COMMUNITY OF KOYUKUK

COMPREHENSIVE COMMUNITY DEVELOPMENT PLAN

Ten - Year Plan

PREPARED FOR THE VILLAGE OF KOYUKUK

By Gerald Pilot, Consultant
Anchorage, Alaska

November 2008
ACKNOWLEDGEMENTS

This Comprehensive Development Plan is the outcome of the combined efforts of local organizations and individuals composed of the Village of Koyukuk, City of Koyukuk, Ella B. Vernetti School, Working Planning Committee, and community residents. This plan is the direct result of their time and effort, knowledge of the community, and dedication to making a healthier community for current and future residents.

**Koyukuk Tribal Council:**
- Leo Lolnitz, First Chief
- Josie Dayton, Second Chief
- Martha Dayton, Sec/Treasurer
- Marilyn Roberts, Sergeant At Arms
- Percy Lolnitz, Member
- Agnes Dayton, Member
- Eliza Jones, Member

**Koyukuk City Council:**
- Cindy Pilot, Mayor
- Hazel Lolnitz, Vice-Mayor
- Shanda Krista, Member
- Robert Albert, Member
- Martha Dayton, Member
- Dale Krista, Member
- (vacant), Member

**Working Planning Committee members:**
- Martha Dayton, Tribal & City Council Member, CSC Representative
- Marilyn Roberts, Tribal Council Member & Acting City Administrator
- Robert Albert, City Council Member
- Cecelia Grant, CSC Representative & Community Health Practitioner
- Roy Nelson, City Council Member
- Percy Lolnitz, Tribal Council Member
- Julia Dixon, Community At Large Representative

**Koyukuk Project Contact Person/Coordinator:**
- Cindy Pilot, Tribal Administrator, Koyukuk Tribal Council,

Two community workshops were held in 2007 to develop this plan. During a two-day workshop in May 2007, twenty-five residents attended the first day’s session and twenty attended the second day’s half-day session. The Koyukuk Tribal Council arranged the meeting.

The Village of Koyukuk provided the funding in total to develop this plan. Gerald Pilot, Consultant, developed this plan under contract. He is also a Koyukuk Tribal Member and had lived in the community for more than thirty years. Additional technical support was provided by the regional non-profit organization, Tanana Chiefs Conference, Inc. While support has been secured from outside the community, the development of this plan is intended to be an ‘All Koyukuk’ undertaking.

(Note: Cover Page shows recent aerial photograph of Koyukuk)
# TABLE OF CONTENTS

## INTRODUCTION & SUMMARY OF GOALS

- **Purpose of the Plan** ................................................................. 5
- **Planning Process** .......................................................................................................................... 6
  - Past Community Plans ................................................................. 6
  - Current Community Plan Process ............................................. 6
- **Summary of Goals** ...................................................................................................................... 7
  - Community Facilities ....................................................................................... 7
  - Transportation ................................................................................................. 8
  - Economy .......................................................................................................... 8
  - Land Use and Environment ........................................................................... 8
  - Community, Culture & Education .......................................................... 9
  - Leadership ..................................................................................................... 9

## Community Background Information

- **General Environment** ......................................................................................... 10
  - General Summary ......................................................................................... 10
  - Location ......................................................................................................... 11
  - History .......................................................................................................... 11
  - Climate .......................................................................................................... 11
  - Environmental Characteristics .................................................................... 12
  - Topography ................................................................................................... 13
  - Subsistence Resources .................................................................................. 14
  - Economy and Population ............................................................................. 15
  - Facilities ........................................................................................................ 17
  - Equipment .................................................................................................... 21
  - Other Community Services ......................................................................... 22
  - Transportation and Roads ........................................................................... 23
  - Community Water/Sewer ............................................................................ 24
  - Housing ........................................................................................................ 24

## Priority Implementation

- **Community Facilities** ....................................................................................... 26
  - Summary ........................................................................................................ 26
  - Priority # 1 - New Clinic ............................................................................. 26
  - Priority # 2 – Water and Sewer Improvements ........................................... 29
  - Priority # 3 – New Multi-Purpose Building ................................................. 31
- **Transportation** ................................................................................................. 33
  - Summary ........................................................................................................ 33
  - Priority # 1 – Upgrade Roads ...................................................................... 33
  - Priority # 2 – Procure Heavy Equipment .................................................... 35
  - Priority # 3 - Secure Fully Equipped Ambulance & Fire truck ................. 37
INTRODUCTION & SUMMARY OF GOALS

Purpose of the Plan

The Community of Koyukuk is a small Native Village located in Interior Alaska, a region generally acknowledged with high pervasive unemployment, low economic characteristics, and related social and associated problems. Koyukuk is a community in transition and has experienced a decline in population, adverse economic conditions, and general economic decline, as residents chose to seek better economic opportunities outside the community. These problems have placed additional burdens on local governing entities to seek new funding sources to maintain existing programs, services, infrastructure, and community needs. To maintain community vitality, residents are now seeking help to keep the community functional as well as identify and seek alternative sources for economic revitalization. While this Koyukuk Plan is prepared through consultant contract, the consultant is a Koyukuk Tribal member and had resided in the community for more than thirty years.

The purpose of this effort for comprehensive community planning is threefold: 1) Assess the current status of the community, 2) Identify future needs, and 3) Prepare a plan to address future needs. Through this process it is intended that the community will be better able to anticipate future needs and promote the kind of facilities, infrastructure and economic development that the community desires and is sustainable. It is acknowledged by local officials that this plan will help identify and spur the need for development of other related plans such as a Transportation Plan, Community Economic Development Plan, Community Relocation Plan, or similar project specific plans.

A Comprehensive Community Development Plan (CCDP) can accomplish many things for the Community of Koyukuk. First of all, a CCDP will help forecast and set community priorities for future land use, housing needs, healthy community needs, and infrastructure needs. Local organizations will be in a more advantageous position to plan, develop and implement programs, services, and projects that better meet the needs of the community as a whole. Also, many State, federal and private agencies require planning documentation to be considered for grant and funding opportunities. The Koyukuk CCDP planning process considers these requirements and has incorporated the basic processes that meet the requirements of State, federal and private agencies. Additionally, it is intended that this plan will help to identity and spur the need for other complementary plans, as identified in the previous paragraph above, that may be required to address long range and comprehensive projects. This plan establishes the foundation for development of these other plans.

This plan is a compilation of the past and current status of the community, characteristics, economy, infrastructure and social setting, and then identifies a list of priorities, and an action plan or implementation plan to address the priorities. The intent is to provide the community the means to analyze past development and current status to incorporate positive changes in the community. Information about Koyukuk, including its economy,
land use, public facilities, transportation facilities, infrastructure and other local characteristics are collected and analyzed. Projections on community growth and needs are assessed. Community meetings and public participation processes are incorporated to help identify community priorities and implementation plans. Identification of priorities and development of action plans are a result of local realization of the importance of comprehensive planning to the overall economic health and survival of the community.

The plan should be considered as a working document that should be considered in a state of continual flux. This plan is developed based on information available at a particular time and future developments will occur that require revisions to the plan. Periodic evaluation and revisions are necessary by the local governing organizations and a recommended plan for this process is provided in the Comprehensive Plan Revision Process section in this document.

Planning Process

Past Community Plans
Two community-planning documents were prepared in the past to address community needs: 1) A Community Strategy Plan for Koyukuk – 1980, and 2) Koyukuk’s Plan for the Future – 1994. Both documents were developed with technical support from Tanana Chiefs Conference, the regional Native Non-Profit Organization, and are the direct result of one-day meetings held in the community. While the documents are relevant and identify community needs at the time they were prepared, both are outdated are do not have the comprehensive scope and breadth necessary to meet current community planning needs. The local governing organizations have recognized this and have been planning for more than two years on incorporating a comprehensive planning process as that required in this document.

Other planning documents have been prepared for the community over the past decade with the primary focus on project specific needs such as roads, clinic, electrical power, and water and sewer. These documents are described in more detail in the Community Background Section and listed in the Reference Section.

Current Community Plan Process
The lead organizations for development of this plan are the Koyukuk Tribal Council and the City of Koyukuk. Other organizations that have provided input are the local Community School Committee (CSC) and Tanana Chiefs Conference, Inc., the regional Native Non-profit Organization. A Koyukuk Tribal Member developed this plan under contract.

The Village of Koyukuk contracted with a private consultant in February 2007 to begin the process of developing the CCDP. A community meeting was held in Koyukuk on May 24 and 25, 2007 with primary purpose to develop a Mission Statement and Priorities for the CCDP. A total of forty-eight (48) residents signed the roster as attendees for the two-day workshop. The results of the workshop are identified in subsequent sections of
this document. A local Working Planning Committee was established to guide local needs as the plan was developed. The consultant prepared a draft plan for review by the Committee and a second local meeting was held to address the draft plan. A final draft was then prepared and reviewed by the Committee and recommended for adoption by the Village of Koyukuk. The Community organizations subsequently approved the CCDP in December 2008.

Figure 1: These two pictures show workshop participation on May 24-25, 2007 in Koyukuk.

Development of Mission Statement

This mission statement was drafted at a community workshop in May 2007 and adopted by the Community of Koyukuk in December 2008. It simply but adequately communicates the importance of sustaining the integral community while doing it in a way that complements a healthy community for current and future generations. This mission statement will guide the community well into the future.

‘To sustain our cultural heritage, traditional lifestyle, and a healthy environment for future generations. We’ll accomplish this by strengthening our ways as a community by continuing to work toward our goals.’

Summary of Goals

These are the goals and priorities in the specific categories identified by the community at the May 2007 workshop. Further discussion will be provided in the Plan Implementation section on specific action plans to address the priorities.

Community Facilities

Goals
1. To improve the health of all residents.
2. To improve the quality of life for all residents.
3. To improve community wellness, services and facilities.
4. To improve public services and facilities to support community and residents.

*Highest Ranking Priority Actions*

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Priority Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Build new clinic building to improve health services to community.</td>
</tr>
<tr>
<td>2</td>
<td>Make water and sewer services available preferably to individual residential homes rather than through centralized facility.</td>
</tr>
<tr>
<td>3</td>
<td>Construct new multi-purpose building for multiple community programs and services on tribal land in community.</td>
</tr>
</tbody>
</table>

**Transportation**

*Goals*
1. To ensure adequate and safe transportation road system within the local area.
2. To improve road system to preferred new town site on hillside.
3. To secure necessary equipment.

*Highest Ranking Priority Actions*

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Priority Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Upgrade roads: 1) Upgrade Roads from Airport Access to Cemetery; 2) Resurface roads as necessary; 3) Improve Road up hillside to potential new town site location; 4) Improve current roads to acceptable standards.</td>
</tr>
<tr>
<td>2</td>
<td>Procure new heavy equipment: 1) Grader; 2) Cat; 3) Front-end Loader; 4) Dump Trucks.</td>
</tr>
<tr>
<td>3</td>
<td>1) Secure fully equipped ambulance; Secure fire truck.</td>
</tr>
</tbody>
</table>

**Economy**

*Goals*
1. To have a functional lumber production in operation.
2. To improve economy with community store business.
3. To develop local opportunities in hunting and fishing guide businesses.

*Highest Ranking Priority Actions*

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Priority Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1) Secure new sawmill; 2). develop lumber production by local residents</td>
</tr>
<tr>
<td>2</td>
<td>Form and start-up new tribal Co-op store with arts and crafts outlet.</td>
</tr>
<tr>
<td>3</td>
<td>Develop hunting and fishing guide businesses for locals (tourism related).</td>
</tr>
</tbody>
</table>

**Land Use and Environment**

*Goals*
1. To provide an evacuation route and shelter.
2. To move the entire community to a more safe and stabilized location.
3. To improve residential homes with better water and sewer systems.
**Highest Ranking Priority Actions**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Priority Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1) Provide evacuation route and shelter; 2) Build evacuation shelter.</td>
</tr>
<tr>
<td>2</td>
<td>Begin the process of moving the entire community to the hillside.</td>
</tr>
<tr>
<td>3</td>
<td>Develop new potable sewage systems for new and existing homes in the community.</td>
</tr>
</tbody>
</table>

**Community, Culture & Education**

**Goals**
1. To preserve our Koyukon Athabascan Native cultural heritage.
2. To transfer our traditional language and skills to our youth.
3. To provide for excellent education for children, youth and adults.
4. To support services and facilities for food preservation and subsistence activities.

**Highest Ranking Priority Actions**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Priority Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plan, develop, and start-up a local culture camp for youth and adults.</td>
</tr>
<tr>
<td>2</td>
<td>Develop and start-up active language preservation program.</td>
</tr>
<tr>
<td>3</td>
<td>Seek funds and build/maintain a subsistence warehouse with walk-in freezer and smokehouse to work on and store subsistence foods.</td>
</tr>
</tbody>
</table>

**Leadership**

**Goals**
1. To strengthen and improve local governments.
2. To develop a strong leadership base in the community.
3. To provide residents with workforce development opportunities.

**Highest Ranking Priority Actions**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Priority Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To have the City Government fully active, functional, and participative in local governance.</td>
</tr>
<tr>
<td>2</td>
<td>To develop strong leadership skills of both City and tribal Governments with Board Training, Development of Policies &amp; Procedures, financial controls, IT/computer, etc.</td>
</tr>
<tr>
<td>3</td>
<td>To seek funds to start-up workforce development project for local residents.</td>
</tr>
</tbody>
</table>
COMMUNITY BACKGROUND INFORMATION

General Environment

General Summary
The Community of Koyukuk is located in Interior Alaska in the Yukon – Koyukuk Census Area, an area of more than 148,000 square miles. The Census Area has a 2000 population of 6,372 who reside in one of thirty-eight communities. More than sixty-three percent of the population is Alaska Native. Fairbanks is not included in the Census Area but generally serves as the regional hub with supplies and services flowing out to the smaller communities. The Census Area is further subdivided into three sub areas of which Koyukuk is identified to be located in the Koyukuk – Middle Yukon Census Sub area with nineteen communities and a population of 3,928. These numbers are small in comparison to the total Alaska population of more than 622,000 and a landmass of more than 365 million acres.

Figure 2: Map of Alaska that shows location of Koyukuk.

Koyukuk has two governing bodies, the Village of Koyukuk with operation through the Koyukuk Tribal Council, and the City of Koyukuk with operation through the Koyukuk City Council. Each body has a seven (7) member Council. Both entities share common administrative office and fully cooperate in the daily operations of the community. In general, the Tribal Council, a federally recognized tribe, focuses on social, educational, economic, political progress, cultural, housing and environmental activities. The City of Koyukuk was incorporated in 1973 as a 2nd Class City and is not part of an organized borough. The City manages the community facility and infrastructure development of the community. The City owns and operates the Village electrical supply system, water treatment/washeteria, landfill, roads, clinic, fuel distribution system, and most other community facilities.
Location

Koyukuk is a traditional Koyukon Athabascan village. The traditional name for the village is *Meneelghaadze’ T’oh* or “the village at the base of the bluff”. The village is located at the confluence of the Yukon and Koyukuk Rivers. Because of its prominent location at this important cultural site, Athabascan people historically gathered at Meneelghaadze’ T’oh to trade, and participate in social and cultural events. It is said among Native people that Koyukuk is the land of the beautiful people, a place that people like to visit, and a place where they have a good time. Renowned Athabascan linguist, elder, and resident, Eliza Jones explains that this is because Koyukuk is known for its hospitality. Koyukuk also has a tradition of many storytellers, musicians, singers and songwriters.

Koyukuk is located in western Alaska about thirty miles west of the sub-regional hub community of Galena. The community is located 225 miles east of Nome and 290 miles west of Fairbanks. The village lies adjacent to the Koyukuk National Wildlife Refuge and the Innoko National Wildlife Refuge. The geographic area of the community encompasses approximately 6.2 square miles of land. The town site itself is within the boundaries of Doyon Limited, an ANCSA Regional Corporation, and Gana-A’ Yoo Limited, an ANCSA Village Corporation. The community is also within the service area of the Tanana Chiefs Conference, Inc., a regional Native Non-Profit Organization based out of Fairbanks, Alaska.

History

The Koyukon Athabascans traditionally had spring, summer, fall, and winter camps, and moved as the wild game migrated. Koyukuk was a traditional gathering area for trading, social and cultural events, as stated above. Then in about 1867, a military telegraph line was constructed along the north side of the Yukon, and Koyukuk became the site of a telegraph station. A trading post opened around 1880, just before the gold rush of 1884-85. Freight delivery was by steamboats on the Yukon, which supplied gold prospectors, emerging communities, and local residents, peaked in 1900 with about 46 boats in operation. A 1900 measles epidemic and food shortages tragically reduced the Native population of the area by about one-third. Gold seekers left the Yukon after 1906, but other mining activity continued sporadically throughout the region. The first school in Koyukuk was constructed in 1939. Following the school start-up, families began to live at Koyukuk year-round. The City was incorporated as a second-class municipality in 1973 under State of Alaska statutes. Previous to that, the community was governed through the Village of Koyukuk, Traditional Council. The Koyukuk Tribal Council was formally organized in the Constitution of the Native Tribe of Koyukuk, which was adopted in 1992.

Climate

The climate can be simply characterized as cold dark winters, and short warm summers. This interior region of Alaska has the coldest mean temperature during winter, but it has
nice sunny summers. The region experiences a cold continental climate with extreme temperature differences, ranging from an average daily high in the low 70’s in July to an average daily low of 10 below zero in January. The winters are harsh and cold with temperatures in the vicinity of 40 below being common. Summers are short and may reach high temperatures in the low 70’s. Extreme temperatures have been measured from 64 degrees below zero to 92 degrees. The average annual precipitation is thirteen inches per year and the average annual snowfall is sixty inches per year. The region can be further characterized by light winds and low precipitation.

Environmental Characteristics

There are three major local environmental characteristics that provide potential serious threats/impacts to Koyukuk – Erosion, flooding and fire danger. Erosion problems can occur anytime the river is open and specifically during high flow events on the Yukon River. The community also lies within a boreal forest setting and forest fire danger is a real concern. Additionally, the community lacks viable fire suppression equipment to fight home fires.

The entire village of Koyukuk lies within the floodplain of the Yukon River. During the month of May, the community is subject to flooding risk in or around the village because of river ice break-up. When the Yukon River ice first moves in May there is a danger of ice jams down river from Koyukuk. When a jam occurs, it is like a plug being inserted and the river stops flowing and water backs up. Koyukuk is located entirely within a floodplain and is potentially at flood risk during spring river breakup. Residents normally prepare for flood situations by packing up belongings. Larger more expensive items not easily replaced such as snowmobiles, furniture, and four wheelers, are placed on rafts or stored at higher ground. Smaller belongings are boxed up and stowed in the family cache or other higher location for safekeeping. The most recent floods occurred in springs of 2001 and 2006. Although not the worst in memory, these events required considerable cleanup efforts.

Another problem occurred in August 1994 when heavy rains caused severe bank erosion problems. Flooding did not occur at the time but significant erosion took place. Several houses that were close to the river fell into the river because of erosion. These events happen throughout the year, including floods during spring breakup ice jam events; spring/summer/fall significant rainfall events; wind and permafrost melt at Koyukuk and upstream. These floods are often severe, inundating a majority of the Village and sometimes requiring evacuation of citizens to other villages. These problems have been persistent and serious enough – often flood warnings provide only a 2 hour window to evacuate – that the community has begun planning efforts to relocate themselves to higher ground above the floodplain of the Yukon River upon nearby Koyukuk Mountain.
Figure 3: Koyukuk Flood of 2006, View of the Koyukuk River

Topography

Koyukuk is situated near the foothills of the Nulato Hills, which extend approximately 300 miles along the northern bank of the Yukon River. The village is located in the Koyukuk Flats region, an area that is generally characterized as being lowland dotted with thaw lakes, with random meandering streams and numerous sloughs. The geographic area can be further visualized as an area with rolling hills, numerous lakes and waterways, and prevalence of the boreal forest. Koyukuk is also located in a continuous permafrost zone. The vegetation in the area is generally taiga and muskeg with black spruce, sedge, and moderately dense stands of willow. Several low bedrock hills rise from the center of the lowland. These hills and the surrounding uplands are composed mainly of sedimentary rocks, older volcanic rocks, and some rocks of intrusive origin.

Figure 4: Photo from top of Koyukuk Mountain looking up the Koyukuk River Valley
Subsistence Resources

The river environment and boreal forest provides access to renewable resources for building homes and gathering of subsistence resources. The Koyukon people traditionally had spring, summer, fall, and winter camps, and moved to follow the migrations of wild game and availability of seasonal resources. The primary subsistence resources utilized by the Indian peoples include fish, big game animals, berries, plants, and birds. Today while most residents live year-round in the community, they still occasionally travel to these camps to harvest fish, hunt, gather forest resources, and participate in these important traditional and cultural activities that are ingrained in the way of life.

The boreal forest provides white spruce logs easily accessible to harvest for home construction. More than eighty percent of the local residential homes are constructed of local spruce logs. Utilization of this local resource is construction cost efficient and provides the most effective heating standard for local residents. The fact is that residents prefer log homes rather than home construction styles adopted from the outside. This renewable resource and construction practice will continue well into the future.

The boreal forest also provides an abundance of woods to heat homes. Most homes have a wood burning stove as primary or secondary heating source. Local woods such as white spruce, birch, alder, and cottonwood are harvested year round to heat homes. The wood is a renewable resource and this harvesting practice will also continue well into the future.

While the community is comprised of a mixed cash-subsistence economy, there is no undermining the importance of subsistence foods. The fact is that subsistence remains a vital part of the local economy, as well as the culture. The State of Alaska Yukon – Koyukuk Subsistence Management Team estimates that the annual resident of the Yukon – Koyukuk Census Area gathers an average of 454 pounds of subsistence foods per person per year. This compares to an average of 23 pounds per person in Urban Alaskan (Wolfe 2000). According to Alaska Department of Fish and Game surveys, the total annual harvest of wild foods for the Census Area was 2.8 million pounds. The table below provides subsistence activities information gathered by ADF&G for the Yukon – Koyukuk Census Area.

Figure 5: Picture of Fall Subsistence Activity
Table 1: Importance of Subsistence resources

<table>
<thead>
<tr>
<th>Annual Wild Foods Harvest</th>
<th>2.8 million pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsistence Percentage of Population’s Calories</td>
<td>41%</td>
</tr>
<tr>
<td>Fish Percentage of Subsistence</td>
<td>65%</td>
</tr>
<tr>
<td>Land Mammals Percentage of Subsistence</td>
<td>31%</td>
</tr>
<tr>
<td>Per Capita Subsistence Harvest</td>
<td>454 pounds</td>
</tr>
</tbody>
</table>

The table shows that the nutritional contribution of the annual wild-food harvest is about forty-one (41) percent of the caloric requirement of the resident population. This high content of fish and meat in the local diet tells us that the local residents consume more than twice the protein found in the typical American diet. The following table also shows the breakdown of the subsistence food by weight.

Table 2: Subsistence Harvest by Species

<table>
<thead>
<tr>
<th>Species</th>
<th>Percentage by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>70</td>
</tr>
<tr>
<td>Land Mammals</td>
<td>27</td>
</tr>
<tr>
<td>Birds/Eggs</td>
<td>2</td>
</tr>
<tr>
<td>Plants</td>
<td>1</td>
</tr>
</tbody>
</table>

The table illustrates the importance of the river system and salmon harvests to the local residents. These salmon include the four major species: coho, summer chum, fall chum, and Chinook (king) salmon. Local indigenous fish species such as whitefish, sheefish, burbot, grayling, and pike are also included in the Fish category above and they also provide important food resources at certain times of the year.

Economy and Population

Population

Characteristics:
The current population is listed at eighty-eight (88) people as documented in a 2006 State Demographer count through the State of Alaska, Department of Commerce, Community and Economic Development (DCCED). The table below shows that the population declined approximately six percent from 1980 to 2000. However, the statistics show that the decline in population between 2000 and 2006, a six-year period, was more significant at thirteen (13) percent. Overall the change in population from 1980 to 2006, a twenty-six year period, is approximately eighteen (18) percent, a fairly significant number. The decline in population can be attributable to various factors with the most significant related to mortality rates, lack of local employment, housing, health, and more opportunities available outside the community.
Table 3: Koyukuk Population Variance

<table>
<thead>
<tr>
<th>Year</th>
<th>Pop</th>
<th>% change</th>
<th>Year</th>
<th>Pop</th>
<th>% change</th>
<th>Year</th>
<th>Pop</th>
<th>% change</th>
<th>Year</th>
<th>Pop</th>
<th>% change</th>
</tr>
</thead>
</table>

The 2000 Census data lists the population gender as about 50 percent males and females. More than ninety-one percent of residents are Alaskan Natives. The median age for males is about 31, and it is 24.3 for females. Approximately thirty-nine families resided in the community. The data lists that fifty-five housing units exist in the community. The average family size is 3.32 persons. Of the seventy residents over fifteen years or older, thirty-seven or fifty-three percent have never been married. Approximately thirty-nine percent of the 70 persons are married.

Economy

Koyukuk is a typical Alaskan rural community that has an economy composed of three basic elements: government transfer, market economy, and subsistence resources. These three components drive the economies of most bush communities. Government transfer monies are generally those that derive from Federal, State, and Grant sources. These resources make up most of the village economies today. Market economy is those monies that are generated by private sector enterprises and activities in the local community. Subsistence resources are those assets that are derived from the land and its resources. While the composition of the three components makes up a typical village economy like Koyukuk’s, it is difficult to define and quantify. Census and statewide economic indicators do not include subsistence resources in their community income and economic data.

The fact is that Koyukuk has only a few full-time jobs, forcing many residents to rely on seasonal, sporadic income and government transfers. Year round employment is limited to the Tribal Council, City, clinic, post office, locally owned store, and a few part-time jobs with the airlines as agents. Forest Fire fighting during the summer season, construction work, and other seasonal jobs provide sporadic income to supplement subsistence opportunities. Yukon-Koyukuk School District also provides a few seasonal jobs at the Ella B. Vernetti School. Trapping and beadwork and other craft-making also supplement incomes.

The 2000 census data shows that the per capita income was $11,342 and the median income was $19,375. Employment statistics show that of the sixty-eight residents of age sixteen and over, fifty-two were in the labor force and forty or about fifty-nine percent were employed. The unemployment rate is shown to be twelve residents or about eighteen percent. Also, of the above number, twelve or about twenty-four percent are not in the labor force. The census data reflects a community of medium income and higher employment statistics than most rural communities. These numbers have been inflated by three major capital projects that occurred in Koyukuk about the time the census data was
collected. These projects naturally have a much larger impact on income and employment statistics for smaller communities such as Koyukuk.

The Alaska Department of Labor and Workforce Development and Denali Commission currently lists the community as a distressed community with an LMI figure below the fifty-one percent LMI threshold for classification as distressed. The classification of June 2008 is determined by comparing average income of a community to full-time minimum wage earnings, the percentage of the population earning more than full-time minimum wage earnings and a measure of the percentage of the population engaged in year-round wage and salary employment. This classification also gives the community an advantage in eligibility for various grants, programs and services.

Facilities

General Summary
This section includes the major community facilities that are provided in the village. Major facilities in the village include: Power plant/generator, Health Clinic/Library, City/Tribal office, Community Hall, bulk fuel storage, Telecommunications building, and Washeteria. Ownership and operation of these facilities are provided by the City or Tribe. Other local facilities include a general store, U.S. Post Office, School, Airport Maintenance Building, National Guard Armory, ball field, boat landing area, and Catholic Church.

Water Treatment Plant/Washeteria

The City operates a water treatment plant/washeteria that is directly connected to the school complex and washeteria. The washeteria is an important facility for the community as it provides centralized distribution point for safe drinking water, showers, restroom, and laundry services. Residents haul their water supply from the washeteria through a well located outside the washeteria. Solid waste from the school complex, teacher’s quarters, and washeteria flows directly into a sewage lagoon located adjacent to the washeteria. The existing water well was drilled in 1975 and the washeteria/water treatment plant was built the same year. A 1987 renovation of the washeteria included the wastewater treatment facilities removal from the washeteria facility, and a wastewater lagoon being added. Since that time, the facility has continued to sustain heavy use and has started to display characteristics of an aging facility. The fact is that the washeteria been through several floods and the lower part of the building has severe water damage and is rapidly deteriorating. In 2004, ANTHC funded and prepared a Washeteria Renovations Construction Plan to improve the facility to meet community needs. Improvements have been limited due to funding restrictions. A project was completed in summer of 2008 to install a new water storage tank in the washeteria. Additionally, a Sanitation Facilities Master Plan that was funded by ANTHC in 2005 recommended that a new washeteria be constructed.
Village Power System

The electrical power generation system is new and was built in 2004-05 with funding of approximately $4.6 million through the Denali Commission. The Denali Commission funded the three major components of the electrical system to include the powerhouse, bulk fuel storage, and electrical distribution system throughout the community. The new system has four generators and approximately 122,000 gallons of storage capacity for both gasoline and diesel fuels. Code compliant power poles, transformers and overhead wires were upgraded. The electrical power generation system was constructed to meet stringent flood plain and other industry standards and is expected to meet electrical power needs for the entire community for the long term.

The City operates the electrical power generation facility at an average 2006 cost to residents of .45 cents per kilowatt-hour. This includes a subsidy from the State of Alaska Power Cost Equalization program. This subsidy is not established in State Statutes and may be reduced or eliminated in the future and will impact all local power users.
The Ella B. Vernetti School is a part of the Yukon – Koyukuk School District and provides students with K-10 education. The school was built in 1979 and is approximately 6,000 square feet in size. The main school building has four classroom, storage space, shower/restrooms, and a half-size gym. A one-unit teacher housing building is located just adjacent to the school building. The school had two certified teachers during the 2006-2007 school years. In addition to the two teachers there is a full-time special education aide; a classroom aide who works 5 ½ hours a day; a school secretary and a custodian/maintenance position. Currently 16 students are enrolled. High school-aged students typically attend the last two years of high school outside the community in the neighboring communities, or regional schools in Nenana or Fairbanks.

Community Health Clinic

The clinic was constructed in 1983 and has approximately 988 square feet of usable space. It has a patient waiting area, one administrative office, and two patient exam rooms. It does not have running water but is hand delivered and stored in a small potable storage container. No indoor plumbing is available for patient or staff use.

A recent Draft Clinic business plan identifies characteristics and status of the clinic. The present clinic (988 square feet) is housed in a single-story frame building which also holds the community library (total building space is 1,456 square feet). A 2001 Code and Conditions survey noted that the current Koyukuk population classifies the community as borderline between a small and medium clinic standards. The survey further noted that the structural integrity of the existing clinic was suspect, the building was too small, and also noted these negative elements: There was no arctic entry. The waiting room, bathroom, hallway and exam rooms were inadequate. The front entrance door was not structurally sound. It also states there is very little useful space in the waiting/reception area. The Trauma/Exam is very small. The doors do not meet ARPCF standards. The Office/Administration area is inadequate. A Patient/holding/sleep area does not exist. Ancillary spaces is non-existent. No Handicapped toilet room exists. No Pharmacy/lab area exists. Storage space is minimal with only 26 square feet of storage space. A Janitor closet is inadequate and also used for other functions. No Mechanical room/boiler room exists. It is obvious that the current clinic is in substandard conditions and inadequate to meet community health needs.

The Tribal Council provides administrative and supervisory support for the Community Health Clinic. Two Health Aides staff the clinic and provide basic primary health care and emergency services, diagnostic assessments, and dispense medications. Tanana Chiefs Conference, the regional Non-profit organization, provides medical support with a Community Health Aide Program Coordinator, an Instructor, and a Physician, through its base in Fairbanks with the Chief Andrew Isaac Health Clinic (CAIHC). Patient’s travel to Fairbanks for advanced care. Travel expenses are provided by Medicaid or CAIHC. The Koyukuk Emergency Response Team, a volunteer group, provides additional local support.
medical support. The Edgar Nollner Health Clinic located in Galena, thirty miles up river, also provides health and mental health services to Koyukuk residents.

City Office Building

This building was built in 1990 is owned and operated by the City, is a two-story facility constructed of three-sided logs, and is approximately 2,200 square feet in size. The building currently houses the tribal offices on the first level with City offices on the second level. The first level has five small offices, a storage space, and an open utility area. The second level has a small meeting room, two offices and a furnace/mechanical room/ small storage room. The building is centrally located across the street from the washeteria building.

The space allocated for the tribal office is inadequate. Currently five tribal employees are housed in the limited space and plans are to add one or more positions in the near future. The lack of adequate space has a negative impact on the tribe’s ability to grow and take on new programs and services.

Figure 8: Picture of City Office Building

Community Hall Center

This log structure building was built in 1981 mostly through village contributions and community initiative efforts. The construction project substantially lacked input from architectural design and construction standards. The hall is approximately 40 feet by 40 feet (1,600 square feet) and is built as an open single room space. The building has electrical power but heat is with a wood stove. No water or sewer plumbing is available. The community building provides meeting space for various community functions including village wide meeting, workshops, and conferences, social, cultural and traditional events such as dances, potlatches, potlucks, award recognitions, and numerous
other local functions. It is an important facility for the cultural, traditional, and community well-being for Koyukuk.

Figure 9: Picture of Community Hall

Other Public Buildings

There are various other public buildings, facilities and services located throughout the community and include a library, gasoline station, head start facility, a National Guard Armory, and Post Office. The library, gasoline station, and head start facility are city owned and operated, the National Guard Armory is maintained by the Alaska Army National Guard, and the Post Office is owned and operated by the USPS. All these are used intermittently as the need and funds arise, except for the newly constructed/renovated gasoline station managed by the City. The City manages the retail gasoline sales facility that currently consists of two 10,000-gallon horizontal steel tanks. Both gasoline and home heating oil are provided for local consumption and purchasers. Current prices are $5.50 per gallon for gasoline and $4.75 per gallon for heating oil. The city has provided this fuel service to the community for more than thirty years.

Equipment

The community owns various mechanized equipment used to operate and maintain its facilities, programs and services. All equipment is managed through the city structure and is generally available to community and individual projects. Below is a table that lists and describes the condition of the available equipment.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Make/Model</th>
<th>Serial Number</th>
<th>Condition</th>
<th>When Procured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulldozer</td>
<td>John Deere 450</td>
<td>C374594</td>
<td>Poor, not working</td>
<td>1982</td>
</tr>
<tr>
<td>Front end Loader</td>
<td>Case W20C</td>
<td>10356419</td>
<td>Poor, but working</td>
<td></td>
</tr>
<tr>
<td>Dump Truck</td>
<td>International S-1800</td>
<td>1HTLFHXL4EHA57231</td>
<td>Poor, working</td>
<td></td>
</tr>
<tr>
<td>Snow machine(s)</td>
<td>2 Ski-Doo’s</td>
<td></td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>ATV</td>
<td>Ski-doo</td>
<td></td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>Pick-up</td>
<td>Suburban</td>
<td></td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Sawmill</td>
<td></td>
<td></td>
<td>Poor</td>
<td>1983</td>
</tr>
</tbody>
</table>
Other Community Services

Sewage Lagoon

The sewage lagoon is located adjacent to the centralized water well and washeteria. It is also connected to the school and teacher-housing unit. This is the only sewage lagoon system in the community. It was constructed in 1987 and is single cell, about 100 feet by 120 feet with a six-foot high berm surrounding the lagoon. It is commonly acknowledged that the lagoon while it was designed and constructed to meet dated discharge requirements, has not functioned and been operated as intended. Problems exist with water discharged, percolation, closeness of the community water well, and growth vegetation in vicinity of the lagoon. A 2005 Sanitation Facilities Master Plan provides recommendation on how the lagoon can be improved to meet environmental requirements.

Landfill

The existing Class III landfill was constructed at its current location in 1999 and permitted by ADEC in 2000. The landfill is operated by the City of Koyukuk. The landfill is approximately 2.5 acres and was built to State and Federal standards with fence, segregation of waste, and appears to be maintained to acceptable standards. The landfill has a six-foot high fence and has a single disposal cell. The estimated useful life was originally about twenty years if standards of operation are maintained. Refuse collection is not available community-wide and residents are required to self haul their waste out to the landfill. While this practice shows the self-reliance of the people, and also reduces cost in handling their waste, indiscriminate dumping causes the landfill site deteriorates more rapidly and drives up the cost of operation and maintenance. The city hires a worker periodically throughout the year to maintain the landfill. Problems identified include trash not segregated in one place, garbage is scattered, waste is not covered on a regular basis, and no burn box or incinerator is available. Recommendations for improvements are included in the Sanitation Facilities Master Plan of 2005.

Figure 10: Pictures of Existing Landfill

![Figure 10: Pictures of Existing Landfill](image-url)
Transportation and Roads

Airport

The primary mode of transportation into Koyukuk is air travel. The State-owned 4,000’ long by 150’ wide lighted gravel runway provides year-round transportation. Runway lights are pilot activated. Scheduled air service is provided several times per day, seven days per week, weather permitting with service out of Fairbanks, Galena, Anchorage, and other local communities. The airport received major improvements through the State of Alaska in 2003-2004 and was improved to meet flood plain standards. The runway was moved, expanded, elevated and is now serviced with pilot-activated runway lights. The airport has an improved parking apron, a new airport equipment maintenance building, and a grader to maintain the runway. The airport and facilities are owned and maintained by the State of Alaska, Department of Transportation and Public Facilities. The runway has the capacity to service larger cargo aircraft such as DC-3 or similar type of aircraft.

Figure 11: Pictures of Airport Runway and Apron/Equipment Storage Building

Local Roads

The community has approximately four miles of local roads throughout the community proper and to the community gravesite. Local roads are a mixture of composite material made up of gravel, crushed rock, and dirt secured from the local area. These four miles of roads were improved in 2003 – 2004 with funding by the Bureau of Indian Affairs. There are about five cars or trucks that regularly use the road system. Others use the roads with four-wheelers and snow machines at different times of the year.

River/Trails

The river system serves an important function as a highway for freight delivery and boat and snow machine transportation during both summer and winter. Supplies are delivered by barge about four times each summer on both scheduled barge services and special deliveries. The river is generally passable for boat traffic from approximately Mid-May to September 30. Freeze up normally takes about a month-and-a-half and is generally passable for snow machine traffic about Mid-November to April 15. Numerous local
trails and winter trails connect residents to neighboring Villages of Huslia, Galena, and Nulato, and to access subsistence and cultural use areas. Snow machines, ATVs and riverboats are used for local transportation.

**Community Water/Sewer**

Most residential users haul their potable water from the centralized washeteria watering point. The farthest residential user is about one-half mile away. Water delivery is by various means including ATV’s, trucks, wheelbarrow, or simply carrying by hand. For raw sewage, outhouses or self-haul honey buckets are the norm throughout the community as most residents dump these at pit privies or other unimproved disposal areas near their homes. Five households and the clinic are connected to a community Co-Water flush/haul water delivery/sewer collection system. This system has not operated reliably because of equipment and maintenance problems and service costs.

**Housing**

The 2000 Census identifies fifty-three houses in the community with thirty-three of them occupied. All homes have electrical systems and most have fuel heater with backup wood stove. Most of the homes are owner built and are less than five hundred (500) square feet in size. These homes are generally constructed of white spruce logs, a prevalent local resource important for home construction. These are a mixture of round versus three-sided log structures. About twenty percent of the homes are constructed of plywood and T-111 wood textures.

*Figure 12: Pictures of Current Homes / White Spruce Structures*

The community subcontracts its HUD NAHASDA housing funds to the Interior Regional Housing Authority, a regional housing authority based out of Fairbanks. Most of the housing services directed to the community has been to rehab/modernize existing homes rather than built new structures. IRHA is reluctant to build new residential homes in Koyukuk because of the community location in a flood plain area and the high cost of elevating homes above the flood plain mark. Also, the small population of the community affects the dollars available to improve housing stock and the community has
to generally build up funds to develop housing projects. On an annual basis there is approximately $106,000 available to do projects in the community. By the time overhead and administrative costs are applied, there are only enough funds to do three to four projects in the community. IRHA has also provided technical and funding assistance to build new houses with sweat equity and materials purchases. Some of the younger residents are utilizing this service to help build homes. Between 2003 and 2006, IRHA improved thirteen homes in the community for total cost of approximately $526,465.

Figure 13: Map of IRHA Member Villages
PRIORITY IMPLEMENTATION

COMMUNITY FACILITIES

Summary

The community of Koyukuk identified a number of critical issues and needs to be addressed under the category of Community Facilities. The top priorities include a new clinic building, water and sewer improvements, and a new multi-purpose building. These priorities can be categorized as basic life and safety needs that are critical to maintaining the community environment to acceptable standards. This section describes the current status of the identified priorities, defines and problem/need, identifies recommendations, and provides an Implementation Plan.

Priority # 1 - New Clinic

Current Status of Existing Clinic:

The building was force-account constructed in 1983 by the City of Koyukuk with funding of $120,000 by the State of Alaska Capital Project funds. The original building was constructed as a combined clinic and library facility of approximately 1,456 square feet. The clinic portion is approximately 988 square feet. The clinic has four room areas: 1) an entrance waiting/reception room; 2) an office/administration room; 3) an exam/trauma room; and 4) a pharmacy/lab room that also serves as second exam room. Heating is provided through a fuel oil furnace that provides heat throughout the entire building. Water is hauled from the local water well and stored in local storage container in building. Water is then distributed through a piped water system throughout the clinic. The clinic sewer system has a localized co-water type storage tank outside the building. Waste is discharged from the building into the storage tank. The clinic staff is managed by the Tanana Chiefs Conference, Inc. (TCC) under a regional health care delivery system program. Two health aides, a primary and a secondary Community Health Practitioner (CHP) provide basic primary health care and emergency services, diagnostic assessments, and dispense medications. TCC provides additional medical support through its base in Fairbanks with the Chief Andrew Isaac Health Clinic (CAIHC). Patient travel to Fairbanks for follow-up care is coordinated through CAIHC. The Koyukuk Emergency Response Team, a local volunteer group, provides local medical support as needed.

Problem/Need:

The major problems with the existing clinic can be simply stated as: 1) the clinic facility is old; 2) the clinic is too small; 3) is structurally deficient to meet health care standards; and 4) does not adequately meet the health care needs of the community. These
deficiencies were identified in clinic assessment report conducted in 2002 through a cooperative agreement with the Denali Commission.

The Alaska Rural Primary Care Facility Assessment and Inventory Survey Report dated February 26, 2002, provided a detailed status summary of the Koyukuk Health Clinic. This report was funded by Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility for assessment, planning, design, and construction for more than 200 small clinics in Alaska. The purpose of the report was to provide the applicable community with a uniform standard of evaluation of comparison with other communities for health clinic standards. The report for the Koyukuk health Clinic describes a health clinic facility that is simply too old, too small, and structurally deficient as a health clinic facility to meet the health care needs of the community. The report determines that the Koyukuk Clinic is in such an adverse condition in terms of the code deficiencies that the recommended option is to build a totally new clinic.

The report identifies the existing clinic facility as more than thirty years old. The City of Koyukuk originally built the facility as a combined clinic and library building through a local forced-account project with $120,000 of source funding through the State of Alaska. The building construction was of wood frame on wood-treated pilings and lacked architectural or engineering input. The building was built to residential standards and numerous structural problems have developed over the years. For example, multiple attempts to correct foundations problems, as well as other structural problems, have been attempted since initial construction. It is commonly acknowledged that similar type buildings in Interior Rural Alaska, without comprehensive A/E design or construction standards have facility life spans of less than thirty years. The report states that the age of the clinic is beyond it useful facility life and recommends that it be replaced.

The report states that the current clinic at approximately 988 gross square feet has a health clinic space deficiency of 1,001 square feet. The total square feet of an acceptable clinic in Koyukuk should have 1,989 gross square feet. This recommendation is based on ARPCF Guidelines and the Koyukuk 2000 Census Population of 101 residents. The report recommends that the health clinic space in the community be increased to acceptable standards.

The report clearly identifies the deficiencies that exist in the clinic and they can generally be categorized as structural and those that do not meet ARPCF standards. First of all, the foundation structure is clearly deficient and substandard. This is documented in the report. Additionally, ARPCF deficiencies can be identified for ADA or Code violations and are defined as the following: 1) Clearances at the entry door do not meet ADA standards; 2) The bathroom is not designed to meet ADA standards; 3) The exam or trauma room is too small; 4) The corridor widths are too narrow; 5) There is inadequate storage space; 6) There are no arctic entries; 7) Door sizes are too small; 8) There is not ADA accessibility to the entries; 9) There is no ramp; and 10) stairs do not comply with ADA standards.
Recommendation:

The report identifies the options for the community: 1) Renovate/modify the existing clinic space to include adding the library space; 2) Build new clinic; 3) Do nothing. The report recommends that a new clinic be built to ARPCF standards and the community supports this recommendation. The following section outlines a plan to build a new clinic. The implementation of this plan can begin almost immediately since it is a project in progress. The project should be given a five-year planning horizon for planning, development and implementation.

Implementation Plan:

Priority Actions for New Clinic

1. Determine local entity that takes lead in development of new clinic.
2. Define scope, location, and estimated cost of project.
3. Appoint lead community person to lead development of project.
4. Lead person may establish local working committee to spearhead development.
5. Working committee to begin planning for new project.
   a. Research
   b. Options
   c. Project scope and Cost.
8. Conduct detailed funding search for clinic funding sources.
   a. Federal Grants
   b. State Grants
   c. Private Sector Grants
   d. Other Sources
9. Secure adequate funds to build clinic.
10. Build clinic in accordance to Denali Commission ARPCF Standards.
11. Provide quality management and operation of the clinic.

Lead Organizations & Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description of Task</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Determine lead organization</td>
<td>City or Council</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Define Project</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Appoint Lead Person in Community</td>
<td>City and Council Joint</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Establish Local Working Group</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>5</td>
<td>Begin work on Project</td>
<td>Work Group/Lead Person</td>
<td>Year 1-2</td>
</tr>
<tr>
<td>6</td>
<td>Review Denali Commission Business Plan Requirements</td>
<td>Work Group/Lead Person</td>
<td>Year 1-2</td>
</tr>
<tr>
<td>7</td>
<td>Complete Denali Commission Business Plan</td>
<td>Work Group/Lead Person</td>
<td>Year 1-2</td>
</tr>
<tr>
<td>8</td>
<td>Conduct funding search</td>
<td>Work Group/Lead Person</td>
<td>Year 1-2</td>
</tr>
<tr>
<td>9</td>
<td>Secure adequate project funds</td>
<td>Work Group/Lead Person</td>
<td>Year 1-3</td>
</tr>
<tr>
<td>10</td>
<td>Build clinic to standards</td>
<td>Work Group/Lead Person</td>
<td>Year 3-5</td>
</tr>
</tbody>
</table>
Priority # 2 – Water and Sewer Improvements

Current Status of Water and Sewer:

Most residential homes lack running water and sewer systems. The exceptions are the one teacher-housing unit and five residential homes connected to the Co-Water flush/haul water delivery/sewer collection system. A centralized washeteria provides through a community well a potable water distribution point where water is collected and transported by the individual residential user to individual homes. Most homes are within a half-mile of the water distribution point. Users transport their water by wheelbarrows, four-wheelers, trucks, or simply carry water to their homes. Homes have one or two twenty-to-thirty gallon plastic water containers to store the water. This has been the common practice for the past thirty years since the well/washeteria was built. Individual home sewer systems are non-existent except for the one teacher-housing unit and the five homes that are connected to the Co-water flush/haul system. Most homes use the honey bucket and outhouse system where human wastes are collected to be disposed of in an outhouse or outdoor pit. The outhouses and pits are naturally leached and waste is processed into the ground system.

Problem/Need:

Most third world countries have more advanced water and sewer systems than that which exists today in Koyukuk. The discussion that follows will focus on simple layman description of the problems and issues that exist in the community today. The more comprehensive and analytical discussion are reserved for referenced documents and more detailed project specific documents for the future that will address these problems. The community goal at this point is to simply get the message across of the magnitude of the problem.

For sewage problems and issues, in simple terms, most outside people have no concept of the difficult experience and extreme harshness of using an unheated outhouse at three A.M. in the early morning during the middle of the winter when it is –60 below. All of the residential homes, except for the teacher-housing unit, and five households connected to the Co-water system, have no indoor sewage systems except for honey buckets. Wastewater from cleaning, cooking and simply washing, are dumped into a five-gallon honey bucket usually located in a corner of the house near the door. This honey bucket is emptied periodically into an outhouse located next to the home. During spring thaw sometimes these outhouses overflow as they fill with spring melt water. There are a host of related health, safety, sanitation and cleaning problems that are more prevalent and contagious in such conditions.

The potable water distribution system has its source water from a community well of approximately 200 feet depth. The well was drilled as a part of the Washeteria Project.
built in 1976 with source funding from the Alaska Village Safewater Program. The existing water supply has some mechanical and operational problems. First, the mechanical equipment is more than thirty years old and is reaching its maximum life efficiency level. The 5,000 gallon water storage tank in the basement of the washeteria is corroded and needs to be emptied, serviced, or replaced. The electrical and mechanical equipment that services the well are starting to show wear and tear and compromises the flow of water and its safe condition.

The other side of the equation is the inefficiency and difficulty for residential users to access the water supply. The community is spread-out over a six square-mile area and not compacted like most other villages are. It is approximately 1.5 mile from one end of the village to the other. While the water well is located about the community center it is still more than a half-mile from the farthest residential home. Most residents have to haul their own water from the well. The community currently has three functioning cars/trucks that are personally owned. About ten 4-wheelers or All Terrain Vehicles (ATV) are also personally owned in the community. Most residential users have water hauled by wheel barrow and ATV’s. Some simply carry water to their residences. This has been the normal process for more than thirty years.

Recommendation:

The community would like to make water and sewer services available to individual residential homes rather than through centralized facility. It has been recommended by previous studies that a community-wide water and sewer system is not feasible because of the high cost. An option was for individual wells to be located throughout the community with individual water tanks located in residences. Sewer systems would be septic tanks located adjacent to homes, possibly leached/filtered into the ground. A system that functions on low water use and require less maintenance will be the preferred option. This project should be viewed as a long-term project with at least a five year planning horizon. The implementation plan can be initialized within the next year and should extend out for at least five years.

Implementation Plan:

Priority Actions for Water and Sewer Improvements

1. Determine local lead organization.
2. Evaluate alternatives for project.
3. Appoint lead community person to lead development of project.
4. Establish local working committee to spearhead development.
5. Define scope, location, and estimated cost of project.
6. Begin planning for new project.
   a. Research
   b. Options
   c. Project scope and Cost.
7. Conduct detailed funding search for funding sources.
d. Federal Grants  
e. State Grants  
f. Private Sector Grants  
g. Other Sources  

8. Secure funds to begin to build project.

Lead Organizations & Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description of Task</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Determine lead organization</td>
<td>City or Council</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Appoint Lead Person in Community</td>
<td>City and Council Joint</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Establish Local Working Group</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Define Project</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>5</td>
<td>Begin work on Project</td>
<td>Work Group/Lead Person</td>
<td>Year 1-2</td>
</tr>
<tr>
<td>6</td>
<td>Conduct funding search</td>
<td>Work Group/Lead Person</td>
<td>Year 1-3</td>
</tr>
<tr>
<td>7</td>
<td>Secure adequate project funds</td>
<td>Work Group/Lead Person</td>
<td>Year 1-3</td>
</tr>
<tr>
<td>8</td>
<td>Build Project as designed</td>
<td>Work Group/Lead Person</td>
<td>Year 3-5</td>
</tr>
<tr>
<td>9</td>
<td>Manage/operate project to quality standards</td>
<td>Lead organization</td>
<td>Year 5 +</td>
</tr>
</tbody>
</table>

Priority # 3 – New Multi-Purpose Building

Current Existing Program/Service:

Project planning began for this project more than ten years ago and no similar building exists in the community. Planning began about 1994 and continued to the extent that in 1995 the City had an A/E Design for the project completed by USKH of Anchorage, Alaska. Construction funding search was unsuccessful and the project became somewhat dormant. The original scope of the project was a multipurpose building with Tribal offices, Elders Meals Program, Teacher Housing, and Lodging Rooms with a total gross area of 3,337 square feet. The current project plans are minimally revised to delete the teacher-housing unit, and expand tribal space needs. The size of the facility is intended to remain about the same. The building will be built on tribal land available in the community. Site control issues are resolved.

Problem/Need:

The building will serve multiple functions to include providing offices and meeting space for the tribal council, provide kitchen and dining facilities for the elder’s meals program, and provide transient housing for overnight visitors to Koyukuk. The building will serve an important need in the community.

The current tribal council office is located in the City Office Building shared with the City Office. This building is more than twenty-five year old and does not have the space to adequately house tribal staff, programs and services. The tribe currently has on average six full-time employees who provide management, administrative, or program/service functions that are based out of the City Office Building. Four offices for six staff require
sharing or allocating space use and generally results in deteriorating quality of services to constituents.

No lodging facility is available but the school sometimes provides accommodations during the school year for a nominal fee. Also, residents often open their homes to visitors as the need arises. However, visitors to the community, be they service providers, tourists, visitors from surrounding villages, or any other people that have some other interest in visiting the community will be more likely to return if there is lodging available throughout the year. The availability of lodging services is a big plus for any small rural community.

Recommendation:

The community’s recommendation is that the 1995 Design Plan be resurrected with minor revisions for building use and the project moved forward for development. The new project will expand tribal office space, keep lodging facilities, keep space for the Elders Meals Program, and delete the teacher-housing unit. The location and total space will remain the same. The water and sewer system for this building will incorporate current community plans into these systems and will include analysis of cost, maintenance, operation, and efficiency of operation into its features. This should be considered a works-in-progress project and can be implemented fairly quickly once the decision is made to move forward on planning and development. The planning horizon should be fairly short term, for three years, since progress can be measured more easily than other projects. The plan should be revised periodically and should be thoroughly reviewed after three years if not much progress is achieved.

Implementation Plan:

Priority Actions for New Multipurpose Building

1. Determine local lead organization.
2. Appoint lead community person to lead development of project.
3. Establish local working committee to spearhead development.
4. Evaluate alternatives for project.
5. Define scope, location, site control, and estimated cost of project.
   a. Begin planning for new project.
      i. Research
      ii. Options
      iii. Project scope and Cost.
      iv. Resolve site control issues.
6. Conduct detailed funding search for funding sources.
   a. Federal Grants
   c. State Grants
   b. Private Sector Grants
   c. Other Sources
7. Secure funds to begin to build project.
8. Build Project as designed.
9. Manage and operate project effectively.

Lead Organizations & Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description of Task</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Determine lead organization</td>
<td>City or Council</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Appoint Lead Person in Community</td>
<td>City and Council Joint</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Establish Local Working Group</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Evaluate alternative for project</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>5</td>
<td>Define Project/Site control</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>6</td>
<td>Conduct funding search</td>
<td>Work Group/Lead Person</td>
<td>Year 1-3</td>
</tr>
<tr>
<td>7</td>
<td>Secure adequate project funds</td>
<td>Work Group/Lead Person</td>
<td>Year 1-2</td>
</tr>
<tr>
<td>8</td>
<td>Build Project as designed</td>
<td>Work Group/Lead Person</td>
<td>Year 2-3</td>
</tr>
<tr>
<td>9</td>
<td>Manage and operate project effectively</td>
<td>Lead organization</td>
<td>Year 3 +</td>
</tr>
</tbody>
</table>

TRANSPORTATION

Summary

The community identified three main goals in this category: 1) To ensure adequate and safe transportation road system within the local area; 2) To improve road system to selected new town site on hillside; and 3) To secure necessary equipment. While the existing roads have been substantially improved over the past ten years, additional maintenance and improvements are necessary to ensure the roads remain safe and meet the needs of residents for the next ten years and longer. New heavy equipment is necessary to maintain roads and other infrastructure as existing equipment has exceeded the useful life. An ambulance and fire truck will enhance the ability to protect life and property for the community.

Priority # 1 – Upgrade Roads

Current Status of existing Roads:

The federal government provided funding to improve existing roads and construct new roads throughout the community and to the gravesite approximately two miles north of the community. This project was completed in 1999. Before the project, the existing roads were mostly trails and paths composed of porous silt sand material and no more than fifteen feet in width. Motor vehicle travel was extremely limited. The new road construction greatly improved about four miles of road throughout the existing community proper and to the gravesite. The construction of the roads required substantial gravel and crushed rock material excavated from a site below the gravesite. The road was elevated and widened to approximately twenty feet and has a gravel/crushed rock base. The road system greatly improved vehicular travel throughout the community, and to the airport and gravesite. The road also allows partial access to the preliminary selected new
town site below the gravesite. The road system, while it is fairly new and in good condition, requires maintenance and improvements to keep it functional to meet the needs of the community for the next ten years, and beyond.

Problem/Need:

Gravel roads require constant maintenance and improvement at certain times of the year to keep it functional for community needs. Any gravel road will experience frost heave, thaw settlement, and potholes during increment weather conditions. At other times dust can be a major health concern for some with associated problems. The 2005 Koyukuk Sanitation Facilities Master Plan, prepared for ANTHC under contract, states that the local roads need resurfacing with more gravel. It further states that the road becomes slippery while wet and that dust is a major problem for some residents. The Plan further states that signs of frost heave and thaw settlement are evident at certain sections of the road. A maintenance and improvement plan is necessary to keep the road functional to meet local needs well into the future.

Recommendation:

The community recommends that local roads be maintained to acceptable conditions. A short-term plan should be produced that will address the road maintenance issues identified above. The community will then begin planning for a Long Range Transportation Plan that will include maintenance of existing and new roads, as well as other transportation corridors in the general environment. Through this effort, the ability to maintain and improve the long-term local road system will be greatly enhanced. The short-term plan can be prepared within one year and the Long Range Transportation Plan can be prepared within two years. Maintenance and improvement of the road system will be long term.

Implementation Plan:

Priority Actions to Upgrade Roads

1. Develop Short Term Road Maintenance & Improvement Plan
2. Develop Long Range Transportation Plan
3. Upgrade roads from Airport Access to Cemetery.
4. Resurface roads as necessary to address concerns identified above.
5. Improve road up hillside to potential new Town site location.
6. Improve current roads to make acceptable standards.

Lead Organizations and timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description of Task</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop Short Term Road M&amp;I Plan</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Develop Long Range Transportation Plan</td>
<td>Lead Organization</td>
<td>Year 1-2</td>
</tr>
<tr>
<td>3</td>
<td>Upgrade road from Airport to Cemetery</td>
<td>Lead Organization</td>
<td>Year 2-3</td>
</tr>
<tr>
<td>4</td>
<td>Resurface Roads as Necessary</td>
<td>Lead Organization</td>
<td>Year 2-4</td>
</tr>
</tbody>
</table>
Priority # 2 – Procure Heavy Equipment

Current Status of existing Equipment:
The community owns three heavy equipment vehicles used to operate and maintain its facilities, programs and services. The equipment includes a John Deere 450 Bulldozer, a Case W200 Front-end Loader, and an International S-1800 Dump truck. All the equipment is owned and operated by the City and is generally available for community and individual projects. The equipment was purchased with State of Alaska funds during the 1980’s and 1990’s and all are currently experiencing mechanical problems or are non-operational at this time. The community does not have a grader to maintain existing roads. The State of Alaska maintains a grader in an airport storage building for runway use only. In general maintenance of heavy equipment is always an issue for small rural communities because of lack of skilled personnel, parts, and service necessary to keep the equipment functional and operational.

Problem/Need:
In general the existing equipment is aged, has reached the plateau of useful life, and needs to be replaced. All the equipment shows wear and tear from heavy use. Also the need exists for a grader to maintain existing roads for year-round vehicular traffic. Because local roads are not maintained and cleared during winter months, vehicle traffic during the seven months from October through April is restricted to snow-machine and ATV’s only.

A medium-sized grader is needed to maintain and improve existing roads to allow for use throughout the year and to meet the needs of Priority #1, Upgrade Roads, in the section. The grader can be used as back up for the State Airport Runway maintenance and can be
used to develop other community priority needs such as relocation of the community to the hillside.

The John Deere Bulldozer was purchased new about 1980 and has been overhauled and serviced about three times. This equipment is critical for the community as it is used to move small buildings, equipment, freight, heavy parts or lumber, and numerous other local tasks. It is also used by local residents to launch and remove boats, move logs and lumber, landscaping, and do many other residential tasks. This equipment is aged and is now mostly inoperable because it has basically worn out. There is no other bulldozer available in the community for local use.

The small front-end loader was purchased new in about 1988 and is operational but has numerous mechanical problems that compromise its efficient use. The equipment also lacks a rear backhoe attachment that is needed to excavate dirt for specific projects. The front-end loader has been used for numerous local projects to maintain and improve existing facilities, programs, and services, as well as for residential needs.

The Dump Truck was purchased in 1994 and is operable but is showing various mechanical problems related to wear and tear. This piece of equipment is important to maintain existing community infrastructure and to develop new residential properties and needs to be replaced with comparable equipment.

Recommendation:

The community recommendation is that a planning process be implemented to replace the aging existing equipment and to include securing a grader. It is further recommended that the existing equipment be included for salvage value and transport out of the community. This is a tangible project that is measurable and can be implemented fairly soon. The planning process should begin in year one and should extend for a minimum of three years. If substantial progress is not made during this time then further analysis or revision of the planning process will be required.

Implementation Plan:

Priority Actions to Procure Equipment
1. Establish lead organization.
3. Determine cost analysis for new equipment.
4. Factor in salvage value for old equipment.
5. Identify and seek funds to purchase equipment.
6. Attain necessary funds and purchase equipment.
Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Prepare Needs Assessment of future Needs for New Equipment</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Determine Cost Analysis</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Factor in Salvage value – Old Equipment</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>5</td>
<td>Seek funds to Purchase Equipment</td>
<td>Lead Organization</td>
<td>Year 1-2</td>
</tr>
<tr>
<td>6</td>
<td>Secure Funds to buy Equipment</td>
<td>Lead Organization</td>
<td>Year 2-3</td>
</tr>
<tr>
<td>7</td>
<td>Ensure Delivery of New Equipment</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
</tbody>
</table>

**Priority # 3 - Secure Fully Equipped Ambulance & Fire truck**

**Current Status of existing Equipment:**

This is a new objective since no ambulance or Fire truck exists in the community. If patients need transportation to and from homes, or to the clinic or airport for medical evacuations, they are generally transported by personal motorized equipment such as ATV’s or Snow-machines or by the community GMC Suburban. The community clinic is small and is included as a priority project to be replaced under this plan, and staffing is by mid-level practitioners, with a Primary Community Health Practitioner and a Secondary Community Health Practitioner who fills in for the primary and assists in emergency cases. A local volunteer group provides back-up assistance in emergencies. Also, the community does not have a Fire truck and there is no community-wide firefighting plan.

**Problem/Need:**

A small fully equipped ambulance will efficiently serve the needs of a community of this size. This vehicle will allow quality transport of patients to and from homes to the clinic or airport. The current manner of transporting patients is by ATV’s or Snow-machines or by the Community SUV. This process compromises the quality of healthcare in many ways. The level of medical care for trauma or medical emergencies is decreased when transport methods are by non-medical vehicles. When people’s lives literally ‘hang in the balance’ an ambulance can mean the difference between life and death. Koyukuk has seen its share of these circumstances. A Fire truck is also needed to help protect life and property.

**Recommendation:**

The community recommends that a planning process be implemented with the objective of securing funds: 1) to obtain a small ambulance; and 2) To obtain a Fire truck. This planning process can be accomplished in many ways, as additional to the new clinic project or incorporated into the planning process for the heavy equipment identified in the previous subsection. Either way this planning process can be immediate to start in...
year one and conclude in year three. If not successful after year three, then further analysis or revision of planning process may be required.

Implementation Plan:

Priority Actions to Procure New Ambulance

1. Establish lead organization.
2. Define planning process/Needs Assessment.
4. Identify and Seek Funds.
5. Secure Ambulance & fire truck.

Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Define Planning Process/Needs Assessment</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Determine Equipment/Cost Analysis</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Identify and Seek Funds</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>5</td>
<td>Secure Ambulance &amp; fire truck</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
</tbody>
</table>

ECONOMY

Summary

In this category the community identifies three goals to improve the private-sector economy: 1) expand local lumber production; 2) Start-up a new Tribal Co-operative Store; and 3) Develop local guide business opportunities. The fact is that there are few private enterprises that exist in the community. The State of Alaska lists one business, Kateel Enterprises, a local for-profit sole-proprietorship general store as the only local enterprise with an established business license. A few local residents generate some income by providing firewood to customers, hauling supplies, materials and freight, and providing manual labor to other residents. However, the fact is that the majority of the jobs and cash flow to the community is provided by government transfer payments through welfare, subsidies, grants, post office, and school. Subsistence activities through harvesting food resources, trapping, and developing value-added arts and crafts are an important part of the local economy. The community realizes the importance of developing a viable private-sector economy as an integral element for future community growth. Development of these three activities will generally follow the same pattern that is to establish a lead organization, conduct feasibility analysis, develop business plan, identify and seek sources of funds, secure sources of funds, and start-up the business venture. Any development will require active participation of local organizations.
Priority # 1 – Expand Lumber Production

Current Status of existing Lumber Production:

The community has a portable sawmill that was purchased new about 1980. It has been used sporadically over the years without a defined business or comprehensive plan to expand its use to full capacity. Most of the milled production has been for three-sided logs for local building construction. No one local person has been elevated to be ‘king of the sawmill’ as generally is the case with this type of rural community activity. Hence, operation and maintenance of the sawmill has not been to its optimal efficiency. An organized and community established lumber production enterprise where rough lumber or three-sided logs are milled for sale to others do not exist. Use of the mill has been generally for personal lumber production in the form of three-sided white spruce logs.

Problem/Need:

The existing equipment is approaching thirty years old and is probably nearing its maximum useful life. Wear and tear greatly diminishes the safety and efficiency of operation and maintenance of these types of sawmills. A new sawmill is needed to expand lumber production. The first task needed is to develop a Business Plan to expand the lumber production. The Business Plan will include detailed analysis of product/service, equipment, facilities, market, management, operation, and other variables that will help to guide the business over the long term. The Business Plan will not only guide the business activity but will also make it easier to attract sources of funds to expand operation.
Recommendation:

The community recommendation is to begin a planning process to expand the local lumber production. The primary tasks will be to develop a Business Plan, secure a new sawmill, and start-up operation. This effort should be a community endeavor directed by a local governing entity to maximize employment opportunities. This is a tangible project that can reasonably be implemented in a short-term period. Therefore, the timeline should be set at three years or less. If minimal progress is made after three years then revisions may be necessary.

Implementation Plan:

Priority Actions to Expand Lumber Production

1. Establish Lead Organization.
2. Conduct Feasibility Analysis
3. Develop Business Plan
4. Identify and Seek Sources of Funds.
5. Secure Sources of Funds.
6. Start-up, Operate & Manage Business

Lead Organizations and timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Conduct Feasibility Analysis</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Develop Business Plan</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Identify &amp; Seek Sources of Funds</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>5</td>
<td>Secure Sources of Funds</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
<tr>
<td>6</td>
<td>Start-up, Operate &amp; Manage Business</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
</tbody>
</table>

Priority # 2 – Start-up New Tribal Co-op Store/Arts & Crafts Outlet

Current Status of existing Service

This Co-op Store will be a new enterprise for the community. One local general store has been operating in the community since about 1980. This store is a sole-proprietorship and has experienced operating difficulties in the past two to three years because of various reasons. Availability of merchandise and store open hours is inconsistent and prices have continued to increase. Residents often travel out of town to Galena or even Fairbanks to do their shopping. Others order through mail generally from discount wholesalers in Fairbanks or elsewhere on a regular and intermittent basis. The community also would like to establish an organized and effective outlet for local arts and crafts. More than fifty percent of the adult population in the community has produced arts and craft items at some point in their lives. The types of activity include building sleds, snowshoes, tools,
implements, and miniature models of wood products, as well as the various skin, fur and bone value-added products from animals. There is a market niche for these specialty products that the community has a definite competitive advantage in producing. The Co-op Store can provide the stimulus to expand this activity.

Problem/Need:

In general there exists a need to improve the availability of general merchandise for local residents especially those who have limited resources to purchase basic merchandise such as food and consumer products. The one general store that is operated as a sole-proprietorship has limited products and services and inconsistent business hours. Cash flow drains out of the community to outside vendors to secure general merchandise that could be procured locally. A need also exist to improve the marketing outlet for locally produced arts and crafts. Local producers do not have a reliable outlet for their products, prices vary substantially, and younger folks do not have the incentive to learn the craftwork. There is a need to organize some form of community-wide effort such as this proposal to address these concerns and issues.

Recommendations:

The community recommendation is that a planning process be initiated that will explore formation of this local endeavor. The first key tasks will be to conduct a feasibility analysis and develop the prerequisite Business Plan that will include detailed analysis of both the general store and arts and crafts outlet. The Business Plan will serve two purposes: 1) To guide formation and start-up of the business venture, and 2) will help identify funding needs and secure sources of funds. This project should have a longer planning horizon of up to five years.

Implementation Plan:

Priority Actions to Form/Start-up Co-op Store/Arts & Crafts Outlet

1. Establish Lead Organization.
2. Conduct Feasibility Analysis.
4. Identify and Seek Sources of Funds.
5. Secure Sources of Funds.
6. Start-up, Operate, & Manage Venture.

Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Conduct Feasibility Analysis</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Develop Business Plan</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>4</td>
<td>Identify &amp; Seek Sources of Funds</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
</tbody>
</table>
Priority # 3 – Develop Hunting & Fishing Guide Businesses

Current Status of existing Service:

This will be a new activity since no one in the community is licensed to provide this type of service. A few guides operate out of the regional hub community of Galena, located about thirty miles east of Koyukuk. Most of the activity focuses on big game hunting for moose, generally in the late summer and early fall season. The main area targeted is the Koyukuk Wildlife Refuge that is accessible by air and boats from the Koyukuk River. There are about fifteen adults in the community who have the knowledge, skills, abilities, and capacity to become involved in guiding businesses. Careful scrutiny of the guide activities will be necessary to minimize adverse effects to subsistence resources.

Problem/Need:

The problem is that no one in the community actively participates in guiding operations even though such operations are provided and based out of other neighboring communities. Some of the residents have the qualifications to become involved in this activity and may just need community support and effort to participate. The opportunity to generate cash flow is not being used. This is a local renewable resource that should be tapped into. It is expected that guiding businesses will continue to grow in this area of the State since these activities involve renewable resources.

Recommendations:

The community recommends that a planning process be implemented that will develop guiding businesses for residents in the community. While the individual residents will operate their particular business enterprises, the community can assist with formation, business start-up, and operation. The community can act as a conduit or clearinghouse for start-up funds, researching licensing, business operation, and management requirements. By doing so, the concerns of competition for subsistence resources can be mitigated.

The community will conduct research on the license requirements for the potential operators. This research will include Business License, Six-Pac License, and other proficiency and document requirements such as written tests, or CPR and First Aid.

The timeline for this project should be at least five years.
Implementation Plan:

Priority Actions to Develop Businesses

1. Establish Lead Organization.
2. Conduct Feasibility Study.
3. Develop Business Plan(s).
4. Identify and Seek Resources to develop Guides.
6. Provide Follow-up Technical Assistance.

Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Conduct Feasibility Study</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Develop Business Plan(s)</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>4</td>
<td>Identify &amp; Seek Resources</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
<tr>
<td>5</td>
<td>Help Start-up Guide Businesses</td>
<td>Lead Organization</td>
<td>Year 4</td>
</tr>
<tr>
<td>6</td>
<td>Provide Follow-up Technical Assistance</td>
<td>Lead Organization</td>
<td>Year 5</td>
</tr>
</tbody>
</table>

LAND USE AND ENVIRONMENT

Summary

In this category the community identifies three goals: 1) To improve erosion control and stabilize the riverbank; 2) To move the entire community to a more safe and stabilized location; and 3) to improve residential homes with better sewer systems. The priorities are: 1) Develop an erosion control project to stabilize the riverbank; 2) Begin moving the community to hillside; and 3) to develop new potable sewage systems for homes. These are critical issues that need to be addressed in a long-term comprehensive manner that will sustain the integral community and provide the means for orderly development. The fact is that these goals are mutually inclusive and development of one will determine how the others are addressed. For example, if the first choice is to move the entire community to the hillside, about a mile above the existing community, the efforts for erosion control and providing better sewer systems will change.

Priority # 1 – Erosion Control to Stabilize River Bank

Current Status of existing Erosion Control:

The fact is that the community lies entirely within a floodplain of the Yukon River and major flooding can occur from ice jams during spring breakup. In 1963 a major flood occurred that resulted in a flood crest of approximately nine feet over the riverbank.
Other floods of lesser magnitude occurred in 1968, 1889, 2001 and 2006. The flood history is an important element for erosion control because it directly reflects the source of the problem, the river.

When Koyukuk was first permanently settled and a school was built in 1939, the community was contiguous and compact with all buildings located along the riverbank. The school was approximately two hundred feet from the riverbank. Between 1939 and 1990, the community lost approximately two hundred feet of riverbank. After the major flood of 1963, the community sort of migrated back away from the riverbank to its present location. Currently the old school location and location of all residential homes that existed in 1965 have eroded away. The average erosion is about four feet per year. Presently there are about five homes that are within two hundred feet of the riverbank. No outside agency has provided any direct funding to address the erosion problem. The community organizations and individuals have made several small-scale attempts, or band-aid approaches, over the years to mitigate the problem by dumping wood and ground debris along the riverbank but these have had minimal success.

Problem/Need:

The community faces severe and chronic erosion as well as flooding. The community loses about four feet of riverbank per year and the residents have migrated away from the riverbank to protect life and property. Meanwhile the erosion problem has continued and new residential homes built since 1980 are again in imminent danger from erosion. The erosion problem is long term and will continue well into the future unless a comprehensive erosion control project is funded and implemented with outside help.

Koyukuk is a remote small community that has been denied Federal funding for erosion control under the U.S. Corp of Engineers program because it fails to meet the cost-benefit analysis established for evaluating potential projects. The Corp weighs the cost of erosion and floods against the value of the public infrastructure in the community to determine whether project should be funded. Other agencies apply the same basic standards when evaluating whether to support erosion control projects in communities like Koyukuk. The bottom line is that the community, because of these standards, has not been able to achieve Federal grant support even if there has been acknowledgement of the problem.

The community is further unlikely to access U.S. Army Corps of Engineers funds for flood-erosion projects because of the required thirty-five (35) percent non-Federal cost-sharing requirement. This is a huge hurdle for small communities like Koyukuk that have total government operating budgets of well under a million dollars. An example is if you have a nominal erosion control project of $1 million dollars, the thirty-five percent match requirement of $333,000 is a difficult barrier to overcome. While there has been federal acknowledgement of this issue, and discussion on the possibility of waiving this requirement, this has not been resolved to date.

Another challenge with achieving a meaningful erosion control project in the community is the higher costs of development in Rural Alaska. The Institute of Social and Economic
Research (ISER) reports that, in general, rural communities pay from fifty to one hundred percent more for staple goods and services than in Anchorage. For larger community projects such as erosion control where equipment, personnel, materials, and supplies, are required for longer periods, the comparable costs tend to rise more substantially. While the in-depth analysis of comparable local costs in Koyukuk versus the benchmark of Anchorage is beyond the capacity of this report, it is logical to surmise that costs for a major project like erosion control will approximately double what it will cost in Anchorage.

Recommendations:

The community recommendation is that a planning process be instituted that will evaluate alternatives and develop a meaningful erosion control project that will address local needs. The most logical source of funding support will be from Federal agencies, through the U.S. Army Corps of Engineers, Natural Resources Conservation Service, and Denali Commission. These agencies have discussed erosion control issues in rural Alaska that includes Koyukuk and have recommended bundling of agency funds to help address particular projects. At a Federal Congressional meeting held in Anchorage for two days in June 2004 on *Alaska Native Village Erosion*, the four villages of Kivilina, Newtok, Shishmaref, and Koyukuk were specifically identified and acknowledged to be in imminent danger from erosion. Further discussion focused on how the various Federal and State agencies could marshal resources to address the needs of these four communities. The community can further its case for an erosion control project by improving its dialogue with the associated Federal and State Agencies.

This project will be long term in nature because of the magnitude of the problem. It should have a timeline of more than five years with revisions as the need arises.

Implementation Plan:

Priority Actions to implement Erosion Control Project

1. Establish Lead Organization.
2. Evaluate alternatives for Erosion Control.
3. Determine Scope of Project.
4. Seek planning/design funds.
5. Secure necessary funds.
6. Construct project.

Lead Organizations and timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Evaluate Alternatives</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>3</td>
<td>Determine Scope of Project</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>4</td>
<td>Seek planning/design funds</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
</tbody>
</table>
Priority #2 – Move Community to Hillside

Current Status of existing Project:

The community is in the preliminary planning phase of moving the village location to the hillside about 1.5 miles from the present village site. A gravel road extends to the base of the hill and additional road construction will be necessary to the chosen new site. The location is raw land and site control and site development work will be necessary before any residential homes or infrastructure facilities are built. The initial plans are for the key infrastructure components to include the airport, school, electrical generator/fuel storage, and some of the public facilities to remain at the old town site through its useful life. The preliminary goal is to focus first on building or moving residential homes to the new site. Public facilities can be built on an as-needed basis as older facilities in the old town site become inefficient and obsolete.

Problem/Need:

The current village site lies entirely within a floodplain and flooding has occurred on average every seven years. The 1963 flood inundated the entire village with water levels about nine feet above the streets and established the base flood elevation at 109 feet above sea level. Most finished residential floor elevations are from 100 to 105 feet and are below the base elevation standard.

The erosion problem as defined in the previous section also affects the quantity and quality of homes in the community. At the current time about five homes are within two hundred feet of the riverbank. The riverbank erosion is an average of four feet per year.

Outside agencies are reluctant to fund construction of new homes in the community because of the flood and erosion issues. The tribally designated housing authority, Interior Regional Housing Authority, has policy not to build new homes at the present village site because of these problems. They will generally provide rehabilitation/modernization projects only. The results of this policy are evident as you walk around the community and see the characteristics of homes built through individual and local efforts as opposed to many rural communities that have a neat row of pre-fabricated homes funded and built by outside agencies. As previously mentioned, most homes in Koyukuk are built of local white spruce logs through individual local efforts and initiatives.

Recommendations:

The community recommendation is that the planning process be accelerated to determine when and how the community moving process can begin. This effort will require substantial local initiative because of the scope and expense of the move. While there
can, and should, be outside funding support to help the move effort, the community continues to advance the move efforts by conducting these simple proactive activities. Firstly, the local support should remain focused and the planning process already in progress be accelerated.

Furthermore, the governing organizations can provide declarations that the chosen site will be the new town location. Site control issues can be resolved and the location should be surveyed and zoned/mapped out. The access road to the new site should be planned and funding sought to build the road. Concurrently, funds should be sought to begin preparation of the Koyukuk Relocation Plan. These positive steps will prepare the community and support the efforts for the actual move process.

As community action commences, the dialogue with the appropriate Federal and State Agencies should be expanded. The federal agencies will include the U.S. Army Corps of Engineers, the Natural Resources Conservation Service, Federal Emergency Management Agency, Department of Housing and Urban Development, Department of Agriculture, and our Alaska Congressional Delegation. The State agencies will include Department of Community and Economic Development, the Division of Homeland Security and Emergency Management, and appropriate State Legislators. All of these agencies are aware of the flooding and erosion problems in Koyukuk and the imminent need to relocate the community. It is commonly acknowledged that four villages in Alaska are in imminent danger because of flooding and erosion: 1) Kivalina, 2) Newtok, 3) Shishmaref, and 4) Koyukuk. In fact, Senator Ted Stevens of Alaska held a U.S. Senate Committee Meeting in Anchorage in June 2004, titled Alaska Native Village Erosion, to discuss in part these four communities’ situation and problems they have to access federal and state programs and services to alleviate flood and erosion concerns. The agencies top managers stated that plans are being made to address these concerns and will incorporate strategies to improve services and funds to these four communities. They would like to see positive proactive decision-making process demonstrated by the communities as a prerequisite for attaining support.

The community can demonstrate its proactive process by incorporating the activities listed above in the second paragraph above. They include providing a declaration or resolution that the chosen site will be the new town location, addressing site control issues, doing survey, and having the location zoned/mapped out. The access road should be planned and funding sought to build the road. Then planning should begin for preparation of a Relocation Plan. Once a Relocation Plan is completed the community can actively begin seeking funds to begin moving. It is suggested that the community seeks funds to build one to three residential structures at a time with funding that come available from various federal or state sources on an intermittent basis. These funds can be supplemental to NAHASDA funds flowing through the Interior Regional Housing Authority or other public or private grants. Seeking funds to build one-three houses at a time is more manageable than trying to secure a big chunk of funds from one agency, as an example U.S. Army Corps of Engineers for $50 million dollars to build, let’s say, thirty-forty homes. Building at the smaller scale may increase the implementation time required but is significantly more achievable.
This project will be long term in nature and should be at least ten years in duration. Periodic revisions or adjustments should be done every two years.

**Implementation Plan:**

**Priority Actions to Begin Move**

1. Governing Organizations Provide Declaration of selected Site.
2. Resolve Site Control Issues.
3. Complete Road to New Site.
4. Survey, Zone and Map New site.
5. Fund and Prepare Relocation Plan.
6. Seek funds to relocate homes.
7. Build homes at new site.
8. Build infrastructure on as-needed basis.

**Lead Organizations and Timelines**

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Declare selection of New town Site</td>
<td>City and Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Resolve Site Control Issues</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>3</td>
<td>Complete Road to New Site</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
<tr>
<td>4</td>
<td>Survey, Zone and Map New site</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
<tr>
<td>5</td>
<td>Fund and Prepare Relocation Plan</td>
<td>Lead Organization</td>
<td>Year 4</td>
</tr>
<tr>
<td>6</td>
<td>Seek funds to Relocate Homes</td>
<td>Lead Organization</td>
<td>Year 5</td>
</tr>
<tr>
<td>7</td>
<td>Begin Building Homes at New Site</td>
<td>Lead Organization</td>
<td>Year 8</td>
</tr>
<tr>
<td>8</td>
<td>Build Infrastructure on as-needed Basis</td>
<td>Lead Organization</td>
<td>Year 10</td>
</tr>
</tbody>
</table>

**Priority # 3 – Develop New Potable Sewage Systems**

**Current Status of existing Services:**

The 2000 Census lists fifty-five total residential housing units in the community. Of these, one unit is teacher housing and is fully plumbed with running water and sewer systems. Another five units are connected to a Co-water flush/haul water delivery/sewer collection system. This system is a pilot demonstration project that has generally been unreliable because of equipment failure and maintenance/operation support. The remaining forty-nine residential homes still haul their own water from the centralized washeteria watering point and for sewer needs; residents use outhouses or self-haul honey buckets to pit privies or other unimproved disposal area near their residences.

**Problem/Need:**

Clearly there is a need to develop positive alternatives to the outhouse or honey bucket sewer system in need of residential health, safety and well-being reasons. In a 2005
Koyukuk Sanitation Facilities Master Plan prepared by a consulting firm for the Alaska Native Tribal Health Consortium, there included detailed discussion of sewer and wastewater needs for the community. The plan evaluated the current water and sewer system and recommended alternatives for possible development. The report logically describes the health and safety issues with the current water and sewer systems that generally promote unsanitary conditions throughout the community.

In general while there has been State and National attention on the unsanitary practices in Rural Alaska and a consensus doing ‘away with the honey bucket’ in villages, progress on improved water and sewer systems have been slow because of the high cost of designing, building, and maintaining meaningful projects in rural Alaska. The community of Koyukuk hopes to chart its own destiny but have realized the need to harness outside technical help and resources for this effort.

Recommendations:

The community goal is to improve residential homes with better sewer systems. The means to accomplish this will be through development of new potable sewage systems for new and existing homes in the community. The process should be a thorough review of the above Sanitation Facilities Master Plan to evaluate alternatives for development. One of the recommended alternatives is an individual septic system for each residential home supported with individual water wells. One well may support a number of households dependent on location and distance. This approach appears to be the most cost effective alternative to the current water and sewer systems.

This project should be considered long term and included with the other community efforts for moving the village to a new town site and erosion control priorities. Development in any of these initiatives will affect the scope and nature of the other related projects. The fact is these projects are all related to one another and none are mutually exclusive of others. The timeline on this project should be at least ten years.

Implementation Plan:

Priority Actions to Develop New Potable Sewage Systems

1. Establish Lead Organization.
2. Assess the conditions of the current systems.
3. Recommend Improvement Strategy to support future needs.
4. Analyze cost estimates.
5. Do Operation and Maintenance Analysis.
6. Seek and secure sources of funds.
7. Implement a phased construction plan.
8. Operate and manage system for long term.
Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City and Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Assess current conditions</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>3</td>
<td>Recommend Improvement Strategy</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
<tr>
<td>4</td>
<td>Analyze cost estimates</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
<tr>
<td>5</td>
<td>Do O&amp;M Analysis</td>
<td>Lead Organization</td>
<td>Year 4</td>
</tr>
<tr>
<td>6</td>
<td>Seek/secure sources of funds</td>
<td>Lead Organization</td>
<td>Year 5</td>
</tr>
<tr>
<td>7</td>
<td>Implement a phased construction plan</td>
<td>Lead Organization</td>
<td>Year 8</td>
</tr>
<tr>
<td>8</td>
<td>Operate and Manage system for long term</td>
<td>Lead Organization</td>
<td>Year 10</td>
</tr>
</tbody>
</table>

COMMUNITY CULTURE AND EDUCATION

Summary

Focus and sustainment in the areas of community, culture, tradition, and education have always been, and continue, to be important considerations for the complex community environment of Koyukuk. The community has set high standards in developing programs and services that evolve around and maintain these societal attributes. To address the long-term needs of the community critical goals have been identified in this plan that seeks to promote preservation of these high standards. The goals include: 1) to preserve our Native cultural heritage; 2) To transfer our traditional language and skills to our youth; 3) To provide for excellent education for children, youth and adults; and 4) To support services and facilities for food preservation and subsistence activities. The methods or means to achieve these goals are: 1) To plan, develop, and start-up a local culture camp for youth and adults; 2) To develop and start-up an active language preservation program; and 3) To seek funds and build/maintain a subsistence warehouse with walk-in freezer and smokehouse. These activities will complement on-going efforts preserve the culture, traditions and ways of life while modernizing the community to make it a better place to live.

Priority # 1 – Implement Local Culture Camp

Current Status of existing Service:

The planning, development and implementation of a local culture camp is not a new project for the community. A small culture camp project have been set-up and operated by the tribal council across the Yukon River on a Native Allotment. The camp is operated for about a month during the summer, generally when the salmon are running. This is a fish camp atmosphere and related subsistence, cultural, and traditional activities are provided. Instructors and youth travel back and forth on a daily basis to the community. The community would like to expand this operation or similar activity.
Community residents have the requisite skills, knowledge and abilities to provide the curriculum and structure for an expanded culture camp. Elders and adults actively provide on-going traditional knowledge and experience training for the youth, and implementation of this project will support that process. Other communities have developed similar projects and can provide model activities for planning and developing a local culture camp.

**Problem/Need:**

Koyukuk is a typical rural village that is transitioning into a more modern and westernized society. Culture, tradition, and older ways of life are increasingly becoming less important and these practices are becoming more infrequent for the younger generation. The cultural and traditional practices that are becoming less common everyday activities relate to hunting, fishing, trapping, song-writing, dancing, storytelling, food preservation, food usage, skin sewing, weather forecasting, tool construction and use, and arts and craft production. There is a need to expand and develop a local culture camp that can promote transference of these skills to the younger generation. These skills are needed to help prepare the younger generation to live a better life should they remain in the community for the long term.

**Recommendations:**

The community recommends that a planning process be initiated that will expand and develop a local culture camp to be located within a ten-mile radius of the community. Potential sites may be on tribal, municipal, Native allotments, or Native Corporation lands, located along the riverbank. One to five acres will be sufficient to meet space needs for this project. Daily travel by boat or snow-machine can be the mode of travel or temporary shelters or tents can be used for overnight accommodations. Native people are inclined to leave as gentle a footprint as possible on the land, so permanent structures will be limited and may not even be necessary. The governing organizations can establish and manage this project on behalf of the community.

This project can be implemented at reasonably low cost and relatively brief timeframe. The initial operating season should logically coincide with the non-school periods from mid-May through end of August. Over time other activities for fall, winter and spring seasons can be included for special and week-end outings and consideration for expansion into existing school curriculum is possible. This is a normal development process for these types of community projects, in that they start small scale and grow with experience and efficiency.

The focus of activities will include those listed in the Problem/Needs subsection above and will be an interactive process between teacher and student. These activities need to be positive and fun for the participant as would be any effective positive reinforcement model.

The timeline for this project should be three years or less.
Implementation Plan:

Priority Actions to Implement Project

1. Establish Lead Organization.
2. Define Scope of Project.
3. Develop Project Costs.
4. Identify/Seek sources of funds.
5. Start-up expanded culture camp.
6. Evaluate/expand operation.

Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Define Scope of Project</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Develop Project Costs</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Identify/Seek sources of funds</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>5</td>
<td>Start-up expanded culture camp operation</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>6</td>
<td>Evaluate/expand operations</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
</tbody>
</table>

Priority # 2 – Start Language Preservation Program

Current Status of existing Service:

The use of the Koyukon Language in the community, and throughout the Koyukon Region, is slowly fading away. At the present time in the community only those sixty-five and older have the ability to speak the language fluently and those number less than fifteen people. At this rate of decline, the fluent speakers will be gone in less than a generation. While the fluency rate has declined, the language has been institutionally documented with a dictionary and other language documents.

It is also notable that the community is home to Eliza Jones, the renowned Athabascan Linguist, who is retired and has taught for many years at the University of Alaska – Fairbanks and has co-authored the comprehensive *Koyukon Athabascan Dictionary*, a compilation of more than eleven hundred pages. She has also developed other Koyukuk Language books and manuscripts that have been used extensively throughout the Koyukon Region, a local area of approximately thirteen villages with about 3,500 residents. She remains active in local and regional language programs and services and should be a considered a valuable asset to any language preservation effort. Her knowledge and experience will be invaluable in developing this project.

Problem/Need:
The 2000 Census identifies that of the ninety residential population of five years and older, twenty-one or twenty-three (23) percent speak a language other than English (Koyukon). However, the census data is more than seven years old and current estimates are that about fifteen local fluent speakers are left in the community and this approximates about seventeen percent of the population. The grim fact is that within one generation all of the fluent speakers will likely be gone.

While the language has been institutionally documented in writing, the lack of fluent speakers coupled with the complexity of the Koyukon Dialect will make future efforts more difficult and costly. In order to accomplish meaningful results at this stage will require the community to engage in an active language preservation program.

Recommendations:

The community recommendation is that a planning process be initiated that will seek to establish an active language preservation program for the community. One of the first steps will be to assess what resources and assets are available that will help to develop a local language program. The Yukon – Koyukuk School District has a language program that may be tapped into to provide guidance and assistance as well as actually provide language instruction classes or youth or adult work sessions with local involvement. The University of Alaska – Fairbanks also have an active Alaska Native Language Center that should be sought to participate in this community endeavor. Classes and instruction sessions can be incorporated into the School District and University Programs to provide accreditation and language program structure. A local language council should be established that could provide that local level of participation and develop community vesting involvement. This should be a three-year project.

Implementation Plan:

Priority Actions to Implement Project

1. Establish Lead Organization.
2. Review existing Language Programs.
3. Establish Local Language Council.
4. Develop Language Program Plan.
5. Seek Funds to Implement Language Program
6. Operate and Manage Local Language Program.

Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Review existing Language Programs</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Establish Local Language Council</td>
<td>Lead Organization</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Develop Language Program Plan</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>5</td>
<td>Seek Funds to implement Language Program</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
</tbody>
</table>
Priority # 3 – Build Subsistence Warehouse/Freezer/Smokehouse

Current Status of existing Service:

This will be a new community project since no such facility exists in the community at this time. Presently the gathering, preparing, packaging, and preserving of subsistence food products are a blend of old traditional ways and methods and newer more modernized methods usually done by individuals, families or clans. Fish and Moose harvesting activities require an abundance of time, effort, and techniques, to preserve and store. Other foods such as bear, ducks and geese, and numerous other small game, as well as berries and vegetables are all harvested locally and are generally preserved or stored in some manner. Some households have small freezers or simply use cold storage holes in the ground to preserve subsistence products. The community lies in a continuous permafrost zone, but the presence of permafrost varies in depth throughout the community from six to fifteen feet. Storage of subsistence food products in a hole in the ground that is not adequately maintained at an acceptable chilled level is not a safe and acceptable food preservation practice. It is a fact though that some of the age-old practices of allowing food to age and naturally decomposes to enhance flavor and taste brings immediate concerns for health and safety. Individual and family smokehouses are common throughout the community and in surrounding fish and subsistence camps. Most are small of less than 200 square feet in size and are generally used to cold smoke fish and moose products. Other local small game resources are also smoked and then preserved. The old ways of gathering and preserving food are still an important cultural element in the community that needs to be blended with newer and more sanitary and safer food preservation methods.

Problem/Need:

The importance of subsistence resources is vital to the long-term viability of the local economy and culture. The State of Alaska estimates that the residents of the Yukon-Koyukuk Census Area harvest an annual average of 454 pounds of subsistence foods per person. This compares to an annual average of 23 pounds per person in Urban Alaska. The State further describes that the caloric percentage of subsistence resources is forty-one (41) percent of the total caloric intake. These numbers support the fact that, while most outside economic indicators do not include subsistence resources in their income and economic data, this practice is a crucial element in sustaining the local economy.

Another common element in harvesting subsistence resources is the fact that it takes significant time and effort to conduct these activities. There exists a need to decrease time and effort into food preservation activities to balance those needs against the time requirements to maintain employment, and do those other things that keep families and community functional. Because subsistence activities are logically increased in the brief spring and summer duration, a community subsistence work area, storage and smoker
will help reduce the time required to conduct these activities and will help address the need.

There definitely exists a need for more modern food preservation methods and practices. Common age-old practices of ageing food to enhance flavor and taste can breed the emergence of botulism that is harmful to consumers. A community project is needed to help develop facilities and educate and improve food handling and storage. There is a need to blend the old practices with more modern methods, but to conduct these activities in a more modern and safer manner.

**Recommendations:**

The community recommendation is that a planning process be initiated to build and maintain a subsistence warehouse with a walk-in freezer and smokehouse/work area. This project will enhance the ability to increase safer and efficient subsistence practices and will encourage the education of younger residents to utilize more efficient and effective food harvesting and handling methods. This project will advance the economy of the community by improving subsistence harvesting techniques, in an activity area that is so crucial to the economic well being of the community. This plan should have a timeline of at least five years.

**Implementation Plan:**

**Priority Actions to Implement Project**

1. Establish Lead Organization.
2. Conduct Feasibility Planning.
3. Determine Scope of Project/Prepare Plan
4. Seek Sources of Funds.
5. Secure Sources of Funds.
6. Construct Facility Project.
7. Operate and Manage Project.

**Lead Organizations and Timelines**

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish Lead Organization</td>
<td>City or Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Conduct Feasibility Planning</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>3</td>
<td>Determine Scope of Project/Prepare Plan</td>
<td>Lead Organization</td>
<td>Year 2</td>
</tr>
<tr>
<td>4</td>
<td>Seek Sources of Funds</td>
<td>Lead Organization</td>
<td>Year 3</td>
</tr>
<tr>
<td>5</td>
<td>Construct Facility Project</td>
<td>Lead Organization</td>
<td>Year 4</td>
</tr>
<tr>
<td>6</td>
<td>Operate/manage Project</td>
<td>Lead Organization</td>
<td>Year 5</td>
</tr>
</tbody>
</table>
LEADERSHIP

Summary

The Community of Koyukuk identified a number of critical issues and needs to be addressed under the category of Leadership. The goals are: 1) to strengthen and improve local governments; 2) To develop a strong leadership base in the community; and 3) to provide residents with workforce development opportunities. The means to accomplish these would be with the top priorities that include: 1) To have the City Government fully active, functional, and participative in local governance; 2) To develop strong leadership skills of both City and Tribal Governments with Board training, development of policies and procedures, financial controls, IT/Computer, etc., and 3) To seek funds to start-up a workforce development project for local residents. These priorities can be categorized as organizational and developmental needs that are essential to keeping the community functional and operational to meet community needs and standards. While these are not critical life and safety needs, they are paramount to help ensure that the community governance has the ability to sustain and grow the community in an acceptable manner. This section describes the current status of the identified priorities, defines and problem/need, identifies recommendations, and provides an Implementation Plan.

Priority # 1 – Get City Government Functional

Current Status of existing Service:

The City Government that manages most community facilities and infrastructure has been somewhat dormant in the recent past, even though facilities, programs and services have continued throughout the community. The services include operation of the washeteria/water, clinic, generator/electrical, fuel depot, heavy equipment, city office building, and other local infrastructure activities that are crucial to the community. The City is a second-class city with an elected seven-member council. The council appoints the mayor and other officers who then manage the city operations. Various staff operates and manages the various facilities, programs and services. During the past two years, council meetings have been irregularly held and while operation of the various facilities, programs and services has continued, the leadership guidance is lacking. This has caused a negative effect on the quality of services to community residents.

Problem/Need:

The problem can be simply stated in that the city governance is not fully functional and as a result quality of services has been negatively impacted. The elected council is not providing guidance as required under its governing structure by not holding regular meetings that are important to provide direction and guidance to existing staff, programs and services. The current council is not meeting its obligations as required under it municipal bylaws and organizational documents.
The associated problem is that this lack of active leadership is negatively impacting the quality level of services to residents. Because the city council has not met regularly, the city administration has performed poorly and has not provided the necessary daily direction and guidance that program managers need such as those of the washeteria, clinic, generator/electrical, Fuel Depot, and various facilities, programs and services affiliated and provided through the city structure.

The lack of leadership is impacted by the overall budgets and sources of funds that maintain city services. The composition of the budget figures is important is because it relates to the costs of services and specifically related to wages paid for city administration. In FY 2005 the actual city budget was $177,476. This included a State of Alaska, revenue sharing appropriation of $40,000. The state revenue-sharing source equaled twenty-three (23) percent of the total operating budget. In FY 2007, the revenue sharing was deleted from the state budget and subsequently these funds were not available to the City of Koyukuk. Because of the cut, the operating city budget has changed substantially, and has negatively affected council and management operation.

Recommendations:

The community recommends the city government becomes fully functional as required by bylaws and other organizational documents. To do this may require changes to council members, officers, staff and operation. The community has already begun the process of making the necessary council changes and should have new council members appointed by the time this documented is printed and adopted. The council will then begin to hold regular monthly meeting to provide direction and guidance to the city organization. A functional city administration will then be incorporated and achieved for the long term. Administration and management practices will be improved and will be better able to adjust to changing budget conditions.

Municipal assistance through the State revenue sharing appropriation is again budgeted for FY 08 but this source is not an entitlement program and is not mandated in state statutes. Rather the revenue sharing is proposed by the governor and approved by the legislature on an annual basis. The community should work with other rural organizations to mandate revenue sharing as a recurring benefit established in state statutes.

The timeline for this project should be two years or less.

Implementation Plan:

Priority Actions to Implement Project

1. Fill vacant city council seats with qualified residents.
2. City council to plan regular monthly meetings.
3. Establish strong city administration.
4. Plan for changes in city council, staff and operations.
5. Manage city operations per approved budgets/audits.
Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fill vacant city council seats</td>
<td>City of Koyukuk</td>
<td>Month 1</td>
</tr>
<tr>
<td>2</td>
<td>Plan regular council meetings</td>
<td>City Council</td>
<td>Month 2</td>
</tr>
<tr>
<td>3</td>
<td>Establish strong city administration</td>
<td>City Council</td>
<td>Year 1</td>
</tr>
<tr>
<td>4</td>
<td>Plan changes in council, staff &amp; operations</td>
<td>City Council</td>
<td>Year 1</td>
</tr>
<tr>
<td>5</td>
<td>Manage operations per budgets/audit</td>
<td>City Council</td>
<td>Year 2</td>
</tr>
</tbody>
</table>

**Priority # 2 – Develop Leadership Skills of Community Governments**

**Current Status of existing Service:**

The two local governing organizations include the City of Koyukuk and the Village of Koyukuk. The City manages most facilities and infrastructure projects and includes the washeteria, generator/electrical system, clinic, community hall, fuel depot, landfill, roads and equipment. The Village manages the social, educational, cultural and environmental planning for the community. Both organizations share the city office building with the tribe on the first floor and the city on the second floor. The city has about five employees who provide administration or manage programs or services, and the village has about four employees who administer and manage the various needs of the tribe. Management and administration support as well as various programs and services support are established with management and technical assistance from outside organizations such as Tanana Chiefs Conference, Interior Regional Housing Authority, Yukon-Koyukuk School District, and others. While it appears that both organizations have established credible organizational structures, management and administrative policies and procedures, and operation efficiency, there is a need to develop leadership skills of both councils and staff.

**Problem/Need:**

The city and village governing bodies need improvement of management skills for community leaders. Both city and tribal organizations have had turnovers in council members in recent years that will require new and existing members to receive proper instruction in performing their duties in a responsible manner. There is a critical need for the community leadership to understand their roles and responsibilities. Issues of budgets, audits, financial accountability, capital project planning, are all required knowledge for council to know and understand. The bottom line is that the city and tribal councils need leadership training on understanding their roles and responsibilities.

There exists a need to improve the city and tribal council administrative and financial systems. Policies and procedures are non-existent or outdated and needs to be made current. Some of the existing documents have little relevance to existing operations. Staff needs to be trained to manage and operate programs and services in accordance to
approved policies and procedures. Staff training on property management, accounting, financial records/files, and upgrading IT/Computer needs are necessary. Computer equipment and software should be standardized and training provided. There is a need to receive training on grants administration to meet timeliness and compliance requirements.

Recommendations:

It is recommended that the city and tribal governing organizations seek funding support to provide leadership training for councils and staff and to improve the organizational structures and management and administrative systems for both governing organizations. The following objectives will be sought: 1) To increase the aptitude and understanding of the elected officials of their important roles and responsibilities in conducting and overseeing the overall business through leader and management development, and 2) To develop and implement policies and procedures to ensure adequate administrative, financial, and management processes, including finance, administration, personnel, property, and procurement, that comply with government requirements and give staff the tools to properly conduct daily operations of the respective organization.

The community appears to be an ideal candidate for federal grant funds through discretionary programs that comes available on an annual basis, generally in the spring. A project to upgrade and improve the governance managements systems can be developed to meet that timeframe. The initial funds sought may be up to $200,000. A timeline for this project can be three years or less.

Implementation Plan:

Priority Actions to Develop Leadership

1. Convene joint city – tribe meeting to discuss need.
2. Identify Lead Organization/Staff
3. Prepare needs assessment for project.
4. Develop training plan.
5. Seek funding source.
6. Implement training project.
7. Utilize training tools/methods for LT operation

Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Convene Joint Meeting – City &amp; Tribe</td>
<td>City &amp; Tribe</td>
<td>Month 3</td>
</tr>
<tr>
<td>2</td>
<td>Identify Lead organization / Staff</td>
<td>City &amp; Tribe</td>
<td>Month 3</td>
</tr>
<tr>
<td>3</td>
<td>Prepare Needs Assessment</td>
<td>Lead Organization/Staff</td>
<td>Month 6</td>
</tr>
<tr>
<td>4</td>
<td>Develop Training Plan</td>
<td>Lead Organization/Staff</td>
<td>Year 1.5</td>
</tr>
<tr>
<td>5</td>
<td>Seek Funding Sources</td>
<td>Lead Organization/Staff</td>
<td>Year 2</td>
</tr>
<tr>
<td>6</td>
<td>Implement Training Project</td>
<td>Lead Organization/Staff</td>
<td>Year 3</td>
</tr>
<tr>
<td>7</td>
<td>Utilize Training Tools / Methods for LT</td>
<td>Governing Organizations</td>
<td>Year 3 +</td>
</tr>
</tbody>
</table>
Priority # 3 – Start-up Workforce Development Project

Current Status of existing Service:

This will be a new project since no on-site comprehensive workforce activity exists in the community. There is a regional employment service managed by the Tanana Chiefs Conference out of Fairbanks, which is more than 250 air miles east of Koyukuk. Clients generally have to travel to Fairbanks to receive services and job opportunities are usually in the urban or oil field support locations. A number of employable aged residents have migrated out of Koyukuk in the past decade to seek job opportunities elsewhere. The majority of these past residents have stated that they would prefer to live full time in the community if there are job opportunities available. There is a need to develop local employment opportunities to sustain the community for the long term.

Problem/Need:

Koyukuk is a remote small community that has limited economic and employment opportunities based on the current infrastructure and community conditions. The 2000 Census shows that the per capita income was $11,342, and the median household income was $19,375. The median household income statewide was $41,000. The Census data further describes that twenty-one (21) percent of the population is living below the poverty level as compared to nine (9) percent statewide. The unemployment rate is eighteen (18) percent and there is sixteen people or twenty-four (24) percent not in the labor force. Those residents not in the labor force are generally discouraged workers who are not counted in unemployment statistics. When you count the total unemployment (#12) plus those not in the labor force (#16) as a percentage of the total employable residents of age sixteen and over (#68), the total unemployment figure and percentage increases to twenty eight (28), with an associated percentage rate of fifty-six (56) percent. This is a significant number of residents not working.

The community lost about nineteen (19) members of its population between the twenty-six (26) year period from 1980 to 2006, about an eighteen percent decline. The population was 107 in the 1980 Census and 88 as listed in a 2006 State Demographer count. As previously stated the decline in population can be attributable to various factors relating to mortality rates, lack of local employment, lack of housing, health reasons, and generally more opportunities elsewhere. It is a fact though that most of those that have moved are younger more employable individuals, some with young families, who seek better economic opportunities elsewhere.

There are few full-time employment opportunities in the community forcing many residents to rely on seasonal and sporadic income, government transfer income, and subsistence resources. Year round employment is generally limited to the Tribal Council, City of Koyukuk, Clinic, Post office, a locally owned store, and a few part-time jobs with three-four bush airlines as local agents. The local school provides about three jobs during
the school year. Other income opportunities are as forest firefighters, occasional construction projects, and day labor. Trapping and arts and crafts production supplement income. The fact is that full-time employment opportunities in the community are extremely limited.

Recommendations:

The community recommendation is a planning process be initiated that will seek to establish a meaningful workforce development project that will support or assist with securing full-time employment opportunities to approximately ten residents who are unemployed or not in the labor force. This will positively affect about thirty-six percent (10/28) of those in this category. This can be a phased multi-year project to begin at a smaller scale initially and then expand activities as experience and operating efficiency increases. Focus of the project can be on providing client referrals, outreach, training support, educational support, mentoring, and associated client technical support.

This project should be grant funded most logically through federal sources, but foundation grants can be sought also. The goal of this project to develop employment opportunities to needy recipients is a priority area for many grantors. Management and administration of this project should be through the tribal council since they are proactive in developing social programs that are non-facility related. This should be a long-term project with a minimum five-year timeline.

Implementation Plan:

Priority Actions to Develop Project

1. Identify Lead Organization/Staff
2. Convene community meeting to discuss need.
3. Prepare needs assessment for project.
4. Develop Workforce Development Plan.
5. Seek funding source.
6. Implement Workforce Development Project.

Lead Organizations and Timelines

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Lead Organization</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify Lead organization / Staff</td>
<td>City &amp; Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>2</td>
<td>Convene community meeting / discuss need</td>
<td>Tribe</td>
<td>Year 1</td>
</tr>
<tr>
<td>3</td>
<td>Prepare Needs Assessment</td>
<td>Lead Organization/Staff</td>
<td>Year 2</td>
</tr>
<tr>
<td>4</td>
<td>Develop Workforce Development Plan</td>
<td>Lead Organization/Staff</td>
<td>Year 3</td>
</tr>
<tr>
<td>5</td>
<td>Seek Funding Sources</td>
<td>Lead Organization/Staff</td>
<td>Year 3</td>
</tr>
<tr>
<td>6</td>
<td>Implement Workforce Development Project</td>
<td>Lead Organization/Staff</td>
<td>Year 5</td>
</tr>
</tbody>
</table>
COMPREHENSIVE PLAN REVIEW PROCESS

This comprehensive community plan is intended to have a long range planning horizon that will help to guide community growth and development in the community for more than ten years. It must be a working document that is used on a regular basis for it to be effective in the decision-making processes of the community. If there is coordinated consensus and follow through on the plan’s goals and implementation, it is highly probable that real accomplishments will be realized and results can be tracked over time. It is critical that a comprehensive plan review process be adopted and instituted in a community wide effort into an integral component to this plan.

Due to the critical nature and need of the plan priorities, the revision cycle process for this overall plan should occur at least every three years. The revision process for implementation of the priorities identified in this plan can occur at more regular intervals, at least annually. The revision process of priorities will include significant interaction and participation from residents and any substantial changes or reports of progress will be made available to the general public. The public will be involved in, and be aware of, the implementation of this plan and any significant progress made.

In order to make this plan effective and workable for the community these are recommended steps to incorporate a plan implementation and revision process:

1. The plan will be made available for every tribal and city council meeting, included joint meetings, so it can be used in consultation and decision-making processes on the priority projects.

2. The Priority Implementation Section includes an Implementation Plan that can be used to measure success and can gauge progress. The priority actions and timelines will be reviewed periodically, at least annually, so that progress can be assessed and adjustments made as needed.

3. The Priority Implementation Section is the nuts and bolts of this plan for the community and will be used by the two community entities to coordinate and interact on progress made and any changes necessary to specific projects. Each priority project has a lead organization identified and this organization will report on status of the respective priority project on a needs basis. The opportunity for the tribe and city to jointly implement projects will be a major part of the discussion. As priority projects are implemented and significant progress made, then new priorities listed in the plan can be addressed.

4. The Priority Implementation Section will be updated at least annually, as projects are completed and new projects initiated. It is recommended that this change be done at a joint Tribe – City meeting with participation of local residents. The local plan coordinator will record changes after the meeting and will distribute updated material on projects to community organizations for use in the coming year.
5. After every three year period, the Koyukuk Comprehensive Community Development Plan will be thoroughly reviewed by both the Tribal and City Governments with public interaction, to determine which actions have been accomplished and which priority actions that should be focused on during the next period. This process will allow changes to be made to the plan as needed, and will help ingrain the plan into tribe, city, and public, mind and focus.

6. At the end of the ten-year milestone, an end of the plan period, the community will review the progress and accomplishment made on priorities and to begin the formation of a new plan. It is intended that concerted incorporation of the above steps over time will encourage and promote knowledge of the plan and specific projects. If this is the case, then the template for preparation and incorporation of a new long-range plan will be present that can guide and enable a more effective and efficient process.

In summary, the development and implementation of this plan is intended to be a Community of Koyukuk Plan that is critical to the long-term stability of the community. The plan is developed with the understanding that planning should be a continual process. It is based on information available at a particular time and in the future new developments will occur, or the needs of the community will change, requiring revisions to the plan. This plan is written with the intent that changes can be made and the plan updated as necessary. It is essential this plan be a working document.
REFERENCES

Koyukuk Sanitation Facilities Master Plan, prepared on behalf of the City of Koyukuk for the Alaska Native Tribal Health Consortium, Dept. of Environmental Health & Engineering by PDC Inc. Engineers, October 18, 2005

Alaska Rural Primary Care Facility, Assessment and Inventory Survey Report of the Koyukuk Health Clinic, February 26, 2002.


Community of Fort Yukon Comprehensive Plan, prepared for the City of Fort Yukon by the Cannelos Group, July 1996.

City of Sand Point Comprehensive Community Development Plan, prepared for the City of Sand Point by URS Corporation, September 2004.


Interior Regional Housing Authority, Annual Performance Report for 2006, prepared by IRHA for requirement of HUD NAHASDA Program.


Creating Healthy Communities, The Process of Community Discovery, prepared by Larry Dickerson for the University of Alaska – Fairbanks, May 2002.


APPENDICES

Appendix A: Potential Funding Sources

Appendix B: Technical Assistance Resources