbanks	128
Homer	132
Juneau	130
Kenai (includes Soldotna)	132
Ketchikan	142
King Salmon (includes Bristol Bay Borough)	132
Kodiak	132
Nome	152
Petersburg	142
Seward	130
Sitka	138
Spuce Cape	134
Tok	132
Unalaska	134
Valdez	138
Wainwright	152
Wasilla	124
Other	152

Employment:

Employment and Wages

Unemployment Rate

[Top]

Area	Year	Time Period	Labor Force	No. of Employed	No. of Unemployed	Unemployment Rate
North Slope Borough	2010	Jun	5,060	4,767	293	5.8

More Areas Historical Data Download Data

Number of Businesses by Company Size

[Top]

Company Size	No. of Companies	Total Employees
1000 and over employees	3	4,910
500 to 999 employees	6	3,971
250 to 499 employees	6	2,051
100 to 249 employees	6	800
50 to 99 employees	12	805

More

laborstats.alaska.gov

Although the numbers reflected in the data do not show a high rate of unemployment for the area, these numbers would not reflect those who are living a mostly subsistence lifestyle and who are not in the system to be counted. We will be surveying the membership population this year to take those numbers into account.

As identified earlier, between the North Slope Borough and their School district employees, a total 65% of the population is dependent on government employment which is subsidized by oil sectors dollars. The community needs to address how to move employment into the private sector.

Education:

Tribal College: Ilisagvik College: Established in 1995, Ilisagvik College, the only tribal college in Alaska, offers post-secondary academic, vocational and technical education aimed at matching

workforce needs. They are dedicated to perpetuating and strengthening Iñupiat (Eskimo) culture, language, values and traditions.

ICAS Vocational Rehabilitation Program: This program helps those Alaska Natives and American Indians whose physical and mental disabilities substantially impede their ability to get or keep a job, or be productive in subsistence activities. The program is for residents of the North Slope Borough (except for Point Hope that is served by the Maniilaq Vocational Rehabilitation program), who have proof of their being a member of a federally recognized tribe and want to work. Determination for eligibility for services includes one or more disabilities that are a barrier to employment that may include: alcohol and drug abuse recovery, learning disabilities, mental illness, orthopedic problems to include back injuries, amputation, severe diabetes, head injuries or strokes, hearing or visual impairments, seizure disorders, developmental disabilities, and other disabilities that interfere with employment.

Secondary Schools: Barrow High School and Eben Hopson Sr., Memorial Middle School

"Barrow High School's goals are to focus on the North Slope Borough School District goals of increasing student achievement in Reading, Writing and Mathematics. We will also be focused on increasing student and staff understanding and appreciation of the Iñupiat Values. It promises to continue to be a wonderful year." (NSBSD website) Enrollment during 2009-2010, 214 students; meets *Annual Yearly Performance (AYP).

"The mission of Eben Hopson Sr., Memorial Middle School is to provide all students with a quality education in partnership with parents and community. Students will learn skills conducive to social responsibility, appreciation of cultural diversity, cooperative communication and life-long learning." (NSBSD website) Enrollment during 2009-2010, 196 students; does not meet *Annual Yearly Performance (AYP)

Alternative Secondary School: Kiita

"Kiita Learning Community is an alternative high school located in Barrow, Alaska that seeks to serve the educational needs of students who need a smaller more flexible learning environment. Kiita seeks to help students who have dropped out or who fallen seriously behind in traditional schools. Regular small classes, independent study classes as well as work place opportunities are the means in which students earn academic credits. A strong emphasis is also placed on improving the student's mental and emotional health." (NSBSD website) Enrollment during 2009-2010, 42 students; does not meet * Annual Yearly Performance (AYP)

Elementary School: Ipalook Elementary School

"Ipalook Elementary is focused on increasing student achievement and incorporating the Iñupiaq culture and language into the classrooms. The district adopted curriculum allows our teachers to provide a strong foundation in reading, writing, and math. With the help of the Bilingual Department, the students are provided a strong Iñupiaq Language Program." (NSBSD website) Enrollment during 2009-2010, 608 students; does not meet * Annual Yearly Performance (AYP).

*Adequate Yearly Progress is based on tests that all public school students take each year, which measure their proficiency in reading, writing and math. No Child Left Behind determines the percentage of students required to test proficient at a school.

Three out of four schools did not pass the AYP in Barrow, and the North Slope Region's (all villages) dropout rate has been steadily increasing.

Statistics & Reports

State of Alaska > Department of Education & Early Development > Statistics and Reports

Dropout rates are calculated using grades 7-12. District Dropout Rates 12/16/2009

School District	Data	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Mt. Edgecumbe	Dropouts	1	1	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	0	0
	Dropout Rate	0.5%	0.5%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nenana	Dropouts	0	0	4	6	6	5	3	4	1	0	113	8	5	8	52	38	23	201	171
	Dropout Rate	0.0%	0.0%	4.5%	7.3%	9.7%	7.5%	4.1%	6.3%	0.7%	0.0%	16.2%	1.1%	0.9%	1.6%	12.8%	9.5%	6.0%	32.0%	23.4%
Nome	Dropouts	3	1	0	7	0	4	2	5	3	4	0	19	11	15	9	13	20	25	22
	Dropout Rate	1.0%	0.3%	0.0%	2.4%	0.0%	1.3%	0.6%	1.5%	0.9%	1.2%	0.0%	6.2%	3.6%	4.7%	2.5%	3.5%	5.5%	7.4%	7.1%
North Slope	Dropouts	17	28	26	33	25	35	31	19	32	46	80	47	99	56	65	51	68	50	85
	Dropout Rate	3.7%	5.4%	4.8%	5.7%	4.1%	5.7%	4.4%	2.5%	4.3%	5.7%	9.5%	5.4%	11.1%	6.2%	7.6%	5.9%	8.6%	6.5%	11.4%

Infrastructure

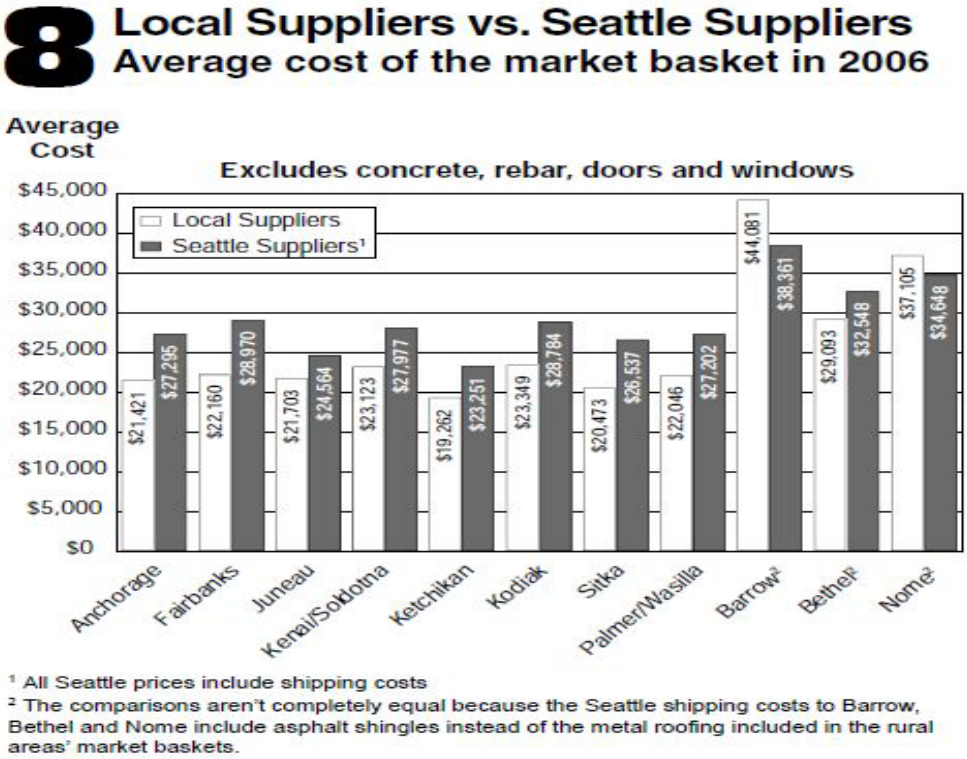
Housing: There is a severe shortage of housing in Barrow and with the construction of the new hospital bringing in contractors the housing crisis is escalating. There are two major providers of housing in Barrow, Tagiugmiullu Nunamiullu Housing Authority (TNHA) and the Native Village of Barrow's Housing Department.

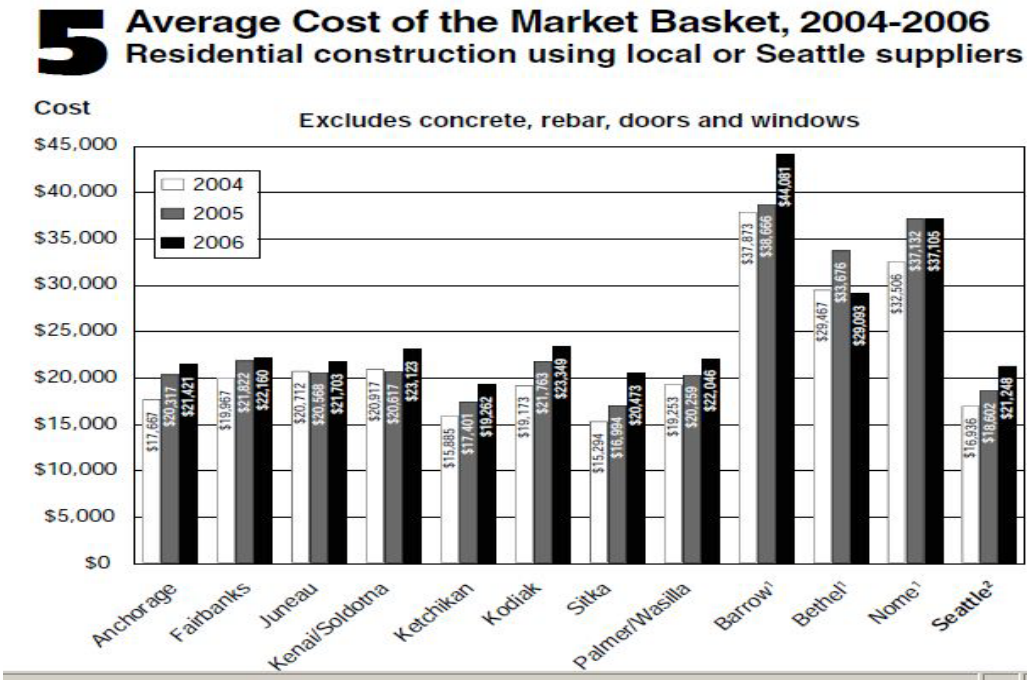
Tagiugmiullu Nunamiullu Housing Authority (TNHA), a Tribally Designated Housing Entity established in 1974. TNHA offers a variety of housing programs and has developed a total of 583 housing units throughout our North-Slope region. Serving a broad population base of 7,555 residents in the remote villages of Point Hope, Point Lay, Anaktuvuk Pass, Atqasuk, Barrow, Kaktovik, Wainwright and Nuiqsut, TNHA is charged with the creation of safe, affordable housing, economic development, and community revitalization. (TNHA website)

The Native Village of Barrow Housing Department provides new construction, renovation or emergency repairs to existing homes, Ramps for elderly and disabled, along with emergency funding for the homeless and displaced families. In 2010, the housing department started the

building of 19 new homes. The housing department received competitive bids in which competitive price warranted purchased the goods in Seattle instead of purchasing locally.

http://labor.alaska.gov/trends





Most of the people living in Barrow occupy single family homes, the remaining population live in assorted housing types including apartments, trailer/mobile homes and cabins. The family unit that occupies the home is often comprised of extended family and the quarters are often crowded.

Transportation:

Barrow experiences physical isolation due to the fact that there are no roads coming into the village except for the seasonal ice roads. Inside of Barrow the transportation options consist of a public bus system, taxis, and airlines which include Alaska Airlines (Commercial passenger and cargo) and ERA Aviation (Charter and Helicopter). UIC Bowhead Transportation accepts orders between May and June for deliveries to Barrow and a few of the other North Slope Borough Villages. The barge leaves Seattle around the beginning of July of each year to make it yearly run to Barrow, Point Hope, Point Lay, Wainwright, and Kaktovik.

Energy, Water, and Sanitation:

According to their web site, "Barrow Utilities & Electric Coop Inc. (BUECI) is a member-owned cooperative (not-for-profit organization). We have a nine member board of directors, elected on staggered terms, and an average of 55 full-time permanent employees. Our utility cooperative was established in 1964, roughly 10 years before construction began on the Trans-Alaska Pipeline. We serve the Iñupiat Eskimo village of Barrow, providing electricity, natural gas, water, and sewer services to this community of approximately 4,500.

The Barrow Utilidor System (BUS) is a unique 3.2 mile wood tunnel, which runs below Barrow like an underground road system and allows the Coop to transport running water through the permafrost to homes, schools and businesses. The Utilidor went into operation in 1984.

The Utilidor is constructed of a trapezoidal wood structure, which is 6 feet high, 6 feet wide at the base and tapers to 5 feet wide at the top. The individual sections are spliced together to form the straight portions of the Utilidor. At each intersection or angle a metal frame with a wooden skin is installed. The wood sections and metal frame boxes are bolted together to form one continuous system. Power, Lighting, Ventilation and Instrumentation (Telemetry) are provided throughout the system for safety, operation and maintenance. Air temperatures are monitored as well. The cold arctic air must be heated to roughly 48 degrees Fahrenheit before it can be pumped into the Utilidor and replaced six (6) times per hour.

The following services are provided or networked within the Utilidor system:

- Potable water
- Sewage collection
- Telephone service lines
- TV Cable service lines
- Fiber optic service (NSB communication network)
- Electric service lines

The Utilidor supplies water to fire hydrants throughout the town. Hydrants are “dry barrel”, meaning, no water is actually in them until an internal stem is driven down to open them up. The water in this system is constantly circulating.”

Solid Waste Disposal and Landfills: The Borough provides planning, administration, and funding for solid waste management in Barrow. Part of this process includes a dual chambered incinerator. As stated in a 2004 publication by the State of Alaska Energy titled, "Authority Burning Garbage and Land Disposal," In Rural Alaska, " Over the last decade, a number of Alaskan communities have installed dual-chamber, batchfeed, starved air incinerators, variously called "thermal waste oxidizers" (Eco Waste Solutions Inc.), "thermal oxidation systems (TOS)" (Entech Inc.), "batch oxidation systems (BOS)" (Enerwaste International Corp.), or simply "G Series" (Therm Tec Inc.) and "CA Series" (ACS Inc.) systems.

This method is generally considered to have the highest potential burning qualities of all of the incinerators and open burning methods mentioned. This method is most likely to prevent contamination to both air and land and to meet air quality standards. Problems with animal attraction to the ash are eliminated with this method. The main features of this type of incinerator are:

• Batch operation allows greater control of air and temperature throughout the process.

• Air turbulence is reduced in the primary chamber so fewer particulates are released from the stack.

• A wide range of waste types can be handled. Larger quantities of non-combustible waste (i.e. metal and glass), waste with higher moisture content and other wastes can be burned with this method.

• Externally supplied fuel oil and electricity are needed.

Dual-chamber starved air systems currently operate or have operated in Barrow, Cordova, Chignik Lagoon, Egegik, Eielson AFB, English Bay, Fort Yukon, Kodiak, Kotzebue, Nome, Red Dog Mine, and Skagway.

Communications: Residents still heavily rely on CB-radio communication to plan their subsistence activities and to make public announcements. There is also an emergency CB protocol in place for disaster situations.

"Locally owned and operated Arctic Slope Telephone Association Cooperative provides telecommunications services to Anaktuvuk Pass, Atqasuk, Barrow, Deadhorse-Prudhoe Bay, Kaktovik, Nuiqsut, Point Hope, Point Lay and Wainwright. The cooperative serves about 5,600 access lines. In the late 1970s board members of the Arctic Slope Regional Corp. designated seed money for engineering and regulatory approval needed to start a local telephone company. Prior to the formation of the telephone cooperative the North Slope communities lacked local phone service; instead, an on-site extension connected to an operator in Fairbanks.

Backers of the phone company chose to form a cooperative to qualify for federal funding for basic telephone service. In August 1980, the Alaska Public Utilities Commission issued a certificate to Arctic Slope Telephone Association Cooperative for service. Construction of the new telephone system began that year." (Allbusiness website) ASTAC now offers Internet and cell phone services as well.

Also available in Barrow, is Alaska founded GCI, whom introduced long-distance competition in 1979. GCI is the state's largest provider of Internet services with dial-up, cable modem, wireless, digital subscriber line (DSL) and dedicated access. Its cable television services pass 90 percent of the state's households with 65 percent penetration. Digital cable and cable modem service is available to 90 percent of its subscribers.

Barrow has 2 registered cell phone towers and now (although at times intermittent) receives signals from most cell phone services. Local radio station KBRW 680 AM, 91.9 FM airs public radio that covers native affairs, popular music, local and religious programming.

Health and Social Services:

There are two major health suppliers in Barrow, Samuel Simmonds Memorial Hospital (under the Arctic Slope Native Association) and the North Slope Borough Health Department. Arctic Slope Native Association, Native Village of Barrow, North Slope Borough Health Department, and the State of Alaska all provide social services.

Samuel Simmonds Memorial Hospital was founded in 1963, and since that time they have served and provided care to those who reside on the North Slope. The new hospital is under construction and it will be four times the size of the existing hospital, this will more than double the staff and significantly increase the services they can provide.

The North Slope Borough Public Health provides the following: Behavioral Health; Wellness Clinic; Public Health Nursing; Community Health Aide Program; Senior Program; Eye Clinic; Women, Infant, and Children's Program; Allied Heath Program; Arctic Women in Crisis Shelter; Children Youth Services; and the Vet Clinic.

The Native Village of Barrow provides the following to the membership in Barrow: Tribal Child Protection, Foster Care, and Caregivers Program for Elders.

Emergency Services: The North Slope Borough provides search and rescue, medevac services, fire protection, and public safety.

Recreation Piuraagvik Recreation Center, ice skating rink, High School public swimming pool, school sports, fishing, hunting, snowmobiling, 4-wheeling, and camping.

Clusters

Subsistence – Iñupiat individuals – though mostly cashless, the monetary value of food distributed, traded, and donated should not be undervalued

Science – Science Consortium - International

Hospitality and Tourism- Hotels and guides

Oil and Gas – Major oil companies

Transportation and Utilities – Alaska Air & ERA, taxi service, BUECI

Printing and computers – Boynton

Heavy Construction - UIC

Health Industry – ASNA and NSB

Artists - Iñupiat crafts, photographers, painters, and writers

Education and Knowledge Creation – Ilisagvik Tribal College

General Merchandise – AC, Arctic Coast Trading, Quick stop, Arctic Store, LaBamba, World Gifts, Spenards, NAPA, Dry Cleaners/textiles, Ilisagvik gifts, Top of the World Gifts.

Food Industry – Browers Cafe, Arctic Pizza, Northern Lights, Arctic Thai, Pepe's, Osaka, Shogun Teriyaki House, Ilisagvik Cafeteria, and Aarigaa Java.

Communications – ASTAC, AT&T, ACS, and GCI

Local Government – North Slope Borough, government offices and school district (largest employer), City of Barrow, Native Village of Barrow, and Iñupiat Community of the Arctic Slope

Possible cluster – Military (Coast Guard)

The Planning Process

Iñupiaq Values Used to Guide the Planning Process

Avoidance of Conflict: ***Paaqtaktautaiññiq***

The Iñupiaq way is to think positive, act positive, speak positive and live positive.

Humility: ***Qiñuiññiq***

Our hearts command we act on goodness and expect no reward in return. This is part of our cultural fiber.

Spirituality: ***Ukpiqqutiqaġniq***

We know the power of prayer. We are spiritual people.

Cooperation: ***Paammaagigñiq***

Together we have an awesome power to accomplish anything.

Compassion: ***Nagliktuutiqaġniq***

Through the environment is harsh and cold, our ancestors learned to live with warmth, kindness, caring and compassion.

Hunting Traditions: ***Aŋguniallaniq***

Reverence for the land, sea and animals is the foundation of our hunting traditions.

Knowledge of Language: ***Iñupiuraallaniq***

With our language we have an identity. It helps us to find out who we are in our minds and hearts.

Sharing: ***Aviktuaqatigiigñiq***

It is amazing how sharing works. Your acts of giving always come back.

Family and Kinship: ***Iḷagiigñiq***

As Iñupiaq people we believe in knowing who we are and how we are related to one another.

Humor: ***Quviangġuniq***

Indeed, laughter is the best medicine.

Respect for Elders and One Another:
Piqpakkutiqaġniq Suli qiksiksrautiqaġniq utuqqpanaanun allannullu

Our elders model our traditions and ways of being, providing a light of hope to younger generations. May we teach as our elders have taught us.

Respect for Nature: ***Qiksiksrautiqaġniq Iñuunigvigmun***

Our creator gave us the gift of our surroundings. Those before us placed ultimate importance of respecting this magnificent gift for future generations.

The majority of the population is Alaskan Native whose ancestry goes back to time immemorial. The Iñupiaq values create a bond that brings people together and holds the society intact. The values are a guide to living life and preserving heritage. The creation of Comprehensive Economic Development Strategy would not be complete without taking in account and holding dear the socioeconomic well being of the community.

Organization and Facilitation

The Native Village of Barrow staff facilitated partnering with local entities and the development of the CEDS committee. Community involvement was garnered through the annual meeting, a visioning session and a community-wide survey.

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

In order to gauge the economic and socioeconomic welfare of a community, a SWOT exercise helps to determine the needs of a community. Taking into account the long heritage and strong

cultural values we can then build on the resources and local capacity to determine opportunities that are well suited to the area.

The aggregate areas of the SWOT were broken down as follows:

- Development of Strengths and Opportunities
- Addressing Barriers, Hazards, and Areas of Concern

Development - Opportunities and Strengths

People and Organizations: Partnerships between the local organizations and the community, community support, individuals who are positive role models, skilled professionals, involved community individuals and leaders, committee members with substantial commitment and/or long standing knowledge in community development, organizational support in seeking funding and working together.

Education, Training, Economy: Tribal college, workforce development departments, increased training in health and heavy equipment, commitment from the community for better education, schools improving and offering more sports, Elder knowledge passed on through programs at tribal court.

Health and Safety: New hospital being built, wellness clinic, dental care, increased knowledge through health education, public service officers, homemakers for elders, fire departments, search and rescue teams, playgrounds, local activities, boating safety, risk management practices.

Culture: Eskimo dancing, festivals, whaling activities where the community comes together and works in harmony, community support for those who lose a loved one, community gatherings, traditional values are passed on, respect for elders, strong sense of community, traditional skills

which include hunting, skinning, meat preparation, making seal skin boats, sewing regalia, birding, fishing, arts and crafts.

Environmental: Unique location, pristine environment, oil and gas exploration, global warming opening up waters, access to the sea for hunting and fishing, wide variety of subsistence food, vast tundra, tourism opportunities to spot polar bears, whales, seals, walrus, caribou herds, arctic fox, lemmings, snowy owls, eiders, and other migrating birds. Outdoor activities are available such as camping, boating, snow machine, and 4-wheeling.

Infrastructure: Utilidor, landfill, incinerator, electric, gas, roads, heavy equipment, airport, communications, hospital and clinics, schools, college, post office, police department, fire stations, public buildings, churches, hotels, restaurants, stores, science consortium , library, assisted living, bank, telephone land and wireless, cable internet and TV, recreation center, heritage center, housing, and apartments.

Development - Barriers, Hazards, and Areas of Concern

People and Organizations: Need tribal police either through the North Slope Borough hiring Iñupiat or through the development of a tribal police force through the Native Village of Barrow.

Education, Training, Economy: College needs land and new structure in town so students can access the school, decreased funding, rising cost of oil and fuel that affects subsistence activities, high cost of freight and airfare, rising cost of living, lack of jobs and housing for youth returning home after college, jobs going to non-natives, need for subsistence flex schedules from work, loss of language, need for more jobs outside of the government sector, lack of childcare center makes it difficult for working and obtaining higher education, lack of the development of tourism needs to be addressed to further the economy, lack of indoor recreation/leisure activities.

Health and Safety: Alcohol and substance abuse, bootlegging (Barrow is a "damp" community where alcohol is not sold and you must have a permit that limits the amount of alcohol you can have shipped in), abuse against women and children, need more behavioral health, need alcohol/drug treatment center, need children's advocacy center, high rate of suicide, need washeterias (Laundromats) with showers for health and cleanliness. Need more Iñupiat foster parents and support systems.

Culture: Losing language, many young people are starting to lose the Iñupiat culture/way of life, out-migration of the young adults.

Environmental: Beach erosion, global warming threatening existence of animals and marine mammals and could introduce pest and diseases as the area becomes more accessible, there is a potential hazard for oil spills with offshore drilling, short summer season for building and barge transport. Building on many lots requires large amounts of rock, must build properly on permafrost s that building are structurally sound. Development needs to carefully consider subsistence activities because the development of the infrastructure can decrease subsistence resources.

Infrastructure: Need more housing, need to expand road system and utilidor, deep water port needed as more cruise ships are able to gain access to the area and for offloading supplies and equipment, aging buildings need rehabilitation, lack of land due to the majority of it being held by UIC corporation, some home lack services to the utilidor, lack of privately owned businesses especially by Iñupiat, lack of indoor recreation opportunities like a mall, movie theater, and bowling alley; need a native store to address the needs (subsistence and general) of the Iñupiat membership.

Goals and Objectives

Transportation

One of the major concerns was the need for expanded road service to lots that are landlocked by the membership, preventing access to them.

Goal: The community will possess well maintained roads for all the membership

Objective 1: Expand, improve and maintain local roads

Objective 2: NVB will continue to seek BIA funding to support the NSB in the development of roads.

Housing

The need for housing and housing maintenance is a high priority for the membership. The housing priority is single family homes, rehabilitation of existing homes, apartments and/or condominiums, and the need to have enough room for visitors from the outer villages.

Goal: All residents will have access to safe and affordable housing.

Objective 1: Increase housing stock in the area

Objective 2: Utilize a comprehensive approach to implement housing projects

Objective 3: To the extent feasible help homes to become energy efficient

Objective 4: Increase the availability of qualified labor force in the community

Workforce, Education and Training

Supporting Ilisagvik College was a priority vote by the BECD committee.

Skill Development

Through the membership meeting and surveys, higher education, vocational training, employment opportunities and childcare was identified as a priority.

Goal 1: Economic development and employment opportunities earnings will grow through education and job skill training.

Objective 1: Support Ilisagvik College in building their capacity to deliver integrated and coordinated training programs that incorporate business needs and students interests.

Objective 2: Encourage mentoring opportunities for youth training and leadership programs

Childcare

Goal: Childcare will be available to working membership parents.

Objective 1: Seek solutions to the historical high cost of opening and operating a daycare center

Quality of Life

A high concern for the membership was the ability to preserve and pass on language and values along with the preservation of subsistence activities.

Preserving the Iñupiat Traditional Lifestyle

Goal: Maintain traditional lifestyles and values in order to foster community wellness in the region.

Objective 1: Assist organizations in heritage projects.

Elder Services

Goal: Increase elder health and longevity through expansion of elder services

Objective 1: Expand health, legal, and housing services for elders.

Healthy Community

Families

Goal: Create a happy and healthy community

Objective 1: Provide parenting classes

Objective 2: Expand the foster care and other child services programs

Objective 3: Reduce teen pregnancy

Objective 4: Support public health initiatives

Objective 5: Expand tribal court services

Individuals

Goal: Leaders will establish a healthy community through example and actions.

Objective 1: Offer leadership training to all tribal council members

Substance Abuse

Goal: Increase healthy family lifestyles and productivity of the workforce by decreasing substance abuse.

Objective 1: Increase the quality and the availability of services for substance abuse prevention and treatment.

Objective 2: Seek to train Iñupiat Counselors.

Objective 3: Seek to train Iñupiat Public Safety Officers.

Natural Resources

The protection of the environment and the subsistence way of life was identified as a high priority of the membership.

Fish and Wildlife

Goal: Successfully and thoughtfully manage the natural resources

Objective 1: Identify and develop fishing stocks

Objective 2: Identify and develop industries for land mammals

Business Development

In discussions and assessments of community needs, it was determined that two categories exist under business development for-profit and not-for-profit. A total of ten for-profit and three non-profit development projects were identified.

Through membership participation the BECD committee identified the following top business project priorities in the Comprehensive Economic Development Strategy process:

For Profit

For – Profit: BECD and membership identified
1. Native Store
2. Butcher/Tannery
3. Tourism
4. Movie Theater / Bowling Alley

5. Sewing Co-op
6. Shop for small engine and self repair
7. Local Stock - whitefish and other processing
8. Arctic Community Greenhouse
9. Sewing/Craft Café
10. Laundromat/Washeteria

Not-for-Profit

Non – Profit: BECD and membership identified
1. Arctic Survival Program
2. Snow Park
3. Chamber of Commerce

Business Starts

Goal: Increase employment and income through business start-up

Objective 1: Explore feasibility of native store, butcher/tannery, Movie Theater, bowling alley, sewing co-op, self repair and small engine shop, local fish and land mammal development, arctic community greenhouse, sewing/craft café and Laundromat.

Objective 2: Work with Ilisagvik College and other entities to enhance and develop new training opportunities for small business management that would include classes that addresses specialized business applications for Barrow.

Objective 3: Explore feasibility of community kitchens as a business to support feasible fish/mammal production start-ups.

Objective 4: Encourage the use of the Internet and other technologies for business marketing, growth, and development.

Objective 5: Determine the feasibility of non-profit activities that support businesses and a healthy community

Tourism Development

Goal 1: Strengthen the local community through tourism development

Objective 1: Expand tourism activities

Objective 2: Identify and develop feasible Eco-tourism activities

Objective 3: Research tourist preferences for the top-of-the-world (why they came, did they see what they wanted to see, complaints, compliments, what would make them recommend others to visit, etc.)

Objective 4: Develop a website promoting tourism

To assist in the development and expansion of small businesses, the Native Village of Barrow employs a part-time position made possible from the EDA grant to implement the following in year two:

- Organize community and BECD meetings
- With input from the community identify and disseminate information about business development opportunities
- Move forward with the existing Economic Development Committee in addressing the economic needs of the community and then periodically re-evaluate the plan to see if the community needs are being met.
- Contact financial institutions to move into partnerships and explore funding opportunities for small business and tribal enterprise.

- Move forward with plans and strategies developed during year one for the potential development of small business and tribal enterprise and implement those plans and strategies in year two.
- Continue working with the Alaska Economic Development Representative and EDA Regional staff in project development.

Implementation:

The Barrow Economic Development Committee (BEDC) will be distributed throughout the Barrow area. All government entities, the local and regional Native Corporations, Barrow City Council, Ilisagvik College, Tuzzy Library, and other interested parties will receive the CEDS to consult with their development efforts. BECD will assist the tribe, state and federal agencies, and local organizations in implementing the plan. Progress reports will be made to BECD to receive guidance and recommendations. Feedback will be obtained by the membership, participants, coordinators, partners, and local entities throughout the development process and reflected in the annual update

As the lead entity, the Native Village of Barrow Economic Development Department will seek funding and coordinate activities to implement priority projects and the tribal government will support initiatives. To ensure the success of each program, NVB and its partners must undertake a cooperative effort to achieve desired outcomes. Detailed actions plans will finalized when the feasibility of each project has been verified.

This plan will impact the community by decreasing unemployment, moving government jobs to the private sector, and improving the overall quality of life for the Iñupiat.

Performance Measures:

Number of jobs created after the implementation of the CEDS: An estimated 143, for all 13 identified priority projects.

Number and types of investments undertaken in the Native Village of Barrow: Numbers and types of investments will be indentified after feasibility studies have been completed.

Number of jobs retained in the Native Village of Barrow: Housing department 11, economic development department 1, and other numbers will be determined at the time of implementation after the feasibility studies are completed.

Amount of private sector investment in the region after implementation of CEDS. This will be determined at the time of implementation after the feasibility studies are completed.

Changes in the economic environment of the Native Village of Barrow: Currently, nearly 70 percent of the community is employed by local government. The advent of tribal and private sector businesses will change the dynamics of the economic environment. The movement to help small businesses become established under private sector job creation is the desire of the Native Village of Barrow and the CEDS strategy.

Conclusion

The Native Government and its membership are looking at ways to move away from government sector jobs through private business development. It is inevitable that one day the government jobs will be downsized and now is the time to prepare for that eventuality.

In this preparation, the need for education and job skill training is of the upmost importance to the success of the economy. Along with job skills, the need to successfully manage and utilize the natural resources is paramount for this area's economic development.

Other than a cash arts and crafts economy, private business ventures are relatively unknown in the Iñupiat membership community. It has been identified that many unique opportunities exist to develop business and tourism creating jobs and independence for the tribe and its membership.

Issues' surrounding substance and physical abuse, along with mental health issues continue to be a concern for the community and is an area for much needed improvement. Developing Iñupiat public safety officers and counselors with their unique ability to understand the culture would help to address these issues.

Through economic development, leaders can emerge and businesses can flourish, raising self-esteem and hope for tribal members as they look to the future.