### Appendix A

# **Public Involvement Summary**

#### **Public Involvement Summary**

The Scope of Work for the Interior Alaska Transportation Plan (IATP) contains details on how to conduct public involvement for the plan. Regular contact with the public is integral to planning processes.

Activity prior to a kick off effort consisted of developing a list of contacts, interested parties and potentially affected individuals. The first meeting was held October 18, 2006 in Healy. Five people attended this meeting. A second meeting was held October 19, 2006 in Nenana. Seven individuals attended that meeting. No apparent concerns were raised at these meetings. A project website was also developed and linked to DOT&PF's website.

A newsletter was mailed to the list of contacts in November 2006. This newsletter introduced the plan, the planning area and the planning team. It listed six key issues to be addressed: Gas Pipeline Impacts; Potential Mineral Development; Military Training; Railroad Expansion; Tourism Potential; and the Aviation System.

A third kick-off meeting was held in Fairbanks December 13, 2006. Approximately 18 people attended this meeting. One individual identified safety and emergency response as additional issues. Stakeholder interviews were also conducted December 13, 2006.

Stakeholder interviews were conducted throughout 2007 and 2008 while research on the planning area was being done and draft chapters of the plan were being developed. A second newsletter was sent to the list of contacts in October 2007. This newsletter set out the goals of the plan for economic vitality, safety, funding, preservation of the system and efficiency.

A second round of public meetings was held in March 2009. The March 3, 2009 meeting was held in Delta Junction. City Council members attended this meeting as well as four members of the public. Chapters 1-4 were available for this meeting via the project website. Delta provided a list of improvement projects they wanted implemented. Wayside maintenance was discussed along with the recommendation for more rest facilities with dumpsters.

The March 19, 2009 meeting was held in Glennallen/Copper River. A presentation was made to the Copper Valley Chamber of Commerce. Representatives were also there from AHTNA, Copper River Native Association and Kluti Kaah Native Village. Several recommendations were made by members of these groups. Recommendations included upgrading waysides, providing safety lanes, etc. These groups also shared information about their upcoming plans for wood pellet manufacture, transit opportunities, gas well development and others.

A third newsletter (mislabeled No. 4) was issued for Winter/Spring 2009. This newsletter discussed the highway, airport and other modes transportation analyses.

A third meeting was held in Fairbanks May 11, 2009. Additional stakeholder interviews were held at this time. The meeting was very lightly attended. Two members of the public signed in. One individual

lived in Chicken seasonally and was interested in the Taylor Highway. The other attendee was generally interested in local improvements.

A final public meeting was held March 31, 2010 in Fairbanks. The Draft Final Report was made available on the website. Approximately 10 people attended the meeting including DOT&PF personnel. One individual was concerned about pedestrian accommodations. The Alaska Railroad representative stated he would supply more information for the recommendations in a separate document. DOT&PF maintenance staff requested a recommendation to build a maintenance station in Antimony on the Parks Highway. The FMATS Coordinator stated comments would be provided under separate cover. Other comments were made about the study area and to include a discussion of the Western Access Study.

A presentation was subsequently made to the Fairbanks Chamber of Commerce Transportation Committee on April 1, 2010. This was followed by another presentation May 20, 2010 to the same group.

Written comments were received from the Alaska Railroad and from the FMATS Coordinator.

A final newsletter was also sent to the list of contacts. This Winter/Spring 2010 newsletter highlighted the recommendations of the IATP. These included such items as "implement the state's Highway Safety Improvement Plan" and "maintain funding for trail marking".

# Appendix B

# **Annotated Bibliography**

Ref ID#	Title of Reference	Author/Organization	<u>Year</u> Pub'd	Month Pub'd	<u>Day</u> Pub'd	Type of Reference	Annotation	Area Covered
001 - Transp. Plar	Northwest Alaska Transportation Plan: Community Transportation Analysis (An Biement of the Alaska Statewide Transportation Plan	Alaska Department of Transportation and Public Facilities	2004	Februar <sub>y</sub>	11	Transportation Plan	This plan is one of several regional, multi-modal transportation plans that are part for the Statewide Transportation Plan. The plan covers winter trails, aviation, ports/harbors/shipping, mads, and includes a surmary of the Nome Tourism Study. Planning efforts explored potential road, rail, aviation, and marine transportation options to lower the costs of moving goods and removing barriers to regional economic development. The plan is broken down into two major elements - the Community Transportation Analysis (CTA), and the Resource Transportation Analysis (RTA)	
002 - Maps	Alaska Railroad Northern Rail Extension Project: Applicant's Proposed Alignments Map Set (Finance Docket No. 34658; Document 01-0800-001 Rev-3a;	Alaska Railroad Corporation	2006	March		Map Set	This document includes 18 maps of alignments under consideration by the applicant. The area covered starts southwest of Moose Creek along the Richardson Highway (near Eielso AFB). The area covered ends southeast of Delta Junction between the Alaska Highway an Jarvis Creek. The segments include the "Pile Driver Slough Segment," the "Richardson Highway Segment," the "Flag Hill Segment," the "Flag Hill Variant" (including highway relocation for construction of this segment, the "Salcha Segment," the "Salcha A Segment, the "Salcha B Segment," the "Flag Hill A Segment," the "Flag Hill Segment," the "East Segment," the "West Segment," the "Blair Lakes Spur," the "South Segment," the "Airport & Jarvis Creek Segment," and the "Sig Delta Segment," the "South Segment," the "Airport & Jarvis Creek Segment," and the "Sig Delta Segment," the "South Segment," the "Airport & Jarvis Creek Segment," and the "Sig Delta Segment," the "South Segment," the "Airport & Jarvis Creek Segment," and the "Sig Delta Segment," the "South Segment," the "South Segment," the "Richardson Segment," the "South Segment," the "Richardson Segment," the "South Segment," the "South Segment," the "Richardson Segment," the "South	
003 - Transp. Plar	North Slope Borough Comprehensive Transportation Plan (An Element of the North Slope Borough's Comprehensive Plan)		2005	August	2	Transportation Plan	This plan provides a framework to address transportation concerns in the NSB and is an element of the Borough's overall Comprehensive Plan. The plan outlines NSB transportatio issues; identifies broad transportation goals, objectives and policies that address these issues; and an analysis of the community and regional transportation networks and what it takes to maintain them. The plan is divided into seven chapters including: Introduction, Planning Issues, Objectives, Policies and Responsibilities; Monitoring and Implementation; Background; Regional Transportation Analysis; Maintenance Analysis; and Community Transportation Analysis	the North Slope Borough boundary are:
004 - Airport Plan	Copper Basin and Upper Tanana Valley Regional Airport Plar	Prepared by ASCG Incorporated. Prepared for the Alaska Department of Transportation and Public Facilities	2003	November		Regional Airport Plan	For the entire Copper Basin and Upper Tanana study area, this report identifies airports, analyzes socioeconomic data and trends, and projects avaition activity. The report identifies the regional aviation system needs and guides DOT&PF in making rational aviation investment plans, policies and management decisions to meet those needs. The plan analyzes airports individually and as a system to determin the best development and operating alternatives for the region	North of Tok TO northeast of Valdez TO southeast of McCarthy TO east of Northway Junction. Includes parts of the Alaska Range, the Chugach Mountains, and the Wrangell Mountains
005 - Transp. Plar	Southeast Alaska Transportation Plan	Alaska Department of Transportation and Public Facilities	2004	August	14	Regional Transportation Plan	The SATP is one of a series of regionwide, multi-modal transportation plans that are components of the Alaska Statewide Transportation Plan. The SATP focuses on regional transportation improvements that increase system efficiency and increase mobility. The study area includes the southeast Alaska region - including air transportation routes that go as far north as Whitehorse, Yukon. The SATP long-term vision includes regional road elements, regional ferry elements, community access elements, regional aviation improvements, intelligent transportation systems, and a basis for cost estimates. The plan identifies updates and anticipated progress by 2016.	Southeast Alaska
		Prepared by CH2MHILL. Prepared for the Alaska Department of Transportation and Public Facilities	2002	November			This document provides a vision for the Parks Highway Corridor, an overview of corridor and planning efforts, analysis of all planning units along the corridor, capital improvement policies, environmental constraints and sensitive areas, right-of-way acquisitions, access management, coordination, and review of other corridor studies	Parks Highway Corridor
007 - Transp. Plar	Northwest Alaska Transportation Plan:	the Alaska Department of Transportation and Public Facilities. Alaska Department of	2002	November	25	Regional Transportation Plan	The plan's recommendations contain eight key components including: corridor delineation, selected community linkages, intermodal development, improved marine highway service, aviation system improvements, port and harbor improvements, marked winter trail system, and validation of previous approved and ongoing projects. The plan identifies various objectives to achieve six goals including basic access for health, education and safety, assuring the preservation of the needed transp, system, enhancing transp, system efficienc improvement of transportation levels of service; enhancement of system adaptability and flexibility, development and protection of economic and subsistence resource:  Appendices include population projections for the area, demand forecast enplanements and	islands, Aleutian Islands, Bristol Bay area, and the Pribilof Islands. North Slope Borough, Northwest Arctic Borough,
008 - Appendices 009 - Mineral Development	Community Transportation Analysis (APPENDICES)  The Regional Implications of Mineral Infrastructure Development to the Ambler District. Alasks	Transportation and Public Facilities Prepared by Sandra K. Cosentino. Prepared for Dr. Lidia L. Selkregg, University of Anchorage Alaska	2004	February April	11	Appendix to Plar University Paper on Mining Development	mail, mail delivery, and aviation in rural Alaska; simulation for mail and passengers in rural Alaska; and public comments The document provides a description of the existing environment (including land status); leg issues; transportation options; scenario of change; social-economic impact summary, an economic feasibility assessment; mitigation-planning guidelines; and an implementation section.	Seward Peninsula/ Norton Sound , and the Middle Yukon River Basir al The NANA region
010 - NANA Region Report		Prepared by Mauneluk Assoc., Inc. under a grant from EDA; assisted by the Planning Support Group and Juneau Area Office,	1974	<b>ж</b> рш	24	Regional Resource & Development paper	Includes a regional overview, description of natural resources, human and social resources regional economy, community profiles, and development potentials for the region	

Ref ID#	Title of Reference	Author/Organization	<u>Year</u> Pub'd	Month Pub'd	<u>Day</u> Pub'd	Type of Reference	Annotation	Area Covered
011 - Transportation Study	DeLong Mountains Transportation System: Additional Use Study - Phase 2 (Final Report	Prepared by CH2MHILL i.a.w. Sandwell, APS, and KWA. Prepared for Alaska Industrial Development and Export Authority (AIDEA)	1994	December		Transportation Use Study	This report includes a description of data used, methods of analysis, findings of evaluations recommended facility improvements, permitting required, operational organization, cost estimates, and financial pro forma projections that encompass two phases of the project. The project was a multi-disciplinary assessment and investigation of potential additional us for the DMTS, including facilitating the delivery of fuel and supplies to communities in the NANA and NWAB regions. The two phases of the project included i) Program Definition; and 2) Development of a Regional Commodity Distribution Network Master Plan and Economic and Financial Feasibility Analysis. The report is presented in 18 sections and 5 appendices.  In Dec. 1991, CH2MHILL conducted a study of alternative coal transportation systems from	
012 - Coal Transportation Study	Northwest Alaska Resource Development Transportation Alternatives Study - Phase II: Evaluation of Transportation Options	Prepared by CH2MHILL i.a.w. Sandwell Inc, and Sanwell Swan Wooster Division. Prepared for Alaska Industrial Development and Export Authority (AIDEA)	1992	December		Coal Transportation Study	the proposed Aluag Mine to markets. This report (Phase II) evaluates the transport alternatives. The initial study proceeded in two phases: 1) Program Definition, and 2) Evaluation of Transportation Options. The Phase I report on Program Definition was submitted in 1992 - summary of Phase I work is provided in the Executive Summary of this report. This report adhes sess the following: alternative mine-to-tidewater transportation options; transportation options from tidewater to markets, conceptual layouts and preliminar designs, project constraints, preliminary design level capital cost estimates; preliminary design level capital cost estimates; preliminary design level sport and draft and final preliminary feasibility study, financial plan; additional tasks to be done; and draft and final preliminary feasibility reports. This report also contains a review of the world coal market for Alaskan coal.	
013 - Economic Analysis	Yukon River Ferry Economic Analysis	Louis Berger and Associates, Inc.	1981	March		Economic Analysis	Updates the 1973 Yukon River Ferry System study, investigates the extension of Upper an Lower Yukon routes, and socio-economic impacts of alternatives. Looks at both freight and passenger service	Yukon River corridor
014 - Tourism	Infrastructure Priorities for Developing Adventure Corridor Visitation	McDowell Group	2006	April		Tourism Study	Discusses prospects and limitations for road-based tourism in Interior Alaska. Includes pub comments on Access and Transportation among other topics	FNSB and areas supporting Fairbanks tourisr
015 - Tourism	Custom Client Report: Fairbanks Visitor Profile	McDowell Group	2004	June		Tourism Study	Summary of who is visiting the Fairbanks area, how they get there, and length of sta	Fairbanks
016 - Tourism	Alaska Highway Travel 2006 - Supplemen	GMA Research Corporation	2006	June		Tourism Study	PowerPoint slides describing the factors influencing travel for that portion of the population most likely to travel by road to Alaska through Canada	AlCan Highway Corridor
017 - Transp. Plar	Prince William Sound Area Transportation Plan, An Element of the Statewide Transportation Plan (Final Edition)	Parsons Brinckerhoff i.a.w. HDR Alaska, Northern Economics, The Glosten Associates, Christopher Beck & Associates, and Ogden Beeman & Associates	2001	July		Regional Transportation Plan		
018 - Transo Plar	Western and Arctic Transportation Study - Survey Report	Prepared by Louis Berger and Assoc., Inc i.a w. Philleo Engineering & Architechtural Services, Inc.				Transportation Study	Includes a map of the survey area — Calista, Bering Straits, and North Slope regions, and description of purposes for the survey — to provide planners with an assessment of transportation and public facilities needs, and to provide information about overall communipreferences for future economic development. The Survey Report includes survey area information on demographics, employment, subsistence, trips, problems faced by the communities; preferences for services and willingness to pay for them, preferences for roads, fuel, food and other necessities; and health care	Calista. Bering Straits, and North Slope region:
	Western and Arctic Transportation Study - Phase I: Data Collection Final Report, Volume I: Genera	Prepared by Louis Berger and Assoc., Inc I.a.w. Philleo Engineering & Architechtural Services, Inc.	1981	December		Transpotation Study	The Summary Report identifies the timeframe of the Study (February 1879 – May 1981), summarizes public involvement, and describes the three phases of the study as follows- Phase I: Data Collection; Phase II: Forecasting and Analysis; and Phase III: Project  Evaluation. The Summary Report provides a brief summary of the Phase III (project  evaluation) work in the major modes of transportation, including the aviation sector, maine  sector, highways, and resource development. The document also includes socioeconomic  and traffic forecasts, budgetary requirements, and an environmental overview that provides  assessments of major port projects and major linear projects. Appendix B of this document  includes an index of Phase I, II, and III reports, and of the Nome-Kotzebue Road Preliminar  Feasibility Study	
020 Transp Plan	Western and Arctic Transportation Study - Phase I: Data Collection Final Report, Volume II Aviation	Prepared by Louis Berger and Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services. Inc.	1980	February		Transpotation Study	Volume II of Phase I includes a description of the aviation transport system in the study are including its infrastructure grounization, operations and flee	a
	Western and Arctic Transportation Study - Phase I: Data Collection Final Report, Volume III: Marine	Prepared by Louis Berger and Assoc., Inc i.a.w. Philleo Engineering & Architechtural		100		Transpotation	Volume III of Phase I includes a description of the water transportation system including	
021 - Transp. Plar	Western and Arctic Transportation Study - Phase I: Data Collection Final	Services, Inc. Prepared by Louis Berger and Assoc., Inc i.a.w. Philleo	1980	February		Study	marine infrastructure, navigational aids, organization, operations, and flee	
022 Tranco Plan	Report, Volume IV: Other Modes of Transportation	Engineering & Architechtural Services, Inc.	1980	February		Transpotation Study	Volume IV of Phase I includes a description of highway and railway transportation, of pipelines and off-road transportation and storage	

Title of Reference Western and Arctic Transportation	Author/Organization	Pub'd	Pub'd				
			<u>runu</u>	Pub'd	Reference	Annotation	Area Covered
Report, Volume V: Environmental	Prepared by Louis Berger and Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1980	February		Transpotation Study	Volume V of Phase I includes environmental descriptions of each of four regions (Arctic- North Slope, NANA, Bering Straits, and Yukon-Kuskokwim), and the potential impact of different transportation modes upon them	
Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1980	August		Transpotation Study	Volume I of Phase II includes a description of the methodology, the socioeconomic and transportation costs; and the analysis of institution and policies which influence transportation the study area	d
Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume I	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1980	August		Transpotation Study	Volume II of Phase II includes an analysis and identification of project alternatives for aviation, marine transportation, highways, railways and off-road transportation	
Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume II	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1980	August		Transpotation Study	Volume III of Phase II includes appendices to Chapter 2	
Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume IV	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1980	August		Transpotation Study	Volume IV of Phase II includes appendices to Chapters 3, 5, 6, 7, and §	
Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume I	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1981	May		Transpotation Study	Volume I of Phase III includes a brief description of the major modes (aviation, marine, and highways) and resource development analyzer	
Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1981	May		Transpotation Study	Volume II of Phase III includes forecasts of aviation activity and requirements, description calternatives and summary of airport system needs	i
Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume III	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1981	May		Transpotation Study	Volume III of Phase III includes a description of the existing marine transportation syster	
Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume IV	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1981	May		Transpotation Study	Volume IV of Phase III includes identification and analysis of new routes, reconstruction an local roads and trail projects	d
Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V	Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1981	May		Transpotation Study	Volume V of Phase III includes potential for mineral development in the WAATS area and marketing considerations	
Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume VI	Prepared by Louis Berger and Assoc., Inc i.a.w. Philleo Engineering & Architechtural Services, Inc.	1981	May		Transpotation Study	Volume VI of Phase III includes a description of long term, medium term, and short term effects on the environment, of projects analyzed in Phase III of WAATS	
Copper Valley Regional Plan CEDS Comprehensive Economic Development Strateny	Copper Valley Development	2003			CEDS	the Copper Valley. Includes background info on region, section on Transportation with goc inventory of roads & airports, and regional economy with information on tourism and visitor travel through the area. Transportation is one of the plan's goals and includes an analysis	
Alaska's Mineral Industry 2005 Special	Hughes, RA & Szumigala, DJ. Division of Geological and Geophysical Surveys i.a.w. Office of Economic Development, and Division of		3 5			Description of growth in mineral industry in 2005 including revenues from mineral industry to	0
	Mining, Land, & Water	2005	7			the State, employment, exploration, and developmen	State
Summary	Hughes, RA & Szumigala, DJ.	2005			Summary	Executive Summary of Alaska's Mineral Industry 2005	State
Kenai Peninsula Borough Transportation Plar	HDR Alaska, Inc., i.a.w. Kittelson & Assoc., Inc.	2003	Dec.		Transportation Study	A multimodal transportation study update provideing goals for transportation development and management in the KPB, an overview of existing facilities, and a summary of programs that fund construction and maintenance of transportation facilities. Also action items and a traffic analysis model for the KPE	Kenai Peninsula Borougt
		2000	Cont	9.9	Traffic Volume	Date as traffic is the Newthern Design from 2002 thus set 2005	ADOT&PF Northern Region
Yukon-Kuskokwim Delta Transportatior Plan (An Element of the Alaska	,			AII .	Transportation	The Y-K Delta Plan describes the region's transportation systems, outlines the date and modes! used to analyze transportation trends, and defines projects needed to meet deman	
	Impacts of Transportation Development Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume II Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume II Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume II Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume II Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume III Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume III Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume III Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume IV Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V	Impacts of Transportation Development  Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume  Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume  Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume I  Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume II  Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume II  Western and Arctic Transportation Study - Phase II: Forecasting and Analysis Final Report, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume II  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume IV  Western and Arctic Transportation Study - Phase III: Project Evaluation, Volume V  Prepared by Louis Berger and Assoc, Inc i.a. w. Philleo Engineering & Architechtural Services, Inc.  Prepared by Louis Berger and Assoc, Inc i.a. w. Philleo Engineering & Architechtural Services, Inc.  Prepared by Louis Berger and Assoc, Inc i.a. w. Philleo Engineering & Architechtural Services, Inc.  Prepared by Louis Berger and Assoc, Inc i.a. w. Philleo Engineering & Architechtural Services, Inc.  Prepared by Louis Berger and Assoc, Inc i.a. w. Philleo Engineering & Architechtural Services, Inc.  Prepared by Louis Berger and Assoc, Inc i.a. w. Philleo En	Impacts of Transportation   Development   Services, Inc.   1980	Engineering & Architechtural   Services, Inc.   1980   February   February	Irrigates of Transportation Development Services, Inc. Services, I	Impacts of Transportation  Engineering & Architechtural  Services, Inc.  Bergare by Louis Berger and Assoc, Inc. iaw. Philleo Engineering & Architechtural Services, Inc.  Bergare by Louis Berger and Assoc, Inc. iaw. Philleo Bengineering & Architechtural Services, Inc.  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Ref ID#	Title of Reference	Author/Organization	<u>Year</u> Pub'd	Month Pub'd	<u>Day</u> Pub'd	Type of Reference	Annotation	Area Covered
040 - Resource Mgt. Plan	East Alaska Proposed Resource Management Plan and Final EIS, Volume I	DOI BLM, Glennallen Field Office	2006	June		Resource Mgt. Plan/EIS	Specifies management policies and actions for BLM-managed lands. Issues include: Trave Management, Recreation, Natural & Cultural Resources, Lands & Realty, Vegetation Mgt., Leasable & Locatable Minerals, and Subsistence/Social & Economic Conditions. Volume I contains thatpers on Introduction, Alteranatives, and Affected Environmer	BLM lands in Eastern Al <sup>c</sup>
041 - Resource Mgt. Plan	East Alaska Proposed Resource Management Plan and Final EIS, Volume I, continuec	DOI BLM, Glennallen Field Office	2006	June		Resource Mgt. Plan/EIS	Volume I, continued, contains chapters on Environmental Consequences, and Consultation and Coordination	BLM lands in Eastern Ak
042 - Resource Mgt. Plan	East Alaska Proposed Resource Management Plan and Final EIS, Volume II	DOI BLM, Glennallen Field Office	2006	June		Resource Mgt. Plan/EIS	Volume II contains appendices	BLM lands in Eastern Ak
043 - Public Law	Alaska Land Transfer Acceleration Ac	108th United States Congress	2004	Dec.	10	Public Law	The law by which lands in Alaska are conveyed to the state, communities, etc., including th Alaska Native Claims Settlement Act (ANCSA) and provision for Native Allotments	State of Alaska
044 - EIS	Yukon Flats National Wildlife Refuge Proposed Land Exchange EIS, Final Public Scoping Summary Repor	ENSR/AECOM for USFWS & NWR System	2006	August		Resource Mgt. Plan/EIS	A study of environmental impacts of a proposed land exchange between Doyon and USFN in which Doyon would receive title to some YF Wildlife Refuge lands with oil and gas potential in exchange for an equal value amount of quality fish and wildlife habitat currently owned by Doyon. Relevant to transportation planning because of requested easements an connections to the Trans-Alaska Pipeline corredor	t Yukon Flats NWF
045 - Managemer Plan	nt Chena River State Recreation Area Management Plan - Final Pla	Northern Area State Parks, Alaska Division of Parks and Outdoor Recreation, DNR	2006	November		Plan	Plan for management of Chena River Recreation Area. Includes goals such as "work with DOT/PF to widen shoulders at certain locations along Chena Hot Springs Road to allow saf bilding and walking," and goals specific to road maintenance. Recommendations for development along Chena Hot Springs Road, contingent upon DOT/PF priorities and funding.	Chena River State Recreation Area (28 miles east of Fairbanks)
046 - Area	Tanana Basin Area Plan for State		1985, 1991				Plan for management of Public Lands in the Tanana Basin. Includes Transportation Goals I "all forms of surface, air, and water transportation, and all forms of utility or resource transportation corridors." Implementation strategies hinge on the premise that "design of ar efficient regional transportation system is key to resource development and a major determinant of land use" Proposed transportation corridors include AK Natural Gas Pipeline, ARR extension and two other RR corridors, Twn Mt. access, Parks Hwy/Kantishna/McGrath Hwy Corridor, Upper Wood River/Bonnifield Mining District corridor, Nenana-Totchaket Area Access, TAPS Oil Spill gontingency Plan Access Routes. Reconstruction, realignment and improvement of existing highways, trails and roads are als	
Management Plan 047 - Regulations	Lands Guidelines for Snowmobile Trail Signing and Placemen	DNR Alaska State Parks	Update 2000	Dec.		Area Plan Guidelines	suggested.  Provides direction for effective placement of signs on Alaska snowmobile trails	Tanana Basir State of Alaska
048 - Maps	Trails Guide	BLM	2000	Det.		Guidelines	Provides direction for enective placement or signs on Araska Showmoone trans	State Ur Alaska
049 - Regulations	Commercial Vehicle Enforcement 2008 Annual Report	DOT&PF Division of Measurement and Standards & Commercial Vehicle Enforcemen	2006			Regulations	Provides information on commercial vehicle highway useage Report for proposed roadway network in Nenana agricultural area. 1981 costs were	State of Alaska
050 - Transp. Plar	Nenana Agricbultural Transportation Systems	Henningson, Durham &Richardson	1981	Feb.		Plan	\$17,305,255.00 which included 3 bridges, 23 miles of primary access road (secondary standards) and 14 miles of secondary and tertiary roads connecting farm lots	
051 - Website	http://www.wildlife.alaska.gov/gis/maps/rangem	aps/bears.qif	Accessed 2009	May		website		
052 - Website	http://www.wildlife.alaska.gov/gis/maps/rangem	aps/moose of	Accessed 2009	Мау		website		
053 - Website	http://www.wildlife.alaska.gov/index.cfm?adfg=v	volf.wolf mgt	Accessed 2009	May		website		
054 - Website	http://www.wildlife.alaska.gov/index.cfm?adfq=p	pubs.fa_si_rpts	Accessed 2009	May		website		
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056 - Financial Study	Alaska Transportation Finance Stud	Alaska Municipal League	Accessed 2009	April		Analysis	Analysis of infrastructure expenditures and needs and options for fundin	State of Alaska
057 - Website	http://www.tokalaska.com/pages/about_tok.htm		Accessed 2007	Sept.		website	provided information about Tok "Gateway to Alaska"	Tok, Alaska
058 - Website	http://www.goingnorthry.com/tok.htm		Accessed 2007	Sept.		website	Tok Cutoff Highway information.	Tok, Alaska
059 - Website	http://bellsalaska.com/myalaska/steesehy.html		Accessed 2007	Sept.		website	Steese Highway information	Steese Highway
060 - Website	http://www.steesehighway.org/steeshistory.htm		Accessed 2007	Sept.		website	Steese Highway information	
	http://www.fairbanks-alaska.com/steese- highway.htm		Accessed 2007	Sept.		website	Steese Highway information	
061 - Website 062 - Newspaper Article	Salmon renews push for Interior Ferr	Fairbanks Daily News Mine	Accessed 2007	May		news article	Article discusses ferry system for Interior Alaska	Yukon River Village:
			Accessed	reserv.		THE STATE OF THE S		Control of the Contro

Ref ID#	Title of Reference	Author/Organization	<u>Year</u> <u>Pub'd</u>	Month Pub'd	<u>Day</u> Pub'd	Type of Reference	Annotation	Area Covered
Plan	Yukon Flats Cooperative Moose Management Plar	ADF&G	Accessed 2007	April		Plan	Cooperative plan between locals, state and federal agencies	Yukon Flats
Development	Alaska's Mineral Industry 2006: A Summary	Hughes, RA & Szumigala, DJ.	Accessed 2007	March		Annual Repor	Summary of explorations and developments in the mineral and oil and gas industi	State of Alaska
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067 - Report	Alaska Visitor Statistics Program V: Summer 2006	Alaska Division of Tourism	Accessed 2007 Accessed	August		Annual Repor	Visitor information on trip purpose and transportation	State of Alaska
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069 - Website	http://www.explorenorth.com/library/roads/lopof world.html http://www.nps.gov/archive/wrst/virtualtour/ken		2007 Accessed	October		website	Top of the World Highway information	Top of the World Highway
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073 - Website	http://www.karo-ent.com/edghwy.htm http://www.explorenorth.com/library/roads/dena		2007 Accessed	October		website	Edgerton Highway information and McCarth	Ditto
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076 - Plar	Planning Repor	Fairbanks North Star Borough Rail 2100 Task Force March 2004	Accessed 2008			Plan	Analysis of rail realignment and extension in Fairbanks are	Fairbanks
077 - Newspaper Article	Enstar begins early work to develop bullet gas line to Southcentra	Alaska Journal of Commerce	Accessed 2008	May	11	Article	Enstar is proceeding with a bullet gas line development projec	State of Alaska
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079 - EIS	Scoping Report Nabesna ORV Trail Environmental Impact Statemen	National Park Service, Wrangell- St. Elias National Park and Preserve	Accessed 2009	May		Environmental Impact Statement	Offroad trails in WSRT and how to preserve access while being environmentally soun	WSRT
	Revised Comprehensive Consevation Plan Tetlin National Wildlife Refuge	USF&WS	Accessed 2009	Mav		Conservation Plan	Refuge conservation plan with background biological data	Tettin NWR
		BLM with Eagle Historical Society and ADOT&PF	Accessed 2010	may		Brochure	Part of a BLM "Adventures in the Past" Series	northern portion of the trail to Eagle
	Run Forecasts and Harvest Projections for 2010 Alaska Salmon Fisheries and Review of the 2009 Season Special							
		ADF&G	2010	Februar <sub>y</sub>		Research Report	Statewide forecasts for Commerical Fisheries	Yukon River Village:

# Appendix C

# Population Projection Memorandum



### **Memorandum**

**To:** Nicole McCullough, WHPacific, IATP Project Manager

From: Jonathan King, Principal

**Date:** June 25<sup>th</sup>, 2008

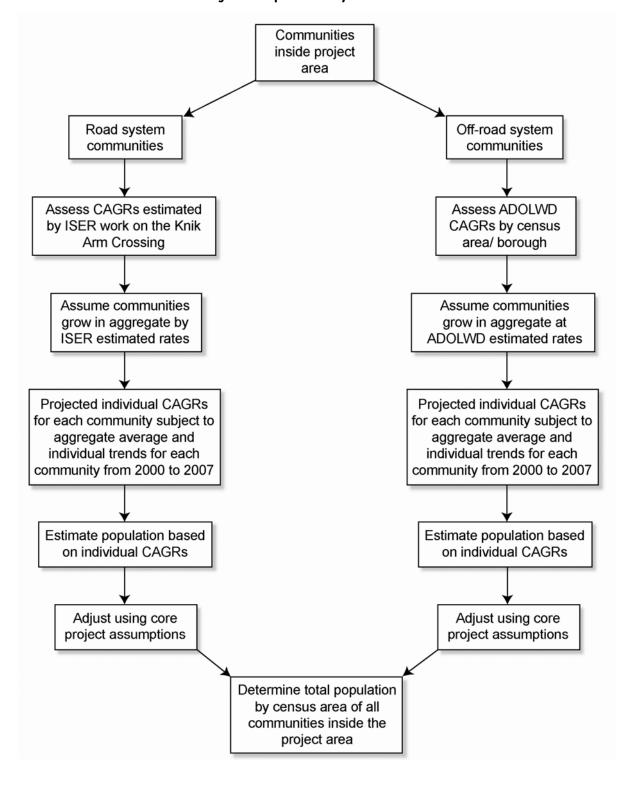
**Re:** 2030 Population Projections

This memo describes population estimates that Northern Economics, Inc. prepared for 59 communities and places associated with the Interior Alaska Transportation Plan (IATP) project area. These estimates will be incorporated into the IATP analysis and used to assist the Alaska Department of Transportation and Public Facilities in their planning efforts.

### **Population Estimation Process**

The population estimation process involves multiple steps that start by dividing the communities within the project area into two groups: communities on the road system and communities off the road system (see Figure 1). The estimation process divides the communities into these groups because off-road system communities are less likely to be affected by reasonably foreseeable mega-projects such as the construction of the Knik Arm Crossing or the North Slope Gas Pipeline. The estimation processes for the two groups then follow distinct, but similar paths:

- The analysis identifies census area/borough-specific compound annual growth rates (CAGRs) from Alaska Department of Labor and Workforce Development and the University of Alaska-Anchorage's Institute of Social and Economic Research (ISER). ISER growth estimates include an assumption that the Knik Arm Crossing and the Gas Pipeline will be built. These estimates are used as the basis for the road system communities. The analysis uses ADOLWD's estimates as the base growth rates for non-road system communities.
- The analysis assumes that communities, in aggregate, grow at the census area or borough specific compound annual growth rate from ISER or ADOLWD. For example, ADOLWD estimates that communities in the Yukon-Koyukuk Census Area will grow at -0.6 percent per year through 2030. Thus, we assume that the non-road system Yukon-Koyukuk Census Area communities will grow in aggregate by -0.6 percent per year. However, individual growth rates will vary.
- The analysis assumes that the difference between a community's individual CAGR and the weighted average for that community's census area between 2000 and 2007 will continue into the future. For example, as Ester evolved into a bedroom community for Fairbanks, Ester grew 2.4 percent per year faster than the average CAGR for the Fairbanks North Star Borough between 2000 and 2007. We assume that this pattern continues in the future.



**Figure 1. Population Projection Process** 

After estimating individual CAGRs for each community, the resulting population estimates are
adjusted to make sure that the results for each community fit the internally consistent set of
assumptions developed by the study team. For example, initial model runs projected a steep

decline in population at Eielson Air Force Base. However, the core assumptions for the project include a stable military population after 2015. The model assumptions are as follows:

#### Petroleum

- Enhanced oil recovery technologies and OCS activity enable producers to maintain TAPS throughput at about 600,000 barrels per day (lower than current throughput);
   oil prices remain at current levels or higher
- o First gas ships in 2020 on large gas pipeline to North American markets
- o Small gas pipeline from North Slope/Brooks Range to Cook Inlet begins operations in 2014; gas is available in Fairbanks area in 2014
- o Gas is discovered at Yukon Flats but is not produced until large diameter pipeline is available
- Coal bed methane is developed and used locally within the region but is not developed for export

#### **Mining**

- o Fort Knox/True North employment remains steady through 2020 as other gold deposits are exploited to maintain production; employment declines after that date
- o Healy coal production remains constant
- Other mining activity results in mining employment increasing at about 2 percent annually but most employees reside in Fairbanks or other communities accessible by the road system and work a camp schedule (2 weeks on/2 weeks off)

#### **Tourism**

 High gasoline and diesel prices result in declining numbers of highway (RV) travelers but international and winter tourism increases to maintain visitor counts near current levels; tourism activities are concentrated in major tourist centers and attractions with fewer visitors to small communities

#### **Agriculture and Forest Products**

o Modest (1 percent) annual growth in agriculture and forest products employment, primarily for local consumption; all of this growth is on the road system

#### Federal Government

- Long-term trend of 0.25 percent growth in civilian employment continues and stable military strength after 2015
- The value of federal grants decline by two-thirds by 2016 and then track population growth

### State Government

o State spending growth moderates to grow in line with inflation after 2008

#### **Population**

- o ADOLWD population forecasts for census areas that are not on the road system will be used as control for the communities within the census area; boroughs and census areas on the road system will be affected by the gas pipeline project and other basic sector changes as modeled by ISER's "with bridge" scenario prepared for the Knik Arm Crossing Environmental Impact Statement (EIS). Note that the assumption of a bridge does not have any significant affect on the communities in the study area.
- In the final step, the analysis aggregates community results into census area and borough level results.

### **Study Communities**

The model used in this analysis represents the continuation of current population migration trends, particularly population declines. These trends have been indentified in Northern Economics' own research and in the research of others. For example, in 2008, ISER released *Fuel Costs, Migration, and Community Viability*. The report found:

- 1. Migration from smaller places toward larger places is an ongoing phenomenon that is more noticeable when birth rates drop;
- 2. There is no systematic empirical evidence that fuel prices, by themselves, have been a definitive cause of migration;
- 3. The pursuit of economic and educational opportunities appear to be a predominant cause of migration;
- 4. Currently available survey data are not sufficient to definitively determine other reasons for migration, which could include concerns about public safety and/or alcohol abuse;
- 5. Most of the survey data pre-date the latest rapid increase (2006-2008) in fuel prices.

The data for this analysis show that declining population is an issue for many communities; between 2000 and 2007, 29 of the 59 communities or places experienced negative growth rates (see Table 1). Amongst study communities, Rampart's population decreased the fastest with a CAGR of -13 percent per year. Tazlina exhibited the fastest growth rate of the 24 communities with positive growth rates between 2000 and 2007. The community grew at a 5.7 percent CAGR from 2000 to 2007 as it rebounded from a 40 percent population decline that occurred between 1990 and 2000.

lable '	1. Communities in the I	Project Area

Community/ Place	Borough/ Census Area	1990 Population	2000 Population	2007 Population	2000-2007 CAGR	1990-2007 CAGR	Road System Access
Anderson	Denali	628	367	234	-6.2%	-5.6%	Yes
Cantwell	Denali	147	222	183	-2.7%	1.3%	Yes
Healy	Denali	487	1,000	1,027	0.4%	4.5%	Yes
College	FNSB	11249	11402	12149	0.9%	0.5%	Yes
Eielson AFB	FNSB	5,251	5,400	4119	-3.8%	-1.4%	Yes
Ester	FNSB	147	1,680	2,041	2.8%	16.7%	Yes
Fairbanks, City of	FNSB	30,843	30,224	31,627	0.7%	0.1%	Yes

Community/ Place	Borough/ Census Area	1990 Population	2000 Population	2007 Population	2000-2007 CAGR	1990-2007 CAGR	Road System Access
FNSB Remainder <sup>1</sup>	FNSB	26654	29547	35546	2.7%	1.4%	Yes
Fox	FNSB	275	300	354	2.4%	1.5%	Yes
Harding-Birch Lakes	FNSB	27	216	245	1.8%	13.8%	Yes
Moose Creek	FNSB	610	542	650	2.6%	-0.2%	Yes
Pleasant Valley	FNSB	401	623	671	1.1%	3.4%	Yes
Salcha	FNSB	354	854	995	1.2%	6.0%	Yes
North Pole	FNSB	1,456	1,570	1,945	3.1%	1.7%	Yes
Two Rivers	FNSB	453	482	621	3.7%	1.9%	Yes
Lake Louise	MSB	No Data	88	91	0.5%	No Data	Yes
Big Delta	SE Fairbanks	400	749	790	0.8%	4.1%	Yes
Chicken	SE Fairbanks	No Data	17	19	1.6%	No Data	Yes
Delta Junction	SE Fairbanks	652	885	974	1.4%	2.4%	Yes
Dot Lake	SE Fairbanks	70	19	15	-3.3%	-8.7%	Yes
Eagle	SE Fairbanks	168	129	109	-2.4%	-2.5%	Yes
Healy Lake	SE Fairbanks	47	37	37	0.0%	-1.4%	No
Northway	SE Fairbanks	201	179	147	-2.8%	-1.8%	Yes
Tanacross	SE Fairbanks	106	140	173	3.1%	2.9%	Yes
Tetlin	SE Fairbanks	87	124	165	4.2%	3.8%	Yes
Tok	SE Fairbanks	935	1,393	1,353	-0.4%	2.2%	Yes
Chisana	Valdez-Cordova	No Data	12	7	-7.4%	No Data	No
Chistochina	Valdez-Cordova	60	93	93	0.0%	2.6%	Yes
Chitina	Valdez-Cordova	49	123	124	0.1%	5.6%	Yes
Copper Center	Valdez-Cordova	449	362	337	-1.0%	-1.7%	Yes
Gakona	Valdez-Cordova	25	215	236	1.3%	14.1%	Yes
Glennallen	Valdez-Cordova	451	554	518	-1.0%	0.8%	Yes
Gulkana	Valdez-Cordova	103	88	113	3.6%	0.5%	Yes
Kenny Lake	Valdez-Cordova	423	410	411	0.0%	-0.2%	Yes
McCarthy	Valdez-Cordova	25	42	54	3.7%	4.6%	Yes
Mendeltna	Valdez-Cordova	37	63	68	1.1%	3.6%	Yes
Mentasta Lake	Valdez-Cordova	96	142	109	-3.7%	0.7%	Yes
Nelchina	Valdez-Cordova	No Data	71	52	-4.4%	No Data	Yes
Paxson	Valdez-Cordova	30	43	32	-4.1%	0.4%	Yes
Slana	Valdez-Cordova	63	124	108	-2.0%	3.2%	Yes
Tazlina	Valdez-Cordova	247	149	219	5.7%	-0.7%	Yes
Tonsina	Valdez-Cordova	38	92	76	-2.7%	4.2%	Yes
Arctic Village	Yukon-Koyukuk	96	152	155	0.3%	2.9%	No
Beaver	Yukon-Koyukuk	103	84	65	-3.6%	-2.7%	No
Birch Creek	Yukon-Koyukuk	42	28	26	-1.1%	-2.8%	No
Central	Yukon-Koyukuk	52	134	95	-4.8%	3.6%	Yes
Chalkyitsik	Yukon-Koyukuk	90	83	72	-2.0%	-1.3%	No
Circle	Yukon-Koyukuk	73	100	102	0.3%	2.0%	Yes
Coldfoot	Yukon-Koyukuk	No Data	13	11	-2.4%	No Data	Yes
Fort Yukon	Yukon-Koyukuk	580	595	591	-0.1%	0.1%	No
Lake Minchumina	Yukon-Koyukuk	32	32	17	-8.6%	-3.7%	No

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<sup>&</sup>lt;sup>1</sup> Includes all areas in the Fairbanks North Star Borough not capture in the City of Fairbanks, College CDP, Eielson Air Force Base CDP, Ester CDP, Fox CDP, Harding-Birch Lakes CDP, Moose Creek CDP, Pleasant Valley CDP, Salcha CDP, and Two River CDP.

Community/ Place	Borough/ Census Area	1990 Population	2000 Population	2007 Population	2000-2007 CAGR	1990-2007 CAGR	Road System Access
Livengood	Yukon-Koyukuk	No Data	29	21	-4.5%	No Data	Yes
Manley Hot Springs	Yukon-Koyukuk	96	72	72	0.0%	-1.7%	Yes
Minto	Yukon-Koyukuk	218	258	180	-5.0%	-1.1%	Yes
Nenana	Yukon-Koyukuk	393	402	357	-1.7%	-0.6%	Yes
Rampart	Yukon-Koyukuk	68	45	17	-13.0%	-7.8%	No
Stevens Village	Yukon-Koyukuk	102	87	71	-2.9%	-2.1%	No
Tanana	Yukon-Koyukuk	345	308	257	-2.6%	-1.7%	No
Venetie	Yukon-Koyukuk	182	202	181	-1.6%	0.0%	No

Source: U.S. Census Bureau Census 1990; U.S. Census Bureau Census 2000; Alaska Department of Labor and Workforce Development 2008; Northern Economics, Inc. estimates 2008.

The data for this analysis also show that there is no single monolithic reason why communities grow or shrink. For example, a common expectation has been that off-highway system communities are losing population are greater rates than communities with road access because fuel prices tend to be higher and employment opportunities are less frequent. While the data for this analysis support this common hypothesis in the aggregate, the hypothesis does not hold true for larger communities in the Yukon-Koyuk Census Area.<sup>2</sup> In this region, larger communities off the highway system lost population more slowly than on-highway communities of similar size. One reason maybe that there is something unique about larger communities in this region (e.g., an especially cohesive population or higher birth rates); another reason may be that for these communities there may have come a point where those citizens that are least able to afford fuel are also those that can least afford to move. It is less expensive for a family that lives on the road system to leave a community than for those who live off the road system to leave. However, in general the data show that smaller communities (e.g., those with populations less than 250) and those off the road-system (with the exception of the YK Census area) are likely to have larger, negative population growth rates than larger communities on or off the highway system.

#### **Population Estimates**

The analysis estimates that almost all of the census areas and boroughs included in this analysis will grow between 2007 and 2030, but that growth rates will be modest. Overall, the weighted CAGR for all communities in the study is expected to be 0.9 percent between 2007 and 2030. The aggregate population of the project communities in the Fairbanks North Star Borough is expected to grow most quickly, albeit at a modest 1.1 percent CAGR, driven by the construction of the North Slope natural gas pipeline and the City of Fairbanks' role as a regional hub. The analysis projects that the aggregate population of the project communities in the Yukon-Koyukuk Census Area will fall slightly. This decline continues a pattern identified in recent work by ISER and by Northern Economics. The remaining areas will see very modest population growth.

<sup>&</sup>lt;sup>2</sup> Between 2000 and 2007, Off-highway communities exhibited a weighted CAGR of -1.5 percent versus an on-highway system average of 0.2 percent. In the YK Census area off-road communities had a CAGR of -1.5 percent while on-road communities averaged -2.6 percent.

Table 2. Study Area Population Projections by Census Area/Borough<sup>3</sup>

Borough/ Census Area	Number of Communities Inside Project Area	2007 Population	2010 Population	2020 Population	2030 Population	2007- 2030 CAGR
Matanuska-Susitna Borough	1	91	91	102	114	1.0%
Denali	3	1,444	1,392	1,375	1,348	-0.3%
Yukon-Koyukuk	17	2,290	2,179	1,973	1,843	-0.9%
Valdez-Cordova	17	2,564	2,429	2,275	2,156	-0.8%
SE Fairbanks	10	3,782	3,688	3,734	3,674	-0.1%
Fairbanks North Star	12	90,963	91,193	103,673	116,469	1.1%
Grand Total	60	101,134	100,971	113,133	125,603	0.9%

Source: U.S. Census Bureau Census 1990; U.S. Census Bureau Census 2000; Alaska Department of Labor and Workforce Development 2008; Northern Economics, Inc Estimates 2008.

In aggregate, the populations of non-road system communities within the project's study area are expected to decline at a CAGR of -0.2 percent between 2007 and 2030. This CAGR will result in a change in the current population from nearly 1,500 to approximately 1,430. While the aggregate population of these communities will be relatively stable, the changes in individual community populations will be highly variable. For example the analysis estimates that the populations of Lake Minchumina, Rampart, and Chisana will decline into the single digits by 2030, effectively indicating that the communities may cease to exist in the long-term while the population of Beaver is estimated to be half of the current population. On the other hand, the analysis estimates that some larger communities such as Arctic Village and Fort Yukon will grow slowly during the analytical period either through natural population growth or in-migration.

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<sup>&</sup>lt;sup>3</sup> This table aggregates estimates by census area/borough. The table does not contain comprehensive estimates of actual census area or borough populations because there are communities in some of the census areas and boroughs which are not included in the project area. The analysis does not provide population projections for communities outside the project area.

**Table 3. Population Projections for Non-Road System Communities** 

Community/ Place	Borough/ Census Area	2007 Population	Estimated 2010 Population	Estimated 2020 Population	Estimated 2030 Population	Estimated 2007-2030 CAGR
Arctic Village	Yukon Koyukuk	155	160	179	200	1.1%
Beaver	Yukon Koyukuk	65	60	45	34	-2.8%
Birch Creek	Yukon Koyukuk	26	26	25	25	-0.2%
Chalkyitsik	Yukon Koyukuk	72	69	62	55	-1.2%
Fort Yukon	Yukon Koyukuk	591	604	650	700	0.7%
Lake Minchumina	Yukon Koyukuk	17	13	6	3	-7.8%
Rampart	Yukon Koyukuk	17	12	3	1	-12.1%
Stevens Village	Yukon Koyukuk	71	67	54	44	-2.0%
Tanana	Yukon Koyukuk	257	244	205	172	-1.7%
Venetie	Yukon Koyukuk	181	177	165	153	-0.7%
Healy Lake	Southeast Fairbanks	37	38	40	42	0.6%
Chisana	Valdez-Cordova	7	6	3	1	-7.3%
Total for Non-Road	1,496	1,476	1,437	1,430	-0.2%	

Source: Alaska Department of Labor and Workforce Development 2008; Northern Economics, Inc Estimates 2008.

Based on estimates prepared by ISER (Goldsmith 2005) for the Knik Arm Crossing Environmental Impact Statement, the analysis estimates that the road system communities will grow at an average CAGR of 1.0 percent between 2007 and 2030. Under these conditions, the aggregate population of the communities will grow from approximately 99,631 persons in 2007 to 124,173 in 2030. Nominally, Fairbanks is expected to grow the most, but will have a relatively modest growth rate close to the average for all communities in the study. Evolving bedroom communities in the Fairbanks area such as Ester and Two Rivers will see faster growth as new residents take advantage of relatively lower land prices. Tourism gateway communities such as McCarthy may also see future growth. Other communities will see population losses. Communities such as Chicken, Livengood, Minto, and Nelchina will likely shrink as their residents' age and more mobile residents seek lower living costs or higher wages in larger communities.

**Table 4. Population Projections for Road System Communities** 

Community/ Place	Borough/ Census Area	2007 Population	Estimated 2010 Population	Estimated 2020 Population	Estimated 2030 Population	Estimated 2007-2030 CAGR
Lake Louise	Matanuska-Susitna	91	91	102	114	1.0%
Anderson	Denali	234	234	263	292	1.0%
Big Delta	SE Fairbanks	790	776	804	817	0.1%
Cantwell	Denali	183	161	118	84	-3.3%
Central	Yukon-Koyukuk	95	78	46	26	-5.4%
Chicken	SE Fairbanks	19	19	22	24	1.0%
Chistochina	Valdez-Cordova	93	89	86	81	-0.6%
Chitina	Valdez-Cordova	124	119	116	110	-0.5%
Circle	Yukon-Koyukuk	102	99	98	94	-0.3%

Community/ Place	Borough/ Census Area	2007 Population	Estimated 2010 Population	Estimated 2020 Population	Estimated 2030 Population	Estimated 2007-2030 CAGR
Coldfoot	Yukon-Koyukuk	11	10	10	10	-0.4%
College CDP	Fairbanks North Star	12149	11979	12606	12991	0.3%
Copper Center	Valdez-Cordova	337	313	272	231	-1.6%
Delta Junction	SE Fairbanks	974	974	1074	1074	0.4%
Dot Lake	SE Fairbanks	15	13	9	6	-3.9%
Eagle	SE Fairbanks	109	97	73	54	-3.0%
Eielson AFB	Fairbanks North Star	4119	3512	3512	3512	-0.7%
Ester	Fairbanks North Star	2041	2130	2458	2836	1.4%
Fairbanks	Fairbanks North Star	31627	30940	31727	31856	0.0%
FNSB Remainder	Fairbanks North Star	35546	36946	46275	56776	2.1%
Fox	Fairbanks North Star	354	365	444	530	1.8%
Gakona	Valdez-Cordova	236	236	259	278	0.7%
Glennallen	Valdez-Cordova	518	483	421	360	-1.6%
Gulkana	Valdez-Cordova	113	121	166	224	3.0%
Harding-Birch Lake CDP	Fairbanks North Star	245	248	286	322	1.2%
Healy	Denali	1027	997	995	972	-0.2%
Kenny Lake	Valdez-Cordova	411	395	381	359	-0.6%
Livengood	Yukon-Koyukuk	21	18	11	6	-5.1%
Manley Hot Springs	Yukon-Koyukuk	72	69	66	62	-0.6%
McCarthy	Valdez-Cordova	54	58	80	107	3.0%
Mendeltna	Valdez-Cordova	68	67	72	76	0.5%
Mentasta Lake	Valdez-Cordova	109	93	61	39	-4.3%
Minto	Yukon-Koyukuk	180	148	85	47	-5.6%
Moose Creek CDP	Fairbanks North Star	650	675	841	1027	2.0%
Nelchina	Valdez-Cordova	52	44	27	16	-5.0%
Nenana	Yukon-Koyukuk	357	325	264	209	-2.3%
North Pole	Fairbanks North Star	1945	2048	2675	3423	2.5%
Northway (Jct.& Village)	SE Fairbanks	147	129	94	66	-3.4%
Paxson	Valdez-Cordova	32	27	27	27	-0.7%
Pleasant Valley CDP	Fairbanks North Star	671	665	710	743	0.4%
Salcha CDP	Fairbanks North Star	995	1020	1220	1430	1.6%
Slana	Valdez-Cordova	108	98	77	59	-2.6%
Tanacross	SE Fairbanks	173	182	237	302	2.5%
Tazlina	Valdez-Cordova	219	230	271	319	1.7%
Tetlin	SE Fairbanks	165	179	201	224	1.3%
Tok	SE Fairbanks	1353	1281	1181	1065	-1.0%
Tonsina	Valdez-Cordova	76	67	49	35	-3.3%
Two Rivers	Fairbanks North Star	621	665	919	1022	2.2%
Total Pop. of Road System Communities		99,631	99,490	111,693	124,173	1.0%

Source: Alaska Department of Labor and Workforce Development 2008; Goldsmith 2005; and Northern Economics, Inc Estimates 2008.

### The Effect of Unexpected Events

The estimates in this memo are based on current trends and reasonably foreseeable actions and events (RAFE). However, a list of RAFEs rarely predicts what actually happens in the future. Future events can occur before or after they were initially predicted to appear. They can also fail to happen altogether. Just as importantly, new events that were not predicted to happen can appear and result in a radically different future than what was originally predicted. Events that could significantly change the results of this analysis include:

- Large changes in energy prices. Neither the data used in ISER Knik Arm Crossing work, ISER's 2008 fuel cost analysis, or this analysis reflect the long-term effect of rapidly increasing fuel costs that communities have experienced in the last 18 months. Further increases, or rapid decreases, in fuel prices may affect population growth rates and the stability of individual communities.
- The failure of efforts to build the Arctic North Slope Natural Gas Pipeline. The ANS gas pipeline will bring many workers and their families into Interior Alaska and larger communities such as Fairbanks.
- Major changes in federal policy either through direct changes in federal expenditures or through the Base Realignment and Closure (BRAC) process.
- Force majeure events such as rapid climate change, epidemic, or natural catastrophe.
- Major changes in state and federal transportation policy such as a road from Fairbanks to Nome or the completion of a rail link with Western Canada.
- Large changes in Permanent Fund Dividend checks. Large checks bring significantly more money to smaller communities and can help individuals bear larger changes in living costs.