

BETHEL

COMPREHENSIVE PLAN

2035

SEPTEMBER 2011

prepared by AGNEW::BECK Consulting
for the City of Bethel, Alaska



Executive Summary

Introduction

This is the Public Hearing Draft update to the City of Bethel's 1997 Comprehensive Plan. The draft builds from the 1997 plan, adding information on current issues and trends and new perspectives on public policies. This draft plan was prepared working with a wide range of community representatives, including Bethel residents, businesses, land owners, nonprofits, community organizations and agencies. City of Bethel Planning Department staff organized the planning process; Anchorage-based consultants Agnew::Beck have been helping the community prepare the plan.

The Comprehensive Plan is a guide for the provision of City services and the development of the community. To be of greatest value, the plan needs to set clear goals and strategies for the long term, but also allow flexibility to respond to unexpected challenges and opportunities.

The plan is adopted by City ordinance. Once adopted, it is included in the body of City regulations, but it does not have to be followed strictly like an ordinance, statute or other law. Rather, the policies included in the plan are intended to guide the decision-making of City staff and City Council. Individual decisions should be consistent with the plan, but at times may not be, as the specific conditions of any given decision will dictate the most appropriate action.

The plan sets a course for the future, but must be regularly reviewed and updated to reflect changing circumstances in the community. Simple clarifications and corrections may be made by City staff on an ad-hoc basis. Significant policy changes may be made at any time, but require approval by City Council. The plan should be reviewed by City departments on an annual basis, and the plan should be updated to accommodate major revisions about every five years.

Why a Plan?

State law (AS 29.40.030) requires local governments to prepare comprehensive plans, but the law by itself does not answer the question about why a community should prepare a plan. A comprehensive plan is not magic: it cannot by itself bring about progress on issues of concern to the community. But a comprehensive plan can be a powerful tool to help a community identify the most important challenges and opportunities it faces, and then to set priorities for action on these issues. Like a group of people talking about a hunting trip, success is much more likely if there is agreement on the direction they want to go and what they want to achieve. If a comprehensive plan accurately reflects community views, it can provide that kind of direction. A community that can reach agreement on what it wants to accomplish almost always can find ways to get things done.

Highlights of the Plan

Community Vision (Chapter 3)

We value Bethel as a place where people care about each other, the natural environment, and living close to the land. We envision a future in which the quality of our natural environment is protected for subsistence and recreation, and the land managed for the sustained prosperity of Bethel's people. We are rich in many ways today, but need to strive for a better community for

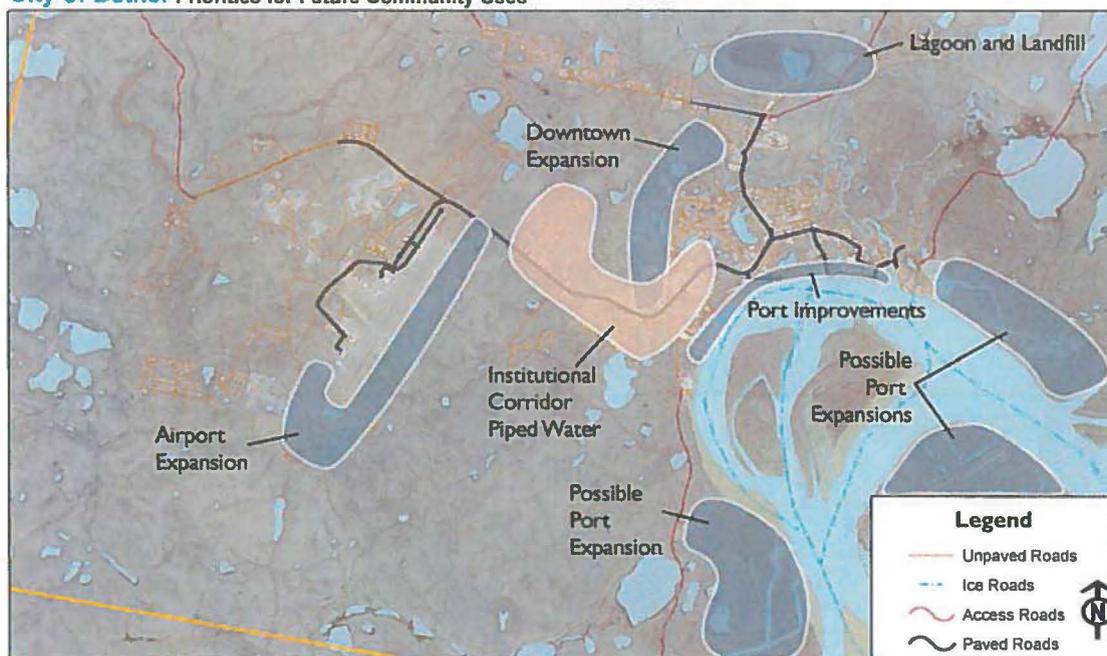
ourselves and our children. We will work to develop a healthy, more diverse economy, capitalizing on Bethel’s current role as a regional hub for transportation, healthcare, education, government services and trade, but also building a stronger base of enduring, locally based economic activities. We will invest in more stable and affordable energy supplies, and strive to guide development to reduce energy and infrastructure costs. We will promote better access within town by vehicle, public transit, dog sled and four-wheeler, and walking. We envision a community where all residents lead safe and healthy lives, and have access to water and sewer service, fire protection, and affordable housing. We hope to make Bethel a place that takes pride in its appearance, so the town comes closer to matching the beauty of our natural setting, with parks, trails, and accessible natural open space. And we will work together as one important part of the regional partnership needed to sustain our lives in this unique, vibrant land.

Land Use, Housing and Environment (Chapter 4)

Land use in Bethel reflects an ongoing response to human pressures for growth and change as shaped by the challenges of the western Alaska physical environment. The location of development in Bethel is dominated by the need to use the relatively few areas where soils offer few physical building constraints, and where road access is available. The result has been a community with a small central “downtown” with a gridded road system and relatively concentrated, mixed use development. Extending for miles west from the center are several major roads, which provide access to low density, mostly residential subdivisions, irregularly spaced commercial and public uses, and the airport.

Another factor influencing the location of development is the limited supply of private land. Bethel is embedded in the Yukon Delta National Wildlife Refuge. In addition, much of the private land that does exist is Native allotments, which present unique development challenges. The advantage of this land ownership pattern is that almost all the land surrounding Bethel is undeveloped public property, which supports the subsistence activities that are an essential part of Bethel residents’ way of life.

Map 4.3
City of Bethel Priorities for Future Community Uses

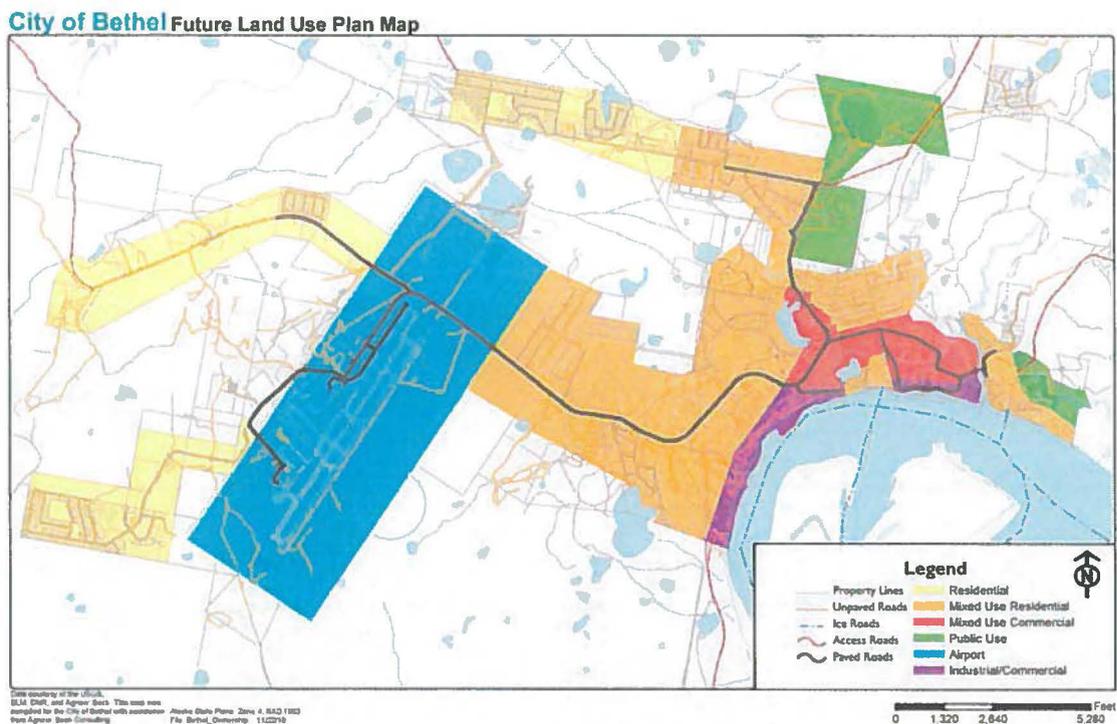


Priority Implementation Actions:

Priority Land Use implementation actions include:

- Identify and map critical anticipated community needs (Map 4.3). (GOAL 1, Action 1a, p9-5)
- Examine existing Bethel code and existing land uses; revise and simplify land use designations to better fit the reality of Bethel's mixed use land use patterns. Use the generalized future land use designations in the Land Use Plan Map (Map 4.4), which broadly identifies areas intended for various uses, as the starting point for revising the zoning code in BMC Title 18 (Bethel zoning code). (GOAL 3, Action 1a, p9-6)
- Work with existing landowners in priority growth areas to reach agreements that would allow needed growth to occur (e.g., purchase land, land trade, secure easements). Priority varies with use: a new or alternative treatment option for the sewer lagoon is currently of the highest priority. (GOAL 1, Action 1b, p9-5)
- Develop a city-wide, Geographic Information System (GIS) land records system; update as lands are subdivided or developed, and make data available for use by City staff and the general public. (GOAL 8, Action 1a, p9-9)

Map 4.4



Transportation (Chapter 5)

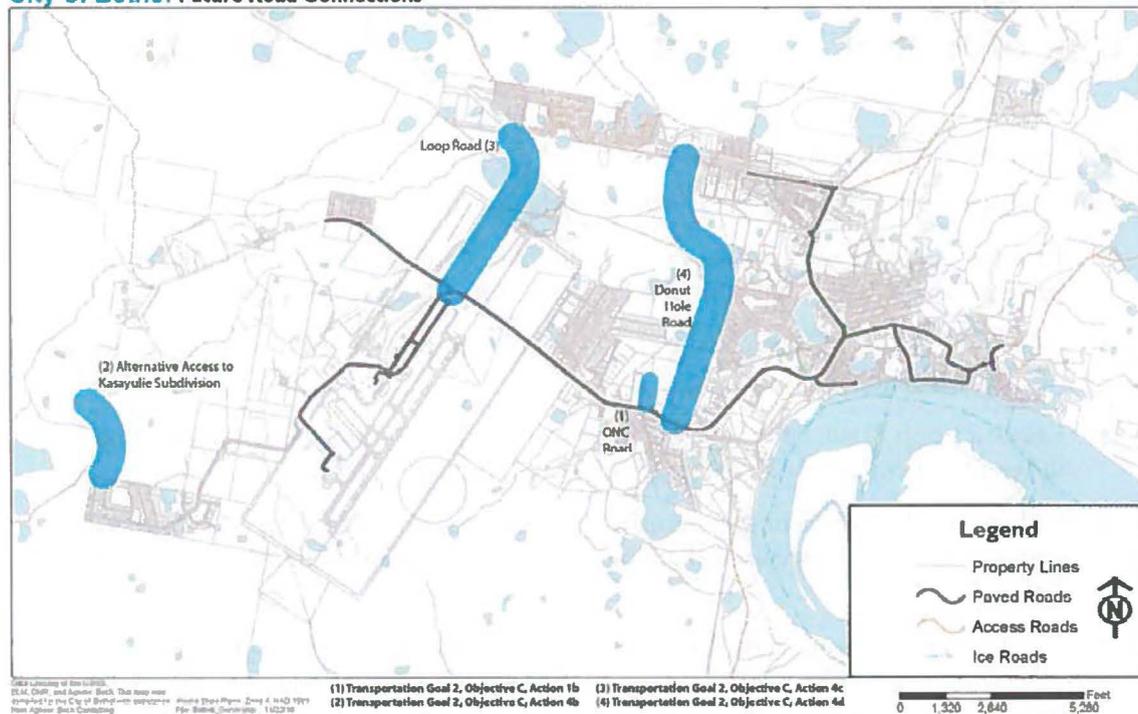
The transportation goals, policies, strategies and actions in this plan include those adopted as part of the 2010 ONC LRTP /City of Bethel Transportation Plan and additional points that came out of the Bethel 2035 planning process.

Bethel’s transportation facilities serve local needs and make the city a regional transportation hub. Bethel is served by the Chief Eddie Hoffman Highway, which connects to a few neighboring villages. The Kuskokwim River serves as major transportation channel by boat in summer and by ice road in winter. The Bethel Port and Airport are both regional transportation and shipping facilities. The City of Bethel also has a public transit bus system, and a local and regional trail system.

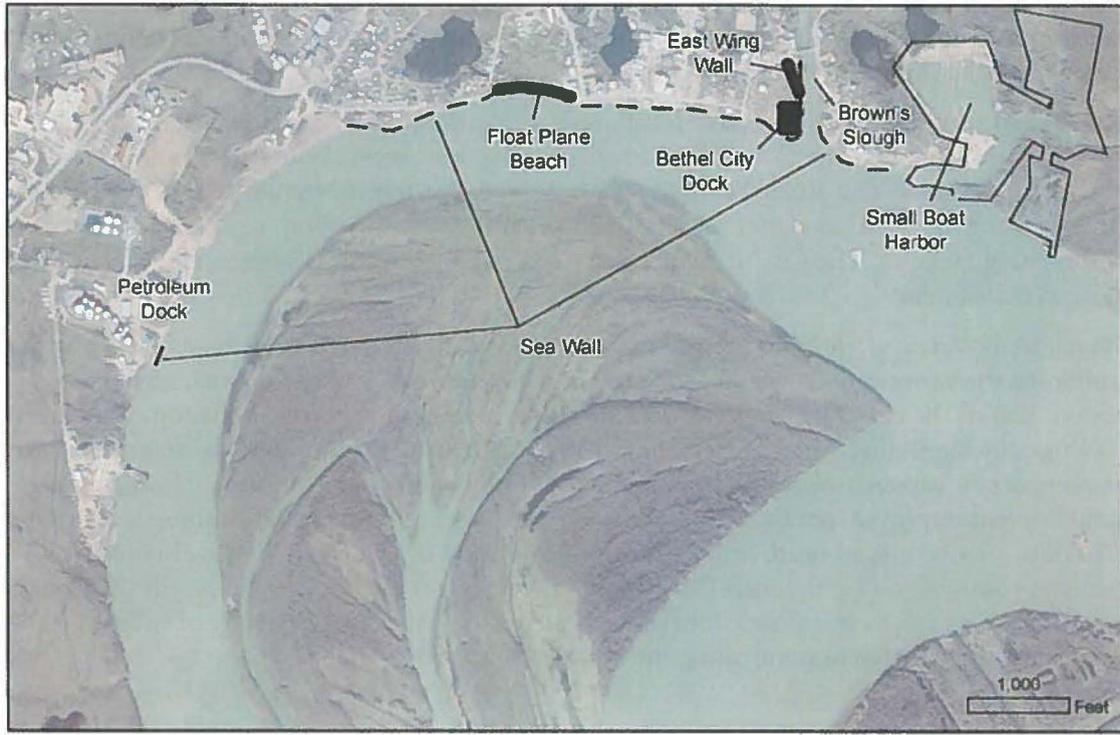
Overall transportation priorities include making improvements to the road system and port. Additional road connections will improve travel safety and convenience, particularly in the western half of the city. The future of the City’s role as a regional port is at the top of the list of challenges facing Bethel. Most of Bethel’s existing port facilities will require substantial maintenance or capital investment/replacement during the lifetime of this plan. Port activities could be significantly altered by two potential circumstances: Bethel could position itself as the main port for a proposed nearby mine (Donlin Mine), and the Kuskokwim River could be changing course significantly, such that Bethel’s existing port facilities would be cut off from the main channel of the river. Either of these scenarios would raise the possibility of building new port facilities at a different point along the Kuskokwim River.

Map 5.3

City of Bethel Future Road Connections



Map 5.7



Port Area City of Bethel



Alaska State Plane, Zone 4, NAD 1983
File: Bethel_Port_1/4/11

Data courtesy of the USGS
BLM, and Agnew Beck. This map was
compiled for the City of Bethel with assistance
from Agnew Beck Consulting

Priority Implementation Actions:

Priority Transportation implementation actions include:

- Establish an agreement between ONC and the City to allow transfer of maintenance funds from the IRR Transportation Program. (GOAL 2, Action 1c, p9-10)
- Install streetlights throughout the city, especially on Ridgecrest Drive, near the schools. (GOAL 2, Action 2c, p9-11)
- Create a Loop Road, either following the existing Tundra Ridge Road route or on a different but comparable alignment. (GOAL 2, Action 4c, p9-12)
- Include site development requirements in the zoning or subdivision code to specify ingress and egress (driveways), lighting, parking, and loading and offloading. (GOAL 2, Action 7a, p9-13)
- Conduct a navigation study of the changing Kuskokwim River along the Bethel waterfront to evaluate design alternatives that would reduce deposition and dredging and improve flow conditions for navigations through the channel crossing. (GOAL 5, Action 1a, p9-15)

- Based on navigation study results, determine the best long-term location for the Port; determine if dredging is needed along the Bethel waterfront. (GOAL 5, Action 1b, p9-15)

Economic Development (Chapter 6)

Bethel is the central service hub for the Yukon-Kuskokwim Delta, serving 56 remote villages with a regional population of about 26,000 people. The majority of the cash economy of Bethel derives from providing regional services including government administration, transportation, fuel and freight distribution, education, health care and social services. Employment from these public-serving agencies and organizations provides the foundation for Bethel’s retail and other economic sectors including restaurants and grocery stores, taxis, construction, and telecommunications.

Alaska is more dependent on government spending – federal, state and local – than any other state in the union. The economy of the Bethel Census Area and the City of Bethel is more dependent on government spending than any other region of Alaska, with just under half of all jobs in the Census Area directly supported by government activities.

Table 6.4

Median Share of Income Alaska Households Spend for Home Energy Use (2000, 2008)		
	2000	2008
Alaska Statewide (all households, all incomes)	2.8%	4.7%
Anchorage	5.5%	8.7%
Other Large and Road System Communities	9.2%	17.9%
Remote Rural Communities	15.9%	47.0%

Source: University of Alaska Anchorage, Institute of Social Economic Research, Report by Saylor, Haley, Szymoniak; 2008.

Bethel’s economic challenges and opportunities include:

- The high cost of energy in Bethel results in a high cost of living and of doing business, which constrains local economic growth.
- According to anecdotal information from community discussions, the high costs and challenges of living in Bethel are drawing away many capable people who would otherwise choose to live and work in the community (“brain drain”).
- Fiscal challenges at the federal and state level are likely to create increasing pressures for reductions in out-of-region government funding. The combination of the pressure for budget cutting and the departure of Senator Ted Stevens is likely to lead to significant

reductions in funding for many of the nonprofit, tribal and government organizations based in Bethel¹.

- The controversial Donlin Creek Mine prospect could bring jobs and reduced energy costs to the region; however, the impacts of this project and its financial viability have yet to be determined.
- The lands, resources and people of western Alaska are vital and resilient. While major changes may be unavoidable, the cultural traditions and creativity of the region are potent resources.

Priority Implementation Actions:

Priority Economic Development implementation actions include:

- Take actions to stabilize energy costs (see Chapter 7) and to position Bethel to remain the region's primary part (Chapter 5)
- Support development of the community swimming and recreation center (i.e., the BATH Center project); this project simultaneously benefits local residents and can bring more spending into the community from surrounding villages (; see Public Facilities and Services Objective G, Action 1b). (GOAL 4, Action 1a, p9-18)
- Identify and work cooperatively on key economic and infrastructure issues (e.g., energy and freight delivery) in order to make progress on these specific challenges, and to improve relations among leading organizations in the area and build capacity to take on other important projects. (GOAL 6, Action 2a, p9-21)
- Develop a regional response to the opportunities and challenges posed by the Donlin Creek Mine (e.g., environmental protection, port location, options for regional energy solutions, employment and training). (GOAL 6, Action 2b, p9-21)
- Coordinate lobbying among local and regional institutions to explain the value and impact of programs (e.g., Power Cost Equalization or PCE program). (GOAL 6, Action 3a, p9-21)

¹ While federal military spending is increasing, "The future of non-military federal spending in Alaska is much less secure and may already be on the decline. It's impossible to know for sure because the most recent data available is for 2005, but there are hints that the peak may have come in 2006. What is known is that the value of all federal earmarks, a rich stream of dollars to Alaska, fell by more than 50 percent in 2007." State Department of Labor – Alaska Trends April 2008.

Energy (Chapter 7)

High energy costs (for electricity, home heating, and for cars, snowmachines, boats and planes) are driving up the cost of living and the cost of doing business in Bethel, for both public and private entities. One of the highest priorities for Bethel is to find a way to lower or at least to stabilize energy costs. Because of Bethel's location, distant from Alaska's major population centers and off the road system, and due to the area's cold climate and lack of local energy-producing resources, it is unlikely that Bethel will see energy prices lower substantially.

There are a number of initiatives currently underway to address the high cost of energy in Bethel. Bethel residents are using new and traditional energy sources (such as wood-burning technology) to heat buildings and generate electricity (e.g., wind turbines). The City and Orutsararmiut Native Council (ONC) are working with others in the community to help reduce energy use and energy costs. The Housing Authority partnered with AHFC to train energy auditors, and ONC has funding to help homeowners improve the energy efficiency of their houses. The City is looking at alternatives including natural gas and large-scale wind energy.

Regional projects under consideration include:

- a hydroelectric facility at Chikuminuk Lake to provide electricity to Bethel and 13 villages in the Yukon-Kuskokwim Delta, with regional plants, interties, and wind farms supplementing power needs in individual communities as needed.
- options for natural gas.
- construction of electric transmission lines among clusters of villages to distribute power from a system of centralized shared power generation plants.
- Bulk fuel purchases, in which multiple communities purchase fuel as a group.

The City recently completed a study of potential costs savings that could be realized under different electric utility ownership structures, alternative fuel procurement, increased wind-generation, and with surplus heat sales (waste heat). The study found that:

- On balance private ownership of a local electric utility is not the major cause of high electric prices in Bethel.
- Electricity costs in rural Alaska are largely a function of the cost of diesel fuel.
- The integration of wind could help reduce costs for electricity (by between 1.8 and 5.3 percent) when the utility itself provides the wind resource. When wind generation is held by a third party, potential cost savings are significantly reduced.
- The ideal electric utility model for Bethel would be a cooperative that operates its own fuel storage (possibly using a pipeline system), integrates wind, and allows the city to utilize waste heat. *This assumes that BUC would be willing to sell to a cooperative and that a locally based cooperative could be formed with the capacity and resources to take over and run the utility.*

- The City should develop relationships with key agencies, businesses and institutions, including BUC (or its successor), the RCA and the RAPA,² and other organizations to work on energy issues in Bethel.
- A regional energy cooperative with the ability to address energy needs and issues at the regional level could be formed to make bulk fuel purchases and lower the cost of diesel fuel.
- While new energy sources need to be pursued, energy conservation is the single most important means to respond to rising energy costs. Over the long term, more manageable energy costs will likely come about through a range of modest actions, rather than one or two dramatic changes.

Priority Implementation Actions:

Priority Energy implementation actions include:

- Establish education and support services for local residents and builders so that existing homes can be made more energy efficient, and to support energy efficient design and construction for new homes. (GOAL 1, Action 1b, p9-23)
- Encourage the use of more fuel-efficient motorized vehicles. (GOAL 1, Action 2c, p9-23)
- Share and update information (e.g., maps of future commercial, residential and/or institutional development, maps of easements and rights-of-way, plans for utility infrastructure expansion) on an annual basis, with the goal of improving the City's ability to coordinate planning for future land development and a range of energy solutions. . (GOAL 2, Action 3a, p9-24)
- Engage in a joint long-range planning effort to ensure that the utility, the City, major electricity users, and other local and regional stakeholders work together to meet community electricity needs. (GOAL 2, Action 3b, p9-24)
- Explore the feasibility of a City-owned tank farm. (GOAL 2, Action 4a, p9-24)
- Explore bulk fuel purchasing options. (GOAL 2, Action 4b, p9-24)
- Develop new City policy to guide the placement and operation of wind turbines to ensure the safety and quiet enjoyment of the community. (GOAL 3, Action 1a, p9-24)
- Work with the electric utility to understand the capacity of Bethel's electric generation and transmission infrastructure to accommodate alternative energy sources, and also to determine the most appropriate levels of investment in various alternative energy sources. (GOAL 3, Action 1b, p9-24)
- Reserve land or land development rights for alternative energy development and facilities (e.g., wind turbines, natural gas pipeline rights-of-way). (Also Land Use Goal 1.) (GOAL 3, Action 1c, p9-25)

² The Regulatory Commission of Alaska (RCA) is the State Commission that regulates utilities in Alaska. The Regulatory and Public Affairs (RAPA) Division of the Attorney General advocates for the public interest in matters that come before the RCA.

- Explore the use of innovative financing programs for renewable energy investments (e.g., Property Assessed Clean Energy or Sales Tax Assessed Clean Energy). (GOAL 3, Action 1d, p9-25)
- Coordinate with regional partners, at a minimum to keep City and regional partners informed of each other's energy-related policies and projects. As practicable, coordinate local and regional policies and projects, including (but not limited to) options for hydro and natural gas prospects, regional wind farms, and inter-village transmission lines connecting centralized power plants. (GOAL 3, Action 2a, p9-25)

Public Facilities and Services (Chapter 8)

The City of Bethel provides a number of important services and facilities to the Bethel community, which contributes to Bethel's status as a regional hub. This chapter also provides specific guidance to several City departments: Administration, Finance, Public Works, Technology, Fire and Emergency Services, Police, and Parks and Recreation.

- **Administration:** Administrative services for the City of Bethel are provided by the City Manager, City Clerk, Grants Manager and Finance Department. Priorities include improvements to administrative policy and procedure that will improve customer service and foster a more forward-thinking approach to financial management and decision-making.
- **Public Works:** The Bethel Public Works Department provides water and sewer services, and owns and operates the associated infrastructure, including water wells, pipes, trucks,³ five sewer lift stations and a sewage lagoon to treat and dispel wastewater. It is also responsible for operations, maintenance, construction and planning oversight for the City's solid waste facilities, and cleanup and trash collection for City property. The City owns dumpsters, a haul truck, a municipal landfill for solid waste and a recycling center. Priorities include addressing the future need to replace the existing landfill and lagoon, and to settle on the optimum form of a hybrid piped and trucked system, which will likely mean establishing new satellite water/sewer stations.

³ Two water treatment facilities are in operation: the Bethel Heights Water Treatment Plant (BHWTP) and the City Subdivision Water Treatment Plant. A third water treatment facility, the City Center Water Treatment Plant was decommissioned and replaced by the City Subdivision plant.

Map 8.1

City of Bethel *Public Works*



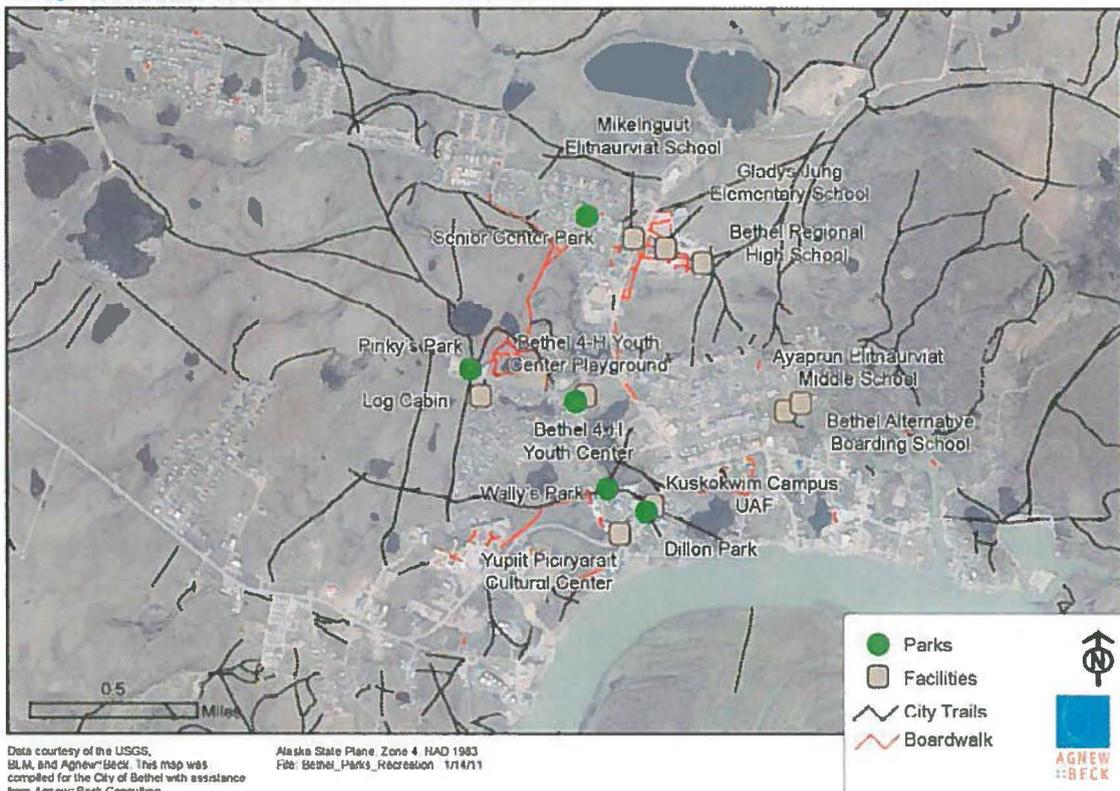
- **Technology:** The Technology Department maintains the City of Bethel’s information technology systems. Priorities include improvements to the City’s communications technology system.
- **Fire and Emergency Medical Services:** The City of Bethel Fire Department works to protect life and property by providing quick and efficient responses to fires, medical emergencies, hazardous material response and other hazardous situations, as well as increasing public awareness of hazards through fire prevention and public education programs. Priorities include a substation near the airport.
- **Police:** The Bethel Police Department provides police services within Bethel city limits and often works in cooperation with other agencies and the citizens of Bethel to address the greater community’s public safety needs and concerns. Priorities include improvements to communications infrastructure (e.g., tower, e-911) and relocating the police department to new quarters.
- **Youth and Adult Recreation:** The Bethel Parks and Recreation Department manages and plans for the City’s parks, playgrounds and recreation facilities. The department coordinates activities and programs for the city’s diverse population. In addition to the City facilities and spaces available, Bethel has a number of facilities operated in partnership with other agencies and institutions, including the school district and

university, whose spaces are available for limited use. Priorities include capital improvements to existing and future recreation facilities.

- Other parks and recreation infrastructure improvements are detailed in the 2011 Bethel Parks and Recreation Master Plan (updated concurrent with this Comprehensive Plan).

Map 8.3

City of Bethel Parks + Recreation



- Intergovernmental Cooperation: In order to accomplish some of the goals and strategies included in this plan, each chapter reiterates the need for partnerships, cooperation and coordination among the City and other Bethel institutions, such as ONC, the local and regional Native Corporations, the regional school district, housing corporation and health center. To support these efforts, the Public Facilities and Services chapter includes a set of policies for intergovernmental cooperation.

Priority Implementation Actions:

Priority Public Facilities and Services implementation actions include:

- Implement improvements to internal city management processes and procedures (e.g., cross-training, streamlining procedures). (GOAL 1, Objective A, Action 1a, p9-26)
- Work with individual City departments to develop 5-year capital needs and deferred maintenance plans. (GOAL 1, Objective A, Action 2a, p9-26)
- Better enforce City business licensing and sales tax collection. (GOAL 1, Objective A, Action 3e, p9-27)
- Develop a financial plan for service provision: incorporate capital needs and deferred maintenance, rate study, and recommendations for future improvements. Explore the possibility of charging for piped water/sewer on a meter basis, comparable to trucked/hailed service. (GOAL 1, Objective B, Action 1a, p9-27)
- Establish an alternative treatment system to replace the existing sewer lagoon. Identify and secure a site for new wastewater treatment system. (GOAL 1, Objective A, Action 4a, p9-28)
- Consider building additional water/sewer transfer station(s) in key locations, to create a city wide hub and spoke system. GOAL 1, Objective B, Action 4a, p9-28)
- Identify possible site(s) for a new landfill (to eventually replace existing landfill). (GOAL 1, Objective C, Action 1a, p9-28)
- Consider options for compacting waste (e.g., dynamic compaction). (GOAL 1, Objective C, Action 2a, p9-28)
- Develop and implement a business plan for the Bethel recycling center. (GOAL 1, Objective C, Action 3a, p9-29)
- Market/provide accurate, up-to-date information about what waste management, recycling, composting, and resale services, programs and facilities are available in Bethel. (GOAL 1, Objective C, Action 4e, p9-30)
- Secure new facilities for Bethel Police headquarters. (GOAL 1, Objective F, Action 1a, p9-31)
- Upgrade the Bethel 4-H Youth Center. (GOAL 1, Objective G, Action 1a, p9-31)
- Develop a community swimming pool complex. (GOAL 1, Objective G, Action 1b, p9-31)
- Explore the use of shared facilities and the coordination of services provided by ONC. (GOAL 2, Action 4a, p9-32)

Youth and Adult Recreation (Objective G)	8-19
Intergovernmental Cooperation(Goal 2).....	8-24

9. Implementation

Introduction	9-1
Summary of Highest Priorities, Citywide	9-1
Land Use Implementation Table	9-5
Transportation Implementation Table.....	9-10
Economic Development Implementation Table	9-17
Energy Implementation Table	9-23
Public Facilities and Services Implementation Table.....	9-26

Appendices

Appendix A: Public Comments	A-1
Appendix B: Sources.....	B-2

Figures, Maps and Tables

Figures

Figure 4.5 Planned Unit Development/Conservation Subdivisions.....	4-15
Figure 7.2 Gasoline Costs (per gallon, unleaded) Bethel, Nome, and Anchorage 1999-2009	7-2
Figure 7.4 Heating Oil Costs (per gallon) Bethel, Nome, and Anchorage 1999-2009	7-3
Figure 7.5 Electricity Costs (per kilowatt-hour, pre-PCE) Bethel, Nome, and Anchorage 1999-2009	7-4
Figure 8.2 Three Programs for Extending Municipal Water and Sewer Service in Anchorage.....	8-9

Maps

Map 2.3 City of Bethel Land Ownership	2-5
Map 4.1 City of Bethel Existing Land Use	4-2
Map 4.2 City of Bethel Development Suitability.....	4-4
Map 4.3 City of Bethel Priorities for Future Community Uses	4-7
Map 4.4 City of Bethel Future Land Use Map	4-10
Map 5.1 City of Bethel Transportation	5-2
Map 5.3 City of Bethel Future Road Connections	5-9
Map 5.4 Bethel Public Transit System.....	5-13
Map 5.7 Port Area City of Bethel.....	5-19
Map 8.1 City of Bethel Public Works	8-8
Map 8.3 City of Bethel Parks + Recreation.....	8-22

5. Transportation

Introduction.....	5-1
Goals and Strategies	5-3
Airport (Goal 1).....	5-3
Roads (Goal 2).....	5-5
Trails (Goal 3).....	5-10
Public Transit (Goal 4).....	5-12
Port and Harbor (Goal 5).....	5-14

6. Economic Development

Introduction.....	6-1
Summary: Challenges and Opportunities	6-4
Goals and Strategies	6-5
Cost of Living/Doing Business (Goal 1).....	6-5
Bethel's Economic Infrastructure (Goal 2).....	6-6
Local Industries: Commercial Fishing, Subsistence, Import Substitution (Goal 3).....	6-6
Local Industries: Tourism and Visitation (Goal 4).....	6-7
Education and Job Training (Goal 5).....	6-9
Regional Coordination (Goal 6).....	6-10
Good Governance (Goal 7).....	6-11
Quality of Life (Goal 8).....	6-12

7. Energy

Introduction.....	7-1
Energy Trends.....	7-2
Recent and Ongoing Initiatives.....	7-5
Goals and Strategies	7-9
Energy Efficiency: Consumption (Goal 1).....	7-9
Energy Efficiency: Existing Infrastructure (Goal 2).....	7-10
New/Alternative Energy Sources (Goal 3).....	7-11

8. Public Facilities and Services

Introduction.....	8-1
Goals and Strategies	8-1
Essential Facilities and Services (Goal 1).....	8-1
Administration and Finance (Objective A).....	8-1
Water and Sewer (Objective B).....	8-4
Solid Waste (Objective C).....	8-10
Technology (Objective D).....	8-14
Fire and Emergency Medical Services (Objective E).....	8-15
Police (Objective F).....	8-17

Table of Contents

Executive Summary	1
Table of Contents	i
Acknowledgements	v
Resolutions from Governing Entities	vii
1. About the Plan	
Purpose of the Plan.....	1-1
Support in State Statutes	1-2
Relevant Planning Efforts.....	1-3
Process to Prepare the Plan	1-3
2. Regional Context	
Introduction	2-1
Climate, Environment and Natural Resources	2-1
History and Culture	2-2
Population	2-3
Land Ownership.....	2-5
Transportation	2-6
Economy	2-7
Public Services and Facilities.....	2-8
3. Vision and Goals	
Values and Vision Statement	3-1
Goals.....	3-1
4. Land Use, Housing and Environment	
Introduction	4-1
Goals and Strategies.....	4-5
General Land Planning (Goal 1)	4-5
Growth Patterns (Goal 2)	4-8
Land Use Compatibility (Goal 3)	4-11
Housing (Goal 4).....	4-13
Safe, High Quality Neighborhoods (Goal 5)	4-13
Environmental Conservation (Goal 6)	4-14
Natural Disaster and Hazards (Goal 7)	4-15
Land Records System (Goal 8).....	4-16
City Land Management (Goal 9)	4-16

Tables

Table 2.1 Population in Bethel and Bethel Census Area 2-3

Table 2.2 Population Projections 2-4

Table 5.2 Bethel Airport Total Operations, 1999-2009..... 5-4

Table 5.5 Total Annual Berth-Days at Port of Bethel Docking Facilities, 2005-2009.....5-16

Table 5.6 Port of Bethel Cargo and Fuel Shipments, 2005-2009.....5-16

Table 5.8 Port Infrastructure Improvements – No Mine5-21

Table 5.9 Port Infrastructure Improvements – With Mine5-22

Table 6.1 Employment Sectors of Bethel Census Area Workers (2010)..... 6-2

Table 6.2 Top 10 Employers in the Yukon Kuskokwim Region (2001, 2008) 6-2

Table 6.3 Personal Income in the Bethel Census Area 6-4

Table 6.4 Median Share of Income Alaska Households Spend for Home Energy Use
(2000, 2008) 6-5

Table 7.1 Median Share of Income Alaska Households Spend for Home Energy Use
(2000, 2008) 7-1

Table 7.3 City of Bethel, Residential Heating Types..... 7-3

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Jennifer Schiedler, Council Member

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Thanks also to all those community members who shared their valuable insight during interviews, public meetings and through written comments.

Resolutions from Governing Entities

[to be added upon adoption]

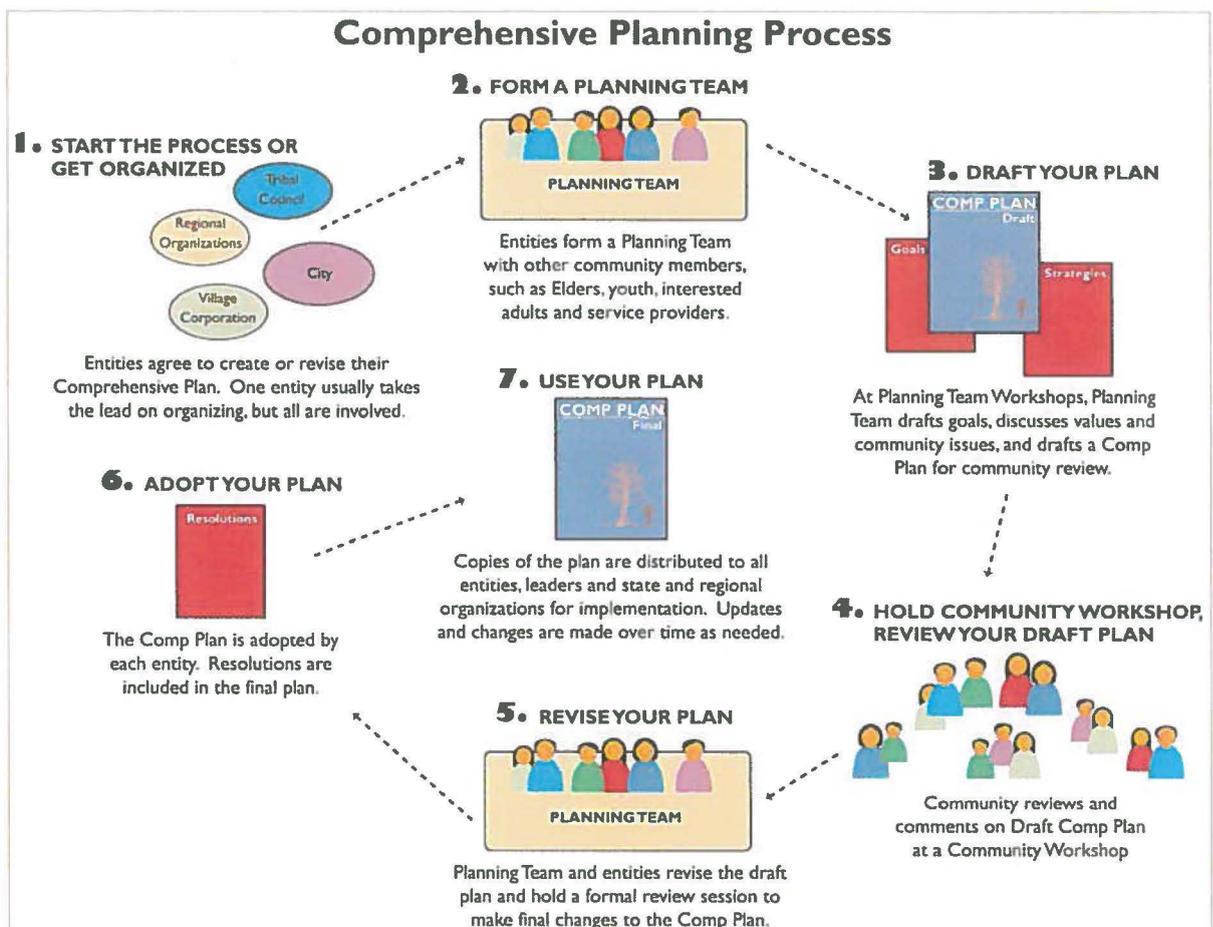
1. About the Plan

Purpose of the Plan

The Comprehensive Plan is a guide for the provision of City services and the development of the community. To be of greatest value, the plan needs to set clear goals and strategies for the long term, but also allow flexibility to respond to unexpected challenges and opportunities.

The plan is adopted by City ordinance. Once adopted, it is included in the body of City regulations, but it does not have to be followed strictly like an ordinance, statute or other law. Rather, the policies included in the plan are intended to guide the decision-making of City staff and City Council. Individual decisions should be consistent with the plan, but at times may not be, as the specific conditions of any given decision will dictate the most appropriate action.

The plan sets a course for the future, but must be regularly reviewed and updated to reflect changing circumstances in the community. Simple clarifications and corrections may be made by City staff on an ad-hoc basis. Significant policy changes may be made at any time, but require approval by City Council. The plan should be reviewed by City departments on an annual basis, and the plan should be updated to accommodate major revisions about every five years.



The **comprehensive plan** is the community’s statement of what it wants to be in the future. It provides a framework for orderly development and guidance for the City Council in its decisions. Elders, youth, business owners, employers, property owners, civic leaders and all community residents are encouraged to share their perspectives and ideas.

Support in State Statutes

The State of Alaska defines the Comprehensive Plan as “a compilation of policy statements, goals, standards, and maps for the guiding the physical, social, and economic development, both private and public” of the city (AS 29.40.030). This plan includes an overall vision statement, goals, strategies, implementation actions and general policies.

<p>A Comprehensive Plan is</p>
<ul style="list-style-type: none"> • A general statement of community goals • Long-term; looks ahead 10, 20, 30 years • A means to gain local control over changes affecting community life • A means to acquire resources to carry out community priorities (e.g., a reference for grant applications) • The foundation for a range of implementation actions: roads, trails, public facilities, land use policies.
<p>A Comprehensive Plan is not</p>
<ul style="list-style-type: none"> • A zoning ordinance • An application for incorporation • A method for taxation

The **vision statement** expresses the general picture of what the Bethel community aims to be or achieve in the future. **Goals** are more specific statements about how the City and community of Bethel can realize this vision. For each goal, the plan presents **strategies** to provide direction on how the goals can be achieved.

The Implementation chapter contains a table of specific **implementation actions** with timeframes, responsibilities, and some indication of cost assigned to them. These help the City and other responsible parties prioritize what they will accomplish, obtain funding for projects and programs, coordinate with other agencies and organizations, and track the community’s progress toward achieving the goals and vision in the plan.

The plan also includes policies, which are statements intended to guide decision-making by the City. For example, the plan includes a Land Use Plan Map, which shows (in a generalized way) the desired mix and distribution of future land uses for the City. This map is a policy that provides guidance for the City Planning Department and Planning Commission when they are

asked to make decisions about how to zone or re-zone land within the City. When a landowner asks for a re-zone of a particular property, the City and Planning Commission use the Land Use Plan Map to help determine whether the proposed new zoning would be compatible with the surrounding present and future land uses.

Relevant Planning Efforts

Previous planning efforts for the City of Bethel include:

- City of Bethel Comprehensive Plan, August 1997
- City of Bethel Comprehensive Plan – Long Range Surface Transportation Element, June 1998
- City of Bethel and Orutsararmiut Native Council Community Economic Development Strategy Plan, May 2003
- Bethel Water and Sewer Facilities Master Plan Update, April 2005
- Bethel City Dock Structure Condition Survey, March 2006
- City of Bethel Local Hazards Mitigation Plan (Draft), March 2008
- Orutsararmiut Native Council Long Range Transportation Plan and City of Bethel Community Transportation Plan, March 2010

Process to Prepare the Plan

The City of Bethel hired Agnew::Beck Consulting to facilitate the planning process, working closely with City staff, members of City Council, Planning Commission and various representative committees (e.g., Energy Committee, Parks Committee). A Citizen Advisory Committee was created to help guide the plan's contents and process to ensure that it is responsive to the greater Bethel community. The Advisory Committee has met three times to date to review plan chapters and provide guidance for the second public workshop. Citizen Advisory Committee members include:

- Ana Hoffman
- Anne Willert
- Barb Mosier
- Greg McIntyre
- Janet Kaiser
- Jody Malus
- John Sargent
- Mary Pete
- Colleen Osterhaus
- Yvonne Mack

The planning process also involves three public workshops to provide a forum for members of the Bethel community to learn more about the plan, advise on the issues of greatest importance to the community, and review and comment on drafts of the plan. The first workshop was held in November 2010 to introduce the plan and learn about what issues are of greatest importance to the people of Bethel. The second workshop was hosted in April 2011 to review the Draft Comprehensive Plan. A public hearing with the Planning Commission was held in July 2011 for final public review of the plan prior to City Council review, approval, and adoption. Once the final draft of the Comprehensive Plan has been prepared, the plan is reviewed and adopted by City Council ordinance with the recommendations of the Planning Commission (AS 29.40.030).

2. Regional Context

Introduction

The City of Bethel is located on the outer bank of the main channel of the Kuskokwim River, 40 miles inland from the Bering Sea. The city occupies approximately 44 square miles of land within the Yukon Delta National Wildlife Refuge, and has a population of about 5,803 (2009 DCCED). Isolated from the road network of Alaska, Bethel is about four hundred air miles from Anchorage.

Bethel is the hub of the Yukon-Kuskokwim delta, a region that is home to over 25,000 people. For cities, businesses, and individuals living in the 56 villages in the Yukon-Kuskokwim region, Bethel is the major source for government, education, transportation, and health services, as well as a major shopping center for food, equipment, clothing, and other products.

Bethel is a Second Class City located in an unorganized borough. The city is governed by a mayor, city manager and seven-member city council. All council members are elected at large for 2-year terms. Commissions and Committees include the Port Commission, Senior Advisory Board, Planning Commission, Public Safety and Transportation Commission, Public Works Committee, Parks and Recreation Committee, Cemetery Committee, Finance Committee, and Energy Committee (formerly the Alternative Energy Committee.¹ The mayor is elected by the city council, and the city manager oversees the daily operations of the city (ONC LRTP, 2010).

Bethel is also home to the Orutsararmuit Native Council (ONC), a federally recognized Native Alaska tribe of 2,900 members. The Bethel Native Corporation is the local native village corporation, and the ANCSA Regional Corporation is Calista Corporation.

Climate, Environment and Natural Resources

Bethel is located in treeless sub-arctic tundra that remains moist in the summertime and frozen in the wintertime. The land in and around Bethel is almost completely permafrost, except for some land surrounding lakes and ponds. The city is located along the Kuskokwim River, the second largest river in Alaska and the third-largest in North America. In winter, the river becomes a frozen road, connecting Bethel to many villages in the region.

Bethel has a continental climate with maritime influences; the Bering Sea moderates daily temperature extremes somewhat, but less than other coastal communities. Summer temperatures range from 42 to 62 degrees Fahrenheit, although on rare occasions they can reach into the 80s. Winter temperatures range from -2 to 19 degrees Fahrenheit, with the last average day of frost around May 30 and the first frost in early September. All seasons are characterized by high humidity, frequent fogs, considerable cloudiness and many periods of rain or snow (ONC LRTP, 2010).

Because Bethel is situated on an outer, eroding bend of the Kuskokwim, constant erosion and threat of flooding pose severe development challenges. The topography is generally flat; slopes range from zero to seven percent. Formerly part of the riverbed, the area's soils are deep alluvial deposits of silt and fine sands. Along Bethel's waterfront and in the central townsite, soils are poorly drained silt and the permafrost has a depth of 30-40 feet. Further from river, sandy soils

¹ The Energy Committee has put together two Energy Fairs held at the Cultural Center .

are covered with silt loams and about 12 inches of peaty mat; these areas are typically saturated and covered by surface water. Here, the permafrost lies near to the surface and extends as much as 450 feet deep (ONC LRTP, 2010).

Vegetation in the Bethel area is mainly low-growing shrubs, herbs, grasses, and sedges rooted in a mat of mosses and lichens. Commonly found plants include sphagnum moss and Labrador tea, crowberry, birch, willow, and berries, such as currants, blueberries, cranberries, blackberries, and salmonberries. Cotton grass often grows in depressions and poorly drained areas. Bethel's rivers and lakes are home to several types of fish: arctic char, all five salmon species,² lake trout, dolly varden, rainbow trout, arctic grayling, northern pike, sculpin, whitefish, burbot, stickleback, blackfish. On land, typical wildlife include red fox, Arctic fox, land otter, mink, marten, short-tailed weasel, lynx, beaver, muskrat, snowshoe and arctic hare. Many bird species can be found in the Bethel area, including geese, 15 species of ducks, Arctic tern, black brant, old squaw, swan, pintail, teal, scoter, merganser, dipper, semipalmated plover, sandpiper, phalarope, loon, grebe, northern harriers and rough-legged hawks. No federally listed endangered species or critical habitats exist in Bethel (ONC LRTP, 2010).

History and Culture

The Yukon Kuskokwim Delta region has been home to Native cultures, including Yup'ik, Siberian Yup'ik and Cup'ik people for thousands of years. The rich mix of subsistence resources, on land, rivers and lakes, and on sea historically made the Yukon Kuskokwim Delta area one of the most densely settled parts of Alaska.

The City of Bethel grew out of the confluence of nearby settlements by Yup'ik Eskimos, trading companies and Moravian missionaries. In 1867, shortly after Alaska was purchased from Russia, the Alaska Commercial Company opened three trading posts on the Kuskokwim River. Moravian Church representatives established a mission, store and school across the river from one of these trading posts in 1885, next to a Yup'ik village called "Mumtrekhlogamute," translated as "smokehouse people" (or "Mamterillermuit," meaning "village of many fish caches") because of all the fish smokehouses located in the area.

The Moravian Church named the mission settlement Bethel. By 1905, a post office opened in the area, and Bethel soon became a regional trading, transportation and distribution center. In 1912, the US Army Corps of Engineers mapped a deep water channel to Bethel; by 1915 ocean-going ships regularly stopped at Bethel, which proved to be better positioned than other river communities to redistribute inbound freight destined for other southwest coastal and inner Norton Sound communities. Gold discoveries in the Innoko area and in Canyon Creek created jobs at the mining camps, and there was additional work on supply barges and other vessels. A series of epidemics in the early 1900s caused considerable loss of life throughout the Bethel region; as a result, many native children were placed in orphanages in Bethel, further expanding the city's population.

Federal and territorial schools were built during the 1920s, attracting families seeking education for their children. Federal and state agencies established regional offices in Bethel, and by the 1930s, Bethel had become a regional center for aviation and government administration. The Native Health Service hospital opened in 1939. The US Military has had a presence in Bethel

² Alaska's five salmon species are 1) king (also called "chinook"), 2) silver (coho), 3) red (sockeye), 4) chum (dog), and 5) pink (humpback)

since World War II, when the Todd Army Airfield was established in Bethel. After World War II, the airfield was transferred to the Civil Aeronautics Administration. In 1960, the old runways of the airfield were replaced with a new airport located farther from town. The Military installed antennas and a White Alice facility in Bethel during the Cold War era.³ In 1957, Bethel incorporated as a second class city. A regional high school was built in Bethel in the early 1970s. By the 1980's, Bethel had grown to the largest town in western and arctic Alaska: public and private industry increased and subdivision development boomed. The city continues to serve as a regional hub for transportation, commerce, government services, health care and education for the 56 surrounding villages to this day.

Bethel has always been heavily influenced by Yup'ik culture, and many traditional activities continue today. Yup'ik villages traditionally have a permanent settlement and seasonal camps for subsistence activities such as fishing and hunting. Many residents, Native and non-Native alike continue to live primarily in Bethel while also maintaining seasonal fishing and hunting camps in outlying areas. Dance festivals are a traditional winter activity that continues today, and many artisans continue to create woven baskets, wooden carvings, and clothing influenced by traditional design and techniques.

Population

Bethel's population has generally followed an overall pattern of an increasing population since 1910. The city currently has an estimated population of 5,803 (2009). The 1997 Comprehensive Plan assumed that Bethel would grow by an average of two percent a year, which has proven to be slightly higher than the City's actual growth pattern since 1997.

Table 2.1 Population in Bethel and Bethel Census Area

Year	City of Bethel	Bethel Census Area	Bethel as % of Census Area
1920	221	--	--
1930	178	--	--
1939	376	4,026	9.3%
1950	651	4,670	13.9%
1960	1,258	6,360	19.8%
1970	2,416	8,917	27.1%
1980	3,576	10,999	32.5%
1990	4,674	13,656	34.2%
2000	5,471	16,006	34.2%
2009	6,522	17,352	37.6%

Source: US Census Bureau. The Y-K Delta includes the approximately 37 villages of the Bethel Census Area, and an additional 19 villages of the Wade Hampton Census Area, located at the north end of the Delta.

³ The White Alice Communications System (WACS) was a United States Air Force telecommunications system constructed in the 1950s when Alaska had only basic telephone communication systems. It connected remote Air Force sites in Alaska to command and control facilities (and in some cases was also used for civilian phone calls). The system was advanced for its time, but within 20 years, satellite communications rendered it obsolete.

As Table 2.1 shows, the population of the City of Bethel relative to the regional population⁴ has generally grown over time. This trend has accelerated since World War II, as economic opportunities and better living conditions drew residents to Bethel from outlying villages. Migration from outlying villages tapered off in the 1970's and 1980's as village-based amenities improved. In the 1980s, the expansion of well-paid government jobs attracted many non-Native job seekers to Bethel. Recent acceleration of migration out of villages and rural Alaska in general is likely the result of high energy and food costs and changing generational expectations. This trend is both drawing people from villages to regional hubs (e.g., Bethel) and from regional hubs (e.g., Bethel) to Anchorage.

Bethel is a growing community with a diverse population. As of the 2000 US Census, Bethel was 29 percent white, 66 percent Alaska Native, one percent Black/African American, three percent Asian. Of these four percent were foreign born, 70 percent were born in Alaska and 26 percent were born in some other US state. The 1997 Comprehensive Plan points out that as late as 1960, 90 percent of Bethel's residents were Alaska Native. According to the 2009 Census, Bethel was 13 percent white, 81 percent Alaska Native, one percent Black/African American, 1.4 percent Asian, 3.6 percent reporting two or more races, and 2.5 percent Hispanic.

According to the ONC/City of Bethel 2010 Long Range Transportation Plan, two important and fast-growing population subgroups in Bethel are seniors and youth. It is anticipated that Bethel will continue to evolve as a center for education and workforce development for area youth, and as a center for specialized facilities and services of the region's elderly residents, further accelerating the growth of these population subgroups.

The ONC/City of Bethel 2010 Long Range Transportation Plan also provides population forecasts using two different methods: a logistic growth model (which produces a more conservative forecast, as it assumes limitations to growth, such as available land, available housing, cost of living), and a straight linear regression analysis (which assumes that population growth in the future will follow established past patterns). These results are shown in Table 2.1:

Table 2.2 Population Projections

Year	L RTP Population Projections: Logistic Growth Model	L RTP Population Projections: Straight Linear Regression Analysis
2013	5,891	6,281
2018	5,989	6,935
2028	6,103	8,454

Source: ONC LRTP (March 2010)

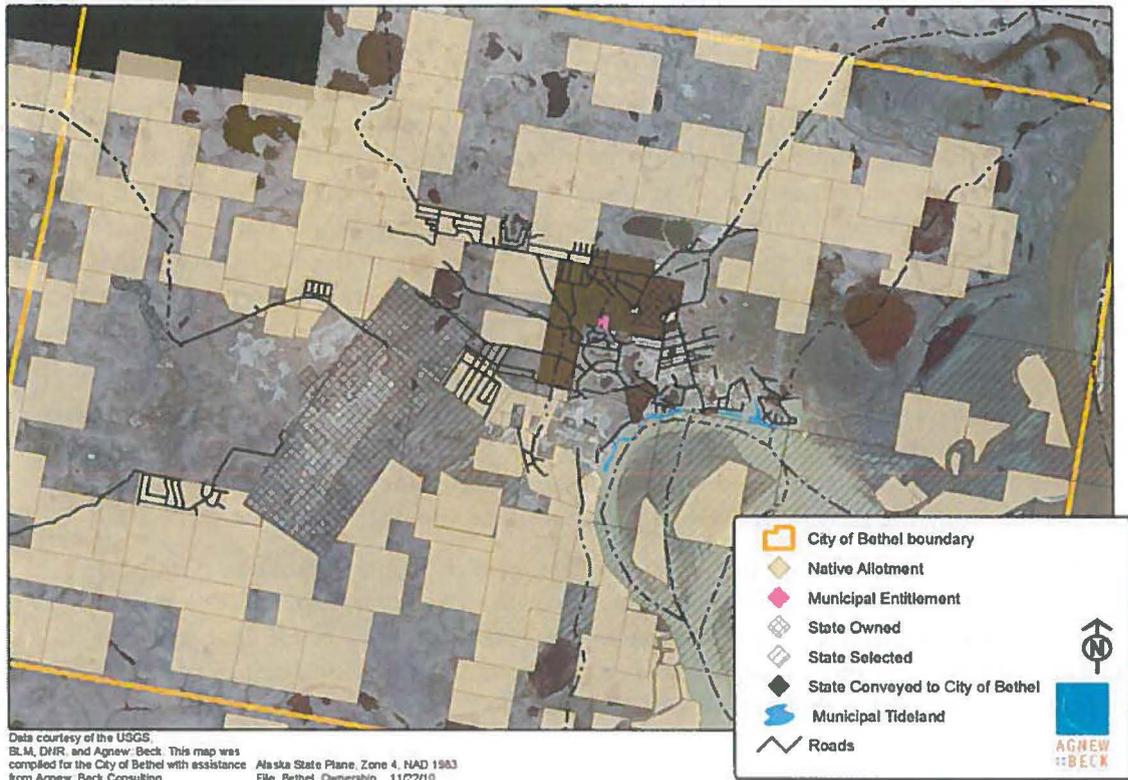
Actual population growth into the future will be strongly affected by migration patterns resulting from changes in Bethel's economy (e.g. jobs created by the Donlin Mine, increases in energy and food costs).

⁴ US Census data measure the City of Bethel relative to the Bethel Census Area, which includes the Kuskokwim Delta and River corridor.

Land Ownership

Map 2.3

City of Bethel Land Ownership



The City of Bethel includes a mixture of Native and non-Native owned lands. According to the Bureau of Land Management (BLM), 141 Native Allotments intersect with city boundaries. The large number of Native allotments can be a challenge for future development, as it often complicates local landowners' ability to develop properties. It can take the Bureau of Indian Affairs (BIA) years to research title and to work up paperwork for a land sale. In addition, there may be multiple family members who own a particular piece of land (in some instances as shares of ownership are divided among more than 20 people). In cases like these, getting everyone to agree to a sale (for instance) can be a challenge. If one of those co-owners moves or passes away, determining ownership and reaching decisions on land actions can be difficult.

Native allotments are generally exempt from local land use planning authority. This can also create challenges in a community, for example, if parcels are subdivided without adequate access or reservation of easements for utilities.

Transportation

Airport

Bethel has the third busiest airport in the state. The route between Bethel and Anchorage is served by both scheduled jet and propeller aircraft. There is daily jet service between Anchorage and Bethel for passenger and cargo service. Many small air taxi services operate from Bethel, serving 56 villages in the surrounding areas with scheduled and charter service.

Roads

Bethel's road system includes approximately 26 miles of public roads. Bethel is not connected by year round road any other village or the state highway system. The State of Alaska owns 8.2 miles of road in Bethel and the Brown's Slough Bridge. The City owns the remaining roads, totaling approximately 16 miles of gravel roads. There are approximately 28 miles of ice road on and along the Kuskokwim River in winter, which the City occasionally pays to have plowed. Car ownership in Bethel and surrounding villages is low; many residents use some alternative form of transportation.

Trails

Bethel has a well-used system of traditional trails and pedestrian boardwalks that provide routes between neighborhoods and business centers within the city, as well as a transportation link between Bethel and surrounding communities. In winter, trails are used by snow machines, dogsleds, cross-country skiers, and pedestrians. In summer months, trails are used by ATVs, pedestrians, and bicycles. Bethel has about one mile of elevated boardwalk, serving pedestrian traffic. Two of the boardwalk pedestrian bridges are owned by the State of Alaska.

Public Transit

Alternatives to private vehicle include taxi service, bus service and boat shuttle services; these are used extensively by Bethel residents and visiting residents from outlying villages. The City of Bethel has operated a public bus service since 2008. The fleet currently includes two 12-passenger buses, and one eight-passenger backup bus. It operates six days a week at a 30-minute frequency, and provides 80-90 rides per day.

Port and Harbor

Bethel has a medium draft port for ocean-going vessels, and the only one in Southwest Alaska that is not dependent on high tides for access. The City Port and Harbor Department operates the Bethel Cargo Dock, Petro Port, Small Boat Harbor, Float Plane Beach, and Seawall, and works with the US Army Corps of Engineers on dredging, navigation issues, seawall maintenance, major infrastructure improvements and repairs. Port facilities can dock ships up to 400 feet long, and can service up to one ocean-going barge and two small river barges at a time. The fuel dock receives bulk fuel for distribution throughout the Yukon-Kuskokwim Delta. As is discussed in more detail in the transportation chapter, the port is facing serious challenges due to shifting river channels and deferred maintenance.

Economy

As the regional hub for 56 villages in the Yukon-Kuskokwim Delta, Bethel's economy is composed of a mix of transportation, trade, government, and institutional (education, health care) sectors. Food, fuel and supplies are transported to Bethel via barge (increasingly by air freight) and redistributed to other communities in the region. Regional residents travel to Bethel for travel to other communities, medical care, legal services, education, and other government services.

Health care is the leading industry, followed by education and transportation. The primary health care providers are the Yukon Kuskokwim Health Corporation (YKHC) and the Bethel Family Clinic (a federally funded community health center). Federal, state, and municipal governments account for most other employment. Over 50 percent of jobs in Bethel are local, state or federal government jobs. Bethel's private sector largely rests on the foundation of these government or government supported jobs, which support a range of commercial services. Bethel has over 100 business licenses for a variety of retail establishments, law offices, transportation and health services, among others. Bethel also has a number of local artisans who produce handcrafted artwork, clothing and other articles for Anchorage and world markets.

With an expansive, intact natural environment rich in resources, subsistence activities are an integral part of life in Bethel and area settlements. Many residents supplement their income with subsistence activities, such as fishing, hunting and collecting berries. Bethel hosts a relatively small visitor industry, mainly attracting people visiting friends and relatives and business travelers, but also vacation/pleasure visitors for bird watching and sport fishing. Commercial fishing is an important source of income; over 200 residents hold commercial fishing permits (generally for salmon and herring roe net fisheries). Fish tenders set up along the Bethel seawall and operate during season openings. Salmon are weighted and ice-packed on site then flown to Kenai for processing. Poor fish runs have impacted the community since 1997 (DCCED), contributing to local efforts to diversify the economy through workforce development (e.g., Yuut Elitnaurviat).

The cost of living in Bethel is high and continues to increase, mainly due to fuel costs, which drive up the cost of heating, electricity, transportation and shipping. With so many material goods shipped into the city rather than being produced onsite, import substitution and controlling energy costs are two additional priorities for economic development.

Public Services and Facilities

The City of Bethel provides public services and facilities through its nine departments: Administration, Finance, Planning, Public Works, Technology, Fire, Police, Parks and Recreation, and the Bethel Port and Harbor.

- **Administration:** The Administration Department manages general City operations, maintains City records, and manages the general legal affairs of the City (e.g., contracts, ordinances).
- **Finance:** The Finance Department manages the City's budget process and financial records. To pay for City expenditures, Bethel imposes a six percent sales tax and no property tax. Grant funding is typically sought to supplement taxes and fees (e.g., building permit fees, business license fees, port fees) collected by the City.
- **Planning:** The City's Planning Department advises the City, private developers and landowners on land management to ensure compliance with local and state regulations and promote the health, safety and welfare of the people of Bethel.
- **Public Works:** The Public Works Department provides water, wastewater and solid waste services throughout Bethel. The City owns water and sewer distribution equipment (e.g., pipes, trucks.), the landfill, and sewage lagoons.
- **Technology:** The Technology Department maintains the City information and communications technology for all departments.
- **Fire:** The City operates a full fire department with an ambulance and qualified emergency medical technicians.
- **Police:** The City police department includes offices, training facilities, and animal control.
- **Parks and Recreation:** The City owns and operates the Bethel Youth Center, several parks and a system of boardwalks and trails throughout Bethel.
- **Bethel Port and Harbor:** the City operates the Cargo Dock, Petro Port, Small Boat Harbor, Float Plane Beach, and Seawall.

Other utilities and services provided by other public agencies or private entities include:

- **Fuel:** Crowley and Delta Western currently supply fuel to Bethel.
- **Electricity:** provided by the Bethel Utilities Corporation, a private utility that operates a total of six 2,500-kW diesel generators (although only two to three generators are in use at any one time) to provide electricity for Bethel and two nearby villages.
- **Telephone:** In-State telephone services are provided by United Utilities, Inc. GCI provides long-distance service.
- **Internet:** GCI is the local internet provider.
- **Health services:** Health services are provided by the Yukon Kuskokwim Health Center (YKHC), and the Bethel Family Clinic (a federally funded community health center).
- **Post office:** The U.S. Postal Service (USPS) operates a full post office in Bethel.

- Education: Bethel is home of the Kuskokwim Campus of the University of Alaska-Fairbanks, Adult Basic Education, the Lower Kuskokwim School District, Bethel Regional High School, Kilbuck Elementary School, Mikelnguut Elitnaurviat School, Bethel Alternative Boarding School, a Yupik Immersion School (Ayaprun Elitnaurvik), Involved Parents Preschool, Headstart, and Junior ROTC. Yuut Elitnaurviat (People's Learning Center) provides vocational training, and Bethel also has a flight school.
- Museum and community center: The Yupiit Piciryarait Cultural Center and Museum provides a gathering space for community-wide events in Bethel. The museum was founded in 1965 as the "Bethel Museum" by the City and transferred to the Association of Village Council Presidents in 1995. Galleries display exhibits of Yup'ik, Cup'ik, and Athabascan people of the Yukon-Kuskokwim Delta in ancient and contemporary times.
- Library: In conjunction with the University of Alaska, Bethel operates the Kuskokwim Consortium Library.

3. Vision and Goals

Values and Vision Statement

Community Values

We affirm the worth and dignity of each person and the right of each person to grow and prosper. We recognize that our natural environment and quality of life are unique and that each member of the community has a responsibility to preserve and enhance them. We believe our community flourishes through individual initiative to reach community economic, educational, social and cultural goals. These values are the foundation of life in our community for these and future generations.

Bethel 2035 Vision Statement

We value Bethel as a place where people care about each other, the natural environment, and living close to the land. We envision a future in which the quality of our natural environment is protected for subsistence and recreation, and the land managed for the sustained prosperity of Bethel's people. We are rich in many ways today, but need to strive for a better community for ourselves and our children. We will work to develop a healthy, more diverse economy, capitalizing on Bethel's current role as a regional hub for transportation, healthcare, education, government services and trade, but also building a stronger base of enduring, locally based economic activities. We will invest in more stable and affordable energy supplies, and strive to guide development to reduce energy and infrastructure costs. We will promote better access within town by vehicle, public transit, dog sled and four-wheeler, and walking. We envision a community where all residents lead safe and healthy lives, and have access to water and sewer service, fire protection, and affordable housing. We hope to make Bethel a place that takes pride in its appearance, so the town comes closer to matching the beauty of our natural setting, with parks, trails, and accessible natural open space. And we will work together as one important part of the regional partnership needed to sustain our lives in this unique, vibrant land.

Goals

Land Use

- GOAL 1: Reserve space for critical anticipated community needs, including commerce, transportation, housing, community facilities and infrastructure.
- GOAL 2: Encourage future growth to locate near existing employment centers and public services. Coordinate plans affecting the location of growth with plans for the location of water, wastewater and roads, as economically feasible.
- GOAL 3: Provide for compatibility among adjoining land uses, so future development maintains or improves the quality of life or land values of surrounding uses.
- GOAL 4: Encourage a range of housing opportunities for current and future Bethel residents, including more housing within the purchasing or rental capabilities of young families, single people, school teachers and other workers.

- GOAL 5: Create safe, livable neighborhoods centered around community facilities such as schools, parks, the teen center, and the senior center.
- GOAL 6: Maintain and protect the quality of the water, land, and biological resources within the City; encourage the sustainable use of those resources for current and future generations.
- GOAL 7: Protect life and property from natural disasters and hazards.
- GOAL 8: Improve the City's ability to provide quick access to current and accurate information on land status, easements and rights of way, and zoning and other land use regulations.
- GOAL 9: Improve the City's ability to effectively and efficiently manage City-held lands.

Transportation

- GOAL 1: Provide for the efficient transport and transfer of air cargo and passengers.
- GOAL 2: Develop a safe and efficient road system.
 - Objective A: Ensure adequate funding for road improvements.
 - Objective B: Provide a safe and efficient street network to meet current needs and future development.
 - Objective C: Design and build roads to reduce the number, length, and cost of business and personal trips.
- GOAL 3: Provide a safe and efficient trail network to meet current and future needs, for year-round transportation and recreation use by Bethel residents and visitors.
- GOAL 4: Provide effective and efficient public transit.
- GOAL 5: Maintain Bethel's status as the primary port for commerce and transportation on the Kuskokwim River.

Economic Development

- GOAL 1: Stabilize/reduce the cost of energy (and related factors) that increase the costs of establishing and operating a business in Bethel.
- GOAL 2: Maintain and expand the infrastructure that supports Bethel's economy.
- GOAL 3: Support and expand contributions of economic activities based on local resources, including commercial fishing, subsistence and import substitution.
- GOAL 4: Support and expand contributions of tourism and visitation to the local economy.
- GOAL 5: Support lifelong education and vocational training, particularly training tied directly to job placement in local and regional growth industries.
- GOAL 6: Support stronger regional cooperation and regional economic development.
- GOAL 7: Maintain fair, competitive and sufficient local government taxes, fees and utility rates.

GOAL 8: Enhance the quality of life in Bethel to attract and retain individuals and businesses.

Energy

GOAL 1: Reduce energy consumption.

GOAL 2: Improve and/or expand existing energy infrastructure.

GOAL 3: Develop new, alternative energy sources and innovative methods to reduce the cost of energy.

Public Facilities and Services

GOAL 1: Provide and improve essential city services. Respond to current needs and plan for future demand. Link the extension of public facilities to land use development to ensure that growth occurs in a logical, planned and cost-effective manner.

Objective A: Administration and Finance. Provide adequate administration services and associated facilities to meet current and anticipated future administration demands on the City of Bethel.

Objective B: Water and Sewer. Provide adequate infrastructure and facilities and services to meet current and anticipated future demands for water and sewer services in the City of Bethel.

Objective C: Solid Waste. Provide adequate facilities to meet current and anticipated future demands for solid waste disposal in the City of Bethel.

Objective D: Technology. Provide for current and future technology needs.

Objective E: Fire and Emergency Medical Services. Provide adequate fire protection measures and services in Bethel to respond to current and future anticipated emergency service needs.

Objective F: Police. Provide adequate police services to meet existing demand and anticipated future demands.

Objective G: Youth and Adult Recreation. Sustain and enhance facilities and programs for youth and adult recreation.

GOAL 2: Foster intergovernmental cooperation: a network of local governmental and civic organizations committed to the common good of the community, based on a high degree of resident participation, interagency cooperation, and inspired leadership.

4. Land Use, Housing and Environment

Introduction

Land use in Bethel reflects an ongoing response to human pressures for growth and change as shaped by the challenges of the western Alaska physical environment. The community is located on the Kuskokwim River, which has long served as the primary route for moving people and goods into and within the region. Bethel's specific location is based on its strategic location at a point that can generally be reached by larger oceangoing vessels, and that also serves as a jumping off place to interior villages.

The river has been both the stimulus for settlement and a hazard to development. The original townsite was on the south side of the river, opposite from where it is located today. Because of flooding and erosion, the city moved to its present location. Even at its present location, over the last fifty years the city has had to shift roads and buildings to adjust to the changing forces of the river. As is discussed in the transportation chapter, this critical transportation corridor continues to change course, potentially reducing or even ending water access to the current Bethel port.

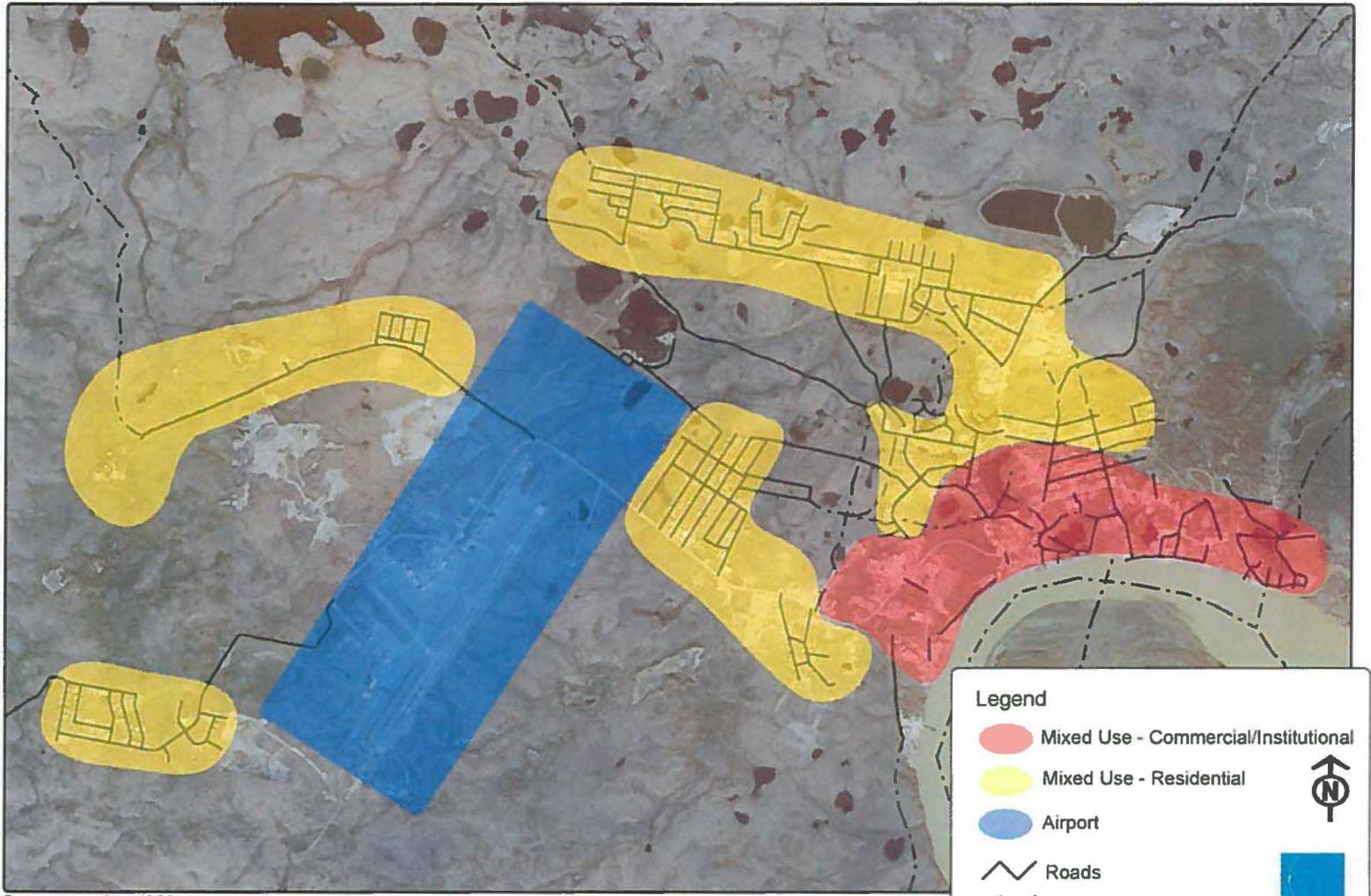
Bethel, like much of the Yukon Kuskokwim Delta, is a mosaic of wet and dry tundra, small lakes and streams, where conditions for development range from challenging to very challenging. Almost all the land is underlain by permafrost, and much of the area is poorly drained. Soils are not well suited for on-site septic systems, and many sites do not have the potential for wells. Map 4.2 gives a general picture of the relative degree of physical constraints in different parts of Bethel.

The location of development in Bethel is dominated by the need to use the relatively few areas where soils offer few physical building constraints, and where road access is available. The result has been a community with a small central "downtown" with a gridded road system and relatively concentrated, mixed use development. Extending for miles west from the center are several major roads, which provide access to low density, mostly residential subdivisions, irregularly spaced commercial and public uses, and the airport

Another factor influencing the location of development is the limited supply of private land. Bethel is embedded in the Yukon Delta National Wildlife Refuge. As a result, in contrast to many Lower 48 communities, private land is quite limited. In addition, much of the private land that does exist is Native allotments, which present unique development challenges. The advantage of this land ownership pattern is that almost all the land surrounding Bethel is undeveloped public property, which supports the subsistence activities that are an essential part of Bethel residents' way of life.

Map 4.1

City of Bethel Existing Land Use



Data courtesy of the USGS, BLM, and Agnew::Beck. This map was compiled for the City of Bethel with assistance from Agnew::Beck Consulting. Alaska State Plane, Zone 4, NAD 1983 File: Bethel_LandUse 4/05/11

Legend

- Mixed Use - Commercial/Institutional
- Mixed Use - Residential
- Airport
- Roads
- Trails

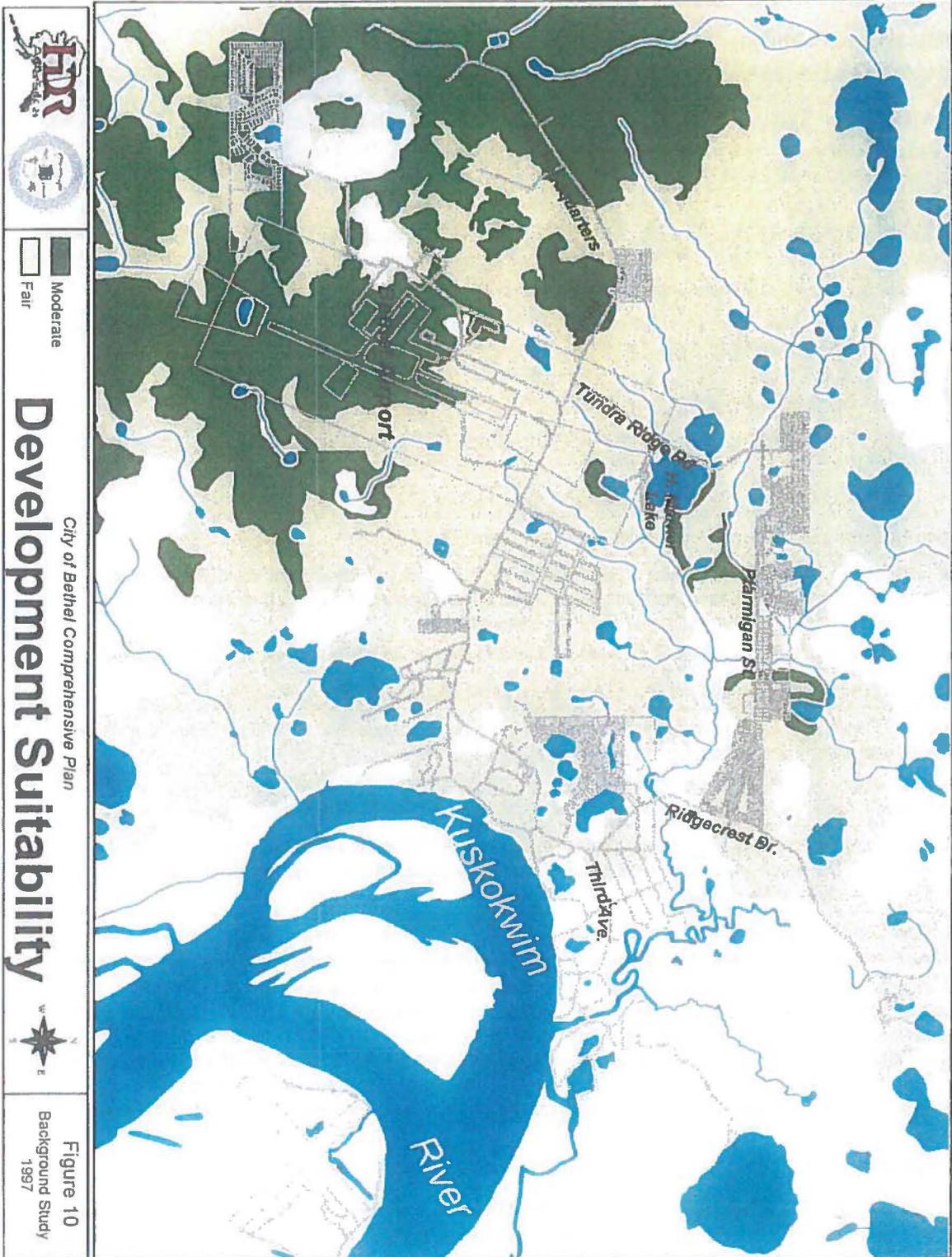
AGNEW
::BECK

Map 4.1 gives a very generalized picture of the patterns of land use in Bethel. The yellow areas indicate areas of town that are predominantly (but not exclusively) residential. Included in this area are a set of residential subdivisions and scattered commercial, institutional or industrial uses. The red areas indicate portions of town that are mostly commercial, institutional and/or industrial uses, but include some residential development.

Map 4.2 is a physical suitability map from the 1997 Comprehensive Plan. It indicates the relative physical constraints for land development in Bethel, considering limitations due to hydrology, soils, wetlands, riparian areas, floodplains, elevation, and drainage. As noted previously, all of this land is relatively challenging to develop. The map identifies areas as fair to moderate where these constraints are less extreme. Though not labeled in the map's legend, the white area in the map generally has poor development suitability.

Map 4.2 helps explain the city's development patterns. The original settlement focused near the river (regardless of poor physical development suitability). The remaining, more recently developed areas spread out along major roadways and near the airport, largely in areas where the land is higher, drier, and more stable.

Map 4.2



Goals and Strategies

General Land Planning

<p>GOAL 1: Reserve space for critical anticipated community needs, including commerce, transportation, housing, community facilities and infrastructure.</p>
<p>Strategy 1: Reserve land for specific uses that are a) critical to the future of the community, and b) almost certainly will need space for expansion or relocation.</p> <p><i>These include:</i></p> <ul style="list-style-type: none"> • <i>Port expansion and/or relocation. The current port site may not be useable in the future, due to changes in the river's course. Development of the Donlin Creek mine may create a need for new expanded port facilities.</i> • <i>Sewer lagoon and/or new wastewater treatment facilities.</i> • <i>Expanded "downtown" commercial and housing development, including land within areas already accessible by road and the land adjoining the easternmost of the possible "donut hole" routes (a new north-south road and water/sewer line just west the existing downtown Bethel).</i> • <i>Commercial/industrial activities near the airport.</i> • <i>Energy infrastructure (e.g., new or supplemental fuel storage, land for wind farms).</i> • <i>Landfill.</i> • <i>Institutional Corridor piped water improvements.</i>
<p>Action 1a: Identify and map critical anticipated community needs (Map 4.3).</p>
<p>Action 1b: Work with existing landowners in priority growth areas to reach agreements that would allow needed growth to occur (e.g., purchase land, land trade, secure easements). <i>Priority varies with use: a new or alternative treatment option for the sewer lagoon is currently of the highest priority.</i></p> <p><i>For example, work with ONC and holders of Native allotments to open up options for expanded port development.</i></p>
<p>Strategy 2: Reserve adequate rights of way for access and public utilities when land is subdivided.</p>
<p>Action 2a: Review and revise (as necessary) Bethel's existing subdivision code (BMC Title 17) to ensure that the code presents reasonable, practical requirements for access and easements.</p> <p><i>Particular subjects include road dimensions (e.g., revising road standards to better provide space for winter snow management), pedestrian connectivity, utility requirements and requirements for setbacks from water bodies.</i></p>
<p>Action 2b: Work with the ONC and Native allotment owners to better understand advantages and disadvantages of complying with BMC; agree upon recommended subdivision and land use standards to preserve and enhance value, recognizing the special status of these lands.</p>
<p>Policy 2c: Continue to enforce BMC by not accepting subdivisions that do not comply with City subdivision code.</p> <p><i>For private subdivisions that have met City standards, the City of Bethel receives ownership of roads and rights of way and is thereafter responsible for maintenance of these features. When the City does not accept the subdivision because it does not comply with City standards, e.g., roads do not have acceptable base material or acceptable width, it means the subdivision will not be eligible for use of City water and sewer or City road maintenance. The City's rationale for this approach is understandable: maintenance on substandard roads is more costly than roads that meet City standards, and result is that City takes on a burden that would have been avoided if the subdivision was developed correctly. This policy can, however, result in problems, as described below for the Haroldson subdivision.</i></p>

Background

The supply of land in Bethel is constrained by physical limitations, ownership, and limited road access and other infrastructure. Given these constraints, a more proactive approach is needed to

first anticipate specific uses that are vital to the future of the community and will need space, then to ensure adequate amounts and locations of land are available to meet these needs.

Local governments have the authority to set rules for the subdivision of private land¹. Responsibility for ensuring quality subdivisions is one of the basic services provided by local governments all over America. Subdivision ordinances, including the existing Bethel ordinance, customarily include standards for roads and pedestrian access, utilities, and the dimensions of lots. Local government authority for subdivision design comes from the need to protect public health, safety and welfare; for example, by ensuring that streets are wide enough to accommodate emergency vehicles and that easements are reserved to create efficient layouts for water and sewer lines, as well as other utilities. Communities and individuals benefit from subdivision standards because property boundaries (once in place) tend to endure, and poorly laid out subdivisions can create costly, difficult-to-solve access, utility and drainage issues for decades into the future.

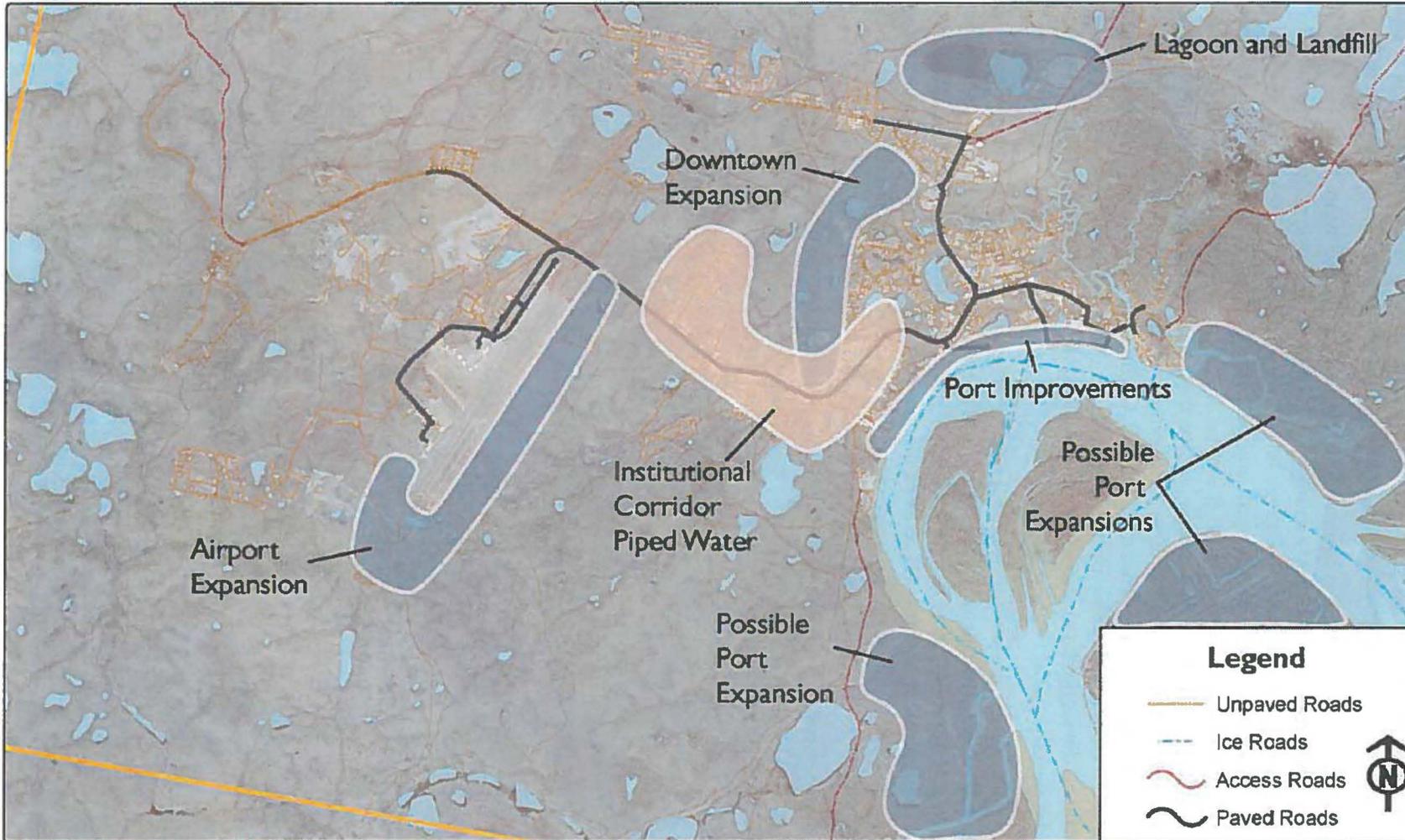
In the past, some subdivisions in Bethel were developed without adequate rights of way for roads and other infrastructure. This lack of infrastructure ultimately creates a number of problems: it limits connectivity (e.g. by blocking access to adjoining lands, or through an imperfect internal road network), creates safety issues (e.g., by creating barriers to emergency access), and limits options to provide for improved services, such water and sewer. All of these impacts in turn can reduce land values and resident quality of life.

Native allotments are not subject to local government subdivision rules. The Bureau of Indian Affairs (BIA) is increasingly working with holders of Native allotments all over Alaska to comply with local government subdivision requirements, in order to avoid the issues mentioned above.

¹ The exception to this statement is for Native allotments, which are exempt from local government land use regulations as well as property taxes.

Map 4.3

City of Bethel Priorities for Future Community Uses



Growth Patterns

GOAL 2: Encourage future growth to locate near existing employment centers and public services. Coordinate plans affecting the location of growth with plans for the location of water, wastewater and roads, as economically feasible.

Strategy 1: Explore policies (including infill and redevelopment) that could be used to encourage development of lands within or adjoining existing developed areas that have the potential to accommodate new growth.

Action 1a: Identify and map areas within or adjoining existing developed areas that have the potential to accommodate new growth; these include vacant or underutilized lands served by roads, with good access to public services and employment.

Candidate areas include:

- *The developed areas of "downtown Bethel."*
- *Undeveloped land immediately adjoining downtown Bethel, for example, the land adjoining the easternmost of the possible "donut hole" road routes – a new north-south road and water/sewer line just west the existing downtown Bethel.*
- *River front land downriver from the existing port, and the vicinity of the East Harbor.*

Action 1b: Review and work to remove barriers that discourage infill and redevelopment (e.g., lack of access to properties, excessive restrictions in the BUC).

Action 1c: Create appropriate incentives for individual landowners to redevelop property and/or carry out infill projects that would otherwise not be feasible.

This might include assisting land owners apply for façade improvement grants, energy-related building upgrades or temporary reductions in taxes (this latter is a strategy that typically applies in communities with property taxes, and may not be possible in Bethel).

Action 1d: Plan for and develop expanded infrastructure, as needed, to support priority uses.

For example, water and sewer lines serving expanded or relocated port facilities.

Policy 1e: Protect the interests of current users as land is redeveloped.

For example, if the City partners with a private developer in redeveloping land currently used for housing, take steps to provide affordable housing available to households currently living on the property.

Strategy 2: Remove regulatory hurdles and/or create incentives for more concentrated development.

Action 2a: Review and revise (as necessary) Bethel's existing parking requirements; where possible, reduce parking requirements and encourage shared parking or access for alternative transportation modes (e.g., pedestrian facilities, public transit).

Public discussion indicated some concern about new retail businesses having adequate off-street parking. BMC Chapter 18.48 Article II. Off-Street Parking and Loading includes parking requirements for all uses. If there is a lack of parking, this code could be revised to require additional spaces. However, if development is concentrated (particularly in central commercial areas) and transportation policies promote alternative modes (e.g., sidewalks for walking or bicycling, legal access for snowmachines), the need for off-street parking can be reduced. Likewise, the need for larger parking areas can be reduced through the use of shared parking arrangements.

Clarification of Neighborhood Revitalization Terms

Infill refers to new development on undeveloped parcels within areas that are already largely developed. Often these parcels have problems (such as poor soils or difficult access) that caused them to be passed over.

Redevelopment refers to replacing older, and/or underutilized current uses with new, higher intensity uses.

Underutilized refers to a parcel that has some current use (such as storage, an older vacant structure or perhaps a still used but rundown structure), where the current use does not take full advantage of the potential value of the property.

Background

Multiple benefits can come from concentrating new development in locations with existing road access, existing water and sewer lines and close-by access to jobs and services:

- Reduce or avoid the need to install new infrastructure. For example, by serving new growth with existing roads *versus* requiring new roads.
- Reduce infrastructure operation costs. Concentrated development is easier to serve (e.g., fewer school bus miles, fewer miles of roads to maintain).
- Improve quality of life for residents (e.g., ability to walk to jobs, to shopping, services).
- Reduces energy use. For example, concentrated development reduces driving, and if attached housing is built, such housing is less costly to heat, because of shared walls, than detached housing.
- Can either reduce the need for taxes or free up money for other more important uses.
- Provides one of the few viable options for reducing the cost of living in Bethel.

Redevelopment Case Study: Haroldson Subdivision

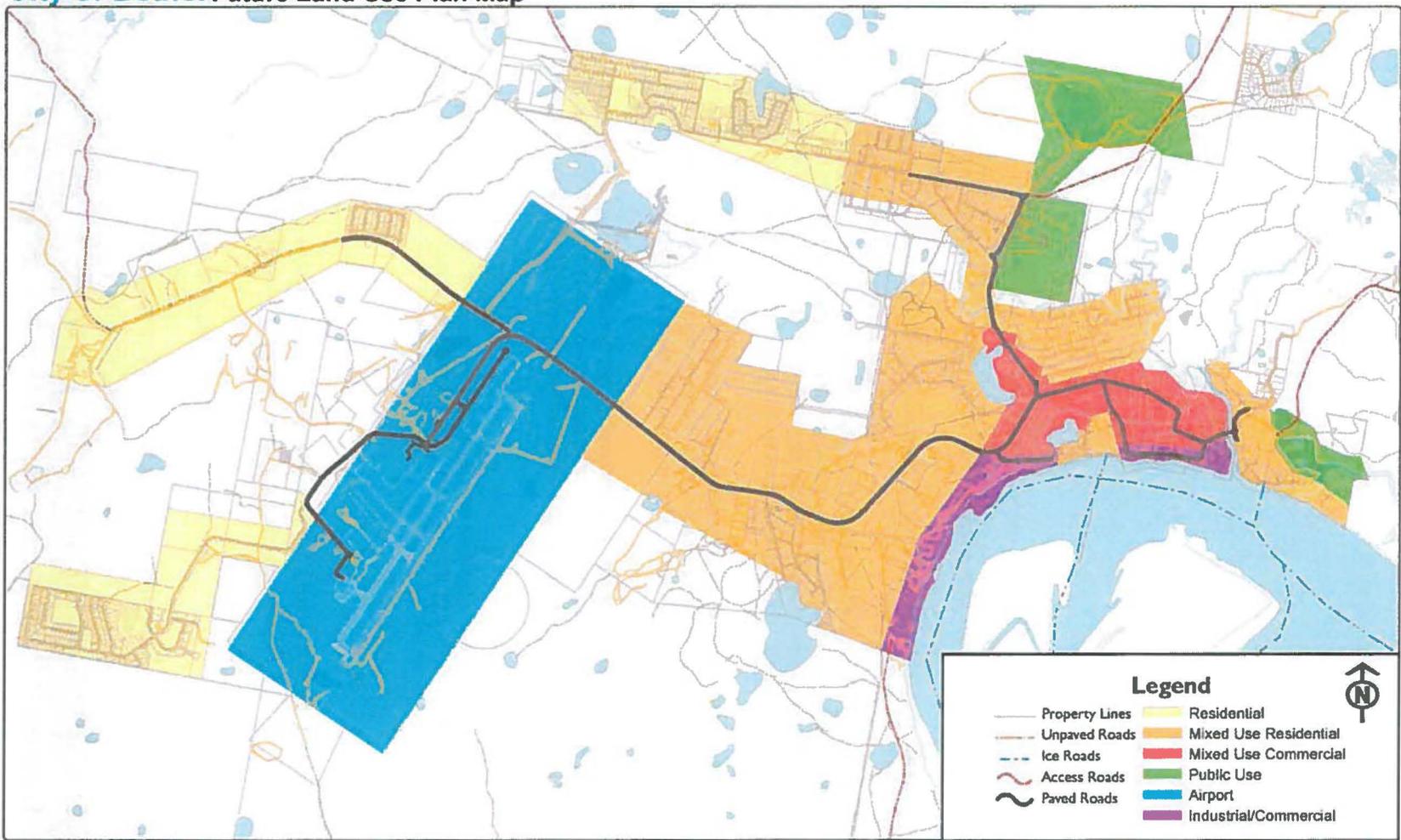
Haroldson subdivision is Bethel's forgotten subdivision, located northeast of the landfill/lagoon. For reasons that are not clear, the original subdividers did not develop the subdivision road to City standards. Consequently, the City did not accept the subdivision and does not provide normal services to the area. A handful of people live in the subdivision without running water, sewer service or electricity.

This situation clarifies the reasons why a city imposes subdivision standards. If a subdivision is developed correctly, the City can provide standard services at normal costs. If, however, the subdivision is not developed correctly (for example, if the roads are substandard), the City is either stuck with ongoing higher maintenance costs and/or having to retrofit the road without any good way to fund the improvement.

Some solution is now needed for this subdivision. The City currently allows ambulance and fire trucks to serve the area, and Bethel Public Works has occasionally put sand and gravel on the road. Options to bring the subdivision road up to City standards include a combination of using City general funds, seeking out one time grant funds or a legislative appropriation, and partnering with land owners in the subdivision who might help raise funds from third party sources, or themselves contribute money and or sweat equity to improve the road.

Map 4.4

City of Bethel Future Land Use Plan Map



Data courtesy of the USGS, BLM, DNR, and Agnew Beck. This map was compiled for the City of Bethel with assistance from Agnew Beck Consulting. Alaska State Plane, Zone 4 NAD 1983. File: Bethel_Ownership 11/22/10

0 1,320 2,640 5,280 Feet

Land Use Compatibility

GOAL 3: Provide for compatibility among adjoining land uses, so future development maintains or improves the quality of life or land values of surrounding uses.

Strategy 1: Review and revise Bethel land use regulations.

Action 1a: Examine existing Bethel code and existing land uses; revise and simplify land use designations to better fit the reality of Bethel's mixed use land use patterns.

A first suggestion for these uses includes the following categories:

- *Low density residential areas*
- *Mixed use - residential primary (residential and limited, residential-compatible uses)*
- *Mixed use (mix of commercial & residential, fewer constraints on size and character of commercial).*
- *Industrial/heavy commercial zone,*
- *Public Use*
- *Airport and related uses*

Action 1b: Use the generalized future land use designations in the Land Use Plan Map (Map 4.4), which broadly identifies areas intended for various uses, as the starting point for revising the zoning code in BMC Title 18 (Bethel zoning code).

For example,

- *Low density residential areas. This zone takes in several specific subdivisions, e.g., Tundra Ridge, Larson and Blueberry. In these areas uses should be generally limited to residential uses. Exceptions would be for small home-based businesses with minimal off-site impacts, or perhaps neighborhood serving commercial, such as a small grocery store.*
- *Mixed use. This use is intended to be the most common land use zone, made up of residential and residential-compatible uses. Examples of residential compatible uses include schools and other community serving, non-industrial facilities, and churches, office and professional services uses (e.g. health facilities), and neighborhood-serving commercial*
- *Industrial/Heavy Commercial. This zone is intended for uses that are generally incompatible with residential, and consequently need to be located where they do not disrupt adjoining residential or residential-compatible uses. This zone includes such uses as warehousing, storage, construction-related industries, marine and aviation-related industries. Key industrial locations include the tank farm, the port, the airport and portions of the waterfront between Second Avenue and the waterfront and the airport.*

Action 1c: Modify code to require a conditional use review process for large- scale uses or any other use likely to have significant off-site impacts.

Examples of such projects include a large scale public building, or a private use such as car repair.

Background

Alaskans are known for not welcoming rules controlling what they can do on their property. At the same time, most Alaskans (particularly when it comes to their homes) want a quiet, peaceful place, where adjoining uses do not create noise, glare, excessive traffic or other problems.

Zoning codes are the standard tool for addressing these issues and providing compatibility among uses. Zoning typically includes two categories of rules: first, uses are allowed or not allowed in any specific location, and secondly, the character of uses is regulated (e.g., rules on building setbacks or building heights).

The primary way to better achieve the goal of compatibility among land uses in Bethel is by improving the City's existing zoning code. The general theme of this effort should be to simplify the code, so that it focuses only on the most important issues, where public and political support is strong, and where the Planning Department and City Council have the capacity to enforce the rules. A starting assumption for revising the zoning code is acceptance that land uses are mixed in much of Bethel. As a result, it is not practical to impose a complex zoning code or one that attempts to separate most uses by category, as is done in most U.S. towns (e.g., establishing areas that are purely residential, purely commercial). Instead the code should generally allow for a continuation of mixed use development in much of the community, but set standards so that serious incompatibility can be avoided (for example, a noisy industrial use or auto repair shop in a predominately residential neighborhood).

"Conditional Use" Definition

A "conditional use" is a category of use identified in a zoning code. Most Alaska communities and boroughs have a conditional use process, with the specific goal of guiding land uses that have potential for significant off-site impacts, such as adult oriented businesses, or auto-wrecking yards. Elements of a conditional use process typically include:

- A list of uses that require such a permit (which can vary by location).
- A list of general conditions for consideration in the approval of specified uses (e.g., standards for traffic or safety impacts).
- A review process, typically including a public hearing, where the specific conditions of approval are required of the planned use.

Housing

GOAL 4: Encourage a range of housing opportunities for current and future Bethel residents, including more housing within the purchasing or rental capabilities of young families, single people, school teachers and other workers.

Strategy 1: Improve existing housing stock, as needed.

Action 1a: Adopt standards for basic level of housing quality.

Action 1b: Create a fund to help property owners upgrade housing to meet minimum standards.

Strategy 2: Encourage cooperative programs to provide additional housing.

Action 2a: Document housing needs.

Action 2b: Identify and, through zoning and infrastructure provision, encourage new housing development in appropriate areas (*Land Use Goal 1*).

Background

Bethel would benefit from upgrades in the quality and availability of housing. Several specific neighborhoods are in particularly poor condition. A suggestion was made during one of the public workshops to redevelop the BIA hospital, potentially as a rental housing development.

Safe, High Quality Neighborhoods

GOAL 5: Create safe, livable neighborhoods centered around community facilities such as schools, parks, the teen center, and the senior center.

Strategy 1: Encourage neighborhood revitalization and development.

Action 1a: Craft a cooperative strategy to upgrade select neighborhoods (among the City and Bethel-based regional organizations; e.g. AVCP, ONC).

Action 1b: Form a revitalization task force (working with residents and landowners) to identify and prioritize most important revitalization needs.

Take an integrated approach, tackling crime, underdeveloped infrastructure, high energy costs, inadequate housing, lack of parks and open space.

Action 1c: Work with the City and regional organizations to find funding or other needed resources for carrying out priority projects and programs.

Strategy 2: Establish better neighborhood public safety programs.

Action 2a: Establish a neighborhood watch/citizen patrol program.

Bethel does not currently have a neighborhood watch program.

Action 2b: Establish a "safe routes to schools" program.

Action 2c: Establish a "Kids don't float" program to educate and distribute flotation devices and coats for kids; keep people from drowning.

Policy 2d: Locate and design community facilities in central areas with high visibility.

Environmental Conservation

GOAL 6: Maintain and protect the quality of the water, land, and biological resources within the City; encourage the sustainable use of those resources for current and future generations.
Strategy 1: Conserve and protect natural resources and features that serve valuable functions in the community.
Action 1a: Identify (and record in the City's land use records) natural resources and features, open spaces, cultural and historic sites that should be protected from development through the City's land use regulatory mechanisms.
Action 1b: Set standards in Bethel Municipal Code to protect these natural resources and features. <i>For example, establish setbacks from important water bodies</i>
Action 1c: As funding allows, acquire suitable land for open space preservation.
Action 1d: Identify and clean up brownfields (contaminated lands) within the City of Bethel. <i>Brownfields refer to areas that have been developed and used in the past, and are currently vacant or underutilized, and have development constraints such as blighted structures or contaminated soils.</i>
Policy 1e: Prohibit and prevent the dumping of hazardous substances. <i>(Related actions: Public Facilities and Services Goal 1, Objective B: Water and Sewer, Action 4b and Objective C: Solid Waste)</i>
Policy 1f: Limit discharges from existing and future development to meet applicable state or federal environmental quality statutes, rules and standards.
Policy 1g: Encourage wider use of the Planned Unit Development/"Conservation Subdivision" approach to development in Bethel.
Strategy 2: Engage in regional efforts to protect the integrity of natural resources.
Action 2a: Coordinate with other villages in the region, state and federal agencies to monitor and address any Kuskokwim River water quality problems.

Background

Bethel is located in the biologically rich landscape of the Yukon-Kuskokwim Delta.

Bethel has a Planned Unit Development (PUD) section in the land use code, but this approach has never been used in the community. A planned unit development (or conservation subdivision) provides an opportunity for greater flexibility and creativity in site development.

In a planned unit development, for example, a developer might be able to use smaller lot sizes than would otherwise be permitted, and consequently be more able to set aside land for open space or trails. The PUD overlay zone can be used in conjunction with any zoning classification in Bethel. Benefits of the use of a PUD approach include:

- Encourages imaginative design and the creation of permanent open space.
- Preserves, protects and enhances special site features, such as stream corridors, wildlife habitat, or subsistence areas.
- Provides diverse and convenient recreational opportunities, such as neighborhood "pocket parks."
- Allows for the development of a variety of housing types, and/or mixed uses.
- Encourages the development of street, pedestrian and bicycle paths that contribute to a system of fully connected multi-use routes.
- Facilitates the economical and adequate provision of public services.
- Promotes land use patterns that support a sense of community.

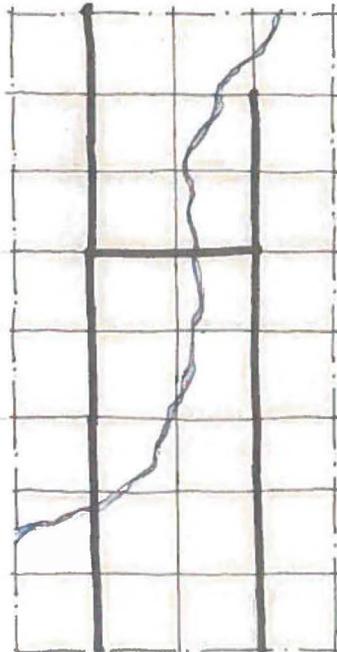
Figure 4.5 Planned Unit Development/Conservation Subdivisions

Subdivision Options - Three Illustrative Alternatives

Illustrative 80 acre parcel

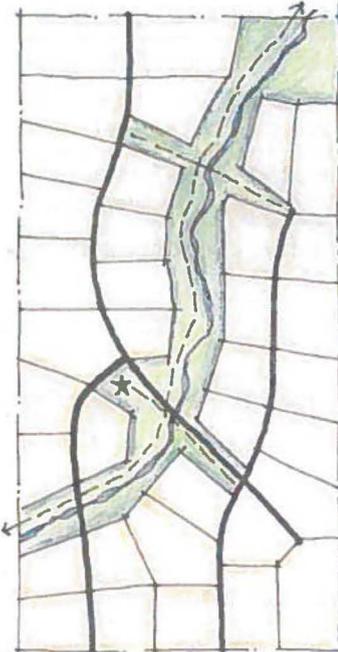
A. Traditional Subdivision

32 lots, 2.5 acre per lot
No reserved open space
(onsite wells and septic)



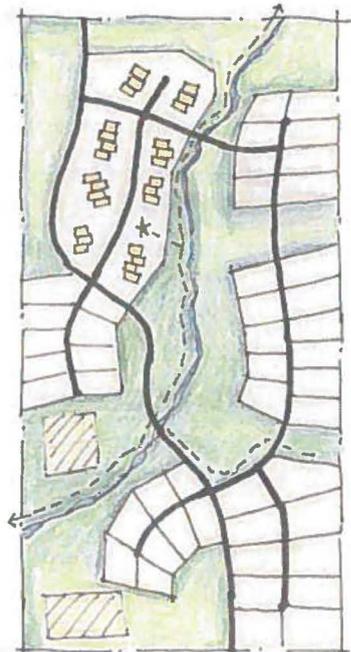
B. Open Space Subdivision

36 lots, 1.5-2.5 acres per lot
Approximately 15 acres open space
(onsite wells and septic)



C. Open Space Subdivision

50 lots, about .50-75 ac/lot (20-30,000 SF)
Approximately 35 acres open space
(sewer or "neighborhood" septic system)



Natural Disaster and Hazards

GOAL 7: Protect life and property from natural disasters and hazards.
Strategy 1: Discourage development in areas more susceptible to natural disasters.
Action 1a: Investigate alternative ways to reduce the flood hazard within Bethel City Limits.
Policy 1b: Use City land use regulations to direct development to locate outside floodplains, natural drainage ways, steep slopes, and other hazardous areas.
Policy 1c: Use City land use regulations to limit land use in the undeveloped floodplain within the urban growth area to open space, recreation or other appropriate uses that a) minimize the potential loss to life or property and b) comply with federal and state regulations.
Policy 1d: As part of development review process, require site specific information clearly determining the degree of hazard present from applicants who seek approval to develop residential, commercial, or industrial uses within known areas of natural disasters and hazards.

Land Records System

GOAL 8: Improve the City's ability to provide quick access to current and accurate information on land status, easements and rights of way, and zoning and other land use regulations.

Strategy 1: Upgrade the land records system for all property in the City of Bethel.

Action 1a: Develop a city-wide, Geographic Information System (GIS) land records system; update as lands are subdivided or developed, and make data available for use by City staff and the general public.

Background

Bethel's ability to make sound decisions about future growth and change is hindered by the lack of a basic, 21st century, land records system. Current land records are out of date, incomplete and difficult to use. Accurate and complete land record information is the foundation for both public and private sector land use activity, and for both near term parcel-specific issues and for citywide long range planning. Good land use records are needed, for example, as a reference for real estate transactions and land development, to manage lands held by the City, and to plan new or improved roads, water and sewer and other infrastructure.

City Land Management

GOAL 9: Improve the City's ability to effectively and efficiently manage City-held lands.

Strategy 1: Upgrade the system for managing lands held by the City of Bethel.

Action 1a: Prepare an inventory of the location, current use, and physical capability of all land held by the City of Bethel.

This can be done as part of this goal and the evaluation of priority future land use needs in the community (Goal 1).

Action 1b: Working with the community, designate the appropriate intended future uses all City of Bethel land (e.g., disposals, public facilities, parks and recreation).

Action 1c: Establish code sections that outline procedures for ongoing management of City land, including sales, permits, rights of way, long-term retention for public uses (e.g., parks and open space).

5. Transportation

Introduction

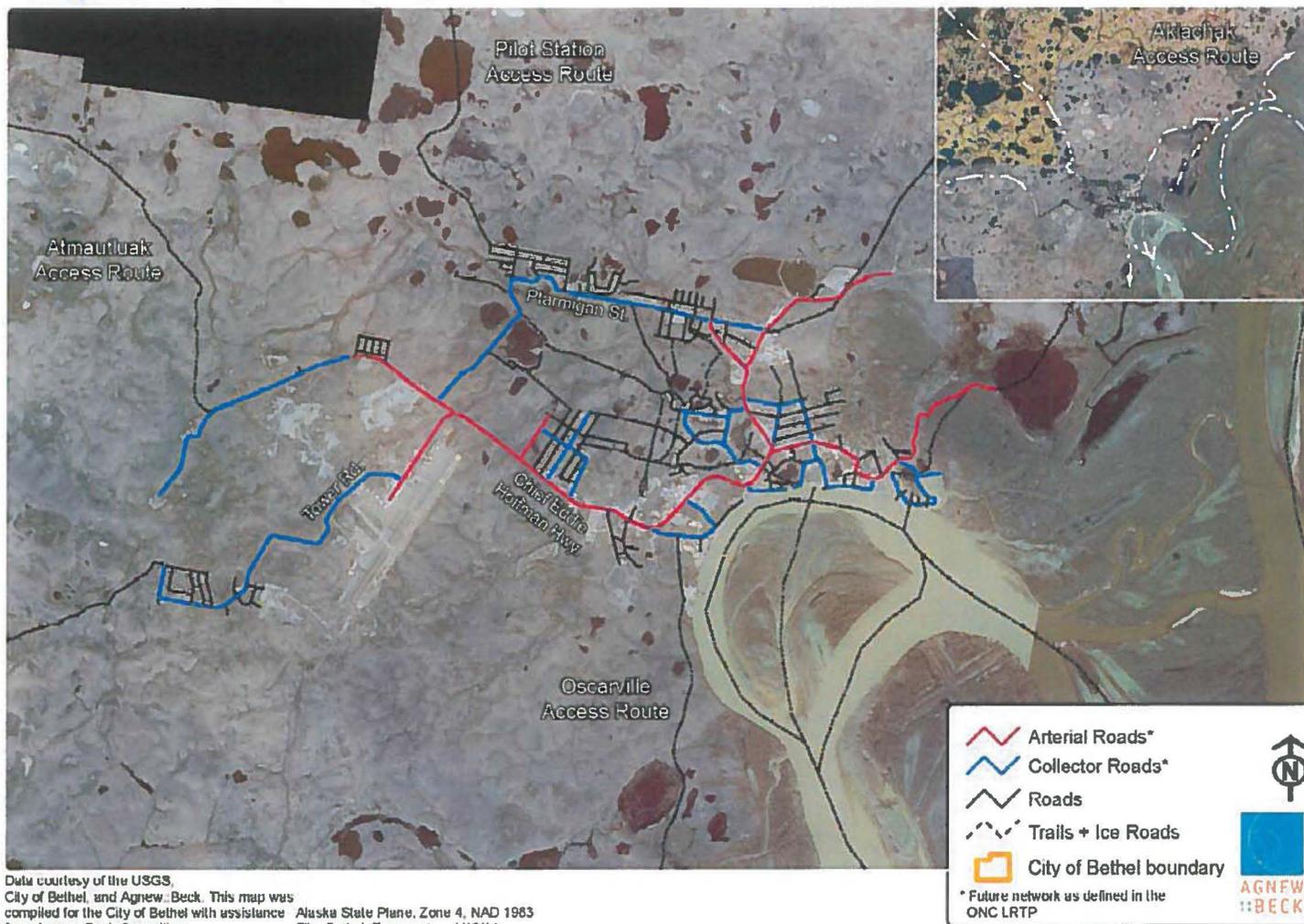
This chapter provides guidance, recommendations and context for addressing Bethel's transportation needs for the next 25 years. It is intended to be used along with the Orutsararmiut Native Council Long Range Transportation Plan (LRTP) and City of Bethel Community Transportation Plan (March 2010), which includes a statement of intention that the LRTP supplement the City of Bethel 1997 Comprehensive Plan, and that it be incorporated into the 2010 update to the 1997 Comprehensive Plan.

The goals, policies, strategies and actions include those adopted as part of the 2010 ONC LRTP /City of Bethel Transportation Plan and some additional points that came up during the Bethel 2035 planning process.

Bethel's transportation facilities serve local needs and make the city a regional transportation hub. Bethel is served by the Chief Eddie Hoffman Highway, which connects to a few neighboring villages. The Kuskokwim River serves as major transportation channel by boat in summer and by ice road in winter. The Bethel Port and Airport are both regional transportation and shipping facilities. The City of Bethel also has a public transit bus system, and a local and regional trail system.

Map 5.1

City of Bethel Transportation



Goals and Strategies

Airport

GOAL 1: Provide for the efficient transport and transfer of air cargo and passengers.

Strategy 1: Ensure compatible land uses adjacent to the airport and in areas that could potentially interfere with the airport's airspace needs.

Action 1a: Coordinate with ADOT&PF to establish effective and appropriate City regulations and regulatory procedure regarding airport activities.

Examples include city policy regarding placement of wind turbines to avoid interference with airport airspace rights; economic development strategies involving airport and industrial needs; coordination with local transportation and city infrastructure such as a potential fire substation, public transit service, port activities; coordination with airport master planning. BMC 18.48.270 defines (but does not require) a "proposed airport height map" to be prepared by the airport and submitted to the City that would assist both the airport and City in planning for airport activities and land use compatibility. Should be coordinated with Land Use Goal 8.

Background

The route between Bethel and Anchorage is served by both jet and propeller aircraft. There is daily jet service between Anchorage and Bethel for passenger and cargo service. Air taxi services operate from Bethel, serving 56 villages in the surrounding areas with scheduled and charter service.

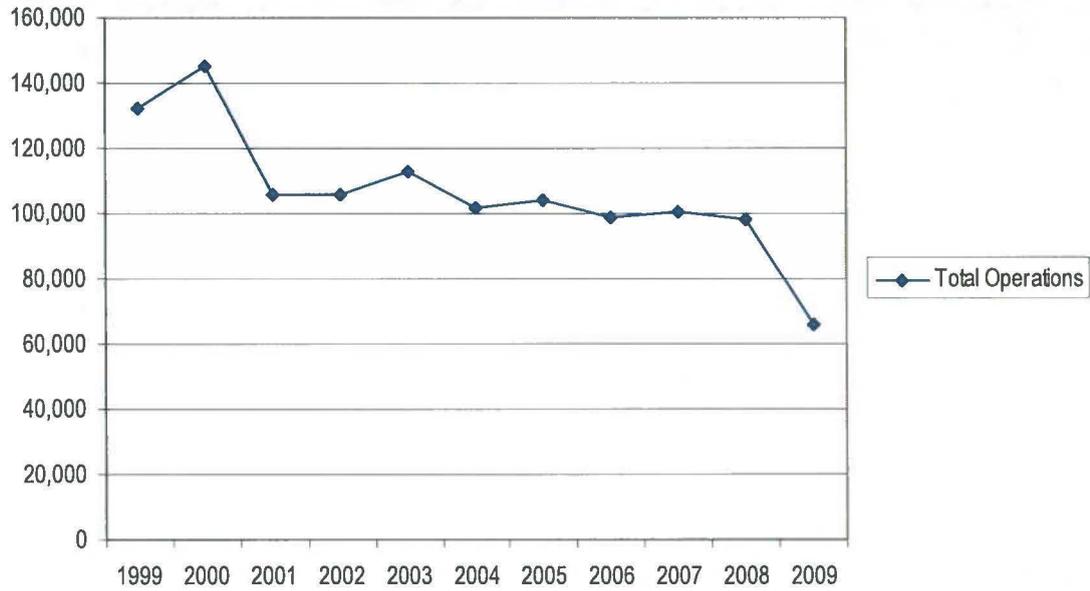
With about 230 based aircraft and an average of 120,000 aircraft operations (landings/takeoffs) every year, Bethel has the third busiest airport in the state. The Bethel airport is a regional facility, originally built in the late 1950s. It is owned and operated by the State of Alaska. The entire facility covers 1,056 acres and currently contains two runways: the larger one (Runway 18/36 at 6,498ft by 150ft) is paved; the other (Runway 11/291,850ft by 75ft) is gravel.

Airport use for freight, mail, passengers has increased since 1990, but activity has not continued to grow, possibly because of reduction in traffic due to high fuel prices. Despite a recent decrease in the number of operators at the airport (7, down from 15 in the 1990s) and fewer operations, the airport requires upgrades to maintain its role as regional hub facility. The Alaska Department of Transportation and Public Facilities (ADOT&PF) maintains an Airport Improvement Program (AIP), which includes the construction of a parallel runway (begun in 2005, expected completion after 2010), expansion of the west heavy apron (after 2011), and the possible construction of an airport industrial park for outdoor storage, warehousing, transfer facilities, and light industry.¹

¹ ONC LRTP/City of Bethel Community Transportation Plan, 2010.

Table 5.2

Bethel Airport Total Operations, 1999-2009*



*Incomplete data for year 2009: Includes flight operations through September 20, 2009
Data obtained from 2010 ONC LRTP/City of Bethel Community Transportation Plan, Source: Federal Aviation Administration, Air Traffic Activity Data Systems (ATADS), 2009

Roads

GOAL 2: Develop a safe and efficient road system.
Objective A: Ensure adequate funding for road improvements.
Strategy 1: Improve the City's capital improvement program process to coordinate with the Statewide Transportation Improvement program (STIP).
Action 1a: Include road and trail projects in the City's Capital Improvement Plan, which can be used to secure ADOT&PF funding. Develop clear project descriptions during the City's Capital Improvement Program process with all necessary information to respond to ADOT&PF requests for information during the needs list project initiation process.
Action 1b: Use the City lobbyist to advocate for Bethel's concerns with ADOT&PF during the STIP process.
Action 1c: Establish an agreement between ONC and the City to allow transfer of maintenance funds from the IRR Transportation Program.
Action 1d: Update Bethel's BIA Indian Reservation Roads (IRR) inventory.
Strategy 2: Use public road funds for road improvements where and when ONC and the City determine new development is appropriate. Where public funds are not available, consider other funding sources such as System Development Charges or City Bonds.
<i>No actions associated with this strategy.</i>
Objective B: Provide a safe and efficient street network to meet current needs and future development.
Strategy 1: Make improvements to the street maintenance program.
Action 1a: Revise street maintenance program and schedule to improve safety and control dust. Seek funding for innovative methods to stabilize roadways or to set up testing program to test cost-effectiveness of alternatives to conventional road construction. <i>Dust is a public health issue. Road maintenance for dust control requires night work.</i>
Action 1b: Create and implement a five-year maintenance plan for gravel road resurfacing. Set aside funding for future maintenance and capital improvements.
Action 1c: Determine responsibility for and improve maintenance to the Kuskokwim ice road.
Policy 1d: The city street maintenance program and work schedule shall include provisions for dust control. (<i>LRTP Policy #5</i>)
Strategy 2: Improve the safety of the road network.
Action 2a: Conduct a local transportation study (origin and destination) to analyze how land use patterns combined with the existing road system may generate traffic bottlenecks and extra travel. As part of the study, explore access options for those parcels inside the city limits that currently have no legal access to a public street.
Action 2b: Install traffic signals at key intersections.
Action 2c: Install streetlights throughout the city, especially on Ridgecrest Drive, near the schools.
Action 2d: Establish road standards for size, use and weight (e.g., a 50-foot minimum right of way, minimum of 6-12 inches of crushed gravel above road bed).
Policy 2e: Design and maintain roads for multi-modal use (i.e., automobiles, ATVs, snowmachines, bicycles, pedestrians). <i>Public discussion went even further: residents suggested that walkways and/or paths be included in every road project (new or improvements to existing), and that a walkway/path be incorporated into plans to pave Ptarmigan.</i>
Objective C: Design and build roads to reduce the number, length, and cost of business and personal trips.
Strategy 1: Facilitate ONC and other planned housing development.

Action 1a: Improve Naun Raq Road linking Ptarmigan Street with new subdivision road.
Action 1b: Construct a new ONC road (Map 5.3).
Strategy 2: Create more direct access between trip generators.
Action 2a: Better enforce BMC 17.24.040-050 requiring streets and accessways, where appropriate, to provide safe and convenient access to major activity centers, including downtown, schools, shopping areas, and community centers.
Policy 2b: Design future street networks so they have multiple connections and relatively direct routes.
Policy 2c: Design future street networks so that pedestrians and other users such as bicyclists have shortcuts, and alternatives available for travel along higher-volume streets.
Policy 2d: Open up existing dead-end roadways so they connect to collectors and arterials.
Policy 2e: Develop future arterial and collector roadways.
Strategy 3: Address access and development issues caused by unplanned development.
Action 3a: Evaluate and update parking standards (BMC 18.48 Article II). <i>(Also Land Use Goal 2.)</i>
Action 3b: Develop driveway access criteria and standards for connecting to arterials (BMC 18.48.200).
Policy 3c: Enforce existing City land use regulations with regard to transportation and development.
Policy 3d: Link the provision of the transportation system with utility services to areas targeted for development.
Policy 3e: Minimize connections and driveways on arterial and collector streets. <i>(LRTP Policy #7)</i>
Strategy 4: Provide alternate routes to improve emergency access and ease traffic congestion.
Action 4a: Make arterial and collector connections to relieve congestion at Watson's Corner.
Action 4b: Create an alternative route to Kasayulie Subdivision near the airport (Map 5.3).
Action 4c: Create a Loop Road, either following the existing Tundra Ridge Road route or on a different but comparable alignment (Map 5.3).
Action 4d: Consider the creation of a road through or alongside the donut hole, possibly close to town to increase access to BATHC site and Yuut Elitnaurviat area and to allow for additional commercial/institutional development (Map 5.3). <i>(If the Loop Road is not created, this connection becomes the highest priority.)</i>
Strategy 5: Improve the intersection of Akakeek Street and Ridgcrest Drive.
Action 5a: Evaluate and make improvements to the existing turning radius, signing and traffic control methods.
Strategy 6: Improve substandard roads.
Action 6a: Consider establishing a municipal paving plant for paving city roads. <i>(If established, Bethel Public Works could also purchase a glass grinder capable of reusing waste glass for road pavement).</i>
Policy 6b: Raise the roadbed above the surrounding terrain and resurface.
Policy 6c: Add drainage improvements and repair or replace damaged or undersized ones.
Policy 6d: Install right and left turn lanes.
Policy 6e: Address the special maintenance needs of paved and unpaved roads due to heavy use and weather.
Policy 6f: Develop design guidelines based on functional classification.
Policy 6g: Develop requirements for contractors and developers related to maintenance of the roadway during construction projects.
Strategy 7: Use the City's land use authority to link expansion of the road system with the land use and utility/community facilities goals and strategies.

<p>Action 7a: Include site development requirements in the zoning or subdivision code to specify ingress and egress (driveways), lighting, parking, and loading and offloading.</p> <p><i>This will minimize traffic congestion and improve safety for pedestrians in commercial and industrial areas. (Chapter 15 at the Bethel Municipal Code requires site plan review for any improvements.)</i></p>
<p>Policy 7b: Preserve the function of existing or planned roadways or roadway corridors through the application of appropriate land use regulations.</p>
<p>Policy 7c: Preserve right-of-way for planned transportation facilities through exactions, voluntary dedication, or setbacks.</p>
<p>Policy 7d: The impact of development and major capital projects on existing or planned transportation facilities should be considered in all land use decisions.</p>
<p>Policy 7e: All new subdivision development shall include a future street plan that shows the pattern of future streets consistent with the functional classification for streets in Bethel. <i>(LRTP Policy #1)</i></p>
<p>Policy 7f: The subdivision ordinance shall include road design standards that maintain traffic flow and create a safe street network. <i>(LRTP Policy #2)</i></p>
<p>Policy 7g: Site plans shall identify opportunities for shared access. <i>(LRTP Policy #3)</i></p>
<p>Policy 7h: Parking (off street), driveway access (ingress and egress), lighting, and loading and off-loading standards shall be required for all developments. <i>(LRTP Policy #4)</i></p>
<p>Policy 7i: In existing and developing commercial centers, buildings should be set close together and close to the pedestrian pathways and main streets to encourage walking and shared parking. <i>(LRTP Policy #6)</i></p>
<p>Policy 7k: Operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated.</p>
<p>Policy 7l: The dedication of right-of-way, roadway classification, road standards, authorization and construction of facilities and improvements for projects identified in the ONC LRTP/City of Bethel Community Transportation Plan (or Comprehensive Plan) shall be allowed without land use review.</p>
<p>Policy 7m: For projects that require an Environmental Impact Statement (EIS) or Environmental Assessment (EA), the draft EIS or EA shall serve as the documentation for local land use review, if local review is required.</p>

Background

Bethel’s road system is not connected to any other village, and includes approximately 26 miles of public roads. The City maintains approximately 21 miles of mainly gravel roads, and the State of Alaska maintains approximately five miles of paved road. There is a seasonal ice road on the Kuskokwim River that can exceed 100 miles in winter. Car ownership in Bethel and surrounding villages is low; many residents use some alternative form of transportation.

The State (ADOT&PF) maintains Chief Eddie Hoffman Highway and the Airport. Bethel Public Works maintains other state roads, Bethel’s approximately 16 miles of gravel roads and occasionally contracts out to have the Kuskokwim ice road plowed. ONC contributes to maintenance of City roads through the BIA IRR Inventory. The Kuskokwim ice road is owned by the State. The State used to give the City money to plow the ice road, but since this funding was discontinued the City no longer maintains the road. Occasionally villages will have funding for plowing, which they pass to the City, which then contracts with local sources to plow the road so they can have access. Bethel Public Works does not send City equipment and staff to plow the ice road because insurance will not cover it. The ice road is an important winter connection to other villages in the Y-K Delta region: many villagers use the frozen highway to transport heavy goods (e.g., emergency fuel supplies, cut wood for sale in Bethel, purchased goods and equipment for use in the villages).

The City recently rehabilitated its existing roads from tundra level to the surface using crushed gravel to create a seal that will lessen water damage to the roads. Due to wear and tear from general traffic, the City's 3,000-pound water and sewer hauling trucks, and Bethel's extreme climate, Bethel Public Works estimates that gravel resurfacing will be needed approximately every five years. Additional maintenance equipment is needed to adequately maintain Bethel's existing road network, especially the paved roads.

Bethel's soils are mainly sand and silt, which have been traditionally used for road construction. Another commonly used construction and maintenance material, gravel is used for maintaining City of Bethel roads, for one of the Airport runways, and Bethel Port maintenance. Gravel does not exist locally and must be barged to Bethel from areas along the coast at Platinum or Dillingham. Because of the shipping costs, gravel has become particularly expensive in Bethel, costing up to \$600 a truckload, and impacting construction and maintenance costs to the City and private industry.

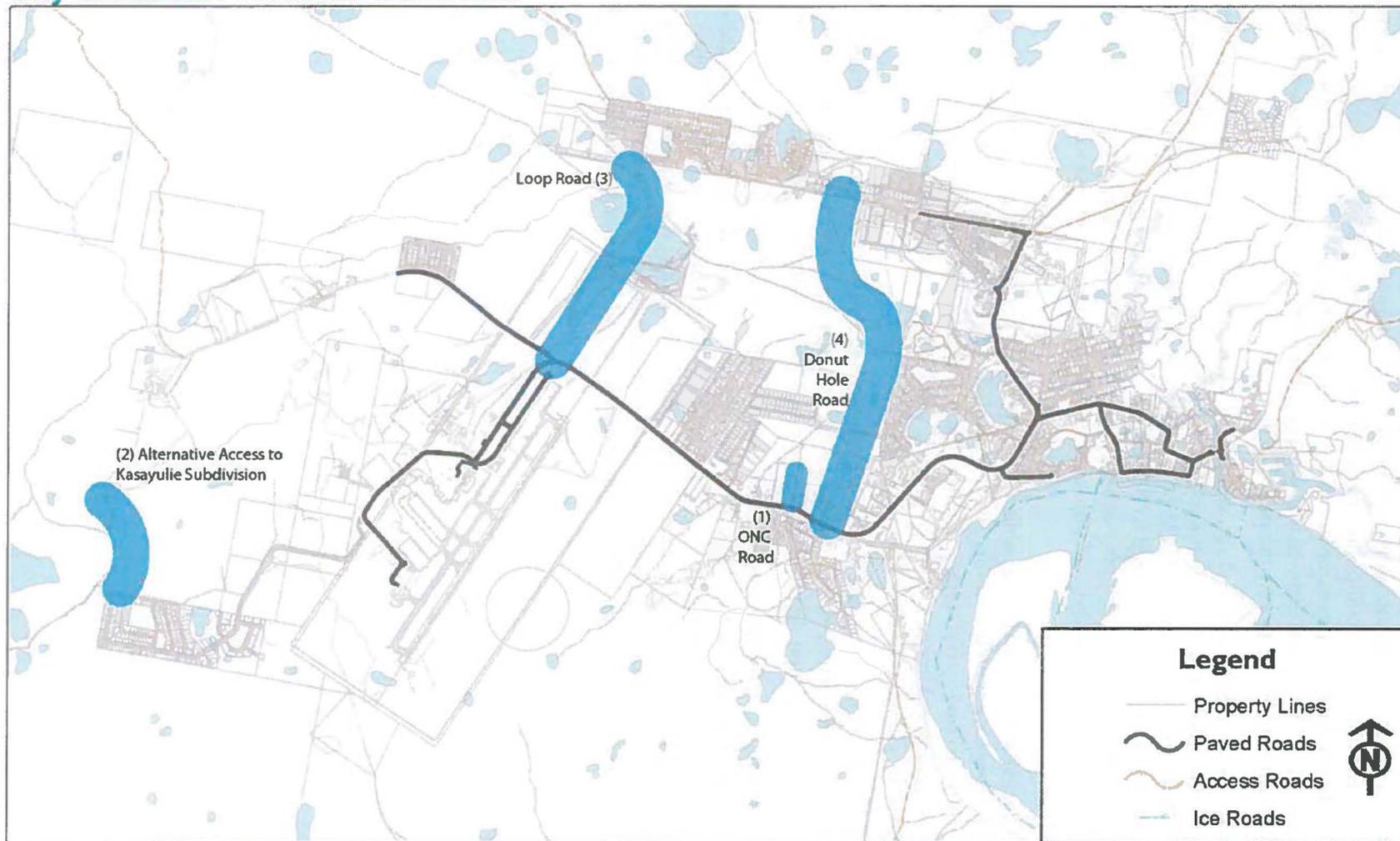
Bethel currently has no traffic signal lights, and neighborhood streetlights exist only in some areas of town. Community members have identified the need/usefulness of traffic signals at key intersections to ease traffic congestion. Community members also identified certain roads as being dangerous and in need of streetlights, e.g., Ridgecrest Drive (near the schools), which is often used by children/youth walking to school.

To ease congestion and increase emergency access to all areas of town, a few additional road connections are needed in Bethel. Strategic road connections would also decrease driving time and lower fuel usage (and therefore overhead costs) for the City (e.g., water and sewer trucks).

Some community members support a road through the Donut Hole, but there are no existing easements in this area of town. There is an existing road (Tundra Ridge Road) that runs on private land without public right of way; it is currently closed by the landowners. Public discussion repeatedly brought up this road connection, indicating that priority should be given to providing some reliable north-south connection on the west side of town, whether that be a matter of sorting out the right-of-way issues with the existing road or building a new one.

Map 5.1

City of Bethel Future Road Connections



Data courtesy of the USGS, BLM, DHP, and Agnew Beck. This map was compiled for the City of Bethel with assistance from Agnew Beck Consulting. Alaska State Plane, Zone 4, F1AD 1983. File: Bethel_Ownership 11/23/10

(1) Transportation Goal 2, Objective C, Action 1b
 (2) Transportation Goal 2, Objective C, Action 4b

(3) Transportation Goal 2, Objective C, Action 4c
 (4) Transportation Goal 2, Objective C, Action 4d

Trails

GOAL 3: Provide a safe and efficient trail network to meet current and future needs, for year-round transportation and recreation use by Bethel residents and visitors.
Strategy 1: Plan and develop a network of multi-modal streets, accessways, and other improvements, including bikeways, walkways, and safe street crossings, to promote safe and convenient bicycle and pedestrian circulation within the community.
Action 1a: Revive the Trails Committee.
Action 1b: Document existing and traditional trails. <i>Out of town trails are reserved by 17B easements.</i>
Action 1c: Incorporate the existing traditional trail network system and pedestrian needs when extending the road system.
Action 1d: Partner with other entities, such as the ADOT&PF, BNC, and other landowners, to plan for, reserve and fund trails.
Action 1e: Designate and mark trails to minimize damage to land.
Action 1f: Connect trail routes to major community facilities (e.g., City Sub, Post Office, Pinky's Park) and public transit stops.
Action 1g: Construct new year-round trails (or converting existing seasonal trails to year-round use).
Action 1h: Pursue BIA and FHWA funds for trails.
Policy 1i: Pedestrian pathways (boardwalks and other systems) shall be accommodated in the downtown area so that travel between adjacent neighborhoods, schools, and the business and office centers is safe and efficient. <i>(LRTP Policy #3)</i>
Policy 1j: Pedestrian and bicycle connections should be required along roads where land uses are concentrated and between buildings and parking areas. <i>(LRTP Policy #4)</i> <i>Public discussion went even further: residents suggested that walkways and/or paths be included in every road project (new or improvements to existing), and that a walkway/path be incorporated into plans to pave Ptarmigan.</i>
Policy 1k: Retrofitting existing arterials and collectors with bike, ATV and snowmobile lanes shall proceed on a prioritized schedule as appropriate and practical (i.e., snowmobile lanes may not be appropriate in areas where street width is less than 50 feet).
Policy 1l: Maintenance and repair of existing snowmobile trails, bikeways and pedestrian accessways (including walkways) will have the same priority as the maintenance and repair of motor vehicle facilities.
Policy 1m: The Bethel Planning Commission will continue serving as an advisory committee to protect and promote trail and pedestrian transportation within the Bethel Urban Boundary.
Strategy 2: Address multi-use conflicts between roadway and trail users.
Action 2a: Place signs at trail and pedestrian crossings and identify access points.
Action 2b: Improve the safety of road-trail crossings (e.g., signage, under-/over-pass).
Action 2c: Consider alternatives that would provide for trail users to use road right of way.
Action 2d: Study alternatives for trail crossings of aboveground utilities. <i>Water/sewer pipes have blocked some trails.</i>
Policy 2e: Minimize environmental impacts (e.g., dust, erosion, soil compaction) of ATV use.
Policy 2f: Pedestrian crosswalks should be provided at regular intervals, especially in residential neighborhoods and near schools. <i>(LRTP Policy #5)</i>

Policy 2g: Bikeways, snowmobile and pedestrian accessways shall be designed and constructed to minimize potential conflicts between transportation modes. Design and construction of such facilities shall follow the guidelines established by the Alaska Bicycle and Pedestrian Plan.
Strategy 3: Reserve trail routes, targeting connections that provide pedestrian access to the river, parks, and pedestrian connections among key public facilities (e.g., school) and residential neighborhoods.
Action 3a: Develop and maintain a safe, continuous, multi-use path along Chief Eddie Hoffman Highway between the downtown business area and the airport to include bicycle, running, and walking routes.
Policy 3b: To the extent possible, bicycle/pedestrian trails or paths should be established along roadways as these are built (new) or upgraded (existing).
Policy 3c: All new subdivision shall incorporate into the lot layout, to the extent practicable, the traditional winter and summer trail system as identified (in LRTP, Maps 4 and 6). The City's ten percent open space set-aside may be used to protect trail networks. <i>(LRTP Policy #1)</i>
Policy 3d: All new subdivisions shall incorporate into the lot layout, to the extent practicable, the tundra village trail network that links Bethel to regional villages. <i>(LRTP Policy #2)</i>
Policy 3e: Consider the potential to establish or maintain accessways, paths, or trails prior to the vacation of any public easement or right-of-way.
Policy 3f: As part of the development review process, identify existing and future opportunities for bicycle and pedestrian accessways; reserve rights-of-way, as appropriate.
Policy 3g: Snowmobile and pedestrian accessways shall connect to local and regional travel routes.
Policy 3h: Priority should be given to developing accessways to major activity centers within the Bethel Urban Growth Boundary (e.g., downtown commercial center, schools, community centers).
Policy 3i: Bicycle parking facilities should be provided at all new residential multifamily developments of four units or more, commercial, industrial, recreational, and institutional facilities.

Background

Bethel has a well-used system of traditional trails and pedestrian boardwalks that provide routes between neighborhoods and business centers within the city, as well as a transportation link between Bethel and surrounding communities. In winter, trails are used by snow machines, dogsleds, cross-country skiers, and pedestrians. In summer months, trails are used by ATVs, pedestrians, and bicycles.

Bethel has about one mile of elevated boardwalk, serving pedestrian traffic. The system of boardwalks is safer for pedestrians than on-street walking routes because it is separated from road traffic and routes lead to appropriate crossing sites. The elevated boardwalks are less expensive than at-grade, separated pathways and have fewer environmental impacts because they are constructed on pilings, rather than solid fill. The Bethel Parks and Recreation Department is currently working to expand the system and establish sections of trail and trail connections, preferably with formal easements. Some trails have already been disrupted by overland water pipes; planning and securing easements can help to minimize such disruption in future. Priorities for new trail routes include:

- trails that connect parks,
- trails that offer a pedestrian facility away from roads to minimize dust impacts,
- trails that connect key locations and existing routes (e.g., Post Office to Pinky's Park),

- loop routes (e.g., Brown Slough), and
- school routes for kids (e.g., along Ptarmigan, across the doughnut hole).

Public Transit

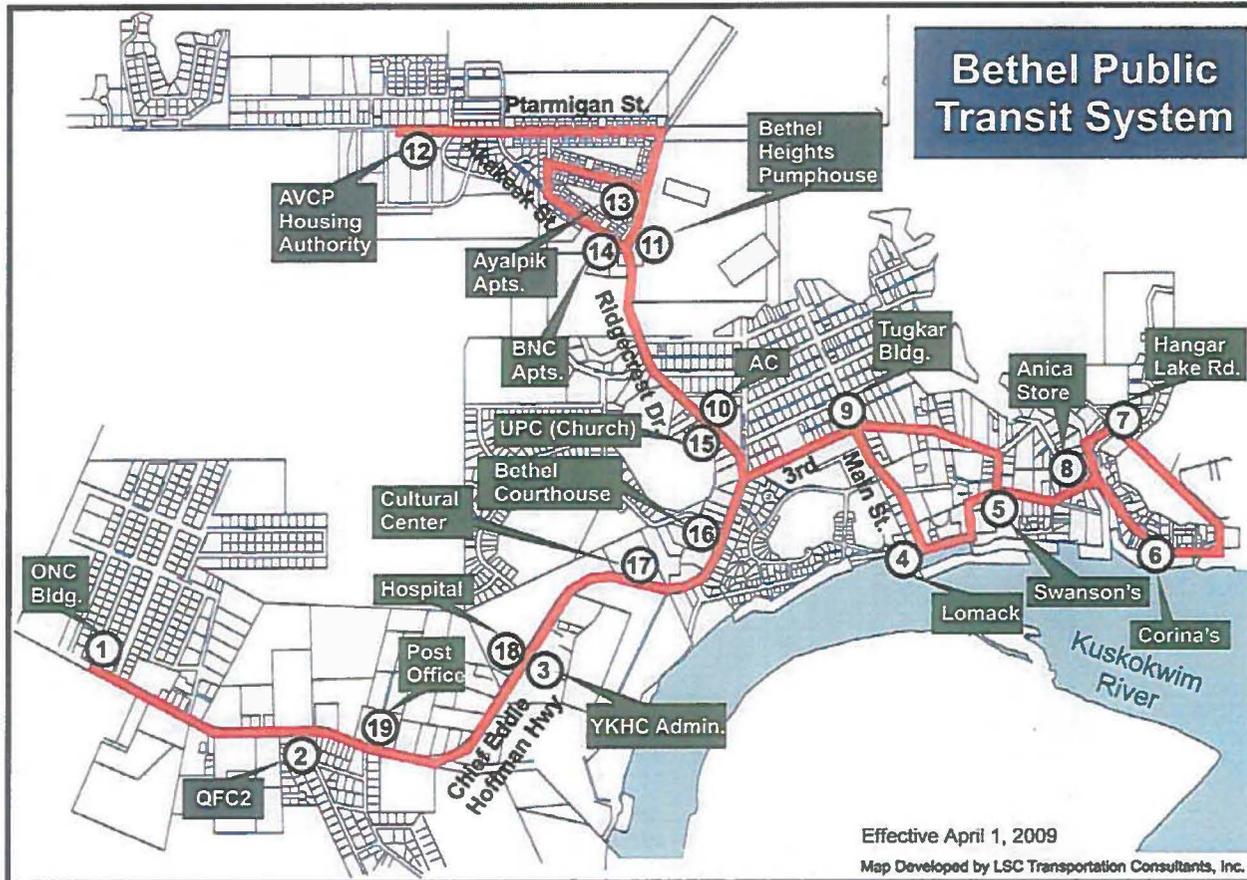
GOAL 4: Provide effective and efficient public transit.
Strategy 1: Improve public transit services.
Action 1a: Purchase a machine to make public transit passes.
Action 1b: Construct shelters at bus stops.
Action 1c: Implement a bus tracking system to provide real-time estimates of bus arrivals.
Action 1d: Incorporate public transit-design features into new development standards.
Action 1e: Build a bus shelter to accommodate buses, maintenance equipment and materials.
Action 1f: Increase the frequency of service (i.e., buses run more often).
Strategy 2: Expand the public transit system.
Action 2a: Consider extending public bus service to the airport and currently un-served subdivisions (e.g., Kasayulie, Tundra Ridge).
Action 2b: Consider expanding public transit system to include a river bus (ferry) service on the Kuskokwim.
Action 2c: Purchase new public transit vehicle(s), as needed, to expand the fleet and enable additional service/routes.

Background

Alternatives to private vehicle include taxi service, bus service and boat shuttle services; these are used extensively by Bethel residents and visiting residents from outlying villages. Public bus service (a more affordable alternative to taxi service at \$2 per passenger; \$1 for elders and children) began in 2008. The system includes two 12-passenger buses and one eight-passenger backup bus. It operates Monday through Saturday from 7a.m. to 6:30 p.m. Current use is estimated at 80-90 rides per day. See Map 5.4 for route information.

Bethel's public transit system is a cooperative effort between the City of Bethel and Orutsararmiut Native Council (ONC). ONC is currently coordinating with the Yukon-Kuskokwim Health Corporation (YKHC) to explore a possible expansion of the existing route to include the airport in order to accommodate patients traveling to YKHC from surrounding villages.

Map 5.4



Bus travels in order of numbered stops and stops on right side of road. The stop at Ayalpik Apts. is the only place where bus crosses road to stop.

Bus drivers reserve the right to refuse service to anyone. Good behavior is expected from all passengers.

Customer Assistance: 543-2608
Rider information, compliments & complaints, Lost & Found
Bethel Public Transit System
Located in ONC Office Building
City of Bethel, P.O. Box 1388
Bethel, AK 99559

No pets allowed on the bus. Service animals are exempt. Baby strollers must be folded prior to boarding the bus. For a complete list of transit policies, visit www.cityofbethel.org.

The Bethel Transit System is a cooperative effort between the City of Bethel and Onutsaramiut Native Council. More partners are expected in the near future.

Port and Harbor

GOAL 5: Maintain Bethel's status as the primary port for commerce and transportation on the Kuskokwim River.
Strategy 1: Provide safe and reliable marine access to port facilities and waterfront properties. ("Keep the front door open.")
Action 1a: Conduct a navigation study of the changing Kuskokwim River along the Bethel waterfront to evaluate design alternatives that would reduce deposition and dredging and improve flow conditions for navigations through the channel crossing. <i>The navigation study is needed in order to dredge or excavate along the Port of Bethel. Without dredging, the river will fill in, and barges and boats will be unable to reach the port.</i>
Action 1b: Based on navigation study results, determine the best long-term location for the Port; determine if dredging is needed along the Bethel waterfront.
Action 1c: Dredge small boat harbor. <i>This is a community priority.</i>
Action 1d: Increase port security at the Petroleum Port and Freight Dock. Purchase and install video surveillance equipment, better lighting, alarm system, security gate(s), backup generator, emergency radio/communications equipment, etc. <i>This is a priority for the Port.</i>
Action 1e: Perform a rate study to determine whether changes in fees and funding strategies can better ensure the Port's financial viability.
Strategy 2: Complete longer-term capital improvement projects and deferred maintenance.
Action 2a: Resurface Beach #1 and City Dock; repair the East side of City Dock.
Action 2b: Clean and dredge Brown's Slough (after the East side of the dock is repaired).
Action 2c: Repair/replace bollards and bullrails as needed.
Action 2d: Move the Port Office to a new location.
Action 2e: Purchase larger port boat.
Action 2f: Increase the amount of storage space at Port.
Action 2g: Depending on whether or not the Donlin Mine is built, complete 2010 Port of Bethel Expansion Feasibility Study recommendations.
Action 2h: Pursue funding for and carry out the design of the dredging, design of bank stabilization, and design of the north and south boat launch ramps. Repair or replace the north and south boat launch ramps.
Action 2i: Construct a float plane dock to create additional landing areas for float planes and reduce erosion of current Kuskokwim River transportation routes.
Action 2j: Carry out the U.S. Army Corps of Engineers Bethel Bank Stabilization Project, Phase II.
Action 2k: Carry out improvements to the Bethel Seawall, as included in Phase II of the U.S. Army Corps of Engineers Bethel Bank Stabilization Project, pending results of Strategy 1, Actions 1a and 1b.
Action 2l: Consider creating a waterfront park as part of the Bethel Port. (<i>Public Facilities + Services Goal 1, Objective G, Strategy 4, Action 3g</i>)

Background

Bethel has a medium draft port for ocean-going vessels, and the only one in Southwest Alaska that is not dependent on high tides for access. The City Port and Harbor Department operates the Bethel Cargo Dock, Petro Port, Small Boat Harbor, Float Plane Beach, and Seawall (totaling nine acres), and works with the US Army Corps of Engineers on dredging, navigation issues, seawall maintenance, major infrastructure improvements and repairs.

The Port of Bethel currently provides services to ensure a safe area for those who use the Bethel waterfront. The Bethel waterfront is 6,200 feet long, with a diversity of user groups that include commercial, recreational and subsistence users. Commercial users are mainly vessels transporting freight and fuel in bulk using tugs and barges. Recreational and subsistence users from the Kuskokwim River villages and the City of Bethel tend to dock vessels that are 14-32 feet in length. Float planes also use the river for freight and sport hunting and fishing, etc. A third user group is composed of those who use the uplands for recreation purposes such as walking, fishing, and swimming. Swimming is discouraged by the City of Bethel because the City lacks the ability to monitor their activity in a safe manner (provide adequate lifeguard services).

Bethel Port and Harbor facilities include:

- The Small Boat Harbor (SBH), Brown's Slough, Float Plane Area (FPA), Beach #2 and public access areas (mainly used by recreational and subsistence users), and
- The Cargo dock, Petroleum dock and seawall (mainly used by commercial users).

The cargo dock is used for offloading and loading sand, gravel, and freight. The Petroleum dock is used for loading and unloading bulk petroleum. The seawall is used for moorage of tugs, boats, and barges. Beach #1 is adjacent to the cargo dock and is used for landing craft and barges with ramps, giving those vessels Roll-on/Roll-off capabilities. In the winter time, this area is used to store boats and barges. In the spring, this area is used for shipyard work to get those boats and barges ready for the upcoming season. This is the only area in the region for these activities. Beach #1 has no room for expansion and is now at its limit for these activities.

The Port of Bethel serves communities upriver on the Kuskokwim, downriver on the Kuskokwim, along the western coast of Alaska and along the Lower Yukon River. Bethel Municipal Code (Chapter 2.18) charges the Port with protecting and preserving the health, safety and well-being of people who use the facilities, protecting the property of boat owners, and with taking corrective action if a watercraft or person does not comply with the Bethel Municipal Code. The Port may charge for the use of certain facilities, but may not levy a tax.

Bethel is the receiving, storing and transshipment center for barged freight for Yukon-Kuskokwim Delta communities in western and northern Alaska. Cargo is unloaded at the City Dock and transferred to smaller vessels to carry it to villages up and downriver. The port facility also includes storage area for bulk items, which is crucial for freight shipments to the Delta, and is capable of handling and storing hazardous materials. Bethel's port facility can dock ships up to 400 feet long at the primary freight dock and two small river barges along the Brown's Slough side of the port. Tables 5.5 and 5.6 show the trends of dockage and wharfage at the Port of Bethel for the past five years.

Table 5.5

Total Annual Berth-Days at Port of Bethel Docking Facilities, 2005-2009							
Year	City Dock	Beach	Slough	Seawall	Petro Port	East Add.	Total
2005	21	14	0	7			42
2006	34	29	0	0			63
2007	26	24	0	5			55
2008	76	193	34	231	121		655
2009	98	147	51	81	115	18	510

Port of Bethel Expansion Feasibility Study (Northern Economics, 2010). Source: City of Bethel (2009), Williams (2010), Northern Economics, Inc. analysis
 Note: It takes 24-36 hours to unload a mainline barge, so the number of barges docking at the Port of Bethel is actually around 15-20 freight barges each year.

Table 5.6

Port of Bethel Cargo and Fuel Shipments, 2005-2009				
Year	Wharfage (Tons)			Petro Port Fuel Received (Gallons)
	City Dock	Beach	Total	
2005	17,050	8,954	26,004	16,518,775
2006	15,897	2,273	18,170	21,224,250
2007	44,228	4,580	48,808	14,810,550
2008	12,850	3,564	16,414	17,564,125
2009	9,698	7,578	17,276	16,717,800

Port of Bethel Expansion Feasibility Study (Northern Economics, 2010). Source: Williams (2010), Northern Economics, Inc. analysis

City Dock and Brown’s Slough

The City Dock is a six-acre facility that was built by the State of Alaska. Four acres of the dock are State-owned land; the City of Bethel owns two acres. The State has offered to transfer its parcel of land to the City with a \$600,000 contribution toward dock repair and maintenance, but the cost of needed repairs is well beyond that amount. To date, the City has not accepted this offer and the parcel remains in State ownership.

Brown’s Slough runs between City Dock and the Small Boat Harbor. Sedimentation has accumulated in recent years, contributing to access and water quality issues throughout the slough. Access is impaired as the water becomes too shallow for boat traffic. Water quality concerns have grown as sedimentation has impaired the ability of natural water flow to fully flush waste that is dumped or drained into the area, particularly waste from honeybuckets. The City of Bethel Public Works Department is working to eliminate the need for honeybuckets by extending wastewater services to all Bethel residents.

Petroleum Port

The Bethel Petroleum Port can berth a 380-foot barge, and handles bulk fuel for distribution throughout the Yukon-Kuskokwim Delta. The fuel dock accommodates about 12 mainline fuel barges each year. In 2009, approximately 17 million gallons of petroleum products were off-loaded at the Petro Port; this amount has varied over the past several years (see Table 5.6). About 20 percent of the fuel is delivered to villages served from Bethel each year. The petroleum facility has a tank farm with a practical capacity of 15 million gallons of fuel storage. The tanks are owned by Crowley, although a competing fuel company, Delta Western, also stores its fuels in Crowley's tanks, comingled with Crowley's fuels (Port of Bethel Expansion Feasibility Study, Jan 2010).

Small Boat Harbor

The Bethel Small Boat Harbor is the transportation center for boaters between Bethel and the villages along the Kuskokwim River. Many villagers come to Bethel by private skiff to shop, visit the hospital, visit friends and relatives, access subsistence resources, government services, or to get to the Bethel airport. In addition to private citizens, the Bethel Small Boat Harbor is used by government agencies, businesses, and non-profit organizations (e.g., the US Fish and Wildlife Service, the Alaska Department of Fish and Game, the Yukon-Kuskokwim Health Corporation, the US Army National Guard, the Bethel Fire Dept, local construction companies, the Lower Kuskokwim School District).

The Small Boat Harbor includes two launch ramps, five fingers consisting of 55 wooden floats and one finger of plastic floats that is 200 ft long. The Small Boat Harbor has 130 spaces, and the Port usually sells about 700 harbor use permits, so there is usually a waiting list for dock space. The Harbor basin must be dredged periodically to remove sand buildup from river flows. The Port has no plans to expand the Small Boat Harbor presently, but additional moorage could help alleviate demand for transient moorage.

Float Plane Beach

The Port maintains a designated area for float planes located on the beach between Main Street and Kilbuck Street. This is the only area in Bethel where float planes are able to take off when loaded with people and freight, and is shared with people using skiffs from villages. The City currently has no engineered plans to improve the area, although it has been suggested that the Port put \$20,000 into river run gravel each year to maintain the beach.

Seawall

The Port of Bethel currently maintains approximately 8,200 feet of seawall, composed of either seawall pipe or rip-rap. The seawall's present condition is fair to poor: bank stabilization is needed, as ties are rotting and in need of replacement. The seawall is inspected every year by the US Corps of Engineers (COE). There is a maintenance agreement between the COE and the Port to maintain the seawall. This agreement binds the City to two major expenses: 1) the Port must produce a hydrographic survey, and 2) the City must have stockpiled 11,700 cubic yards of "A" rock and 33,000 cy of "B" rock.

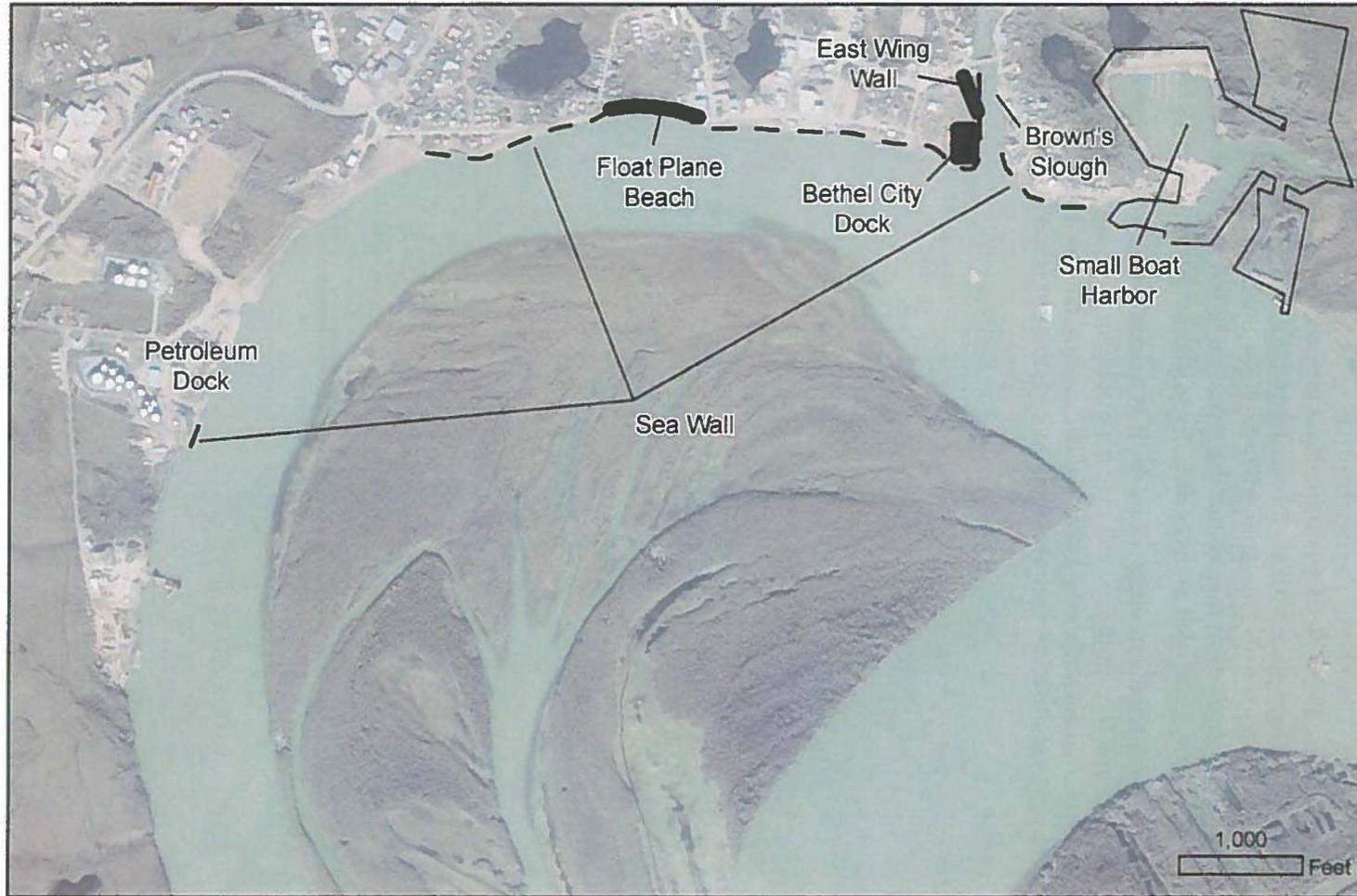
The COE has been satisfied with the Port's maintenance of the seawall and adjacent embankments. In the late 1990s, a portion of the seawall known as the East Addition started to come apart. In 2002, the Port/City of Bethel and the COE jointly developed a plan to repair this failure. It was going to create a new section of wall between Corinas groc and the Brown's Slough bridge, which was excluded because of cost. The Port/City of Bethel is now awaiting

funding from Congress to finish this project (it is shovel-ready). The Port/City of Bethel has set aside \$1million in matching funds for this project (the Bethel Bank Stabilization Project).

Another concern is the rip-rap (armor rock) between the Petro Port and the beginning of the seawall below 1st Avenue. This part of the riverbank along the water line is lined with armor rock and starting to deteriorate. The A-Rock has shifted and exposed the B-Rock. To fix this, the A-Rock must be keyed (put into place within a few centimeters of each other) on top of the B-Rock. This requires a backhoe with articulating thumb on the bucket. It would be less expensive to purchase this piece of equipment than to put this work out to bid, and the backhoe could be used elsewhere for city projects, such as excavating the small boat harbor, Brown's Slough, etc.

The seawall was not built for the moorage of boats or as a dock for transferring cargo; these uses exert more wear and tear on the seawall than it was designed to withstand. There was an area upriver that was used for anchoring boats and barges, but that has filled in with sediment and become unusable. Of the 8,200 feet of seawall, only 1,400 feet is usable for this purpose.

Map 5.7



Port Area City of Bethel



Alaska State Plane, Zone 4, NAD 1983
File: Bethel_Port 1/4/11

Data courtesy of the USGS,
BLM, and Agnew/Beck. This map was
compiled for the City of Bethel with assistance
from Agnew/Beck Consulting.

New Port Facilities

The Port is running out of space and is looking at options for expanding existing facilities. Additionally, nearly all of Bethel's existing port facilities will require substantial maintenance or capital investment/replacement during the lifetime of this plan. These capital projects will require careful prioritization, financial planning and project management.

Port activities could be significantly altered by two potential circumstances: Bethel could position itself as the main port for a proposed nearby mine (Donlin Mine), and the Kuskokwim River could be changing course significantly, such that Bethel's existing port facilities would be cut off from the main channel of the river. Either of these scenarios would raise the possibility of building new port facilities at a different point along the Kuskokwim River. To determine whether the Kuskokwim River is changing course, the City has requested assistance from the US Army Corps of Engineers to perform a navigation study. The Corps has not agreed to perform the study so far, but the City is continuing to submit its request (the navigation study is also required to dredge the river, which is filling in). In the case of Donlin Mine, even if Bethel port facilities remain as they are today, the high local demand for port facilities could face competition from port activities associated with the mine if the mining operations choose to do business in Bethel.

The Port/City of Bethel does not have many options for where existing port facilities can be expanded or new facilities built. The Petro Port expansion would involve a parcel of land that could have significant legal issues that would have to be resolved. The East Harbor Expansion would put commercial users and those who use the Small Boat Harbor in close proximity of each other, and there was concern about smaller boats being in close quarters with a tug boat or barge. The Port tried to resolve this issue by putting the boats stored on Beach #1 on this land in the East Harbor, freeing up Beach #1 to some extent for further development.

Port facilities include State-owned land adjacent to City Dock. The State has offered to transfer ownership of this land to the City of Bethel, with a \$600,000 maintenance grant. To date, the City has refused the offer because the transfer could result in a \$4 million liability. The State land adjoins the riverfront and is held in place by a sheet pile wall that has a structural defect that would cost \$4million to repair. The ownership of this sheet pile is unclear: the State holds the position that the City owns the sheet pile wall. Bethel City Council has rejected that position in the past and held that when the dock was built, the State owned the uplands and the sheet pile. Until the sheet pile ownership issue is resolved, these needed repairs will not be made.

To address the question of how to prioritize capital projects depending upon the Donlin Mine scenario, the City hired a team of consultants to prepare a port expansion feasibility study (Northern Economics, January 2010). A summary of that study's recommendations is included at the end of this chapter. It should be noted that for the Northern Economics recommendations (Recommended Improvements – No Mine) to work, the East Harbor Expansion would have to happen first. The City Dock West Extension is what the City now calls Beach #1, and is used for storage and off-loading barges. It is also used for the repair of boats and barges. Beach #1 and City Dock need to be resurfaced, and the East side of the dock needs to be repaired. The Port/City of Bethel recently received funding to produce a set of plans for the timber wall, but construction funds for the project remain unidentified.

Though not part of the Port of Bethel, public discussion also revealed concern about congestion and the need to clean up Steamboat Slough, and residents suggested the old hospital eddy/sandpit area as an alternative for a boat launch.

2010 Port of Bethel Expansion Feasibility Study Recommendations

The Port of Bethel Expansion Feasibility Study (January 2010) offers updated recommendations for improvements to the port, considering the possibility that the Donlin Mine will contract with the Port for shipping needs.

Recommended Improvements through 2030 – No Mine

Fuel: No additional infrastructure needed; re-evaluate infrastructure needs every 5-10 years.

Cargo: Recommended phased approach including the following improvements:

- Phase 1: Bethel City Dock West Extension, East Harbor Expansion
- Phase 2: East Timber Wing Wall Replacement
- Phase 3: Replace the existing City Dock.

Uplands: An additional 7.6 acres will be needed by 2030 to handle cargo during summer and store barges during the winter; this land would be created with the infrastructure improvements to the cargo facilities.

Table 5.8

Port Infrastructure Improvements - No Mine		
Infrastructure Components	ROM Estimated Capital Cost (in 2006 \$)	ROM Estimated Annual Maintenance Cost (in 2006 \$)
Phase 1	21,434,000	
Bethel City Dock West Extension		97,980
East Harbor Expansion		545,040
Phase 2	4,166,000	
East Timber Wing Wall Replacement		124,980
Phase 3	n/a	
Replace the existing City Dock.		n/a

Recommended Improvements through 2030 – With Mine

Fuel: Additional capacity of 3-4million gallons may be needed to accommodate increased residential and commercial demand through 2030.

Cargo: Recommended phased approach including the following improvements:

- Phase 1: Petro Dock Expansion, Bethel City Dock West Extension, East Harbor Expansion
- Phase 2: East Timber Wing Wall Replacement
- Phase 3: Replace the existing City Dock.

Uplands: An additional 23.7 acres needed to handle overall cargo needs in the region by 2030 with an operating mine.

Table 5.9

Port Infrastructure Improvements – <u>With Mine</u>		
Infrastructure Components	ROM Estimated Capital Cost (in 2006 \$)	ROM Estimated Annual Maintenance Cost (in 2006 \$)
Phase 1	28,719,000	
Petro Dock Expansion		218,550
Bethel City Dock West Extension		97,980
East Harbor Expansion		545,040
Phase 2	4,166,000	
East Timber Wing Wall Replacement		124,980
Phase 3	n/a	
Replace the existing City Dock.		n/a

Financing Port Improvements

The study recommends pursuing grant funding as much as possible to finance capital improvements recommended in the study and offers a selection of possible funding sources. The study further suggests that tariff increases be incrementally raised over time (e.g. annually) to cover inflation and build up the necessary increase in revenues to pay for maintenance (and any portion of capital costs, debt service, etc. the City takes on for these projects). The study estimates the phase 1 improvements would require a tariff increase of 65 percent without the mine and 87 percent with the mine. The phase 2 recommendations would require an additional 12.6 percent tariff increase.

Recommended Port Projects from the City of Bethel Local Hazards Mitigation Plan (Draft), March 2008 (do these need to be added or referenced?):

- Bethel Cargo Dock/Replacement Seawall: Replace the seawall at the Bethel Cargo Dock. This project has an estimated cost of \$8.5 million.
- Repair and Expand Harbor: This project would replace dirt in cages around the harbor with geoweb membrane material and rocks to help prevent erosion from the Kuskokwim River. The rocks must be barged into Bethel at a cost of approximately \$10 million. The project is scheduled to be completed in 2011.
- Continued Repair of Existing Seawall: This project would place hydro-seed on the existing seawall to help prevent the seawall from eroding, at a cost of \$70,000.
- Tie-back Replacement and Armor Rock Project: The existing seawall is in disrepair and requires tieback replacements and the addition of new armor rock to protect against flooding and erosion. The rock need to be barged in from St. Paul or Dillingham at an estimated cost of approximately \$105/ton with 25 tons needed.
- Replacement of Timber Seawall: The timber seawall, located on the east side of city dock should be replaced with a sheet pile wall system. This project is estimated to cost \$4.3 million.

6. Economic Development

Introduction

Bethel is the central service hub for the Yukon-Kuskokwim Delta, serving 56 remote villages with a regional population of about 26,000 people. The majority of the cash economy of Bethel derives from providing regional services including government administration, transportation, fuel and freight distribution, education, health care and social services. Bethel is home to the regional Alaska Native nonprofit organization, housing authority and health corporation, and numerous state and federal government agencies, including the Yukon Delta National Wildlife Refuge, Alaska Department of Fish and Game, the Alaska Court System, and the State Troopers. Employment from these public-serving agencies and organizations provides the foundation for Bethel's retail and other economic sectors including restaurants and grocery stores, taxis, construction, and telecommunications.

Alaska is more dependent on government spending – federal, state and local – than any other state in the union. The economy of the Bethel Census Area and the City of Bethel is more dependent on government spending than any other region of Alaska, with just under half of all jobs in the Census Area directly supported by government activities. Local government - jobs in city and tribal government and schools - is the largest government employer, providing 41 percent of all jobs in 2008¹. The figures below provide an overview of the major employment sectors in the Bethel Census Area (the City of Bethel and 35 plus surrounding villages; the Wade Hamilton Census Area and its 19 villages are not included). State and federal government jobs make up the remainder of government employment, about seven percent of all jobs. Much of the services sector (the second largest component of the region's economy) is also largely funded by government. Examples include the large regional non-profit health and housing organizations based in Bethel.



Bethel's economy is dominated by employment in local government (city, tribal, school) and by government funded organizations, like the Association of Village Council Presidents and the Yukon Kuskokwim Health Corporation.



¹ Shanks, Alyssa (November 2009). "The Bethel Census Area," *Alaska Economic Trends*, Alaska State Department of Labor.

Table 6.1

Employment Sectors of Bethel Census Area Workers (2010)	
Construction	0.4%
Trans/Comm/Util	8.8%
Whls/Retail Trade	0.8%
Finance/Insur/Real Estate	5.3%
Mining/Mfg.	0%
Leisure/Hospitality	1.5%
Services	9.1%
Government	45.5%

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section Quarterly Census of Employment and Wages, January-December 2010.

Table 6.2

Top 10 Employers in the Yukon Kuskokwim Region (2001, 2008) (Annual Average Rank: Name of Business/Organization Employment)			
2001		2008	
Lower Kuskokwim School District	1094	Lower Kuskokwim School District	1000-1249
Yukon Kuskokwim Health Corporation	940	Yukon Kuskokwim Health Corporation	1000-1249
State government	301	Association of Village Council Presidents (AVCP)	250-499
Association of Village Council Presidents (AVCP)	259	AVCP Regional Housing Authority	100-249
Yupit School District	156	Kuspuk School District	100-249
Federal government	124	Coastal Villages Seafood LLC	100-249
Alaska Commercial Company	111	City of Bethel	100-249
Kuspuk School District	109	Omni Enterprises/Swanson's Grocery	50-99
Coastal Villages Seafood LLC	103	Alaska Commercial Company	50-99
Omni Enterprises	85	Hageland Aviation Services	50-99
		Federal	99
		State	334

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section.

Unemployment in the Bethel Census Area and the adjoining Wade Hampton Census Area tend to be higher than urban areas and the state as a whole. According to the State Department of Labor, unemployment statewide was 8.5 percent in January 2011, and 16.2 percent in the Bethel Census Area. Excluded from these figures is the large percentage of adults outside of the labor force, which represents a substantial underutilized labor pool.

The figures and descriptions above miss several important dimensions of local economic life, covered in the sections below.

Subsistence

While Bethel residents have access to grocery stores in town, bulk purchased food from Anchorage and air-delivered produce, many residents rely extensively on subsistence resources. For many Bethel households, subsistence resources account for between a third and a half of their annual food.

Commercial Fishing

Commercial fishing provides one of the few sources of revenue coming into the region from non-governmental sources. In the last 20 years, the contribution of commercial fishing has fallen significantly, due to declining runs and prices. During the early 1990's, regional commercial fishing revenue averaged about \$10 million a year; since the late 1990's, revenues have fallen by about half (to approximately \$5 million annually) due to declining prices and reduced numbers of fish. More recently, there has been some cause for optimism in the commercial fishing industry, with strengthening prices, the construction of a fish processing plant in Platinum by the local Community Development Quota (CDQ) organization and the development of a commercial halibut fishery.²

The local CDQ organization, Coastal Villages Region Fund (CVRF), is the largest of six nonprofit, tax-exempt CDQ groups in Alaska. These entities use income from fishing rights allocated by the federal government to create jobs, build infrastructure and fund education. CVRF has become the largest private sector employer in the region, including both on-shore processing and work on off-shore trawlers. While the CDQ district excludes the community of Bethel, many of the people who work with the organization are based in Bethel.³

Permanent Fund and other Transfer Payments

According to figures cited by the Department of Labor, the Bureau of Economic Analysis estimated all income from all sources for the Bethel Census Area to be \$305.6 million. In 2000, the public sector transferred nearly \$97.5 million to the census area, representing 32 percent of total personal income (compared to 11 percent statewide). Public sector spending in the Bethel Census Area is driven by the federal health care mandate for Alaska's Native population. Over 34 percent of the total transfer payments covered medical expenditures in 2000.

² State of Alaska, Commercial Fisheries Entry Commission (2008). *Permit & Fishing Activity by Year, State, Census Area, or City*. Downloaded from the World Wide Web 6/10/11: www.cfec.state.ak.us/gpbycen/2008/050.htm.

³ Source: Alaska Journal of Commerce, 8.6.10.

Table 6.3

Personal Income in the Bethel Census Area	
Payroll jobs and self-employment	59%
Transfer payments, which include all payments in cash or in kind from government sources	32%
Dividends, interest, and rents, investment-based income sources	9%

Source: AK Department of Labor, Alaska Trends 2002.

Other Economic Sectors

In addition to the government-based sectors that dominate the local cash economy, Bethel has a small tourism sector. This includes vacation/pleasure travelers coming to the region for bird-watching, fishing and cultural interest, as well as people visiting friends and relatives who live in town, and people traveling to Bethel for work.

Summary: Challenges and Opportunities

- High cost of energy, high cost of living. These costs impact every aspect of business life in the community and create a significant constraint on economic growth.
- Demographic change/“brain drain.” According to anecdotal information from community discussions, the high costs and challenges of living in Bethel are drawing away many capable people who would otherwise choose to live and work in the community.
- Declining state and federal spending. Fiscal challenges at the federal and state level are likely to create increasing pressures for reductions in out-of-region government funding. One current example: The budget put forward by the U.S. House of Representatives on April 2, 2011 proposes a 30 percent reduction in NAHASDA (Native American Housing Assistance and Self Determination Act) funding. The combination of the pressure for budget cutting and the departure of Senator Ted Stevens is likely to lead to significant reductions in funding for many of the nonprofit, tribal and government organizations based in Bethel⁴.
- Development on the horizon. The controversial Donlin Creek Mine prospect could bring jobs and reduced energy costs to the region; however, the impacts of this project and its financial viability have yet to be determined.

⁴ While federal military spending is increasing, “The future of non-military federal spending in Alaska is much less secure and may already be on the decline. It’s impossible to know for sure because the most recent data available is for 2005, but there are hints that the peak may have come in 2006. What is known is that the value of all federal earmarks, a rich stream of dollars to Alaska, fell by more than 50 percent in 2007.” State Department of Labor – Alaska Trends April 2008.

- The lands, resources and people of western Alaska are vital and resilient. While major changes may be unavoidable, the cultural traditions and creativity of the region are potent resources.

Goals and Strategies

Cost of Living/Doing Business

GOAL 1: Stabilize/reduce the cost of energy (and related factors) that increase the costs of establishing and operating a business in Bethel.
Strategies, Actions, Policy: See Energy Chapter.
<i>See Energy Strategies and Actions.</i>

Background

The high cost of living (and extraordinarily high costs for electricity, heating fuel and gas for vehicles) severely limits Bethel's economy. These costs affect virtually every dimension of the community, from the cost to build and maintain buildings, to wages, equipment, and communication services.

Table 6.4

Median Share of Income Alaska Households Spend for Home Energy Use (2000, 2008)		
	2000	2008
Alaska Statewide (all households, all incomes)	2.8%	4.7%
Anchorage	5.5%	8.7%
Other Large and Road System Communities	9.2%	17.9%
Remote Rural Communities	15.9%	47.0%

Source: University of Alaska Anchorage, Institute of Social Economic Research, Report by Saylor, Haley, Szymoniak; 2008.

Energy prices are not likely to fall in Bethel. The forces driving current high prices, including growth in demand, finite supplies, pressure to address climate change, the high costs of alternative energy sources, and Bethel's small population and remote location, all suggest that prices may continue to rise. Action is needed at minimum to slow the rate of growth, or better yet, stabilize current prices.

Bethel's Economic Infrastructure

GOAL 2: Maintain and expand the infrastructure that supports Bethel's economy.
Strategy 1: Improve the City's ability to effectively and efficiently manage City-held lands.
<i>See Land Use Goal 9.</i>
Strategy 2: Support and improve access to and within Bethel for various modes of travel including aircraft, barges, small boats, automobile (via traditional and ice roads), snow machines, all-terrain vehicles, and on foot.
<i>See Transportation Strategies and Actions.</i>
Strategy 3: Provide and improve essential public facilities and city services.
<i>See Public Services and Facilities Strategies and Actions.</i>
Strategy 4: Encourage competition for communications technology providers in Bethel; actively work to recruit and/or remove barriers to entry for competing firms. (same as Public Services and Facilities Objective D, Action 1b)

Background

In Bethel, like most communities, public infrastructure and land management policies make up an important part of the foundation of the community's economy. Goals, strategies and actions on these critical topics are addressed in separate chapters.

Local Industries: Commercial Fishing, Subsistence, Import Substitution

GOAL 3: Support and expand contributions of economic activities based on local resources, including commercial fishing, subsistence and import substitution.
Strategy 1: Support and expand commercial fishing.
Action 1a: Provide/reserve adequate land and infrastructure at the Bethel Port to support commercial fishing activities (Transportation Goal 7). <i>The Bethel port is currently in a state of flux and likely requires significant investment and change to continue to work well for the community and the region. See Transportation Chapter for details of port strategies.</i>
Action 1b: Support ongoing efforts to expand the economic benefits of fishing in Bethel and the Y-K region (e.g., increasing the number of local residents working in Bering Sea fisheries and other fisheries outside the region).
Strategy 2: Support and expand import substitution. <i>To the extent possible, provide services and goods locally, rather than bringing them in from outside the city and region.</i>
Action 2a: Identify goods and services currently being imported that could be produced locally (e.g., food production, accounting, small engine repair); provide training, land or other resources that could encourage local production.
Strategy 3: Protect Alaska Native hunting, fishing, and gathering rights throughout the Yukon-Kuskokwim Delta Region. <i>The Indigenous peoples of Alaska and the Yukon-Kuskokwim Delta have a basic human right to their subsistence way of life and to maintain their cultural beliefs and practices. Subsistence resources constitute a substantial majority of the nutritional needs of Alaska's Native people, especially in Bethel and the Lower Kuskokwim Region areas where the need for subsistence resources for daily nutritional, spiritual, and cultural sustenance is vital.</i>

Action 3a: Develop a city mission statement to provide lasting protection for Alaska Native and rural subsistence.

Action 3b: Assemble an intergovernmental group to include Kuskokwim Region cities and villages; meet with key White House officials, including the Domestic Policy Council and departments with jurisdiction over subsistence uses.

Background

While the lion's share of the Bethel economy is likely to remain focused on government services, there are other sectors of the economy with the potential to create new jobs and businesses. In contrast to the government and non-profit service sectors, where almost all the funding comes from outside the region, these sectors represent economic activities that generate wealth from resources based in the region.

Local Industries: Tourism and Visitation

GOAL 4: Support and expand contributions of tourism and visitation to the local economy.
Strategy 1: Improve recreational attractions that benefit both residents and visitors (e.g., parks and trails. See Public Facilities and Services Objective G).
Action 1a: Support development of the community swimming and recreation center (<i>i.e., the BATH Center project; see Public Facilities and Services Objective G, Action 1b</i>).
Strategy 2: Improve the appearance and character of portions of town most likely to be visited by travelers (e.g., downtown, the waterfront).
Action 2a: Implement a coordinated Downtown ⁵ Plan with the Chamber of Commerce, local businesses and landowners. <i>A downtown plan could identify priorities.</i>
Action 2b: Invest in beautification efforts (e.g., neighborhood cleanups, planting flowers along the road). <i>Beautification efforts would be especially useful in downtown, but also in the waterfront and near the airport (Also Public Facilities and Services Goal 1, Objective C, Strategy 5). Working cooperatively with land and business owners, ensure that downtown areas are clean, presentable, and maintained.</i>
Action 2c: Provide amenities to assist visitors (e.g., benches, roadside pathways and sidewalks, informational signs).
Strategy 3: Improve opportunities to share and learn about historic and contemporary cultures.
Action 3a: Improve opportunities to learn about historic and contemporary Yup'ik, Siberian Yup'ik and Cup'ik life, through cultural center exhibits, events, recreation opportunities. <i>Bethel and the Yukon-Kuskokwim region is one of the few places in North America where intact traditional cultures continue ancient traditions and speak indigenous languages. More could be done to let interested parties get a sense of the history and culture of the region.</i>
Action 3b: Expand cultural exhibits at the Yupiit Piciryarait Cultural Center and Museum.
Action 3c: Develop a proposed new regional cultural center (<i>project in progress by ACVP</i>).
Action 3d: Provide better information about cultural resources and activities for residents and visitors (e.g., Camai and other cultural events, links to websites marketing local arts and crafts).

⁵ The term "downtown" is used here to include the central commercial sections of the community, running from approximately the Yup'iit Piciryarait Cultural Center and Museum to the Brown Slough.

Strategy 4: Support and expand tourism marketing.

Action 4a: Develop marketing partnerships and marketing funding.

Work cooperatively with the Bethel Chamber of Commerce, Better Business Bureau, Federal and State land managers, the Yukon-Kuskokwim Health Corporation, Association of Village Council Presidents, and with interested villages and businesses to develop an improved city and regional marketing plan. The most likely approach would be an improved website, with more information and images about the physical character of the area and its cultural history. Provide visitor information on local and regional attractions, cultural events, arts and crafts, outdoor recreation, local travel arrangements, food and lodging, travel to regional destinations, etc. Use a portion of local bed tax revenues to improve the marketing of community attractions.

Action 4b: Develop different marketing strategies for different submarkets.

Target specialty markets (e.g., birdwatchers, sports fishers, village residents and business travelers).

Action 4c: Develop marketing materials targeting people who travel to Bethel on business.

Provide information on things to do while visiting the community, including purchasing crafts, dining, outdoor recreation and options for "add on" adventures such as fishing, snowmachining or visits to villages. Work with local organizations that consistently bring people to the community (such as the City of Bethel and the Health Corporation) to distribute these materials.

Strategy 5: Protect the integrity of the wilderness environment in and around Bethel.

See Land Use Goal 6.

Strategy 6: Improve transportation connections for visitors.

Action 6a: Maintain and improve access between Bethel and surrounding villages (e.g., space small boats, snow machine trails, ice roads).

Policy 6b: Support transportation improvements and services for the downtown and waterfront (e.g., safe visually-appealing pedestrian routes, public transit).

A particularly compelling option would be development of a loop trail that connected the waterfront, downtown, and the "donut hole" wetlands. This route could benefit residents and visitors, and provide a memorable attraction that shows off the diverse environments of the YK Delta without leaving town. (See Transportation chapter.)

Background

Bethel is the destination for a range of out-of-state and in-state travelers including traditional tourists ("vacation/pleasure" visitors), business travelers and VFRs (people Visiting Friends and Relatives) from outside the region. In addition, Bethel is also a destination for people coming into town from regional villages, passing through to other locations, or staying to shop or for other services.

Bethel and surrounding areas have attractions that draw travelers, including bird watching, culture and history, and sport fishing. Ultimately, the region lacks the major draws likely to attract the numbers of vacation/pleasure travelers who visit other western Alaska hub communities (places like Kodiak, King Salmon, Dillingham, Nome or Kotzebue). Even in those communities (places that offer State and National parks, excellent sportfishing, and other draws), the total number of visitors is modest. According to the Alaska Visitor Statistics Program V, Summer 2006 Visitor Volume, Kodiak received 20,000 out-of-state summer visitors, and Nome 11,000. Bethel's out-of-state visitor numbers were not included, as visitation is too low to be estimated using the State's survey methodology. What is known is that the number of visitors is well below 10,000 (less than 1 percent of total out-of-state visitation).

Bethel could do more to attract and hold visitors. In particular, there is the opportunity to encourage business travelers and VFRs to spend a bit more time (and more money) in the community. These efforts are unlikely to lead to a dramatic expansion of traveler spending, but even modest actions could make a difference.

Education and Job Training

GOAL 5: Support lifelong education and vocational training, particularly training tied directly to job placement in local and regional growth industries.
Strategy 1: Support education and job training in Bethel.
Action 1a: Work with the school district to build relevant job training into school curricula.
Action 1b: Continue to improve the quality of pre-school and K-12 education. <i>Providing a strong education will help Bethel's young people acquire the solid foundation of skills needed for whatever career path they choose to follow.</i>
Strategy 2: Encourage a strong link between job training and job placement. <i>This connection greatly increases the value of job training.</i>
Action 2a: Encourage major employers to train and hire locally. <i>An example of local hiring practices, Donlin Creek mine is located on Native land. According the project website, 90 percent of the employees currently working at the project site, including nine of 10 supervisors, are local hires.</i>
Action 2b: Encourage local job-shadowing and mentoring programs.

Background

Rural Alaska, including the Yukon-Kuskokwim Delta region, consistently confronts two economic challenges: the area has more people wanting work than there are jobs, and many of the jobs that are available require skills or work habits that aren't held by those seeking work.

Most of this chapter looks at options to increase jobs; this goal focuses on actions to better prepare residents for employment, including jobs in Bethel, the larger region, and around the state and world. Achieving this goal requires quality education at all levels, so youth gain the tools and examples to pursue careers of their choice. Training and education must start early, but also includes training for adults already in the labor market.

One important dimension of this goal is helping residents better compete for work available outside the immediate community. Developing skills so local residents can travel to where the work is available allows people to continue living in Bethel and can help support a life that balances seasonal paid work while still leaving time for subsistence and family activities.

Bethel already has several important job training programs and facilities. Perhaps most noteworthy is the Yuut Elitnaurviat center, based in Bethel. Yuut Elitnaurviat is a 501c(3) Corporation that provides training and education opportunities for the people of the Yukon-Kuskokwim Delta Region, with a focus on culturally relevant and regionally responsive training programs that combine intensive academics and on-the-job training.

Regional Coordination

GOAL 6: Support stronger regional cooperation and regional economic development.
Strategy 1: Identify a set of shared comprehensive regional economic development strategies, created and endorsed by the major regional and village institutions in the Yukon-Kuskokwim Delta region.
Action 1a: Coordinate future CEDS planning among local and regional entities. <i>Improving cooperation among regional entities and villages is one important, direct way to address and solve economic challenges. The Comprehensive Economic Development Strategy (CEDS) is a regional planning document required by the U.S. Economic Development Administration as a condition for funding various economic development projects. One simple strategy to improve cooperation would be a genuine region-wide effort to develop a set of collective, comprehensive regional economic development strategies. Currently, the region has several independently prepared regional CEDS documents.</i>
Strategy 2: Work cooperatively with the City, Bethel-based regional nonprofits, and Alaska Native organizations on specific local issues of common concern.
Action 2a: Identify key issues (e.g., energy and freight delivery). Use work on these issues to improve relations and build capacity to take on other important projects.
Action 2b: Develop a regional response to the opportunities and challenges posed by the Donlin Creek Mine (e.g., environmental protection, port location, options for regional energy solutions, employment and training).
Strategy 3: Develop strategies to respond to likely reductions in future state and federal government spending (<i>Public Facilities and Services, Goal 1, Objective A</i>). <i>While the future is never clear, odds are increasing that there will be significant reductions in funding available to regional nonprofit corporations, as well as tribal entities, state and federal government agencies. Steps should be taken in the near term to address these issues.</i>
Action 3a: Coordinate lobbying among local and regional institutions to explain the value and impact of programs (e.g., Power Cost Equalization or PCE program).
Action 3b: Investigate options to consolidate and coordinate service provision among local and regional institutions to achieve greater efficiency.
Action 3c: Investigate potential alternative funding sources (e.g., taxing regional development projects).

Background

Bethel's economy and future is intimately tied to the 56 villages in the Yukon Kuskokwim Delta. Bethel-based regional organizations already work actively to provide a wide range of services to these communities, including health care, housing, and education.

Many of the most important economic development issues facing the region are difficult to resolve within any one community, including Bethel. Issues that would benefit from a regional scale approach include: energy, freight delivery, tourism, transportation subsistence, management of federal refuge lands, and mineral development.

The proposed Donlin Creek Mine looms large on the scale of potential regional development projects. This proposed gold mine, one of the largest prospects in Alaska, is located up the Kuskokwim River from Bethel, 13 miles north of Crooked Creek. The Kuskokwim Corporation, a consortium of 10 villages closest to Donlin, owns most of the surface land in the proposed mine area. The subsurface land is owned by Calista Corporation, the regional Alaska Native

corporation. Based on estimated reserves, the company working on the prospect estimates that mining and milling operations will employ 600 to 800 people over a period of about 20 years.

This controversial project would likely have significant impacts (both positive and negative) on Bethel and the Kuskokwim villages. Some local residents believe that developing the mine could harm fish and wildlife habitat, reduce water quality, and bring only minor benefits to the community; others see this as a much needed source of jobs and an opportunity to reduce energy costs.

Good Governance

GOAL 7: Maintain fair, competitive and sufficient local government taxes, fees and utility rates.

Strategy 1: Continue to improve City Administration and Finance policy and procedure.

See *Public Facilities and Services Goal 1, Objective A.*

Strategy 2: Work with Bethel's electric utility to improve and/or expand existing underutilized energy infrastructure and develop new, alternative energy sources and innovative methods to reduce the cost of energy.

See *Energy Goals 2 and 3.*

Background

The City of Bethel, like many rural hub communities, is faced with flat or declining revenues, and escalating demands for services. As noted in the public facilities chapter, a particular challenge is the imbalance between the costs to provide water and wastewater services *versus* revenue earned from providing these services. A general process that can be followed in evaluating fiscal issues is outlined below:

- **Realization.** Acknowledgment by the community and the local government that providing the public facilities and services necessary to support existing residents and development cannot be financed through existing sources of revenue.
- **Education.** Too many communities launch unsuccessful attempts to levy additional taxes and fees. Failure to convey the need for additional revenues to politicians, residents, developers, and the media is often the reason. Communication is an essential part of the education process, which must include honest, forthright discussions of the financial ability to provide public improvements.
- **Inventory.** List current deficiencies and future needs; create an inventory containing the full range of community services and projects needed now and in the future.
- **Outreach.** Community organizations, special-interest groups, Native organizations, Planning Commission and other advisory boards all need to be included early in the process.
- **Formal meetings.** Public hearings are required as part of the adoption of new fees, taxes or charges. A public hearing is required, but the basis for calculation of the fees must also be available for public inspection before the meetings.

- **Pause, Decision.** Reach a measured, responsible decision about the possible need for any modification in the City’s fiscal structure. Follow the Hippocratic oath, “above all do no [net] harm.”
- **Legislation.** If a decision is reached to modify fees or other revenue sources, this will need to be codified, working with the city’s legal counsel.
- **Accountability.** Once rates have been modified, provide accurate accounting or tracking of the revenues collected and the use of those fees, focused on demonstrating the responsible use of these funds.

Quality of Life

GOAL 8: Enhance the quality of life in Bethel to attract and retain individuals and businesses.

Strategies, Actions, Policy: See Land Use and Public Facilities and Services Chapters.

See Land Use and Public Facilities and Services Strategies and Actions.

Background

The quality of Bethel as a place to live helps support a stronger economy, by giving businesses and employees reasons to stay in the community. High quality and affordable housing, access to outdoor recreation, quality schools, safe and affordable daycare and other public services all can help retain businesses and workers.

7. Energy

Introduction

High energy costs (for electricity, home heating, and for cars, snowmachines, boats and planes) are driving up the cost of living and the cost of doing business in Bethel, for both public and private entities. As the tables below show, Bethel residents have observed dramatic changes in prices in a short time frame.

Bethel Gas Prices 1996-2010¹

1996	\$2/gallon
2005	\$3/gallon
2010	\$6/gallon

Bethel Fuel Oil Prices 2004-2010²

2004	\$1.40/gallon
2010	\$5.00/gallon

Typical household costs for electricity can range from \$200-\$700 per month, and \$800-900 per month for heating.³ These high energy costs impact every aspect of life in Bethel: from the health of the economy and available jobs, to choices people make about where to live, transportation, and in some cases, the ability to afford to stay in Bethel at all. Table 7.1 shows how dramatically energy costs have grown relative to Alaska household incomes.

Table 7.1

Median Share of Income Alaska Households Spend for Home Energy Use (2000, 2008)		
	2000	2008
Alaska Statewide (all households, all incomes)	2.8%	4.7%
Anchorage	5.5%	8.7%
Other Large and Road System Communities	9.2%	17.9%
Remote Rural Communities	15.9%	47.0%

Saylor, Haley, Szymoniak 2008. ISER

One of the highest priorities for Bethel is to find a way to lower or at least to stabilize energy costs. Because of Bethel's location, distant from Alaska's major population centers and off the road system, and due to the area's cold climate and lack of local energy-producing resources, it is unlikely that Bethel will see energy prices lower substantially. More realistic goals will be to stabilize costs, or at least slow the rate at which energy costs grow in future.

Residents are paying higher rates to heat and light their homes, to travel, and for purchased goods. The cost of doing business and governing the community is rising. If energy costs can be controlled, the City's administrative costs will go down, which will help with the City's financial challenges. Bethel residents, institutions and businesses are exploring a wide range of alternatives

¹ Kurt Kuhne, Yuut Elitnaurviat. Personal communication, November 29, 2010.

² Ibid.

³ Chuck Willert, City of Bethel Public Works. Personal communication. April 6, 2011.

to control energy costs. These efforts must continue to target the many different aspects of community life that affect energy use. This means not only the source and cost of fuel and energy production technologies, but also all the factors that affect energy consumption, including land use, transportation choices, building techniques, etc.

Energy Trends

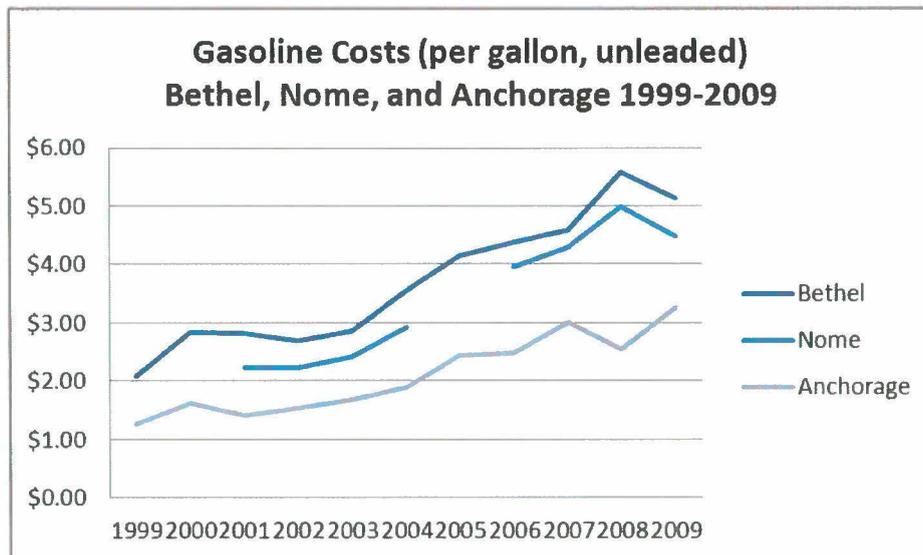
Fuel for Transportation

As Figure 7.2 shows, the general trend for fuel prices in Bethel has mirrored that of other communities in Alaska over the past ten years. These have been trending upward for the most part, though there has been a decline since fuel prices spiked across the state in 2008.

Gas stations in Bethel buy from either Crowley or Delta Western, the two wholesalers that ship fuel to Bethel. Crowley supplies the majority of fuel and owns the fuel tanks at the Bethel Petro Port. The Bethel tank farm has a 17 million gallon capacity, 2 million gallons of which are currently dedicated to Delta Western. About 20 percent of the tank farm fuel goes to villages in the region.

Shipping costs are high: the Kuskokwim is a shallow river, restricting the size of barges that can make it as far upriver as Bethel. These barges can only bring 1.5-2.5 million gallons at a time (barges can deliver three million gallons at a time in Nome). Due to river ice, barge deliveries can only be made during the summer shipping season from June 1 to November 1. During this short window of time, fuel is offloaded in the Port of Bethel around nine days per year.

Figure 7.2



Source: Alaska Food Cost Survey (<http://www.uaf.edu/ces/fcs/>).

Heat

The majority of Bethel's residents heat their homes with some form of heating oil. A small number of homes are heated with either wood or electricity. Non-residential buildings mainly use heating oil; a few purchase waste heat from Bethel's electric utility.

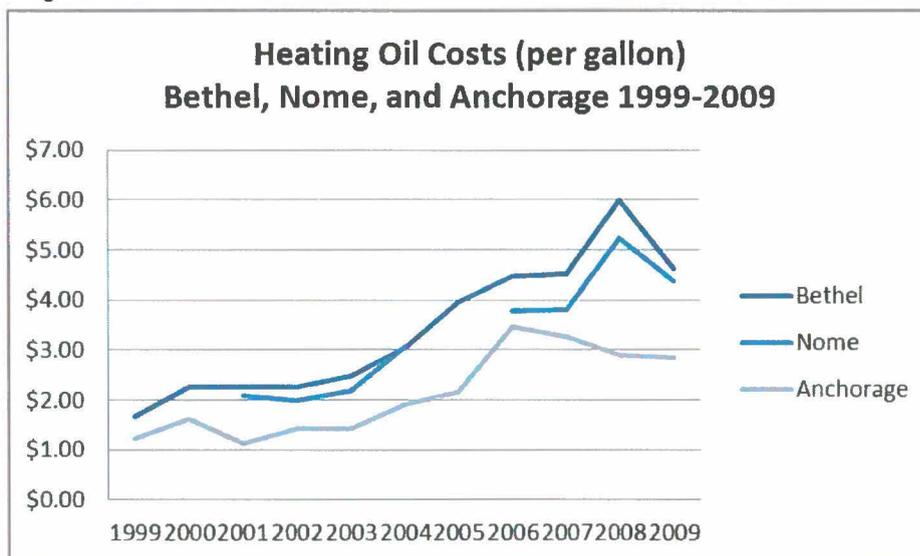
The cost of waste heat has also risen over time. Waste heat requires expensive insulated pipes; they are about 25 years old now and could need to be replaced or improved by the electric utility in the near future. Unless the utility were to receive a grant subsidy, these capital costs would have to be recouped through energy fees.

Table 7.3

City of Bethel, Residential Heating Types	
utility gas, fuel oil, kerosene, etc.	92.5%
wood	3.9%
electricity	3.7%
total units	100.0%

Source: U.S. Census Bureau, 2005-2009 American Community Survey.

Figure 7.4



Source: Alaska Food Cost Survey (<http://www.uaf.edu/ces/fcs/>).

Electricity

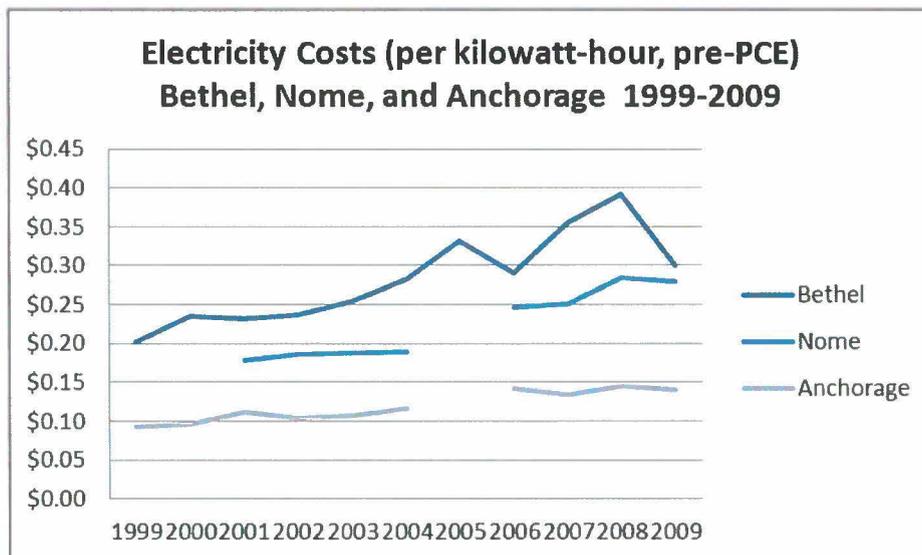
Bethel has a single electric utility, the Bethel Utility Company (BUC, Inc.). BUC is a private, investor-owned utility that was formed in 1972. As a private utility, BUC is regulated by the Regulatory Commission of Alaska (RCA). The current facility has six diesel generators,⁴ two 20,000 gallon diesel storage tanks, and one 64 pound per hour incinerator. Three to four of the generators are run at a given time, with the others as backup. Each generator can produce 2,220 kilowatts (giving the utility a total capacity of 13,600 kilowatts).

Several private property owners in Bethel have erected small wind turbines to meet or supplement their household or business electricity needs. The City has plans to erect four 100-kilowatt wind turbines near the Bethel landfill; these have not yet been erected.

Electricity prices in Bethel are noticeably high, even among other small Alaska hub cities (e.g., Nome). These prices would be significantly higher were it not for the State of Alaska's power cost equalization program, which cuts Bethel electricity costs of residential users (but not businesses) by more than half.

As is the case with gasoline and heating fuel, costs for electricity are taking a steadily growing bite out of the pocketbooks of Bethel residents, businesses and institutions. While some individual households and business owners have the resources to take action individually (for example to purchase and install wind turbines), most do not; community-scale action is needed.

Figure 7.5



Source: Alaska Food Cost Survey (<http://www.uaf.edu/ces/fcs/>). These electricity rates do not include Power Cost Equalization (PCE).

⁴ Three of the generators were installed in 1976, one in 1985, one in 1990 and one in 1992. Page 2, Alaska Department of Environmental Conservation Air Quality Operating Permit for the Bethel Power Plant. Issued 2007, expires 2012. Accessed from the World Wide Web 4/7/2011: <http://www.dec.state.ak.us/air/ap/docs/AQ0205TVP02finpersob.pdf>.

Recent and Ongoing Initiatives

There are a number of initiatives currently underway to address the high cost of energy in Bethel. These efforts are operating at all levels, from individuals, businesses and institutions, to City and Tribal government efforts, to regional cooperative initiatives. Work at all these scales is needed to make progress on energy issues. Some of these actions focus on short term relief to households, businesses and institutions; others aim to investigate and implement long term solutions for viable energy solutions for future generations.

The section below provides an overview of these actions. Before starting that section, it is worth again emphasizing the reality that energy prices globally (and particularly in remote locations like Bethel) are destined to remain high. Consequently, while new energy sources need to be pursued, energy conservation is the single most important means to respond to rising energy costs.

Residents, Businesses and Institutions

As individual households, businesses and institutions, Bethel residents are using new and traditional energy sources (such as wood-burning technology) to heat buildings and generate electricity (e.g., wind turbines). Several homeowners and institutions, such as the Association of Village Council Presidents (AVCP) and the Yukon Kuskokwim Health Corporation (YKHC), are purchasing and erecting wind turbines to supply some of their electricity needs. Some use the net metering approach, as allowed by Alaska state law. These customers are billed for the net monthly consumption of electricity after accounting for the integration of wind. When more wind is generated than used, customers receive a credit for the excess at published rates. For YKHC, energy savings strategies have been more cost effective than wind generation. But windmills are successfully augmenting the electricity needs of these property owners. The turbines used to generate electricity for individual facilities are also proving useful in nearby villages. Yuut Elitnaurviat teaches maintenance and technical skills to install and service wind turbines.

City and Tribal Efforts

The City and Orutsararmiut Native Council (ONC) are working with others in the community to help reduce energy use and energy costs. The Housing Authority partnered with AHFC to train energy auditors, and ONC has funding to help homeowners improve the energy efficiency of their houses. The state has a generous (but relatively complex) program that covers the cost of home energy conservation improvements. Many Bethel homes and businesses are not designed to conserve energy, and much more could be done to reduce both heating oil and electricity use through targeted energy conservation investments.

Bethel, with the encouragement of the current Mayor, is looking at options for natural gas. The City is currently focused on better understanding the costs and infrastructure needed to retrofit Bethel homes, businesses and institutional facilities to use natural gas, and to seek partners to work with the City to develop a liquefied natural gas (LNG) tank farm. Most recently, the City, working with a consulting firm (PDC Harris Group LLC) has completed a grant application to the Alaska Energy Authority (AEA). The purpose of the proposal, "Phase 1 Application for Emerging Energy Technology Grant to Alaska Energy Authority" is to conduct concept design and feasibility level analysis in Bethel to demonstrate the economic feasibility of transporting Liquefied Natural Gas to a remote community, storing the fuel as Compressed Natural Gas in

commercially available pressure vessels on-site, and distributing the gas for use in existing furnaces, boilers and a diesel engine electric generator. It may also be possible to turn tundra marsh grasses into a usable form; this possibility has yet to be explored by the City.

The City has been also been actively exploring the feasibility of larger-scale wind energy. According to a 2006 AEA study, wind resources at or near Bethel, Alaska are categorized as Class 4 (or “good”) for wind power development. Class 4 or greater typically indicates that average wind power density at a height of 30 to 50 meters will produce energy suitable for utility or small-scale wind applications.

In 2006, the City petitioned, and was awarded, a State of Alaska legislative grant to complete a wind energy feasibility study. The completed study (up to 60 percent engineering and design study for wind resources) evaluated wind installations consistent with low, medium, and high penetration scenarios. The study recommended Fuhrlander 600 kW wind turbines and a battery system for the integration of the variable resource.

In 2008, the City petitioned for an AEA grant to install four 100 kW Northwind turbines. The AEA awarded the City two grants totaling nearly \$3 million. The City is required to obtain an interconnection agreement from BUC and Qualifying Facility (QF) rate documentation before the grant money is released. To date, BUC has not shown interest in an interconnection agreement with the City. One of the issues, according to BUC, is that the current equipment at BUC’s generators would need to be updated in order to take output from an intermittent resource like wind. There are technical challenges involved with integrating alternative energy into the Bethel electric grid. In order to use wind turbines for power generation, the power company has to be able to monitor the wind and energy coming in, and at a moment’s notice fire up backup diesel generators when the wind dies down. System upgrades to the generation equipment used by BUC could be needed, including higher-technology equipment and a small generator that would fire up quickly.

Because wind turbines can have potential negative impacts (e.g., noise, damage to property if the blades disconnect, interference with the airport’s air rights), the City Planning Department is looking at developing City guidelines or regulations for locating and maintaining turbines to avoid conflicts among neighbors. The City has looked into other alternative energy sources; studies show that solar is viable in Bethel, but wind power is more financially efficient (providing more “bang for the buck”).⁵

As one way of reducing energy consumption, the City is replacing old streetlights with new LED lights, which are designed to be more energy efficient; Bethel Public Works (with BUC’s help) is monitoring the performance of these lights to see how well they perform in Bethel.

With funding from the State Legislature, the City recently completed an investigation of the potential costs savings that could be realized under three main electric utility ownership structures: private ownership (the existing ownership structure), municipal ownership, and cooperative ownership.⁶ The study also looks at the potential for cost savings that could be achieved by each of the three ownership structures as a result of alternative fuel procurement, integrating wind energy into the Bethel electric grid, and as a result of surplus heat sales (waste heat). Major conclusions of that study are highlighted below:

⁵ Interviews with city staff.

⁶ Agnew::Beck Consulting and EES Consulting (May 2011). Electric Utility Ownership Feasibility Study. Prepared for the City of Bethel.

- While alternatives to the current ownership structure could offer the potential for modest cost savings (about five percent), on balance private ownership of a local electric utility is not the major cause of high electric prices in Bethel.
- Electricity costs in rural Alaska are largely a function of the cost of diesel fuel. BUC fuel procurement practices are between 0.5 percent and 11.6 percent higher than other communities analyzed in this study when an “apples to apples” comparison is conducted.
- The integration of wind could help reduce costs for electricity (by between 1.8 and 5.3 percent) when the utility itself provides the wind resource. One of the findings of the study is that for wind power to lead to cost savings, the facilities are best owned by the utility. When wind generation is held by a third party that requires a return on investment, potential cost savings are significantly reduced.
- The study concludes that the ideal electric utility model for Bethel would be a cooperative that operates its own fuel storage (possibly using a pipeline system), integrates wind, and allows the city to utilize waste heat. This assumes that BUC would be willing to sell to a cooperative and that a locally based cooperative could be formed with the capacity and resources to take over and run the utility.
- Even without a cooperative, the study recommends that the City develop relationships with key agencies, businesses and institutions, including BUC (or its successor), the RCA and the RAPA,⁷ and other organizations to work on energy issues in Bethel.
- The study also supports forming a regional energy cooperative with the ability to address energy needs and issues at the regional level. A cooperative could be formed to make bulk fuel purchases (like the Western Alaska Fuel Buying Group formed by the communities of Nome, Dillingham, Naknek, Unalakleet, Iliamna, and Kotzebue). Another quite successful example of a cooperative is AVEC (the Alaska Village Electric Cooperative), which operates in the Bethel area.
- Overall, the study recommends that the City and community of Bethel look comprehensively at options to reduce energy use and energy costs, particularly emphasizing energy efficiency and conservation programs to help reduce resident, business and City use of electricity. Over the long term, more manageable energy costs will likely come about through a range of modest actions, rather than one or two dramatic changes.

Regional Efforts

The Alaska Energy Authority (AEA) has agreed to invest millions of dollars in alternative energy projects in the Bethel area, though most of this assistance is contingent upon regional coordination of energy planning, generation and transmission.⁸ To meet regional energy needs, Nuvista Light and Power has considered a range of energy alternatives. Nuvista is a non-profit

⁷ The Regulatory Commission of Alaska (RCA) is the State Commission that regulates utilities in Alaska. The Regulatory and Public Affairs (RAPA) Division of the Attorney General advocates for the public interest in matters that come before the RCA.

⁸ p1, Alaska Energy Authority (2011). Alaska Renewable Energy Fund: Round 4 Award Notice App#604 Bethel Renewable Energy Project.

organization that was established in 1995 by Calista Corporation to function as a regional generation and transmission utility and potentially serve the energy needs of the proposed Donlin Creek Mine. The organization currently includes representatives from Calista Corporation, AVCP, AVCP Housing Authority, YKHC, Lower Yukon, Chaninik Wind Group, Alaska Village Electric Cooperative (AVEC), and the Middle Kuskokwim Electric Cooperative, Inc. Though Nuvista is a regional group, Bethel would be the hub and have the largest energy demand; therefore the City has a vested interest in Nuvista's long-term plans and vice versa.

The AEA requires that grant applicants examine all available resources to determine which options are the best. Nuvista's study looked at diesel, geothermal, wind power, hydropower, coal power, and nuclear power. The study determined that hydropower would be the most feasible alternative for energy production. Based on these results, feasibility studies have been done on two hydroelectric projects in the area: Kiseralik River in the Yukon Delta National Wildlife Refuge and Chikuminuk Lake in Wood Tikchik State Wilderness Park. Chikuminuk Lake was found to have the greatest capacity to provide a reliable regional energy supply; it would provide 89.3 gigawatt hours (GWh), enough power to supply 50 percent of the region's population, 13 villages and displace diesel generation year-round.

Nuvista has approached the AEA and the State Legislature for \$17.6 million to complete a detailed feasibility assessment, engineering plans, and preliminary design. If built, the project is estimated to cost about \$451 million⁹ (to put this estimate in context, cost estimates for the Susitna hydroelectric project proposed for Southeast Alaska range from \$3 billion to \$8 billion¹⁰). The initial feasibility study is vague about the exact location of the Chikuminuk project, but it would include transmission lines providing DC power to Bethel, where it would then convert to AC power at a local substation. Regional plants, interties, and wind farms would supplement power needs in individual communities as needed. Nuvista is also exploring natural gas options.

Several more modest energy proposals are currently being pursued, largely by AVEC. Newer, larger power plants are much more energy efficient (by approximately 35 percent, according to AVEC research) than what is possible when each individual community generates its own power. Given this efficiency of scale, AVEC is advocating for construction of electric transmission lines among clusters of villages to distribute power from a system of centralized shared power generation plants. This approach can also reduce fuel shipping costs and reduce the risk of fuel spills. In this same spirit, cost savings can be realized in fuel purchases where multiple communities purchase fuel as a group. AVEC has been very successful with this model in the past.

9 Nuvista Light and Electric Cooperative (2001). Calista Region Alternative Energy Update, PowerPoint presentation. Accessed from the World Wide Web Friday April 1, 2011: www.legis.state.ak.us/basis/get_documents.asp?session=27&docid=2087.

10 Bradner, Tim. "State lawmakers seem favorable forward Susitna dam project." Alaska Journal of Commerce. Web posted Friday, March 11, 2011. Accessed from the World Wide Web Friday April 1, 2011: http://www.alaskajournal.com/stories/031111/loc_slsfts.shtml.

Goals and Strategies

Energy Efficiency: Consumption

GOAL 1: Reduce energy consumption.
Strategy 1: Improve the energy efficiency of residential, commercial and public facilities.
Action 1a: Adopt (state) energy conservation and efficiency standards for all City facilities. <i>All public facilities must be designed to comply with the thermal and lighting energy standards adopted by the Alaska Department of Transportation and Public Facilities under AS44.42.020(a)(14). The City will follow these standards when making improvements to City of Bethel facilities, and strongly encourages these standards to be followed when other public or non-profit organizations build new or renovate existing civic structures. This action will lead the City to focus on energy-efficiency when making capital replacement choices.</i>
Action 1b: Establish education and support services for local residents and builders so that existing homes can be made more energy efficient, and to support energy efficient design and construction for new homes. <i>The City should partner with other organizations with experience and responsibility in this area, such as the Alaska Housing Finance Corporation (AHFC), the local electric utility, and Orutsarmiut Native Council (ONC) (ONC currently has funding to subsidize home improvements for energy efficiency) to fund and implement specific educational and support services, such as a program that links people with information on the benefits of conservation investments, technical information on improvement/construction options, guides to funding for energy conservation, and ideally, direct consultation and assistance with accessing those programs.</i>
Strategy 2: Reduce energy used for transportation.
Action 2a: Improve and/or expand public transportation and carpooling programs. (See Transportation Goal 4.)
Action 2b: Improve and/or expand local and regional trails and multi-use roads to better serve non-motorized transportation (e.g., pedestrians, bicycles, mushers, skiers). (See Transportation Goal 3.)
Action 2c: Encourage transportation efficiency, including the use of more fuel-efficient motorized vehicles, hydrogen, public transit, city fleet and other options. <i>For example, the City could purchase more fuel-efficient fleet vehicles. The City could also explore options for the use of four-wheelers rather than cars. A professor with the Institute for Social and Economic Resources (ISER) has suggested that rural communities switch from gas-powered vehicles to electric four-wheelers, which could be recharged using wind power.¹¹</i>
Policy 2d: Encourage land use patterns and forms of development that require less energy use (i.e., concentrating residential, civic and work places within a walkable radius of land area); discourage new development in outlying areas that would require driving farther. (See Land Use Goal2)

Background

Energy conservation is the most important action the community can undertake to reduce the impact of rising energy costs.

¹¹ Steve Colt, University of Alaska Anchorage, Institute for Social and Economic Research (ISER) presentation to Commonwealth North, May 19, 2011.

Energy Efficiency: Existing Infrastructure

GOAL 2: Improve and/or expand existing energy infrastructure.

Strategy 1: Explore the feasibility of expanding waste heat facilities in Bethel.

In the past, the City of Bethel was able to purchase waste heat generated by the BUC generating plant. This service should be reinstated. Additional options for the use of waste heat should be investigated, particularly in the relatively concentrated, commercial and civic area in the center of town.

Action 1a: Work with the Bethel electric utility to re-establish waste heat services to the City.

Strategy 2: Support improvements to the generation and transmission efficiency of existing electric utility infrastructure.

New electrical generating facilities can provide significant increases in the output of electricity for a given amount of fuel. Likewise, improvements to Bethel's aging transmission system are (or soon will be) needed; these can help increase the reliability of delivering power to homes and businesses.

No actions associated with this strategy.

Strategy 3: Engage in a cooperative relationship with Bethel's electric utility to coordinate planning for future land development and a range of energy solutions.

Action 3a: Share and update information (e.g., maps of future commercial, residential and/or institutional development, maps of easements and rights-of-way, plans for utility infrastructure expansion) on an annual basis.

Action 3b: Engage in a joint long-range planning effort to ensure that the utility, the City, major electricity users, and other local and regional stakeholders work together to meet community electricity needs.

Work to fully understand the potential opportunities and limitations of each entity to pursue improvements in electricity service provision. Collaborative programs to pursue could include: cooperative education to users regarding energy conservation, use of alternative energy sources, options for reducing fuel costs, and/or coordination with regional energy initiatives.

Strategy 4: Reduce Fuel Costs in Bethel.

Fuel costs make up approximately 85-90 percent of the cost of electricity in Bethel. Changes in the cost of fuel immediately impact the cost of home heating, and the cost of operating cars, boats, planes and snowmobiles.

Action 4a: Explore the feasibility of a City-owned tank farm.

The large majority of Bethel's fuel supplies are stored in a tank farm owned by Crowley, the company that supplies nearly all Bethel's home heating fuel, vehicle fuel and the diesel used to generate electricity. The price paid for fuel in Bethel is higher (by as much as 11 percent) than other western Alaska hub communities. If the City or a local cooperative utility owned the storage facilities, this would create the option to seek competitive bids for fuel.

Action 4b: Explore bulk fuel purchasing options.

Options to explore include joining Alaska Village Electric Cooperative (AVEC), joining the Western Alaska Fuel Buying Coop, or by starting a new, more localized fuel co-op. In addition, ISER and others have suggested that the State should establish a statewide fuel purchasing program.¹²

Strategy 5: Reduce and/or encourage reduction of water use.

For example, the energy used by water deliveries via haul trucks can be reduced through lower water consumption.

No actions associated with this strategy.

¹² Steve Colt, University of Alaska Anchorage, Institute for Social and Economic Research (ISER) presentation to Commonwealth North, May 19, 2011.

New/Alternative Energy Sources

GOAL 3: Develop new, alternative energy sources and innovative methods to reduce the cost of energy.
Strategy 1: Develop new energy sources, such as solar panels, wind turbines, hydroelectric power, and natural gas, as feasible.
Action 1a: Develop new City policy to guide the placement and operation of wind turbines to ensure the safety and quiet enjoyment of the community.
Action 1b: Work with the electric utility to understand the capacity of Bethel's electric generation and transmission infrastructure to accommodate alternative energy sources, and also to determine the most appropriate levels of investment in various alternative energy sources.
Action 1c: Reserve land or land development rights for alternative energy development and facilities (e.g., wind turbines, natural gas pipeline rights-of-way). <i>(See Land Use Goal 1.)</i>
Action 1d: Explore the use of innovative financing programs for renewable energy investments (e.g., Property Assessed Clean Energy or Sales Tax Assessed Clean Energy).
Policy 1e: Encourage smaller-scale private sector use of new energy technologies (e.g., wind turbines).
Strategy 2: Engage in cooperative relationships with other entities pursuing new or improved energy infrastructure in Bethel and the Yukon-Kuskokwim region.
Action 2a: Coordinate with regional partners, at a minimum to keep City and regional partners informed of each other's energy-related policies and projects. As practicable, coordinate local and regional policies and projects, including (but not limited to) options for hydro and natural gas prospects, regional wind farms, and inter-village transmission lines connecting centralized power plants.

Background

A number of different alternative energy sources are being explored or used, both locally in Bethel and around the region. By pursuing the policies and actions under Goal 3, the City can speed the day when alternatives are able to provide a longer-term, commercially viable alternative to reliance on diesel fuel.

8. Public Facilities and Services

Introduction

The City of Bethel provides a number of important services and facilities to the Bethel community, which contributes to Bethel's status as a regional hub. This chapter outlines actions needed to maintain and improve upon Bethel's existing level and quality of public service provision, and addresses several of the City's nine departments: Administration, Finance, Public Works, Technology, Fire and Emergency Services, Police, and Parks and Recreation. The Bethel Port and Harbor are included in the Transportation chapter, and guidance for the Planning Department is included in the Economic Development and Planning chapter.

Goals and Strategies

Essential Facilities and Services

GOAL 1: Provide and improve essential public facilities and city services. Respond to current needs and plan for future demand. Link the extension of public facilities to land use development to ensure that growth occurs in a logical, planned and cost-effective manner.

Strategy 1: Maintain, regularly update, and distribute information about City services and facilities.

Action 1a: Regularly update the City website as a guide to City services and facilities.

Action 1b: Report successes (e.g., maintaining a balanced budget for two years running) to the Bethel community at large, for example, via press releases to Bethel media.

Administration and Finance

Objective A: Administration and Finance. Provide adequate administration services and associated facilities to meet current and anticipated future administration demands on the City of Bethel.

Strategy 1: Improve customer service with the aim of becoming a more service-oriented department, operating at a higher level of efficiency and accountability.

Action 1a: Implement improvements to internal processes and procedures.

Finance Department staff members identified several internal needs, including:

- Streamline finance procedures.
- Develop and produce a departmental policy and procedures manual.
- Provide staff training and cross-training.
- Work closely with other City departments to train and assist them in tracking, managing, and reporting on their budgets.

Action 1b: Make a comprehensive, up-to-date City fee schedule available at City Hall and on the City website.

<p>Strategy 2: Encourage more forward-thinking budgeting.</p> <p><i>The City will always be challenged to balance spending on new projects with the operations, maintenance and capital replacement costs for its existing facilities and services. Planning ahead for the future expenses of existing facilities and services helps City departments and City Council prioritize and make informed decisions about which new projects to take on and how to fit them into existing activities.</i></p>
<p>Action 2a: Work with individual City departments to develop 5-year capital needs and deferred maintenance plans.</p>
<p>Action 2b: Set priorities for the improved provision of public services and facilities.</p> <p><i>Use the City's capital improvement program and budget process to set priorities for the cost-effective provision of City services.</i></p>
<p>Action 2c: Establish a formal capital improvement program (CIP).</p> <p><i>This could be established incrementally, starting with a list of future capital needs (e.g., over the next five years) for each department, which is updated and submitted annually to the City Manager, and then to City Council for review.</i></p> <ul style="list-style-type: none"> • <i>Establish a yearly schedule whereby City Departments identify, describe, and estimate costs for capital improvement needs for a three-to-five year cycle.</i> • <i>Publish the Capital Improvement Program for public review prior to City Council adoption.</i> • <i>Ensure that the City budgeting cycle is coordinated with the state capital budgeting cycle.</i>
<p>Action 2d: Increase City reserves to help pay for large capital needs and emergency expenses.</p>
<p>Strategy 3: Optimize existing and potential revenue sources.</p> <p><i>City revenues come primarily through a mix of taxes, fees, grants and debt, some of which are dedicated for particular expenditures and some of which make up the City's General Fund. To make the best use of existing revenue sources, the City is currently updating portions of its fee schedule. Some City departments have indicated that although existing fees do not cover the costs of service provision, customers would be unable (or unwilling) to pay increased rates because fees for some public services (such as water and sewer) are already so high that any increases would be considered prohibitive. The City has also reported some difficulty enforcing business license regulations and tax reporting among local businesses. Without support from the State, the City has no way to shut down noncompliant businesses. To address this issue, the Finance Department aims to work more in partnership with businesses to encourage and facilitate sales tax reporting. The Bethel Finance Committee is exploring ways to augment and diversify the City's existing revenue sources.</i></p>
<p>Action 3a: Conduct a comprehensive study of municipal finances to determine the most efficient and effective fiscal structure.</p>
<p>Action 3b: Conduct a financial analysis/rate study to determine the appropriate rates and financing structure for the City's enterprise funds.</p>
<p>Action 3c: Explore potential funding mechanisms, e.g., grant programs, donations/set asides (for key projects like the BATHC), property and other taxes not currently used.</p>
<p>Action 3d: Periodically (e.g., every 1-5 years) update the City fee schedule.</p>
<p>Action 3e: Enforce City business licensing and sales tax collection.</p>
<p>Strategy 4: Leverage the power of partnerships.</p> <p><i>The City has expressed and demonstrated a willingness to work more closely with other public and private entities to leverage the power of partnerships to achieve common goals. One example is the City's partnership with the University of Alaska Fairbanks Cooperative Extension to provide a community garden for all Bethel residents to use. These cooperative arrangements tend to make grant applications more competitive; in some cases, they may even be mandated by funding agencies.</i></p>
<p><i>See Public Facilities and Services Goal 2.</i></p>

Background

Administrative services for the City of Bethel are provided by the City Manager, City Clerk, Grants Manager and Finance Department. The City Manager serves as the chief executive officer of the City and directs day-to-day operations through the departments of Administration, Finance, Public Works, Police, Port, Fire, Senior Services and Parks and Recreation. Bethel's Administration Office provides general information to the public and directs inquiries to appropriate city personnel. Administration also serves as the city employment and Human Resources Office. The City Manager's office also oversees City leases and contracts; the City contracts with a private practice attorney for legal counsel.

Appointed by City Council, the city clerk maintains and manages City records, conducts municipal elections, and serves as the notary public. The Clerk maintains original ordinances and resolutions, researches and writes ordinances and resolutions under the guidance of the City Attorney, and carries out ordinance codification. As staff to the Bethel City Council, the City Clerk researches and provides information to Council, processes Council requests and actions, and acts as parliamentary advisor to Council. The City Clerk is the City's public relations liaison and interfaces with federal, state and local government representatives and agencies.

The finance department prepares and administers the annual City budget in cooperation with the city manager, administers City financial accounts, processes the receipt and payment of City funds, and administers City business licenses, taxes, fees, and certain grants. The finance department also maintains the City's financial records, prepares financial reports as needed, and advises the City Manager and Council on City financial matters. The Grants Manager obtains grant funding for various City capital and operating needs.

City of Bethel general fund revenue sources include a bed tax, sales tax, alcohol use tax, gaming fees, and payment in lieu of taxes. General funds are used to pay for general city department expenses (e.g., staff salaries, building operating costs). The City of Bethel sales tax is currently six percent, one-half percent of which is dedicated to the construction of the future BATH center. Seniors are exempt from sales tax. Unlike the large majority of Alaskan cities of Bethel's size (exceptions are Wasilla and Barrow), Bethel does not levy a property tax. This is due to the extensive mix of Native allotments (nontaxable land) and privately owned (taxable land) parcels within city boundaries. City departments charge user fees for certain City services and facilities, such as water and sewer service, solid waste services and port facilities. Certain City services are (such as water and sewer) are set up as enterprise funds, whereby the enterprise fund provides goods or services for a fee that (in theory) makes it self-supporting.

Water and Sewer

Objective B: Water and Sewer. Provide adequate infrastructure and facilities and services to meet current and anticipated future demands for water and sewer services in the City of Bethel.

City policy regarding water and sewer system remains undecided, although a mixed piped and trucked system is likely to remain for some time. Options include: 1) the entire city is on a piped system, 2) the entire city is on a trucked/hailed system, 3) continue to operate a mixed system in which property owners may receive either piped or trucked/hailed water and wastewater services.

Depending on the type of system pursued, the City aims to extend water and sewer services to un-served/underserved parts of town. Other priorities for expansion include: an additional transfer station to decrease the number of miles driven by haul trucks (would decrease cost of service provision), system expansions where mandated by law, replacement or expansion where there is stress on existing pipes, replacement or expansion to comply with regulations so that different entities can use the main sewer pipe.

Strategy 1: Provide water and sewer services at rates that are affordable to residents, while still being able to cover the costs of service provision.

Action 1a: Develop a financial plan for service provision: incorporate capital needs and deferred maintenance, rate study, and recommendations for future improvements. Explore the possibility of charging for piped water/sewer on a meter basis, comparable to trucked/hailed service.

The Public Works Department has begun by working with the Planning Department to make an inventory of capital replacement needs. Improvements in the City's finance department policies and procedures will also help to this end. With a plan in place, the City can more easily and effectively determine priorities for the use of its funds, as well as pursue grant funding or other revenue sources to pay for public improvements.

A rate study would assist in determining how and when water and sewer rates could best be modified to avoid sudden rate hikes and possibly even reduce rates. The rate study should be done in conjunction with an overall financial and capital replacement plan for water and sewer service provision.

Action 1b: Upgrade water treatment plants so that one licensed operator (with an additional backup person) can monitor multiple water treatment plants from a single location.

Policy 1c: Keep overhead costs to a minimum.

The Public Works Department estimates that its overhead costs might be significantly reduced by taking measures to make city operations more energy efficient, particularly by reducing the amount of diesel fuel expended (e.g., by building water transfer stations in key locations to reduce the number of miles driven by water and sewer trucks) and by reducing electricity consumption throughout the City.

Policy 1d: Tie expansion of service provision to land use/development policy.

The 1996 Comprehensive Plan recommends that the City adopt the 1996 Sewer and Water Master Plan service area designations (at the gross level) as the service limits for sequential development of vacant lands. By limiting geographic expansion of the service area, the City can contain per capita costs. For a piped system, a smaller service area requires less pipe, and for a trucked/hailed system, a smaller service area means the trucks have shorter distances to travel and will therefore use less fuel.

In most cities where city water and sewer services are mandated, developers dedicate public easements and are responsible for installing pipes, pumps and other infrastructure during the initial development process. As an example, Figure 8.2 shows three methods used by the Anchorage Water and Wastewater Utility to extend public water and sewer services. The City aims to work with developers and landowners to enforce its subdivision regulations and to update subdivision regulations as needed to ensure quality service provision.

Strategy 2: Maintain and improve the efficiency of the piped system.

<p>Action 2a: Replace aging infrastructure (e.g., Bethel Heights piped water distribution upgrades, City Complex manholes).</p> <p><i>Grant funding will likely be sought to pay for this major capital improvement. The original steel pipes are reaching the end of their usable lifespan and will need to be replaced. The City is replacing these with HDPE pipes (high-density polyethylene, a type of plastic), which should eliminate water discoloration caused by iron leaching from the deteriorating steel pipes. Some residents have suggested that water and sewer pipes be located underground, as they are in many US cities. Bethel has not built pipes underground due to the added cost of doing so in permafrost soils, but expenses aside, there is no reason the piped system could not be buried underground.</i></p>
<p>Action 2b: Conduct a cost analysis and rate study for the 2010 Institutional Corridor Feasibility Study, and complete the institutional corridor piped water improvements.</p>
<p>Strategy 3: Maintain and improve the efficiency of the <u>trucked/hailed</u> system.</p> <p><i>Bethel is already very efficient at hauled water/sewer. According to the 2005 Bethel Water & Sewer Facilities Master Plan Update,¹ it takes six days to serve all customers on Bethel's 25 miles of roads, and about ten minutes are spent servicing one residence or facility. This level of efficiency is the same year-round.</i></p>
<p>Action 3a: Consider building additional water/sewer transfer station(s)² in key locations (hub and spoke system).</p> <p><i>Additional transfer stations in key locations would decrease the distances the haul trucks would have to travel lowering fuel consumption (and therefore, lowering transportation costs). Additional stations could also allow Public Works to increase the frequency of service. The hub and spoke system can be designed to hook into piped system at a later date.</i></p>
<p>Action 3b: Secure additional storage for haul trucks, as needed.</p>
<p>Policy 3c: Keep roads graded and trucks well maintained.</p> <p><i>Better ongoing maintenance has already resulted in fewer truck breakdowns and lower maintenance costs.</i></p>
<p>Strategy 4: Pursue wastewater treatment alternatives.</p>
<p>Action 4a: Establish an alternative treatment system to replace existing lagoon. Identify and secure a site for new wastewater treatment system.</p> <p><i>Bethel's sewage lagoon consists of two non-aerated cells which are pumped twice each year. The lagoon is filling up twice as fast as anticipated, mainly because rain and snow are seeping through the permafrost and into the lagoon.³ The lagoon meets current federal water quality requirements⁴ only because the high volume of water seeping into the lagoon through the permafrost dilutes the wastewater. It is not large enough to treat the amount of organic waste accumulating in the lagoon,⁵ and the Environmental Protection Agency (EPA) will likely require the City to bring the lagoon into compliance. This will involve cleaning out the lagoon and finding an alternative treatment system. The 2005 Water & Sewer Master Plan Update recommends decommissioning the lagoon and building a wastewater facility that would cost nearly \$20 million.⁶ The City has expressed an interest in pursuing a less expensive biotreatment option.</i></p> <p><i>The City is currently discussing alternative potential sites for the new treatment facility: one is located on City land adjacent to the existing lagoon; the other two sites are currently Native allotments (one east of where the lagoon currently discharges, the other farther north). The City will most likely use its own land because the process for negotiating for other properties is lengthy and expensive.</i></p>

¹ Page 32, CRW Engineering Group, LLC, Bethel Water & Sewer Facilities Master Plan Update, April 2005

² Not to be confused with water treatment plants, treated water would be piped to these satellite stations and then held for transfer elsewhere.

³ The piped water system does somewhat increase the amount of wastewater entering the lagoon (customers receiving hauled water tend to use it more conservatively than those on the piped system), but this only accounts for a small amount of the excess wastewater volume in the lagoon.

⁴ Under the Clean Water Act, the US Environmental Protection Agency (EPA) controls water pollution by issuing pollution permits under a program called the National Pollutant Discharge Elimination System (NPDES). Municipal wastewater facilities (such as Bethel's wastewater lagoon) are allowed to discharge at a certain level of water pollution regulated by the program.

⁵ p39. CRW Engineering Group, LLC (April 2005). Bethel Water & Sewer Facilities Master Plan Update.

Action 4b: Maintain and distribute a list of illegal substances to dump into the wastewater system.

Action 4c: To the extent allowed by Alaska State and US Federal law, revise Bethel Municipal Code to allow the use of alternative residential wastewater treatment systems (e.g., composting toilets, graywater systems, adapted boat toilet technology).

Background

The Bethel Public Works Department provides water and sewer services, and owns and operates the associated infrastructure, including water wells, pipes, trucks, two water treatment plants/truck fill facilities,⁷ five sewer lift stations and a sewage lagoon to treat and dispel wastewater. Most of Bethel's property owners receive City water and wastewater services. Some neighborhoods and property owners are served by a piped water and sewer system; others pay for trucked water and sewer. Households not paying for city water draw water from private wells. Without sewer services, people have traditionally used honeybuckets (septic systems do not work in local soil conditions). Bethel Municipal Code (BMC 13.08.025) prohibits the use of honeybuckets and requires all properties to be served by City sewer service.

For reasons of public health and safety, the City aims to eliminate the need for honeybuckets by providing all residents with water and sewer services, but these services can be prohibitively expensive for some residents. City water and wastewater rates vary, depending on whether customers are on the piped system (metered or non-metered) or the hauled system (volume and frequency of service). Assuming that an average Bethel household uses about 500 gallons of water (and generates about 500 gallons of wastewater) per month, rates for water and sewer services could be anywhere from \$110-160/month for piped water and \$50-800/month for trucked water and sewer service.⁸ Individual customers on the piped system must also pay for the energy costs associated with keeping the pipes serving their property from freezing (circulation pumps).

Converting the existing truck-haul water and sewer system to a piped system has been an ongoing recommendation in previous planning efforts for Bethel's water and sewer provision. It was established in the 1996 Sewer and Water Master Plan, and later confirmed in the 2005 Bethel Water and Sewer Facilities Master Plan Update. The 2005 plan was intended to allow flexibility in decision-making, with the understanding that segments of the community have been satisfied with truck-haul system, and/or a piped system may not be feasible in all areas.

The debate of whether a hauled or piped water/sewer system is preferable has yet to be resolved. Piped systems tend to be less expensive to maintain than trucked systems and cause less wear and tear on Bethel's gravel road system. As long as the capital costs of pipes and associated treatment facilities can be paid for with grant funds, the piped system is also less expensive for the City to construct, but when the pipes need to be replaced, they prove to be more expensive than purchasing a new haul truck, for example. The hauled system has higher operating costs (people must be employed to operate the trucks), but capital replacement is less expensive. The City is experiencing some problems with the piped system, including water

⁶ Ibid. Appendix M, p1.

⁷ Two water treatment facilities are in operation: the Bethel Heights Water Treatment Plant (BHWTP) and the City Subdivision Water Treatment Plant. A third water treatment facility, the City Center Water Treatment Plant was decommissioned and replaced by the City Subdivision plant.

⁸ Assumes water and sewer rates as given in BMC Chapter 13.16 UTILITY RATES (accessed from the City of Bethel Website, May 2011) applied to a unit household usage of 500 gallons/month water and sewer services. Actual rates of service use may vary considerably, depending on household.

discoloration from old pipes that need to be replaced, occasional unwillingness of customers to pay the electricity costs associated with keeping circulation pumps going (to keep pipes from freezing in winter), and conflicts with traditional trail routes (pipes are located above-ground for cost savings and ease of maintenance). Property owners receiving piped water service (or living within 1,000 feet of a fire hydrant connected to the piped system) enjoy lower insurance rates, but also tend to use more water than customers receiving hauled water. Residents have also complained that the above-ground pipes are ugly (“Nobody wants them in their yards.”) and inconveniently block some trails.

Though high, rates for water and sewer services have not always kept up with the costs of providing these services. During public planning discussions, residents expressed equity concerns about the division of customers paying by volume (piped metered and hauled) versus those on the piped system (un-metered), and suggested that all customers on the piped system be metered and charged by volume of water used. As one resident pointed out, “We have people going to a relative’s house to do laundry because they’re on the piped system, so it doesn’t matter how much water they use. That isn’t right.” To address these concerns, a priority for the City should be to conduct a rate study to determine the most equitable and fiscally responsible rate structure, and to provide a clear explanation of these results with the general public.

Priority Projects Underway

1. **Sewer force main and service lift station upgrades.** Force main upgrades along Chief Eddie Hoffman Highway, at City Subdivision, and the utility corridor from 7th Avenue to the sewer lagoon, and upgrades to lift stations QFC #2, the Trailer Court, and QFC Store. Paid for with USDA Rural Development funding. This project is nearly complete. Contractor: CH2MHill.
2. **City Complex manholes.** Some of the manholes near the Courthouse are sinking and tearing apart the piping connected to them. Public Works will pull them above ground. Estimated to cost about \$275,000, this project is scheduled for this coming summer and will be paid for with City funds.
3. **Bethel Heights piped water distribution upgrades.** Pipes for A, B, and C loop will have to be replaced to address the high iron content in the water. Estimated to cost over \$2 million. This project is on hold until funding is secured.
4. **Wastewater lagoon.** The lagoon is the Public Works Department’s highest future priority; USDA Rural Development has refused to fund any other Bethel projects until completed. The project is currently in the planning stage, and will probably take two to three years to construct due to Bethel’s short construction window (4-5 months). The project is estimated to cost about \$20 million. Contractor: Larsen Engineering.
5. **Bethel Institutional Corridor piped water distribution upgrades.** The Bethel Institutional Corridor Water System Phases 1 and 2 is the second highest priority after the Bethel wastewater lagoon. A feasibility study for piped water was recently done for the Bethel Institutional Corridor, in the City Subdivision area serving multiple institutions along the Chief Eddie Hoffman Highway (Contractor: Larsen Engineering). A full cost analysis and rate study will be needed before further action is taken on this project.

Map 8.1

City of Bethel *Public Works*

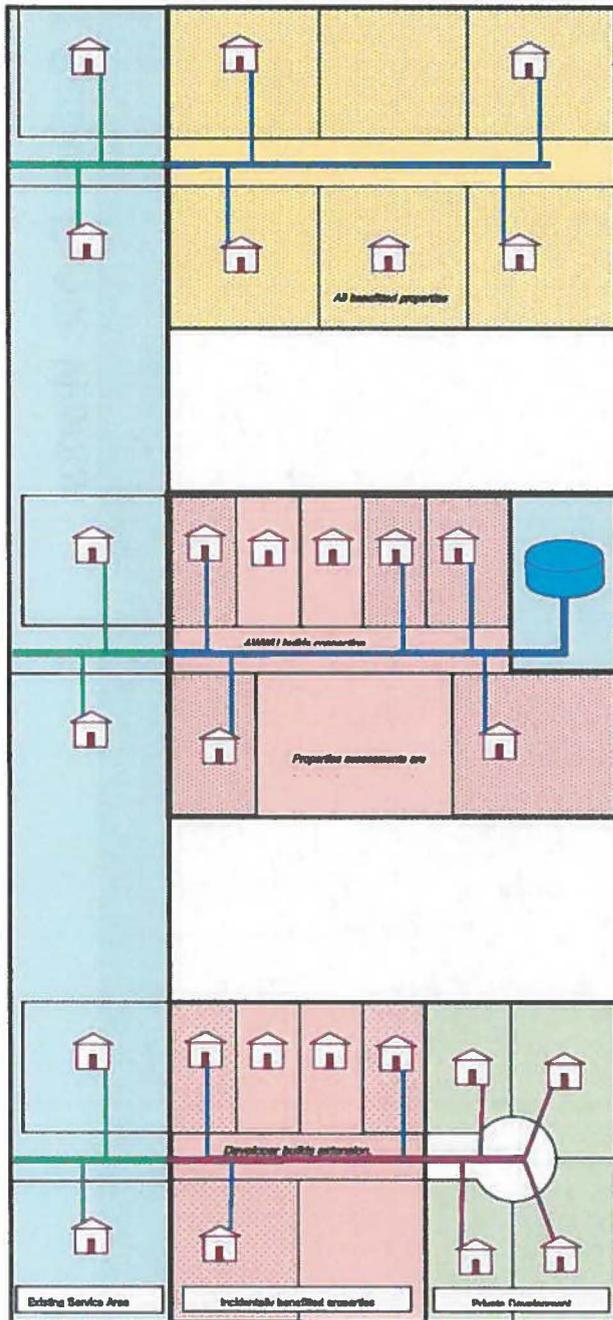


Data courtesy of the USGS, BLM, and Agnew::Beck. This map was compiled for the City of Bethel with assistance from Agnew::Beck Consulting.

Alaska State Plane, Zone 4, NAD 1983
File: Bethel_Public_Works 1/14/11

Figure 8.2

Three Programs for Extending Municipal Water and Sewer Service in Anchorage



Special Assessment Improvement District. Property owners petition AWWU to provide service and vote to assume the costs of construction. AWWU administers balloting, design, and construction. The cost is recovered by special assessment assigned to each parcel in the district (shaded lots). Connection is not required, but all properties are assessed if the ballot passes, regardless of whether an individual connection is made.

Utility Capital Improvements AWWU extends a pipe to address a service requirement for existing customers (for example, a reservoir site). Homes along the route are incidentally benefitted by the construction, and are notified of the availability and estimated cost of hookup. Properties are assessed a Levy-Upon-Connection (LUC) only when the property owner chooses to connect (shaded lots).

Mainline Extension Agreement (Private Development) A land developer establishes an agreement with AWWU to extend underground utilities. Homes along the route of the extension are incidentally benefitted and are notified of the availability and estimated cost. Property owners choosing to connect within three years of the completion of construction pay an assessment to reimburse a portion of the developer's project cost. After three years, the property owners can connect to the system without the special assessment charge.

Solid Waste

<p>Objective C: Solid Waste. Provide adequate facilities to meet current and anticipated future demands for solid waste disposal in the City of Bethel.</p>
<p>Strategy 1: Improve existing solid waste services and facilities.</p>
<p>Action 1a: Identify possible site(s) for a new landfill (to eventually replace existing landfill).</p>
<p>Action 1b: Consider privatizing/contracting out waste collection and/or recycling.</p>
<p>Action 1c: Improve the function and appearance of existing dumpsters, by for example, screening them with fencing, relocating or providing additional dumpsters as needed, working with businesses to find alternatives for commercial use of residential dumpsters, etc. Provide additional dumpsters in neighborhoods, as needed.</p>
<p>Action 1d: Fix the road to the landfill.</p>
<p>Strategy 2: Reduce the volume of waste in the existing landfill.</p>
<p>Action 2a: Consider options for compacting waste (e.g., dynamic compaction). <i>These might include: using dynamic compaction to pound waste into the landfill, using a large baler to compact waste before it goes into the landfill, using a car crusher to compact auto waste, or burning waste (using a burn box or incinerator). The 2002 Bethel Solid Waste and Sewage Lagoon Facilities Design Study/Master Plan Update recommends that the City purchase a sheep's foot compactor.</i></p>
<p>Action 2b: Remove visible and/or easily-retrieved scrap metal for recycling.</p>
<p>Action 2c: Consider burning (burnable, non-toxic) refuse, using a burn box, incinerator or some other method.</p>
<p>Strategy 3: Develop and maintain a comprehensive recycling program.</p>
<p>Action 3a: Develop and implement a business plan for the Bethel recycling center.</p>
<p>Action 3b: Develop partnerships (e.g. with barge companies, school, Yuut Elitnaurviat) to leverage cost savings and possibly run the center as an education and workforce development program.</p>
<p>Action 3c: Promote waste to wealth industries to make useful products from recycled materials.</p>
<p>Action 3d: Coordinate with Yukon-Kuskokwim Delta villages and other communities in Southwest Alaska to serve as a regional recycling and transfer facility. <i>Though the region's small population centers and high shipping costs make recycling and backhauling economically unfeasible for many individual communities, regional coordination could allow enough cost savings to at least break even.</i></p>
<p>Action 3e: Complete facility upgrades to the Bethel recycling center and Public Works building. <i>Needed improvements will allow the public works department to provide a higher quality of service.</i></p>
<p>Action 3f: Purchase a shredder so that recyclable waste can be converted to a form acceptable to recycling companies.</p>
<p>Strategy 4: Divert as much waste from entering the landfill as possible.</p>
<p>Action 4a: Set a series of municipal targets for diverting waste stream through recycling, composting, and other means of waste diversion over the next several years (e.g., achieve a diversion rate from disposal of 40 percent by 2012, 50 percent by 2014, 60 percent by 2016, 70 percent by 2018, and 75 percent by 2020). Track and report on indicators of improvements in waste diversion (e.g., percentage of businesses in compliance with commercial recycling program, percentage of residential users recycling, rates of recycled versus non-recycled waste collected at collection centers, or similar measures).</p>
<p>Action 4b: Explore the feasibility of a program that requires source separated organic waste collection and processing.</p>

Action 4c: Use a portion of the City's waste stream (e.g., food waste, brush cuttings) for composting, and work with other local groups to make it available for use by community gardens and local farms.
Action 4d: Encourage composting, mulching and other onsite methods of yard waste disposal to reduce the amount of yard waste collected and transported to the landfill.
Action 4e: Market/provide accurate, up-to-date information about what waste management, recycling, composting, and resale services, programs and facilities are available in Bethel. <i>This could be done on the City website, with paper flyers, etc. For example, Anchorage Solid Waste Services produces a household guide to waste management options. Paper copies are distributed throughout town, and an electronic version is available on the Muni website.⁹ Another idea that came up in public workshop is to start a Bethel "Craigslist" or similar service to advertise items for resale.</i>
Action 4f: Designate an area at the landfill or recycling center where people can leave and/or take usable items.
Action 4g: Consider establishing a junkyard for used vehicles and parts.
Action 4h: Consider city bulk-buy programs for items such as composting bins or energy efficient light bulbs.
Action 4i: Enforce BMC Chapter 8.12 regulating plastic bags and polystyrene containers. Consider stronger regulation of plastic bottles and bags (e.g., ban outright, nickel deposit program).
Strategy 5: Reduce the amount of litter and illegal dumping throughout Bethel.
Action 5a: Invite US Army to assist with a massive city-wide cleanup.
Action 5b: Organize community clean-ups and/or a beautification contest for residential neighborhoods.

Background

The Bethel Public Works Department is responsible for operations, maintenance, construction and planning oversight for the City's solid waste facilities, and cleanup and trash collection for City property. The City owns dumpsters, a haul truck, a municipal landfill for solid waste and a recycling center.

The City owns and maintains about 183 public dumpsters throughout Bethel and a garbage truck for trash collection. Residential customers are charged a flat fee that is updated periodically.¹⁰ Commercial customers are charged \$59 each time a four-cubic-yard container is emptied, and \$74 each time an eight-cubic-yard container is emptied. Additional charges apply to on-call service. For customers hauling their own waste to the landfill, customers can drop off up to four cubic yards per day for free and pay \$10/cubic yard after that.

The Bethel landfill was built in 1991 and designed to last about 25 years. Bethel Public Works estimates that the landfill will last another 30 years before reaching capacity if current rates of landfill remain as they are today, and if the City continues an aggressive policy of compacting the refuse as it accumulates at the landfill.¹¹ The 2002 Solid Waste and Sewage Lagoon Facilities Design Study/Master Plan estimates anywhere from 2012-2037 for the landfill life, depending on how aggressive the City is about recycling, baling, using compaction and/or incineration. With incineration, the landfill life is estimated to last until 2037; the study predicts that all other methods would stretch the life of the landfill only to the next four years (2012-2016).¹²

⁹ <http://www.muni.org/Departments/SWS/Documents/A%20to%20Z%20Guide%20Fall%202010.pdf>

¹⁰ Solid Waste rates are given in BMC Chapter 13.16 UTILITY RATES (accessed from the City of Bethel Website, May 2011).

¹¹ Personal Communication; Willert

¹² p6-39, CH2MHill, 2002. City of Bethel Solid Waste and Sewage Lagoon Facilities Design Study/Master Plan Update.

According to that study, the life of the landfill could also be extended until the year 2030 if it is allowed to be filled to a very steep contour (5:1 slope), although the steeper and higher the landfill cover, the more noticeable it will be. When the landfill does need to be expanded or relocated, the City will probably use the adjacent lagoon cell when filled. By keeping the landfill and lagoon in the same general area, the City protects the property values and ability to develop other parts of town, since people generally do not choose to live or develop commercial uses near waste facilities. The 2002 Solid Waste and Sewage Lagoon Facilities Design Study/Master Plan offers criteria for choosing a new landfill site based on State regulations (18 AAC 60.300) and community goals.¹³ Once closed, the landfill will be required to be monitored, an additional cost for the City.



Because of the expenses involved, Bethel has a compelling incentive to extend the life of the landfill as long as possible. There are two general strategies for doing this:

Minimize the volume of the existing landfill. The Public Works rule of thumb is that lowering the level of the landfill one inch lengthens the life of the landfill by about a year. One of the Bethel Waste Management Plan recommendations is to use dynamic compaction (pounding refuse into the ground with a large cement block), which would cost about \$250,000 and extend the life of the landfill by an estimated 13.5 years.¹⁴ The City could also remove visible and/or easily-retrieved scrap metal for recycling (the landfill currently takes in a fairly significant amount of scrap steel, e.g., old vehicles, cranes, tanks). Burning refuse is another option to consider. A burn box could be purchased and used on burnable waste, although the City would bear the personnel costs to separate trash and tend the burn box. An incinerator could also generate waste heat, but would be expensive to construct, would require extensive permitting and periodic air quality testing, and it is unclear whether it is located too far from town to effectively provide waste heat to the community. The 2002 Bethel Solid Waste and Sewage Lagoon Facilities Design Study/Master Plan Update estimates that a mass burn refuse incinerator would cost at least \$5million, and that this would greatly exceed the value of landfill space saved at the Bethel Landfill.¹⁵

Divert as much waste from entering the landfill as possible. Wood pallets and lumber are set aside at the landfill for people to take for steams or woodburning stoves. Recycling cars for parts is allowed, although a junkyard could be established expressly for this purpose. When it was open, the Bethel Recycling Center accepted recyclable metals (aluminum cans, scrap aluminum, copper, and stainless steel), paper (newspapers and office paper), and plastics #1 and #2. Although glass has not been accepted for recycling, the City could purchase a grinder capable of grinding glass to be reused for paving roads and parking lots (although the City would also have to purchase paving equipment). Currently nearly 40 percent of the material going into

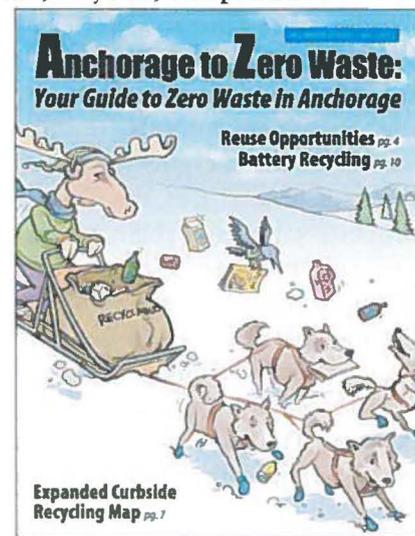
¹³ P6-15, CH2MHill, 2002. [City of Bethel Solid Waste and Sewage Lagoon Facilities Design Study/Master Plan Update](#).

¹⁴ P6-39 and Appendix B, CH2MHill, 2002. [City of Bethel Solid Waste and Sewage Lagoon Facilities Design Study/Master Plan Update](#).

¹⁵ P6-32, Ibid.

the Bethel landfill is paper and cardboard, which could be reused, recycled, composted or burned. Computer equipment and hazardous materials can now be recycled through Total Reclaim.¹⁶

In addition to the recycling facility, the City owns a skid steer, bailer, cargo containers and other recycling equipment. The City has grant funding to support the recycling center, but it is not currently in operation, due to challenges with lack of staff to operate the facility, lack of additional equipment (e.g., shredder¹⁷), and the high cost of shipping the recyclable goods to markets outside the region. The City can work with barge companies to coordinate a backhaul services, up to six containers per year. There is only one barge in Alaska suited for hauling trash (it has a concrete bottom to prevent leaks), which would be needed to transport materials for recycling to Seattle. Recycling is a regional issue, and the Bethel facility represents an opportunity to provide a regional service if the City can coordinate with surrounding villages. The recycling center could also be operated as an education and workforce development program in partnership with local educational institutions. No matter how it is run, taking steps to re-establish or expand recycling program(s) in Bethel is a high priority for the community.



Other waste management challenges facing the City include addressing illegal dumping and managing hazardous materials (hazmat) to protect subsistence resources and minimize environmental impacts to the land and the Kuskokwim River. According to the Bethel waste management plan, appliances containing chlorofluorocarbons (CFCs, refrigerant gas) are stored until the gases can be recovered by an authorized appliance service agent. Sorbents and oily rags are burned in a Smart Ash unit. Latex paints are opened and allowed to dry before disposal in the landfill. The City is unable to take batteries at this time, but the Napa store in Bethel accepts used car batteries. Used oil is stored in 55-gallon drums and eventually burned in a space heater at the landfill office or Public Works shop. The City occasionally contracts to containerize and ship out household hazardous waste on an as-needed basis. The 2002 Bethel Waste Management Plan recommends keeping records on hazardous wastes (e.g., used motor oil, oil-based paints and solvents, lead-acid batteries, refrigerators, antifreeze).

¹⁶ Total Reclaim, a Pacific Northwest recycling company, now has an Anchorage office and serves communities throughout Alaska. <http://www.totalreclaim.com/alaska.html>

¹⁷ Recycling companies in Seattle want shredded material, so in order to sell recyclable material to these companies, the City would have to shred and package it accordingly.

Technology

Objective D: Technology. Provide for current and future technology needs.
Strategy 1: Promote the widespread availability of communication systems to facilitate communication among members of the public, public institutions, government agencies, and businesses, and to promote the public service and safety advantages and economic opportunities afforded to the community due to the availability of state-of-the-art telecommunications technology.
Action 1a: Review and update potentially suitable personal wireless facility locations, as identified on the official City Map every five years.
Action 1b: Encourage competition for communications technology providers in Bethel; actively work to recruit and/or remove barriers to entry for competing firms.
Action 1c: Explore the costs and benefits of the City providing wi-fi service to the entire city and to city employees only.
Policy 1d: Telecommunications facilities that are developed and operated expressly to carry out emergency services should be considered essential public facilities.

Background

The Technology Department maintains the City of Bethel's information technology systems. It has been negotiating a program to re-lease computers every three-to-five years in order to keep the City's hardware up-to-date and in working order. A four-year lease is currently in place for computer equipment. The department has also been working on a program to upgrade the City's printers/copiers to heavy duty machines that will perform reliably and that use the same type of toner cartridges so that the City can reduce operations costs by buying the toner cartridges in bulk. The Department now has five multi-function machines in a maintenance program.

The Technology Department is upgrading the City's internet infrastructure to increase internet access and lower costs for the City and community. Once the upgrades are complete, the City will be able to create a wireless internet network for City employees, saving the City \$2,000 a year. These upgrades will also provide the police and fire departments with more secure communications. For Police, it will allow officers to report from laptops in their patrol cars or PDA devices, saving time and money. The City could possibly broadcast free wireless internet throughout the city or to sell it as a service for a small fee (e.g., \$10/month). Whether or not this is possible will depend on a number of factors:

- **Communications infrastructure.** Communications companies would need to provide Bethel with increased bandwidth.
- **Community partnerships.** If other Bethel-based organizations joined the City, they could provide a full-fledged internet service.
- **Legal considerations.** If the City were to provide internet service to the community at large, it would be competing with Bethel's existing private internet service provider, GCI. Other communities have invested in providing free or subsidized public internet service as an economic development strategy, with mixed success. These initiatives can be met with opposition from private communications companies, which stand to lose a considerable amount of revenue if the City is successful in setting up a free or subsidized open wireless internet network. (One resource for municipal wireless networks is www.muniwireless.com.)

Fire and Emergency Medical Services

<p>Objective E: Fire and Emergency Medical Services. Provide adequate fire protection measures and services in Bethel to respond to current and future anticipated emergency service needs.</p>
<p>Strategy 1: Maintain and improve fire and emergency medical services and related facilities.</p>
<p>Action 1a: Plan for and construct a substation close to the airport.</p> <p><i>Bethel recently upgraded its fire station. The station serves the entire city adequately, but the department would like to plan for a substation close to the airport. A substation would allow the Fire Department to better respond to homes in the Kasayulie subdivision, the Tundra Ridge subdivision and the airport. The substation would house a vehicle and equipment; no employees would be staffed there. Rather, it would be a gathering point for community volunteers called via the radio/paging system. At least eleven houses in the Kasayulie subdivision are located outside Bethel's five-mile fire response radius. These houses receive the same service from the fire department as the rest of Bethel, but receive lower ISO ratings,¹⁸ and are therefore charged much higher insurance rates than properties within the five-mile fire response radius (two- to three-times higher¹⁹). Building a substation near the airport would expand the response radius to include these properties, better serving them and lowering their insurance rates.</i></p>
<p>Action 1b: Address other capital replacement needs, as needed.</p> <p><i>Current anticipated equipment and capital replacement needs include one or two fire engines (triple combination: truck, pump, water supply) and a radiation detector.</i></p>
<p>Action 1c: Decide whether to use the fire training tower in its present location, move it closer to the fire station or decommission it; carry out decision.</p> <p><i>The City's existing fire tower is located near the sewage lagoon, and has been proposed to be relocated along with the new fire station. No decision has been made whether to use the existing tower in its present location, move it closer to the fire station or decommission it. The existing site has been found to contain fuel-contaminated soil; remediation is underway, but not yet complete. Though the existing location is not ideal, the City will probably fix it up and use it in its present location.</i></p>
<p>Action 1d: Continue to provide training for fire and EMS staff.</p> <p><i>Training will continue to be important for new recruits and to maintain the skills of existing firefighting and emergency services staff.</i></p>
<p>Policy 1e: As the City's piped water system is expanded, hydrants should be installed (and will likely be required).</p> <p><i>Fire hydrants will not only allow the Fire Department ready access to larger amounts of water for firefighting purposes, they will also improve the ISO rating (thereby reducing insurance rates) for properties located within 1,000 feet of each hydrant.</i></p>

Background

The City of Bethel Fire Department works to protect life and property by providing quick and efficient responses to fires, medical emergencies, hazardous material response and other hazardous situations, as well as increasing public awareness of hazards through fire prevention and public education programs. The Bethel Fire Department has a full-time staff of one captain, one chief and five paid responders. The responders work a rotating schedule of 24 hour shifts that enables there to be two paid staff per shift. The Fire Chief works days and is on-call at all other times. There are, in addition, about 20 members of the community that serve as firefighter/EMT volunteers with the department. The department operates two fire engines, a water tanker, an aerial apparatus and a small tundra fire vehicle out of the fire station building at

¹⁸ ISO fire protection ratings are given by independent raters and are used by insurance companies to determine rates and coverage. The City does not have control over the policies or criteria used to determine the ISO ratings for specific properties, nor over the insurance rates charged to property owners. The Bethel Fire Department is committed to providing emergency services to all Bethel residents and property owners.

¹⁹ Personal Communication, Young.

320 Hoffman Highway. The City has a mutual aid agreement with the Bethel airport to provide services and a cooperative agreement with the US Bureau of Land Management (BLM) for access to equipment and personnel.

Prevention and education programs include a home safety inspection program, fire prevention classes and fire drills for children through field trips and school visits (including Fire Prevention Month in October), and a program in which fire department personnel regularly examine commercial and residential properties in areas of the community where a significant fire problem might develop. Smoke detectors are available and can be tested year-round at the fire station. The department will also provide, test or install detectors in homes for those without the means to do so themselves.

The department responds to emergency medical service (EMS) calls 24 hours a day. All paid staff and volunteer staff of the department are certified by the State of Alaska as Emergency Medical Technicians (EMTs). About ten members of the community serve as volunteer EMT's with the department. Ambulance service in Bethel is certified by the State of Alaska as an "Advanced Life Support" unit, a higher level of service than the minimum requirement of a "Basic Life Support" unit.

The department responds to hazardous materials incidents at the first responder level of training (OSHA regulations require that all emergency responders be trained to this level), and a few department staff are trained to the hazardous waste handler level. Major hazardous materials incidents are coordinated with the local Alaska Department of Environmental Conservation (ADEC) office in Bethel and the Alaska Division of Emergency Services (ADES) at Fort Richardson.

Support for Improvements in Other City Departments

The Bethel Fire Department also benefits from improvements within the purview of other City departments, such as Public Works and the Port. The Fire Department supports public works projects such as piped water distribution (with fire hydrants) and additional water storage around town. The department can save more lives and property with ready water; for property owners, piped water distribution means significantly lower insurance rates (could be about half the cost

Emergency Services and Insurance Rates in Bethel

Properties located outside the fire service radius (five miles away from the fire station) are rated by insurance companies as "unprotected." Though the Bethel Fire Department serves these and other properties within the service radius equally, insurance companies consider them a greater risk, and therefore charge higher homeowners' fire, and casualty insurance rates (two- to three- times higher) than properties inside the fire service radius.

Properties located within the fire-service radius (within five miles of the fire station) receive ISO rating 8. The Bethel Fire Department has tested their ability to serve properties within this radius using either piped or hauled water, and found that both methods of water transport allow firefighters to serve properties within the fire service radius well enough to receive an ISO rating of 8.

Properties located within the fire-service radius (within five miles of the fire station) and within 1,000 feet of a fire hydrant (hooked up to piped water) receive an ISO rating 5. These properties are considered by insurance companies to have the least risk and are charged the lowest homeowners' fire, and casualty insurance rates. The property does not have to be connected to the piped system (it may still receive hauled water), nor does it have to be part of a subdivision that receives piped water; it only has to be located within 1,000 feet of a hydrant connected to the piped system.

of insurance with hauled water distribution).²⁰ The Fire Department also benefits from better emergency access from road improvements, from paved roads (which mean less wear and tear on firefighting equipment than gravel roads), and from road maintenance improvements (for example, if there is an emergency, firefighting trucks must navigate around stuck cars during snowstorms). The Fire Department also supports maintenance and improvements to port facilities and access to the Kuskokwim to promote maritime safety.

Police

<p>Objective F: Police. Provide adequate police services to meet existing demand and anticipated future demands.</p>
<p>Strategy 1: Maintain and improve police services and related facilities.</p> <p><i>Bethel has seen an improvement in the safety of its citizens and police service, and the police department is working to continue this trend.</i></p>
<p>Action 1a: Secure new facilities for Bethel Police headquarters.</p> <p><i>Bethel City Council recently approved a two-acre site on Salmonberry Street. This site is large enough to accommodate department offices, training center, animal control and a vehicle impound yard. The City currently does not have a vehicle impound yard; vehicles are kept at Public Works, where they are stored but not secured. A number of private towing companies also have private vehicle lots. A vehicle impound yard is anticipated to be included in the new police station.</i></p>
<p>Action 1b: Upgrade public safety dispatch and communications equipment, including a new radio tower.</p> <p><i>The Bethel police department will be looking at replacing repeaters and consul radios, updating its electronic dispatch infrastructure (e-911), and installing separate police communications infrastructure (radio tower) at the new police station. The new 80 ft. communications tower will allow the Bethel Police Department to move its existing antennas and other communications equipment from the KYUK Radio Station facilities to the new police station, where it will be more secure. Relocating the Police communications equipment to City-owned facilities will also save the City about \$400/month in rental fees.</i></p> <p><i>The department also has a 311 non-emergency number that residents can call for information and services. Public comments indicate that this is a helpful service; however, the number only works from landlines, not from cell phones. In order to make the number work for cell phones, the City would need gain the local phone company's compliance to ensure cell phones are integrated into the e-911 infrastructure (this is a Federal mandate to cellular carriers).</i></p>
<p>Action 1c: Improve police housing (i.e., replace Quonset hut).</p>
<p>Strategy 2: Expand investigation and evidence collection capabilities to bring them up to current national standards.</p>
<p>Action 2a: Purchase equipment (e.g., surveillance equipment at the Port, video cameras on police vehicles), as needed.</p> <p><i>The department has received grants for new equipment (\$16,000) and for an instant command trailer to store collected evidence and respond quickly to crime scenes (\$35,000). Additional surveillance equipment (e.g., at the Port, video cameras on police vehicles) could also benefit police investigations and the safety of the citizens of Bethel.</i></p>
<p>Action 2b: Provide training for police staff, as needed.</p>

²⁰ Personal Communication, Young.

Background

The Bethel Police Department aims to provide the most professional, unbiased and effective police services possible to the community of Bethel. The department often works in cooperation with other agencies and the citizens of Bethel to address the community's public safety needs and concerns. The department currently has 13 sworn staff. In 2010, the staff handled approximately 16,000 calls for service. For comparison, this figure is about twice that of Wasilla, a city that has twice as many officers as Bethel.

Bethel police respond only to calls placed within city limits, but Bethel is also the public safety answering point (PSAP) for both the Alaska State Troopers and Bethel Police. The Bethel PSAP includes an area approximately the size of Texas (a full list is included on the next page). The Alaska State Troopers contract with the City for after-hours dispatch services. 911 calls are fielded in Bethel, then forwarded to the Alaska State Troopers to respond. Bethel also has a State grant-funded Community Service Patrol program that employs three full-time employees and two part-time employees. This program helps to spread out some of the department's response load, but the funding to continue this program in the future is uncertain.

The City is currently in the process of securing a new location for the police department, which will allow the department to upgrade their physical facilities and centralize public safety services in one location. In addition, a sobering center is opening in partnership with the Yukon-Kuskokwim Health Corporation (YKHC). This facility will be funded by the State of Alaska, operated by the YKHC, and will relieve some pressure on both the Yukon Kuskokwim Correctional Center (YKCC) and emergency room (YKHC).

Bethel Public Safety Answering Point (PSAP)

Bethel is the public safety answering point (PSAP) for both the Alaska State Troopers and Bethel Police. The Bethel PSAP covers an area approximately the size of Texas and includes the following communities: Kotlik, Billmore Slough, Hamilton, Chuloonawick, Emmonak, Alakanuk, Sheldon Point (Nunam Iqua), Palmute, Hooper Bay, Scammon Bay, Chevak, Newtok, Tununak, Tooksook Bay, Umkumuit, Mekoryuk, Nightmute, Cheformak, Kipnuk, Kongiganak, Kwiglilingok, Quinhagak, Goodnews Bay, Platinum, Lime Village, Eek, Tuntutuliak, Sleetmute, Stony River, McGrath, Takotna, Nikolai, Red Devil, Georgetown, Crooked Creek, Napaimute, Chuathbaluk, Aniak, Upper Kalskag, Lower Kalskag, Tuluksak, Akiak, Akiachak, Kwethluk, Napaskiak, Oscarville, Napakia, Nunapitchuk, Kasigluk, Atmoutluk, Mountain Village, St. Mary's, Pitka's Point, Andraefski, Pilot Station, Marshall, Ohogomuit, Rissian Mission, Holy Cross, Shageluk, Anvik, Grayling, and Bethel.

Of these, the following have Trooper posts: Aniak, McGrath, St. Mary's, Emmonak, and Bethel.

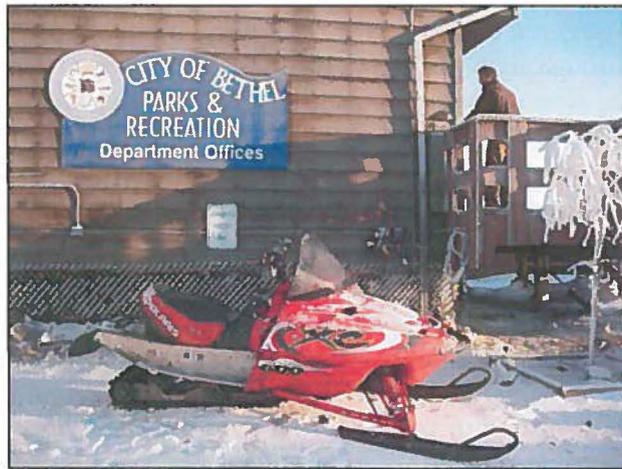
Youth and Adult Recreation

<p>Objective G: Youth and Adult Recreation. Sustain and enhance facilities and programs for youth and adult recreation.</p>
<p>Strategy 1: Develop public meeting places and indoor recreational facilities for all age groups.</p>
<p>Action 1a: Upgrade the Bethel 4-H Youth Center. <i>The Bethel 4-H Youth Center building needs an upgrade. Improvements include ADA compliant bathrooms and shower, covered entryways for access, egress, more parking space for program participants, fenced area for workshop, equipment and greenhouse to separate it from the youth facilities, new siding and leveling the building. The Youth Center is being considered for an emergency shelter site, which would include the need for cots, sleeping bags, etc. These upgrades will need to be completed whether or not the BATH Center is constructed.</i></p>
<p>Action 1b: Develop a community swimming pool complex. <i>Complete the BATH Center (Phases I and II). Hire a project manager and initiate 2-year fundraising for BATH Center. Consider re-naming the BATH Center to emphasize its regional value. Completing the BATH Center will increase the availability of year-round recreation opportunities for all community members, provide a much-needed public safety resource, and alleviate pressure on the 4-H Youth Center.</i></p>
<p>Strategy 2: Expand and improve the Bethel trail system.</p>
<p><i>See Transportation Goal 5.</i></p>
<p>Strategy 3: Improve Bethel's existing system of parks and recreational open space.</p>
<p>Action 3a: Make improvements to Tundra Ridge Park. <i>These include: three-tier design with tables and/or benches in the middle for parent supervision to upper and lower areas. In other areas install age 2-12 appropriate equipment, one section with swings.</i></p>
<p>Action 3b: Make improvements to the Senior Center Park. <i>These include: more greenery, tables, and benches. Install age 5-12 appropriate play equipment.</i></p>
<p>Action 3c: Apply to the Land and Water Conservation Fund to incorporate more land into Pinky's Park.</p>
<p>Action 3d: Upgrade the ball field.</p>
<p>Action 3e: Maintain skatepark and consider expanding to other locations.</p>
<p>Strategy 4: Build additional park and outdoor recreational facilities in order to meet recreational needs of residents and visitors as the community grows.</p>
<p>Action 4a: Consider creating/designating additional recreation areas in Bethel (e.g., dog park, recreational campground, ski/non-motorized winter recreation area, waterfront park as part of the Bethel Port, new field for Little League softball, frisbee, soccer and/or football).</p>
<p>Policy 4b: Encourage the creation of neighborhood parks/open space in private developments through development standards and the subdivision review process; encourage wider use of the Planned Unit Development ("Conservation Subdivision") approach. <i>(Also Land Use Goal 6 Strategy 1 Policy 1d)</i> <i>The City could establish policy and procedure, planning and funding assistance to develop a system of neighborhood parks in each of Bethel's residential neighborhood areas (e.g., Kasayulie subdivision, Larson subdivision, Blueberry subdivision, Boat Harbor/Brown's Slough area, the Trailer Court, and future residential areas).</i> <i>Work with landowners/developers to address potential liability concerns for neighborhood parks.</i></p>
<p>Policy 4c: For subdivisions with a dedicated neighborhood park, assess homebuyers a one-time user fee for park maintenance.</p>
<p>Policy 4d: Examine any publicly owned lands including street rights-of-way for their potential open space use before their disposition.</p>

Policy 4e: Preserve the central area of Bethel called the Donut Hole area between the H-Marker Lake and Chief Eddie Hoffman Hwy as permanent open space; encourage year-round recreational activities.
Policy 4f: Encourage multiple recreational uses of open space land, provided that the uses are compatible.
Policy 4g: Plan community recreation facilities in conjunction with existing and planned school facilities so that they complement each other in function.
Strategy 5: Expand and/or develop recreational and educational programming to complement recreation facilities.
Action 5a: Expand youth programs currently operating out of the 4-H Youth Center, e.g., food programs, and recreational and educational programs for teens and afterschool youth.

Background

The Bethel Parks and Recreation Department manages and plans for the City's parks, playgrounds and recreation facilities. The department coordinates activities and programs for the city's diverse population. In addition to the City facilities and spaces available, Bethel has a number of facilities operated in partnership with other agencies and institutions, including the school district and university, whose spaces are available for limited use. The facilities are shown in Map 8.3.



The City of Bethel-Parks and Recreation Department has a number of existing parks and recreation facilities available to the public, including: Pinky's Park, Wally's Park, Dillon Park, Senior Center Park, Bethel 4-H Youth Center and playground, and the Log Cabin. In addition, Boat Harbor Park, Tundra Ridge Park and Pitt Lake Park are undeveloped spaces within the city. The City of Bethel has dedicated substantial funding toward building a new recreation center. Design for the Bethel Aquatic Training and Health Center (BATHC) are 65 percent complete. Operational funds for the facility will come from a combination of user fees and a designated one-half percent sales tax levied by the City. The City is still seeking matching funds for construction. The facility plans currently include a pool, fitness facilities, and additional recreation spaces.

The Bethel Parks and Recreation Department also coordinates a variety of community activities, programs and facilities. These include the Bethel 4-H Youth Center and related activities; the weight room,²¹ after-school program, teen program, family nights, youth computer center, arts and crafts program and various other indoor and outdoor activities. Other recreational activities include soccer, adult and youth softball and karate programs,²² ice-skating, volunteer-coordinated broomball, pre-school playgroup activities, community services activities, including the 4th of July, Clean-up/Green-up, and basketball against drugs. The Parks and Recreation Department

²¹ The City plans to relocate the weight room to the BATH Center.

²² Adult karate is offered through the Kuskokwim Campus Continuing Education Program. Youth karate is offered through 4-H.

also coordinates use of the Log Cabin, and Bethel's Community Garden managed by the Cooperative Extension Service.

The Bethel 4-H Youth Center is essential to the Bethel community. It is the only place in town where all youth have year-round access to recreation facilities. The existing building was constructed in 1981 as a teen center and includes the only public weight room in Bethel. Over the years, as the number of latch key youth has increased, programs run out of the center expanded for afterschool youth and teens. In 1995, the Bethel Parks and Recreation Department collaborated with the University of Alaska Cooperative Extension Service to start a 4-H Youth Development Program, which continues today. The program has been recognized to the Board of Regents by the UAF President, showcased in the College of Rural Alaska annual publication, the Cooperative Extension annual publication, and has received state awards.

Today, the Bethel 4-H Youth Center is open 50 weeks a year for afterschool youth (kindergarten through sixth grade) and teens (13-18 years old). During the school year, the program is available for afterschool youth from the time school is out until 5:30pm; during the summer, early release, and vacations, it is available from noon to 5:30pm, Monday through Saturday. The program is available for teens from 6pm to 9:30pm during the school year and the summer months, six days a week (staffing issues have caused the Center to close on Saturdays; this has been hard on the community).

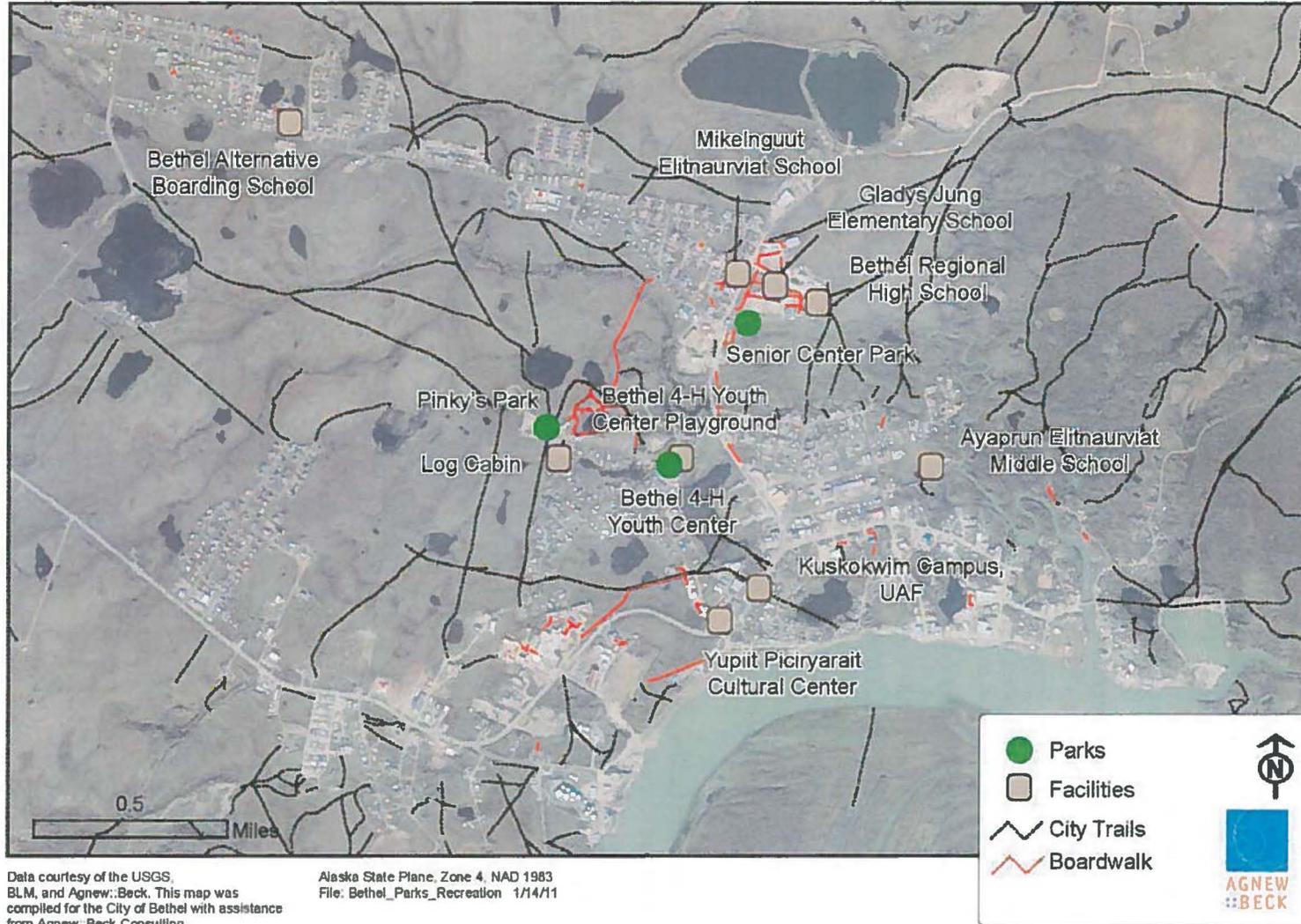
The Center runs two USDA food programs: the Summer Food Service Program is a ten week program in which hot food (lunch, snack and dinner) are served to all youth up to the age of 18; the Youth at Risk Snack Program for afterschool youth runs during the school year. These are the most basic of youth development programs: when children go hungry it is hard for them to function and focus. The Parks and Recreation department is also working to identify a funding source to provide a snack or dinner for teens during the school year. It is included in the City of Bethel Parks and Recreation Department draft budget for FY11-12, but there is no guarantee that it will be funded. The department is therefore seeking alternative funding sources (i.e. the BCS Foundation). The foods program also includes a youth garden and greenhouse that are used to grow produce for the snack program, working with Parks and Recreation staff and local volunteer Master Gardeners.²³ The Center also operates several life skills programs, including the computer lab, GPS training, arts, crafts, recreation, community service, gardening, cooking, sewing, games, and animal and bird watching projects. The Youth Center programs attract about 50 kids a day after school and 30 teens at night, with a total of about 500-600 Bethel youth. Of these, only about 300 are formally enrolled in the Center's programs. These programs are outgrowing the size of the current facility.

Safe and affordable daycare, childcare, and youth summer and afterschool activities are an important service. The Parks and Recreation facilities (and programs run out of them) provide some portion of this need, but additional services and facilities (whether publicly or privately run) are needed in the community.

²³ Bethel's youth garden is located at the Bethel 4-H Youth Center and is designated for the youth gardening programs; it exists in addition to the Bethel Community Garden, which is located on Osage Street on the north side of Pinky's Park.

Map 8.3

City of Bethel Parks + Recreation



Data courtesy of the USGS, BLM, and Agnew::Beck. This map was compiled for the City of Bethel with assistance from Agnew::Beck Consulting.

Alaska State Plane, Zone 4, NAD 1983
File: Bethel_Parks_Recreation 1/14/11

Facilities run in partnership between the City of Bethel and other institutions include Mikelnguut Elitnaurviat School (grades K-2), Ayaprun Elitnaruvik School (grades K-6), Gladys Jung School (grades 3-6), Bethel Regional High School (grades 7-12), Bethel Alternative Boarding School (grades 10-12), the University of Alaska Fairbanks – Kuskokwim Campus and the Yuppit Piciyarait Cultural Center. Due to ongoing school use, liability concerns, application process, the need for supervision and scheduling constraints, public use of school facilities has been on a very limited basis.

With six staff in winter months and two additional seasonal staff for park maintenance in summer, the Parks and Recreation Department relies heavily upon community volunteers to keep recreational programs going. Additional staff can only be paid for through grant funded programs or in collaboration with other agencies. Bethel Parks and Recreation is currently working with the AVCP TANF Program; a Program Assistant was hired through this partnership to do additional activities with youth.

The City has been updating the Bethel Parks and Recreation Master Plan concurrent with this Comprehensive Plan. The Comprehensive Plan includes selected priorities from the Master Plan, which identifies Bethel’s future recreational uses, demands and future needs in greater detail. The plan will also establish park facility and space standards to help the City maintain a system of quality recreational spaces suited for Bethel’s population needs and financial resources. Priority parks and recreation infrastructure improvements are included in the Comprehensive Plan.

Recreation facilities for Bethel’s youth are important to the community. As one resident said at a planning workshop, “The skate park is the best thing that has happened in Bethel!” Other participants asked about additional playground facilities and a shooting range. The Parks Department currently has a playground at the 4-H Youth Center, and this plan includes strategies to use City policy to encourage the creation of additional neighborhood parks throughout Bethel. Though the City has no plans to build or operate a shooting range, the Bethel Sportsman Club has indicated plans to build a 200-yard multi-purpose rifle range, a pistol range and a shotgun range to support their educational programs in firearm safety, marksmanship and sportsmanship.²⁴

Other parks and recreation infrastructure improvements are detailed in the 2011 Bethel Parks and Recreation Master Plan.

²⁴ Letter to the City of Bethel from Jaimie Kassman, Bethel Sportsman Club President. See Appendix A Public Comments.

Intergovernmental Cooperation

GOAL 2: Foster intergovernmental cooperation: a network of local governmental and civic organizations committed to the common good of the community, based on a high degree of resident participation, interagency cooperation, and inspired leadership.

Strategy 1: Support only new development that occurs at a rate consistent with the community's ability to accommodate new development, physically and financially.

Action 1a: Work cooperatively with the school district to plan for the replacement or construction of new school facilities as needed to meet projected school enrollments. Establish a committee of appropriate representation for school site selection. Use the committee to establish needs and identify potential sites.

Strategy 2: Consider new sources of municipal revenue, including impact fees and public land dedications, or special service taxing (e.g., business improvement district) to support needed services.

No actions associated with this strategy.

Strategy 3: Seek State of Alaska and federal assistance that supports the attraction of business and employment development.

No actions associated with this strategy.

Strategy 4: Develop policies, cooperative agreements and working relationships promoting intergovernmental cooperation, information sharing and the sharing of services with other governmental units.

Action 4a: Explore the use of shared facilities and the coordination of services provided by ONC.

Policy 4b: Foster cooperative working relationships with local, state, and federal agencies operating in Bethel.

Policy 4c: Use interagency working groups when appropriate to solve problems of mutual interest.

Policy 4d: Maintain joint planning efforts with the ONC.

Policy 4e: Continue working with ONC on the implementation of joint planning efforts (e.g., Transportation and Community Economic Development Strategies (CEDS) plans).

Implementation

Introduction

The Bethel Comprehensive Plan includes goals, strategies, actions and policies for Land Use, Transportation, Economic Development, Energy and Public Facilities and Services. As explained in the first chapter, About the Plan, goals are specific statements about how the City and community of Bethel can realize the community vision. For each goal, the plan presents strategies to provide direction on how the goals can be achieved.

The plan includes policies, which are statements intended to guide the City of Bethel and community in decision making on relevant issues to facilitate orderly development and greater physical and economic health in the community. Policies are listed in the body of each topical chapter, along with goals, strategies and implementation actions.

Implementation actions are presented in each chapter and in the following tables, along with timeframes, responsibilities, and some indication of cost assigned to them. These are intended to help the City and other responsible parties prioritize what they will accomplish, obtain funding for projects and programs, coordinate with other agencies and organizations, and track the community's progress toward achieving the goals and vision in the plan.

The following legend explaining the symbols used to indicate the order of magnitude for priority and cost is included at the beginning of each table.

Legend

Priority:	★ highest priority (immediate action)	■ high priority (aim for action in next 1-2 years)	◆ priority (aim for action in next 2-4 years)	♦ other important projects
Cost:	\$\$\$\$ > \$1,000,000	\$\$\$ \$100,000- \$1,000,000	\$\$ 10,000-100,000	\$ <10,000

Summary of Highest Priorities, Citywide

The highest priority actions across all plan chapters (those with star: ★) are listed below for quick reference:

Land Use

- Identify and map critical anticipated community needs (Map 4.3). (GOAL 1, Action 1a, p9-5)
- Work with existing landowners in priority growth areas to reach agreements that would allow needed growth to occur (e.g., purchase land, land trade, secure easements). Priority varies with use: a new or alternative treatment option for the sewer lagoon is currently of the highest priority. (GOAL 1, Action 1b, p9-5)

- Develop a city-wide, Geographic Information System (GIS) land records system; update as lands are subdivided or developed, and make data available for use by City staff and the general public. (GOAL 8, Action 1a, p9-9)

Transportation

- Establish an agreement between ONC and the City to allow transfer of maintenance funds from the IRR Transportation Program. (GOAL 2, Action 1c, p9-10)
- Install streetlights throughout the city, especially on Ridgecrest Drive, near the schools. (GOAL 2, Action 2c, p9-11)
- Create a Loop Road, either following the existing Tundra Ridge Road route or on a different but comparable alignment. (GOAL 2, Action 4c, p9-12)
- Include site development requirements in the zoning or subdivision code to specify ingress and egress (driveways), lighting, parking, and loading and offloading. (GOAL 2, Action 7a, p9-13)
- Conduct a navigation study of the changing Kuskokwim River along the Bethel waterfront to evaluate design alternatives that would reduce deposition and dredging and improve flow conditions for navigations through the channel crossing. (GOAL 5, Action 1a, p9-15)
- Based on navigation study results, determine the best long-term location for the Port; determine if dredging is needed along the Bethel waterfront. (GOAL 5, Action 1b, p9-15)

Economic Development

- Support development of the community swimming and recreation center (i.e., the BATH Center project; see Public Facilities and Services Objective G, Action 1b). (GOAL 4, Action 1a, p9-18)
- Identify key issues (e.g., energy and freight delivery). Use work on these issues to improve relations and build capacity to take on other important projects. (GOAL 6, Action 2a, p9-21)
- Develop a regional response to the opportunities and challenges posed by the Donlin Creek Mine (e.g., environmental protection, port location, options for regional energy solutions, employment and training). (GOAL 6, Action 2b, p9-21)
- Coordinate lobbying among local and regional institutions to explain the value and impact of programs (e.g., Power Cost Equalization or PCE program). (GOAL 6, Action 3a, p9-21)

Energy

- Establish education and support services for local residents and builders so that existing homes can be made more energy efficient, and to support energy efficient design and construction for new homes. (GOAL 1, Action 1b, p9-23)

- Encourage the use of more fuel-efficient motorized vehicles. (GOAL 1, Action 2c, p9-23)
- Share and update information (e.g., maps of future commercial, residential and/or institutional development, maps of easements and rights-of-way, plans for utility infrastructure expansion) on an annual basis. (GOAL 2, Action 3a, p9-24)
- Engage in a joint long-range planning effort to ensure that the utility, the City, major electricity users, and other local and regional stakeholders work together to meet community electricity needs. (GOAL 2, Action 3b, p9-24)
- Explore the feasibility of a City-owned tank farm. (GOAL 2, Action 4a, p9-24)
- Explore bulk fuel purchasing options. (GOAL 2, Action 4b, p9-24)
- Develop new City policy to guide the placement and operation of wind turbines to ensure the safety and quiet enjoyment of the community. (GOAL 3, Action 1a, p9-24)
- Work with the electric utility to understand the capacity of Bethel's electric generation and transmission infrastructure to accommodate alternative energy sources, and also to determine the most appropriate levels of investment in various alternative energy sources. (GOAL 3, Action 1b, p9-24)
- Reserve land or land development rights for alternative energy development and facilities (e.g., wind turbines, natural gas pipeline rights-of-way). (Also Land Use Goal 1.) (GOAL 3, Action 1c, p9-25)
- Explore the use of innovative financing programs for renewable energy investments (e.g., Property Assessed Clean Energy or Sales Tax Assessed Clean Energy). (GOAL 3, Action 1d, p9-25)
- Coordinate with regional partners, at a minimum to keep City and regional partners informed of each other's energy-related policies and projects. As practicable, coordinate local and regional policies and projects, including (but not limited to) options for hydro and natural gas prospects, regional wind farms, and inter-village transmission lines connecting centralized power plants. (GOAL 3, Action 2a, p9-25)

Public Facilities and Services

- Implement improvements to internal processes and procedures (e.g., cross-training, streamlining procedures). (GOAL 1, Objective A, Action 1a, p9-26)
- Work with individual City departments to develop 5-year capital needs and deferred maintenance plans. (GOAL 1, Objective A, Action 2a, p9-26)
- Better enforce City business licensing and sales tax collection. (GOAL 1, Objective A, Action 3e, p9-27)
- Develop a financial plan for service provision: incorporate capital needs and deferred maintenance, rate study, and recommendations for future improvements. Explore the possibility of charging for piped water/sewer on a meter basis, comparable to trucked/hailed service. (GOAL 1, Objective B, Action 1a, p9-27)

- Establish an alternative treatment system to replace existing lagoon. Identify and secure a site for new wastewater treatment system. (GOAL 1, Objective A, Action 4a, p9-28)
- Conduct a cost analysis and rate study for the 2010 Institutional Corridor Feasibility Study, and complete the institutional corridor piped water improvements. (GOAL 1, Objective B, Action 2b, p9-28)
- Identify possible site(s) for a new landfill (to eventually replace existing landfill). (GOAL 1, Objective C, Action 1a, p9-28)
- Consider options for compacting waste (e.g., dynamic compaction). (GOAL 1, Objective C, Action 2a, p9-28)
- Develop and implement a business plan for the Bethel recycling center. (GOAL 1, Objective C, Action 3a, p9-29)
- Market/provide accurate, up-to-date information about what waste management, recycling, composting, and resale services, programs and facilities are available in Bethel. (GOAL 1, Objective C, Action 4e, p9-30)
- Secure new facilities for Bethel Police headquarters. (GOAL 1, Objective F, Action 1a, p9-31)
- Upgrade the Bethel 4-H Youth Center. (GOAL 1, Objective G, Action 1a, p9-31)
- Develop a community swimming pool complex. (GOAL 1, Objective G, Action 1b, p9-31)
- Explore the use of shared facilities and the coordination of services provided by ONC. (GOAL 2, Action 4a, p9-32)

Land Use Implementation Table

Legend

Priority:	* highest priority (immediate action)	■ high priority (aim for action in next 1-2 years)	◆ priority (aim for action in next 2-4 years)	♦ other important projects
Cost:	\$\$\$\$ > \$1,000,000	\$\$\$ \$100,000-\$1,000,000	\$\$ 10,000-100,000	\$ <10,000

	Priority	Lead	Partners	Cost	Funding Source(s)
GOAL 1: Reserve space for critical anticipated community needs, including commerce, transportation, housing, community facilities and infrastructure.					
Strategy 1: Reserve land for specific uses that are a) critical to the future of the community, and b) almost certainly will need space for expansion or relocation.					
Action 1a: Identify and map critical anticipated community needs (Map 4.3).	*	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 1b: Work with existing landowners in priority growth areas to reach agreements that would allow needed growth to occur (e.g., purchase land, land trade, secure easements). <i>Priority varies with use: a new or alternative treatment option for the sewer lagoon is currently of the highest priority.</i>	*	City of Bethel	landowners	\$ (staff time)	City funds
Strategy 2: Reserve adequate rights of way for access and public utilities when land is subdivided.					
Action 2a: Review and revise (as necessary) Bethel's existing subdivision code (BMC Title 17) to ensure that the code presents reasonable, practical requirements for access and easements.	◆	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 2b: Work with the ONC and Native allotment owners to better understand advantages and disadvantages of complying with BMC; agree upon recommended subdivision and land use standards to preserve and enhance value, recognizing the special status of these lands.	■	City of Bethel	landowners	\$ (staff time)	City funds
GOAL 2: Encourage future growth to locate near existing employment centers and public services. Coordinate plans affecting the location of growth with plans for the location of water, wastewater and roads, as economically feasible.					

	Priority	Lead	Partners	Cost	Funding Source(s)
Strategy 1: Explore policies (including infill and redevelopment) that could be used to encourage development of lands within or adjoining existing developed areas that have the potential to accommodate new growth.					
Action 1a: Identify and map areas within or adjoining existing developed areas that have the potential to accommodate new growth; these include vacant or underutilized lands served by roads, with good access to public services and employment.	■	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 1b: Review and work to remove barriers that discourage infill and redevelopment (e.g., lack of access to properties, excessive restrictions in the BUC).	◆	City of Bethel	n/a	\$ (staff time)	City funds
Action 1c: Create appropriate incentives for individual landowners to redevelop property and/or carry out infill projects that would otherwise not be feasible.	◆	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 1d: Plan for and develop expanded infrastructure, as needed, to support priority uses.	◆	City of Bethel	ADOT&PF, landowners	\$\$\$\$	City funds, other
Strategy 2: Remove regulatory hurdles and/or create incentives for more concentrated development.					
Action 2a: Review and revise (as necessary) Bethel's existing parking requirements; where possible, reduce parking requirements and encourage shared parking or access for alternative transportation modes (e.g., pedestrian facilities, transit).	◆	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
GOAL 3: Provide for compatibility among adjoining land uses, so future development maintains or improves the quality of life or land values of surrounding uses.					
Strategy 1: Review and revise Bethel land use regulations.					
Action 1a: Examine existing Bethel code and existing land uses; revise and simplify land use designations to better fit the reality of Bethel's mixed use land use patterns.	■	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 1b: Use the generalized future land use designations in the Land Use Plan Map (Map 4.4), which broadly identifies areas intended for various uses, as the starting point for revising the zoning code in BMC Title 18 (Bethel zoning code).	■	City of Bethel	n/a	\$ (staff time)	City funds

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1c: Modify code to require a conditional use review process for large- scale uses or any other use likely to have significant off-site impacts.	■	City of Bethel	n/a	\$ (staff time)	City funds
GOAL 4: Encourage a range of housing opportunities for current and future Bethel residents, including more housing within the purchasing or rental capabilities of young families, single people, school teachers and other workers.					
Strategy 1: Improve existing housing stock, as needed.					
Action 1a: Adopt standards for basic level of housing quality.	◆	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 1b: Create a fund to help property owners upgrade housing to meet minimum standards.	◆	City of Bethel	n/a	\$-\$\$\$\$	City funds, other
Strategy 2: Encourage cooperative programs to provide additional housing.					
Action 2a: Document housing needs.	◆	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 2b: Identify and, through zoning and infrastructure provision, encourage new housing development in appropriate areas (<i>Land Use Goal 1</i>).	◆	City of Bethel	Bethel community, landowners, housing providers	\$-\$\$\$\$	City funds, other
GOAL 5: Create safe, livable neighborhoods centered around community facilities such as schools, parks, the teen center, and the senior center.					
Strategy 1: Encourage neighborhood revitalization and development.					
Action 1a: Craft a cooperative strategy to upgrade select neighborhoods (among the City and Bethel-based regional organizations; e.g. AVCP, ONC).	■	City of Bethel	Bethel-based regional organizations; e.g. AVCP, ONC	\$ (staff time)	City funds
Action 1b: Form a revitalization task force (working with residents and landowners) to identify and prioritize most important revitalization needs.	◆	City of Bethel	residents and landowners	\$ (staff time)	City funds
Action 1c: Work with the City and regional organizations to find funding or other needed resources for carrying out priority projects and programs.	◆	City of Bethel	Bethel-based regional organizations; e.g. AVCP, ONC	\$ (staff time)	City funds
Strategy 2: Establish better neighborhood public safety programs.					

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 2a: Establish a neighborhood watch/citizen patrol program.	◆	City of Bethel	Bethel community	\$-\$\$	City funds, other
Action 2b: Establish a "safe routes to schools" program.	■	City of Bethel	Bethel community	\$-\$\$	City funds, other
Action 2c: Establish a "Kids don't float" program to educate and distribute flotation devices and coats for kids; keep people from drowning.	◆	City of Bethel	Bethel community	\$-\$\$	City funds, other
GOAL 6: Maintain and protect the quality of the water, land, and biological resources within the City; encourage the sustainable use of those resources for current and future generations.					
Strategy 1: Conserve and protect natural resources and features that serve valuable functions in the community.					
Action 1a: Identify (and record in the City's land use records) natural resources and features, open spaces, cultural and historic sites that should be protected from development through the City's land use regulatory mechanisms.	■	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 1b: Set standards in Bethel Municipal Code to protect these natural resources and features.	■	City of Bethel	Bethel community	\$ (staff time)	City funds
Action 1c: As funding allows, acquire suitable land for open space preservation.	•	City of Bethel	n/a	\$-\$\$\$\$	City funds, other
Action 1d: Identify and clean up brownfields (contaminated lands) within the City of Bethel.	◆	City of Bethel	state and federal agencies	\$-\$\$\$\$	City funds, other
Strategy 2: Engage in regional efforts to protect the integrity of natural resources.					
Action 2a: Coordinate with other villages in the region, state and federal agencies to monitor and address any Kuskokwim River water quality problems.	◆	City of Bethel	Regional villages, state and federal agencies	\$ (staff time)	City funds
GOAL 7: Protect life and property from natural disasters and hazards.					
Strategy 1: Discourage development in areas more susceptible to natural disasters.					
Action 1a: Investigate alternative ways to reduce the flood hazard within Bethel City Limits.	•	City of Bethel	n/a	\$ (staff time)	City funds
GOAL 8: Improve the City's ability to provide quick access to current and accurate information on land status, easements and rights of way, and zoning and other land use regulations.					

	Priority	Lead	Partners	Cost	Funding Source(s)
Strategy 1: Upgrade the land records system for all property in the City of Bethel.					
Action 1a: Develop a city-wide, Geographic Information System (GIS) land records system; update as lands are subdivided or developed, and make data available for use by City staff and the general public.	*	City of Bethel	University of Alaska Fairbanks, Kuskokwim Campus (<i>possible student project</i>), BNC	\$-\$\$	City funds, other
GOAL 9: Improve the City's ability to effectively and efficiently manage City-held lands.					
Strategy 1: Upgrade the system for managing lands held by the City of Bethel.					
Action 1a: Prepare an inventory of the location, current use, and physical capability of all land held by the City of Bethel.	◆	City of Bethel	n/a	\$ (staff time)	City funds
Action 1b: Working with the community, designate the appropriate intended future uses all City of Bethel land (e.g., disposals, public facilities, parks and recreation).	◆	City of Bethel	Bethel community, landowners	\$ (staff time)	City funds
Action 1c: Establish code sections that outline procedures for ongoing management of City land, including sales, permits, rights of way, long-term retention for public uses (e.g., parks and open space).	◆	City of Bethel	n/a	\$ (staff time)	City funds

Transportation Implementation Table

Legend

Priority:	✱ highest priority (immediate action)	■ high priority (aim for action in next 1-2 years)	◆ priority (aim for action in next 2-4 years)	♦ other important projects
Cost:	\$\$\$\$ > \$1,000,000	\$\$\$ \$100,000-\$1,000,000	\$\$ 10,000-100,000	\$ <10,000

	Priority	Lead	Partners	Cost	Funding Source(s)
GOAL 1: Provide for the efficient transport and transfer of air cargo and passengers.					
Strategy 1: Ensure compatible land uses adjacent to the airport and in areas that could potentially interfere with the airport's airspace needs.					
Action 1a: Coordinate with ADOT&PF to establish effective and appropriate City regulations and regulatory procedure regarding airport activities.	◆	City of Bethel	ADOT&PF	\$ (staff time)	City funds
GOAL 2: Develop a safe and efficient road system.					
Objective A: Ensure adequate funding for road improvements.					
Strategy 1: Improve the City's capital improvement program process to coordinate with the Statewide Transportation Improvement program (STIP).					
Action 1a: Include road and trail projects in the City's Capital Improvement Plan, which can be used to secure ADOT&PF funding. Develop clear project descriptions during the City's Capital Improvement Program process with all necessary information to respond to ADOT&PF requests for information during the needs list project initiation process.	◆	City of Bethel	ONC	\$ (staff time)	City funds
Action 1b: Use the City lobbyist to advocate for Bethel's concerns with ADOT&PF during the STIP process.	◆	City of Bethel	ONC	\$ (staff time)	City funds
Action 1c: Establish an agreement between ONC and the City to allow transfer of maintenance funds from the IRR Transportation Program.	✱	City of Bethel, ONC	n/a	\$ (staff time)	City + Tribal funds
Action 1d: Update Bethel's BIA Indian Reservation Roads (IRR) inventory.	◆	ONC	City of Bethel	\$ (staff time)	Tribal funds

	Priority	Lead	Partners	Cost	Funding Source(s)
Strategy 2: Use public road funds for road improvements where and when ONC and the City determine new development is appropriate. Where public funds are not available, consider other funding sources such as System Development Charges or City Bonds.					
<i>No actions associated with this strategy.</i>					
Objective B: Provide a safe and efficient street network to meet current needs and future development.					
Strategy 1: Make improvements to the street maintenance program.					
Action 1a: Revise street maintenance program and schedule to improve safety and control dust. Seek funding for innovative methods to stabilize roadways or to set up testing program to test cost-effectiveness of alternatives to conventional road construction.	◆	City of Bethel	ADOT&PF	\$ (staff time)	City funds
Action 1b: Create and implement a five-year maintenance plan for gravel road resurfacing. Set aside funding for future maintenance and capital improvements.	◆	City of Bethel	n/a	\$ (staff time)	City funds
Action 1c: Determine responsibility for and improve maintenance to the Kuskokwim ice road.	◆	City of Bethel	ONC, ADOT&PF	\$ (staff time)	City funds
Strategy 2: Improve the safety of the road network.					
Action 2a: Conduct a local transportation study (origin and destination) to analyze how land use patterns combined with the existing road system may generate traffic bottlenecks and extra travel. As part of the study, explore access options for those parcels inside the city limits that currently have no legal access to a public street.	♦	City of Bethel	ONC, ADOT&PF	\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds, other
Action 2b: Install traffic signals at key intersections.	♦	City of Bethel	ONC, ADOT&PF	\$\$-\$\$\$	City funds, other
Action 2c: Install streetlights throughout the city, especially on Ridgcrest Drive, near the schools.	✱	City of Bethel	ONC, ADOT&PF	\$\$-\$\$\$	City funds, other
Action 2d: Establish road standards for size, use and weight (e.g., a 50-foot minimum right of way, minimum of 6-12 inches of crushed gravel above road bed).	♦	City of Bethel	ONC, ADOT&PF	\$ (staff time)	City funds
Objective C: Design and build roads to reduce the number, length, and cost of business and personal trips.					
Strategy 1: Facilitate ONC and other planned housing development.					

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1a: Improve Naun Raq Road linking Ptarmigan Street with new subdivision road.	◆	ONC	City of Bethel	\$\$\$-\$\$\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds
Action 1b: Construct a new ONC road (Map 5.3).	◆	ONC	City of Bethel	\$\$\$-\$\$\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds
Strategy 2: Create more direct access between trip generators.					
Action 2a: Better enforce BMC 17.24.040-050 requiring streets and accessways, where appropriate, to provide safe and convenient access to major activity centers, including downtown, schools, shopping areas, and community centers.	■	City of Bethel	ONC	\$ (staff time)	City funds
Strategy 3: Address access and development issues caused by unplanned development.					
Action 3a: Evaluate and update parking standards (BMC 18.48 Article II). (Also Land Use Goal 2.)	◆	City of Bethel	ONC	\$ (staff time)	City funds
Action 3b: Develop driveway access criteria and standards for connecting to arterials (BMC 18.48.200).	◆	City of Bethel	ONC	\$ (staff time)	City funds
Strategy 4: Provide alternate routes to improve emergency access and ease traffic congestion.					
Action 4a: Make arterial and collector connections to relieve congestion at Watson's Corner.	•	City of Bethel	ONC, landowner(s)	\$\$\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds, other
Action 4b: Create an alternative route to Kasayulie Subdivision near the airport (Map 5.3).	◆	City of Bethel	ONC, landowner(s)	\$\$\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds, other
Action 4c: Create a Loop Road, either following the existing Tundra Ridge Road route or on a different but comparable alignment (Map 5.3).	*	City of Bethel	ONC, landowner(s)	\$\$\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds, other
Action 4d: Consider the creation of a road through or alongside the donut hole, possibly close to town to increase access to BATHC site and Yuut Elitnaurviat area and to allow for additional commercial/institutional development (Map 5.3). (If the Loop Road is not created, this connection becomes the highest priority.)	◆	City of Bethel	ONC, landowner(s)	\$\$\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds, other

	Priority	Lead	Partners	Cost	Funding Source(s)
Strategy 5: Improve the intersection of Akakeek Street and Ridgecrest Drive.					
Action 5a: Evaluate and make improvements to the existing turning radius, signing and traffic control methods.	♦	City of Bethel	ONC, State, landowner(s)	\$-\$\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds, other
Strategy 6: Improve substandard roads.					
Action 6a: Consider establishing a municipal paving plant for paving city roads. (If established, Bethel Public Works could also purchase a glass grinder capable of reusing waste glass for road pavement).	♦	City of Bethel	ONC	\$\$-\$\$\$	City funds, other
Strategy 7: Use the City's land use authority to link expansion of the road system with the land use and utility/community facilities goals and strategies.					
Action 7a: Include site development requirements in the zoning or subdivision code to specify ingress and egress (driveways), lighting, parking, and loading and offloading.	✱	City of Bethel	ONC	\$ (staff time)	City funds
GOAL 3: Provide a safe and efficient trail network to meet current and future needs, for year-round transportation and recreation use by Bethel residents and visitors.					
Strategy 1: Plan and develop a network of multi-modal streets, accessways, and other improvements, including bikeways, walkways, and safe street crossings, to promote safe and convenient bicycle and pedestrian circulation within the community.					
Action 1a: Revive the Trails Committee.	♦	City of Bethel	Bethel community member(s)	\$ (staff time)	City Funds
Action 1b: Document existing and traditional trails.	■	City of Bethel	Bethel community member(s)	\$ (staff time)	City Funds
Action 1c: Incorporate the existing traditional trail network system and pedestrian needs when extending the road system.	♦	City of Bethel	ONC, ADOT&PF	\$ (staff time)	City funds
Action 1d: Partner with other entities, such as the ADOT&PF, BNC, and other landowners, to plan for, reserve and fund trails.	◆	City of Bethel	ADOT&PF, BNC, landowners	\$ (staff time)	City Funds
Action 1e: Designate and mark trails to minimize damage to land.	♦	City of Bethel	ONC, State, landowner(s)	\$-\$\$	City Funds, other
Action 1f: Connect trail routes to major community facilities (e.g., City Sub, Post Office, Pinky's Park) and transit stops.	♦	City of Bethel	landowners	\$\$-\$\$\$	City Funds, other
Action 1g: Construct new year-round trails (or converting existing seasonal trails to year-round use).	♦	City of Bethel	landowners	\$\$-\$\$\$	City Funds, other

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1h: Pursue BIA and FHWA funds for trails.	◆	City of Bethel, ONC	n/a	\$ (staff time)	City + Tribal funds
Strategy 2: Address multi-use conflicts between roadway and trail users.					
Action 2a: Place signs at trail and pedestrian crossings and identify access points.	♦	City of Bethel	ONC, State, landowner(s)	\$-\$\$	City Funds, other
Action 2b: Improve the safety of road-trail crossings (e.g., signage, under-/over-pass).	◆	City of Bethel	n/a	\$-\$\$\$	City Funds, other
Action 2c: Consider alternatives that would provide for trail users to use road right of way.	♦	City of Bethel	ONC, ADOT&PF	\$ (staff time)	City Funds
Action 2d: Study alternatives for trail crossings of aboveground utilities.	♦	City of Bethel	ONC, State, landowner(s)	\$ (staff time)	City Funds
Strategy 3: Reserve trail routes, targeting connections that provide pedestrian access to the river, parks, and pedestrian connections among key public facilities (e.g., school) and residential neighborhoods.					
Action 3a: Develop and maintain a safe, continuous, multi-use path along Chief Eddie Hoffman Highway between the downtown business area and the airport to include bicycle, running, and walking routes.	♦	City of Bethel	Landowners, ADOT&PF?	\$-\$\$	City Funds, other
GOAL 4: Provide effective and efficient transit.					
Strategy 1: Improve transit services.					
Action 1a: Purchase a machine to make transit passes.	♦	City of Bethel	n/a	\$\$	City funds, other
Action 1b: Construct shelters at bus stops.	♦	City of Bethel	n/a	\$\$	City funds, other
Action 1c: Implement a bus tracking system to provide real-time estimates of bus arrivals.	♦	City of Bethel	n/a	\$\$	City funds, other
Action 1d: Incorporate transit-design features into new development standards.	♦	City of Bethel	n/a	\$ (staff time)	City funds
Action 1e: Build a bus shelter to accommodate buses, maintenance equipment and materials.	♦	City of Bethel	n/a	\$\$\$	City funds, other

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1f: Increase the frequency of service (i.e., buses run more often).	♦	City of Bethel	n/a	\$-\$\$\$	City funds, other
Strategy 2: Expand the transit system.					
Action 2a: Consider extending public bus service to the airport and currently un-served subdivisions (e.g., Kasayulie, Tundra Ridge).	♦	City of Bethel	n/a	n/a	n/a
Action 2b: Consider expanding transit system to include a river bus (ferry) service on the Kuskokwim.	♦	City of Bethel	n/a	n/a	n/a
Action 2c: Purchase new transit vehicle(s), as needed, to expand the fleet and enable additional service/routes.	♦	City of Bethel	n/a	\$\$	City funds, other
GOAL 5: Maintain Bethel's status as the primary port for commerce and transportation on the Kuskokwim River.					
Strategy 1: Provide safe and reliable marine access to port facilities and waterfront properties. ("Keep the front door open.")					
Action 1a: Conduct a navigation study of the changing Kuskokwim River along the Bethel waterfront to evaluate design alternatives that would reduce deposition and dredging and improve flow conditions for navigations through the channel crossing.	✱	City of Bethel	US Army Corps of Engineers	\$\$\$\$	City + Federal Funding
Action 1b: Based on navigation study results, determine the best long-term location for the Port; determine if dredging is needed along the Bethel waterfront.	✱	City of Bethel	n/a	\$\$\$\$	City funds, other
Action 1c: Dredge small boat harbor.	◆	City of Bethel	n/a	\$\$\$	City funds, other
Action 1d: Increase port security at the Petroleum Port and Freight Dock. Purchase and install video surveillance equipment, better lighting, alarm system, security gate(s), backup generator, emergency radio/communications equipment, etc.	◆	City of Bethel	n/a	\$\$	City funds, other
Action 1e: Perform a rate study to determine whether changes in fees and funding strategies can better ensure the Port's financial viability.	■	City of Bethel	n/a	\$\$	City funds, other
Strategy 2: Complete longer-term capital improvement projects and deferred maintenance.					
Action 2a: Resurface Beach #1 and City Dock; repair the East side of City Dock.	◆	City of Bethel	n/a	\$\$\$	City funds, other

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 2b: Clean and dredge Brown's Slough (after the East side of the dock is repaired).	◆	City of Bethel	n/a	\$\$\$	City funds, other
Action 2c: Repair/replace bollards and bullrails as needed.	◆	City of Bethel	n/a	\$\$	City funds, other
Action 2d: Move the Port Office to a new location.	◆	City of Bethel	n/a	\$\$\$	City funds, other
Action 2e: Purchase larger port boat.	◆	City of Bethel	n/a	\$\$\$	City funds, other
Action 2f: Increase the amount of storage space at Port.	◆	City of Bethel	n/a	\$-\$\$	City funds, other
Action 2g: Depending on whether or not the Donlin Mine is built, complete 2010 Port of Bethel Expansion Feasibility Study recommendations.	◆	City of Bethel	n/a	\$\$\$\$	City funds, other
Action 2h: Pursue funding for and carry out the design of the dredging, design of bank stabilization, and design of the north and south boat launch ramps. Repair or replace the north and south boat launch ramps.	◆	City of Bethel	n/a	\$\$\$\$	City funds, other
Action 2i: Construct a float plane dock to create additional landing areas for float planes and reduce erosion of current Kuskokwim River transportation routes.	◆	City of Bethel	n/a	\$\$\$\$	City funds, other
Action 2j: Carry out the U.S. Army Corps of Engineers Bethel Bank Stabilization Project, Phase II.	◆	City of Bethel	n/a	\$\$\$\$	City funds, other
Action 2k: Carry out improvements to the Bethel Seawall, as included in Phase II of the U.S. Army Corps of Engineers Bethel Bank Stabilization Project, pending results of Strategy 1, Actions 1a and 1b.	◆	City of Bethel	n/a	\$\$\$\$	City funds, other
Action 2l: Consider creating a waterfront park as part of the Bethel Port. (<i>Public Facilities + Services Goal 1, Objective G, Strategy 4, Action 3g</i>)	•	City of Bethel	n/a	\$-\$\$\$	City funds, other

Economic Development Implementation Table

Legend

Priority:	✱ highest priority (immediate action)	■ high priority (aim for action in next 1-2 years)	◆ priority (aim for action in next 2-4 years)	♦ other important projects
Cost:	\$\$\$\$ > \$1,000,000	\$\$\$ \$100,000-\$1,000,000	\$\$ 10,000-100,000	\$ <10,000

	Priority	Lead	Partners	Cost	Funding Source(s)
GOAL 1: Stabilize/reduce the cost of energy (and related factors) that increase the costs of establishing and operating a business in Bethel.					
Strategies, Actions, Policy: See Energy Chapter.					
<i>See Energy Strategies and Actions.</i>					
GOAL 2: Maintain and expand the infrastructure that supports Bethel's economy.					
Strategy 1: Improve the City's ability to effectively and efficiently manage City-held lands.					
<i>See Land Use Goal 9.</i>					
Strategy 2: Support and improve access to and within Bethel for various modes of travel including aircraft, barges, small boats, automobile (via traditional and ice roads), snow machines, all-terrain vehicles, and on foot.					
<i>See Transportation Strategies and Actions.</i>					
Strategy 3: Provide and improve essential public facilities and city services.					
<i>See Public Services and Facilities Strategies and Actions.</i>					
Strategy 4: Encourage competition for communications technology providers in Bethel; actively work to recruit and/or remove barriers to entry for competing firms. (same as Public Services and Facilities Objective D, Action 1b)					
GOAL 3: Support and expand contributions of economic activities based on local resources, including commercial fishing, subsistence and import substitution.					
Strategy 1: Support and expand commercial fishing.					

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1a: Provide/reserve adequate land and infrastructure at the Bethel Port to support commercial fishing activities (<i>Transportation Goal 7</i>).	◆	City of Bethel	n/a	\$\$-\$\$\$	City funds, other
Action 1b: Support ongoing efforts to expand the economic benefits of fishing in Bethel and the Y-K region (e.g., increasing the number of local residents working in Bering Sea fisheries and other fisheries outside the region).	◆	City of Bethel	Regional institutions, fishing professionals	\$	City funds, other
Strategy 2: Support and expand import substitution.					
Action 2a: Identify goods and services currently being imported that could be produced locally (e.g., food production, accounting, small engine repair); provide training, land or other resources that could encourage local production.	◆	Community members	Schools, Yuut Elitnaurviat, local businesses	\$ (staff time)	
Strategy 3: Protect Alaska Native hunting, fishing, and gathering rights throughout the Yukon-Kuskokwim Delta Region.					
Action 3a: Develop a city mission statement to provide lasting protection for Alaska Native and rural subsistence.	■	City of Bethel	ONC	\$ (staff time)	City + Tribal funds
Action 3b: Assemble an intergovernmental group to include Kuskokwim Region cities and villages; meet with key White House officials, including the Domestic Policy Council and departments with jurisdiction over subsistence uses.	◆	City of Bethel, ONC	Kuskokwim Region cities and villages	\$ (staff time)	City + Tribal funds
GOAL 4: Support and expand contributions of tourism and visitation to the local economy.					
Strategy 1: Improve recreational attractions that benefit both residents and visitors (e.g., parks and trails. See Public Facilities and Services Objective G).					
Action 1a: Support development of the community swimming and recreation center (i.e., the BATH Center project; see Public Facilities and Services Objective G, Action 1b).	*	City of Bethel	n/a	\$\$\$\$	City Funds, other
Strategy 2: Improve the appearance and character of portions of town most likely to be visited by travelers (e.g., downtown, the waterfront).					

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 2a: Implement a coordinated Downtown ¹ Plan with the Chamber of Commerce, local businesses and landowners.	♦	City of Bethel	Chamber of Commerce/Visitors Bureau, landowners, business owners	\$-\$\$	City Funds, other
Action 2b: Invest in beautification efforts (e.g., neighborhood cleanups, planting flowers along the road).	■	Bethel community groups	Community members	\$-\$\$	City Funds, other
Action 2c: Provide amenities to assist visitors (e.g., benches, roadside pathways and sidewalks, informational signs).	♦	City of Bethel	Chamber of Commerce/Visitors Bureau, landowners, business owners	\$-\$\$\$	City Funds, other
Strategy 3: Improve opportunities to share and learn about historic and contemporary cultures.					
Action 3a: Improve opportunities to learn about historic and contemporary Yup'ik, Siberian Yup'ik and Cup'ik life, through cultural center exhibits, events, recreation opportunities.	◆	Bethel community groups	Community members	\$-\$\$	
Action 3b: Expand cultural exhibits at the Yupiit Piciryarit Cultural Center and Museum.	♦	AVCP	Community members	\$-\$\$	
Action 3c: Develop a proposed new regional cultural center (<i>project in progress by ACVP</i>).	◆	AVCP		\$\$\$\$	
Action 3d: Provide better information about cultural resources and activities for residents and visitors (e.g., Camai and other cultural events, links to websites marketing local arts and crafts).	♦	Bethel Chamber of Commerce/Visitors Bureau	Federal and State land managers, YKHC, AVCP, interested villages and businesses, ATIA, others	\$-\$\$	
Strategy 4: Support and expand tourism marketing.					
Action 4a: Develop marketing partnerships and marketing funding.	♦	Bethel Chamber of Commerce/Visitors Bureau	Federal and State land managers, YKHC, AVCP, interested villages and businesses, ATIA, others	\$-\$\$	bed tax revenues

¹ The term "downtown" is used here to include the central commercial sections of the community, running from approximately the Yupiit Cultural Center and Museum to the Brown Slough.

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 4b: Develop different marketing strategies for different submarkets.	•	Bethel Chamber of Commerce/Visitors Bureau	Federal and State land managers, YKHC, AVCP, interested villages and businesses, ATIA, others	\$ (staff time)	
Action 4c: Develop marketing materials targeting people who travel to Bethel on business.	■	Bethel Chamber of Commerce/Visitors Bureau	Federal and State land managers, YKHC, AVCP, interested villages and businesses, ATIA, others	\$	
Strategy 5: Protect the integrity of the wilderness environment in and around Bethel.					
<i>See Land Use Goal 6.</i>					
Strategy 6: Improve transportation connections for visitors.					
Action 6a: Maintain and improve access between Bethel and surrounding villages (e.g., space small boats, snow machine trails, ice roads).	■	City of Bethel	ADOT&PF, villages	-\$\$\$\$	City Funds, other
GOAL 5: Support lifelong education and vocational training, particularly training tied directly to job placement in local and regional growth industries.					
Strategy 1: Support education and job training in Bethel.					
Action 1a: Work with the school district to build relevant job training into school curricula.	■	City of Bethel, ONC	Lower Kuskokwim School District, Yuut Eliitnaurviat, local employers	\$ (staff time)	City + Tribal funds, other
Action 1b: Continue to improve the quality of pre-school and K-12 education.	■	City of Bethel, ONC	Lower Kuskokwim School District	\$ (staff time)	City + Tribal funds, other
Strategy 2: Encourage a strong link between job training and job placement.					
Action 2a: Encourage major employers to train and hire locally.	■	City of Bethel, ONC	Lower Kuskokwim School District, Yuut Eliitnaurviat, local employers	\$ (staff time)	City + Tribal funds, other
Action 2b: Encourage local job-shadowing and mentoring programs.	■	City of Bethel, ONC	Lower Kuskokwim School District, Yuut Eliitnaurviat, local employers	\$ (staff time)	City + Tribal funds, other

	Priority	Lead	Partners	Cost	Funding Source(s)
GOAL 6: Support stronger regional cooperation and regional economic development.					
Strategy 1: Identify a set of shared comprehensive regional economic development strategies, created and endorsed by the major regional and village institutions in the Yukon-Kuskokwim Delta region.					
Action 1a: Coordinate future CEDS planning among local and regional entities.	◆	City of Bethel, ONC	Local and regional institutions	\$ (staff time)	City + Tribal funds, other
Strategy 2: Work cooperatively with the City, Bethel-based regional nonprofits, and Alaska Native organizations on specific local issues of common concern.					
Action 2a: Identify key issues (e.g., energy and freight delivery). Use work on these issues to improve relations and build capacity to take on other important projects.	*	City of Bethel, ONC	Local and regional institutions	\$ (staff time)	City + Tribal funds, other
Action 2b: Develop a regional response to the opportunities and challenges posed by the Donlin Creek Mine (e.g., environmental protection, port location, options for regional energy solutions, employment and training).	*	City of Bethel, ONC	Local and regional institutions	\$ (staff time)	City + Tribal funds, other
Strategy 3: Develop strategies to respond to likely reductions in future state and federal government spending (<i>Public Facilities and Services, Goal 1, Objective A</i>).					
Action 3a: Coordinate lobbying among local and regional institutions to explain the value and impact of programs (e.g., Power Cost Equalization or PCE program).	*	City of Bethel, ONC	Local and regional institutions	\$ (staff time)	City + Tribal funds, other
Action 3b: Investigate options to consolidate and coordinate service provision among local and regional institutions to achieve greater efficiency.	◆	City of Bethel, ONC	Local and regional institutions	\$ (staff time)	City + Tribal funds, other
Action 3c: Investigate potential alternative funding sources (e.g., taxing regional development projects).	■	City of Bethel	Local and regional institutions	\$ (staff time)	City funds, other
GOAL 7: Maintain fair, competitive and sufficient local government taxes, fees and utility rates.					
Strategy 1: Continue to improve City Administration and Finance policy and procedure.					
<i>See Public Facilities and Services Goal 1, Objective A.</i>					
Strategy 2: Work with Bethel's electric utility to improve and/or expand existing underutilized energy infrastructure and develop new, alternative energy sources and innovative methods to reduce the cost of energy.					

	Priority	Lead	Partners	Cost	Funding Source(s)
<i>See Energy Goals 2 and 3.</i>					
GOAL 8: Enhance the quality of life in Bethel to attract and retain individuals and businesses.					
Strategies, Actions, Policy: See Land Use and Public Facilities and Services Chapters.					
<i>See Land Use and Public Facilities and Services Strategies and Actions.</i>					

Energy Implementation Table

Legend

Priority:	* highest priority (immediate action)	■ high priority (aim for action in next 1-2 years)	◆ priority (aim for action in next 2-4 years)	♦ other important projects
Cost:	\$\$\$\$ > \$1,000,000	\$\$\$ \$100,000-\$1,000,000	\$\$ 10,000-100,000	\$ <10,000

	Priority	Lead	Partners	Cost	Funding Source(s)
GOAL 1: Reduce energy consumption.					
Strategy 1: Improve the energy efficiency of residential, commercial and public facilities.					
Action 1a: Adopt (state) energy conservation and efficiency standards for all City facilities.	◆	City of Bethel	n/a	\$\$\$\$	City funds, other
Action 1b: Establish education and support services for local residents and builders so that existing homes can be made more energy efficient, and to support energy efficient design and construction for new homes.	*	Homebuyers, developers, construction industry	ONC, Bethel community	\$\$\$\$	ONC funds, private funding, other
Strategy 2: Reduce energy used for transportation.					
Action 2a: Improve and/or expand public transportation and carpooling programs. (See <i>Transportation Goal 4.</i>)	◆	City of Bethel	Bethel community	\$\$\$\$\$	ADOT&PF, City + Tribal funds, other
Action 2b: Improve and/or expand local and regional trails and multi-use roads to better serve non-motorized transportation (e.g., pedestrians, bicycles, mushers, skiers). (See <i>Transportation Goal 3.</i>)	◆	City of Bethel	Bethel community	\$\$\$\$\$	FHWA, IRR, ADOT&PF, City + Tribal funds, other
Action 2c: Encourage transportation efficiency, including the use of more fuel-efficient motorized vehicles, hydrogen, public transit, city fleet and other options.	*	City of Bethel	Bethel community	\$\$\$\$	City funds, other
GOAL 2: Improve and/or expand existing energy infrastructure.					

	Priority	Lead	Partners	Cost	Funding Source(s)
Strategy 1: Explore the feasibility of expanding waste heat facilities in Bethel.					
Action 1a: Work with the Bethel electric utility to re-establish waste heat services to the City.	■	City of Bethel	Electric utility	\$ (staff time)	City funds, utility overhead
Strategy 2: Support improvements to the generation and transmission efficiency of existing electric utility infrastructure.					
<i>No actions associated with this strategy.</i>					
Strategy 3: Engage in a cooperative relationship with Bethel's electric utility to coordinate planning for future land development and a range of energy solutions.					
Action 3a: Share and update information (e.g., maps of future commercial, residential and/or institutional development, maps of easements and rights-of-way, plans for utility infrastructure expansion) on an annual basis.	*	City of Bethel, Community Energy Cooperative	Electric utility	\$ (staff time)	City funds, utility overhead, other
Action 3b: Engage in a joint long-range planning effort to ensure that the utility, the City, major electricity users, and other local and regional stakeholders work together to meet community electricity needs.	*	City of Bethel, Community Energy Cooperative	Electric utility	\$ (staff time)	City funds, utility overhead, other
Strategy 4: Reduce Fuel Costs in Bethel.					
Action 4a: Explore the feasibility of a City-owned tank farm.	*	City of Bethel	Electric utility, local /regional institutions, Bethel Community	\$ (staff time)	City funds, utility overhead, other
Action 4b: Explore bulk fuel purchasing options.	*	City of Bethel	Electric utility, local /regional institutions, Bethel Community	\$ (staff time)	City funds, utility overhead, other
Strategy 5: Reduce and/or encourage reduction of water use.					
<i>No actions associated with this strategy.</i>					
GOAL 3: Develop new, alternative energy sources and innovative methods to reduce the cost of energy.					
Strategy 1: Develop new energy sources, such as solar panels, wind turbines, hydroelectric power, and natural gas, as feasible.					

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1a: Develop new City policy to guide the placement and operation of wind turbines to ensure the safety and quiet enjoyment of the community.	*	City of Bethel	Electric utility, Bethel Community	\$ (staff time)	City funds, utility overhead, other
Action 1b: Work with the electric utility to understand the capacity of Bethel's electric generation and transmission infrastructure to accommodate alternative energy sources, and also to determine the most appropriate levels of investment in various alternative energy sources.	*	City of Bethel	Electric utility	\$ (staff time)	City funds, utility overhead, other
Action 1c: Reserve land or land development rights for alternative energy development and facilities (e.g., wind turbines, natural gas pipeline rights-of-way). (See <i>Land Use Goal 1</i> .)	*	City of Bethel	Electric utility, Bethel Community	\$-\$\$\$\$	City funds, other
Action 1d: Explore the use of innovative financing programs for renewable energy investments (e.g., Property Assessed Clean Energy or Sales Tax Assessed Clean Energy).	*	City of Bethel	Electric utility	\$ (staff time)	City funds
Strategy 2: Engage in cooperative relationships with other entities pursuing new or improved energy infrastructure in Bethel and the Yukon-Kuskokwim region.					
Action 2a: Coordinate with regional partners, at a minimum to keep City and regional partners informed of each other's energy-related policies and projects. As practicable, coordinate local and regional policies and projects, including (but not limited to) options for hydro and natural gas prospects, regional wind farms, and inter-village transmission lines connecting centralized power plants.	*	City of Bethel	Nuvista, Calista Corporation, AVCP, AVCP Housing Authority, YKHC, Lower Yukon, Chaninik Wind Group, Alaska Village Electric Cooperative (AVEC), Middle Kuskokwim Electric Cooperative, Inc.	\$ (staff time)	City funds

Public Facilities and Services Implementation Table

Legend

Priority:	* highest priority (immediate action)	■ high priority (aim for action in next 1-2 years)	◆ priority (aim for action in next 2-4 years)	• other important projects
Cost:	\$\$\$\$ > \$1,000,000	\$\$\$ \$100,000-\$1,000,000	\$\$ 10,000-100,000	\$ <10,000

	Priority	Lead	Partners	Cost	Funding Source(s)
GOAL 1: Provide and improve essential public facilities and city services. Respond to current needs and plan for future demand. Link the extension of public facilities to land use development to ensure that growth occurs in a logical, planned and cost-effective manner.					
Strategy 1: Maintain, regularly update, and distribute information about City services and facilities.					
Action 1a: Regularly update the City website as a guide to City services and facilities.	•	City of Bethel	n/a	\$ (staff time)	City Funds
Action 1b: Report successes (e.g., maintaining a balanced budget for two years running) to the Bethel community at large, for example, via press releases to Bethel media.	■	City of Bethel	n/a	\$ (staff time)	City Funds
Objective A: Administration and Finance. Provide adequate administration services and associated facilities to meet current and anticipated future administration demands on the City of Bethel.					
Strategy 1: Improve customer service with the aim of becoming a more service-oriented department, operating at a higher level of efficiency and accountability.					
Action 1a: Implement improvements to internal processes and procedures (e.g., cross-training, streamlining procedures).	*	City of Bethel	n/a	\$ (staff time)	City Funds
Action 1b: Make a comprehensive, up-to-date City fee schedule available at City Hall and on the City website.	◆	City of Bethel	n/a	\$ (staff time)	City Funds
Strategy 2: Encourage more forward-thinking budgeting.					
Action 2a: Work with individual City departments to develop 5-year capital needs and deferred maintenance plans.	*	City of Bethel	n/a	\$ (staff time)	City Funds
Action 2b: Set priorities for the provision of improved public services and facilities.	■	City of Bethel	n/a	\$ (staff time)	City Funds

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 2c: Establish a formal city-wide capital improvement program (CIP).	■	City of Bethel	n/a	\$ (staff time)	City Funds
Action 2d: Increase City reserves to help pay for large capital needs and emergency expenses.	■	City of Bethel	n/a	n/a	n/a
Strategy 3: Optimize existing and potential revenue sources.					
Action 3a: Conduct a comprehensive study of municipal finances to determine the most efficient and effective fiscal structure.	■	City of Bethel	n/a	\$\$	City Funds
Action 3b: Conduct a financial analysis/rate study to determine the appropriate rates and financing structure for the City's enterprise funds.	■	City of Bethel	n/a	\$\$	City Funds
Action 3c: Explore potential funding mechanisms, e.g., grant programs, donations/set asides (for key projects like the BATHC), property and other taxes not currently used.	◆	City of Bethel	n/a	n/a	n/a
Action 3d: Periodically (e.g., every 1-5 years) update the City fee schedule.	◆	City of Bethel	n/a	\$ (staff time)	City Funds
Action 3e: Better enforce City business licensing and sales tax collection.	*	City of Bethel	n/a	\$ (staff time)	City Funds
Strategy 4: Leverage the power of partnerships.					
<i>See Public Facilities and Services Goal 2.</i>					
Objective B: Water and Sewer. Provide adequate infrastructure and facilities and services to meet current and anticipated future demands for water and sewer services in the City of Bethel.					
Strategy 1: Provide water and sewer services at rates that are affordable to residents, while still being able to cover the costs of service provision.					
Action 1a: Develop a financial plan for service provision: incorporate capital needs and deferred maintenance, rate study, and recommendations for future improvements. Explore the possibility of charging for piped water/sewer on a meter basis, comparable to trucked/hailed service.	*	City of Bethel	n/a	\$\$	City Funds
Action 1b: Upgrade water treatment plants so that one licensed operator (with an additional backup person) can monitor multiple water treatment plants from a single location.	◆	City of Bethel	n/a	\$	City Funds, other
Strategy 2: Maintain and improve the efficiency of the <u>piped</u> system.					

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 2a: Replace aging infrastructure (e.g., Bethel Heights piped water distribution upgrades, City Complex manholes).	■	City of Bethel	n/a	\$\$\$\$	City Funds, other
Action 2b: Conduct a cost analysis and rate study for the 2010 Institutional Corridor Feasibility Study, and complete the institutional corridor piped water improvements.	*	City of Bethel	landowners	\$\$\$\$	City Funds, other
Strategy 3: Maintain and improve the efficiency of the <u>trucked/hailed</u> system.					
Action 3a: Consider building additional water/sewer transfer station(s) in key locations (hub and spoke system).	■	City of Bethel	n/a	\$\$\$\$	City Funds, other
Action 3b: Secure additional storage for haul trucks, as needed.	♦	City of Bethel	n/a	\$	City Funds, other
Strategy 4: Pursue wastewater treatment alternatives.					
Action 4a: Establish an alternative treatment system to replace existing lagoon. Identify and secure a site for new wastewater treatment system.	*	City of Bethel	n/a	\$\$\$\$	City Funds, other
Action 4b: Maintain and distribute a list of illegal substances to dump into the wastewater system.	■	City of Bethel	n/a	\$ (staff time)	City Funds
Action 4c: To the extent allowed by Alaska State and US Federal law, revise Bethel Municipal Code to allow the use of alternative residential wastewater treatment systems, e.g., composting toilets, graywater systems, adapted boat toilet technology.	♦	City of Bethel	n/a	\$ (staff time)	City Funds
Objective C: Solid Waste. Provide adequate facilities to meet current and anticipated future demands for solid waste disposal in the City of Bethel.					
Strategy 1: Improve existing solid waste services and facilities.					
Action 1a: Identify possible site(s) for a new landfill (to eventually replace existing landfill).	*	City of Bethel	n/a	\$ (staff time)	City Funds
Action 1b: Consider privatizing/contracting out waste collection and/or recycling.	♦	City of Bethel	n/a	\$ (staff time)	City Funds
Action 1c: Improve the function and appearance of existing dumpsters, by for example, screening them with fencing, relocating or providing additional dumpsters as needed, working with businesses to find alternatives for commercial use of residential dumpsters, etc. Provide additional dumpsters in neighborhoods, as needed.	♦	City of Bethel	n/a	\$	City Funds

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1d: Fix the road to the landfill.	•	City of Bethel	n/a	\$\$\$	City Funds, other
Strategy 2: Reduce the volume of waste in the existing landfill.					
Action 2a: Consider options for compacting waste (e.g., dynamic compaction).	*	City of Bethel	n/a	\$ (staff time)	City Funds
Action 2b: Remove visible and/or easily-retrieved scrap metal for recycling.	■	City of Bethel	n/a	\$ (staff time)	City Funds
Action 2c: Consider burning (burnable, non-toxic) refuse, using a burn box, incinerator or some other method.	•	City of Bethel	n/a	\$ (staff time)	City Funds
Strategy 3: Develop and maintain a comprehensive recycling program.					
Action 3a: Develop and implement a business plan for the Bethel recycling center.	*	City of Bethel	n/a	\$ (staff time)	City Funds
Action 3b: Develop partnerships (e.g. with barge companies, school, Yuut Eliitnaurviat) to leverage cost savings and possibly run the center as an education and workforce development program.	■	City of Bethel	n/a	\$ (staff time)	City Funds
Action 3c: Promote waste to wealth industries to make useful products from recycled materials.	◆	City of Bethel	n/a	\$ (staff time)	City Funds
Action 3d: Coordinate with Yukon-Kuskokwim Delta villages and other communities in Southwest Alaska to serve as a regional recycling and transfer facility.	◆	City of Bethel	n/a	\$ (staff time)	City Funds
Action 3e: Complete facility upgrades to the Bethel recycling center and Public Works building.	◆	City of Bethel	n/a	\$\$\$	City Funds, other
Action 3f: Purchase a shredder so that recyclable waste can be converted to a form acceptable to recycling companies.	◆	City of Bethel	n/a	\$\$	City Funds, other
Strategy 4: Divert as much waste from entering the landfill as possible.					
Action 4a: Set a series of municipal targets for diverting waste stream through recycling, composting, and other means of waste diversion over the next several years. Track and report on indicators of improvements in waste diversion.	■	City of Bethel	n/a	\$ (staff time)	City Funds
Action 4b: Explore the feasibility of a program that requires source separated organic waste collection and processing.	■	City of Bethel	n/a	\$ (staff time)	City Funds

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 4c: Use a portion of the City's waste stream (e.g., food waste, brush cuttings) for composting, and work with other local groups to make it available for use by community gardens and local farms.	◆	City of Bethel	University? Master Gardeners Association?	\$ (staff time)	City Funds
Action 4d: Encourage composting, mulching and other onsite methods of yard waste disposal to reduce the amount of yard waste collected and transported to the landfill.	◆	City of Bethel	n/a	\$ (staff time)	City Funds
Action 4e: Market/provide accurate, up-to-date information about what waste management, recycling, composting, and resale services, programs and facilities are available in Bethel.	✱	City of Bethel	n/a	\$ (staff time)	City Funds
Action 4f: Designate an area at the landfill or recycling center where people can leave and/or take usable items.	◆	City of Bethel	n/a	\$ (staff time)	City Funds
Action 4g: Consider establishing a junkyard for used vehicles and parts.	◆	City of Bethel	n/a	n/a	n/a
Action 4h: Consider city bulk-buy programs for items such as composting bins or energy efficient light bulbs.	◊	City of Bethel	n/a	\$ (staff time)	City Funds
Action 4i: Enforce BMC Chapter 8.12 regulating plastic bags and polystyrene containers. Consider stronger regulation of plastic bottles and bags (e.g., ban outright, nickel deposit program).	■	City of Bethel	n/a	n/a	n/a
Strategy 5: Reduce the amount of litter and illegal dumping throughout Bethel.					
Action 5a: Invite US Army to assist with a city-wide cleanup.	◊	City of Bethel	US Army	\$ (staff time)	City Funds
Action 5b: Organize community clean-ups and/or a beautification contest for residential neighborhoods.	◆	City of Bethel (could be other group)	Bethel Community Member(s)	\$ (staff time)	City Funds
Objective D: Technology. Provide for current and future technology needs.					
Strategy 1: Promote the widespread availability of communication systems to facilitate communication among members of the public, public institutions, government agencies, and businesses, and to promote the public service and safety advantages and economic opportunities afforded to the community due to the availability of state-of-the-art telecommunications technology.					
Action 1a: Review and update potentially suitable personal wireless facility locations, as identified on the official City Map every five years.	◊	City of Bethel	n/a	\$ (staff time)	City Funds

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1b: Encourage competition for communications technology providers in Bethel; actively work to recruit and/or remove barriers to entry for competing firms.	♦	City of Bethel	n/a	\$ (staff time)	City Funds
Action 1c: Explore the costs and benefits of the City providing wi-fi service to the entire city and to city employees only.	◆	City of Bethel	n/a	\$ (staff time)	City Funds
Objective E: Fire and Emergency Medical Services. Provide adequate fire protection measures and services in Bethel to respond to current and future anticipated emergency service needs.					
Strategy 1: Maintain and improve fire and emergency medical services and related facilities.					
Action 1a: Plan for and construct a substation close to the airport.	◆	City of Bethel	n/a	\$\$\$	City Funds, other
Action 1b: Address other capital replacement needs (e.g., fire engines, radiation detector), as needed.	♦	City of Bethel	n/a	\$-\$\$\$	City Funds, other
Action 1c: Decide whether to use the fire training tower in its present location, move it closer to the fire station or decommission it; carry out decision.	♦	City of Bethel	n/a	\$ (staff time)	City Funds
Action 1d: Continue to provide training for fire and EMS staff.	◆	City of Bethel	n/a	\$	City Funds, other
Objective F: Police. Provide adequate police services to meet existing demand and anticipated future demands.					
Strategy 1: Maintain and improve police services and related facilities.					
Action 1a: Secure new facilities for Bethel Police headquarters.	✱	City of Bethel	n/a	\$\$\$-\$\$\$\$	City Funds, other
Action 1b: Upgrade public safety dispatch and communications equipment, including a new radio tower.	■	City of Bethel	n/a	\$-\$\$\$	City Funds, other
Action 1d: Improve police housing (i.e., replace Quonset hut).	♦	City of Bethel	n/a	\$\$\$\$	City Funds, other
Strategy 2: Expand investigation and evidence collection capabilities to bring them up to current national standards.					
Action 2a: Purchase equipment (e.g., surveillance equipment at the Port, video cameras on police vehicles), as needed.	♦	City of Bethel	n/a	\$-\$\$	City Funds, other
Action 2b: Provide training for police staff, as needed.	♦	City of Bethel	n/a	\$	City Funds, other
Objective G: Youth and Adult Recreation. Sustain and enhance facilities and programs for youth and adult recreation.					
Strategy 1: Develop public meeting places and indoor recreational facilities for all age groups.					
Action 1a: Upgrade the Bethel 4-H Youth Center.	✱	City of Bethel	n/a	\$\$\$	City Funds, other

	Priority	Lead	Partners	Cost	Funding Source(s)
Action 1b: Develop a community swimming pool complex.	*	City of Bethel	n/a	\$\$\$\$	City Funds, other
Strategy 2: Expand and improve the Bethel trail system.					
<i>See Transportation Goal 5.</i>					
Strategy 3: Improve Bethel's existing system of parks and recreational open space.					
Action 3a: Make improvements to Tundra Ridge Park.	◆	City of Bethel	n/a	\$-\$	City Funds, other
Action 3b: Make improvements to the Senior Center Park.	◆	City of Bethel	n/a	\$	CDBG funding
Action 3c: Apply to the Land and Water Conservation Fund to incorporate more land into Pinky's Park.	◆	City of Bethel	Land and Water Conservation Fund	\$ (staff time)	City Funds
Action 3d: Upgrade the ball field.	◆	City of Bethel	n/a	\$-\$	City Funds, other
Action 3e: Maintain skatepark and consider expanding to other locations.	◆	City of Bethel	n/a	\$-\$-\$	City Funds, other
Strategy 4: Build additional park and outdoor recreational facilities in order to meet recreational needs of residents and visitors as the community grows.					
Action 4a: Consider creating/designating additional recreation areas in Bethel (e.g., dog park, recreational campground, ski/non-motorized winter recreation area, waterfront park as part of the Bethel Port, new field for Little League softball, frisbee, soccer and/or football).	◆	City of Bethel	n/a	\$-\$-\$	City Funds, other
GOAL 2: Foster intergovernmental cooperation: a network of local governmental and civic organizations committed to the common good of the community, based on a high degree of resident participation, interagency cooperation, and inspired leadership.					
Strategy 1: Support only new development that occurs at a rate consistent with the community's ability to accommodate new development, physically and financially.					
Action 1a: Work cooperatively with the school district to plan for the replacement or construction of new school facilities as needed to meet projected school enrollments. Establish a committee of appropriate representation for school site selection. Use the committee to establish needs and identify potential sites.	■	City of Bethel	Lower Kuskokwim School District	\$ (staff time)	City Funds
Strategy 2: Consider new sources of municipal revenue, including impact fees and public land dedications, or special service taxing (e.g., business improvement district) to support needed services.					
<i>No actions associated with this strategy.</i>					
Strategy 3: Seek State of Alaska and federal assistance that supports the attraction of business and employment development.					
<i>No actions associated with this strategy.</i>					

	Priority	Lead	Partners	Cost	Funding Source(s)
Strategy 4: Develop policies, cooperative agreements and working relationships promoting intergovernmental cooperation, information sharing and the sharing of services with other governmental units.					
Action 4a: Explore the use of shared facilities and the coordination of services provided by ONC.	*	City of Bethel	ONC, AVCP, others? (coordination with ONC, AVCP is paramount)	n/a	n/a

Appendix A: Public Comments

Introduction

Appendix A includes a record of public input and feedback on the Comprehensive Plan. It includes:

1. Issue Response
2. Comments Submitted from Kathy Hanson
3. Comments Submitted from the Bethel Sportsman Club
4. Notes from November 2010 Public Workshop
5. Notes from April 2011 Public Workshop
6. Notes from January 2011 Citizen Advisory Committee Meeting
7. Notes from February 2011 Citizen Advisory Committee Meeting
8. Notes from March 2011 Citizen Advisory Committee Meeting
9. Notes from June 2011 Citizen Advisory Committee Meeting

Issue Response

General

- Issue: Plan should say "ONC" instead of "Tribe."
 - Response: Correction has been made.
- Issue: Plan should mention Energy Committee among other committees. The Energy Committee, previously the Alternative Energy Committee, has been around for years and is not mentioned. The Energy Committee has put together 2 Energy Fairs held at the Cultural Center.
 - Response: Correction has been made.

Transportation

- Issue: Planning for trails through Bethel in the future is important. Some trails have been disrupted in the past by the overland water pipes. Although landowners do not want to be told how to use their land for trails, that is why a plan is important so they have good input in how the trails may be used and conserved.
- Issue: Reserving trails is not a priority; Bethel is not an urban enough area.
 - Response: Provisions for future trails are included in the Transportation chapter, at a medium priority level.

- Issue: Plan should say "public transit" instead of "transit."
 - Response: Correction has been made.

Economic Development

- Issue: Include farming and community gardening in plan.
 - Response: Bethel community gardens are mentioned in the Parks and Recreation section of Public Facilities and Services chapter. Food provision (e.g., local agriculture, subsistence activities) is included as part of import substitution strategy in Economic Development chapter.

Energy

- Issue: gasoline price is not \$5.45 anymore but \$6/gallon with projected final price to be \$6.45 with oil being \$7.20 /gallon quoted with last barrage in August. Crowley does not give a standard cost when the first barrage comes into Bethel. It seems like its a wait and see and it been shown that they wait for prices to increase before final shipping happens.
 - Response: Correction has been made.

Public Facilities and Services

Water and Sewer

- Issue: A water (piping) feasibility study was done for the Bethel Institutional Corridor that will need to be added into the plan, priority second to the wastewater lagoon.
 - Response: Institutional Corridor piped water improvements have been added to the plan.

Several strategies to improve water and sewer provision were proposed and discussed during the public participation process of this plan. These include:

- Suggestion: Run suction pipes from the water tank to the street; this would speed up the drop-off process and would eliminate times when the driver has to leave a card and come back later.
 - Response: The overflow pipe could very likely freeze. It is the homeowner's responsibility to keep the hookup clean and operable for the City to deliver. Who would pay to install the pipe from the tank to the road? It's already expensive.
- Suggestion: Take a community service worker along with driver to assist with process.
 - Response: Public Works uses community service workers in property maintenance, janitorial staff, and office help, but not in the trucks.
- Suggestion: Reduce storage costs by using bigger trucks (e.g., a tractor trailer).
 - Response: The larger trucks would produce more wear and tear on the road system and would encounter difficulties navigating narrower portions of the street system (they would be too big to make the turns).
- Suggestion: Use satellite station(s) for off-loading waste and picking up water.
 - Response: This may or may not save time; it could reduce the amount of fuel consumed by haul trucks. Public Works is interested in building additional transfer stations in key locations, as funding allows.

- Suggestion: Allow/build small water wells located between (and shared by) two houses; a utility company could service these.
 - Response: Would the homeowners also pay to treat the water coming out of the shared well? Unlike private wells, public wells are required by the Alaska Department of Environmental Conservation (ADEC) and the US Environmental Protection Agency (EPA) to have a water treatment plant at the well. Building water treatment plants is expensive, and if required to service additional residential wells, could increase costs to the Public Works Department. If the City takes on additional wells, it would probably first consider existing wells, such as the FAA subdivision well or the Kasayulie subdivision well.

Solid Waste

- Issue: Recycling, although not very popular activity, should be a very high priority for our town a) to save space in the landfill and b) to improve the environment and c) to conserve natural resources.
 - Response: Recycling
- Issue: Dumpster fees are stated to be \$15 and that isn't correct
 - Response: Correction has been made.

Other Public Facilities and Services

- Issue: Build City Laundromat and shower
 - Response: Fuel and electricity costs are prohibitive. If private business hasn't made it work, the City would have to choose to subsidize with public tax dollars. If it chooses to that, it must balance this against other expenditures.
- Issue: We need something in the plan that recognizes the need for safe and available day care.
 - The importance of daycare, childcare and youth afterschool programs is mentioned in the Parks and Recreation section of Public Facilities and Services chapter and in the Economic Development chapter.

Bethel 2035 Comprehensive Plan

Do You have More To Say?

We'd like to hear it! Please send us your comments by May 16, so we can be sure to include them in the Bethel Comprehensive Plan. We welcome your comments to us by mail, fax, email or phone. We look forward to hearing from you!

Land Use and Development

- where is this "downtown" that is mentioned?

- Connect around the Polk property.
- your report talks about Harold's Sub but it should have also mentioned problems created by Kasayuli Sub - too far from town, tremendous costs of providing services so everyone else has to bear the extra costs. It was allowed to develop because YKHE had a sweetheart deal w/ city.
- New retail businesses have to have adequate parking off road.

Transportation

*Every new road project (new road or existing road improvement) should include walkways and/or bike paths to encourage + aid people not driving private cars.

Pfarmigan Rd. needs a walkway + bike path if it's to be paved into a highway. People need safe places to walk.

Bethel transit needs far more than 1 more bus. The plan says the bus runs every 1/2 hour but it's on a 1 hour schedule. It needs to run more often + out to far flung neighborhoods more - T. Ridge, Kasayuli, Larson

Contact Us

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Web Resources

Bethel Comprehensive Plan
www.bethel2035.com

City of Bethel Planning
www.cityofbethel.org

Agnew::Beck Consulting
www.agnewbeck.com

Bethel 2035 Comprehensive Plan

Public Facilities and Services

- ① Develop + maintain a comprehensive recycling program. The community has already shown it will recycle when a program exists. (Where is the \$5/month we're already paying for recycling going?)
- ② Meter water + sewer for everyone, not just some, to encourage less water/sewer use.
- ③ We can have mixed water/sewer plans to include both piped + hauled. No one wants the ugly pipes in their yards.
- ④ Make needed improvements to small boat harbor.

Economic Development

- ① Explore privatization of trash removal, perhaps in conjunction with recycling.
- ② Explore feasibility of banning sale of plastic bottled drinks entirely + other trash producing products.
- ③ Enforce existing ordinances regarding styrofoam + plastic bags.

Other Comments

- ① We need to get out from under BVC, which stops us from pursuing needed alternate energy sources.
- ② The city needs to have a neutral entity w/ relevant experience evaluate water + sewer costs. The city to date has not studied the real costs +, therefore, has had to rely on assumptions. Without a serious study of costs citizens do not trust city's statements + will be ^{very} upset when/if metering starts.
- ③ Build BATH but maybe the size is too big as it is designed now. The building cost is scary.
- ④ page 8-11 on recycling today is incorrect info.

The goals of the Bethel Sportsman Club are to develop, operate and maintain ranges, buildings and other facilities where members and their guests may meet for the enjoyment of rifle, pistol, shotgun, muzzle loader and archery sports. (Shooting Sports)

It is also our intention to organize meets, matches and other contests for the members, their guests and the general public. We realize the importance of, and plan on developing and sponsoring programs designed to teach firearm safety while in the process also teaching marksmanship and sportsmanship. These opportunities will be provided by qualified and competent instructors and will be available to everyone, from novice to experienced hunters, and those who have no familiarity with firearms.

In addition to our hunter education programs, our range will be an important recreational asset for youth. It will also accommodate mandated law enforcement training for local, state and federal enforcement officers. This will make for a safer community.

Our first step will be to build a 200-yard multi-purpose rifle range. The next phase will be to build a pistol range followed by a shotgun range. We intend to build structures to facilitate shooters during each phase of construction. All ranges will be built with the highest possible safety and shooting standards in mind. Our intention is that most, if not all of the shooting lanes will incorporate “no blue sky designs” which means it will not be possible for someone to fire a projectile from our facilities in a manner that will allow the projectile to leave the range.

Jaimie Kassman

President, Bethel Sportsman Club

(907) 545-2388

Bethel 2035 Comprehensive Plan Public Workshop notes 11.29.10

Response to 1997 Comprehensive Plan Vision

- Downtown? Where is it? Is focus on downtown still valid? Growth has not been focused downtown; “always headed out the highway”
- Add notion of safety, healthy, green
- Affordable housing – not a reality
- Concentration clearly is beneficial
- Broaden list of community recreation
- Better access within town – 4-wheeler, dogs, etc.
- Dump / sewage lagoon
- Emphasize Bethel ‘s regional hub role – port and many other facilities
- Broaden statement regarding health, safety, violence, alcohol, etc (riverbank example)
- Affordable energy
- Make it shorter and more user friendly
- Add section in plan on plausible futures
 - Impact of big existing businesses (e.g. AVCP)
 - Constant vacancies

Land Use

- Downtown versus more spread out
- Concentration would mean cost savings: utilities, less driving, walking (health), good for business
- Does new development pay different amounts for development in outlying versus more centralized development?
- Donut hole – four goals:
 - A. More land use for development;
 - B. Better road connections (close the loop);
 - C. recreation and open space;

- D. Village access
- Need to modify zoning
- Affordable housing plan – needs to look favorably on private sector investment (Foster)
- Growth – recognize that needs may change/demography change, culture change – even if population is stable (e.g. need for more housing as family size drops)
- Other tools – land trusts
- Growth?
 - Better versus more, more efficient
 - Plan for growth and decline (many people moving out of town)

Housing

- Need to plan for growth even if it doesn't happen
- Space for community development
- Need is greatest for low income
 - Villagers moving in; high costs
 - Previous residents with higher salaries are moving to Anchorage; how to stabilize?
- Need to plan for affordable housing for middle income people with entry level jobs (52%)
- Aim for housing to buy at rates people pay to rent
- Shift in attitude, people not committing (Why? Cost for food, fuel, housing...)

Energy

- \$5.45/gallon
- \$75 won't fill up a car's gas tank

Energy Options

- City exploring options for developing a cooperative
- Wind
 - Police can ask people to turn off wind turbine if noise impacts neighbors
 - Planning department looking at ordinance (safety, noise)
 - Encourage small scale private sector wind
 - Encourage larger scale wind farms – need land base (also small scale hydro, hydrokinetic)
 - Local utility

- Port capacity – enough for living, other energy resources
- Solar power viable, but wind has better bang for the buck

Conservation

- Buildings
 - A.) public buildings (city adopt state standards);
 - B.) private buildings
- Nuclear power small scale
- Different building styles (at \$8 / gal for fuel, it will be essential)
- Need to relook at production process, utility structure
- Fuel and power

Economy

- Reduce and stabilize energy prices
- Job training (Yuut Elitnaurviat)
- Agriculture
 - 17,000 lbs Fall 2010
 - Sustainable agriculture /resources – very productive, fertile soils
- Manufacture affordable homes in Bethel
- Sustain existing fish processing
- Port – needs major investment (\$10's of millions)
- Donlin Creek
- Limiting factor – option to use Native allotments
- Foster/support existing Bethel businesses; encourage residents to buy local/support local businesses
- Create tools / incentives that could attract new businesses (e.g. tax incentives)
- Regional version of Alaska Marketplace – produced great ideas (e.g. prosthetics)
- Import substitution
- Need support services /technical assistance for small entrepreneurs
- Daycare (\$30/day) – big impact on people's ability to work

Transportation

- Roads, trails, transit, pedestrians
- Transit system is successful (80-90 rides/day) but needs shelters
- Trails – reserve trails
 - Traditional trails are all being blocked (piped water and sewer is one cause); need bridges and tunnels
- Safety and erosion issues – destroying Mission Lake
- 4-wheelers’ environmental impact, losing pedestrian access
- Road standards regarding use/pound
- Roads – safety (Loop Road)
 - Ambulance
 - Fire access
 - Lighting in front of school (City has a \$5.3 grant to install new lights; currently planned)
 - Need to address growing congestion, high volumes
- Pedestrians/road – many roads are narrow
- Some quotes:
 - “Anything that’s not a highway is an issue.”
 - “What’s scary is driving in the dark.”
- Need better walking routes; forces kids to go to bus stop
- Cross walks are good, e.g. in front of YKHC
- Need a vision for safety in key pedestrian areas

Public Services and Facilities

- Dump nearing capacity?
 - Will last 30 years at current rates
- Sewage lagoon nearing capacity?
 - potentially could go on indefinitely
 - Sediment is impacting Brown’s Slough
- Water and sewer
 - Toss-up between piped and hauled water

- Recycling
 - Existing recycling center is not being used but there is an opportunity for it to serve the region (56 villages)
 - City owns a \$60,000 bailer and other recycling equipment; cost to ship out of town is key issue
 - Challenges: lack of staff, need a shredder, need a new business plan
 - Hidden Cost for recycling
- Getting rid of cars (“Shorty broke even” hauling one barge of scrap cars out of town)
- Hazmat – how to manage?
 - part of recycling business plan
 - Port has no option, out of compliance (e.g. oil off the boats)
- “People want to do the right thing but has to be affordable”
- Illegal dumping is a big issue
- Electronics?
- Homeless shelter needed
- Animal shelter needed – dog pound barely scratches the surface
- Daycare
- Recreation – set asides for future development (tot lots and pocket parks), liability issue currently
- BATH Center

Communication and Governance (paying for what people want)

- Bring back the City newsletter
- Recycling partnerships (e.g. with barge companies)
- Communities and commissions (Laurie, Town Clerk, coordinates communication)
 - Energy
 - Parks
 - Planning
 - Public safety and transportation
 - Port
 - Finance
 - Public works

Introduction

The April 28 public workshop is the second public workshop of the planning process for the Bethel 2035 Comprehensive Plan. The first workshop was held in November 2010, at which the Bethel community was asked to identify key issues of concern that the plan should address. With feedback from the initial meeting, interviews with City Council members, City staff, and community leaders consultants drafted an initial draft of the plan (available in electronic form on the project website: www.bethel2035.com or on paper at the Bethel Library and City Hall). At the second workshop, community members were asked to comment on the draft: did we get it right? Did we miss anything? Is the plan reasonable and supported? Comments are recorded in these notes, and are also invited by mail, email or phone through May 16, 2011. Please direct comments to:

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Or

A printable comment sheet is also available on the project website.

The plan will then be revised and submitted for review and approval by Bethel Planning Commission and City Council in late spring/early summer.

About 25-30 people attended the public workshop. Some participants were concerned about increasing the level of public participation in the plan. Outreach suggestions offered include:

- Talk line radio show
- Weekend meeting(s)

LAND USE

Comments

- *Redevelop BIA hospital – use for rental housing?*
- *Suggested changes to goals and strategies below.*

Summary of Land Use Chapter Goals and Strategies

Goal 1: Reserve space for critical anticipated community needs, including commerce, transportation, housing, and community facilities.

- Map and where possible reserve land for uses critical to the future of the community, including port expansion or relocation; new sewer lagoon, expanded “downtown” development, commercial uses near the airport, energy-related uses such as windfarms, landfill.

Goal 2: Encourage future growth to locate near existing employment centers and public services. Coordinate land use planning with the provision of sewer, water, and roads, as economically feasible.

- Map areas that have potential to accommodate new growth in or near existing concentrations of development, jobs and services.
- Encourage future growth to locate in these areas, e.g., by improving access, modifying zoning regulations, or public-private partnerships.

Goal 3: Provide for compatibility among adjoining land uses, so future development maintains or improves the quality of life or land values of surrounding uses.

- Develop a new, simplified land use map and code for Bethel, that accepts the reality of mixed use in much of the community (vs. separating uses in distinct single use zones). Primary designations:
 - Industrial/“heavy commercial” zone
 - Low density residential areas
 - Mixed use – residential and residential-compatible uses
- Establish new standards that require a conditional use permit for large scale uses that generate notable off-site impacts.

Goal 4: Reserve corridors for access and public utilities when land is subdivided.

- Review and where appropriate improve the subdivision code (e.g., to provide for adequate road widths, and pedestrian connections).
- Work with ONC, BIA and Native Allotees to better understand advantages and disadvantages of City subdivision requirements.

Goal 5: Provide-Encourage a range of housing opportunities for current and future Bethel residents, including more housing within the purchasing power of young families, single people, school teachers and other workers.

Goal 5A: Create safe neighborhoods centered around community facilities such as schools, parks, services.

- Where appropriate, encourage neighborhood revitalization and development, working cooperatively with residents, local and regional organizations.
- Work cooperatively to provide additional, quality housing.

Goal 6: Maintain and protect the quality of the water, land, and biological resources within the City to provide for sustainable use of those resources for current and future generations.

- Map and protect key natural features within the city, for example, requiring setbacks from the edge of waterbodies.

Goal 7: Encourage wider use of the Planned Unit Development/ "Conservation Subdivision" approach to development in Bethel.

Goal 8: Significantly upgrade the land records system for all property in the City of Bethel, to provide quick access to current and accurate information on land status, easements and rights of way, and zoning and other land use regulations.

Goal 8A: ~~n-addition, u~~ Upgrade the system for managing lands held by the City of Bethel.

TRANSPORTATION

Comments

- *Pedestrian paths along roads (cars drive on "sidewalks" especially in winter, and especially near schools. The school district is cutting back on bus service due to budget limitations).*
- *Trails used by snowmachines/ATVs are dangerous for pedestrians; need to separate these modes.*
- *Trails: damage to the tundra from off-road vehicles, snowmachines, ATVs. How to address?*
- *Out of town trails are reserved by 17B easements*
- *Need to designate and mark trails to minimize damage to land*
- *Water/sewer pipes have blocked some traditional trails.*
- *Safety: fear of getting hit by a snowmachine in tundra areas.*
- *Too many trails and communities – designate a ski area, dog park, etc.*
- *Road (airport – Ptarmigan) If the police station moves to Blueberry subdivision area, creates incentive for the Tundra Ridge road or alternative*
- *More support for bicycling*
- *More support for transit*
- *Port: needs to have an area (e.g., waterfront park) for people to enjoy*
- *Do something about the dust; it's a public health issue. Road maintenance for dust control requires night work.*
- *Old hospital eddy/sandpit area is a good alternative for boat launch*
- *Should more roads and development be encouraged out toward Oscarville?*
- *Suggested changes to goals and strategies below.*

Summary of Transportation Chapter Goals and Strategies

GOAL 1: Support and improve access to and within Bethel for various modes of travel including aircraft, barges, small boats, automobile (via traditional and ice roads), snow machines, all-terrain vehicles, and on foot.

GOAL 2: Provide for the efficient transport and transfer of airplane passengers.

GOAL 3: Provide for the efficient transport, transfer, and storage of air and riverine cargo.

GOAL 4: Develop the road system to reduce the number, length, and cost of business and personal trips.

GOAL 5: Expand and develop the trail network for both summer and winter use for transportation and recreation by Bethel residents and visitors.

GOAL 6: Promote traffic safety and reduce congestion.

GOAL 7: Protect the airport and port from incompatible land use development.

GOAL 8: Update Bethel's BIA IRR inventory.

Transportation Strategies

(These strategies were adopted in the LRTP/Community Transportation Plan. Items in bold were suggested in the Bethel 2035 Comprehensive Plan process.)

General Transportation

- Improve the City's capital improvement program process to coordinate with the Statewide Transportation Improvement program (STIP).

Roads

- Facilitate ONC housing development.
- Create more direct access between trip generators.
- Address access and development issues caused by unplanned development.
- Provide alternate routes and ease traffic congestion.
- Improve the intersection of Akakeek Street and Ridgecrest Drive.
- Improve substandard roads.
- Use the City's land use authority to link expansion of the road system with the land use and utility/community facilities goals and strategies.
- Use public road funds for road improvements where and when ONC and the City determine new development is appropriate. Where public funds are not available, consider other funding sources such as System Development Charges or City Bonds.
- Make improvements to the street maintenance program to promote the goals included in this LRTP.
- Provide a safe and efficient street network to meet current needs and future development.
- Control dust on roads.

Trails

- Provide a safe and efficient street network to meet current needs and future development.
- Address multi-use conflicts between roadway and trail users - sidewalks

- Reserve trail routes, targeting connections that provide pedestrian access to the river, parks, and pedestrian connections among key public facilities and residential neighborhoods. [school access](#)

Transit

- Continue to develop the transit system.
- Purchase new transit vehicle to assist with service to the airport.
- Construct a bus barn/shelter for supplies, maintenance activity, and/or buses.
- Purchase machine to make transit passes.
- Construct shelters at bus stops.
- Consider expanding transit system to include a river bus (ferry) service on the Kuskokwim.

Port and Harbor Near-term Priorities

- Conduct a navigation study of the Kuskokwim River to evaluate design alternatives that would reduce deposition and dredging and improve flow conditions for navigations through the channel crossing. *(The navigation study is needed in order to dredge or excavate along the Port of Bethel. Without dredging, the river will fill in, and barges and boats will be unable to reach the port.)*
- Dredge small boat harbor. *(This is a community priority.)*
- Increase port security at the Petroleum Port and Freight Dock. *(This is a priority for the Port.)*

ECONOMY

Comments

- *Mall at airport*
- *Movie theatre?*
- *Conference Center?*
- *Craigslist/used car lot*
- *More on farming (Galena composting)*
- *Tourism: local businesses*
 - *241 bird species nest in Bethel.*
 - *Cultural tourism*
 - *The City is working on improving sales tax collection from Bethel businesses*
 - *The City asks that if you get a receipt that does not indicate that you're being charged City sales tax, bring the receipt to the City.*
- *Fisheries: have to protect subsistence*
- *"Bethel's Big Ben" at the Y corner*
- *Build "destination" facilities (e.g., BATHC)*
- *Walmart?*

- *Improve the appearance of Bethel, particularly on the entry drive from the airport (sign, flowers, trees; public service – pick up trash)*
- *limo service?*
- *Suggested changes to goals and strategies below.*

Summary of Economic Development Chapter Goals and Strategies

Goal 1: Take actions to stabilize or reduce the cost of energy and other factors impacting costs to establish and operate a business.

- Introducing energy saving measures.
- Reducing consumption.
- Strategies to reduce fuel prices.
- Options for alternative energy.

Goal 2: Support and expand contributions of existing, locally derived economic activities including commercial fishing, tourism and visitation, and subsistence.

- Ensure that adequate land and infrastructure continues to be available at the Bethel port to support commercial fishing activities.
- The Bethel port is currently in a state of flux, and likely requires significant investment and change to continue to work well for the community and the region.
- Support the ongoing efforts ~~by Coastal Villages Region Fund~~ to expand the economic benefits of fishing in Bethel and the Y-K region, for example, by increasing the number of local residents working in Bering Sea fisheries and other fisheries outside the region.
- Better capitalize on diverse travel and tourism markets through improved attractions, a more attractive community, and better linkages to regional destinations.
- Improve marketing of local and regional tourism draws.
- Maintain and improve access for surrounding villagers in and out of Bethel, including places for small boats, snow machine trails and ice roads.
- Identify and aim to replace locally consumed goods and services that could be produced locally, including food, and services like accounting or small engine repair.

Goal 3: Support quality life-long education and vocational training, in particular training tied directly to job placement in growth industries.

- Support job training in the community.
- Continue to improve the quality of pre-school and K-12 education.
- Work with the school districts to build relevant jobs training into school curricula.
- Encourage local job-shadowing and mentoring programs.
- Encourage major employers to train and hire locally.

- Encourage a strong link between job training and job placement.

Goal 4: Support stronger regional cooperation and regional economic development.

- Develop a set of shared comprehensive regional economic development strategies, created and endorsed by the major regional and village entities in the Y-K delta region.
- Select and then encourage cooperative work on specific local issues of common concern to the City of Bethel and the nonprofit and Alaska Native organizations based in the community (energy and freight delivery are two strong candidates). Use work on these issues to improve relations and build capacity to take on other important projects.
- Develop a regional response to the opportunities and challenges posed by the Donlin Creek Mine, including, environmental protection, port location, options for regional energy solutions, and employment and training.
- Develop strategies to respond to likely reductions in future government spending.

Goal 5: Support fair and sufficient local government taxes and fees.

- Better annual operating and capital improvements budget process.
- Reassess current taxes and fees to determine if these are too high or too low.
- Do a better job of collecting sales tax

Goal 6: Improve quality of life in Bethel to increase ~~odds the likelihood~~ that "~~footloose~~" ? individuals and businesses will chose to locate or remain in the community.

Goal 7: Investigate options for improving efficiencies and coordination among Bethel-based agencies and nonprofits.

ENERGY

Comments

- *More on wind: draw from the EPS 65% wind study (background materials)*
- *Solar panels*
- *Require buy-back power from individual producers*
- *TDX – better support for wind*
- *Suggested changes to goals and strategies below.*

Summary of Energy Chapter Goals and Strategies

GOAL 1: Reduce energy consumption.

- Improve the energy efficiency of residential, commercial and public facilities.
- Reduce energy used for transportation.

GOAL 2: Improve and/or expand existing underutilized energy infrastructure.

- Explore the feasibility of expanding waste heat facilities in Bethel.
- Support improvements to the generation and transmission efficiency of existing electric utility infrastructure.
- Engage in a cooperative relationship with Bethel's electric utility to coordinate future land development and utility infrastructure needs.
- Encourage competition among fuel suppliers.

GOAL 3: Develop new, alternative energy sources and innovative methods to reduce the cost of energy.

- Develop new energy sources, such as wind turbines, hydroelectric power, and natural gas, as feasible.
- Engage in cooperative relationships with other entities pursuing new or improved energy infrastructure in Bethel and the Yukon-Kuskokwim region.

PUBLIC FACILITIES AND SERVICES

Public Facilities and Services Chapter Goal

Goal 1: Provide and improve essential city services. Respond to current needs and plan for future demand. Link the extension of public facilities to land use development to ensure that growth occurs in a logical, planned and cost-effective manner.

Administration and Finance

Comments

- *Get people to pitch in, donate set aside money for city services and projects*
- *Improvements to City website in general*
- *Suggested changes to goals and strategies below.*

Objective and Strategies

Objective A: Administration and Finance. Provide adequate administration services and associated facilities to meet current and anticipated future administration demands on the City of Bethel.

- Improve customer service.
- Establish a more forward-thinking budgeting process.
 - Implement a capital improvement program to coordinate the development of public facilities and utilities (a fleet replacement program is already in place).
 - Set priorities for City service provision.

- Optimize existing and potential revenue sources.
 - Examine changes to the fee structure for provision of water, sewer, and solid waste services.
 - Explore potential funding mechanisms.
- Leverage the power of partnerships. Foster cooperative working relationships with local, state, and federal agencies operating in Bethel.

Water + Sewer

Comments

- *Water and sewer: "why not have both piped and trucked?"*
- *Equity in charges for water use/sewer use: monitor use*
- *City Laundromat/shower (fuel and electricity costs are prohibitive)*
- *Consider a hub and spoke system for water/sewer*
- *Some people were given piped water without asking for it (didn't want it).*
- *Different delivery systems are linked to different energy use*
- *Graywater, requires code change.*
- *Compost toilets*
- *Suggested changes to goals and strategies below.*

Objective and Strategies

Objective B: Water and Sewer. Provide adequate infrastructure and facilities and services to meet current and anticipated future demands for water and sewer services in the City of Bethel.

- Provide water and sewer services at affordable rates and cover the costs of service provision.
 - Develop a financial plan and perform a rate study.
 - Reduce overhead costs.
 - Tie service provision expansion to land use/development policy.
- Maintain a mixed system of both piped and hauled water and sewer.
 - Pay by amount used piped
- Complete capital improvements as necessary to maintain an adequate level of service.
 - Close the lagoon; e Establish an alternative sewage treatment system.
 - Maintain list of illegal substances to dump into system.
 - ~~Extend water and sewer services to un-served/underserved parts of town.~~
- Allow the use of composting toilets and graywater systems.
 - Make changes to Bethel Municipal code to allow composting toilets and graywater systems.
 - Adapt boat toilet technology for residential use on land where appropriate.

Solid Waste

Comments

- *More dumpsters (in some areas)*
- *Recycling plan*
- *Landfill*
 - *People prevented from having access to "good stuff" in landfill*
 - *Sorting*
 - *Fix road*
 - *Re-start recycling; extend life of landfill*
 - *Need a shredder (only one barge in Alaska suited for hauling trash – concrete bottom to prevent leaks)*
 - *Dynamic compaction*
- *Work with barge on backhaul: 6 containers/year*
- *Recycle cars for parts (currently allowed)*
- *There is only one barge in Alaska that can transport materials for recycling to Seattle (has a concrete deck)*
- *Recycling companies in Seattle want shredded material*
- *City added \$5 to garbage bills for recycling (contract service)*
- *Consider banning or pay deposit on plastic bottle and bags*
- *Need better info on use of dump: beef up website*
- *Chip trees/wood and make it available for gardeners*
- *Suggested changes to goals and strategies below.*

Objective and Strategies

Objective C: Solid Waste. Provide adequate facilities to meet current and anticipated future demands for solid waste disposal in the City of Bethel.

- Identify possible site(s) for a new landfill
- Maximize the life of the landfill.
 - Explore options for compacting waste.
- Minimize the amount of waste going into the landfill and illegally dumped waste.
 - Continue to provide public information about waste management services, programs and facilities.
 - Set municipal targets for diverting waste over the next several years. Track and report on indicators of waste diversion improvements.
 - Encourage composting, mulching and other onsite methods of organic waste disposal.
 - Allow garbage digging or create a swap shop (an area where people can drop off and pick up usable but unwanted goods)
- Expand Bethel's recycling capacity.
 - Consider contracting recycling out if City cannot operate the program and recycling center.

Technology

Comments

- *Web access – coming soon; proposed city-wide free wifi*
- *Discussion:*
 - *Is it fair for the City to offer a service for free that a business might provide?*
 - *Clearwire/ACS – get it for Bethel*

Objective and Strategies

Objective D: Technology. Provide for current and future technology needs.

- Promote the widespread availability of communication systems to facilitate communication and promote public service, safety and economic opportunities.
- Consider telecommunications facilities developed and operated expressly to carry out emergency services essential public facilities.
- Review and update potentially suitable personal wireless facility locations, as identified on the official City Map every five years.

Fire and Emergency Medical Services Objective and Strategies

Objective E: Fire and Emergency Medical Services. Provide adequate fire protection measures and services in Bethel to respond to current and future anticipated emergency service needs.

- Plan for a substation close to the airport.
- Continue to meet equipment and capital replacement needs (e.g., fire engine, radiation detector).
- Determine the best location for the fire training tower
- Install fire Hydrants as the City's piped water system is expanded.
- Continue to provide training for firefighting and emergency services staff.

Police

Comments

- *New police station will include new communications tower*
- *Better communication with public*
- *Improve quarters for police department (get them out of the Quonset hut)*

Objective and Strategies

Objective F: Police. Provide adequate police services to meet existing demand and anticipated future demands.

- Secure new facilities for Bethel Police headquarters.
- Expand investigation and evidence collection capabilities to bring them up to current national standards.
- Upgrade public safety dispatch and communications equipment.
- Establish a capital replacement program for vehicles.
- Create a vehicle impound yard.
- Establish a Neighborhood watch/Citizen patrol program.

Youth and Adult Recreation

Comments

- *Shooting range*
- *Playground*
- *BATH Center*
 - *Consider slight dialing back of scale of project*
 - *Rename it to emphasize its regional value*
 - *Complete phases 1 and 2*
 - *Hire a project manager*
 - *Initiate two-year fundraising*
- *The skate park is the best thing that has happened in Bethel!*
- *Paved roadside bike path*
- *Need funds for park maintenance (one-time fee assessed of homebuyers for neighborhood parks?)*
- *Volunteers are crucial; need someone to coordinate volunteers*
- *Liability issues – who is liable in neighborhood parks (where developers set aside open space)*
- *Suggested changes to goals and strategies below.*

Objective G: Youth and Adult Recreation. Sustain and enhance facilities and programs for youth and adult recreation.

- Upgrade the Bethel 4-H Youth Center.
- Complete the BATH Center (Phases I and II).
 - Hire a project manager and initiate 2-year fundraising.
- Expand and improve the Bethel trail system.
 - Extend the bike path

- Expand/improve existing parks, including Tundra Ridge Park, Senior Center Park, Pinky's Park, and sports fields. Consider a new ball field, dog park, and campground.
- Establish neighborhood parks throughout Bethel.
 - Consider a program to dedicate open space and pay a one-time user fee to pay for park maintenance
- "Gateway" Beautification near airport

OTHER/MISC.

- Flotation devices and coats for kids: keep people from drowning
- "Make Bethel even better."

Introduction+ Project Update

Attendees:

- Heather Stewart (A::B)
- Chris Beck (A::B)
- Dan Shea (Bethel City Planning)
- Betsy Jumper (Bethel City Planning)
- Ann Willert (CAC)
- Barb Mosier (CAC)
- Greg McIntyre (CAC)
- John Sargent (CAC)
- Chuck Willert (Bethel City Public Works)
- Pete Williams (Bethel City Port)

Land Use

Goal 1: Provide space for anticipated community growth, including housing, commerce, transportation and community facilities. *Discussion:*

- Donut hole road: any route between Ptarmigan and Eddie Hoffman Hwy (could be proposed north-south route between the post office and Yuut Elitnaurviat, Option 1)
- Do we differentiate between commercial corridor road and subdivision road?
 - Yes, the proposed road would be more of a collector-scale road; not to front houses on, but subdivision roads might connect to it.
- If that's the case, the commercial should be along the front of the road, with residential located behind the commercial.
- Shouldn't force all development downtown: there could be subdivision proposals that can build cheaper, using their own well if located farther from town.
 - Not to preclude development farther from town, but there are advantages in concentrating growth downtown, *in general*
 - Lower costs for transportation (fuel) and infrastructure (e.g., water and sewer distribution); closer connections between housing and jobs
- The reality is that all roads are haul roads. Doesn't matter if they're residential or commercial, because the water/sewer haul trucks go everywhere.
- Option 1: proposed north-south route between the post office and Yuut Elitnaurviat
- Option 2: Tundra Ridge Road (goes through Native allotments) – deal made, will go through
- Option 3: Going through Blueberry: it's higher land (advantage)
- 120-140 ft high for future development
- only 42% of households have a vehicle, so makes sense to build where people can get places on foot, transit, etc.

Goal 2: Encourage future growth to locate near existing employment centers and public services. Coordinate land use planning with the provision of sewer, water, and roads. *Discussion:*

- should the plan include goal 2? Yes; add "...as economically feasible."
- Commercial expansion makes sense along the river, but land claims make it difficult to impossible.
 - Port expansion: Some possible Native land, but it has restrictions that any land conveyed cannot make a profit (if we went to develop the land, we would face stiff legal questions (US supreme court type of questions)
 - Other sites (for port expansion): East Harbor expansion, but there are compatibility issues with the small boat harbor

Goal 3: Provide for compatibility among adjoining land uses, so future development does not reduce the quality of life or land values of surrounding areas. *Discussion:*

- Like the land use approach:
 - Allow for mixed use: land can be developed in little chunks as we go along
- Can the City say through zoning that every development has to set aside some land for commercial use?
 - Zoning can allow a use, but not mandate it.
- How do we plan for commercial development if we can't zone it?
 - Say it's possible in different areas; might set size limits so it's not disruptive to an adjoining residence
 - Zoning allows you to say no to certain things
- Would commercial use be restricted to land adjacent to/along roadways?
 - Could do that; could have some standards about how far back from the road buildings are located, how tall the buildings can be, etc.
- There are some commercial areas in downtown that are not really being used and could be redeveloped.

Goal 4: Reserve corridors for access and public utilities when land is subdivided. *Discussion:*

- Like the idea of being able to have some design guidelines: need room to discharge snow along roads
 - City road standards are 38 feet wide, 9 feet from edge of shoulder to tow, need back slope, drainage ditch, utilities and culverts.
 - The Avenues (northeast quadrant of Bethel): minimum 80 ft right of way, 20 ft alleys between lots, places to run utilities and throw snow
 - Saves people money (snow plowing is less likely to damage property if it's set back from the road)

Goal 5: Provide a range of quality affordable housing opportunities for current and future Bethel residents. Create safe neighborhoods centered around important community facilities such as schools, parks, the teen center, and the senior center. *Discussion:*

- ONC is already re-building housing for elders on the east side of town.
 - They get requests to repair houses, then are told to raze and rebuild, but is that a good use of money?
 - When rebuilding, the new houses can be constructed on the land they're supposed to be on; some were originally built on the neighbor's property.

- People live off the river/slough; relocation in that area would meet resistance. There might be some who would want to take a nicer house. Expect a mixed response to that idea.
- Is it possible to move people whose land keeps flooding?
 - East of the slough, flooding is more variable, worse in some places
 - Banks are requiring houses to go up on post or piling
 - Homeland security grant will cover the cost of moving or rebuilding an entire house out of a flood zone to a new area, but not using the flood-prone land
- There are numerous private individuals who rent out ghetto-type living quarters. Those people are granted business licenses to operate those rental units. Is it possible for the City to have some inspection to base granting those business licenses on?
 - Dan talked to Lee Foley about this issue: definitely something that will be on the radar for City Council. Some places are being rented with no infrastructure in houses.
- “Create safe neighborhoods” is a different goal from “affordable housing.”
 - Quality does not necessarily go with affordable, but some standards for affordable housing are needed.
 - The City is getting surveys approved by the BIA and resolving land boundary issues. Most errors are from before Bethel was even Bethel. They’re trying to find who has title to the land, etc.
- Substandard housing: are people renting because they don’t have the resources to rent a nicer place? Would one be making people homeless by taking those options away?
 - People still rent out freezer vans in Bethel; they are accommodating a class of people that do not have the means or weekly checks to get a regular place.
 - Maybe use a combined “carrot and stick” approach: set standards for the quality of dwellings, but make available funding so that landlords can afford to make improvements and not have to charge more for the increased quality of the home.
 - It’s a bigger problem than that: the individuals who choose to rent those places out – it’s not that they can’t afford to upgrade the units, they choose not to.
- What about rent control? One can make a strong case for benefits or downsides. Depends on supply and demand. In places like New York City, coupled with minimum standards for quality of homes, rent control has been a positive thing. In other areas, it has led to a deterioration of housing, with an unworkable gap between supply and demand. It’s also hard to administer.
- Can we, through the comprehensive plan, require for all rentals that the water and sewer be under the name of the property owner?
 - In a legal capacity, yes; the question is whether it is politically feasible.
- The best approach might be having minimum standards coupled with programs that help provide funding to help property owners meet the standards.

Goal 6: Maintain and protect the quality of the water, land, and biological resources within the City to provide for sustainable use of those resources for current and future generations. *Discussion:*

- 25 feet from any high water mark, all wetlands
- You have to go through the US Army Corps of Engineers to build anywhere near a lake.
- The Coastal Management program has been effective in protecting/managing land; if they don’t extend the sunset, development can go in without our opinion/comment.
 - If we put this in the plan, we’ll educate our council and community about the issue (that it’s a priority)

- We can also incorporate those coastal management standards as guidelines in the comprehensive plan
- Is it possible to use conditional use review for protected areas?
 - City uses conditional use review for fuel tanks already

Anything else? *Discussion:*

- Can/should we reserve right of way (ROW) for other uses? For example, the power utility has the ROW locked up for power transmission.
 - The City already has ROW.
 - Public Works would like a minimum 80 feet road ROW in many places and 60ft in subdivisions to maneuver graders without damaging private property
- Can we add energy to these land use goals, maybe in Goal 1?
- What about air space? If someone builds a tower or something...
 - FAA regulates airspace (with airport).
 - For visual quality, most communities have codes for cell towers, etc. Does the City want to try to regulate that? Maximum building height, tower height, rules about what they look like, etc.
 - Would think lot of wind turbines
 - The City and the energy committee are working on an ordinance for wind turbines (both residential and commercial)
 - Maybe mention it under Goal 2

Transportation

Due to a time constraint and the fact that most of the transportation component of the Bethel Comprehensive Plan is included in the 2010 ONC LRTP/City of Bethel Transportation Plan, remaining discussion focused on the Bethel Port and Harbor. CAC members agreed to send Agnew::Beck any comments on the rest of the Transportation Chapter.

Port. Discussion:

- The City (Port) has made a recommendation for \$25million for dredging the harbor.
- They have to go through the US Army Corps of Engineers:
 - Step 1: Corps does a reconnaissance study with an appropriation of \$100,000.
 - Step 2: The reconnaissance study jumpstarts a feasibility study, which has to be in the Corp's budget. (Basically, the City lobbies for Corps funding to do the project).
 - The City (Port) has been working on getting the Corps to do a navigability study for 3-4 years through the Water and Energy Appropriations Act.
- The Bethel community is of two minds:
 - Some support dredging the harbor, doing whatever is needed to maintain or relocate it if necessary.
 - Some want to let it fill in, let nature take its course (then Bethel will cease to be a port) because of the sheer cost to fight the natural river flow.
- Oscarville just built a new port, which has begun to hamper how much we can bring into Bethel. Hydrologists would come in and redirect the river in a different direction so that hopefully it would keep moving in that direction.

- The port is a huge economic issue; the City needs to start emphasizing the economic problems that will hit the region if the port closes.
- The State has divested itself of ports, so it's not much help.
- There is a peninsula harbor facility grant program, but Bethel doesn't qualify; the small boat harbor does qualify under Tier II (50% match for state funds; Bethel doesn't have the money).
- Some have the idea of expanding the runway at the airport for shipping (instead of using the port). Others are skeptical that this would work (how would petroleum be shipped in, for example?)
- The comprehensive plan could lay out these issues and convey the seriousness of the issue to the State, Federal government, etc.
 - Uncertainty about the river changing course, whether or not Donlin mine would go in and want to use the Bethel port facility; these events could profoundly change the future of Bethel
 - Some issues could be addressed through aviation if there was no port, but that would be costly and would not be appropriate for everything.
 - Could build a road to Anchorage...
 - This goes back to land use goals: if the hydro study goes on, Bethel might have a port, but in a different location. The study might be a basis for deciding if it's worth spending a lot of money on port improvements in the shorter term.
- This is a good strategy; good to get the issue out to the public.
 - Get newspapers to start writing articles.
 - Bethel needs better communication with surrounding villages on the port issue (other villages are facing issues like these as well)
- Would the Donlin mine be a potential partner?
 - Donlin will want to do improvements at least cost
 - Donlin will be helpful in lobbying the State and Federal government for money
 - Donlin will look at other options
 - If the mine is successful only with a good port, then they will put their resources behind it.
 - People from the mine did fly up and down the river, putting in monuments for a bathomatic survey.
 - It makes sense to bring them into the discussion.

Meeting Wrap-up and Next Steps

- CAC members will send Agnew::Beck any remaining comments on Land Use or Transportation Chapters.
- Agnew::Beck will revise chapters to reflect key points of discussion at this meeting prior to the next Community Workshop coming up this spring.
- Agnew::Beck will circulate remaining public facilities sections as they are completed.
- Next CAC meetings:
 - February 17, 6-8pm, Bethel City Council Chambers. Agenda: discuss Public Facilities chapter (includes Administration and Finance, Police, Fire, Public Works, and Parks and Recreation)
 - February 24, 6-8pm, Bethel City Council Chambers. Agenda: discuss Economic Development and review overall Vision and Goals; follow up on any unresolved points of discussion from previous meetings.

Notes

Attendance

- Chris Beck, AB
- Heather Stewart, AB
- Dan Shea, City of Bethel Planning
- Betsy Jumper, City of Bethel Planning
- Sam Blankenship, City of Bethel IT
- Janet Athanas, City of Bethel Parks and Recreation
- Ann Willert, CAC
- Barb Mosier, CAC
- John Sargent, City of Bethel Grant Manager
- Chuck Willert, City of Bethel Public Works
- Janet Kaiser, CAC
- Terry Perry, Bethel City Council
- Rhonda Sargent, City of Bethel Parks and Recreation

Administration/Finance:

- Getting a maintenance plan for departments: 5-10 year (whatever it might be) to help finance department know when they will need money, something that Dan has talked about but hasn't initiated yet.
 - Make financial needs of city something City Council and Staff can anticipate
 - Need guidance of different departments; some might have more aggressive idea of what's needed than Council is ready to endorse.
 - Express needs in general terms for City Council
- Funding depreciation: if you fund everything that needs to be replaced, that's way more than we have in the bank.
 - Separate planning for new projects
 - Funding depreciation
- Public works already puts aside money for new trucks
- Finance department doesn't even recommend it, because if we put away money for every asset that needs to be replaced we won't have enough money to replace them.
- Have to sit down with City Manager and Finance Department, come up with some kind of formula to come up with the money that we need over time.
- Funding depreciation is a great idea, but not enough money to do it. Know the City gets a lot of grants to do things. Where do they fit into this process? Would that be one of the solutions?

- Problem with grant is, if you buy the capital item, you have to maintain it.
- Seems like we rely on grants and bailouts.
- Right now, the picture for US federal and state money is not looking as good for continuing to get funding.
- What did we decide about recommendation for finance?
 - Helpful to anticipate major capital and operating needs; be realistic (can't set such a fixed schedule that you can't meet it). More forward-looking budgeting process than what is being done today.
 - We'd be wrong to leave this out, but yes, let's keep it general.
 - Already doing that to some degree in Public Works; putting a little away each year for garbage trucks, for example. Have enough now to buy a garbage truck.
- Need to make it clear that we do pay for some things, have deferred maintenance on certain accounts.

Water and Sewer:

- Like the acknowledgement that not everyone in town is waiting for piped water and sewer to come.
 - Piped water is not the be-all end-all system; think hauled water has a lot of merit.
 - This town is going to have a mix of piped and hauled water and sewer for the next 25 years, if not forever.
 - The hauled service is far more expensive than the piped service. Currently have grant money (village safe water, USDA Rural Development) for capital improvements, we're supposed to have money banked for maintenance and operations.
- DEC and EPA are going to be coming after us – lagoon is out of compliance. Will have to use grant funds to bring that into compliance. Going to cost a fortune – don't think City will be able to do it without grant money. Have about 4-5 projects about 8-9 years out (cost for these way in the millions; City wouldn't be able to pay for it on their own):
 - Complete the force main (includes lift station; CH2MHill; funding USDA Rural Development)
 - Lagoon project (already in works; Larsen)
 - Manholes in City complex/City Sub (take care of iron problem of last 10 years – piped system A, B, C loops – old pipe breaking down; high pressure variation between houses close to pumphouse and far away from pumphouse)
- Can we make a rough estimate of the cost for projects like these so the City can plan ahead for them?
 - In Water/Sewer master plan? Yes, some estimates there. Would have to talk to Bill Arnold, went over from Village Safe Water to USDA Rural Development.
- Water delivery is paid for by the City in many instances?

- What do you mean? We all pay a huge price for water...
- In Fairbanks, people arrange with a private contractor or haul with their own tank and truck. So in Bethel, City delivers water to private tanks?
- Sewer lagoon: not surprising it's out of compliance. In hauled system, water use is more conservative. Piped system, people use more water. Amount of flow going into lagoon has increased greatly. Another reason piped system is not necessarily the answer.
 - Lagoon is not working like it's supposed to. Capacity issue: filling up twice as fast as anticipated. But not all due to pipes. It's an infiltration of surrounding water through the permafrost. Another reason, because of (rain, snow, etc.) water coming through permafrost, it's being diluted enough to pass. So we'd be looking at a leachfield system. Tested in Alaska. Present lagoon will have to be cleaned out (part of the reason it would be so expensive).
 - Sites: 1 city owned, 2 possible alternatives that are Native owned/Native allotments. Should plan identify these possible sites? –Already in process.
 - Would leachfield system eliminate impacts to surrounding properties? One site is where it discharges now, another to the east of where it discharges now, another site is farther north quite far away from where it is now. Thinking they'll focus on City land, because process of negotiating for Native land is so lengthy and expensive. That's just discussion among city right now.
- Possible need to extend piped water/sewer – what's the status?
 - Still proposed. Looking at substation so trucks won't have to drive as far. Addition to existing. Another priority because they are mandated, or stress on pipes, or compliance so different entities can use main sewer pipe. In the 30-year plan. Would have to jockey them around for position – nothing cast in stone right now.
- Ideas about making water delivery system more efficient by bringing pipes up to road:
 - Not worth exploring – that's a disaster. Pipes would freeze – overflow pipe would freeze. Homeowner's responsibility to keep hookup clean and operable for the city to deliver.
 - Who would pay for installation of the pipe from the tank to the road? It's already so expensive.
- Are there other things to reduce the cost of hauled water/sewer?
 - Trying to keep roads graded, good maintenance on trucks (far fewer breakdowns on trucks), cost of maintenance has dropped dramatically.
 - Guy from FBX has said that Bethel is about as efficient at hauling water/sewer as anyone he's ever seen.
 - Tractor trailer trucks are also a bad idea – too big to make turns and would cause too much damage to the roads.
- Satellite stations is a good idea.
- Community service worker: don't use them in the trucks. Use in property maintenance, janitorial, office help, but not trucks.

- HDPE pipe: been using that (moving from VIC/steel pipe to HDPE). Below ground pipe is possible; just more expensive. HDPE pipes do work underground.
- Sharing water: Water wells require a water treatment operator. Those are few and far between, price is going up. Wouldn't be able to do that. Two wells provide plenty of water. Not a practical idea.
 - Some discussion of sharing wells: FAA has a well that community might take over/share. City's already talked about that. Even talked about YKHC transferring Kasayuli sub well. Didn't have enough \$ to set up a water treatment plant.
 - Water treatment plants: software that you can hook them up and have 1 licensed operator run multiple plants through a computer system (have 2 staff; one for backup). Would like to see that explored so we don't have to have multiple water treatment personnel.
 - City has 2 big plants right now: City Sub and Bethel Heights water treatment plant.
 - City has another well over by old fire station, but nothing being done with it.
 - It costs a fortune to build a water treatment plant over each well.
 - Is that a drawback of the satellite station? Satellite station would just have treated water piped to it and hold it for transfer elsewhere.

Solid Waste:

- Landfill is probably the City's most expensive piece of real estate. Would cost a fortune to close that out and start a new one. Hoping that landfill has many useful years left.
- Currently looking at 25 years left on the landfill. Have a lot of cars and steel in there right now – biggest issue is getting rid of all the steel in the landfill.
 - Go in with a CAT and pulling it out? Little bit – wouldn't suggest digging around, but take what's showing, then use dynamic compaction to stamp out cells with a crane and a big thumper. Each time you lower the landfill a foot, you gain a year.
 - Is 25 years with compaction or more with compaction? Without – dynamic compaction would get another 10-15 years out of it.
- When landfill is filled – looking at new site? Should the Comp Plan look at possible new sites?
 - Don't want close to airport or too close to residential areas.
 - If sewer lagoon could get by with one cell using leach field system, could use other for new landfill.
 - If you have possible new places, doesn't hurt to put them on the map. People will squawk, but 10 years from now, it might help get through political hurdles. If City does own land, decides it might be used for that purpose one day, City will not put a lot of investments on the parcel...
 - Talk to DEC, what would be the process, what criteria would best suit a new landfill site.

- Recycling: City runs the recycling center at a loss. Look at the cost of not putting it in landfill – how many cubic yards does City save by shipping recyclables out?
 - Talking about shutting down the recycling center.
 - What about the cardboard burner project Tim Meyers built? (can go through a grant to get a burn box – Dillingham does that) –No, what Tim Meyer has is a wood/cardboard burning stove, to use the waste for heat.
 - That would be a good spot to use community service help.
 - Using waste oil heaters right now. Burning used oil from equipment. Pressed for square footage as it is, so putting in another burner – not the right thing at the recycling center at this time.
 - Is it worthwhile to keep paper/cardboard out of the landfill or does it not make much difference?
 - Best is to buy more time in the landfill. Wood that goes in there, people using for steam baths, coming up from villages to get truckloads of pallets for steams. Even if they get a part off a truck, I look at that as recycling.

Technology:

- Would be a definite clash with private industry, but shouldn't be much of a problem to make building to building connection and police and fire.
- Wi-max: mixed use frequency. Could easily connect patrol-car laptops/PDA devices so police can do their reporting from the car, save time and money.
 - Would be a good thing; could turn it on; private companies will fight it – would take out quite a bit of their internet business.
 - Could get it set up and use internally until legal formalities worked out.
- Other corrections:
 - 4-year lease already in place for IT hardware
 - Have 5 multi-function machines in maintenance program with companies already

Fire:

- Fire tower: Still an issue, just not a priority
 - People don't want it downtown; inappropriate. By lagoon, probably inappropriate, but that's where it is now. Would cost a fortune to deal with moving it.
 - How often do they use it, if they use it?
 - Use it a while, but some issues: e.g., contaminated soil (dealing with that)
 - Could fix it up and use it in its present spot.
 - Is there a process in place to complete that job or is it incrementally happening? Summer time.

- Fire hydrants and substation: reduction in insurance rates possible. Motive for doing some of these capital projects.
 - Could use FAA property as fire department substation if it is not used for police station (currently dedicated to police). If not police station, could also use it as housing for new recruits.
 - But there are some who do not support housing for officers.
 - Need recruitment tools for the police station. If you want to keep a police department, need to look at it.
 - When at YKHC, that was an incentive to recruit new folks (provided housing for 2 months); very attractive.

Police:

- Status on police station: still supporting FAA building, did pass City Council, but some councilors are changing their minds.
- Recruitment: is turnover a problem?
 - Let Larry Elarton speak to that. He has good ideas.
 - Turnover rate has been a problem in the past, though fully staffed at the moment.

Parks and Recreation:

- Map doesn't reflect upgrades. (we'll take care of that)
- Is there a reason not to include the whole parks plan in this document?
 - Thought we'd include highlights/summary and refer people to the full plan for details. Ok? – yes.
 - Status: has to go back to park and recreation committee, then to City Council for adoption
- Upgrades to Youth Center needed
 - Not much parking
 - Not ADA compliant
 - Property across the street (BNC property) that we'd love to have, but don't think they'll ever sell.
 - Emergency shelter
- Trails: completing system one more working with ONC (end of existing running trail to post office)
- Greenhouse and garden at youth center for the kids. Donations from master gardeners.
- New community garden managed by Cooperative Extension.
- Activities for kids:

- 50 kids after school, 30 teens at night, 500-600 kids through the year through the building (about 300 formally enrolled; about another 300 not formally enrolled)
- When BATHC done, supposed to be expansion of teen center. Been thinking weight room would be moved, would use the vacated weight room at the Youth Center for teens.
- Not open on Saturdays anymore; that's been hard on the community.
- Teen center used on evenings; hoping if BATHC is built, will free up space for teens after school. They don't want to be with little kids and probably not the best situation anyway.
- Computer lab, useful things to help them get their homework done.

Wrapup:

- Dan sent Utilities chapter.
- Reader Board at cultural center (Renee)
- Dan will contact GCI about PSAs.
- Info article about meeting in Tundra Drums and Delta Discovery
- First week of April for public meeting: April 7.

Notes

Attendance

- Chris Beck, AB
- Heather Stewart, AB
- Dan Shea, City of Bethel Planning
- Betsy Jumper, City of Bethel Planning
- Janet Kaiser, CAC
- Jodi Malus, CAC
- Colleen Osterhaus, CAC
- John Sargent, CAC (City of Bethel, Grants Mgr)
- Greg McIntyre, CAC (YKHC)

Publicity for 4-28 public workshops

- Greg volunteered to be radio interviewee. AB will script some QandA. Fridays 10-11am.
- Reader board @ cultural center – Dan will follow up on particulars
- Tundra Drums and flyers on bulletin boards most effective
- CAC members will forward to their networks; AB will send PDF of flyer.
- Purpose of workshops
 - Review plan
 - Small breakout groups
 - Go through major sections of plan, get feedback
 - Summary of each section (poster form)

Redevelopment Discussion?

- ONC has funding to improve people’s housing (energy efficiency, etc.). People have pride about living where they are; don’t want City or outsiders coming out telling people their standard of living is not good enough.
 - The City is trying to provide infrastructure for water and sewer on the east side of town. Some houses have no infrastructure for water and sewer. The City is required to serve them and is trying to do its job.
 - That’s one of the oldest neighborhoods in Bethel; many people have been living there a long time. If they knew how much water and sewer pipe costs, they wouldn’t want it. They don’t want people saying “This is what we want for you.”
 - We weren’t talking about piped water and sewer, just water and sewer generally.

- Spending Federal money in a floodplain; not sure it's worth it.
- Old landfill is over there too.
- Planners will follow the community's lead. We still want to have the discussion with east side residents: what do they see are their needs that need to be met?
- Very supportive of people getting tanks, getting rid of honeybuckets, but not sure about going further than that. Roads are good. Anything that any neighborhood would want.
- Liked that neighborhood: it's on the edge of town, away from the hustle and bustle.
- Is special attention needed in that neighborhood? If so, how can we hear from the right people what the priorities are?
- Dan will meet with some people on the east side, see if there needs to be a neighborhood revitalization effort in that area.
- The 1997 plan focused on downtown, but the discussion now is whether that is still appropriate.
- Part of the problem is that the Comp Plan advisory committee doesn't have good representation; there is only one person who is from Bethel originally. Need to hear from more folks who will call Bethel home until the day they die. People have come to Bethel for years, put something on their resumes, and left. The Comprehensive plan is looking ahead at what the community is going to live with for many years. Have to find out what those people want.
 - How can we bring those missing voices into the process?
 - We should be having local neighborhood meetings.
 - People won't come to City hall/City Council Chambers. They're afraid. There ought to be mini meetings in individual neighborhoods. Maybe run by a planner and 1-2 other people. Need local people to be invited, asked individually or they feel like they're butting in. That's the culture here.
 - The process can work, but planning is a difficult thing for people to participate in. Not everyone has a computer or printer. We see many people from the City involved in this plan, but not citizens. Not comfortable with the level of input people have had in the plan.
 - We have seen some improvement through this process already.
 - Neighborhood groups only get together if there is an activity. Troopers might have a trooper housing get-together, but don't have organized neighborhoods.
 - Probably best to concentrate on the public meeting.
 - Maybe we should try to have the meeting at the Culture Center. Dan will try to talk to them about reserving the hall. Or the ONC multipurpose building. People would feel comfortable going there.
 - Dan will also look into food or door prizes.
 - Speaking of ONC, it would be nice to have someone from ONC on this committee.

- What are issues that will engage ONC, AVCP, others who should be here but are missing?
 - Small boat harbor?
 - Energy issue. How to resolve that? (This summer gas might be \$8/gallon.)
- Dan will talk with people in different subdivisions to see if he can get more input.

Economic Development

- Lower the cost of energy
 - Fuel, oil for boilers, electricity. Energy costs affect everything out here.
 - Plan should mention that the Mayor is working on bringing liquefied natural gas (or compressed natural gas) to Bethel. Finding partners for the City for a tank farm. How much will it cost people to retrofit their homes to use it? The City is doing this out of desperation; people have looked at everything else we can do.
 - Wind energy is another option. Several private individuals have wind turbines. It's a viable resource; there is grant money for turbines.
 - As far as individual households and small business owners are concerned, we need relief. Some people can't afford the capital costs to buy a turbine.
- Lower rents would help: commercial space is currently \$1,500-2,000/month
- Maintain the salmon fisheries; these are probably Bethel's only natural commercial resource. Make some portion of commercial riverfront property available for salmon fisheries, for buying and selling; loading and unloading; some processing; handling fish, getting them on ice and out from Bethel. All of this must be done along riverfront. If we don't reserve space, the Donlin Creek mine could easily buy/rent everything along the riverfront.
 - The Port rents all space along the seawall. When a barge comes in, it takes up the space.
 - The seawall needs considerable work: it will be in danger of collapsing if not repaired and maintained.
- Donlin Mine: regional meeting.
 - Mixed opinions about Donlin. Split down the middle and very emotional. Many people on fence (love to see jobs but don't want to see negative impacts). Calista involved.
- Regional energy group:
 - Nuvista Light and Power. Includes: Calista, AVCP, AVCP Housing, YKHC, Lower Yukon, Chinik Wind, AVEC, Middle Kuskokwim electric co-op.
 - Looking at bringing a natural gas pipeline across Cook Inlet, with a liquefaction plant at the Yukon River and a road between the Yukon and Kuskokwim rivers.
 - Feasibility studies have been done on two hydroelectricity projects in the area: Kiseralik (on faultline), Chikuminuk Lake (would be the choice; approached AEA

and Legislature to do engineering on it, get design done). Would provide 89 Gigawatts/hour, enough to provide electricity for Aniak down.

- Clean, cheap, sustainable. \$451million to build. But much cheaper than Susitna.
- The initial feasibility study is pretty vague about the exact location, but would have transmission lines to Bethel. It would be DC power to Bethel and convert to AC at a local substation. There would be regional plants, interties, and wind farms between communities.
- You have to look at every available resource for AEA and prove why the best options are the best options.
- Looks like the regional group will get the \$17million to do the study.
- It is a regional group, but Bethel would be the hub and have the largest energy demand.
- Tourism: how important is it?
 - What about people coming in for business trips? Surveyors and others in town for three days, etc. might spend a few extra days, or have extra time at night, or during the day, when they're not working.
 - Also people visiting friends and relatives, people visiting from villages.
 - Back when it was a real push, people were working to establish tourism in Bethel. Jody did a series of articles on tourism. Truth is: Bethel doesn't have the infrastructure for tourism trade. If people come, it's very specialized, like birding (Bethel is in the largest bird sanctuary in the US); people get off the plane, see the bird on their life list, and get on the next flight out. Bethel doesn't have the trails, the forests, the mountains to climb. We don't have the kinds of things that attract families who want to spend their vacation dollars. Talk to Beverly Hoffman or John McDonnell about the bird season. They'll tell you it's not even worth putting an ad in the birding magazines.
 - There are things people want to do here. People create tourist attractions – artwork, etc. If the issue is to create more tourism, what can we do to attract more people? Improve the visitor experience?
 - YK Birding list. There was a website (City dissembled it) of hotels, restaurants, etc. and brochures at the airport.
- Job training
 - Youth get good training; the problem is providing jobs that will keep them in Bethel. People leave because they can't get the jobs they're trained for.
 - Need to bring the State of Alaska into this conversation: its focus has been on oil, gas, fishing; they're not willing to look at other job opportunities.
 - What about nursing programs? Apprenticeships and journeyman programs? There is a wind turbine technician school; there's room for more though.
- Workforce recruitment and retention: affordable housing, etc.

- Formatting of chapter:
 - Introduce bullets. What are they?
 - “Standing in the future...” don’t like that phrase
 - “Foster municipal organization” who is supposed to do what? Not clear on responsibilities for this section.

Utilities

- Intended to address the utility issues the City is facing. The City would like to better address plant, locations, future facilities for the utility service providers that we have. We really don’t have too much communication with our local utility, and want to open the channels of communication, trigger that conversation.
 - Dan sent invitations to BUC to this meeting.
 - Goals and policies are intended to bring conversation to the table.

Key ideas:

- Project coordination: they get a utility permit (for projects, e.g., installing a pole, new buildings), don’t come in to discuss the location for a project that they have. Don’t come in to talk to the City. There is a lack of coordination between the City and the utility company. Problems from this: the City has no documentation of what the utility is doing and no input.
 - Maybe we need laws to force cooperation, to get the permit. Maybe the planning commission needs to approve it. Some of the material in the draft plan should be in an ordinance.
- Long range planning: the City has no idea what plans the utility has for its facilities. Right now, there is a section of town (Ptarmigan) that they can’t serve (don’t have the capacity with existing transmission lines). Without knowing that, they’re going to have to run a new line from the power plant to the development. The utility is maxed out on the capacity of its transmission lines. Future development will need to plan for new power transmission. Distribution isn’t the problem as much as transmission.
 - It would be nice if the electric utility had a long-range community plan and everyone was involved.
- Waste heat: the utility is charging ever higher amounts. The cost per BTU for waste heat vs. heating oil (Greg McIntyre has an analysis).
 - When the utility first started providing waste heat, it had a grant to subsidize the waste heat, so they charged low rates. When the grant expired, the utility didn’t have to meet the requirement to provide waste heat at a reduced rate to community facilities. The price went way up, comparable to heating oil.
 - They also have to maintain the pipes, so that is a cost involved.
 - Can we find a way to restore that subsidy for another 20 years?
 - The City has been cut off from waste heat.

Meeting Wrap-up

- The plan should be as focused and practical as possible. Can we simplify chapters to get people involved?
 - Like that. Take simplifications and hit people in the nerves with them. Want to see how we're going to lower energy costs? See what roads will look like?
 - Make it as tangible as possible.
 - Make sure it's comprehensive. The City grantwriter needs to be able to cite the plan for all kinds of things.
 - Want to keep it comprehensive but also simplify.
- Get on agendas of ONC, BNC, etc. meetings
- April 6-7 Tribal gathering; can distribute information.

Notes

Attendance

- Chris Beck, AB
- Heather Stewart, AB
- Dan Shea, City of Bethel Planning
- Betsy Jumper, City of Bethel Planning
- Barb Mosier, CAC
- Greg McIntyre, CAC
- Janet Kaiser, CAC
- Colleen Osterhaus, CAC
- Ana Hoffman, CAC

Implementation:

Land Use

- Does implementation table format seem useful?
 - Easy to understand, yes.
 - Like the idea that partnerships that might be involved
 - Cost column is a great idea; problems with costs not being realistic, gets us in trouble sometimes. The more realistic, the better.
- Land Use Goal 1, Action 1a should be highest priority
- Land Use Goal 1, Action 2b: not as much of a priority as enforcing city's subdivision codes
 - Enforcing city's subdivision codes should be one of highest priorities
 - Change ONC to all landowners
- Protection of natural resources: higher priority because we're losing Alaska Coastal Management Program (Goals 6 and 7).
- Solid waste + recycling – reference under Goal 6 (Environmental protection)
- Are goals numbered in terms of importance?
 - No, we can give them letters or something instead so that people will not be confused about that.
- Don't see anything about reserving land for energy in this chapter
 - Covered in energy chapter, can cross reference; also covered in Goal 1, Action 1a

Transportation

- Goals 2 + 3: tying land use review with airport. In the past, airport not reviewed by Planning Commission. Hoping to work with airport manager at State in developing a review process for expansion. Not involved in Airport Master Plan process.
- Roads: include landowners as partners where new roads need to be built.
- How successful have ONC + City been in securing IRR funds? Should ONC be featured so prominently on this?
 - The joint ONC + City plan has already increased the level of funding available to ONC (based on inventory developed).
 - Map passed out in April, many roads in Blueberry – new roads, collector roads. Whose decision to call these collectors? (ADOT, based on traffic count).
 - Designate these to have a larger inventory so they can get funding for it. For the purposes of this plan, wondering how much have we seen from this effort? What other sources of funding will be used for these projects?
 - Could be debt, State funds (STIP), federal highway, etc.
- Port: add to Action 1b (or add another action), dredge waterfront properties also. (front of Crowley, landing where people float their boats). Basically improve access to Bethel for all riverbank regardless of landowner. Revise language in Action 1a (becoming an oxbow, “changing Kuskokwim River”) to make it clearer why the study is needed.
- Loop Road (Polk road) should be highest priority. City starting to look at alternatives. Consider new road (rather than ROW for existing road). Develop road that goes around H Marker Road, expand to Tundra Ridge.
 - Previously identified route or new feasible location to make that general connection.
- Parking and access standards should be lower priority.
- Trails: the above-ground water and sewer pipes are more disruptive to the trails than land ownership issues. Reserving trail routes is not one of the highest issues.
 - Can be achieved with City police not pulling over snowmachiners on roads.
 - Road is higher priority than trail – need to get ambulance or fire truck across town.

Economic Development

- Goal 5: list the actions and cross-reference with other sections
- Goal 4, Action 2b: doesn't seem like a do-able action. Make priority smaller or take out altogether? Acknowledge that Donlin Creek is under development + decisions will have to be made about it. Don't tie ourselves to pro or con, just doing due diligence. Continued information + dialogues about the project.
 - Likewise, not sure why 2a is high priority. Things unlikely to be solved by Bethel alone. Discussions with regional organizations to think together about what will be done with port, energy, etc. because they affect everyone in region. Cross reference with energy chapter.

- Goal 4, strategy 1: seems like the biggest overstatement. Define who the institutions are? Identify instead of “develop”? “Complement”?
 - Bethel = Bethel centric, AVCP = village centric

Energy

- Add or make sure hydro is in there. (maybe rewrite Action 2a)
 - Maybe add geothermal + LNG as well
- Delete Goal 1 action 1a (redundant to 1b). Rewrite 1c (energy efficiency standards for new homes?) For energy efficiency stuff, don’t get too detailed – lump into one strategy: do everything you can to be as energy efficient as possible.
 - capital purchase decisions.
 - Jury is still out on public transportation.
- Priorities = conservation + alternatives
- (land reservation for alternative energy)

Public Facilities + Services

- Condense actions in Administration + Finance, as well as parks to be considered in the Recreation section.
- Lower priorities under Goal 1 Strategy 1, and Objective A Strategies 2 and 3.
- Water/sewer: the hub and spoke system is a good idea; a financial plan should be the priority.
- Solid waste: new landfill, waste compaction, and recycling center business plan should all get the top priority designation.
 - Can we have something like the Fairbanks platform where people can leave and pick up unwanted items? (It’s there – Action 4g)
 - We would like to consider vendors to be responsible for accepting the items they sell for recycling. – Interesting idea; it’s unclear how far the City could take that policy; how would it be enforced?
 - Take out the “Craigslis” from the actions; it’s a good idea but not appropriate for this list (concentrate on actions involving/led by the City).
- Technology: took out the wi-fi from the implementation actions (since it’s a question right now, and at the workshop people said they don’t think that is something the City should get into), but left the discussion in the chapter.
- Fire + EMS: Training is very important; make that a higher priority.
- Recreation:
 - BATH center should be top priority and take out the “if resources become available” language. We’ve been taxing ourselves to build it, so keep that momentum going.

- Mention the skatepark – expand or build new ones; that has been a huge success.
- Intergovernmental Cooperation: City cannot attend School Board meetings; it's a conflict. But leave in action of helping to coordinate land use planning for school facilities.

Next Steps

- Consultants will continue to make changes to the plan based on this feedback, get it back out to CAC for review within the next 2 weeks. Any helpful comments from the CAC not mentioned at the meeting are more than welcome, please contact/send to Heather or Dan.
- Will aim for a Planning + Zoning Commission Hearing the week of July 11, with a public review period for a few weeks prior.

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