

Twin Hills Comprehensive Plan



October 2005



Developed by the Twin Hills Planning Team,
Twin Hills Village Council, and the residents of Twin Hills

With assistance from Agnew::Beck Consulting, LLC
and the Bristol Bay Economic Development Corporation
as part of the Bristol Bay Community Planning Project

FINAL

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The Twin Hills Community Comprehensive Plan is the result of a team effort from the Twin Hills Village Council members and staff, Twin Hills Native Corporation, the community Planning Team, and the residents of Twin Hills. This plan is the direct result of their contributions of time and knowledge of their community, and their desire for a healthy future.

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Three planning team workshops and one community workshop were held to gather public input for this plan. At the community workshop, in October 2005, 22 adult residents attended.

Local and regional merchants donated door prizes for the workshops. We thank Island Air, and Twin Hills Village Council for their generous contributions.

Photos were provided by Agnew::Beck Consulting, LLC and the youth of Twin Hills. Images of public facilities in the “Public Facilities & Transportation” section of this plan were provided by William Ilutsik, Twin Hills Village Council. Maps were compiled by Bristol Bay Native Association and the State of Alaska Department of Commerce, Community and Economic Development (DCCED) as part of the Community Profiles Mapping Project. Annotations to these maps were created by Agnew::Beck, based on community input.

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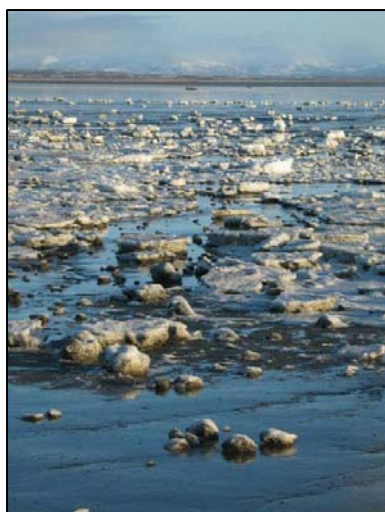


Early winter approach to Twin Hills

RESOLUTION FROM GOVERNING ENTITIES

INTRODUCTION & SUMMARY OF GOALS

“We want to plan for future development and services and to find out what’s important to our community.”



Break-Up on Togiak Bay

Process to Prepare the Twin Hills Comprehensive Plan

The Twin Hills Comprehensive Plan, 2005, builds on previous plans completed by the community. Specifically, this plan draws from the 2002 Twin Hills Long-Range Transportation Plan, various utilities plans, housing development plans, clinic plan, and other relevant plans. A bibliography is included in Appendix A of this document.

The following table summarizes the process to prepare this Comprehensive Plan.

Date	Activity
February 10, 2005	Twin Hills Planning Team Introduction Workshop
March 30, 2005	Twin Hills Planning Team Workshop
April 15, 2005	Twin Hills Planning Team Workshop
October 13, 2005	Twin Hills Community Planning Workshop
October 30, 2005	Completion of Comprehensive Plan document

Project Area

Twin Hills is located near the mouth of the Twin Hills River, a tributary of the Togiak River, 386 miles southwest of Anchorage. The area encompasses 21.8 sq. miles of land and 0.3 sq. miles of water. The project area considered in this plan includes all lands commonly used by Twin Hills residents. Lands in common use represent a mix of ownership: ownership by the Twin Hills Native Corporation, Twin Hills Village Council, private persons, and the state and federal government.

Areas most closely considered in this study include the main village area, the airport, roads and trails, outlying facilities and structures, and important fishing, hunting, berry harvesting and other subsistence areas.

Purpose of Plan

Villages, regional organizations and statewide entities all recognize the need for communities to clearly state their goals and visions for the future. Community planning is the process of coming together to agree on a future direction, and gathering momentum to carry it forward. A united community is like a river that starts out braided and dispersed, but gains power by funneling all its separate channels into one stream. A united community, regardless of size or location, can achieve its goals through building consensus and clearly pursuing a direction that all community members support. This is the key to self-sufficiency and self-governance.

Community goals can range from constructing facilities, such as housing or a community center, to expanding infrastructure, creating jobs, protecting subsistence areas and sustaining cultural traditions. By planning ahead, villages can act on new opportunities and be prepared for challenges associated with economic and demographic changes.

Support in State Statutes

In Alaska, comprehensive plans are mandated of all organized municipalities by Title 29 of the Alaska State Statutes. While Twin Hills is part of the Unorganized Borough, and therefore not covered under this mandate, a comprehensive plan is nevertheless useful to help guide community development. The key elements of the state statute are extracted below:

State Statute Sec. 29.40.030. Comprehensive plan

- (a) The comprehensive plan is a compilation of policy statements, goals, standards, and maps for guiding the physical, social, and economic development, both private and public, of the first or second class borough, and may include, but is not limited to, the following:
 - Statements of policies, goals, and standards;
 - Land use plan;
 - Community facilities plan;
 - Transportation plan; and,
 - Recommendations for implementing a comprehensive plan.
- (b) With the recommendations of the planning commission, the assembly shall adopt by ordinance a comprehensive plan. The assembly shall, after receiving the recommendations of the planning commission, periodically undertake an overall review of the comprehensive plan and update the plan as necessary.

Requirements of Funding Organizations

In addition to Alaska State Statutes, funding agencies have become increasingly interested in community planning and many are now requiring that some type of community plan be in place in order to fund infrastructure and economic development projects. For example, the United States Department of Commerce Economic Development Administration (EDA) requires a unique planning process and document called a Comprehensive Economic Development Strategy (CEDS) to qualify for assistance under its economic adjustment, planning, and public works programs.

In addition, beginning with the Federal Fiscal Year 2005 funding cycle, the Denali Commission, which partners with other state and federal agencies and nonprofit agencies, will require a community to have a comprehensive community plan identifying community priority projects prior to funding considerations. This plan is intended to meet the criteria of both the Denali Commission and the EDA, and fulfill the planning requirement for those funding sources.

Planning Efforts in Bristol Bay

Bristol Bay regional organizations have recently increased their capacity to assist villages with completing community plans. The Bristol Bay Economic Development Corporation (BBEDC) has developed a grant program to assist member villages with planning efforts. This plan was funded through a BBEDC grant.

Bristol Bay Native Association (BBNA) developed a Community Development Inventory and a *Community and Economic Development Planning Guidebook* to assist village planning efforts, through a grant from the US Department of Commerce, Economic Development Administration. The Southwest Alaska Municipal Conference (SWAMC) has developed a web-based inventory of community development priorities and planning efforts.

In addition, both BBNA and SWAMC have completed regional plans that complement this village plan, which are available through the State of Alaska website:

- BBNA Comprehensive Economic Development Strategy, 2004 at: http://www.dced.state.ak.us/dca/oedp/pubs/SWAMC_CEDS03.pdf
- Southwest Alaska Municipal Conference (SWAMC) Economic Development Strategy, 2003 - 2008, updated 2004 at http://www.dced.state.ak.us/dca/oedp/pubs/SWAMC_CEDS03.pdf

A Comprehensive Plan:

Includes a general statement of community goals

Looks ahead 10, 20, 30 years

Increases local control over changes affecting community life

Helps secure resources to carry out community priorities

Becomes the foundation for implementing priority actions: roads, trails, public facilities, land use policies, economic development

Summary of Goals and Priority Actions

Land Use, Housing & Environment

1. **Preserve and protect subsistence and recreation resources from pressures from commercial and sport fishing, and sport hunting.**
2. **Protect natural beauty, maintain clean environment and protect water and air quality.**
3. **Create viable, long-term options for river access.**
4. **Manage future development so that housing and infrastructure does not overextend the villages' resources and ability to maintain.**
5. **Identify and protect historic sites, including the old village site at the beach and the village cemetery.**
6. **Maintain trails and limit access to surrounding lands to protect rights-of-way and eliminate trespass.**

Community Wellness, Culture & Education

1. **Teach youth and adults traditional skills, language and knowledge.**
2. **Improve health of all community members.**
3. **Provide healthy and fun activities for youth.**
4. **Provide excellent education opportunities close to home.**
5. **Increase availability of quality housing for all residents.**
6. **Support families caring for elders.**
7. **Provide good role models for youth.**



Youth participation in community gatherings always adds to the event

Public Services & Transportation

- 1. Ensure good, safe transportation in and around community.**
- 2. Manage waste to keep community clean, protect environment.**
- 3. Manage fuel and energy costs.**
- 4. Ensure good access to water, sewer facilities.**
- 5. Improve facilities to support cultural, educational goals.**
- 6. Provide phone and Internet access for all residents.**
- 7. Through transportation planning, facilities and services planning and communication with Togiak, coordinate to share services.**

Economy

- 1. Increase the number of jobs and locally-owned businesses.**
- 2. Improve marketing for cultural arts & crafts and locally-beneficial tourism.**
- 3. Identify feasible ways to increase village-based fish processing and marketing.**
- 4. Create job training and skill-building opportunities for youth and adults. Increase residents' ability and desire to obtain good jobs within the community.**

Leadership

- 1. Continue to fund community plans and priorities.**
- 2. Maintain good communication with regional, state and federal entities.**
- 3. Create a Community Wellness Team.**
- 4. Bring up youth leaders.**

VISION & VALUES

Values

Family

- Safety and health of families
- Small community
- Good housing and services
- Local health services
- Good school

Strong Local Economy

- Want strong economy to keep families here
- Local supplies and reasonable prices
- New business ideas
- Education, Internet connection

Good subsistence

- Fishing
- Hunting
- Berry picking
- Water fowl spots

Beautiful Area

- Close to mountains, but not too close
- Can see the weather coming – prepare and be ready
- Close to ocean

Clean Environment

- Good water and air
- Alternative sources of energy
- Good landfill, water and sewer management



Reading together.

VILLAGE BACKGROUND

Introduction

Village Location and Population Size

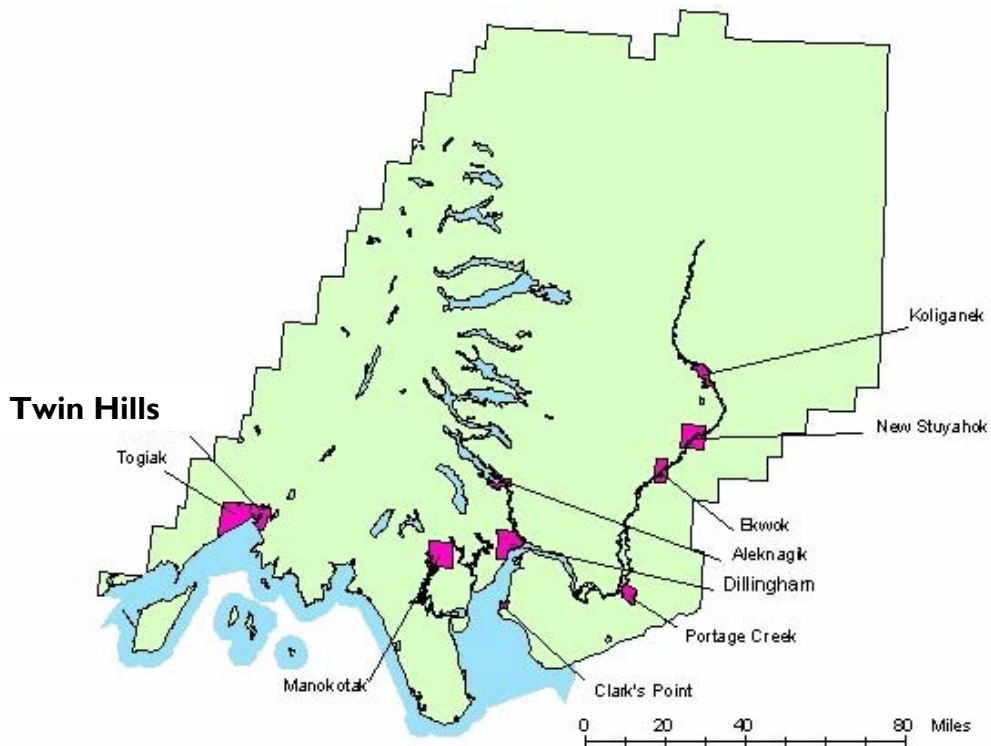
Twin Hills, a traditional Yup'ik Eskimo village with a fishing and subsistence lifestyle, is an unincorporated community located near the mouth of the Twin Hills River, a tributary of the Togiak River, 386 miles southwest of Anchorage in the Dillingham Census Area. Twin Hills is one of 11 small communities scattered along the northern side of Bristol Bay. It is located about 1.5 miles inland on the Twin Hills River, a tributary of the Togiak River. This tributary is navigable during high tides. A road connects Twin Hills with the cannery at Old Togiak, but otherwise access is limited to small aircraft and boats. The area encompasses 21.8 sq. miles of land and 0.3 sq. miles of water. The state demographer's estimate of the population in 2004 was 67 people. The Village Council has conducted a resident count and finds the population to be 80 residents.

The village was established in 1965 by families who moved from Togiak to avoid the recurrent flooding there. Some residents migrated from Quinhagak on Kuskokwim Bay. The people have strong cultural ties to the Yukon-Kuskokwim region, because many of their ancestors migrated to Togiak following the 1918-19 influenza epidemic.



Twin Hills, Alaska

Figure 1. Location of Twin Hills, Alaska



Source: Alaska Department of Labor And Workforce Development, Research and Analysis and US Census Bureau, 2000 Tigraine files.

Physical Setting and Habitat

The Twin Hills area experiences a transitional climate, primarily maritime, although the arctic climate also affects this region. Cloudy skies, mild temperatures, and moderately heavy precipitation characterize the area. Average summer temperatures range from 37 to 66; winter temperatures average 4 to 30. Precipitation ranges from 20 to 26 inches annually. Fog and high winds are prevalent during winter months and fog is also prevalent during summer months. The Togiak River is ice-free from June through mid-November.

The dominant vegetation type in the area is tundra with willows and scattered clumps of cottonwoods growing along the rivers. Small patches of spruce grow in some areas. Lakes and small ponds dot the landscape.

The Togiak drainage has important subsistence and sport fishery values, containing salmon, grayling, Dolly Varden, and rainbow trout among other species. The river is free flowing and possesses excellent scenic, wildlife, riparian, and recreational values. The river is important for subsistence uses and part of the drainage is in the Togiak Wilderness (<http://togiak.fws.gov/establish.htm>).

The area around Twin Hills, including the Togiak Wildlife Refuge, is home to 48 mammal species, 31 of which are terrestrial and 17 marine. More than 150,000 caribou from two herds, the Nushagak Peninsula and the Mulchatna, use refuge lands, which they share with wolves, moose, brown and black bears, wolverines, red foxes, marmots, beavers, and porcupines, among other land mammals. Seals, sea lions, walrus and whales are found at various times of year along the refuge's 600 miles of coastline.

Some 201 species of birds have been sighted on the Togiak Refuge. Threatened species can occasionally be found there, including Steller's and spectacled eiders. Several arctic goose species frequent the refuge, along with murre, peregrine falcons, dowitchers, Lapland longspurs and a rich variety of other seabirds, waterfowl, shorebirds, songbirds and raptors. Refuge staff and volunteers have also documented more than 500 species of plants, demonstrating a high degree of biodiversity for a sub-arctic area.

Access

Twin Hills is primarily accessible by air and water. Regular and charter flights are available from Dillingham. There is a State-owned 3,000-foot long by 60-foot wide lighted gravel runway on a ridge east of the village. Most cargo is delivered by air. There is a boat landing but no docking facilities; bulk goods must be lightered to shore. Autos, ATVs and snowmachines are used for local transportation. Residents drive along the beach to access the Togiak Fisheries cannery. There is a winter trail between Twin Hills and Togiak (BBNA website).

Environmental Issues

Twin Hills is generally a very pristine, clean place. Residents frequently list "good water," "clean air," "healthy animals," and "good berry picking," as the area's environmental assets; residents are committed to protecting the quality of their natural environment.

There are some environmental issues in the area, however, that concern Twin Hills residents. Fuel spills, pollution and waste from fishing and canning, the build up of silt in the Twin Hills River near the village, the undrained, boggy area (known locally as the "stinky pond") near a concentrated residential area, the need for landfill clean up and improved sewage facilities all are environmental priorities. Additionally, residents are watchful of the environmental changes taking place, especially as temperatures continue to rise. The health of some animal populations, the encroachment of alders into berry picking area, the lack of snow and river freeze-up and the reliance on fossil fuels for energy are other environmental issues the community would like to find ways to address. Assistance from regional, state and federal entities is necessary to deal with these issues.

Subsistence Economy

Twin Hills residents rely heavily on subsistence activities for various food sources. Seal, sea lion, walrus, salmon, variety of trout, herring, herring roe and kelp, blackfish, clams, moose, caribou, geese, ducks and various eggs from different species of birds are harvested. Berry picking of many varieties are common in their respective seasons.

Subsistence activities occur all along the coastal areas where residents hunt for geese, ducks, sea birds and other marine life, traveling as far as Quinhagak to Kulukak. For land species, hunters may go as far as Koliganak to the lakes of Quinhagak. Inland the hunting of moose, caribou, salmon, trout and other species occur. Everything in their season and need.

An exchange relationship exists between Twin Hills, Togiak, Manokotak, and other Bristol Bay villages. Some residents of outlying villages visit Twin Hills to pick certain species of berry; Twin Hills residents will also fly to neighboring villages to pick other berry species. These are either used immediately or frozen for later use. Seal oil is sometime exchanged for cash, or, necessary food items not available in the area.

According to Alaska Department of Fish and Game Technical Paper No. 203, revised February 1991, subsistence fishing for salmon usually begins the latter part of May and may last well into

October for Twin Hills residents. In general, residents who fish the bay are also commercial fishermen, while residents, who fish the river, particularly during the months of June through August, are elders, their young helpers, and those villagers not involved directly in the commercial harvest of salmon. Husband and wife teams are common among elders, but elder widows often have sons or sons-in law assisting in subsistence fishing. Young hunters usually share their successful hunt with everyone in the village. Nearly all of the bay fishing is done with commercial nets during commercial open periods. However, some fish, usually in small quantities, are retained from commercial nets and brought to the village for subsistence use based largely upon need. With very few good paying jobs available, price of utilities and fuel sky-rocketing, subsistence plays a major role in subsidizing low incomes for all the families.

Most subsistence fishing on the river occurs during tidal floods as salmon push with the tide into the river and its tributaries, moving to spawning locations in the Twin Hills-Togiak area. Due to absence of local beluga stocks, no active beluga hunters were identified in a subsistence use of beluga whale study conducted in 1994.¹



Satellite image of Twin Hills

¹ Chythlook, Molly and Philippa Coiley, Alaska Department of Fish and Game Technical report No. 231, July 1994. Contemporary Use of Beluga in Bristol Bay

Twin Hills Economy & Population

According to Alaska Department of Fish & Game (ADF&G), Technical Paper Number 275, ADF&G found from their survey of half of the households in the community that at least 90 percent of the households had at least one employed adult. The mean number of jobs per household was 3.0 in Twin Hills. Almost half, 48.5 percent of the jobs were in government and most government employment was in local government and education. One hundred percent of the surveyed households took part in some sort of government work and over half of the community income was obtained from government employment. At the same time, over half the Twin Hills households had a least one member employed in commercial fishing, but this category produced only 6.9 percent of community income. More income, 15.1 percent was obtained through cannery work.

Most jobs in Twin Hills are seasonal in nature and part-time. Data from the ADF&G survey may differ from U.S. Census data because, census data on employment may not reflect what is actually happening in a village where two or more individuals may share one or more jobs, even when these jobs are seasonal or part time.

Income and Employment

The income section includes a discussion of personal income, poverty rate, and employment including the size of the labor force, class of workers, commercial fishing and fishing permits from Census 2000 data. The population includes trends, composition, age, and race.

Income

The per capita income of Twin Hills residents in 1999 (U.S. Census Bureau) was \$16,856 compared to \$16,021 for the census area as a whole, and to \$22,660 for Alaska residents (Table 1). The median family income in Twin Hills was \$29,375, around half the median family income for the State as a whole at \$59,036.

Table 1. Personal Income in 1999 for Twin Hills, Dillingham Census Area, and Alaska

	Twin Hills	Dillingham Census Area	Alaska
Median Household Income (\$)	29,375	43,079	51,571
Median Family Household Income (\$)	29,375	45,391	59,036
Per Capital Income (\$)	16,856	16,021	22,660

Source: Values calculated by Northern Economics, Inc. using data from U.S. Census Bureau, Census 2000, DP-3.

Table 2. Twin Hills Income Distributions for Family Households and all Households, 1999

	Number of Family Households	Percent Family	Number of Households	Percent Households
Less than \$10,000	1	11.1	0	
\$10,000 to \$14,999	3	33.3	3	20.0
\$15,000 to \$24,000	2	22.2	3	20.0
\$25,000 to \$34,999	2	22.2	2	13.3
\$35,000 to \$49,999	1	11.1	1	6.7
\$50,000 to \$74,999	-	-	3	20.0
\$75,000 to \$99,999	-	-	3	20.0
Total	9	100	15	100

Source: Values calculated by Northern Economics, Inc. using data from U.S. Bureau of the Census, Census 2000, DP-3.

Percent in Poverty

The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is poor. If a family’s total income is less than that family’s threshold, then that family, and every individual in it, is considered poor. The poverty thresholds do not vary geographically, but they are updated annually for inflation using the Consumer Price Index (CPI-U). The official poverty definition counts money income before taxes but it does not include capital gains or non-cash benefits such as subsistence.

The poverty rate is a commonly used indicator of the level of economic need in a community. Almost every positive personal and community outcome is negatively affected by poverty. Community factors such as the status of resources like affordable housing, transportation, education and training, jobs providing a living wage, health insurance, and availability of child care determine to a large extent an area’s poverty rate. Previous research has shown that poverty populations in rural communities are more likely to be long term poor than poverty populations in urban areas.

The poverty rate for families in Twin Hills was more than three times the poverty rate for families in Alaska as a whole. However, Twin Hills is not considered a “distressed” community by the Denali Commission.

Table 3. Percent in Poverty Status in 1999

	Twin Hills	Dillingham Census Area	Alaska
Families	22.2	18.3	6.7
With Related children under 18 Years	50.0	23.0	9.3
With Related Children under 5 Years	100.0	26.3	13.4
Individuals	27.9	21.4	9.4

Source: Values calculated by Northern Economics, Inc. using data from U.S. Bureau of the Census, Census 2000, DP-3.

Employment

The size of a community's labor force provides a measure of how much employment and economic activity a community may have. Labor force is defined as the number of persons 16 years of age or older, the age at which an individual is legally eligible to work. Employment levels are based on the number of people in the labor force, while unemployment levels are based on the number of people in the labor force that are unemployed but are actively looking for employment.

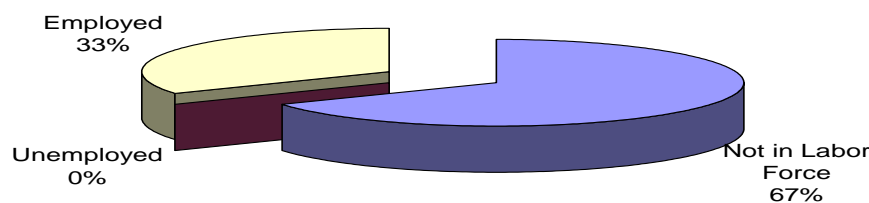
In Twin Hills, steady employment is limited to those working for the Village Council and Post Office. In Twin Hills only 33 percent of the population 16 years of age or over is in the labor force. All 15 of these people are employed (**Error! Reference source not found.**). According to Census 2000, no one is unemployed in Twin Hills, but at the same time 67 percent of the population 16 years and over is not in the labor force. Across the Dillingham Census Area, 62 percent of the population is in the labor force and 73 percent in the State as a whole.

There are many reasons people are not in the labor force. They may have given up actively seeking employment because of the lack of opportunities, the community may have a high percentage of retired individuals, the community may be highly dependent on subsistence, etc. At the time of Census 2000, no residents were enlisted in the armed forces.

Of the few jobs in Twin Hills at the time of Census 2000, 60 percent, or 9 people, were government workers. Approximately 40 percent of workers in Twin Hills, 6 people, are private wage and salary workers compared to approximately 45 percent in the Dillingham Census Area and almost 65 percent in Alaska as a whole.

Figure 2. Twin Hills Civilian Labor Force for Population 16 Years and Over

Source: Values calculated by Northern Economics, Inc. using data from U.S. Bureau of the Census, Census 2000,



DP-3.

Table 4. Percent of Class of Worker

Class of Worker	Twin Hills	Dillingham Census Area	Alaska
Private Wage and Salary Workers	40.0	44.7	64.9
Government Workers	60.0	47.5	26.8
Self-Employed Workers in Own not Incorporated Business	0	7.0	8.0
Unpaid Family Workers.	0	0.8	0.3

Source: Values calculated by Northern Economics, Inc. using data from U.S. Census Bureau, Census 2000, DP-3.

The community members of Twin Hills have a long history of participation in commercial fishing. Community members currently hold fourteen commercial fishing permits spread among the halibut, herring, and salmon fisheries. Like Manokotak and Ekwok, Twin Hills has seen a large loss of herring permits since 1990, but unlike those communities it has managed to hold onto to its halibut and salmon permits (Table 5). The number of herring permits in Twin Hills fell from 18 permits in 1990 to 5 permits in 2002. Participation in the fishery also declined from roughly 55 percent in 1990 to no participating permits in 2000. Since 2000, participation has returned to the roughly the 60 percent level.

Twin Hills residents have always participated in the local salmon fisheries at an exceptionally high rate. The Togiak district of the Bristol Bay salmon fishery is managed under a super-exclusive management system which favors local participation in the district's harvest period. In 1990, the community held eight salmon permits and fished all of them. In fact, the community fished all of its permits between 1990 and 1993. The number of salmon permits community members own declined in recent years, but community members still own 87.5 percent of what they owned in 1990.

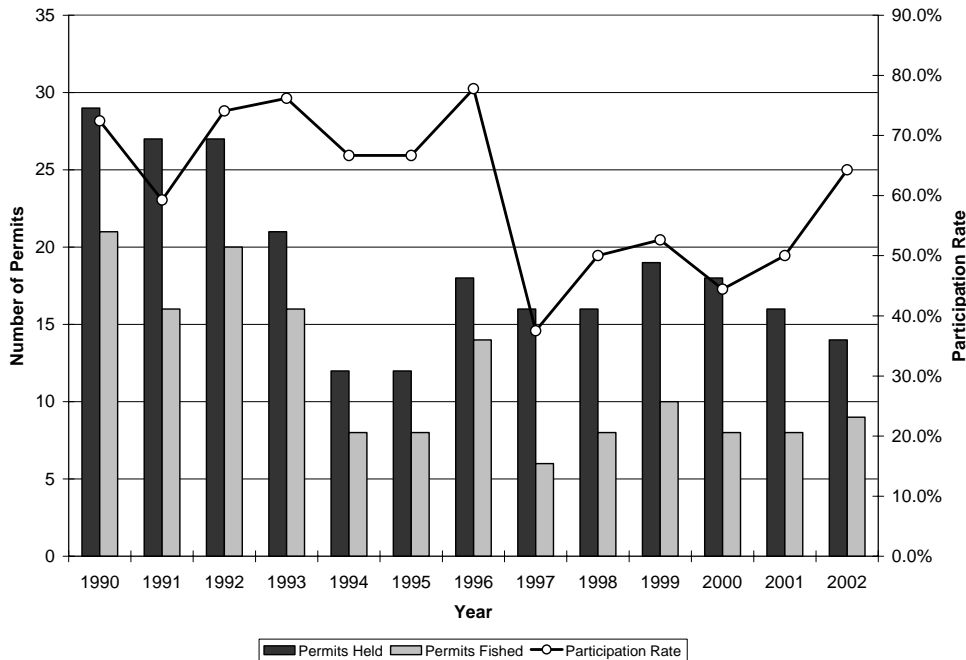
Table 5. Fishing Permits and Fishing Participation 1990-2002, Twin Hills

Species	Permits	Year												
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Halibut	Fished	2	0	0	0	0	0	0	0	0	0	0	0	1
	Held	3	1	1	0	0	0	0	0	1	2	1	1	2
Herring	Fished	10	8	12	6	3	3	8	0	1	2	0	1	3
	Held	18	18	18	12	5	6	11	8	8	8	7	7	5
Salmon	Fished	8	8	8	9	5	5	6	6	7	8	8	7	5
	Held	8	8	8	9	7	6	7	8	7	9	10	8	7
Total	Fished	21	16	20	16	8	8	14	6	8	10	8	8	9
	Held	29	27	27	21	12	12	18	16	16	19	18	16	14

Source: Values calculated by Northern Economics, Inc. using data from Alaska Commercial Fisheries Entry Commission, 2004.

In 1990, Twin Hills residents owned 29 fishing permits and fished 21 of them; a participation rate of 72 percent. This rate is higher than the rate in Ekwok and roughly equivalent to the rate in Manokotak for the same period. The overall participation rate fell sharply in 1997 as the herring fishery collapsed (see Figure 3). The overall participation rate recovered in recent years as the herring fishery rebounded and as holders of latent permits in all fisheries either emigrated from the community or sold to their permits to non-community members.

Figure 3. Fishing Participation and Permit Ownership in Twin Hills, 1990-2002



Source: Values calculated by Northern Economics, Inc. using data from Alaska Commercial Fisheries Entry Commission, 2004.

Number of Small Businesses and Types

No business licenses are currently on file with the Department of Commerce, Community and Economic Development, Division of Occupation Licensing, Business Licensing Section for Twin Hills.

Population Trends

The amount, rate, and patterns of population growth can significantly affect a community’s infrastructure, economy, and social institutions, as well as having profound impacts on the natural environment. Changes in population, land-use policy, and employment affect the level of public services needed in a community. The growth or decline of populations has a greater relative impact in smaller, rural areas like Twin Hills. As the high cost of fuel demonstrates, delivery of basic services in smaller and less dense areas not on the road system is more difficult and expensive. Declining populations can exacerbate those difficulties.

Growth has both positive and negative effects. On the positive side are the benefits to the local area, including increases in jobs and income, growth of services, and developed areas. On the negative side are the costs and inconveniences that accompany growth, such as loss of open space, changing lifestyles, pollution, and increased demands on public and subsistence lands. When a community

loses population, it also loses talent and revenues. How a community is fiscally affected by growth is often contingent on the rate, location, and type of growth—on in- and out-migration.

Important factors that influence in-and-out migration include employment opportunities, the physical environment, perception of regional state, and local government taxing policies, labor markets, cost of living, population composition, and local and state social legislation.

Table 6 shows the population of Twin Hills from 1970 through 2000. The small population of this community has remained remarkably steady over time and does not show the variability of the Dillingham Census Area population.

Table 6. Population of Twin Hills and Dillingham Census Area Twin Hills, 1970-2000

Community	1960	1970	1980	1990	2000
Twin Hills	-	67	70	66	69
Dillingham Census Area	4,024	3,485	4,616	4,012	4,922

Source: Values calculated by Northern Economics, Inc. using data from DCED community profiles..

<http://www.census.gov/population/cencounts/ak1900>

Table 7 compares the Census 2000 population with the estimated populations for 2001 through 2004 in Twin Hills. In smaller areas, even small changes can have a large effect. The estimated population decreased 10 people or 13 percent between 2003 and 2004.

Table 7. Twin Hills Population 2000-2004

2000	2001	2002	2003	2004
69	65	77	77	67

Source: Values calculated by Northern Economics, Inc. using data from 2000 U.S. Census and 2001-2004 estimated State Demographer.

Population Composition

At the time of Census 2000, 37 residents were estimated to be five years of age or older. Of this group, 23 individuals, or just over 62 percent, lived in the same house they had lived in 1995. Nine individuals lived in the same census area, but a different house than in 1995. Another five individuals moved into Twin Hills from somewhere else in Alaska but from outside of the Dillingham Census Area, sometime between 1995 and Census 2000.

Age

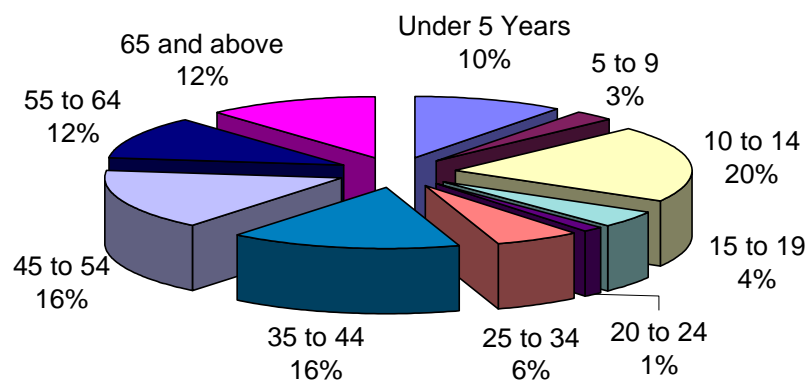
Age distribution gives an indication of whether the population of a community is generally young or old and growing or declining. It is a predictor of future school enrollments, an indicator of what resources and programs the community may need for specific age groups, and one source of information about the available labor force, and the impacts of changes in the nature of the local economy.

Age and the state of family development influence the patterns of benefits from outside employment and education. For example, families with very young children and older community members are less likely to be able to take advantage of employment or educational opportunities outside of the village. These people need to be served by development projects that take place within the village. According to the NRC (1999), young men and women are in a precarious position, because the traditional way of life cannot proceed without cash.

At the time of Census 2000, the median age was 38.5 years and approximately 10 percent of the population was under 5 years and another 27 percent was between 5 to 19 years (

Figure 4). Approximately 64 percent of the population was 19 years or older. Only one percent of the population is 20 to 24 years of age in contrast to 6.4 percent in the state as a whole and 6.7 percent nationwide. It would appear that individuals in this age group are leaving the community for educational or employment purposes. Furthermore, a significant portion of the population is about to enter the labor force and there are limited jobs available in the community.

Figure 4. Age Distribution in Twin Hills, Census 2000



Source: Values calculated by Northern Economics, Inc. using data from U.S. Census Bureau, Census 2000, Table DP-1.

Race

In Census 2000, individuals could report their race alone or in combination with one or more other races. In Twin Hills, 94.2 percent of the population reported they were Alaska Native and/or American Indian alone or in combination with some other race.

Education

Education for students from K-8 is provided by the Southwest Region School District. For FY2005, enrollment in Twin Hills is 13 students. At the time of Census 2000, approximately 57 percent of the population 25 years of age or older had a high school diploma (or equivalency) or higher, while 20 percent of the population 25 years and older reportedly had a bachelor's degree or higher, but this estimate is based on only a small sample of the community. The community disputes the accuracy of this data.

Community Facilities & Land Use

Community Facilities

See “Public Facilities & Transportation” section of this plan for existing public facilities with photos and description of condition.

Piped water and sewer systems were installed in Twin Hills in 1977. Water is drawn using a submersible pump, and is treated and stored in a 60,000-gallon steel tank. The gravity sewage system feeds to a disposal lagoon on the far west side of town. Twenty-two occupied households have piped services and complete plumbing. As of March 2003, there are seven new HUD housing units with individual wells and septic tanks. The school operates its own system. A

coin-operated washeteria is available. Water, sewer and landfill improvements are currently being studied.



Twin Hills Health Clinic

According to Census 2000, 62.5 percent, or 10, housing units lack complete plumbing facilities, while 37.5 percent, or six units, lack complete kitchen facilities. Also according to Census 2000, all the housing units in the community were built before 1970.

The Village Council owns a bulk fuel tank with a capacity of 29,400 gallons. The Southwest Region Schools has a 31,300 gallon tank, while Togiak Fisheries, Inc. has a 127,500 gallon tank. According to the DCCED community profiles, the village has a recreation center and a village council building. The Twin Hills Village Clinic provides health care through a village health aid under the auspices of BBAHC. However, according to the DCCED web page, the clinic facility has a leaky roof and needs replacing. Twin Hills is classified as an isolated village; it is found in EMS Region 2I in the Bristol Bay Region. Emergency Services have limited air and river access. Emergency service is provided by a health aide.

Cost of Living

The high cost of living and energy in the Bristol Bay Region is a barrier to economic development efforts. The cost for home-heating fuel and electricity in many of the Bristol Bay villages is four times as high as the Anchorage area (BBNA 2004). Because of their remoteness, many of the region’s residents living in smaller communities generally pay about twice as much for electricity than Dillingham consumers and four times as much as Anchorage consumers.

Land Ownership

The Twin Hills Native Corporation has a 12(a) Land Entitlement of 69,120 acres (from the federal government and a 12(b) land entitlement of 820 acres reallocated from the regional Native corporation. The Twin Hills Native Corporation 14(c) re-conveyance of land to the local government to provide for community use and expansion is in process.

Housing

The Bristol Bay Housing Authority, was created by Alaska Statute AS 18.55.955 in 1974 to administer Low Income Housing programs funded by the Department of Housing and Urban Development (HUD). The programs are governed by the terms of the Native American Housing Assistance and Self Determination Act. In 1996, Congress revamped Indian Housing Programs with the passage of the Native American Housing Assistance and Self Determination Act (NAHASDA).

The Native American Housing Assistance and Self-Determination Act of 1996 (NAHASDA) became effective on October 1, 1997. The Native American Housing Assistance and Self Determination Act of 1996 (NAHASDA) reorganized the system of housing assistance provided to Native Americans through the Department of Housing and Urban Development by eliminating several separate programs of assistance and replacing them with a block grant program. The two programs authorized for Indian tribes under NAHASDA are the Indian Housing Block Grant (IHBG) which is a formula based grant program and Title VI Loan Guarantee which provides financing guarantees to Indian tribes for private market loans to develop affordable housing. Regulations are published at 24 CFR Part 1000.

The Indian Housing Block Grant Program (IHBG) is a formula grant that provides a range of affordable housing activities on Indian reservations and Indian areas. The block grant approach to housing for Native Americans was enabled by the Native American Housing Assistance and Self Determination Act of 1996 (NAHASDA).

Eligible IHBG recipients are Federally recognized Indian tribes or their tribally designated housing entity (TDHE), and a limited number of state recognized tribes who were funded under the Indian Housing Program authorized by the United States Housing Act of 1937 (USHA). With the enactment of NAHASDA, Indian tribes are no longer eligible for assistance under the USHA.

An eligible recipient must submit to HUD an Indian Housing Plan (IHP) each year to receive funding. At the end of each year, recipients must submit to HUD an Annual Performance Report (APR) reporting on their progress in meeting the goals and objectives included in their IHPs.



Houses at dawn

activities include housing development, assistance to housing developed under the Indian Housing Program, housing services to eligible families and individuals, crime prevention and safety, and model activities that provide creative approaches to solving affordable housing problems.

Twin Hills Village Council has chosen BBHA as their “Tribeally Designated Housing Entity,” as provided for in NAHASDA. BBHA passes through to the Council one half of the “Need” funds provided by a formula allocation under NAHASDA. BBHA maintains a “Regional Pool” with the other half of

the funds from each village participating in the "Pool," and constructs new home on an annual basis from a ranked Village list.

BBHA monitors sub-recipient activity for provision of housing services and programs administered by the individual tribes who use BBHA as their Tribally Designated Housing Entity.

Under prior 1937 Act funding (USHA), 7 single family homes were built in Twin Hills in 2002, none of which have been conveyed to the homebuyers. Ultimately, all will transfer to the private ownership of the program participants.

Regionally, BBHA has participated in an IRS Section 42 Low Income Housing Tax Credit (LIHTC) housing program administered in Alaska by the Alaska Housing Finance Corporation. The regional LIHTC inventory includes a 24-unit (three 8 unit buildings named Forest View) apartment building in Dillingham, two 8-unit LIHTC buildings - one in King Salmon and one in South Naknek, (named Taiga View), two additional 8-unit LIHTC buildings in Dillingham, (named Muklung Manor), and is in construction of 4 4-unit (16 units) LIHTC buildings in Togiak (Togiak View). Recently, 3 – 4 unit (12 units) of LIHTC buildings have been approved for Manokotak.

According to the FY05 NAHASDA funding formula, the "need" component as computed by HUD through BBHA for Twin Hills is \$ 26,063. One half of these funds stay in a regional pool for construction of homes in accordance with a ranked regional list of villages, the other half of the funds are passed through to the Twin Hills Village Council for locally administered programs, such as rehab of village residents' owned homes, and youth programs.

Twin Hills's rank for FY05 in the regional pool for new single family homes funded by HUD/NAHASDA is position # 17, which would provide funding for 4 to 5 new homes for Twin Hills at the end of the next decade, assuming current levels of funding for HUD programs remain relatively stable.

There is no multi-family housing in Twin Hills. BBHA will look at the feasibility of multi-family housing financed by Tax Credits through the Alaska Housing Finance Corporation, which is a competitive process, should the demand and waiting list exist. The project could be four-plex apartments in nature, combined with such buildings in other neighboring villages, to make the project financially feasible

There is currently no specified Elder housing in the Village. Bristol Bay Housing Authority, in cooperation with the Village Council will monitor the need and determine feasibility of such a project. Funds for such a project can come from Alaska Housing Finance Corporation's "GOAL" program, which requires Senior projects to be "Named" recipients through Alaska Legislative Appropriations, other sources may include the HUD 202 (Public Housing) funds, which require a separate 501(c) 3 be set up for this purpose.

GOALS & STRATEGIES

Land Use, Housing & Environment

Context

Twin Hills is a small village with a stable population, close ties to the land and environment. Residents value their village character and want to maintain the closeness of the community. Its relatively small size gives Twin Hills both advantages and disadvantages – the advantage of being able to manage growth and change easily; the disadvantage of having a small population as a resource for village needs.

Villagers moved to the site 40 years ago, and have prospered on the land. Fishing, hunting and berry picking sustain Twin Hills' residents year-round. Its setting beneath two matched mounds, lifting conspicuously from a broad, flat alluvial plain, places the village uniquely on the landscape. The adjacent Twin Hills River (some maps identify this as the East Fork of the Togiak River) and nearby Togiak River and Togiak Bay shape the habits of Twin Hills, imparting work, food and play to its people.



Flight over Twin Hills River, village and hills

In describing some of the benefits of their location, Twin Hills residents mention “We are close to the mountains and the ocean, which are pretty – but not too close,” and “We are in a good spot to see the weather coming; we can prepare and be ready for it.”

The health of the waters and lands surrounding Twin Hills are of primary import to area residents. Residents relations with the land shape the basic character of Twin Hills. The village is also characterized by the closeness of its community, both socially and physically; residents dwell in a relatively compact area, with good access to hunting and fishing grounds.

The Twin Hills River traditionally provides access to important fishing and subsistence areas. Over the years, as this channel has slowed and filled, access is sometimes impeded. For the barge to travel up the Twin Hills River, a high tide is needed. Though this is still the usual method for receiving supplies, occasionally supplies must be barged to the mouth of the river and brought by skiff to shore, then into the village by ATV or snowmachine. Other supplies are either flown in at significant expense. Improving this access through an upgraded system of roads, trails and dock facilities is part of Twin Hills' Long-Range Transportation Plan.²

Other factors influencing the use of land in and around Twin Hills include the management of the Togiak National Wildlife Refuge, the Bristol Bay fishery – including the nearby North Pacific

² *Long-Range Transportation Plan, Phase II*, Twin Hills Village Council, Indian Reservation Roads Program. Submitted by Bristol Environmental, March, 2002.

Processors cannery – and uses by Togiak village. There are also incidental uses in the area by various hunting and fishing lodges, with which Twin Hills has generally friendly relations.

In achieving the goals of this section, the community identified some specific challenges and resources that will help to shape, which strategies will best achieve the goals. Residents of Twin Hills live close to the land and are very experienced hunters, gatherers and fishers. The area has abundant natural resources including berries, fish and game.

Twin Hills residents are keen observers of the natural environment and notice when new development or increased activity impacts the fish and animals of the region. The community is also very aware of its dependence on the surrounding environment. The village would like to work cooperatively with Togiak and other neighbors – including the cannery, commercial fishing operators, the Togiak National Wildlife Refuge and sport lodges – to ensure the health of the bay, rivers and surrounding lands.

There is some concern over the health of the fish population in and around Togiak Bay. Twin Hills' residents have noticed incidents of harm to fish as a result of catch-and-release fishing. By-catch of some types of commercial fishing is also a concern of many residents. Some types of fish, such as smelt, are doing well, though salmon and herring returns seem less stable.

Populations of moose and caribou seem to be abundant, and berry-picking areas are healthy, indicating that current management programs and policies work to protect subsistence. Some people have noted that there seems to be an increase in “sick” animals – ones with lesions or deformities, or whose meat is bad. Residents would like to keep watch of these populations and monitor their health.

Twin Hills leases some of its land to two commercial guiding operations. In addition to bringing in revenue for the village, these leases provide for policing by the guiding services which helps to prevent overuse, trespass and illegal hunting.

Maintaining the health of their land, their ability to access it, and the compactness of their development are the main Land and Environment goals of the Twin Hills community.

Goals

- 1. Preserve and protect subsistence and recreation resources from pressures from commercial and sport fishing, and sport hunting.**
- 2. Protect natural beauty, maintain clean environment and protect water and air quality.**
- 3. Create viable, long-term options for river access.**
- 4. Manage future development so that housing and infrastructure does not overextend the villages' resources and ability to maintain.**
- 5. Identify and protect historic sites, including the old village site at the beach and the village cemetery.**
- 6. Maintain trails and limit access to surrounding lands to protect rights-of-way and eliminate trespass.**

Goals & Priority Actions

1. Preserve and protect subsistence and recreation resources from pressures from commercial fishing and sport hunting.

- Work with agencies, operators and organizations to ensure that subsistence needs are considered and protected when fishing and game management policies are written or changed. Currently the Togiak Wildlife Refuge is completing a 15-year update of its Management Plan. Twin Hills should be involved in review of this document.
- Ensure Twin Hills' village leaders maintain a "place at the table" in regional decision-making regarding resource development that will affect subsistence resources and environment.
- Work with all Native villages and organizations potentially affected by commercial fishing, mining, oil and gas development to protect village interests.
- Identify subsistence areas of particular importance; work with Twin Hills Native Corporation to ensure that these lands are protected for subsistence purposes for the future. Of particular note are water fowl and berry picking areas near the village, which could potentially become future housing sites without proper planning.

2. Protect natural beauty, maintain clean environment and protect water and air quality.

- Work with fishing operators to minimize pollution and protect air and water quality.
- Upgrade landfill facility to locate away from housing. Fence landfill to control blowing trash. (see "Public Facilities & Transportation" section)
- Plan for mitigation of stagnant, boggy tidal overflow area ("stinky pond") near housing and new clinic site.
- Exercise fuel and hazardous materials safety practices to prevent spills. Work with other fuel users in the area to maintain safe fuelling practices.
- Consider cost-effective ways to design and construct alternative energy sources to protect the environment.

3. Create viable, long-term options for river access.

The Twin Hills River is slowly decreasing in flow, due to a build up of silt and gravel deposits upstream. Eventually, the river will not provide residents with adequate access to Togiak Bay; already alternative areas for putting in and pulling out are being used. Residents would like to find a safe, convenient area for a dock facility; a location has been suggested in Twin Hills' Long-Range Transportation Plan. Additional access could be provided by a trail or road to the Togiak River, 3.5 miles north of the village. The river at that point is free-flowing, and has regular channels (unlike at the mouth), providing good access to Togiak Bay in the long-term. A proposed route for this trail/road is contained in Twin Hills' Long-Range Transportation plan.

- Construct a dock facility on the beach, connected to the village by a beach access road. (see "Public Facilities & Transportation" section)
- Connect the village by trail or road to the Togiak River. (see "Public Facilities & Transportation" section)

4. Manage future development so that housing and infrastructure does not overextend the village's resources or ability to maintain.

Twin Hills has need of new housing to provide for a slightly increasing population, and also to upgrade/replace its housing stock. Twin Hills has no desire to vacate its current village site, but the current site is almost filled to capacity. New construction has been directed to an area west of the old village site; lots have been platted and some new houses built. Though the new development area is slightly separated from the older section of the village, it is still close enough to share services. Twin Hills should be careful to keep new development in close proximity to the older areas of the village, so infrastructure costs can be minimized.

- Contain development within core area. Prevent sprawl which could occur though:
 - Locating essential services far from main village – such as school, clinic or other facilities
 - Locating transportation facilities, such as the airport, away from the main village
 - Designating new housing to be done in outlying areas, rather than in a central location near the main village.
- Concentrate public buildings in older area of village; cluster buildings and services in village “common area.”
- Locate water and sewer utility buildings to maximize capacity to serve entire village.
- Locate waste and fuel facilities away from residential areas, when possible, but not so far that road access and maintenance is difficult to keep up.

5. Identify and protect historic sites, including the old village site at the beach and the village cemetery.

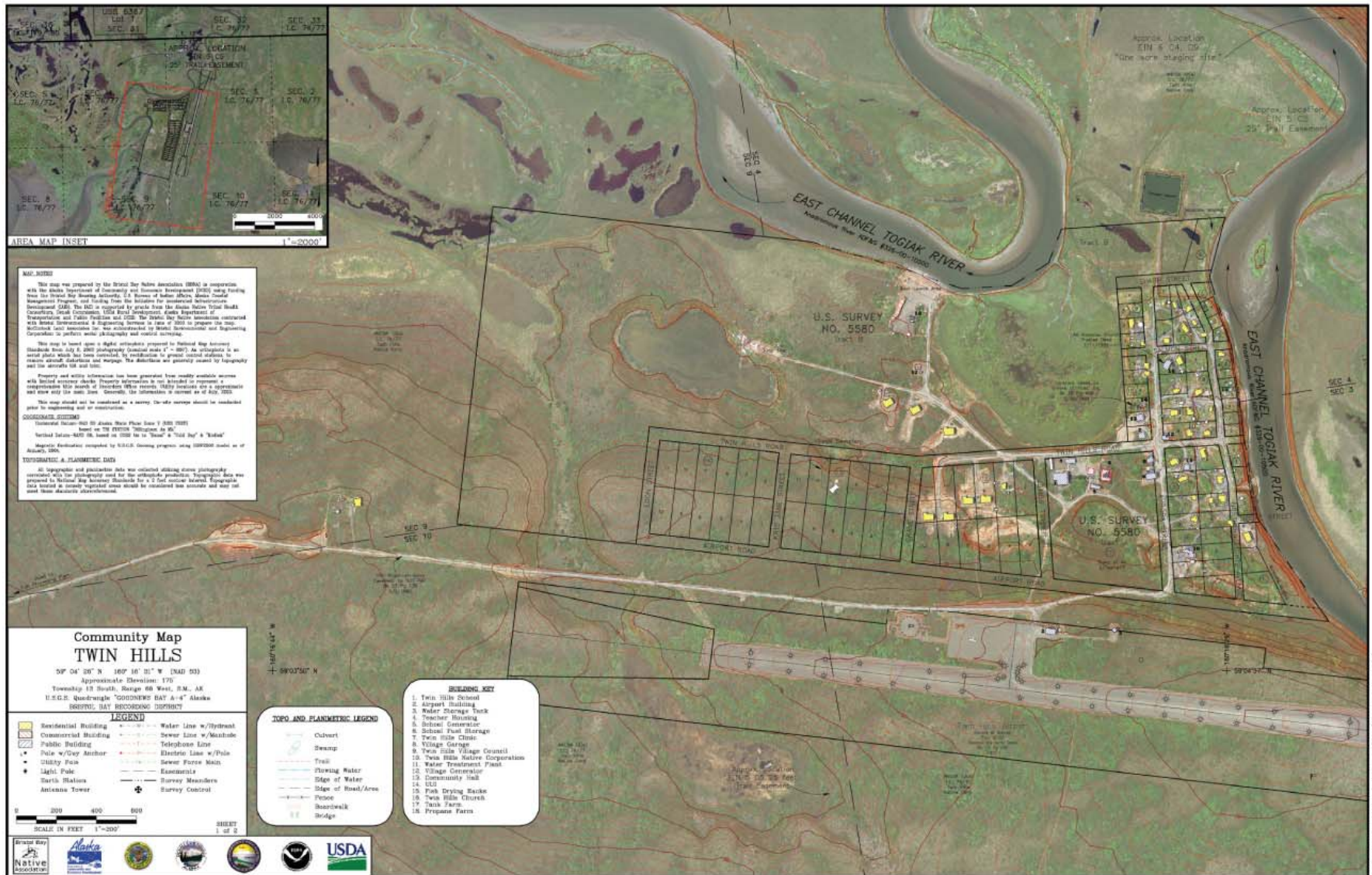
The old Twin Hills village site is located on the beach, near the cannery. Residents are concerned about pilfering of the site by visitors. Currently the site is identified, but is not well-protected. Residents would like to maintain the site as part of the history of their village.

- Upgrade signage around historic site; have residents periodically patrol site; hang informational signage at airport identifying location of site with rules about visitation.

6. Maintain trails and limit access to surrounding lands to protect rights-of-way and eliminate trespass.

- Maintain system of trails to provide adequate access to surrounding lands.

Figure 5. Twin Hills Community Map



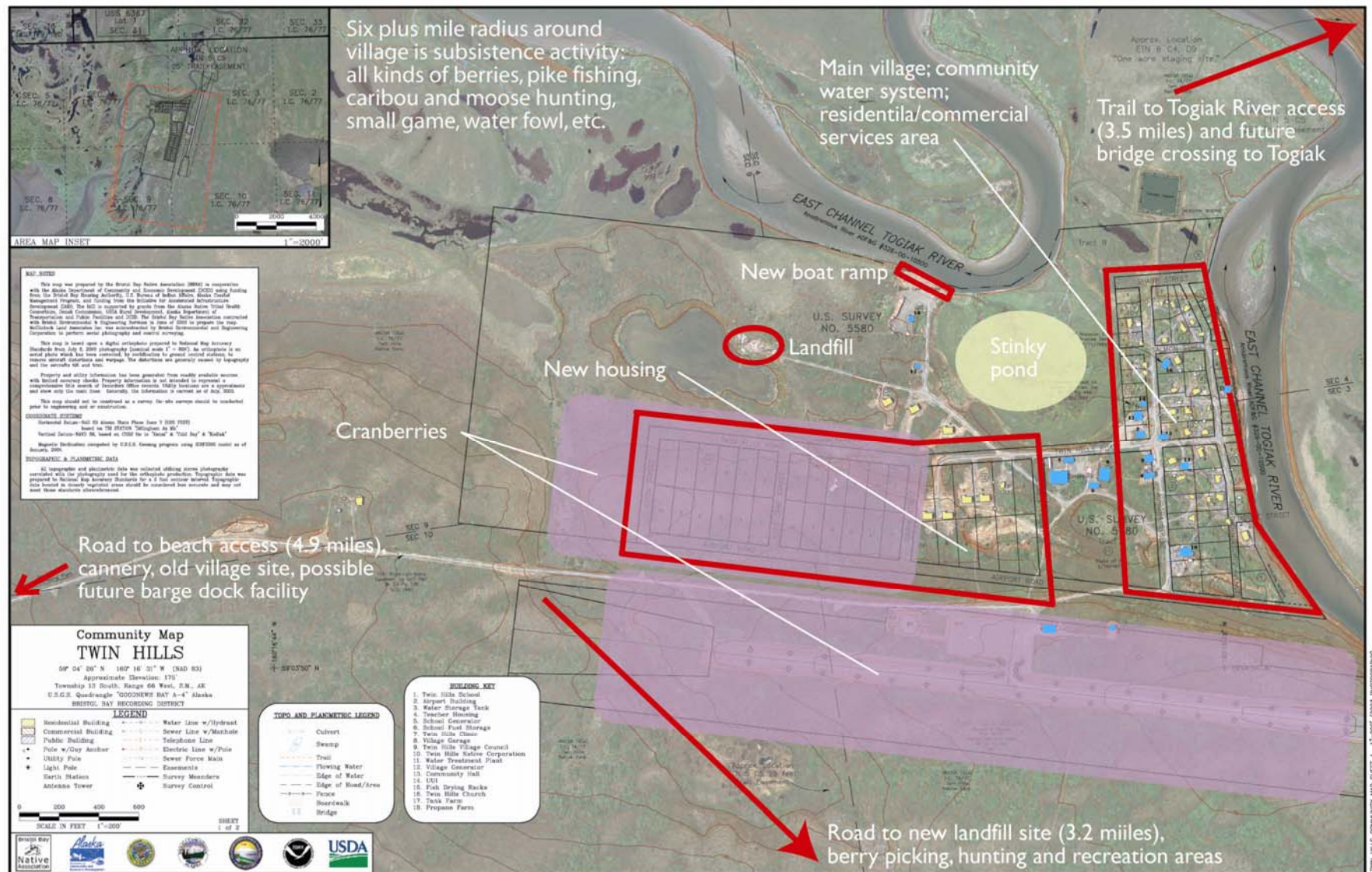
Source: Alaska Department of Commerce, Community and Economic Development (DCCED), Community Mapping Project, 2004.

Figure 6. Twin Hills Area Map



Source: Alaska Department of Commerce, Community and Economic Development (DCCED), Community Mapping Project, 2004.

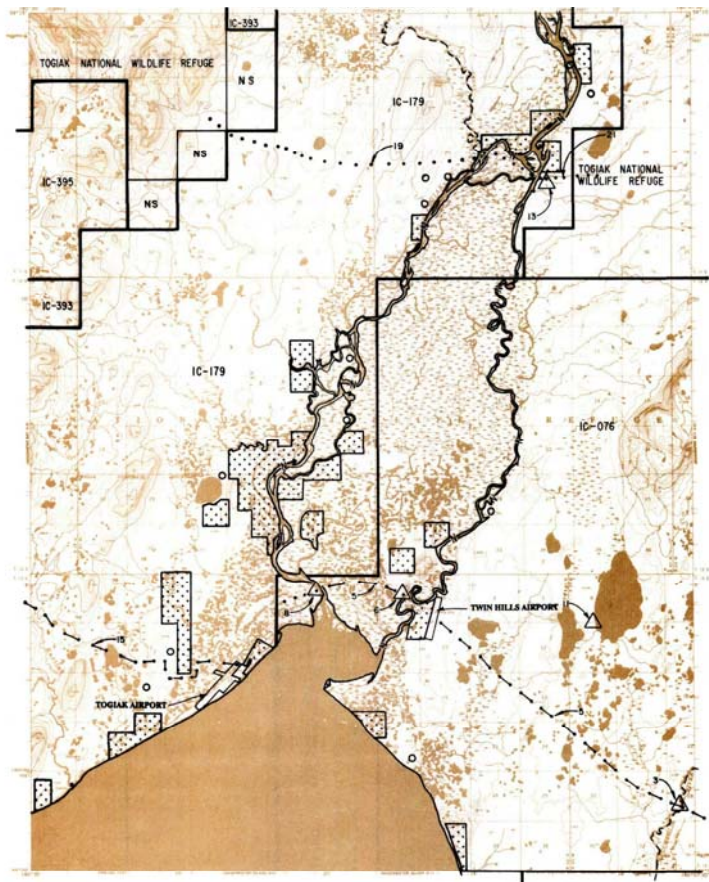
Figure 7. Twin Hills Land Use Patterns



Source: Alaska Department of Commerce, Community and Economic Development (DCCED), Community Mapping Project, 2004 with annotations by Agnew::Beck based on community input, 2005.

Figure 8. Twin Hills Trail Easements

Source: *Bristol Bay Easement Atlas*, Alaska Department of Natural Resources, Division of Land and Water, 1990.



LEGEND

— IC OR PAT. BOY.	— N — FED. DETERMINED NAVIGABLE	○ NATIONAL CONSERVATION UNIT BOY.
— WATER EXCLUSION BOY.	- - - STATE DETERMINED NAVIGABLE	○ PENDING NATIVE ALLOTMENT
NS NATIVE SELECTION	SS STATE SELECTION	△ NATIVE & STATE SELECTION
STATE STATE OWNED	⊕ AIR STRIP EASEMENT	△ CAMP/SITE / PARKING EASEMENTS
***** PRIVATE LANDS	—●— EXISTING TRAIL EASEMENT	△ ROAD EASEMENT
		●●●● PROPOSED TRAIL EASEMENT

Scale in Miles
Mar 1990

RESERVED EASEMENTS

- EIN 3 One (1) acre site on the left bank of the Negukthlik River where the Togiak River where the Togiak Manokotak Trail crosses the river.
- EIN 5 Existing access trail from Togiak to Manokotak (25 foot trail).
- EIN 6 One (1) acre site on the right bank of the east fork of the Togiak River where the Togiak Manokotak Trail crosses the river.
- EIN 8 One (1) acre site on the right bank of the west fork of the Togiak River where the Togiak Manokotak Trail crosses the river.
- EIN 11 Three (3) acre site on the southwest shore of an unnamed lake (same uses as a one (1) acre site).
- EIN 13 One (1) acre site on the left bank of the Togiak River where the river divides into the east and west forks.
- EIN 15 Existing access trail and road from the Village of Togiak westerly to public lands and Goodnews Bay (25 foot trail).
- EIN 19 Proposed access trail from EIN 13 on the Togiak River where the river divides into the east and west forks westerly to public lands (25 foot trail).
- EIN 21 Access trail from the Togiak River where the river divides into the east and west forks easterly to public lands (25 foot trail)

Community Wellness, Culture & Education

Context

Twin Hills was formed as a permanent settlement by a group of families originally from Togiak. After serious flooding in 1964, the original settlers of Twin Hills moved from Togiak to the East Fork of the Togiak River, under the protection of two hills, for which the village is named. Twin Hills is a traditional Yup'ik village. Many residents are bilingual Yup'ik and English speakers. The population is small in number and very stable, with little increase or decrease since the formation of the village. Twin Hills is a quiet village. Most residents participate in commercial fishing, work for village government organizations and pursue a subsistence lifestyle. Twin Hills is noted for its talented artists who create traditional works of Yup'ik art. A historic village site is located near Twin Hills' beachfront.



Twin Hills' youth participate in the Community Planning Workshop, held at the school

Elementary and middle school education is provided at the Twin Hills School, operated by the Southwest Regional School District. The school has 14 students enrolled in 2004, which causes concern that the school may not continue to operate if enrollment drops. The community values the school greatly and is committed to keeping it open.

For secondary education students must attend the Mt. Edgecombe Boarding School in Sitka, or attend school in Togiak or Dillingham. This is an area of concern for Twin Hills residents for a number of reasons. Some participants in planning workshops said that there are fewer young people around to help care for elders. Others said that going away to boarding school is “good for the student, hard for the parents and grandparents.” “Kids need to learn from the outside world.” A youth resident who was present said that he looked forward to experiencing life outside of the village for secondary school. Without a significant increase in population it is unlikely that a secondary school would operate in Twin Hills. Togiak has recently opened a brand new school facility. Increasing options for weekly boarding in Togiak, to enable youth to attend school, would increase opportunities closer to home. This could be accommodated in the newly finished Ikaiyurvik Family Resource Center, which has two dorm rooms and an apartment.

Providing healthy recreation activities for children and youth is a high priority for Twin Hills' residents. The community does not currently operate a community center or a youth center, although there is a facility that could be used for such purposes if it was renovated. The community is interested in sports activities for youth, as well as teaching young people traditional skills.

The nearest university campus to Twin Hills is located in Dillingham at the University of Alaska, Fairbanks, Bristol Bay Campus. This campus offers distance learning and on-site instruction for postsecondary students in a full range of academic and vocational disciplines. The Southwest Alaska Vocational and Education Center located in King Salmon offers a full array of workforce development and vocational courses, and offers student lodging for multi-day courses.

The Bristol Bay Area Health Corporation (BBAHC) operates the health clinic, staffed by one health aide who provides primary health services, however, the position is currently vacant. There is a sub-

regional health facility located in Togiak, which offers mid-level primary care services. Twin Hills does not have a Family Service Worker. There is a position for a Tribal Children's Service Worker, provided by Bristol Bay Native Association, however it is unfilled. This position offers tribal representation in child protection cases, as well as behavioral health and family support services. Additional services are also offered in Togiak at the recently built Ikaiyurvik Family Resource Center. The Twin Hills Health Clinic facility will be replaced in summer 2005 or 2006, depending on the availability of Denali Commission funding. Childcare for working parents is mostly provided by family members. No pre-school or Head Start program operates in Twin Hills.

The Bristol Bay Housing Authority (BBHA), provides assistance with constructing and renovating houses for Twin Hills residents. BBHA's mission is "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". Since BBHA is a regional entity, resources are distributed among the twenty-two villages that have designated BBHA as their Tribally Designated Housing Entity.

Twin Hills has a number of derelict houses that need to be either refurbished or removed. The fire department has burned structures in the past to practice firefighting. The community is concerned that youth use the derelict houses for hanging out, and they are often vandalized. The community would like to see apartment style housing constructed for younger families, and elders.

Twin Hills has a growing number of elders in the community, who plan to remain in the village for as long as possible. While a formal assisted living facility is not practical, given the small size of the community, families who are caring for elders need support.

Goals

- 1. Teach youth and adults traditional skills, language and knowledge.**
- 2. Improve health of all community members.**
- 3. Provide healthy and fun activities for youth.**
- 4. Provide excellent education opportunities close to home.**
- 5. Increase availability of quality housing for all residents.**
- 6. Support families caring for elders.**
- 7. Provide good role models for youth.**

Goals & Priority Actions

- 1. Teach youth and adults traditional skills, language and knowledge.**
 - o Construct a multi-use facility with space for subsistence processing, teaching, and youth activities. Apply for funding to do a facility feasibility study.
 - o Plan for specific youth activities throughout the year. For instance, this year the school is going to build a drying rack and smoke house to teach youth how to smoke meat, dry skins and have a potluck at the end of the project.

- Use the school to continue to involve the community in youth and community activities.
 - Skin sewing and making things out of it – mukluks
 - Making baskets, weavings, ivory carving, dance and music
- Use connection with Togiak (distance learning with satellite TV/video)

2. Improve health of all community members.

- Construct replacement clinic facility (happening)
- In-home Elder care and hospice assistance, also basic tasks like moving furniture, checking up on their health.

3. Provide healthy and fun activities for youth and adults.

- Create a youth center, recreational activities like basketball
- Create a community library – the school library is open extra hours beyond regular school hours. Maybe include space for books/library in multi-use facility.
- Meeting place for adults to gather, have social events, play cards, hold potlucks, etc.

4. Provide excellent education opportunities close to home

- Maintain the school enrollment and continue to support the Twin Hills School
- Provide secondary education closer to home
 - Provide dorm facilities in Togiak for weekly boarding
 - Distance learning for history (happening currently) and itinerant health instructor, increased use of the Internet

5. Increase availability of quality housing for all residents.

- Repair, replace or demolish derelict houses
- Build apartments for younger residents
- Provide itinerant housing, especially for health aides and other service providers.

6. Support families caring for elders.

7. Provide good role models for youth.

- Adults and Elders act in ways that are healthy, safe and responsible.
- Start a Wellness Team (funding application in process).
- Address issues of bereavement.
- Youth mentoring and Elder-youth opportunities for interaction.

Public Facilities & Transportation

Context

Access to and from the village is important, for a variety of reasons. Airplanes, barges, skiffs, fishing boats, ATVs and snowmachines provide most of the transport in Twin Hills and its environs, along with the old-fashioned method of walking. A couple of vehicles are located in the village, but cars and trucks are not the primary mode of movement for most villagers. The village has several priority projects – including new road and trail construction, a new dock facility – which will maintain their access to important areas.

The public facilities in Twin Hills are generally adequate to the community's needs. Residents desire renovations to some of the existing public buildings, better use of others, and new construction of one or two more. These facility upgrades include a new landfill (located away from the residential area), community center, youth center, health clinic, airport bathroom and larger tank farm. There is room to construct these facilities in the village; careful examination of the community's ability to pay for construction, maintenance and utilities is key to the success of these projects. It works in Twin Hills' favor that many of their facilities are near each other, reducing the cost of supplying electric, water and sewer. Some of these costs could be offset by Twin Hills Village Council earning some revenues from utility and fuel supply to residents of Twin Hills and, in some instances, Togiak.

Twin Hills School is one of the most-used, most-important public facilities in the community. Not only is it a place for learning, but also provides the community with occasional meeting space, large kitchen, library, Internet access and exercise area (the gymnasium). Because providing these services is not the main purpose of the school, and because school hours are limited, the community desires a facility that more adequately suits their needs. A community center with facilities for meeting, youth activities, exercise, library and computer access, cultural events and similar uses is greatly desired by the community.

While roads and other transportation facilities are constructed and paid for by outside entities such as Alaska Department of Transportation and Public Facilities (ADOT&PF) and U.S. Department of the Interior, Bureau of Indian Affairs (BIA), the cost of maintenance for roads and trails is borne mainly by the village. Due to the nature of these funding sources, it is sometimes difficult or requires a lengthy wait to see desired projects realized. Additionally, maintenance can become costly as several of the roads and trails accessing needed areas are several miles in length and require regular upkeep, especially in winter months.

It will be to the village's advantage to balance their desire for access to the new planned landfill, dock and river access with realism about their ability to maintain this infrastructure.



Village Council Building and school

Goals

1. Ensure good, safe transportation in and around community.
2. Manage waste to keep community clean, protect environment.
3. Manage fuel and energy costs.
4. Ensure good access to water, sewer facilities.
5. Improve facilities to support cultural, educational goals.
6. Provide phone and Internet access for all residents.
7. Through transportation planning, facilities and services planning and communication with Togiak, coordinate to share services.



From left to right:
propane farm, boat landing and storage area, post office and community hall,
clinic, powerhouse, water treatment plant,
airport maintenance building, bulk fuel tank farm

Table 8. Public Services & Facilities Matrix

SERVICE	PROVIDER	CURRENT FACILITIES	ISSUES/NOTES/NEEDS
Transportation & Infrastructure			
Airport	Alaska DOT&PF	Maintenance building, airstrip	<ul style="list-style-type: none"> Would like bathroom facility at airport.
Boat ramp	None	None	<ul style="list-style-type: none"> Working on applying for funding for ramp. Listed in Twin Hills Long-Range Transportation Plan.
Power	Twin Hills Village Council	Bulk fuel tank and generator	<ul style="list-style-type: none"> School has own tank and generator (separate from Village Council). Condition of generator and power lines need to be assessed and upgraded to three-phase power. Wind or solar power has been looked at; wrote support letter for hydro-electric project in Togiak; maybe could tie in or send lines across; interested in alternative energy.
Water/Sewer	Twin Hills Village Council		<ul style="list-style-type: none"> Village water is served by a combination of well and septic and piped water and sewer. Most are on community piped water system. Main sewer line goes to sewage lagoon. Sewage lagoon located near river at low point – concern a high tide could flood it (this has never occurred). Water isn't treated, but residents feel like it is good quality. Utilities Master Plan for water, sewer and solid waste is in progress with Alaska Native Tribal Health Consortium (ANTHC).
Solid Waste	Twin Hills Village Council	Landfill located near future housing site	<ul style="list-style-type: none"> Landfill needs to be fenced to reduce litter. Site is too close to the village and runway. Studying location for a new landfill, with new road 3.2 miles from village (noted in Long Range Transportation Plan, page 8). Considering use of "Burn Box." Will still need a site for burn waste. Could improve existing methods for toxic disposal (batteries, appliances). New road increases access to berries, caribou and other subsistence areas.
Telephone/ Internet	Starband through Twin Hills Village Council and School	Village Council and School pays for access	<ul style="list-style-type: none"> Adequate. People use it from the village council building. The school has good access, but is not open all the time.
Tank Farm	Twin Hills Village Council	10,000-gallons capacity	<ul style="list-style-type: none"> Sells diesel for stove oil. Normally run out by mid-March (often have to borrow from school). Want to improve/enlarge it – tried to get a mini-grant, but unsuccessful.
Propane Farm	Twin Hills Village Council	Propane tanks (5,000 gallon facility)	<ul style="list-style-type: none"> Sell to Twin Hills and Togiak (since cannery stopped selling). Could be a good source of village income, but is currently more or less a

			<ul style="list-style-type: none"> non-profit (pays for freight and operator) Supplier from King Salmon
Maintenance Equipment	Twin Hills Village Council, ADOT&PF (for airport)		<ul style="list-style-type: none"> Snow plow and grader at airport and one for roads Combo tractor/backhoe Dump truck Loader Fuel trailer
Services & Facilities			
Fire	Twin Hills Village	“Code Red” Program	<ul style="list-style-type: none"> Have a portable fire suppression unit from the Alaska Village Initiatives program – adequate for village needs. Have had training on it.
Police	State Troopers	Located in Dillingham; VPSO	<ul style="list-style-type: none"> 1 VPSO in village – adequate coverage for responding to local calls.
EMS	BBAHC	Twin Hills Clinic	<ul style="list-style-type: none"> Located in EMS region 21 in the Bristol Bay Region. Get training from EMS programs once every two years for whoever needs it.
Post Office	Contract	In small section of old community center	<ul style="list-style-type: none"> Adequate.
Community Center	None	None	<ul style="list-style-type: none"> Have a very inadequate facility (shared with post office) but community hall is in disrepair, used very little; only good for small meetings. Need to renovate or replace community center. No good place to gather, hold activities.
Village Council			<ul style="list-style-type: none"> Would like a larger facility. Sometimes use the school gym for larger meetings and projects. Contains an exercise room, which is very small.
Youth Center	None	None	<ul style="list-style-type: none"> Community priority – need a place for kids to play & hang out – might be part of the community center. Interested in sports programs.
Clinic	BBAHC	Aging facility	<ul style="list-style-type: none"> Denali Commission business plan approved to replace clinic (getting close to finishing the design-study; hoping to order supplies in the fall and build next season – Larson Consulting Group, LCG, Inc. in Anchorage) New clinic will be built.
Senior Center	None	None	<ul style="list-style-type: none"> Families care for Elders. Some families would like more support with this.

Education			
K-8	Southwest Regional School District	Twin Hills School	<ul style="list-style-type: none"> ▪ Keeping school open a priority. ▪ Small school with lower enrollment. ▪ Just hired new teacher.
Middle School	Southwest Regional School District	Twin Hills School	<ul style="list-style-type: none"> ▪ Part of K-8.
High School		None – Students attend Mt. Edgecombe or Togiak HS.	<ul style="list-style-type: none"> ▪ The community recognizes that there are advantages and disadvantages of students leaving village for high school. ▪ Possible boarding in new Togiak Family Resource Center to increase options close to home. ▪ Some kids don't finish high school.
College			<ul style="list-style-type: none"> ▪ Several people leave for college studies – they go to Dillingham, Fairbanks, and as far as Colorado.

Goals & Priority Actions

1. Ensure good, safe transportation in and around community.

- Implement top priorities of Long-Range Transportation Plan: road to new landfill site, new boat dock, upgrades to village roads, beach access road.
- Ensure that village has capacity to maintain roads adequately.
- Maintain system of trails to important areas for subsistence, fishing, and supplies.
- Maintain airport facility; build new bathroom facility for visitors.
- Plan for good access to Togiak River and Togiak Bay.
- Install streetlights for safe winter travel.

2. Manage waste to keep community clean, protect environment.

- Build new landfill away from center of village and new housing development. Clean up old landfill site. Address issue of tidal overflow leading to stagnant “stinky pond.”
- Institute use of burn box to extend life of landfill.
- Develop practices to prevent cannery road becoming a dumping area.
- Maintain adequate facilities and methods for disposal of toxic wastes, including old batteries and appliances. Create an area to reclaim reusable good for recycling.

3. Manage fuel and energy costs.

- The high cost of fuel is a great hardship on families and the community in general. The cost of fuel has far-reaching repercussions. Consider ways to reduce costs or reduce reliance on fuel.
- Increase capacity of tank farm to ensure that village fuel supply lasts through winter.
- Manage propane supply so that it can produce revenue for the village (through sale of propane to Togiak, Twin Hills residents).
- Consider options for hydroelectric, wind or other alternative energy sources; reduce village dependency on expensive “fly-in” fuel. Seek funding sources, such as the Denali Commission, to implement power projects and train villagers to maintain.

4. Ensure good access to water, sewer facilities.

- Complete Utilities Master Plan. Maintain adequate water and sewer system (including sewage treatment lagoon) to support existing and new housing construction.
- Provide technician training for water quality monitoring, system maintenance.
- Strengthen Village Council’s ability to collect payment for water and sewer.

5. Improve facilities to support cultural, educational goals.

- Plan for and fund multi-purpose facility that would house a youth center, community center and cultural center (see “Community Wellness, Culture and Education” section).
- Consider future options for a Senior Center, or facility to provide direct senior services.

- Increase capacity of Village Council building services and gathering space.
- Upgrade medical facilities, including clinic. Provide adequate housing for itinerant Community Health Aides.
- Continue to improve facilities allowing teenagers to attend high school remotely.

6. Provide phone and Internet access for all residents.

- Increase residents' access to Internet and ability to use it for communication, education and economic development.
- Configure current Starband connection to share Internet access among village.
- Provide training on Internet use, system maintenance so village has capacity to maintain system.

7. Through transportation planning, facilities and services planning and communication with Togiak, coordinate to share services.

- Construct safer trail and bridge to Togiak. Consider possibility of future road to Togiak.
- Work with City of Togiak and Togiak Traditional Council to share, rather than duplicate, some services (e.g., store, school, fuel supplies, etc.).



Economy

Context

The primary factor influencing the economic present and future of Twin Hills is the decline of commercial fishing in Bristol Bay. As residents expressed it, the “fishery is no longer an adequate way to make a living because the costs keep rising (permit, gas) and prices keep going down.” The community members of Twin Hills have a long history of participation in commercial fishing. Community members currently hold fourteen commercial fishing permits spread among the halibut, herring, and salmon fisheries. Like other Bristol Bay villages, Twin Hills has seen a large loss of herring permits since 1990, but it has managed to hold onto its halibut and salmon permits.

Alternative sources of income for residents have come from accepting more government assistance, securing secure employment from the government or private sectors, although the number of jobs in Twin Hills is very limited, and from “buying fewer new things”. Twin Hills residents identify a number of factors that have decreased the profitability of the fishery, such as high fuel costs, poor fishing returns due to increased factory trawling in the Bering Sea, reduced demand from the Japanese market, and a difficult relationship with the management at the local cannery.



Detail from mural in Twin Hills School honoring seasonal subsistence activities

Most Twin Hills residents agree that the community needs more jobs. Twin Hills' residents actively supplement cash income with subsistence hunting, fishing and gathering, as well as marketing products made from local materials such as arts and crafts and small-scale tourism. These markets are currently underdeveloped.

There are few businesses operating in Twin Hills. The village council operates a propane business, which sells to Twin Hills and Togiak residents. There are number of Native artists who sell their art on a sporadic basis, although there is no Internet or cooperative marketing operating at this time. There is a gift shop in Togiak at the Nangucuilnguq Arts & Crafts Center that markets the work of some Twin Hills artists. Twin Hills has no community store. Most people travel to Togiak or Dillingham to purchase groceries. The community would like to have a local store but past business ventures have been difficult to keep open. One of the issues identified in community meetings is that customers want to purchase goods on credit and then fail to repay their debts. There is also a fly-in store that operates during the summer months, which brings fresh produce and goods to the village for sale.

Additional economic opportunities identified in community meetings include increasing participation in the halibut fishery; finding a feasible way to operate a village-based fish processing plant; increase fuel sales for Twin Hills and Togiak; starting a bottled water plant; offering a taxi service to Togiak; and starting a community store. Village tourism has operated in the past with

fishing lodges bringing clients to Twin Hills for a village tour, and to meet with Native artists. Village tourism could be increased by cooperative ventures with other villages in the region that are also seeking to increase local benefit from tourism. Some of the nearby attractions to Twin Hills include Round Island Walrus Sanctuary, the Togiak National Wildlife Refuge, wildlife viewing opportunities and cultural tourism opportunities such as experiencing a subsistence fish camp. Lodging options have increased recently in Togiak, and the regional marketing efforts may succeed in attracting more “eco-tourists” to the region. If so, Twin Hills should position itself to benefit from this new market.

There are numerous resources available in the Bristol Bay for developing entrepreneurial skills and for small business development. A full listing is found in Appendix B. The UAF/ Bristol Bay (BB) campus provides on-site post-secondary instruction (in Dillingham) and distance learning opportunities in regional villages. BB Campus currently offers an Associate’s Degree in Applied Business – Entrepreneurship, as well as seven other areas of business education. In addition, Bristol Bay Native Association is developing a micro-enterprise revolving loan fund to assist with village-based entrepreneurs seeking to start or develop small businesses. The UAA Small Business Development Center also provides educational and technical assistance to entrepreneurs in the state.

Small business development is an effective way to ensure that dollars circulate within a local economy. The **traded sector** is that portion of the economy, such as commercial fishing and tourism that competes in markets beyond the immediate area. These activities pull money into the local economy and help generate income to support the **non-traded portion** of the economy like general stores, video stores, beauty salons, snow machine repair. A problem encountered over and over again in Alaska communities is that if there are not enough jobs in the traded sector bringing money into a community, jobs do not develop in the non-traded sector. This is one reason why it is so difficult for villages that rely heavily on subsistence to develop non-traded businesses and jobs.

The local business survey completed in July, 2005 demonstrates that governmental and commercial fishing provide most of the current employment in Twin Hills. Talking with residents, however, it is clear that there are other employment opportunities in the community. Both low- and high-skill construction and maintenance jobs often go unfilled. Residents attribute some of this reluctance to take jobs to constraints of job requirements – such as time commitment, low pay, distance to work site from home, family commitment conflicts or hiring requirements. Additionally, some residents feel that youth should be brought up with a strong work ethic, with more emphasis on commitment, education and specific job skills and requirements.

Goals

- 1. Increase the number of jobs and locally-owned businesses.**
- 2. Improve marketing for cultural arts & crafts and locally-beneficial tourism.**
- 3. Identify feasible ways to increase village-based fish processing and marketing.**
- 4. Create job training and skill-building opportunities for youth and adults. Increase residents’ ability and desire to obtain good jobs within the community.**

Goals & Priority Actions

1. Increase the number of jobs and locally-owned businesses.

One economic goal is to increase the number of small businesses in order to meet consumer demand within the local economy, rather than relying on the regional or statewide hub communities. The businesses suggested by residents at planning workshops include:

- Village-based fish processing
- Fuel sales, gas station
- Bottled water
- Taxi service to Togiak
- Community Store – food goods, pop, candy and gum, cigarettes, toilet paper, dog food
- Marine boat repair, small-engine repair
- Timber harvest for firewood, including collecting for firewood and steaming in maqui'i
- Visitor-related and seasonal tourism businesses, such as B&Bs, guiding, eco-tours
 - Cooperate, rather than compete with established businesses, including cooperative marketing, partner with tours to Walrus Island, other local and regional attractions
 - Consider marketing to Europe, other worldwide
 - Focus on eco-tourism
 - Plan adequately for issues of logistics and costs of access

2. Improve marketing for cultural arts & crafts and locally-beneficial tourism.

- Use the Internet and existing artist organizations to sell Twin Hills art and crafts to a wider audience.

The high number of traditional artists in Twin Hills creates strong potential for increased arts and crafts sales and marketing. Already residents market their art in Dillingham. Appendix G contains information about statewide resources for promoting Native arts and crafts and allowing residents to market their work to a broad audience without leaving their home village.



Ivory carvings on display at Twin Hills School

- Support residents interested in starting up tourism-related businesses.

There are also many resources available for tourism development in the state, through the Department of Commerce, Community and Economic Development (DCCED), including loans, grants, resources and technical assistance for small business development and tourism development.

3. Create job training and skill-building opportunities for youth and adults. Increase residents' ability and desire to obtain good jobs within the community.

- Ensure all resident have an education level adequate to apply for most jobs, e.g., at least a high school diploma or GED.
- Mentor youth in job skill areas, e.g., engine repair, teaching, health-related fields, as well as subsistence.
- Find ways to set wages that are high enough to give people incentive to apply
- Increase the number of non-labor jobs, which are more attractive to some people
- Make allowances for subsistence commitments and needs

4. Identify feasible ways to increase village-based fish processing and marketing.

	Name of Business or Organization	Business Type*	Description or Type of Business	# of Full-Time Jobs	# of Part-Time Jobs	# of Months per Year in Operation	Year Established
1	Twin Hills Council Office	G	Water & Sewer, Laundromat, Trash Collection, Grant Writing, Administration	4	11	12	
2	Twin Hills Native Corporation	LB		1		12	
3	Twin Hills School	G		2	5	10	1970-1
4	VPSO	G		1		12	
5	Airport (DOT)	G		1		12	
6	Self-Employed Artists	LB			5		
7	Post Office	G			1	12	
8	Health Clinic	G		1	0	12	1968
9	Air Taxis (PenAir and Grant Air and others)	NLB	Dispatch		2	12	
10	Cannery	NLB				3	
11	Commercial Fishing	LB		4		3	
12	Store	LB?					
TOTALS		see below		14	24	10	

Total = Average # of Months Per Year

Government Agency G = 5
Locally-Owned Business (For Profit) LB = 3
NOT Locally-Owned Business (For Profit) NLB = 2
Non-Profit NP = 0
Other O = 0

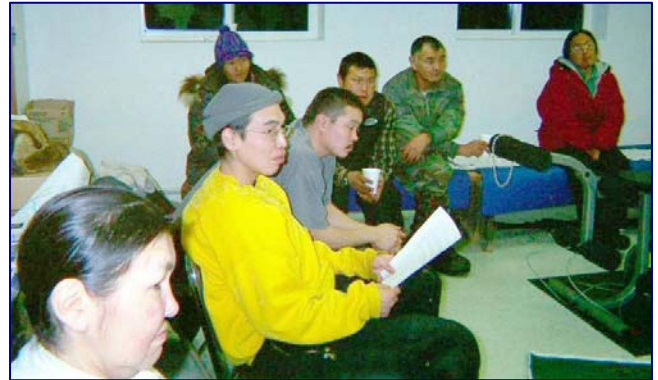
	Name of Business or Organization	# of Employees When Est.		# of New Jobs During Past Two Years		# of Jobs Expected 5 Years from Now		Any Non-Locals Employed?			# of Non-Locals Employed			
		F/T	P/T	F/T	P/T	F/T	P/T	Yes	X	No	F/T	P/T		
1	Twin Hills Council Office													
2	Twin Hills Native Corporation								Yes	X	No			
3	Twin Hills School	1	4	1	1	2	5	X	Yes		No	1		
4	VPSO								Yes		No			
5	Airport (DOT)								Yes	X	No			
6	Self-Employed Artists								Yes	X	No			
7	Post Office								Yes	X	No			
8	Health Clinic					1			Yes	X	No			
9	Air Taxis (PenAir and Grant Air and others)									X				
10	Cannery							X	Yes		No	5		
11	Commercial Fishing							X	Yes		No	10		
12	Store					1	2		Yes	X	No			
TOTALS		1	4	1	1	4	7	3				8	16	0

Leadership

Context

Twin Hills is a very functional community with a strong ability to plan for and achieve community goals. Maintaining the existing communication among entities, and positive relations with Togiak, other nearby villages, the school, funders and regional organizations is important to Twin Hills' future health.

Twin Hills residents sometimes feel that, because they are a smaller community, they are overlooked in terms of funding and services. Residents and local entities will need to continue to advocate for their community in order to obtain services and facilities the community needs.



February 2005 Planning Team meeting

Goals

- 1. Continue to fund community plans and priorities.**
- 2. Maintain good communication with regional, state and federal entities.**
- 3. Create a Community Wellness Team.**
- 4. Bring up youth leaders.**

Goals & Priority Actions

- 1. Continue to fund community plans and priorities.**
 - Maintain a strong grant writer in the village, and adequate Village Council staff. Train others in grant writing and management.
 - Use list of Infrastructure Priorities (page 56-7) and rest of Comprehensive Plan and other plans to prioritize and act on grant applications.
- 2. Maintain good communication with local, regional, state and federal entities.**
 - Continue strong partnership among school, Village Council and community.
 - Use Twin Hills Native Corporation to act on behalf of the community, especially in issues of land use, housing and facility planning, environmental planning and economic development.
 - Maintain good relations with Togiak and nearby communities.
 - Write letters and be in communication with legislators and other decision-makers.

3. Create a Community Wellness Team.

- Use Wellness Team as a forum to discuss current issues facing the community and how to solve them together, using available resources.

4. Bring up youth leaders.

- Encourage youth participation in community-wide decisions.
- Ask youth about their priorities for the community, and issues directly affecting them.
- Participate in youth mentoring, and Elder-youth activities.
- Continue to promote positive service and educational opportunities for youth.

INFRASTRUCTURE SUMMARY

This section lists priority infrastructure projects by category. The following section “Implementation” gives details for the top three priority actions in each category identified in this plan.

Land Use, Housing & Environment

- Conduct site plan and suitability analysis for redevelopment and future development areas in and around main village site.
- Repair, replace older existing housing stock. Construct new homes, including smaller, affordable ones for younger residents.
- Close and clean-up existing landfill. Construct new landfill.
- Address tidal overflow at “stinky pond.”
- Consider feasible alternative energy projects.

Community Wellness, Culture & Education

- Construct new health clinic.
- Construct multi-purpose facility, including gathering area, space for arts and crafts and classes in subsistence and traditional skills and crafts, youth activities, library, Elder activities and senior services.
- Provide suitable housing for itinerant service providers.

Public Services, Facilities & Transportation

- Upgrade main village to three-phase power.
- Upgrade water and sewer system.
- Construct new dock.
- Upgrade trail to Togiak River and areas surrounding village.
- Build bridge across Togiak River.
- Construct road to new landfill site.
- Upgrade beach access and village roads.
- Install street lights around main village area.
- Acquire burn box to reduce waste.
- Increase capacity of tank farm.
- Increase access to Internet.

Economy

- Develop community store or other local general goods supplier.

Priority Projects from Twin Hills Long Range Transportation Plan:

Short-range Transportation Needs (3-5 years)

- Landfill Road, BIA Route 1011, 3.2 miles in length.

Medium-range Transportation Needs (7-12 years)

- Loon Street, BIA Route 1010, 0.1 mile in length;
- Twin Hills Road, BIA Route 1005, 0.5 mile in length;
- Aurora Street, BIA Route 1006, 0.4 mile in length;
- Unnamed Road, BIA Route 1009, 0.1 mile in length;
- Northern Lights Ave., BIA Route 1002, 0.2 mile in length;
- Sharp Street, BIA Route 1003, 0.1 mile in length; and
- Salmon Street, BIA Route 1004, 0.1 mile in length.

Long-range Transportation Needs (15-20 years)

- Beach Road, BIA Route 1013, 4.9 miles in length;
- Unnamed Road, BIA Route 1007, 0.2 mile in length;
- Unnamed Road, BIA Route 1008, 0.3 mile in length;
- Unnamed Trail, BIA Route 1012, 4.3 miles in length; and
- Togiak River Access Trail, BIA Route 1014, 3.5 miles in length.

IMPLEMENTATION

Priority Actions in each Comprehensive Planning category are listed below. It is the community of Manokotak’s intent to implement these actions as soon as possible. Manokotak’s Comprehensive Plan contains more actions than those listed below.

LAND USE, HOUSING & ENVIRONMENT
LAND USE
ACTION: Plan for future growth areas with Village Council and Twin Hills Native Corporation.
ACTION: Identify and map important subsistence areas.
HOUSING
ACTION: Plan for and construct new housing units in main village. Upgrade older housing.
ACTION: Consider applying for an Indian Community Development Block Grant (ICDBG) to repair, demolish and upgrade existing housing.
ENVIRONMENT
ACTION: Clean-up old landfill and construct new one in a location away from future housing area.
ACTION: Mitigate health and safety hazards associated with boggy tidal area near residences (i.e., the “stinky pond”).
ACTION: Find meaningful ways to locally address issues related to climate change.

COMMUNITY WELLNESS, CULTURE & EDUCATION

COMMUNITY WELLNESS

ACTION: Keep population stable, families in Twin Hills, school open and good job opportunities.

ACTION: Create a Village Wellness Team to increase collaboration among service providers, school, entities and community.

CULTURE

ACTION: Teach traditional arts & crafts skills such as beading, skin sewing, basket making, net mending, carving, Yup'ik dance, Yup'ik language, storytelling and sled building.

ACTION: Teach traditional knowledge of terrain, subsistence skills for gathering native food, hunting, fishing, knowledge of plants.

EDUCATION

ACTION: Create a community center that will support early childhood, youth, parent, family, and Elder programs and allow for a breadth of cultural, social and educational opportunities.

ACTION: Increase Internet access.

PUBLIC FACILITIES & TRANSPORTATION

TRANSPORTATION

ACTION: Construct road to new landfill site.

ACTION: Construct new boat dock.

PUBLIC SERVICES & FACILITIES

ACTION: Construct a multi-purpose facility; potential tenants include youth center, senior center, family resource center, community center, office center and itinerant housing.

ACTION: Upgrade water and sewer system.

ACTION: Upgrade electrical power system.

ECONOMIC DEVELOPMENT

JOBS

ACTION: Work with school, Bristol Bay Campus and community to increase residents' level of education and employment opportunities. Increase licensed, skilled and motivated workforce.

BUSINESSES

ACTION: Increase viable economic opportunities to keep families in Twin Hills. Connect residents to low-interest loan sources, help with start-up of new businesses by providing temporary office space and support services. Try to increase number of jobs available through the Village Council, school and other major employers.

ACTION: Encourage entrepreneurship, especially tourism businesses and businesses where arts and crafts can be sold, including through Internet sales.

CAPACITY

ACTION: Use village, regional grant writers and rural development specialists – train more local people to write/administer grants.

LEADERSHIP

ACTION: Mentor youth to become next generation of leaders; consult youth in decisions that affect them and Twin Hills' future.

ACTION: Increase funding for local programs by communicating with state representatives and regional organizations about issues affecting the community and viable solutions.

COMPREHENSIVE PLAN REVISION PROCESS

A comprehensive plan is intended to be a long-range planning document that helps to guide growth and development in the community for about 20 years. For it to be effective, it must be a “living document” that is regularly used to guide decision-making. Residents who participated in the Twin Hills planning process want to see it result in real accomplishments that can be tracked over time.

The revision process for this implementing the priorities identified in this plan and updating the plan will occur at regular intervals. The revision process will always seek input from residents, and all discussions of progress on plan priorities and revisions to the plan will be publicly announced.

Milestones in plan implementation and revisions include:

- A copy of the plan will be brought to each village organization meeting, including joint meetings of the entities, and will be consulted in decision-making on priority projects.
- The planning team can designate measures for gauging progress for each goal statement, for example, “three new village businesses will be started in the next three years”. These measures should be used on an annual basis to assess progress and adjust strategies if needed.
- The Implementation section of this plan will be used to coordinate efforts between village organizations. Each project has a ‘lead organization’ identified. At each meeting, lead organizations will report on status of each priority project. Opportunities for other entities to assist with implementation will be identified during these discussions.
- On an annual basis, the Implementation section of the plan will be updated as projects are completed and new projects arise. This updating will be accomplished at an annual meeting of all village organizations, with input from the full community. The updated Implementation section will be recorded and distributed to all community organizations for use in the coming year.
- On a five-year basis, the Twin Hills Community Comprehensive Plan will be reviewed by the village organizations, with full public involvement, to determine which actions have been accomplished, and which priority actions should be focused on during the following years. Over time, these revisions to the comprehensive plan will help to document the accomplishments made, and the new priorities that surface. Measurements can be taken to evaluate the plan’s success and it’s rate of implementation, such as:
 - Holding a 6-month or annual formal review of the plan goals and priority actions to determine which goals and actions have been accomplished, which are in progress, and which need attention, resources and development,
 - Asking the City and Village Administrators to catalog and circulate how many grants have been applied for and administered as a result of the plan and how many projects or pieces of capital equipment have been acquired,
 - Surveying to determine how many jobs and new businesses have been created since the plan was adopted, and how many people have taken advantage of education and training opportunities,
 - On a semi-monthly basis, checking with service providers and similar organizations (such as the school, a Wellness Team or local youth organization) to see if they are

- implementing steps outlined in the plan, and if they need assistance or support from community members and entities,
- Tracking statistics on education, crime and other social issues to determine if they have improved.
 - After ten or twenty years, and the completion of many of the goals and strategies of the comprehensive plan, village organizations will want to reflect upon the accomplishments of the preceding 20 years and, again, plan for the next 20 years by taking on a public participation process to gain community-wide input on the next Twin Hills Community Comprehensive Plan.

REFERENCES

Twin Hills Long-Range Transportation Plan, Phase II, Prepared by Bristol Environmental & Engineering Services Corporation. Twin Hills Village Council, Bureau of Indian Affairs, Indian Reservation Roads Program. March, 2002.

Community Impacts of Restructuring the Bristol Bay Salmon Fishery. Prepared by Northern Economics, Inc. Bristol Bay Economic Development Corporation. November 5, 2004.

Wild Resource Harvests and Uses by Residents of Manokotak, Togiak, and Twin Hills, 1999/2000. Alaska Department of Fish & Game, Division of Subsistence. April, 2003.

Profiles of Tribal Communities in the Bristol Bay Region. Bristol Bay Native Association. April, 1995.

APPENDICES

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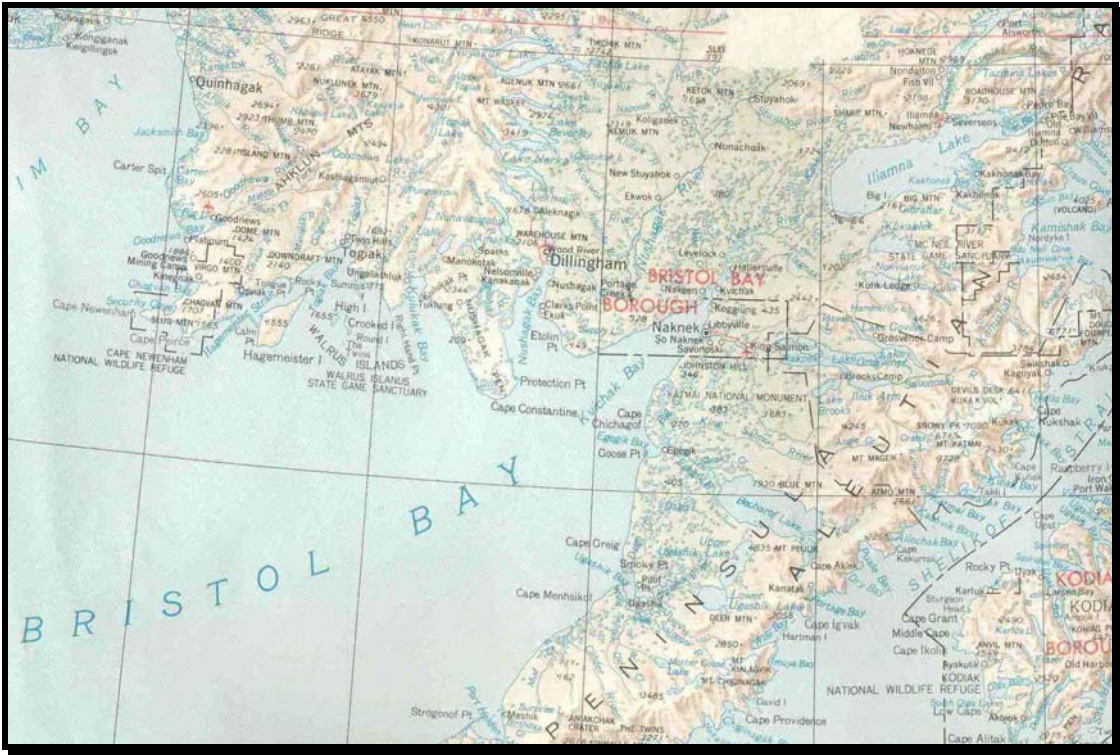
APPENDIX A: THE BRISTOL BAY REGION

The Bristol Bay Region

Bristol Bay is a world unto itself—a stunning landscape of mountains, lakes and rivers. Within the region are five national parks and wildlife refuges, designated wilderness areas, as well as a number of state parks and state wildlife protection areas. Bristol Bay is known for its abundant fish and wildlife, including salmon, bear, moose, caribou, walrus, and whales. Recreational fishing and hunting draw many people to the region in the summer and fall.



Aleut, Alutiq, Athabascan, and Yup'ik cultures are all represented in Bristol Bay. Traditional practices, languages, crafts, languages, and subsistence lifestyles continue to be a strong part of community life. The region also continues to be influenced by Russian culture, and Russian Orthodox churches are present in many communities. Bristol Bay's rivers and streams support the world's largest red salmon run, and the commercial salmon industry has been a dominate influence on local culture and economy.



Appendix A: The Bristol Bay Region

Regional Economic Conditions

For over a century, Bristol Bay and Alaska's wild salmon industry dominated world salmon markets. Beginning in the mid-1990s, reduced runs and competition from farmed salmon have combined to dramatically reduce earnings from the salmon industry. As a result, the entire Bristol Bay economy has experienced severe disruption. In three out of the last five years, the Bristol Bay area has been declared an economic disaster area. In 1997 and 1998, both the state and federal governments declared the area an economic disaster because of failed salmon returns. Then in 2001, the region was declared a State economic disaster because of not only low salmon returns but weak salmon prices. The list below summarizes the current conditions of the regional economy:

- In smaller Bristol Bay villages, there are few cash jobs, and only a handful of year round jobs with a growing demand for cash services (public services, private goods)
- Substantial reliance on government programs (social services, public works)
- Subsistence activities remain strong
- An economy in transition: from resource based (fishing, subsistence), to service based (tourism, government services). Skills needed to succeed in these two sectors are quite different.
- Lack of entrepreneurial models and experiences
- Of the jobs available in the region, relatively few are taken by local residents, due to conflicts with other activities, or lack of training. This is particularly true regarding tourism related jobs.
- With declines in traditional economic sectors, support is growing in the region to explore the area's potential for oil and gas and for mining, as well as to encourage new approaches to commercial fishing and tourism.

Regional Social Conditions

Table 1 provides a comparison between selected Bristol Bay communities and Anchorage and Alaska. Note that in each of the urban communities, the median household income is significantly higher than in Bristol Bay villages. The percentage of people below the poverty line is much higher in the villages. In addition, the percentage of the population under the age of 18 is much higher in the villages than the state as a whole. This demographic has many implications for the range and level of public services.

The list below summarizes characteristics of the region's social setting:

- Close family ties, access to subsistence resources and other dimensions of village life are strong attractions; at the same time, like all of rural Alaska, Bristol Bay communities have high levels substance abuse, suicide, accidental death, and domestic violence.
- The lack of jobs and business opportunities mean a large percentage of young people leave the region to pursue educational opportunities and find a way to support themselves and their families.
- Deep ties to the land and traditional cultural values, but weakening as generations go by.

- “Two worlds problem”—again, like all of rural Alaska—there is frequently a gap between the expectations of villages and those of the world outside. Deep cultural differences, due to a very rapid shift over the last hundred years from traditional subsistence lifestyles to a cash economy, set up divisions between generations within the village, and create challenges for community development.

Regional Resilience

A resilient community has the ability and the resources to adapt to changing circumstances. Resiliency is influenced by the natural environment, attitudes towards change, community cohesiveness, cooperative problem solving, leadership resources, available infrastructure, human resources, and economic structure and diversity.

Despite the challenges, Bristol Bay continues to be home to a resilient culture and the residence of many talented and energetic people who have great affection for their land and who have prospered in this area for generations.

Regional Population

Table 1 lists the Bristol Bay communities with their most recent population estimates, percent of part or all Alaska Native, median household income, percent of adults not working, percent of individuals in poverty, membership in regional organizations, and classification as distressed or non-distressed communities by the Denali Commission.

Dillingham is the largest community with an estimated population in July 2003 of 2,373. Only eight of the Bristol Bay communities have an estimated population of 200 residents or more. Twelve Bristol Bay communities have been classified as “distressed” according to criteria set by the Denali Commission. The percent part or all Alaska Native ranges from a low of 30.1 percent in King Salmon to a high of 96 percent in New Stuyahok. Median household incomes range from a low of \$19,583 in Kokhanok to a high of \$92,297 in Chignik Lagoon. According to Census 2000 the percent of individuals 16 years and older that are working ranges from a high of 73.8 percent in Egegik to a low of 28.4 in Iliamna. Across Alaska as whole, 71.3 percent of individuals 16 years or older participate in the workforce.

Population estimates for June 30, 2003 show that the population of the region is centered in the community of Dillingham, which has an estimated population of 2,373 (DCED 2004). As of June 30, 2003, the Dillingham Census Area has an estimated population of 4,912, the Bristol Bay Borough estimated population was 1,105, and Lake and Peninsula Borough’s population was estimated to be 1,628. Net migration is the net effect of in-migration and out-migration on an area’s population in a given time period, expressed as an increase or decrease. All three areas lost population in terms of net migration between April 1, 2000 and June 30, 2003. The Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough lost 184, 205, and 213 residents, respectively.

Regional Income

Decrease in Personal per Capita Income

Per capita personal income is a measure of economic well-being. The amount of goods and services that people can afford is directly related to their personal income. At one time Bristol Bay Borough's personal per capita income was more than twice as high as the U.S. personal per capita income. However, the gap between the Bristol Bay Borough and the U.S. has closed. Furthermore, the Dillingham Census Area and the Lake and Peninsula Borough have not been able to keep pace with either the U.S. or Alaska.

In 2002, the per capita person income (PCPI) for Alaska was \$32,899 (Figure 1). Alaska ranked 12th in the U.S. and was 106 percent of the PCPI national average. This compared to the Bristol Bay Borough which had a PCPI of \$39,474, ranked second in the State. This PCI was 128 percent of the national average. This compared to the Dillingham Census area which had a 2002 per capita personal income of \$27,323 placing it 17th in the state. Dillingham's Census Area's PCPI was 88 percent of the national average of \$30,906 and reflected an increase of 1.2 percent over 2001.

In contrast, in 2002 in the Lake and Penn Borough in 2002, the PCPI was \$21,783 which ranks Lake and Peninsula Borough as 25th of the 27 boroughs or census areas in Alaska. The PCPI was 70 percent of the national average and 66 percent of the state average. The 2002 PCPI reflected an increase of 2.9 percent over 2001.

Components of Personal Income

Personal income has three components: earnings; dividends, interest and rent; and transfer payments. Earnings as a component of total personal income for the State of Alaska accounted for 68.2 percent of total personal income (Table 3). In 2002 in Bristol Bay Borough, earnings

accounted for 66.4 percent of total income. In 1992, earnings in Bristol Bay Borough accounted for 81.8 percent of total earnings. Earnings in 2002 in Dillingham Census Area accounted for 69.0 of total personal earnings, while in Lake and Peninsula Borough, they accounted for only 58.3 percent. In 1992, earnings accounted for 71.8 percent.

Transfer payments are income payments by government and businesses to individuals and nonprofit institutions for which no current services are performed. Transfer payments include retirement and disability insurance benefit payments, medical benefit such as Medicare and Medicaid, income maintenance benefits, unemployment insurance benefit payments, veterans benefit payments, and federal education and training benefits. Transfer payments in 2002 accounted for approximately 16 percent of total personal income for the State of Alaska. In contrast to the state, transfer payments accounted for a greater percentage of per capita personal income for the Bristol Bay region (Bristol Bay Borough: 16.9 percent; Dillingham Census Area: 20.2 percent; Lake and Peninsula Borough: 27.8 percent).

Regional Subsistence and the Village Economy

In addition to its cultural significance, subsistence is the foundation of many village economies, because there are few opportunities in some villages to earn cash. Subsistence offsets the high cost of living in villages within the Bristol Bay region. One of the paradoxes of subsistence is

that today cash is needed to engage in a subsistence lifestyle. According to a 1999 report by the National Resource Council (NRC) on CDQ communities, a household income of at least \$20,000 to \$25,000 per year is needed to engage in subsistence.

The NRC report points out that the subsistence economy today runs on snow machines, motorized aluminum fishing vessels, four wheel all terrain vehicles, manufactured fishing and hunting gear, fossil fuels, camping equipment, imported cold weather clothing, and even airplanes. According to the NRC, integration of cultural traditions with modern technologies and goods is taking place in some Western Alaska communities. Changes in lifestyle including settlement patterns in the villages, improved safety, and health, the availability of technology, and the desire for other market goods that reduce the time available for subsistence activities have contributed to the increasing importance of cash for participating in subsistence lifestyle.

In order to maintain a subsistence lifestyle, numerous activities and sources of income are combined: commercial fishing and hunting, making of crafts, dividends from Native corporations and the Alaska Permanent Fund, participation in the National Guard, state construction projects, loans from government agencies and fiscal institutions, firefighting, and transfer payments from Aid to Families with Dependent Children. In many Alaska communities the Alaska Permanent Dividend Fund is the most dominant and fastest growing transfer payment. In some villages, the Permanent Fund can exceed 20 percent of the total income from all sources. However, transfer payments like the Permanent Fund or the longevity bonus are the result of public policies which can change significantly almost over night.

The goal of an economic development strategy is to bring outside dollars into a community and then to keep those dollars circulating from one person to the next, as long as possible within the community. In Village Alaska dollars move out at almost the same rate they move in. For example, many individuals in rural Alaska have no choice but to spend their Permanent Dividend checks in hub communities like Dillingham or in Anchorage. While this may be good for Dillingham and Anchorage, it is not good for the local community.

Subsistence is an important economic activity for many households. However while subsistence may provide economic benefits, the cost of living (particularly fuel and energy costs) is still a major concern in Bristol Bay communities threatening the sustainability of communities that do not have a strong cash economy. One reason that utility costs in villages are so high is because fixed maintenance and operating costs are divided among a small group of people.

As a local economy grows and becomes more developed, there may be more opportunities to produce goods and services locally. According to the EDA, economies have two major sectors:

The **traded sector**, which is that portion of the economy such as commercial fishing and processing that competes in markets beyond the immediate area. These activities pull money into the local economy and help generate income to support the **non-traded** portion of the economy like general stores, video stores, beauty salons, snow machine repair. A problem encountered over and over again in Alaska communities is that if there are not enough jobs in the traded sector bringing money into a community, jobs do not develop in the non-traded sector. This is one reason why it is so difficult for villages that rely heavily on subsistence to develop non-traded businesses and jobs.

In a study conducted by Northern Economics, Inc. evaluating the socioeconomic impacts of the CDQ program it was found that while the number of jobs may be considered a measure of

“success” of economic progress, the goal of many communities in Western Alaska may include the desire to maintain subsistence activities.

Regional Employment

Employment data are usually considered an important component of a regional or community profile and economic development planning. Employment data can provide the foundation of the economic analysis of your community or region. A community’s economic activity and well-being is often a function of the number and types of jobs available.

Change in the number of jobs over time is often considered a key measure of economic performance. In Alaska communities the type and availability of subsistence is also a foundation to the local economy. In many Alaska communities, however, it is not just the number and type of jobs available that is important, but also whether or not these jobs can be shared by more than one individual and whether or not the job is structured so that workers can participate in subsistence activities.

Table 4. Personal Income for Alaska, Bristol Bay Borough, Dillingham Census Area, and Lake and Peninsula Borough, 1999

Place	Per Capita Personal Income		Total Personal Income		Components of Total Personal Income		
	(\$)	Rank	(\$1,000s)	Rank	Dividends, Earnings (%)	Interest, and Rent (%)	Transfer Payments (%)
Alaska	32,799	12	21,040,260	47	68.2	15.8	16.0
Bristol Bay	39,474	2	45,040	25	66.4	16.7	16.9
Dillingham CA	27,323	17	136042	17	69.0	10.9	20.2
Lake and Peninsula	21,783	25	34,569	26	58.3	13.9	27.8

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

Source: Values calculated by Northern Economics, Inc.

Regional Challenges

Geographically Isolated

The communities of Bristol Bay are geographically isolated. Few roads connect the major communities within the Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough. Except for roads between Dillingham and Aleknagik, King Salmon and Naknek, and a bridge and road upgrade between Nondalton, Iliamna, and Newhalen, there are no other roads connecting the communities. The small size and remoteness of most Bristol Bay villages increases the cost of living and limits opportunities for market activity.

Transportation

Transportation is provided via Anchorage by frequent small commuter aircraft flights and jet flights to Dillingham and King Salmon. Travel between the communities is similarly provided by small commuter aircraft, floatplanes, snowmachine or by boat. The primary shipping method is tug and barge or small transfer vessels. Shipping is concentrated in small port facilities at Naknek and Dillingham, and the shipping season lasts about 120 days.

Federal and State Disaster Area

The Bristol Bay salmon fishery is the world's largest wild salmon fishery, and historically it has been one of the most lucrative in terms of harvest and product value. However, in 1997 and 1998, expected runs failed to appear and, in spite of diminished supply, prices paid to harvesters fell to new lows when adjusted for inflation. Federal disaster relief funds were provided to the region in both 1997 and 1998 as ex-vessel revenues fell to less than a third of the average over the previous five years.

The severity of the Bristol Bay salmon crisis is demonstrated clearly by the decline in ex-vessel value from 1978 through 2002. Figure 4 shows that the inflation adjusted ex-vessel value has fallen from the 1980's trends of over \$200 million to less than \$25 million in 2002.¹

In more recent years, harvests and revenues have improved somewhat, but prices remain at historic low levels and the prospects for improved prices, due to huge increases in farmed salmon production, are slim. Lack of economic growth, out-migration, and the decline of traditional fishing related resource employment resulted in hardships for many families in Bristol Bay communities. Remote rural communities are in a constant state of flux. Political and programmatic boundaries seldom coincide with economic boundaries. Workers, businesses, and consumers readily move across jurisdictions taking their economic impacts with them. This situation is particularly true of the Bristol Bay area where economic conditions and forces move resident and non-resident workers across political boundaries.

Decline in Local Tax Revenues

As shown in Figure 4, the landed ex-vessel value of landings has declined almost 90 percent. Since some boroughs earn approximately 3 percent of ex-vessel value in fish taxes, community revenues have similarly fallen. In Bristol Bay Borough, for example, budget reserves earned from fish taxes have fallen from \$27 million in 1998 to just \$3 million in 2001 (pers. comm., George

¹ Huskey, L., and Morehouse, T.A. Development in remote regions:What do we know? Arctic, 1992, 42, 2, 128-137;p.134.

Castenada). If this trend continues, community governments in the Bristol Bay Region may face bankruptcy in the coming years. In a Northern Economics study of the salmon disasters in 1997 and 1998, borough managers reported significant impacts related to or caused by the declines in local revenues, including declines in programs and in basic services such as public safety, emergency medical services, roads, and docks supported by the boroughs. In addition, business owners reported that demand for goods has decreased, and the viability and competitiveness of small local businesses is in question.

In addition to borough fish taxes, some Bristol Bay communities such as Chignik Bay, Pilot Point, and Egegik have a city raw fish or salmon and other seafood landing tax. Tribal governments have a somewhat more guaranteed funding stream from the United States Bureau of Indian Affairs. As local tax revenues decline, tribal entities become more important as governing entities and service providers. The role of tribal entities in local economic development is vital.

High Cost of Fuel and Energy

Local economies in rural Alaska have also been hard hit by the rising costs of fuel and electricity, and by the State of Alaska budget shortfall. All of these factors affect the health and well-being and economic survival of rural Alaska communities and residents.

Regional Opportunities

Elements of Change

In Fall 2003, Bristol Bay sponsored a planning summit focused on “Managing Change.” The purpose of the collaborative planning summit was to include Bristol Bay communities in a discussion of economic forces in the region and to anticipate the benefits and impacts of regional change so communities could adapt to these changes. Several economic development opportunities in the Bristol Bay region were identified:

- Changes in the fishing economy and potential of restructuring of the Bristol Bay fishery
- Proposed development of on/offshore oil and gas
- Copper and hard rock mining
- Infrastructure development
- Sport fishing, hunting, tourism, and eco-tourism

In order for residents to respond to these changes, the summit emphasized the need for regional and local economic development plans. These plans need to address the following diversification strategies:

- Create more competitive businesses
- Diversify the economic base with local businesses that create new wealth or retain wealth in the community
- Provide work force retraining/relocation assistance
- Promote lower-cost energy

- Promote affordable, sustainable infrastructure.

Workforce Education and Training

Workforce education and training is one of the foundations of both regional and local economic development. It may be important to include a project related to workforce training in a community and economic development action plan. In light of the Bristol Bay region's distressed fishing economy, a growing number of local fishermen want to be trained for alternatives jobs. In 2001, a job training survey of Western Alaska fishers was conducted by the DCED as part of an EDA grant. The survey serves as the basis for planning and developing job training programs. There was an unexpectedly high level of interest in job training, and many respondents indicated interest in new kinds of employment, to replace or supplement current employment in commercial fishing.

The most popular training choices were construction work and mechanics. These were followed by training in computers, electrical skills, transportation, building maintenance, office administration, metal work, and accounting. Job training opportunities for displaced fishers and other residents are available through the Bristol Bay Campus of the College of Rural Alaska/University of Alaska Fairbanks.

The Bristol Bay Campus partners with the new Southwest Alaska Vocational/Technical Education Center (SAVEC) in King Salmon. This training facility, which was renovated by the Bristol Bay Housing Authority in 1998-2001, provides class offerings ranging from building construction trades to information technology. SAVEC is expected to play a major role in training area villagers for jobs in mining exploration, according to the BBNA CEDS (2004).

Restructuring of Bristol Bay Fishery

Over the last decade, a fundamental shift has occurred in the economics of the Bristol Bay salmon fishery. It no longer appears that prices paid to harvesters move up or down with changes in quantity fished to the same degree as in prior years. If the salmon industry undergoes significant changes, then it is inevitable that associated communities will also experience significant changes. If for example, the number of active participants in the salmon fishery decreases from 50 percent of the adult population of a community to 10 percent and no other jobs fill the void, then there is a significant likelihood that population will decrease as unemployed fishers leave to search out gainful employment elsewhere.

The decline in population will be felt not only as fishers leave, but will be magnified as underemployed workers in service sectors and government sectors also leave the community. These long run impacts are likely to be manifested over a period of several years and can result in dramatic changes in the continued viability of the community, particularly for those communities in more remote areas.

Alaska Natives in the region possess a wealth of knowledge and skills as fish harvesters. These traditional skills in the subsistence economy, however, may not provide the financial resources and entrepreneurship to compete on an equal footing with participants whose experience is in market based economies. An organization such as Alaska Growth Capital, a community development finance institution, can help provide access to capital for local participation in a market-based economy.

In the years to come, Alaska salmon fisheries, especially Bristol Bay fisheries, face their greatest challenge—to remain viable in a global marketplace dominated by low-cost farmed fish. The prolific increases on world markets of farmed salmon from Norway, Chile, and Canada have been well-documented, as has the downward trend in salmon prices resulting from the increase in supply.

As shown in Figure 5, when quantities fell in the mid-1980s, ex-vessel prices paid to harvesters jumped significantly. When big production increases occurred in 1989 through 1996, prices dropped to low levels. However, in 1997 when production plummeted, prices barely moved. While prices jumped in 1998, the increase was relatively small. The production decrease in 2000 and 2001 were accompanied by even lower prices. After adjusting for inflation, ex-vessel prices for Bristol Bay sockeye salmon have declined from a peak in 1989 of \$2.55/pound to just \$0.41 in 2001.

In the last year or two, the market has shown some renewed interest in wild salmon. However, there is no guarantee that this interest will extend to all Bristol Bay products or producers. Early reports indicate that the base price in 2004 is \$0.40, with bonuses being paid for iced fish. The fishery still faces extraordinary challenges on the most basic levels.

These impacts add to concerns expressed by local fishers that the structure of the fishery (based on regulations and recent values) favors newer and more modern vessels, and therefore non-residents with greater access to capital. Further, most processing jobs associated with the short, intense sockeye season are of little benefit to the local economy. Currently most of the processing labor used in the regional fishery is done by non-Alaska residents who are provided transportation to and from the processing facility as well as room and board at the plant. When local residents do choose to work at processing facilities, they most often live and eat away from the plant. In general, the overall compensation package for residents is not enough to attract them into the processing work force—they believe they are better off free to participate in subsistence and other activities than working long hours for relatively low wages at the plant.

An additional structural challenge facing the Bristol Bay salmon fishery is Alaska's salmon allocation system, which has promoted "a race for fish." The system forces the fishing fleet into shorter seasons that target only the most profitable and highest volume species. Under this system, the successful commercial fishers and fish processors have tended to be those with the greatest financial resources, whose traditions and histories are based on market economies rather than subsistence economies.

While limited-access programs did limit the number of vessels and set nets that could participate in the salmon fisheries, more licenses have been issued than are actually necessary to harvest the available fish, even in years of abundance. Therefore, while the number of participants is limited, the race still exists, the field is still too crowded to provide all participants adequate incomes, and the winners remain those with the fastest and best vessels and equipment.

As with commercial fish harvesting, the fish processing industry requires a great deal of capital. The processor that is able to purchase and process the most fish during the short seasons is likely to generate the greatest profit. In order to process greater shares of the harvest, processors developed multiple processing facilities and use large vessels (tenders) to purchase fish on the grounds and bring them to their plants. If all other factors are equal, the processor with greater access to capital will generally be able to secure a larger portion of the processing market.

Exacerbating these conditions is the high cost of production at fish processing facilities in the Bristol Bay region, which leads many facilities to minimize the processing steps they undertake in the primary production process, and which contributes to decisions to forego processing of lower value species. Production costs in the region are relatively high compared with the production costs in Southcentral and Southeast Alaska and in the Lower 48 states. The higher production costs are caused primarily by the high cost of energy in the region and the high cost of transporting final products and production inputs, such as labor and packaging materials.

The relatively high production costs, reliance on outside labor and capital, local dependence on fishery revenue, declining projected future run size, and an expanding world supply of farmed salmon seriously threaten the continued economic viability of the Bristol Bay salmon fishery under present management structures.

Proposed Development of On/Offshore Oil and Gas

As a result of the downturn in the fishing industry, some organizations in the Bristol Bay region are supporting opening the area to oil and gas development. No wells have been drilled in the Bristol Bay area since the mid-1980s, and no oil or gas has been produced there. However, in 1995, the U.S. Geological Survey estimated that the Alaska Peninsula had a 1-in-20 chance of containing 447 million barrels of oil and 1.4 trillion cubic feet of gas.² Legislation was passed by the Alaska State Legislature so the State can offer Bristol Bay oil and gas leases in October 2005. According to the preliminary findings, the State of Alaska is offering an exploration license within the Bristol Bay basin for approximately 737,000 acres made up of both state-owned and Native-owned lands. The State is proposing to amend the September 1996 decision that closed “all submerged land” in and around Bristol Bay, from Ugashik Bay north to the western boundary of Kulukak Bay. The decision would be amended to allow exploration licensing within Nushagak Bay, but with the stipulation that exploratory drilling can only be carried out directionally from onshore locations.

Exploration licenses have a term of 10 years and can range from 10,000 to 500,000 acres.

Pebble Copper

Large scale mining can have significant economic, social and environmental impacts at the regional and local level, according to case studies by the World Bank. At a local level, a mine has the potential to benefit the local population through creating direct and indirect employment, skills transfer, enhancing the capacity of health and education services, improved infrastructure, and small and medium business opportunities. In January 2004, Northern Dynasty Minerals Ltd. announced that the Pebble gold-copper minerals deposit near Lake Illiamna has estimated gold resources of 26.5 million ounces and an estimated copper resource of 16.5 billion pounds.³ Northern Dynasty has a 100 percent interest in the Pebble resource lands.⁴ These new estimates make Pebble the largest gold resource in North American and the second largest copper deposit.

It is estimated that the project will require 1,200 to 2,000 workers during construction and 600 to 1,000 in production. Although the project is on state lands, BBNC owns mineral lands near the upcoming development site. Past exploration work by Tech Cominco and Northern Dynasty

² Cathy Brown. March 17, 2004. “Bristol Bay Oil, Gas Leasing Measure Clears Legislature.” Juneau Empire.

³ Bradner, Tim. “Pebble Now State’s Biggest Gold Mine.” Alaska Journal of Commerce. February 2, 2004.

⁴ Liles, Patricia. “Mining News: Activity Kicks Up Another Notch at Pebble.” Petroleum News. May 9, 2004.

has sparked a claim staking rush in the area. According to Petroleum News, geologists believe that Pebble is just one resource in a much larger porphyry system. As a result, over 500 square miles of land has been staked in the area around the Pebble resource.⁵ The community of Iliamna is located about 15 miles south of the project. Iliamna has an airport with two paved runways, 4,800-foot and 5,080-foot.

The State of Alaska Department of Transportation and Public Facilities (DOT&DP) has a contract with Peratrovich, Nottingham and Drage (PN&D), an Anchorage engineering consulting firm, to survey possible road routes and port sites for a potential road from the Pebble deposit to Cook Inlet. PN&D is also taking into account the potential energy needs of the mine in its transportation analysis which could require between 100 megawatts and 150 megawatts of power.

The ore will either be trucked to the port or transported through a slurry pipeline. According to an article in Canadian Mining News, Northern Dynasty has committed \$15 to \$20 million this year for the collection of engineering and environmental data for completion of a Bankable Feasibility Study as well as submission of a federal Environmental Impact Study.⁶

Infrastructure Development

One of the pillars of economic development is improvements to infrastructure. Infrastructure includes transportation improvements—road construction, trails, port and harbor development, boat storage and dock facilities, airport improvements—sewer and water system upgrades, and power system improvements.

Infrastructure development projects present opportunities for regional collaboration on funding strategies and local employment opportunities. Villages can contract to do their own new road construction and train and use their own residents for operation and maintenance of village utilities.

In a July 2004 inventory of community development priorities for Bristol Bay communities, completed by Bristol Bay Native Association, airport and road upgrades and construction ranked highest in the transportation category. Airport projects called for new runway or upgrade and/or resurfacing of existing runways, construction of crosswind runways, and/or relighting existing runways. Some villages reported new road construction and upgrades to existing roads.

Port and harbor improvements ranked second with projects ranging from new dock construction, existing harbor dredging and seaplane dock construction. Heavy equipment purchase needs included snow removal equipment, cats, graders, and fuel trucks. Water and sewer projects are the most common type of community utility projects, with 18 of 31 villages currently planning some form of water or sewer initiative. Water and sewer project needs included redeveloping existing wells, installation of water and sewer service lines, water treatment improvements, lagoon containment improvements and expansion, water source studies, evaluation and testing of existing resource, and sanitation feasibility studies. Power generation is also a priority including alternative energy production.

⁵ Ibid

⁶ Bradner, Tim. "Massive Mine Gains Momentum." Canadian Mining News, April 13, 2004.

Sport Fishing, Hunting, Tourism and Eco-tourism

Tourism offers Bristol Bay a growing avenue for economic development. The region has abundant tourism resources, spectacular landscapes, a fascinating and complex history, three distinct Native cultural traditions, volcanoes, unspoiled wilderness, and a diverse set of State and National Parks and Refuges. In addition to 7,500 residents, Bristol Bay is home to abundant wildlife—225,000,000 salmon, 25,000 walrus and 10,000 brown bears plus fresh water seals, beluga whales, ospreys, eagles and many other species.

The challenge for Bristol Bay has been the fact that few local residents and local communities have been the beneficiaries of tourism growth. This is beginning to change. Village corporations have begun to lease land for fishing and hunting camps and lodges. In villages like Togiak, the community is working with a local lodge to offer village tours, which has increased craft sales. Several enterprising individuals have begun tourism businesses, including B&B's, a flight service, and a Dillingham-based saltwater sport fishing charter service. The Nushagak cooperative river management program, carried out by the Nushagak river villages, is a great success, creating local jobs, revenue to the corporations and helping to reduce conflicts between sport fishing, subsistence, and local life.

Several exciting new initiatives are now underway to continue the expansion of local benefits from tourism. One is a plan for better cooperative marketing and tours. If villages and village tourism businesses cooperate in packaging and marketing their products, the regional tourist market expands and provides additional jobs and income. Bristol Bay Native Corporation is helping with this tourism initiative, working through the Bristol Bay Visitors Council (BBVC). Partners include BBVC members such as Bristol Bay Native Association, as well as two local Chambers of Commerce, villages, tourism businesses and the Nushagak-Mulchatna Land Trust. Outcomes include a “branding program” to promote tourism as well as local arts and crafts and commercial fish, and plans to develop tour packages linked to local, village based and businesses.

Another set of ongoing tourism-based projects are two cultural and visitor centers. One is planned in Dillingham. This project—to be called the Harvey Samuelson Community Center—is being developed in partnership with the Choggiung Corporation, the Curyung Tribe, the City of Dillingham, and the Boys and Girls Club. It will include a visitor information center, the Sam Fox museum, an arts and crafts store, community meeting space, and in a separate wing, a youth center. The facility will serve as both a destination and a gateway to activities in surrounding villages, and will give visitors new reasons to spend time and money in Bristol Bay.

The second facility, at the Iliamna airport, is being developed by the Nilavena Tribal Consortium in partnership with the National Park Service and BBVC. This 2,500 square-foot facility will include space for visitor information, cultural and natural history displays, and distance learning center and community meeting space. According to ADF&G figures, the Mulchatna River and Lower Talarik Creek support more than 3,000 and 1,000 angler days per year. Many of these days are high-value days associated with non-resident tourism. The Mulchatna caribou herd is renowned for its productivity and the number of “trophy” class animals. Hunting pressure has nearly tripled in the past decade from 1,400 hunters annually to more than 4,000 hunters annually in some years.

■ APPENDIX B: BUSINESS FUNDING & TECHNICAL ASSISTANCE RESOURCES

TECHNICAL ASSISTANCE						
ORGANIZATION	SERVICE	CONTACT	ADDRESS	TELEPHONE	FAX	E-MAIL
Alaska Minority Business Development Center www.tananachiefs.org	Business counseling. Nominal hourly fee based on sliding scale.	Lloyd Allen, Program Director Tana Chiefs Conference, Inc.	122 First Avenue Suite 600 Fairbanks, AK 99701-4897	907-452-8251 ext. 3277 OR 800-478-6822 ext. 3277	907-459-3957	lallen@tanachiefs.org
Alaska Rural Development Council http://ardc.alaska.edu	Technical assistance in working with regulatory agencies; Community Forums	Chuck Akers, Executive Director	UAA 3211 Providence Drive, ADM #279 Anchorage, AK 99508	907-786-4660	907-786-4662	ancja@uaa.alaska.edu
Alaska Small Business Development Center (Statewide Office)	Business counseling, Business training seminars, Library Resources	Bill Bear, Rural Director <i>Rural Outreach</i>	430 W. 7 th Avenue Suite 110 Anchorage, AK 99501	907-274-7232 OR 800-478-7232	907-274-9524	anwsbl@uaa.alaska.edu
Alaska Village Initiatives www.akvillage.com		Thomas Harris, President CEO	1577 C Street, Suite 304 Anchorage, AK 99501	907-274-5400 OR 800-478-2332	907-263-9971	avi@akvillage.com
Anchorage Convention and Visitors Bureau www.anchorage.net			524 W. 4th Avenue Anchorage, Alaska 99501	907-276-4118	907-278-5559	info@anchorage.net
Bureau of Indian Affairs - Indian Reservation Roads Program www.doi.gov/bureau-indian-affairs.html		Art High	P.O. Box 25520 Juneau, AK 99802	907-586-7386	907-586-7357	
Bristol Bay Economic Development Corporation (BBEDC)			PO Box 1464 Dillingham, Alaska 99576	907-842 4370 or 800-478 4370	907-842 4336	

ORGANIZATION	SERVICE	CONTACT	ADDRESS	TELEPHONE	FAX	E-MAIL
First Alaskans Institute www.firstalaskans.org	Capacity-building of Alaska Native peoples and their communities; policy and leadership development; education	Jason Metrokin	606 E Street, Suite 200 Anchorage, Alaska 99501	907-677-1700	907-677-1780	info@firstalaskans.org
Natural Resource Conservation and Development Service www.ak.nrcs.usda.gov	Assistance with conservation, development and use of natural resources.	Shirley Gammon, State Conservationist	U.S. Department of Agriculture 800 W. Evergreen, Suite 100 Palmer, AK 99645	907-761-7780	907-761-7790	shirley.gammon@ak.usda.gov
Southwest Alaska Municipal Conference		Wanetta Ayers, Executive Director	3300 Arctic Blvd., Ste. 203, Anchorage, AK 99503	907-562-7380	907-562-0438	
US Small Business Administration www.sba.gov/ak/medak.html		Susan Roggenkamp, Assistant District Director	222 W. 8th Ave., Suite 67 Anchorage, AK 99513-7559	1-800-U-ASK-SBA OR 907-271-4536 OR 800-755-7034	202-481-5711	susan.roggenkamp@sba.gov

FUNDING SOURCES						
ORGANIZATION	SERVICE	CONTACT	ADDRESS	TELEPHONE	FAX	E-MAIL
Administration for Native Americans Grants www.anaalaska.org	Federal Agency: provides financial assistance to tribes and ANCSA communities for projects which will provide jobs, promote economic well-being, self-sufficiency and community health.	P.J. Bell, ANA Project Manager	Native American Management Services, Inc. Administration for Native Americans, Region III 11723 Old Glenn Hwy., Suite 201 Eagle River, AK 99577	907-694-5711 or Toll Free: 877-770- 6230	907-694-5775	director@anaalaska.org
Alaska Department of Commerce Community & Economic Development (DCCED)						
DCCED Municipal & Regional Assistance Division (MRAD)		Ralph Andrew, Local Government Specialist	Dillingham Office PO Box 790 / Dillingham, AK 99576	907-842-5135	907-842 5140	
DCCED Div. of Community & Business Development Office of Tourism www.dced.state.ak.us/tourism/		Caryl McConkie, Development Specialist	P.O. Box 110809 Juneau, AK 99811	907-465-2012	907-465-3767	caryl_mcconkie@dced.state.ak.us
DCCED Div. of Community & Business Development Development Section		Ruth St. Amour, Development Specialist II	550 W. 7th Ave., Suite 1790 / Anchorage, AK 99501	907-269-4527	907-269-4539	Ruth_St.Amour@commerce.state.ak.us
DCCED: <i>Loan Assumption Programs</i> Assists purchasers in the assumption of a loan of various types, including small businesses.						
DCCED: <i>Rural Development Initiative Fund Loan Program</i> Small business loans to expand employment opportunities in rural Alaska. Anchorage T: 907-269-8150 Fax: 907-269-8147 Juneau T: 907-465-2510 Fax: 907-465-2103 E-mail: investments@dced.state.ak.us						

ORGANIZATION	SERVICE	CONTACT	ADDRESS	TELEPHONE	FAX	E-MAIL
<p>DCCED: <i>Small Business Development</i>. A guide intended to help make your business a success. http://www.commerce.state.ak.us/dca/smallbus/home.htm</p>						
<p>DCCED: <i>Developing Alaska Rural Tourism</i>. Assists Alaska's rural regions in the development of the local visitor industry. http://www.commerce.state.ak.us/oed/dart/home.htm</p>						
<p>DCCED <i>Small Business Economic Development Southeast Alaska Revolving Loan Fund</i> http://www.dced.state.ak.us/dca/edrg/EDRG_BrowsePage_Template.cfm?ProgramName=Southeast+Alaska+Revolving+Loan+Fund http://www.jedc.org/rlf.htm</p>	<p>Makes direct loans to new and expanding business that cannot qualify for traditional bank financing</p>	<p>Margaret O'Neal, Director</p>	<p>Juneau Economic Development Council; 612 West Willoughby Avenue, Suite A Juneau, AK 99801</p>	<p>907-463-3662 888-393-3662</p>	<p>907-463-3929</p>	<p>moneal@jedc.org</p>
<p>DCCED <i>Mini-grant Assistance Program</i> www.dced.state.ak.us/cbd/grt/blockgrants.htm</p>	<p>Economic and/or comm. development projects, including projects using natural resources.</p>	<p>Jo Grove, Program Coordinator</p>	<p>Div. of Community & Business Dev. 209 Forty Mile Ave. Fairbanks, AK 99701-3100</p>	<p>907-452-4468</p>	<p>907-451-7251</p>	<p>Jo_Grove@dced.state.ak.us</p>
<p>Alaska Growth Capital</p>	<p>Provides alternative financing to Alaska businesses</p>	<p>Jason Evans, VP Lending</p>	<p>2121 Abbott Road, Suite 101 Anchorage, AK 99507</p>	<p>907-349-4904</p>	<p>907-349-4924</p>	<p>jevans@alaskagrowth.com</p>
<p>Alaska InvestNet www.alaskainvestnet.org</p>	<p>Confidential service which matches investors and entrepreneurs</p>	<p>Deborah Marshall, Director</p>	<p>612 W. Willoughby Ave., Suite A Juneau, AK 99801-1732</p>	<p>907-463-3662 OR 888 393-3662</p>	<p>907-463-3929</p>	<p>dmarshall@jedc.org</p>

ORGANIZATION	SERVICE	CONTACT	ADDRESS	TELEPHONE	FAX	E-MAIL
The Denali Commission www.denali.gov	Provides critical utilities, infrastructure, and economic support throughout Alaska		510 L. Street Anchorage, AK 99501	907-271-1414	907-271-1415	
First Nations Development Institute www.firstnations.org	Provides economic development training, technical assistance loans and grants to tribes and ANCSA communities	Jeff Jeffers, Director of Grant Making	11917 Main Street Fredericksburg, VA 22408	540-371-5615	540-371-3505	jjeffers@firstnations.org
Rasmuson Foundation www.rasmuson.org	Invests in well-managed Alaskan-based organizations that provide a unique public service	Rosie Ricketts	301 West Northern Lights Blvd. Suite 400 Anchorage, AK 99503	907-297-2700	907-297-2770	rricketts@rasmuson.org
United States Department of Agriculture (USDA) www.rurdev.usda.gov	(see below)	Dean Stewart - USDA Rural Development	800 W. Evergreen, Suite 201 Palmer, AK 99645	907-761-7722	907-761-7793	dstewart@rdmail.rural.usda.gov
<i>USDA: Rural Business Enterprise Grants</i> Finance and facilitate development of small and emerging private business enterprises in rural areas.						
<i>USDA: Rural Business Opportunity Grants</i> Assist with costs of providing economic planning for rural communities, technical assistance for rural businesses, or training for rural entrepreneurs or economic development officials.						
<i>USDA: Value-Added Agricultural Product Market Development Grants (VADG)</i> http://www.reeusda.gov/smallfarm Funds feasibility studies, business plans and capital start-up for 'Value-added' businesses that add 'value' to food products by, for example, drying, canning, juicing, combining ingredients, handcrafting, and unique packaging and marketing techniques).						
Wells Fargo Bank www.wellsfargo.com	Provides small-business loans	"Native Peoples" group focuses on programs for the state's indigenous people.	512 Seward Street Dillingham, AK 99576	907 842-5284	907 842-2450	

APPENDIX C: BUSINESS FEASIBILITY FILTER & BUSINESS PLAN BASICS

Business Feasibility Filter

Evaluation Criteria	BOTTLED WATER PLANT	COMMUNITY STORE	CULTURAL & ECO-TOURISM, ARTS & CRAFTS SALES	VILLAGE-BASED FISH PROCESSING FACILITY	FUEL SALES
<i>Is a Business Plan prepared?</i>	No	No	No.	No.	
<i>Will revenues cover operations costs?</i>					
<i>Does this business mesh with regional priorities? Is regional support needed?</i>		Yes. Encourages private business development.	Yes, cooperates with Bristol Bay Visitor's Council goals; BBNC; planned centers in Dillingham and Iliamna, existing facility in King Salmon & Togiak.	Yes.	
<i>Summary - odds of near-term feasibility?</i>		If a sustainable business plan is developed, project is feasible. Depends on commitment of business owner.	If a sustainable business plan is developed, project is feasible. Project supports an expanding village-based tourism industry.	If a sustainable business plan is developed, project is feasible. Depends on commitment of business owner.	
<i>Ways a business person could assess demand</i>	Conduct a sub-regional market study and develop a business plan.	Survey locals and develop business plan.	Develop a business plan.	Survey locals.	Develop a business plan.

Evaluation Criteria	BOTTLED WATER PLANT	COMMUNITY STORE	CULTURAL & ECO-TOURISM, ARTS & CRAFTS SALES	VILLAGE BASED FISH PROCESSING FACILITY	FUEL SALES
Number of jobs created?		Probably a handful including jobs for teens (good opportunity for teens to gain job skills)	Will support other local tourism business such as bed & breakfasts and guide services.	Will support other local tourism business such as local guide services, lodges, and local subsistence hunters and fishers.	
Additional data required		Case study - Koliganek store; ANICA stores & WICA program	Case study – Nangucuilnguq Arts & Crafts Center, Togiak; & planned Harvey Samuelsen Center in Dillingham	Information on Indian Valley Meats training program.	
Contacts/Examples in other communities		ANICA	Nangucuilnguq Arts & Crafts Center, Togiak (business plan)	1) Northern Economics/BBEDC study, “Community Impacts of Restructuring the Bristol Bay Salmon Fishery”, November 2004. 2) Indian Valley meats regarding the viability of a small fish/meat processor. 3) ISER publication “A Village Processing Plant, Yes or No?”	

Evaluation Criteria	BOTTLED WATER PLANT	COMMUNITY STORE	CULTURAL & ECO-TOURISM, ARTS & CRAFTS SALES	VILLAGE BASED FISH PROCESSING FACILITY	FUEL SALES
Questions/Information to Gather		How much will inventory cost? Mgmt & maintenance costs? Price mark-up on products?	What is the center's role in the community? How might it be coordinated with other activities to enhance economic opportunity in the community?		
		What would the price of products be compared to Dillingham (including transp. costs)?	Does the center meet community needs?		
		What's the realistic potential market (locally and other nearby communities) - will it be feasible to operate?	How will we pay for it? - Construction and ongoing maintenance costs?		
		What products would be wanted by Ekwok residents and nearby communities?	Who makes the decisions?		
		What products need to be available for the WIC program?	How will it be operated and by whom? - programs & community involvement		
			Who will use it? How often? What are the benefits to the community and other's in the area?		

Business Basics

Questions to Answer Before Starting a New Small Business



What makes a successful business venture?

- *Products & People*
- *Markets*
- *Price & Operations*
- *Attitude*

Use these worksheets to help assess if your business idea is feasible.

OVERVIEW

Give a short description of your business venture:

Briefly put into words the personal, village or regional resources that will contribute to your venture's success:

- Land
- People
- Financial
- Other

Business Basics

Questions to Answer Before Starting a New Small Business

A successful business involves:

- *Personal dedication*
- *A team effort*
- *Knowing your competition*

PRODUCT & PEOPLE

- What products or services will you offer?
- Who else is offering this product or service in your region or statewide? In other words, who will be your competition?
- How does the quality of your products or services compare to similar ones? In other words, what is your competitive edge?
- What seasonal constraints, if any, will restrict your venture?
- Who will create the product or provide the service?
- Will running your business be a full or part-time job?
- How many other people will you employ, either directly (for example, by hiring them as a staff person) or indirectly (for example, by purchasing a product from them for resale)?
- Who will you hire or contract with? What will be fair compensation for their work?
- How much do you expect to pay yourself?
- If you will be selling a product, who will create the product?
- How much will it cost you to purchase it from them?

Business Basics

Questions to Answer Before Starting a New Small Business

A successful business means knowing:

- *The demand for your product*
- *Your customers*
- *Your partners*
- *How to connect your product to your customer*

MARKETS

- Where will your customers come from? The local area, region, state and/or out-of-state?
- What is the demand for your product or service? What steps have you taken to figure this out?
- What kind of customer will be interested in your venture? List words that describe them.
- How will you reach these customers? List five means by which you will advertise your product or service.
- Do you have a dependable Internet connection? Will you use the Internet to either publicize or sell your product or service?
- Who will you partner with to promote your venture?
- Will you need assistance from another entity, such as a booking agent or wholesaler, with filling or taking orders?
- Is your product or service only available in your local area, or will it be transported to your customers? For example, a general store or a bed & breakfast will sell goods primarily in your local area. A value-added salmon processing factory will transport goods to your customers, wherever their location.
- If your product or service will be transported, how will you get it to your customers? Will this add a significant cost? How reliable is the transportation? How often will you have to ship?

Business Basics

Questions to Answer Before Starting a New Small Business

A successful business plan involves:

- Pricing your product to fit your market
- Accurately anticipating your costs
- Knowing when you will break even

PRICE & OPERATIONS

- Will you need to purchase equipment or upgrade a facility in order to start your business? If so, what will these start-up costs total? \$ _____
 - How will you pay for the start-up costs of your venture?
Will you approach a bank or other lending entity for a loan,
or use personal savings?
- What will it cost you per year or season to operate your venture?
You should include all operating costs such as:
 - Personnel \$ _____
 - Fuel \$ _____
 - Transportation \$ _____
 - Utilities \$ _____
 - Insurance \$ _____
 - Food \$ _____
 - Equipment \$ _____
 - Other \$ _____
- Estimate your operating costs and expenses per year or season: \$ _____
- How much of your product or service will you be able to offer per year/season?
 - How much will your customers be willing to pay for your product or service? \$ _____
- *If you are considering a business with many products, such as a general store, you can estimate prices for a handful of items.
 - Is your price comparable to your competition's prices?
 - How have you arrived at the right price?
 - Estimate your revenues for a year of operation: \$ _____
- Will your venture break even? If not in the first year, how many years do you estimate it will take to break even?
 - Subtract yearly revenues from expenses.
Will your business make a profit?
How much more will you need to earn annually to make a profit? \$ _____

Business Basics

Questions to Answer Before Starting a New Small Business

A successful business depends on:

- *Motivation*
- *Perseverance*
- *Your attitude and passion towards the business*

ATTITUDE

◦ Does your venture fit with community priorities? Will others in your community welcome and support your business venture?

◦ How long do you imagine persevering with your venture, even if you do not turn a profit?

◦ What motivates your business venture? (e.g. profit, community benefits, cultural benefits, etc.)

ACTION

If, after answering these questions, you feel like your business venture is feasible, assistance with start-up financing and business planning is available. See the *Business Funding and Technical Assistance Resources* appendix for a list of resources and websites, including information on small business loan programs.

APPENDIX D: COMMUNITY BUSINESS & JOBS SURVEY FORM

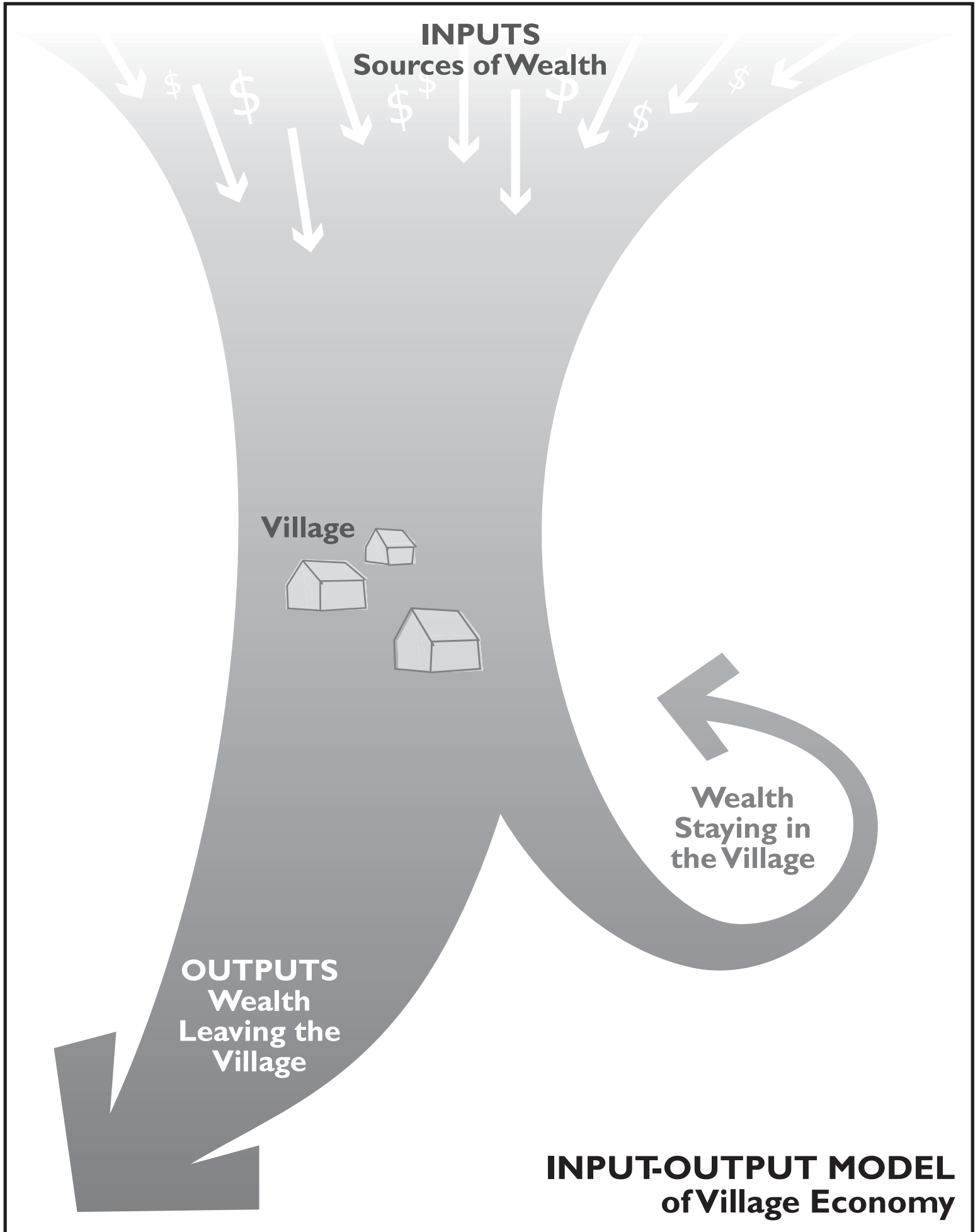
Community-Wide Businesses and Jobs Survey

1	Name of Business or Organization	Business Type*	Description or Type of Business	# of Full-Time Jobs	# of Part-Time Jobs	# of Months per Year in Operation	Year Established	# of Employees When Est.		# of New Jobs During Past Two Years		# of Jobs Expected 5 Years from Now		Any Non-Locals Employed?		# of Non-Locals Employed	
								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
2								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
3								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
4								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
5								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
6								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
7								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
8								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
9								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
10								F/T	P/T	F/T	P/T	F/T	P/T	Yes	No	F/T	P/T
TOTALS		see below		0	0	#DIV/0!		0	0	0	0	0	0	0	0	0	0

Government Agency G = 0
 Locally-Owned Business (For Profit) LB = 0
 NOT Locally-Owned Business (For Profit) NLB = 0
 Non-Profit NP = 0
 Other O = 0

Total = Average # of Months Per Year

* **Type:**
 G = Government Agency
 LB = Locally-Owned Business (For Profit)
 NLB = NOT Locally-Owned Business (For Profit)
 NP = Non-Profit Organization
 O = Other (describe)



■ APPENDIX F: SAMPLE RESOLUTION

**TWIN HILLS VILLAGE COUNCIL
P.O. BOX TWA
TWIN HILLS, AK 99576-8996**

RESOLUTION # _____

Title: Comprehensive Community Plan

Whereas: the Twin Hills Village Council (THVC) is the governing body for the residents of Manokotak and is fully authorized to act on behalf of its village residents; and

Whereas: the THVC has a ___ member board of elected officials empowered to act for and on behalf of its members in adopting resolutions; and

Whereas: this resolution shall give notice that THVC approves and supports the Twin Hills Comprehensive Community Plan for the residents of Twin Hills.

NOW THEREFORE BE IT RESOLVED that the THVC hereby recognizes that the community residents provided the information in the plan concerning the plan's goals, actions and implementation; and

BE IT FURTHER RESOLVED that the THVC adopts the comprehensive plan and is committed to work with others in the community and region for the betterment of the residents of Twin Hills and commits to report back to the community on the progress of implementing the comprehensive plan and commits to a one year review meeting with residents of Twin Hills to review the progress and updates of the Comprehensive Community Plan for the residents of Twin Hills; and

BE IT FURTHER RESOLVED that by the Village Council's President's signature, this resolution was duly considered and adopted at the THVC quarterly meeting on _____, 2005 and was passed by a majority vote.

President, Twin Hills Village Council

Date

President, Twin Hills Native Corporation

Date

■ APPENDIX G: RESOURCES FOR NATIVE ART AND CRAFT SALES

ALASKA NATIVE ARTS FOUNDATION

www.alaskanativearts.org

Contact: Carrie Anvil-Kiana

Artist Outreach Manager

Phone: 907-258-ANAF (2623) OR 800-979-ANAF (2623) - toll-free for artists

E-mail: carrie@alaskanativearts.org

NANGUCUILNGUQ ARTS AND CRAFTS CENTER

Togiak, Alaska

Contact: Carol Pavian or Sophie Nick

Phone: 907-493-5358 or 907-493-5357.

ALASKA NATIVE ARTS RESOURCE DIRECTORY

www.alaskanativearts.net

Contact: Clarissa and Bill Hudson

Phone: 970-264-2491 during normal business hours, Mountain Time Zone

PO Box 2709, Pagosa Springs, CO 81147

Free listing on website available to all Alaska Native artists.

Contains further resources for artists of all types.

ALASKA NATIVE HERITAGE CENTER

www.alaskanative.net

The Alaska Native Heritage Center's Artist Registry has been digitized and built into an online database. This registry, originally conceived through the Institute of Alaska Native Arts (IANA), features information about Alaska Native Artists, samples of their work and contact information.

Institute Of Alaska Native Artists

Contact: Artist Registry

Phone: 907-330-8000

E-mail: info@alaskanative.net

ALASKA NATIVE ARTISTS

www.alaskanativeartists.com

Contact: Program Director, Sealaska Heritage Institute

Phone: 907-463-4844

E-mail: alaskanativeartists@sealaska.com

ALASKA STATE COUNCIL ON THE ARTS

www.eed.state.ak.us/aksca

Contact: L. Saunders McNeill

Native Arts Program Director

Phone: 907-269-6603 or 907-269-6610

E-mail: saunders_mcneill@eed.state.ak.us or aksca_info@eed.state.ak.us

Toll Free: 1.888.278.7424 inside AK

Find a listing of statewide arts resources at www.eed.state.ak.us/aksca/links.htm

The Silver Hand program is also coordinated by the Alaska State Council on the Arts. The Silver Hand logo ensures that an item is an authentic work by an Alaska Native. For *A Customs Guide to Alaska Native Arts* go to www.dced.state.ak.us/oed/nag/nativearts.htm.

ANCHORAGE MUSEUM OF HISTORY AND ART

www.anchoragemuseum.org

Contact: Dave Nicholls

Curator of Exhibits

Phone: 907-343-6122

E-mail: nichollsdx@anchoragemuseum.org

Contact: Georgia Blue

Anchorage Museum Shop

Phone: 907-343-6195

E-mail: amsgblue@pobox.alaska.net

THE CIRI FOUNDATION

www.ciri.com/tcf

Phone: 907-263-5582

E-mail: tcf@thecirifoundation.org

Toll Free: 1-800-764-3382

Career Upgrade & Vocational Training Education Grants, Cultural Fellowship Grants and General Fellowship Grants available

INSTITUTE OF AMERICAN INDIAN & ALASKA NATIVE CULTURE & ARTS

www.iaiancad.org

Contact: Maggie Ohnesorgen

IAIA Museum Store Manager

Phone: 1-888-922-IAIA (4242)

E-mail: shop@iaia.edu or mohnesorgen@iaia.edu

108 Cathedral Place, Santa Fe, NM 87501

Agnew::Beck Consulting, LLC
441 West Fifth Avenue, Suite 202 :: Anchorage, Alaska 99501
t 907.222.5424 :: f 907.222.5426 :: www.agnewbeck.com



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:: BECK