

Southeast Mid Region Access Draft Study Delivery Plan

Prepared for

Federal Highway Administration

Alaska Department of Transportation and Public Facilities



April 2011

PREFACE

HISTORY

The past half century has seen substantial progress in linking Alaska's panhandle with other parts of Alaska and the lower 48 states. The largest communities now enjoy daily jet service north and south for passengers and freight. Tour ship visitors arrive in Ketchikan, Sitka, Juneau, Skagway, and several other communities each summer. The private sector carries most of the freight to the region, with two regional operations ensuring competition at larger ports served by barge. The Alaska Marine Highway System (AMHS) and the Inter-Island Ferry Authority (IFA) also provide transportation alternatives for residents. These public operations provide roll-on/roll-off highway links among communities and the continental highway system by operating ferries that carry vehicles and passengers on the waterways of the Inside Passage.

While the transportation system has improved significantly over the past 50 years, Southeast Alaska residents are limited to the transportation options described in the preceding paragraph. This means industries that rely on exporting experience limitations in transporting products to the lower 48 states.

In a region with the sometimes steep and varied topography of Southeast Alaska, valleys and mountain passes are logical corridors for highways and utility transmission lines. These corridors could be used to connect communities to the regional transportation system, as well as establishing a regional power grid. Such links would consist of roads and connecting ferries, supplemented by long-distance ferries. They would improve the regional transportation system and its capabilities and establish an integrated network of land highway connections, ferry routes, and airports.

PROJECT BACKGROUND

Rivers in Southeast Alaska have been used as transportation corridors by Alaska Native and First Nations tribes as long as they have dwelled in the area. In the Treaty of Washington, as executed and proclaimed July 4, 1871, the United States and Britain stipulated that "the United States engage that the Rivers Yukon, Porcupine, and Stikine, in Alaska, ascending and descending from, to, and into the sea, shall forever remain free and open for the purpose of commerce to the subjects of Great Britain."

In the 1960s, the Alaska Department of Transportation and Public Facilities (DOT&PF) considered constructing a road linking Petersburg along the Stikine River to the Canadian Border.

In 1978, British Columbia (BC) completed a reconnaissance study examining linking Southeast Alaska to the Cassiar Highway, part of the continental highway system, by establishing a route along the Iskut River. In 1984, DOT&PF completed a reconnaissance study of multiple alternative routes. In 1998, the U.S. Forest Service considered a route linking Wrangell to Canada along the Bradfield Canal. In 2003, BC developed a long-range transportation plan, which included consideration of a link with Southeast Alaska. In 2004, Congress, under the authority of Section 1601(a) of the Transportation Equity Act for the 21st Century, set aside funding to address access issues facing the City of Wrangell. The funding was intended to produce a pre-NEPA scoping study on providing a land link transportation route from the City of Wrangell to the Cassiar Highway in British Columbia, Canada. A necessary part of the route is the Bradfield Transportation Corridor, which lies within the Tongass National Forest.

The State of Alaska, in its Draft Update for Public Review 2004 of the Southeast Transportation Plan, identified the Bradfield Transportation Corridor as a core access route for the Southeast, ranked behind Juneau Access and Sitka Access. This corridor would connect Southeast Alaska to the Cassiar Highway. To investigate this potential link further, DOT&PF and the Federal Highway Administration (FHWA) completed the [Southeast Mid-Region Access Draft Study Delivery Plan](#) (Study Plan) in April 2007. This document outlines the international delivery process, forecasts delivery time and cost, and strategizes potential funding sources.

Recent Activities

DOT&PF and FHWA further developed the Plan by defining the processes needed to examine a potential project linking mid-Southeast Alaska with the Cassiar Highway in BC via a new road. Discussions held with the Ministry of Transportation in BC led both governments to conclude that an economic study of potential effects of such a transportation link would be a necessary first step that might lead to an environmental impact statement (EIS) for the United States and an environmental assessment (EA) for BC. These documents would assess the implications of developing this new road. Conducting these studies would require equal participation by both governments. To date, Alaska and BC have not achieved the accord needed to move forward with an economic study.

The Plan identifies logical steps for delivery of an EIS under the National Environmental Policy Act (NEPA). It contains an outline of required work and an estimate of resources and funding

commitments. It also highlights the significance of BC's participation and provides valuable information intended to contribute to a decision whether to proceed with an EIS.

Why not NEPA or a Notice of Intent Now?

Before an NOI can be issued, an international agreement between Alaska and BC must be executed, along with a financial plan for construction. To further Alaska's and BC's understanding of issues around the project's development and make informed decisions on whether to pursue the project jointly, technical memoranda were developed covering the following major topics:

- Traffic Projections
- Engineering Study
- Port and Ferry Terminal Study

As part of this process, several technical memoranda were developed. These memoranda were developed as the Southeast Alaska Mid-Region Access Plan Technical Memorandums (Technical Memoranda) and were completed in April, 2011. All technical memoranda are listed below:

- [Southeast Alaska Mid-Region Access Plan Summary Technical Memorandum](#)
- [Southeast Alaska Mid-Region Access Traffic Projections Technical Memorandum](#)
- [Southeast Alaska Mid-Region Access Port and Ferry Terminal Technical Memorandum](#)
- [Southeast Alaska Mid-Region Access Air-cushion Vehicle Technical Memorandum](#)
- [Southeast Alaska Mid-Region Access Engineering Technical Memorandum](#)
- [Southeast Alaska Mid-Region Access Unit Cost Technical Memorandum](#)
- [Southeast Alaska Mid-Region Access Preliminary Snow Avalanche Assessment Technical Memorandum](#)
- [Southeast Alaska Mid-Region Access Southeast Alaska Mid-Region Access Operations and Maintenance Cost Technical Memorandum](#)
- [Southeast Alaska Mid-Region Access Independent Review Technical Memorandum](#)

Corridors

The Study Plan and Technical Memoranda contained evaluations of the three potential corridors: the Bradfield Canal Corridor, the Stikine River Corridor, and the Aaron Creek Corridor. These corridors would all connect Wrangell and Petersburg to the Cassiar Highway in BC, although short ferry links would be needed to complete the corridors under certain alternatives. These corridors are described below and shown on Figure 1.

The Bradfield Canal Corridor –This route would include a road from the Cassiar Highway along the Iskut, Craig, and Bradfield River drainages to a deep-water conventional ferry terminal near the head of the Bradfield Canal. Via a ferry system, it would connect the city of Wrangell to a conventional ferry terminal built at Fools Inlet on Wrangell Island. A road would also be constructed as a link to the Zimovia Highway.

The Stikine River Corridor –This route would include a road from the Cassiar Highway down the Stikine and Iskut Rivers to a conventional ferry terminal at Crittenden Creek. A ferry to an opposing terminal on Wrangell Island near the airport would complete the connection to the city of Wrangell.

- A road across Dry Strait to the Mitkof Highway would connect Petersburg to the continental highway system.
- Ultimately, a road connection could be made to Wrangell by extending the road south and bridging The Narrows. The route would then continue to the Zimovia Highway and on to the city of Wrangell.

The Aaron Creek Corridor –This route would include a road down the Iskut River and Aaron Creek to a conventional ferry terminal on Berg Bay. A ferry to an opposing terminal at the Log Transfer Station on Wrangell Island and a new road to the Zimovia Highway would complete the connection to the city of Wrangell.

- Ultimately, a road connection could be made by completing a bridge across The Narrows to Wrangell Island.

As part of the Technical Memoranda, planning level lengths, traffic volumes, and costs were developed. These are shown in Table 1 on page 6.

Figure 1: Southeast Alaska Mid-Region Access Study Corridors

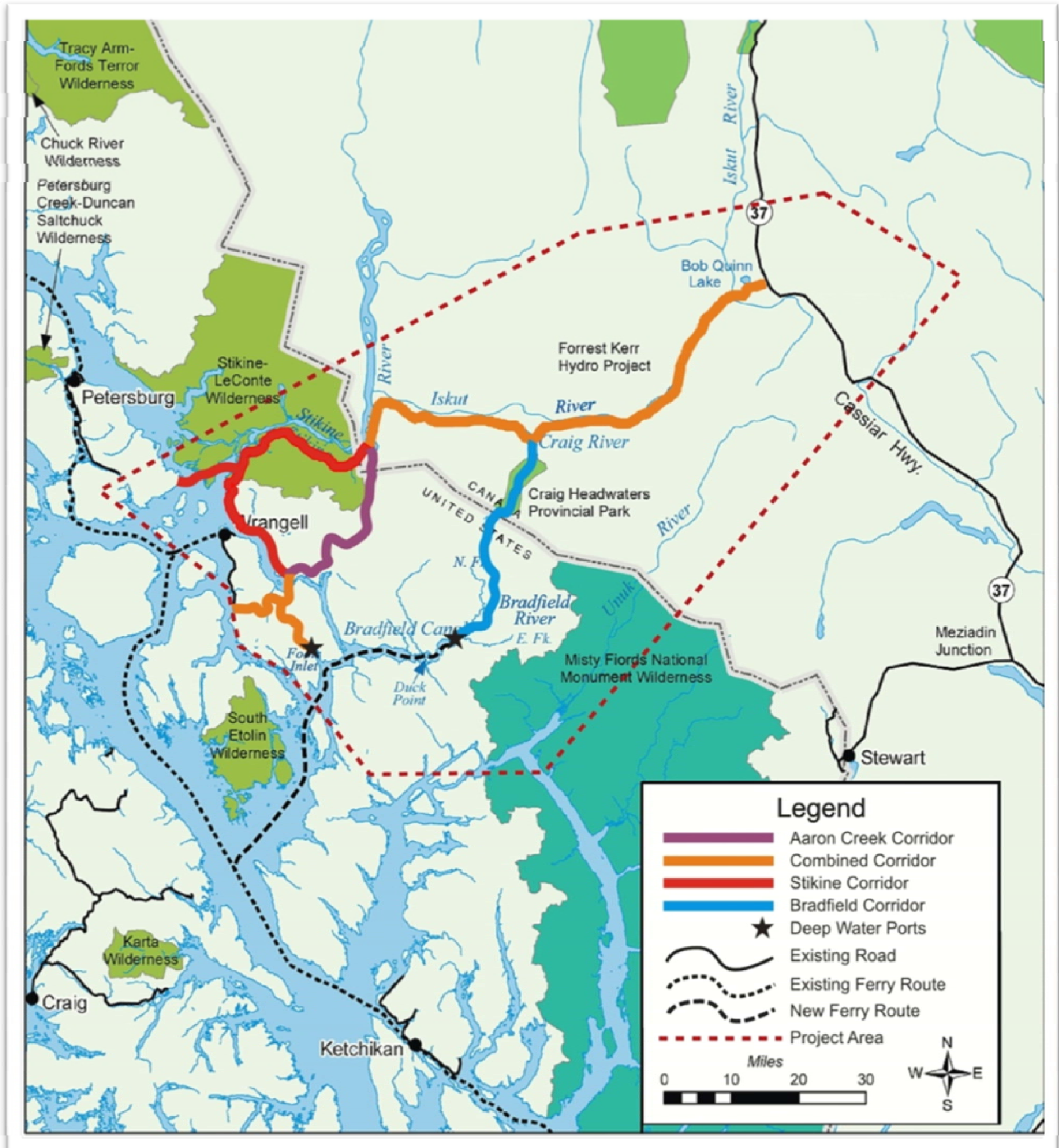


Table 1: Southeast Alaska Mid-Region Access Study Corridor Comparison

Corridor	AK Length (miles)	BC Length (miles)	Total Length (miles)	AADT (vpd)	AK Cost (approx.) (million)	BC Cost (approx.) (million)	Total Cost (approx.) (billion)	Cost Per Mile (approx.) (million)
Bradfield Canal	50	60	110	180	\$420	\$350	\$770	\$7.0
Stikine River	95	80	175	230	\$710	\$530	\$1.24	\$7.1
Aaron Creek	65	80	145	180	\$580	\$540	\$1.12	\$7.7

What Next?

To move the projects ahead would require a concerted effort between Alaska and BC. Once agreement is reached, the delivery timeline is approximately seven years at a forecasted cost of approximately \$20 million. The steps are listed below:

- Achieve an Intergovernmental Agreement (Alaska/BC).
- Take the actions listed below:
 - Draft a finance plan, including conducting a joint (AK/BC) economic study.
 - Develop a joint environmental process.
 - Conduct a U.S. EIS and a BC EA.

Should DOT&PF and BC proceed with the economic study, it would be designed to assess the potential effects of the project on both the BC and the U.S. sides of the border. The economic study would explore the effects of the project on different study corridors; future scenarios regarding low, mid, and high effects based on road use, resource development, economic development, and transportation modes and infrastructure development; Southeast Alaska benefits and costs for the mining, forest products, visitor, and seafood industries; electrical transmission power benefits and costs; and community, freight transportation, and passenger vehicle traffic benefits and costs. It would also address construction and maintenance costs, as well as economic impacts on Alaska, Canada, and BC, including an overall benefit-cost discussion.

CONCLUSION

The information presented above is a roadmap setting the framework for the Study Plan and Technical Memoranda. The first document is the Southeast Mid-Region Access Draft Study Plan, followed by the Southeast Alaska Mid-Region Access Plan Technical Memoranda. Questions about this introduction or the subsequent documents should be directed to Andy Hughes, Alaska Department of Transportation and Public Facilities, 6860 Glacier Highway, Juneau, AK 99801-7999, andy.hughes@dot.state.ak.us.

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Southeast Alaska Mid-Region Access Draft Study Delivery Plan

Prepared for

**Alaska Department of Transportation and Public Facilities and Federal
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- G Skeena Region Management Direction Statements
- H Tribal Government-to-Government Protocols
- I Tongass Land Use Management Plan
- J Coastal Zone Management Plan
- K British Columbia Transportation Plan

ACRONYMS AND ABBREVIATIONS

ACMP	Alaska Coastal Management Program
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
AMHS	Alaska Marine Highway System
ANCSA	Alaska Native Claims Settlement Act of 1971
ANILCA	Alaska National Interest Land Conservation Act
BA	Biological Assessment
B.C.	British Columbia
BLM	Bureau of Land Management
CEAA	Canadian Environmental Assessment Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
Coast Guard	U.S. Coast Guard
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Plan
DOI	Department of Interior
DOS	Department of State
DOT&PF	Alaska Department of Transportation and Public Facilities
EA	B.C. environmental assessment
EAA	B.C. Environmental Assessment Act
EAO	Environmental Assessment Office
EFH	essential fish habitat
EIS	environmental impact statement
EJ	environmental justice
EO	Executive Order
FHWA	Federal Highway Administration
FMPs	fishery management plans
GSA	General Services Administration
Guide	Guide to the British Columbia Environmental Assessment Process
IFA	Inter-Island Ferry Authority
IRA	Indian Reorganization Act

ACRONYMS AND ABBREVIATIONS (CONTINUED)

km	kilometers
LiDAR	light detecting and ranging
LWCF	Land and Water Conservation Fund
MBTA	Migratory Bird Treaty Act
MIS	Management Indicator Species
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
Plan	study delivery plan
PM	particulate matter
RCRA	Resource Conservation and Recovery Act
RFA	regulatory flexibility analysis
ROD	record of decision
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SATP	Southeast Alaska Transportation Plan
SHPO	State Historic Preservation Office
STP	Surface Transportation Program
TMDL	total maximum daily load
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USEPA	Environmental Protection Agency
USFS	USDA Forest Service
USFWS	U.S. Fish and Wildlife Service
WBS	Work Breakdown Structure

EXECUTIVE SUMMARY

ES-1 INTRODUCTION AND PURPOSE

The Alaska Department of Transportation and Public Facilities (DOT&PF), working with the Federal Highway Administration (FHWA), has developed this study delivery plan (Plan) to define the processes needed to complete a study of a proposed project linking mid-Southeast Alaska with the Cassiar Highway in British Columbia (B.C.) via a new road (Figure ES-1). Discussions held with the Ministry of Transportation in B.C. have led both governments to conclude that an economic study of potential effects such a transportation link would engender is a necessary first step that may lead to an environmental impact statement (EIS) for the United States and an Environmental Assessment (EA) for B.C. These documents would assess the implications of developing this new road.

DOT&PF works to develop and maintain a regional transportation system that provides residents with mobility and enables transport of goods and services throughout Southeast Alaska by using air, marine, and land transportation. DOT&PF's goals are to enhance regional mobility, support economic vitality, improve system efficiency, maintain or improve modal safety, and ensure public process.

DOT&PF is leading this study and has teamed with FHWA in a combined effort to study linking Southeast Alaska with the Cassiar Highway. In this endeavor, DOT&PF will manage communications with B.C. FHWA funds and administers transportation projects on federal lands, coordinates new U.S./Canada border crossings, has government-to-government relationships with Canadian counterparts, and provides legal review for development of all federally funded transportation projects. FHWA works to provide regional transportation facilities and related services in the most efficient and cost-effective ways possible. The agency strives to increase transportation mobility and convenience by improving the regional transportation system in Southeast Alaska. These efforts would help ensure that the region's economic vitality and support development of local economies. All such endeavors involve consultation with affected communities, Alaska Native corporations, and local and national business interests. DOT&PF and FHWA have developed this Plan in full recognition that development of a new road access to the mid-region of Southeast Alaska will require that both Alaska and B.C. conduct bilateral communications and cooperate in its development. The process described in this Plan is intended to integrate participation of the governments and agencies of both Alaska and B.C. throughout project development.

This Plan will provide preliminary information that DOT&PF and FHWA can use to determine whether to proceed with an EIS phase of the project. Developing this Plan is an important step in considering a route that would enable Southeast Alaska residents to take a more direct route to the Continental Highway System than is currently available. The current options include taking a ferry to Haines or Skagway and linking with the Alaska Highway, taking a ferry to the lower 48 states, or traveling by air.

If the economic study indicates that the proposed project is realistic, and Alaska and B.C. concur on the results, then DOT&PF would work with FHWA to conduct the EIS phase. DOT&PF could invite other agencies to cooperate based on expertise or jurisdiction. Implementation of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) would probably spur early involvement of federal, state, and local agencies, as would a number of other regulations. The provincial government would also play an important role in the success of this project, as a concurrent B.C. EA would be critical to the effort.

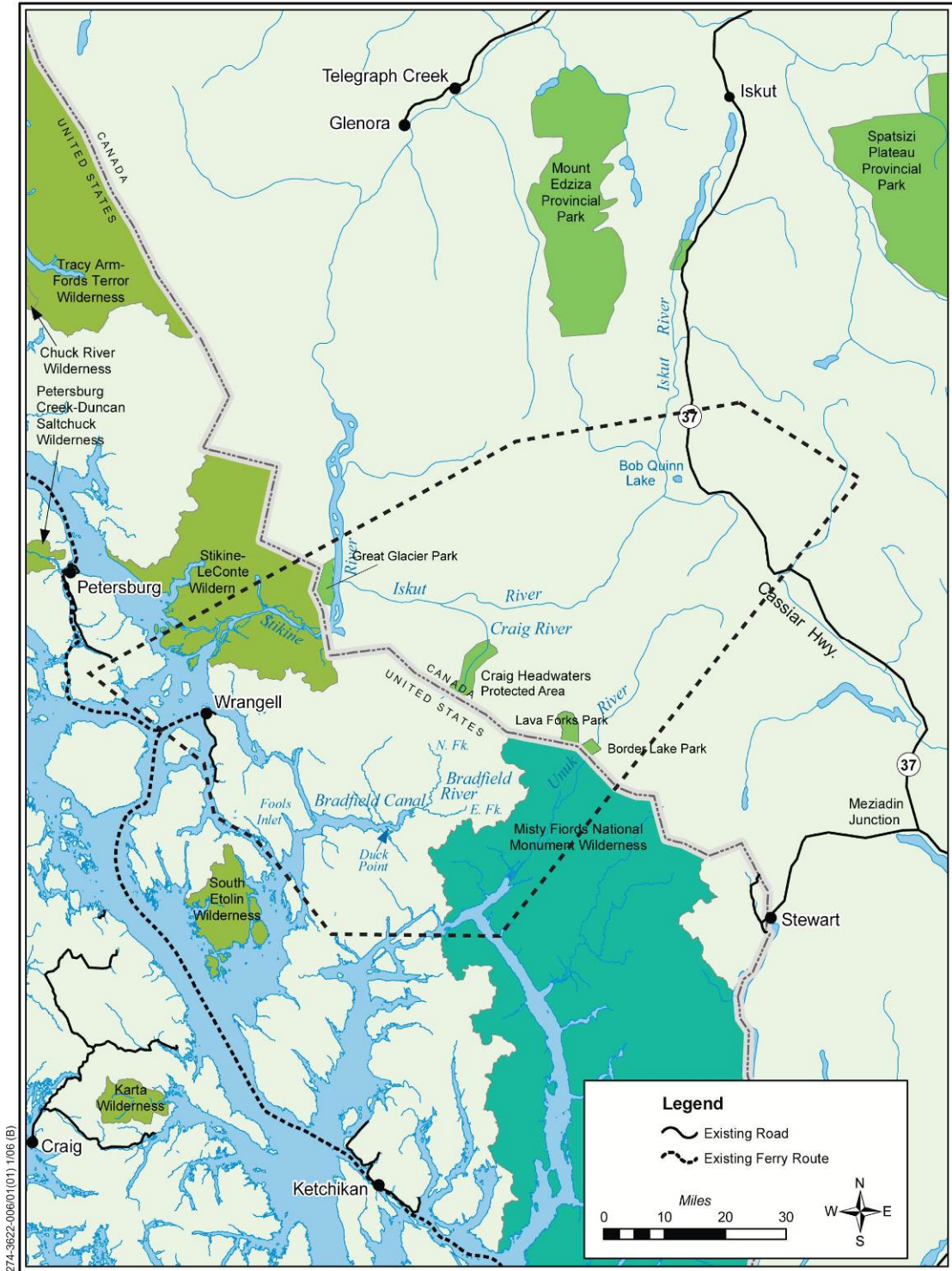


Figure ES-1. Project Area Map

Since approximately 1970, numerous feasibility studies (Section 9) have been performed. The Plan presents an outline of the process required to link Southeast Alaska to the Cassiar Highway.

Section 1 of the Plan describes agency roles. It also includes a comprehensive list of potential cooperating and/or participating agencies.

ES-2 BACKGROUND

The past half century has seen substantial progress in linking Alaska's panhandle with other parts of Alaska and the lower 48 states. The largest communities now enjoy daily jet service north and south for passengers and freight. Tour ship visitors arrive in Ketchikan, Sitka, Juneau, Skagway, and several other communities each summer. The private sector carries most of the freight to the region, with two regional operations ensuring competition at larger ports served by barge. The Alaska Marine Highway System (AMHS) and the Inter-Island Ferry Authority (IFA) also provide transportation alternatives for residents. These public operations provide roll-on/roll-off highway links among communities and the continental highway system by operating ferries that carry vehicles and passengers on the waterways of the Inside Passage.

The current situation limits Southeast Alaska residents to the transportation options described in the preceding paragraph. The fishing industry and mineral extraction companies experience limitations in transporting products to the lower 48 states. Other economic ventures such as tourism would profit from a surface link to the Cassiar Highway.

Some of the limitations to the transportation system in Southeast Alaska have been described above. The Southeast Alaska Transportation Plan (SATP) identifies solutions to some of these issues. The intent of the SATP is to shift from the limitations of long-distance ferry service to a robust network of surface transportation corridors. The SE mid region access route is one component of the SATP.

In a region with the sometimes steep and varied topography of Southeast Alaska, valleys and mountain passes are logical corridors for highways and utility transmission lines. These corridors are needed to connect communities to the regional transportation system and establish a regional power grid. They would consist of road links and connecting ferries, supplemented by long-distance ferries. They would improve the regional transportation system and its capabilities and establish an integrated network of land highway connections, ferry routes, and airports.

This Plan identifies logical steps for delivery of an EIS under the National Environmental Policy Act (NEPA). It contains an outline of required work and an estimation of resources and funding commitments. It also highlights the significance of B.C.'s participation and provides valuable information intended to contribute to a decision whether to proceed with an EIS.

ES-3 PROBLEM STATEMENT AND PROJECT OBJECTIVES

Section 2 contains a detailed description of transportation limitations faced by residents of and visitors to Southeast Alaska. Road access within Southeast Alaska is limited. Alaskans and the traveling public use water or air to reach destinations, which is costly, as is moving products into or out of this area. The SE Alaska Mid-Region Access Project would connect Wrangell, Petersburg, and (eventually) Ketchikan and Sitka to the continental highway system. It would reduce out-of-direction travel for several Southeast Alaska communities and may improve the regional economy. An objective of this Plan is developing and documenting the process required to create a new interregional highway connection between the Cassiar Highway in B.C. and a port and ferry terminal in Southeast Alaska.

ES-4 PLANNING AND ENVIRONMENTAL PROCESSES

Section 3 describes the process for potential NEPA EIS activities and presidential permit requirements. It also outlines DOT&PF and FHWA's understanding of the principles B.C. applies to its environmental process. A timeline for a U.S. EIS, presidential permit, and B.C. EA is also part of this section. The presidential permit process has just been modified. Following a review of these changes, portions of this Plan will be rewritten to reflect new procedures.

ES-5 SUMMARY RECOMMENDATIONS

Section 6 stresses the importance of trans-boundary, but parallel, development of a U.S. EIS and a B.C. EA. To facilitate the earliest possible construction, studies and assessments should be joint efforts for Alaska and B.C. This would result in an economic study, coordination with both transportation planning systems, and development of a trans-boundary environmental assessment. Section 6 also contains a discussion of using routing software technology as a tool for locating alternative corridors.

ES-6 FUNDING

Section 7 outlines anticipated staffing and resource needs for the EIS, the Presidential Permit, and the B.C. EA. Professional staff would be needed for project management, project controls, project financing, stakeholder outreach, environmental assessment, alternatives development, facilities planning, and engineering. An organizational structure and a work process are described due to the unusual complexity and magnitude of this project. Using this process would prevent duplication of work effort on this international project and ensure complete, thorough, and independent reviews of scope, budgets, and products.

Section 7 also contains a discussion of funding needs, with approximate costs included as well (Figure ES-2). Based on estimated funding and resource needs, an EIS phase would require additional and reconfirmed funds.

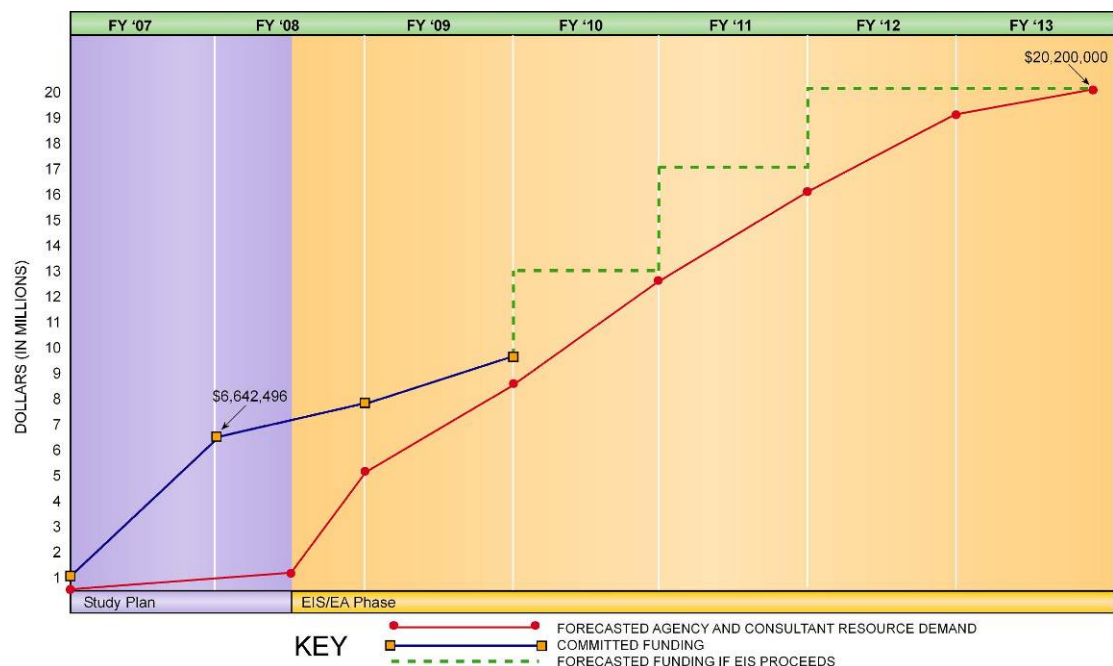


Figure ES-2. Projected Funding Allocations and Demand (U.S. and Canadian Efforts)

Funding would come from a combination of sources. Potential sources include the SAFETEA-LU Transportation Bill, the Coordinated Border Infrastructure Program, the Surface Transportation Program (STP), and state of Alaska funds. Estimated costs shown on Figure ES-2 are forecast at \$20.2 million for study delivery planning, the Presidential Permit, and U.S. EIS/B.C. EA completion.

ES-7 PUBLIC INVOLVEMENT AND REGULATORY PROCESSES

Section 4 outlines the agency and public involvement requirements of this project. This involvement is particularly critical due to NEPA requirements and the need for coordination of transportation plans in both Alaska and B.C. The project area includes territory managed under the Tongass Land Management Plan and the Cassiar Land and Resource Management Plan, two public planning documents. Local interests on both sides of the border have followed similar transportation issues for some time; therefore, this proposed project would require effective and thorough public involvement.

Section 5 outlines the environmental challenges, as well as the regulatory requirements for success, of this project. The section reviews the relevant environmental issues in the study area and identifies potential issues for the project. The regulatory requirements are also explored, with an explanation of how these overlapping authorities play a role in the project. Finally, the section addresses the socioeconomic and political aspects of developing this project in the region.

ES-8 BACKGROUND AND SUPPORTING RESEARCH

Section 8 describes relevant plans, laws, and regulations that would have to be explored during project development and their applicability to the project. Additional background research materials and references are outlined in Section 9.

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1 INTRODUCTION/PURPOSE OF PLAN

DOT&PF, working with the Federal Highway Administration (FHWA), has developed this study delivery plan (Plan) to define a process for developing alternatives and, potentially, an environmental impact statement (EIS) for the SE Alaska Mid-Region Access Project. The proposed study area is shown on the Figure 1-1 map. This project is a priority in DOT&PF's 2004 Southeast Alaska Transportation Plan (SATP). Information in the Plan will help the three U.S. partner agencies determine whether to continue with the following:

- Economic study
- Development of alternatives
- U.S. EIS/B.C. Environmental Assessment (EA)

DOT&PF and British Columbia (B.C.) have agreed to proceed with an economic study designed to assess the potential effects of the project on both the B.C. and the U.S. sides of the border. The economic study will explore the effects of the project on different study corridors; future scenarios regarding low, mid, and high effects based on road use, resource development, economic development, and transportation modes and infrastructure development; Southeast Alaska benefits and costs for the mining, forest products, visitor, and seafood industries; electrical transmission power benefits and costs; and community, freight transportation, and passenger vehicle traffic benefits and costs. It will also address construction and maintenance costs, as well as economic impacts on Alaska, Canada, and B.C., including an overall benefit-cost discussion. B.C. may decide that it would like other economic studies to be included in the document, and the province would have to negotiate its wishes with the state of Alaska.

Following adoption of this draft Plan, DOT&PF and FHWA will discuss initial funding, international interest, and agency resource commitments needed to fund the economic study. The potential process required to proceed with the project will be reviewed, modified as needed, and approved.

1.1 AGENCY ROLES AND RESPONSIBILITIES FOR THIS PLAN

FHWA's current task is to work with DOT&PF and B.C. to develop and document the project process for the SE Alaska Mid-Region Access Project, as defined in the SATP. DOT&PF is instrumental in development, strategy-setting, and implementation of the SE Alaska Mid-Region Access Project study and is leading all efforts for funding and coordinating political briefings.

For this delivery plan, the state and federal transportation agencies are aligned as shown on Figure 1-2 (Agency Organization). The interactions with B.C. are stated in a Memorandum of Cooperation between the State of Alaska and the B.C. Ministry of Transportation (see Appendix A). As the project develops, a more formal arrangement will evolve, based on Alaska and B.C.'s need to share data and a process for potential parallel EIS and EA drafts.

1.1.1 Executive Committee

The Executive Committee is the determining authority on project matters. It represents the interests of DOT&PF and FHWA. In its position, the Executive Committee provides direction on complicated interagency or international issues and confirms the project direction, scope, schedule, and budget. The team consists of 1) the FHWA Director of Project Delivery, 2) the DOT&PF Southeast Region Director, and 3) FHWA's Alaska Division Administrator.

1.1.2 Project Management Team

The Project Management Team reviews and approves the planning and scheduling of project tasks as recommended by the Project Manager and within the framework defined by the Executive Committee. The Project Management Team consists of representatives from DOT&PF and FHWA (see Section 1.1.3).

1.1.3 Project Manager

The Project Manager is charged with planning and scheduling project tasks and day-to-day management and project execution, including work conducted by consultants. The project manager plays a central role in each phase of the project life cycle from planning, compliance, design, and organization to project closedown and evaluation.

1.1.4 Oversight Technical Review Team

This team consists of FHWA General Counsel and various technical disciplines from FHWA. Discipline leads and their staff members provide on-call technical expertise and oversight of various activities, including timely reviews for scope of work and work products. FHWA Western Resource Center, General Counsel, provides legal sufficiency reviews of pertinent documents.

As described in Section 3 of this Plan, the Project Management Team members and the Executive Committee would be active participants in future project development activities, should a U.S. EIS/B.C. EA ensue.

1.2 HISTORY

The past half-century has seen substantial progress in linking Alaska's panhandle with other parts of Alaska and the lower 48 states. Since approximately 1970, a number of feasibility studies have been performed (Section 9).

The largest communities now enjoy daily jet service, north and south, for passengers and freight. Tour ship visitors arrive in Ketchikan, Sitka, Juneau, and other communities each summer. The private sector carries most of the freight to the region, with two regional operations ensuring competition at most ports served by barge. The Alaska Marine Highway System (AMHS) and the Inter-Island Ferry Authority (IFA) also provide transportation alternatives for residents. AMHS operates a fleet of 11 vessels, with 9 vessels serving 15 ports in Southeast Alaska. IFA operates one vessel from Prince of Wales Island to Ketchikan. IFA will be adding a second vessel operating from Coffman Cove on Prince of Wales Island to Wrangell and Petersburg. These public ferry operations provide roll-on/roll-off highway links among communities and the continental highway system by carrying vehicles and passengers on the waterways of the Inside Passage. By bridging gaps in the highway system, AMHS and barge line companies play vital roles in moving personal vehicles into and out of communities in Southeast Alaska. With the exception of the Haines Highway and the Klondike Highway (out of Skagway), AMHS and the barge lines provide the only ways for Southeast Alaska residents to take vehicles to interior Alaska or the lower 48 states.

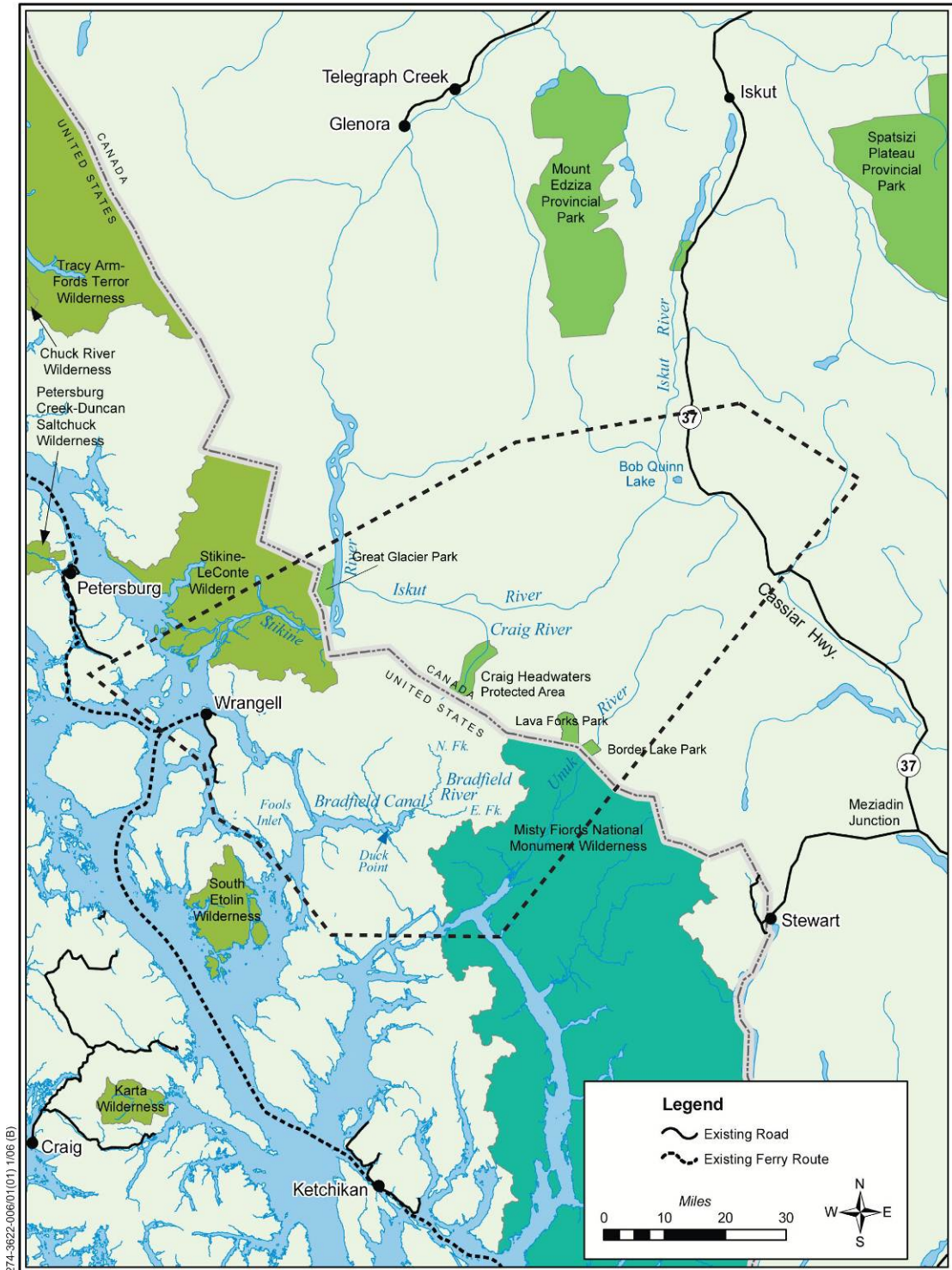


Figure 1-1. Project Area Map

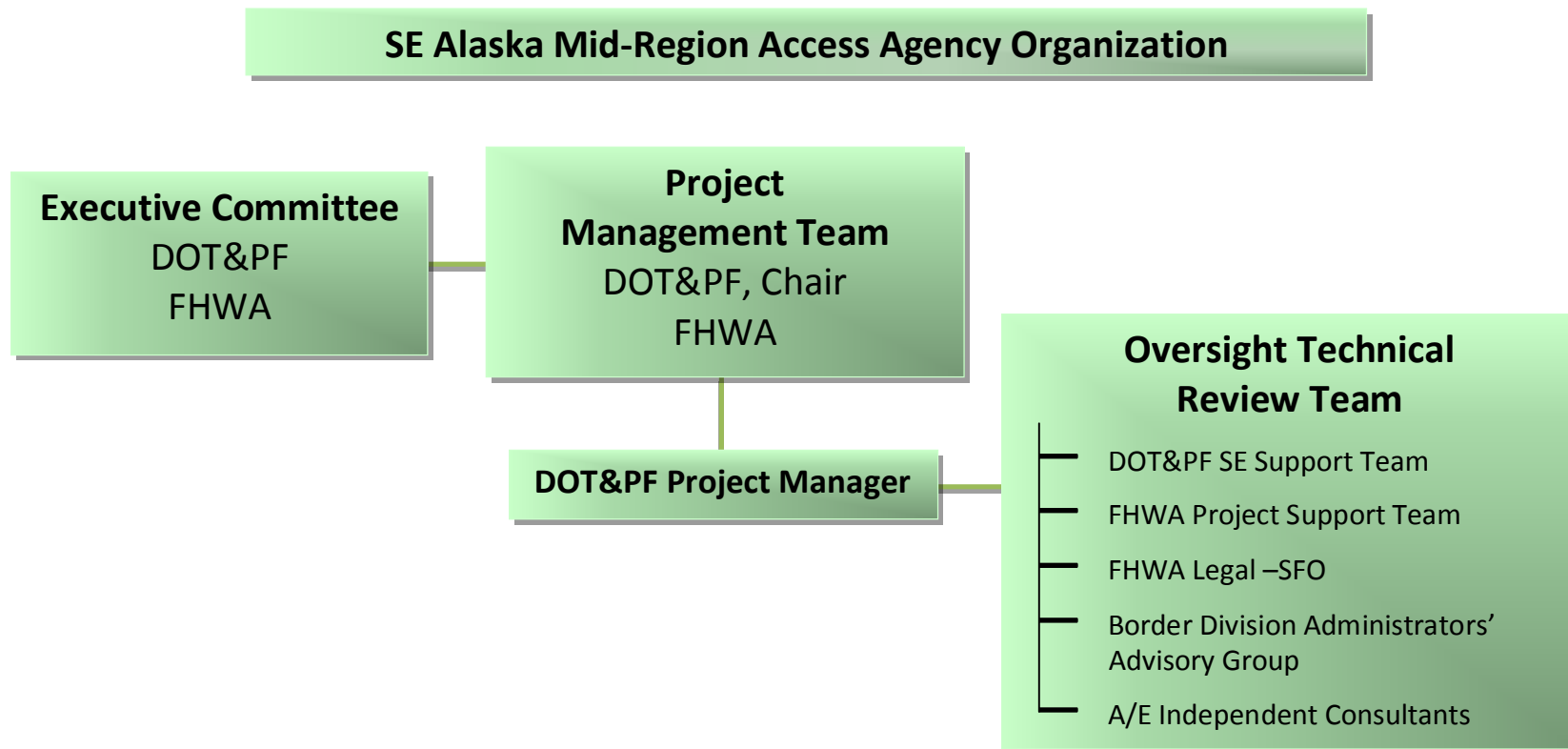


Figure 1-2. Agency Organization

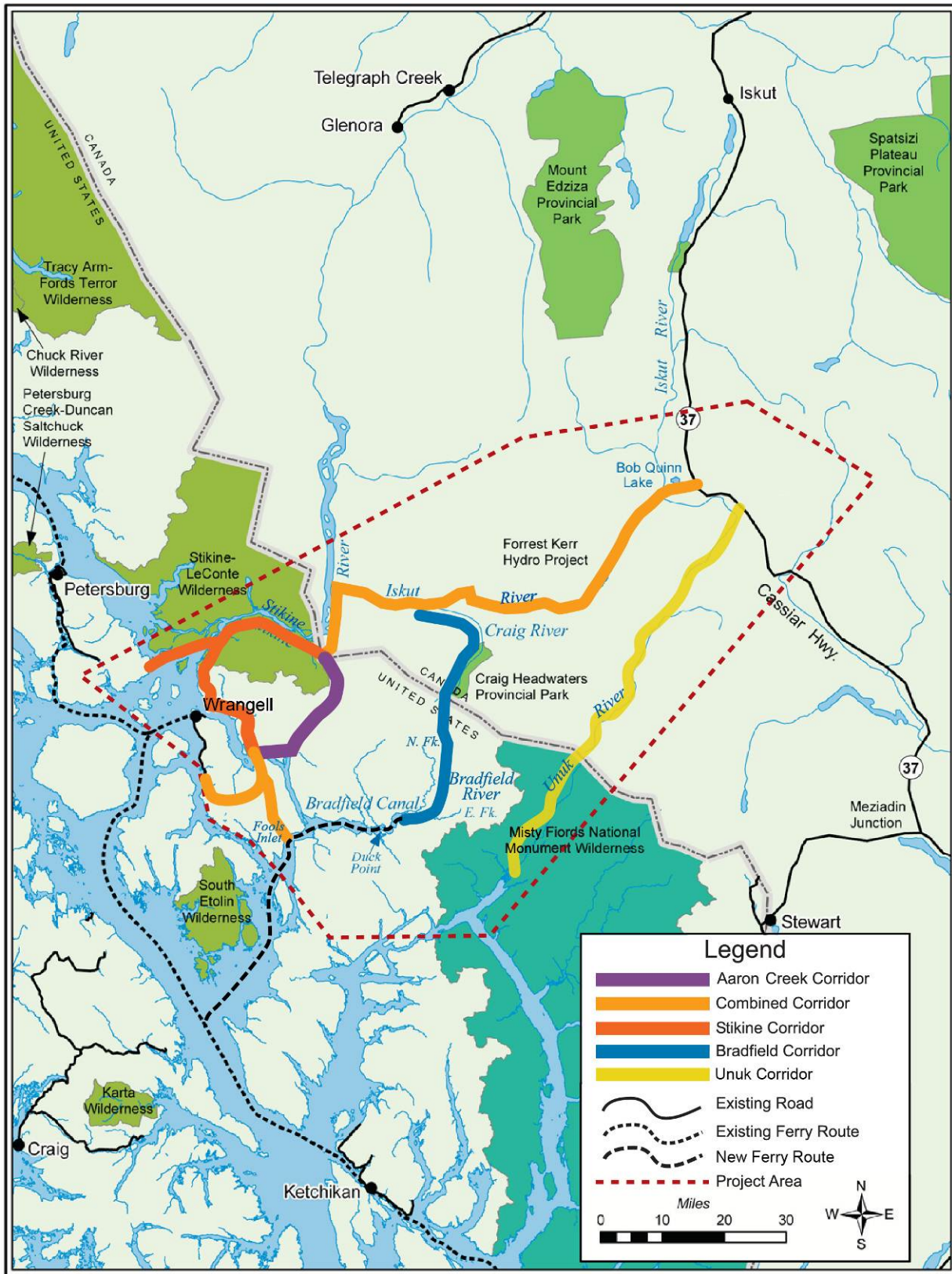


Figure 1-3. Previously Studied Corridors, SE Alaska Mid-Region Access

The objective of the SATP is to shift from long-distance ferry service to a robust network of surface transportation corridors. Its mission statement is as follows:

To increase system capacity and improve efficiency, shift from a surface network that is based on long-distance ferry runs to a surface network that relies on land highways to connect communities and other destinations. Land highways will dramatically expand activity and mobility by increasing traveler flexibility, choice, and speed while reducing or eliminating toll costs.

The SE Alaska Mid-Region Access route is one component of the SATP. The geography of Southeast Alaska affects mobility within and through the region. In an area as rugged as Southeast Alaska, valleys and mountain passes are logical corridors for highways and utility transmission lines. Development of these corridors is needed to connect communities to the regional transportation system and establish a regional power grid. Build out would consist of road links and connecting ferries, supplemented by long-distance ferries. This would improve the regional transportation system and its capabilities and establish an integrated network of land highway connections, ferry routes, and airports.

Since the 1970s, several feasibility studies (Section 9) have been performed, including the following:

- **1984:** DOT&PF completed a reconnaissance study of multiple alternatives.
- **1998:** The U.S. Forest Service (USFS) considered a Wrangell to Canada route via Bradfield.
- **2004:** DOT&PF drafted the SATP.
- **2005:** FHWA completed the Bradfield River Engineering Feasibility Study.

1.3 STUDY AREA

The SE Alaska Mid-Region Access Project (Figure 1-1) encompasses a wide geographic area, allowing for many alternative route locations to connect existing Southeast Alaska communities. Some previously studied corridors are shown on Figure 1-3. Routing options could range from the Stikine River drainage to the north to the Unuk River drainage to the south, with all options connecting to Canada's Cassiar Highway. The study area covers several thousand square miles from the Stikine/LeConte Wilderness to the north, Wrangell and Petersburg to the west, Tongass National Forest and Misty Fiords Wilderness to the south, to just east of the Cassiar Highway in Canada.

2 PROBLEM STATEMENT AND PROJECT OBJECTIVES

The sections below define the rationale for pursuing development of a potential EIS and possible construction of a road linking Southeast Alaska to the Cassiar Highway in B.C. Such definition is critical to a future EIS process and to fulfilling the regulatory requirements of the National Environmental Policy Act (NEPA).

2.1 PROBLEM STATEMENT

Mobility for Southeast Alaska residents is primarily limited to marine transportation and air travel. This leads fishing industry and mineral extraction companies to experience limitations in transporting products to the lower 48 states. Other economic opportunities such as tourism would also profit from a surface link to the Cassiar Highway.

The existing ferry system limits timely travel within the region and constrains connectivity to continental markets. The SATP calls for reducing long-distance ferry runs and constructing a surface network of roads supported by short-distance ferries that can provide faster, more frequent service among Southeast Alaska communities. DOT&PF has concluded that this change will considerably reduce operation and maintenance costs for the state, will expand economic activity and mobility, and will increase transportation efficiency, flexibility, choice, and speed for Alaskans. It may also encourage economic development opportunities to the east, such as mining in Canada.

The SE Alaska Mid-Region Access is a priority initiative of the SATP (Appendix B). Having road access would expand mobility possibilities for Alaskans, the traveling public, and the business community that moves products into and out of this area. These entities are currently limited to water or air transport.

The dominant mode of transportation nationwide is surface transportation on roads. Road travelers and merchants moving goods on the Continental Highway System, both to and from Southeast Alaska, must currently use other modes that do not offer direct access. DOT&PF plans substantial changes in Southeast Alaska's surface transportation system. The SATP calls for shifting from regional ferries to a network of regional highways that would connect Southeast Alaska communities with other destinations. Implementation would be accomplished in stages. The initial stage would develop the SE Alaska Mid-Region Access Project connecting the continental highway system either to a strategic Alaska port and ferry terminal or, via a bridge, to Wrangell or Petersburg. The new port facility would provide access to the communities of Petersburg, Wrangell, and Ketchikan by using a combination of new roads and ferries (where roads are either impractical or deferred pending funding). The Revillagigedo Highway, which would link Ketchikan to the SE Alaska Mid-Region Highway Access, is described as a separate project in the SATP.

2.2 PROJECT OBJECTIVE

An objective of the SE Alaska Mid-Region Highway Access Project is to create a new interregional highway connection between the Cassiar Highway in Canada and a port and ferry terminal in Southeast Alaska. This connection is needed to reduce the cost of surface transportation, increase the mobility of Southeast Alaska residents to travel and move goods via the continental highway system, and encourage economic development. The project would link the regional highway system (composed of isolated road segments connected by a regional ferry system [AMHS]) with the continental highway system at mid-region. Completion of the economic study discussed in Section 1.1 will be a critical component of the process used to determine whether DOT&PF and FHWA will advance to the EIS phase of the project.

2.3 IDENTIFIED GOALS

This project would alleviate an inter-regional access deficiency by connecting Wrangell, Petersburg, and, eventually, Ketchikan and Sitka to the continental highway system. Existing connections to the continental highway system are situated far from these communities and are limited to Bellingham, Washington, and Prince Rupert, B.C., to the south, and Haines and Skagway, Alaska, to the north. This new access, plus other planned changes discussed below, would reduce out-of-direction travel for several Southeast Alaska communities and may improve the regional economy.

DOT&PF works to provide regional transportation facilities and related services in the most efficient and cost-effective ways possible. The agency strives to increase transportation mobility and convenience by improving the regional transportation system in Southeast Alaska. These efforts promote economic vitality and support development of local economies. All such endeavors involve consultation with affected communities, Alaska Native corporations, and local and national business interests.

Potential goals for the SE Alaska Mid-Region Access Project include the following elements identified in DOT&PF's SATP:

1. Improve inter-regional highway access for Southeast Alaska (SATP Goal 1).
2. Improve the efficiency of regional access to the continental highway system (SATP Goal 1).
3. Reduce user costs (dollars and time) for vehicle access to points accessible via the continental highway system (SATP Goal 1).
4. Increase the mobility of Southeast Alaskans (SATP Goal 2).
5. Provide a new highway route for fisheries, timber, and mining industries to reach continental markets (SATP Goal 3).
6. Enable greater inter-regional access for Alaska residents (SATP Goal 2).

ISSUES TO ADDRESS

In addition to the direct goals of the project, other issues must be considered to provide proper coordination with other entities and plans within the region. Issues to address during an EIS process include the following:

1. Ensure development of a project compatible with U.S., tribal, and Canadian interests (SATP Goal 6).
2. Consider compatibility with USFS area management plans (SATP Goal 6).

At the beginning of this section, the importance of a clear definition of the problem and a defined purpose and need statement were stressed. The objectives and goals presented in this section are preliminary and subject to change. Should DOT&PF and FHWA decide to proceed with an EIS, the public and other agencies would help define the purpose and need for the report. As the project evolves, additional goals and new issues requiring attention may also arise.

3 MANAGING THE BINATIONAL PLANNING AND ENVIRONMENTAL PROCESSES

Implementation of the proposed SE Alaska Mid-Region Access Project would trigger numerous federal actions and require an EIS pursuant to NEPA, for that portion of the road in Alaska. Correspondingly, a B.C. EA would be completed for that portion of the road in B.C. The EA for B.C. would have to satisfy both provincial and federal environmental regulations. Based on FHWA's direct experience with the Detroit-Windsor Binational Study, the agency recommends that each nation prepare separate, but parallel, documents. These two documents would require simultaneous and adequate funding and support. To be successful, key decision points for a U.S. EIS must align with the B.C. EA process. Figure 3-1 is a schedule that shows the alignment of the major planning and environmental documents required for this project. It shows that DOT&PF would issue an EIS, and the Department of State would issue a Presidential Permit (Section 3.1.3 and Appendix D), in addition to the previously mentioned B.C. EA.

Figure 3-2 shows a management structure for implementing the binational study. The management structure identifies DOT&PF as study lead and project manager. Figure 3-2 and Table 3-1 indicate how representatives from state, provincial, and federal governments would align to conduct the project. At each milestone, the management teams would determine the appropriate mode of binational cooperation needed to proceed to the next step.

Table 3-1 outlines the management functions of each group within the project management organization. These groups are organized around the functions necessary to move forward on the project. These functions include binational coordination, communications, and public involvement. Table 3-2 is the Work Breakdown Structure (WBS), a guide for the planning and environmental processes for the SE Alaska Mid-Region Access Project. The WBS divides work tasks into discrete elements for management purposes, and it can be used to structure the scope, budget, and resources for project delivery. Many of the work tasks described in the WBS can occur concurrently, as shown on the WBS Schedule, Figure 3-3.

Table 3-3 combines the management structure from Table 3-1 and the tasks from Table 3-2 to define the roles of each management group for each task from the WBS. These three tables include all of the tasks, internal groups, and organization needed for successful delivery of the project.

Professional staff would be needed in areas such as project management, project controls, project financing, stakeholder outreach, environmental assessment, alternatives development, facilities planning, and engineering. Future management of the project is also discussed in Appendix C, Project Management Plan. Table 3-3 shows how the major tasks in the WBS align with the management structure shown in Figure 3-2.

3.1 DESCRIPTION OF PLANNING AND ENVIRONMENTAL TASKS

This section describes necessary planning and environmental tasks for project completion, including both U.S. and B.C. components. The sections below expand on individual regulatory requirements.

3.1.1 NEPA EIS

The EIS process begins with issuance of an NOI to prepare an EIS. This would begin a several-year process that would include scoping, alternatives development, public participation, environmental studies, and preparation of a draft and final EIS. The process would conclude with a ROD describing whether the project would move forward, and if so, which build alternative

would be used. Figure 3-4 is a diagram of the EIS process. Alternatives development would occur after issuance of an NOI. It would be completed before preparation of a U.S. draft EIS and a B.C. EA. It could be used to develop the context for both documents, including common border crossing points. Through alternatives development, DOT&PF and FHWA could reach needed agreements with B.C. and achieve the following project milestones:

- Refine the project objectives, ultimately leading to a draft purpose and need.
- Develop binational, interagency, state-to-provincial agreements.
- Define a full range of alternatives.
- Screen alternatives.
- Recommend a set of alternatives to move into a U.S. EIS and a set of alternatives for the B.C. EA, ensuring that they are mutually compatible.

Binational and state-to-provincial agreements would be developed to organize the involvement of stakeholder agencies. Agency representatives and stakeholders would be invited to collaborate in making key milestone decisions. Stakeholder involvement would include outreach to individuals; non-governmental organizations; local, state, and federal agencies; tribes; and, in collaboration with the B.C. government, corresponding groups in B.C. Effective public involvement and objective decision-making are keys to optimizing alternatives development outcomes.

NEPA experts recommend that alternatives development include environmental factors keyed to compliance with the full range of environmental regulations that would apply during project development. This would be accomplished by coordination with those agencies charged with environmental compliance during the alternatives development process.

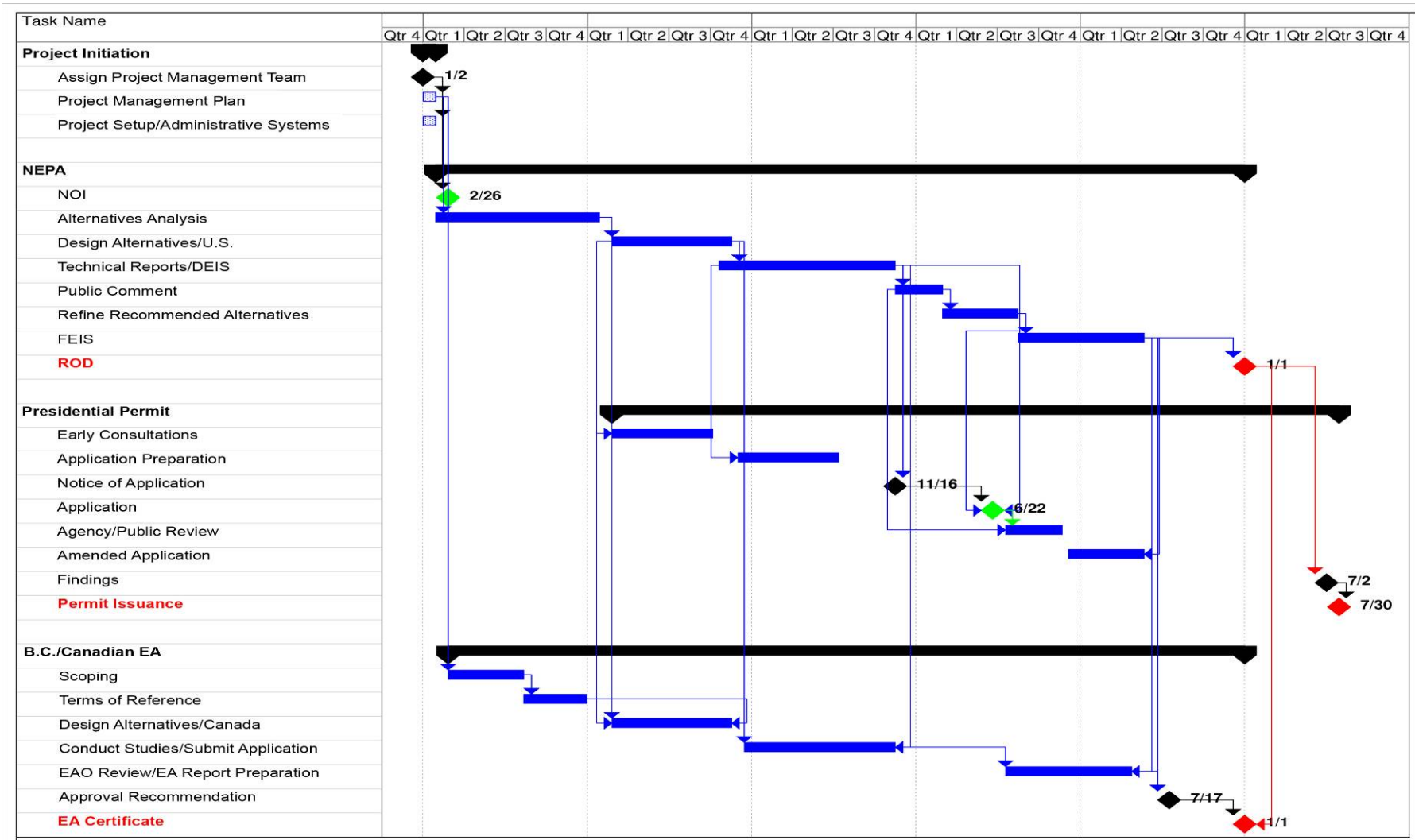


Figure 3-1. Process Schedule

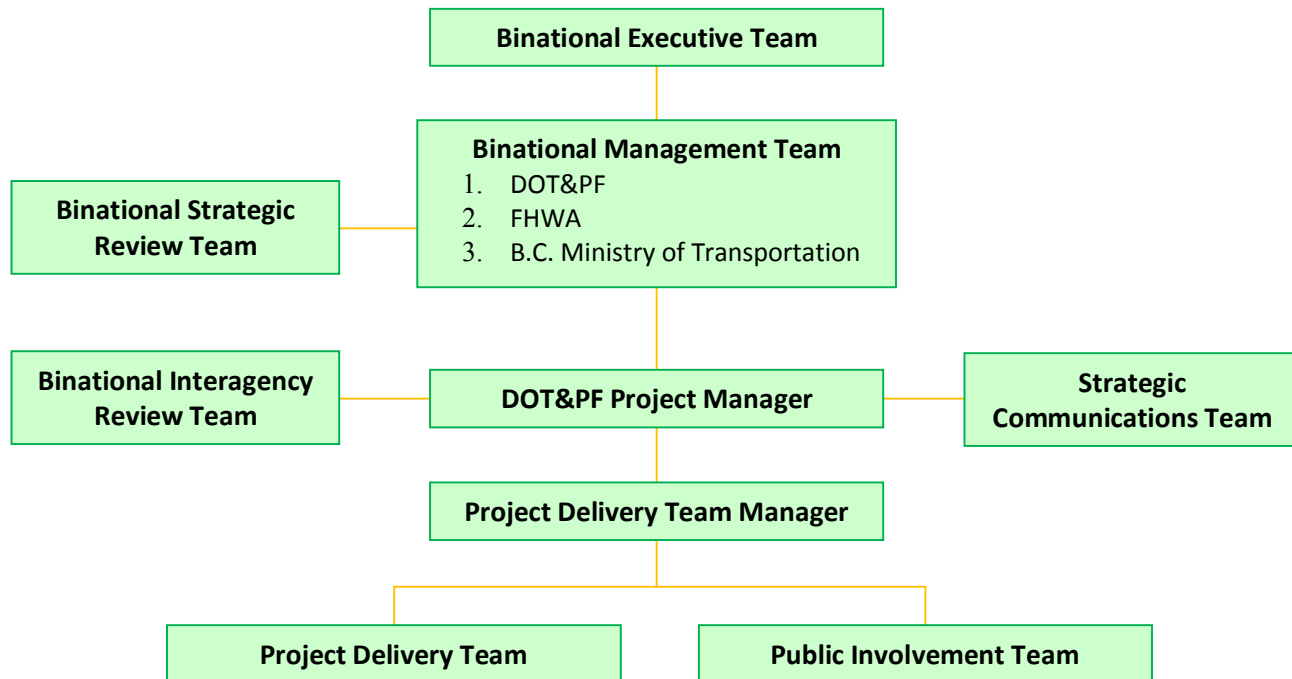


Figure 3-2. Binational Study Management Structure

One option for defining alternative corridors is to use a routing software system. The software saves design time by assessing topographic and other geographic data and producing multiple corridor alignment alternatives that (1) efficiently balance cut and fill, (2) meet required engineering standards, and (3) avoid important resources or hazards. An environmental scan would provide geographic data on important resources and input to routing software for optimal routing. Routing software provides early identification of alternatives with potentially fatal flaws. Because it provides a rational basis for corridor routing, such software could serve as a tool for discussions with stakeholders.

Consideration of each alternative would include construction, operation, and maintenance. The project alternatives would include a road corridor and facilities associated with a port and ferry terminal, the border crossing, and facility maintenance.

NEPA would serve as an umbrella process for numerous other regulatory requirements. The EIS would culminate in a ROD that may lead to permitting completion, potentially followed by design and construction, depending on the outcome of the EIS process. Additional permit requirements could follow issuance of a ROD.

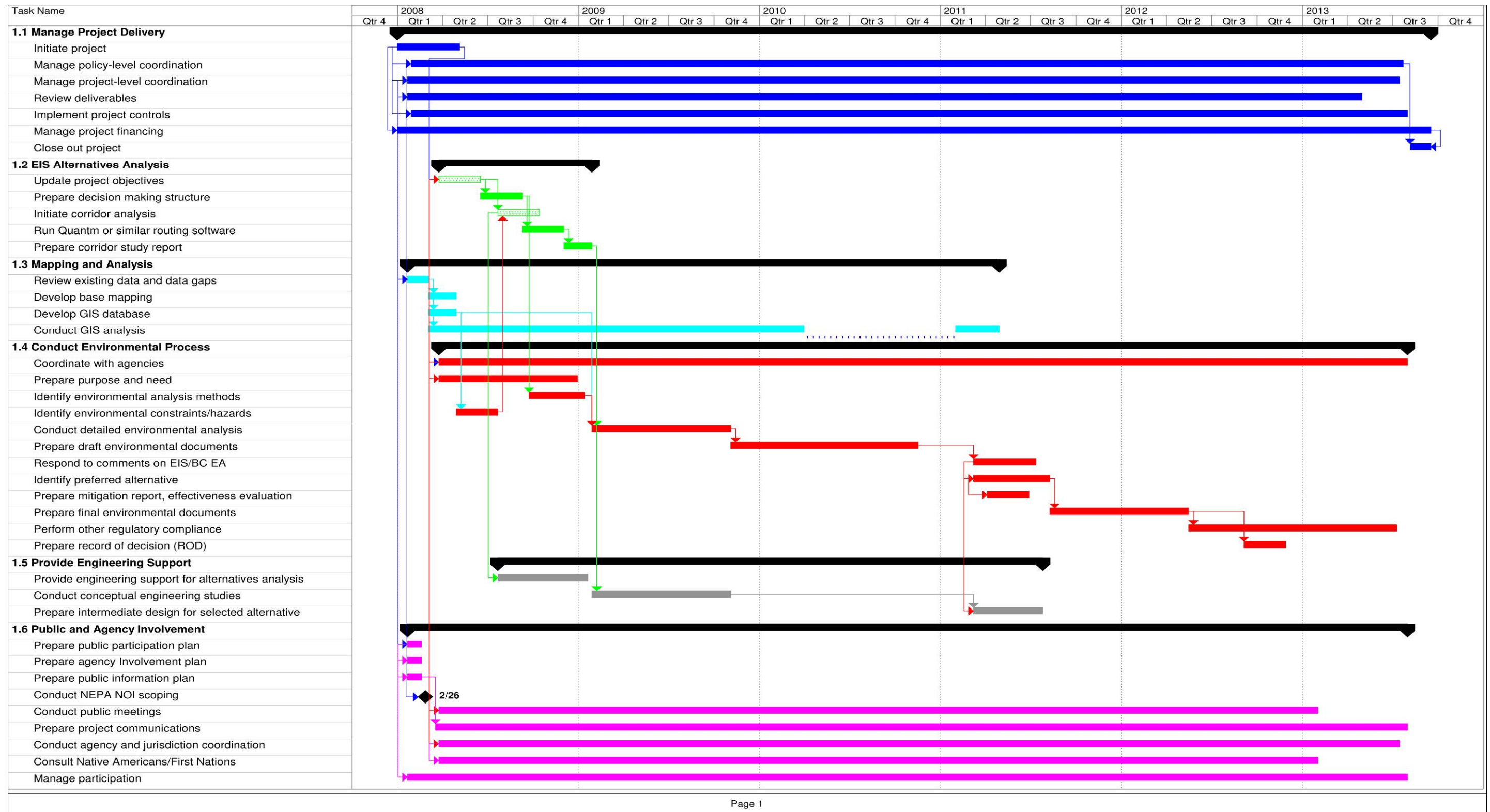


Figure 3-3. Work Breakdown Structure Schedule

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Table 3-1. Binational Study Management Functions

Management Element	Function
Binational Executive Team	<ul style="list-style-type: none"> • Represents agency management policy positions • Identifies information needed for high-level decision making • Makes high-level decisions on the project, e.g., sets milestone steps in the project • Approves strategic communications • Approves project financing
Strategic Communications Team	<ul style="list-style-type: none"> • Coordinates media communications • Crafts and delivers strategic communications approved by Binational Executive Team • Reviews and comments on public involvement communications plan
Binational Management Team	<ul style="list-style-type: none"> • Ensures implementation of agency management positions • Makes recommendations on milestone decisions • Makes recommendations on information needed for Binational Executive Team decisions • Leads Binational Strategic Review Team participation • Recommends strategic communications
Binational Strategic Review Team	<ul style="list-style-type: none"> • Provides high-level, project-wide quality assurance • Reviews and comments on project process and methodologies • Reviews and comments on major deliverables • Reviews and comments on communications plan
DOT&PF Project Manager	<ul style="list-style-type: none"> • Manages and assumes responsibility for project delivery • Approves project management plan • Chairs the Binational Management Team • Coordinates Binational Strategic Review Team participation • Coordinates Binational Interagency Review Team participation • Coordinates technical communications
Binational Interagency Review Team	<ul style="list-style-type: none"> • Includes specialists' review of deliverables and quality control assessment for individual areas of expertise
Project Delivery Team Manager	<ul style="list-style-type: none"> • Prepares public involvement plan • Prepares project agency and jurisdiction involvement plan
Public Involvement Team	<ul style="list-style-type: none"> • Prepares public involvement plan • Develops and manages public outreach • Assists in implementing project agency and jurisdiction involvement plan
Project Delivery Team	<ul style="list-style-type: none"> • Implements project based on scope, schedule, and budget according to PMP procedures

**Table 3-2. Southeast Alaska Mid-Region Access Project
Work Breakdown Structure**

1.1 Manage Project Delivery	
1.1.1	Initiate project
1.1.1.1	Execute cooperative agreements on project delivery
1.1.1.2	Assign management teams
1.1.1.3	Set up project and administrative record systems
1.1.1.4	Prepare scope of work
1.1.1.5	Prepare schedule
1.1.1.6	Prepare budget
1.1.1.7	Procure contractors
1.1.1.8	Update project management plan
1.1.1.9	Distribute existing database
1.1.2	Manage policy-level and government-to-government coordination
1.1.3	Manage project-level coordination
1.1.4	Review deliverables
1.1.4.1	Review geospatial analysis deliverables
1.1.4.2	Review alternatives analysis deliverables
1.1.4.3	Review environmental assessment deliverables
1.1.4.4	Review engineering deliverables
1.1.4.5	Review public and agency involvement deliverables
1.1.5	Implement project controls
1.1.6	Manage project financing
1.1.7	Close out project
1.2 Conduct EIS Alternatives Analysis	
1.2.1	Update project objectives
1.2.2	Prepare decision-making structure
1.2.3	Initiate corridor analysis
1.2.3.1	Identify evaluation measures
1.2.3.2	Identify context-sensitive solutions
1.2.3.3	Rank and weigh evaluation measures
1.2.4	Run Quantm or similar routing software
1.2.4.1	Determine corridors study limits
1.2.4.2	Run unconstrained modeling
1.2.4.3	Run constrained modeling
1.2.5	Prepare corridor study report

**Table 3-2 Southeast Alaska Mid-Region Access Project Work Breakdown Structure
(continued)**

1.3 Provide Geospatial Mapping and Analysis	
1.3.1	Review existing data and data gaps
1.3.2	Develop base mapping
1.3.2.1	Conduct corridor control survey
1.3.2.2	Conduct bathymetric surveys
1.3.2.3	Obtain photogrammetry and LiDAR
1.3.3	Develop GIS Database
1.3.3.1	Gather identified data fields
1.3.3.2	Field-sample for environmental resources/hazards
1.3.3.3	Interpolate resource coverages
1.3.4	Conduct GIS Analysis
1.3.4.1	Analyze alternatives
1.3.4.2	Produce draft EIS/B.C. EA
1.4 Conduct Environmental Process	
	Coordinate with participating and cooperating agencies
1.4.1	Coordinate with participating and cooperating agencies
1.4.2	Prepare purpose and need statement
1.4.3	Identify environmental analysis methods
1.4.4	Identify environmental constraints and hazards
1.4.5	Conduct detailed environmental analysis
1.4.5.1	Conduct aesthetics/visual analysis
1.4.5.2	Conduct noise analysis
1.4.5.3	Conduct air quality analysis
1.4.5.4	Conduct water resources analysis
1.4.5.5	Conduct hydraulics and floodplains analysis
1.4.5.6	Conduct energy analysis
1.4.5.7	Conduct geology/geotechnical analysis
1.4.5.8	Conduct hazardous materials analysis
1.4.5.9	Conduct paleontology analysis
1.4.5.10	Conduct biological assessment
1.4.5.11	Conduct wetlands analysis
1.4.5.12	Conduct natural environment assessment
1.4.5.13	Conduct invasive species analysis
1.4.5.14	Assess historic resources
1.4.5.15	Assess ethnology/traditional use
1.4.5.16	Conduct archaeology assessment
1.4.5.17	Perform Native American consultation
1.4.5.18	Perform community impact analysis/subsistence
1.4.5.19	Conduct environmental justice assessment
1.4.5.20	Assess utilities

**Table 3-2 Southeast Alaska Mid-Region Access Project
Work Breakdown Structure (continued)**

1.4.5.21	Perform land use assessment
1.4	Conduct Environmental Process (continued)
1.4.5.22	Perform recreational use assessment
1.4.5.23	Perform economic analysis
1.4.5	Prepare draft environmental documents
1.4.5.1	Prepare draft EIS
1.4.5.2	Prepare joint B.C./Canadian EA application
1.4.5.3	Prepare 4(f) evaluation
1.4.6	Respond to comments on EIS and B.C. EA
1.4.7	Identify preferred alternative
1.4.8	Prepare mitigation report, including effectiveness evaluation
1.4.9	Prepare final environmental documents
1.4.9.1	Prepare Presidential Permit application
1.4.9.2	Prepare final EIS
1.4.9.3	Produce joint Canadian/B.C. EA assessment report
1.4.9.4	Finalize 4(f) evaluation
1.4.10	Perform other regulatory compliance
1.4.10.1	Perform Section 404 consultation
1.4.10.2	Perform Section 106 consultation
1.4.10.3	Perform Section 7 consultation
1.4.10.4	Prepare floodplain finding
1.4.10.5	Prepare wetlands finding
1.4.10.6	Draft coastal zone permit
1.4.11	Prepare Record of Decision (ROD)
1.5	Provide Engineering Support
1.5.1	Provide engineering support for alternatives analysis
1.5.1.1	Update design criteria
1.5.1.2	Assess roadway location support
1.5.1.3	Develop bridge/culvert concepts
1.5.1.4	Provide port location support
1.5.1.5	Provide border facility location support
1.5.1.6	Develop operations concepts for alternatives
1.5.2	Conduct conceptual engineering studies
1.5.2.1	Conduct materials investigation
1.5.2.2	Perform preliminary geotechnical evaluation
1.5.2.3	Conduct hydraulics investigation
1.5.2.4	Develop concept geometrics
1.5.2.4.1	Horizontal and vertical alignments
1.5.2.4.2	Cross sections and typical sections
1.5.2.5	Assess location and design aesthetics
1.5.2.6	Perform structures advanced planning

**Table 3-2 Southeast Alaska Mid-Region Access Project Work Breakdown Structure
(continued)**

1.5 Provide Engineering Support (continued)	
1.5.2.6.1	Bridges
1.5.2.6.2	Tunnel
1.5.2.6.3	Other
1.5.2.7	Develop port facility plan
1.5.2.8	Develop border facility plan
1.5.2.9	Update transportation operations concepts for alternatives
1.5.2.10	Develop preliminary maintenance plan
1.5.2.11	Develop construction limits plans
1.5.2.12	Develop erosion control plan
1.5.2.13	Develop construction and staging plan
1.5.2.14	Estimate costs
1.5.3	Prepare intermediate design for selected alternative
1.5.3.1	Prepare geometrics plan
1.5.3.2	Prepare structures plan
1.5.3.3	Prepare port facility plan
1.5.3.4	Prepare border facility plan
1.5.3.5	Prepare transportation operations plan
1.5.3.6	Prepare maintenance plan
1.5.3.7	Prepare construction limits plan
1.5.3.8	Prepare erosion control plan
1.5.3.9	Prepare construction and staging plan
1.5.3.10	Prepare mitigation design plan
1.5.3.11	Prepare cost estimate
1.6 Conduct Public and Agency Involvement	
1.6.1	Prepare public participation plan
1.6.2	Prepare cooperating and participating agency involvement plan
1.6.3	Prepare public information plan
1.6.4	Conduct NEPA NOI scoping
1.6.5	Conduct public meetings
1.6.5.1	Conduct stakeholder meetings
1.6.5.2	Conduct scoping meetings
1.6.5.3	Conduct public meetings
1.6.5.4	Conduct context-sensitive solutions workshops
1.6.5.5	Conduct public hearings

**Table 3-2 Southeast Alaska Mid-Region Access Project
 Work Breakdown Structure (continued)**

1.6 Conduct Public and Agency Involvement (continued)	
1.6.6	Prepare project communications
1.6.6.1	Prepare strategic communications plan
1.6.6.2	Prepare fact sheets
1.6.6.3	Prepare newsletters
1.6.6.4	Draft media releases
1.6.6.5	Design and develop WEB site
1.6.6.6	Prepare public presentations
1.6.7	Conduct agency and jurisdiction coordination
1.6.7.1	Conduct cooperating agency coordination
1.6.7.2	Conduct participating agency coordination
1.6.7.3	Coordinate with B.C. partners
1.6.8	Consult with Native Americans/First Nations
1.6.9	Manage public, stakeholder, and agency participation
1.6.9.1	Solicit comments
1.6.9.2	Categorize comments
1.6.9.3	Respond to comments
1.6.9.4	Consider project modifications

Before starting an EIS, B.C. and the United States should agree to initiate an EA concurrent with an EIS process. To this end, contact was made with B.C.'s Ministry of Transportation, a letter of agreement was drafted, and a preliminary meeting was scheduled for November 30 and December 1, 2006, in Victoria, B.C. This meeting has since been delayed. The purpose of the meeting is to initiate planning for a study of the anticipated economic effects of linking Southeast Alaska to the Cassiar Highway. Upon completion of the economic study, a decision will be made whether to proceed with a B.C. EA and a U.S. EIS.

Implementation of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) would require early involvement of federal, state, and local agencies, as would a number of state and federal regulations. One feature of SAFETEA-LU is a formal process for involving participating agencies. The lead agency must identify, as early as possible in the environmental review process for a project, any other federal or non-federal agencies that may have an interest in the project and invite them to become participating agencies for that particular project. Any federal agency that the lead agency invites to participate in the environmental review process for a project must be designated as a participating agency by the lead agency unless the invited agency informs the lead agency, in writing and by the deadline specified in the invitation, that it has no jurisdiction or authority with respect to the project, has no expertise or information relevant to the project, and does not intend to submit comments on the project.

**Table 3-3. Southeast Alaska Mid-Region Access Project
Management Responsibilities**

		Binational Executive Team	Binational Management Team	Binational Strategic Review Team	DOT&PF Project Manager	Strategic Communications Team	Binational Interagency Strategic Review Team	Project Delivery Team Manager	Project Delivery Team	Public Involvement Team
1.1 Manage Project Delivery										
1.1.1	Initiate project		O		L		R	C	C	C
1.1.2	Manage policy-level and government-to-government coordination	L		S						
1.1.3	Manage project-level coordination		O	S	L	C				
1.1.4	Review deliverables		O	R	L		C			
1.1.5	Implement project controls				O			L		
1.1.6	Manage project financing	O			L					
1.1.7	Close out project				L			L	C	C
1.2 Conduct EIS Alternatives Analysis										
1.2.1	Update project objectives	O	L	R				C		
1.2.2	Prepare decision making structure		O	R				L		
1.2.3	Initiate corridor analysis						S	L		
1.2.4	Run Quantm or similar routing software						S	L	C	
1.2.5	Prepare corridor study report		R	R				L	C	
1.3 Provide Geospatial Mapping and Analysis										
1.3.1	Review existing data and data gaps						R	L	C	
1.3.2	Develop base mapping						R	L	C	
1.3.3	Develop GIS database						R	L	C	
1.3.4	Conduct GIS analysis						R	L	C	

O = Oversight Responsibility
L = Lead Responsibility

R = Review Responsibility
S = Support Role Responsibility

C = Conduct Work

**Table 3-3. Southeast Alaska Mid-Region Access Project
Management Responsibilities (continued)**

		Binational Executive Team	Binational Management Team	Binational Strategic Review Team	DOT&PF Project Manager	Strategic Communications Team	Binational Interagency Strategic Review Team	Project Delivery Team Manager	Project Delivery Team	Public Involvement Team
1.4 Conduct Environmental Process										
1.4.1	Coordinate with participating and resource agencies				L	S	S	S	C	C
1.4.2	Prepare purpose and need statement	O	S	R	L			C	C	
1.4.3	Identify environmental analysis methods						R	L	C	
1.4.4	Identify environmental constraints and hazards						R	L	C	
1.4.5	Conduct detailed environmental analysis						R	L	C	
1.4.5	Prepare draft environmental documents						R	L	C	
1.4.6	Respond to comments on EIS and B.C. EA						R	L	C	
1.4.7	Identify preferred alternative	O	S	S	L		R	C	C	
1.4.8	Prepare mitigation report, including effectiveness evaluation						R	L	C	
1.4.9	Prepare final environmental documents						R	L	C	
1.4.10	Perform other regulatory compliance						R	L	C	
1.4.11	Prepare ROD				L	S	R	S	C	
1.5 Provide Engineering Support										
1.5.1	Provide engineering support for alternatives analysis						R	L	C	
1.5.2	Conduct conceptual engineering studies						R	L	C	
1.5.3	Prepare intermediate design for selected alternative						R	L	C	

O = Oversight Responsibility

R = Review Responsibility

C = Conduct Work

L = Lead Responsibility

S = Support Role Responsibility

**Table 3-3. Southeast Alaska Mid-Region Access Project
Management Responsibilities (continued)**

		Binational Executive Team	Binational Management Team	Binational Strategic Review Team	DOT&PF Project Manager	Strategic Communications Team	Binational Interagency Strategic Review Team	Project Delivery Team Manager	Project Delivery Team	Public Involvement Team
1.6 Conduct Public and Agency Involvement										
1.6.1	Prepare public participation plan		O				R	L		C
1.6.2	Prepare cooperating and participating agency Involvement plan		O	R			R	L	C	C
1.6.3	Prepare public information plan		O	R	L	S	R	C		C
1.6.4	Conduct NEPA NOI/scoping						R	L	C	C
1.6.5	Conduct public meetings							L	C	C
1.6.6	Prepare project communications				R		R	L		C
1.6.7	Conduct agency and jurisdiction coordination		S	S	L		S	C		
1.6.8	Consult with Native Americans/First Nation representatives		S	S	L	S	S	C		C
1.6.9	Manage public, stakeholder, and agency participation		O	S	L		S	C		

O = Oversight Responsibility R = Review Responsibility C = Conduct Work
L = Lead Responsibility S = Support Role Responsibility

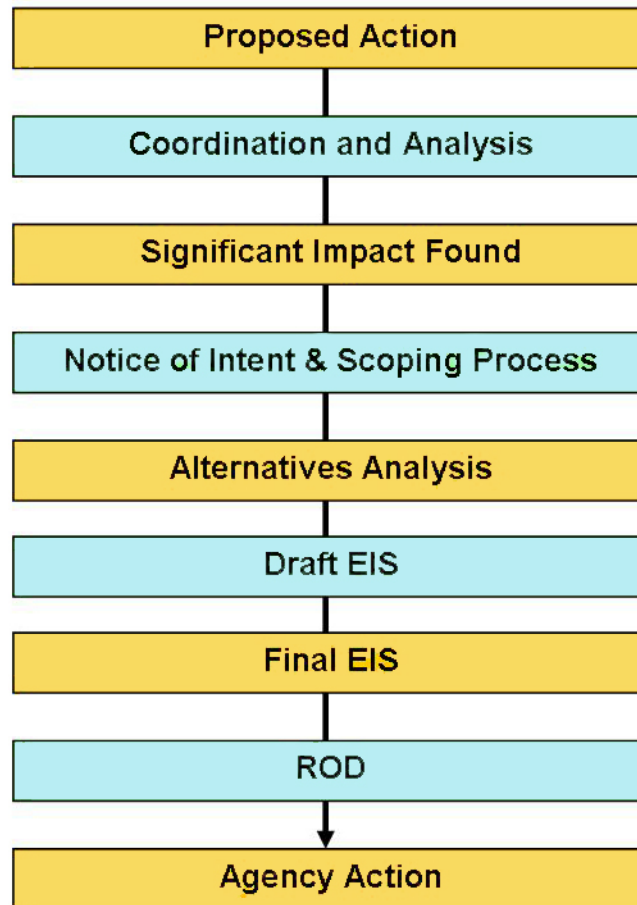


Figure 3-4. U.S. NEPA Environmental Impact Statement Process

Stakeholder, cooperating, and participating agencies for a potential SE Alaska Mid-Region Access EIS could include the following:

- U.S. Federal Government Agencies
 - Custom and Border Protection
 - Department of State
 - Department of Homeland Security
 - Environmental Protection Agency (USEPA)
 - FHWA
 - Federal Motor Carrier Safety Administration
 - General Services Administration (GSA)
 - General Administration - Border Station Center
 - NOAA Fisheries Service (National Marine Fisheries Service [NMFS])
 - Secretary of Commerce

- Secretary of Energy
- Secretary of Interior
- U.S. Army Corps of Engineers (USACE)
- U.S. Attorney General
- U.S. Coast Guard (Coast Guard)
- U.S. Fish and Wildlife Service (USFWS)
- USFS
- U.S. State Agencies
 - DOT&PF
 - Alaska Department of Natural Resources (ADNR)
 - Division of Mining Land and Water
 - Geological and Geophysical Surveys
 - Office of Habitat Management and Permitting
 - Office of Project Management and Permitting (Coastal Zone Management Program)
 - Alaska Department of Commerce and Economic Development
 - Alaska Department of Environmental Conservation (ADEC)
 - Alaska Department of Fish and Game (ADF&G)
 - Alaska Department of Labor
 - State Historic Preservation Office (SHPO)
- Tribes
 - Sealaska Native Regional Corporation
 - Kake Alaska Native Village Corporation (ANVC) and Indian Reorganization Act (IRA)
 - Metlakatla
 - Petersburg Indian Association
 - Wrangell Cooperative Association
 - Organized Village of Kasaan
 - Klawock ANVC & IRA
 - Angoon Community Association
 - Craig Community Association
 - Organized Village of Saxman
 - Hydaburg Cooperative Association
- Canadian Federal Agencies
 - Canadian Border Services Agency
 - Canadian Environmental Assessment Agency

- Environment Canada
- Fisheries and Oceans Canada
- Transport Canada
- B.C. Provincial Agencies
 - B.C. Environmental Assessment Office
 - B.C. Ministry of Agriculture and Lands
 - B.C. Ministry of Competition, Science and Enterprise
 - B.C. Ministry of Energy and Mines
 - B.C. Ministry of Forests
 - B.C. Ministry of Governmental Affairs
 - B.C. Ministry of Intergovernmental Relations
 - B.C. Ministry of Public Safety and Solicitor General
 - B.C. Ministry of Sustainable Resource Management
 - B.C. Ministry of Transportation
 - B.C. Ministry of Water, Land and Air Protection

3.1.2 Canadian Federal and Provincial Environmental Assessment Processes

3.1.2.1 B.C. Environmental Assessment

Principles underlying the B.C. Environmental Assessment Act include access to information, balanced decision-making, comprehensiveness, consultation, coordination, flexibility, integration, neutral administration, and timeliness. B.C. EAs incorporate consultation with all potentially affected parties, including government agencies, First Nations, and the public. They provide opportunities for those parties to give input (Figure 3-5). The appropriate B.C. provincial ministry staff members develop consultation requirements for each project to ensure that the methods and procedures are appropriate for the individuals and groups concerned.

EAs provide a framework to address a broad range of environmental, health and safety, socioeconomic, community, and First Nation issues through a single, integrated process. This process ensures that the issues and concerns of all interested parties are considered together. Through the EA process, potential effects of a proposed project are identified and evaluated early, providing an opportunity for a project to be modified before irreversible project design and construction decisions are made. This results in improved project design and helps to avoid costly mistakes for proponents, governments, local communities, and the environment.

The requirements for projects subject to both Canadian federal government and B.C. provincial EA legislation are generally coordinated in a single process. The coordination occurs during initial development of the assessment. This prevents duplication of efforts. The final reports and decisions on the assessment will be completed separately by the provincial and federal ministries, as needed. Provincial permitting requirements are identified during the EA to facilitate a streamlined transition once an EA certificate has been issued.

3.1.2.2 Federal Canadian Environmental Assessment

The Canadian Environmental Assessment Act (CEAA) shares many components with its counterpart in the U.S., NEPA. It requires a deliberative public process that collects data and compares options to identify risk or benefits to the natural environment. The CEAA applies to those projects where a federal Canadian agency is proposing the project, funding some part of the project, granting an interest in land, or exercising a regulatory duty. Additionally, some particular projects are included for assessment by statute.

In the CEAA process (Figure 3-6), the responsible authority—the Canadian agency or agencies with a role in the project—manages the CEAA process through one of four possible assessments: screening, comprehensive study, referral to panel review, or referral to mediation. Screenings are the least intensive of the four and are the most common assessment method. Figure 3-6 represents this process, presuming that the more rigorous, comprehensive study would be required for this project. The figure also reflects the possibility that multiple ministries may have to certify the project. Whichever assessment is used, the process then takes the scope of the project and evaluates it with environmental factors identified in the law. If, during the assessment, the agency finds the project is “not likely to cause significant adverse environmental effects,” then it may exercise its powers. In the CEAA process, there may be many regulatory authorities, often due to overlapping regulatory jurisdictions. Each regulatory authority must come to its own determination regarding whether it may exercise its respective powers.

The CEAA differs from NEPA in three ways that are important for this project: ability for the CEAA to stop a project, inclusion of transboundary concerns, and the CEAA’s strict timelines for process.

Ability to stop a project. If the assessment process leads to a determination that the project, even with mitigation, is “likely to cause significant adverse environmental effects that cannot be justified,” the agency may not use its powers or resources to proceed with the project. This is the case for any participating agencies in an assessment. Recently, assessments have moved through the simpler screening assessment, and projects are rarely halted.

Inclusion of transboundary concerns. The CEAA provides foreign governments with a mechanism to trigger an environmental assessment. If a project will have transboundary effects, a foreign government, or one of its subsidiaries such as the Ministry of the Environment, may decide to have the project assessed. The Minister, if petitioned, may not refer the process to mediators or review panels if an agreement is in place with the foreign government on how to assess the project. This allows a less intensive review process and avoids the complication of having a mediator or review panel convened.

Strict deadlines. Finally, the CEAA has specific and enforced deadlines throughout the process. These deadlines would have to be evaluated for any international cooperative assessment process.

3.1.2.3 Harmonization of Federal and Provincial Assessments

Since 1997, the provincial B.C. government and the federal Canadian government have been parties to an agreement to harmonize their respective environmental assessment laws. The CEAA shares in many of the same purposes and processes as the B.C. Environmental Assessment Act (EAA). However, the CEAA focuses more narrowly on the project and its more immediate environmental impacts, while the B.C. EAA is integrated into the larger land use planning efforts in the province and includes more socioeconomic and cultural concerns. The harmonization agreement requires that all information collected and processes followed meet a minimum standard that satisfies both the federal and provincial laws. While the

agreement allows for a combined process for information gathering, both the provincial and the federal governments and their respective ministries are responsible for their own final determinations. The main goal of harmonization is to prevent any duplication of effort as proponents navigate both processes.

The harmonization of the two processes is built into the B.C. EAA process from the beginning. While the B.C. Environmental Assessment Office (EAO) is deciding whether the EA process applies, it provides the Canadian Environmental Assessment Agency with a project description for its review. The federal agency then indicates whether the federal process is necessary, and if so, what type of assessment is needed. The provincial and federal screening level assessments are very similar and make coordination simpler. If either agency chooses to use a more rigorous review, it will require a detailed and negotiated work plan to align the two processes. If both governments are involved, they will work with the proponent as the terms of reference and the application are developed. While the CEAA has provisions for working with foreign governments, the provincial EAA does not. The CEAA provisions permit limiting the assessment to no more than the comprehensive study, while the B.C. EAO may choose the more complicated mediation or panel review routes.

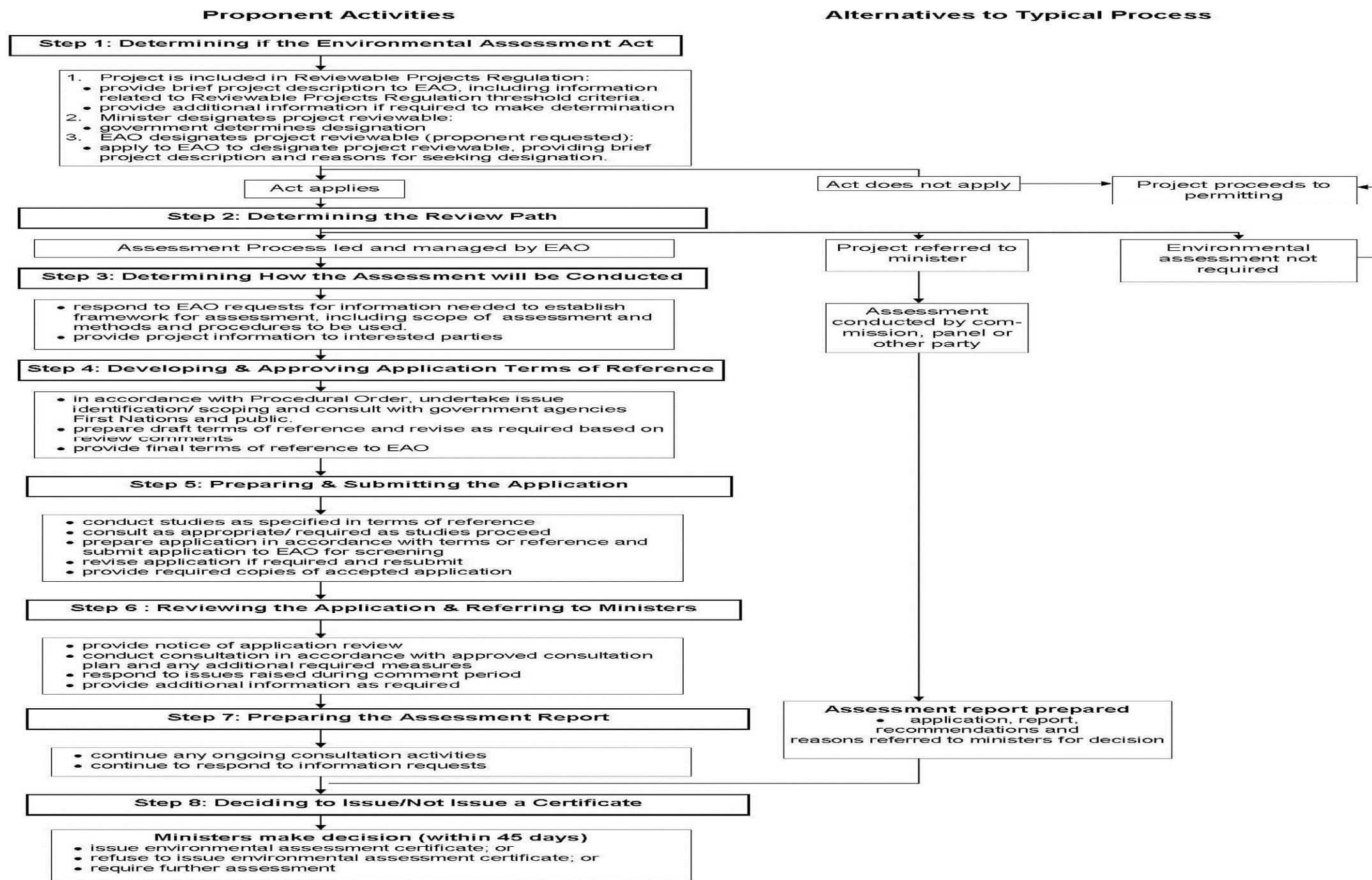


Figure 3-5. B.C. Environmental Impact Assessment

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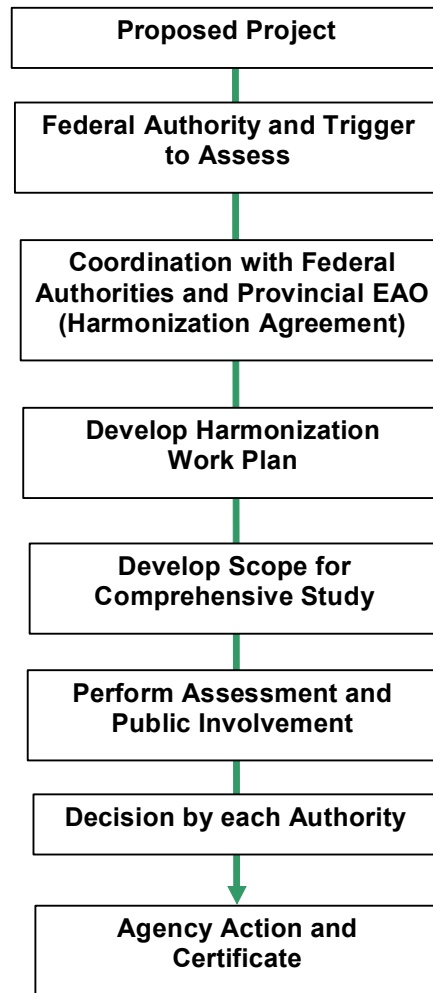


Figure 3-6. Canadian Environmental Assessment Act Process

3.1.3 Presidential Permit

U.S. presidential permits are required for the full range of facilities on the border, including roads and bridges. The presidential permit process has just been revised and updated. Analysis of new requirements will result in changes to portions of this study report. Permit applications for most facilities at the border are processed by the Department of State (DOS), although other agencies do permit certain cross-border facilities under separate legal authority. To issue a presidential permit, DOS must find that issuance would serve the national interest. Pursuant to NEPA, in considering an application for a presidential permit, DOS must consider environmental impacts of the proposed facility and directly related construction. The permit applicant has to include information about foreseeable environmental impacts of the proposed facility. Figure 3-7 depicts the process that would most likely apply to the SE Alaska Mid-Region Access Project.



Figure 3-7. Presidential Permit Process

DOS’s legal authority to issue presidential permits for international bridges, oil pipelines, and certain other transboundary facilities is found in the following:

- Executive Order (EO) 11423, issued August 16, 1968, as amended by EO 12847, issued May 17, 1993 (58 Fed. Reg. 29511), and Executive Order 13337, issued on April 30 2004 (69 Fed. Reg. 25299).
- International Bridge Act of 1972 (33 U.S.C. § 535 et seq), to the extent applicable.

DOS consults extensively with concerned federal and state agencies and invites public comment in arriving at a determination. For this project, applicants should consult early with the following federal and state agencies: the Secretary of Defense, Attorney General, Secretary of the Interior, Secretary of Commerce, Secretary of Transportation, Secretary of Energy, Secretary of Homeland Security, U.S. Environmental Protection Agency [USEPA], GSA, Federal Inspection Services (Immigration and Naturalization Services, Customs Service), USFWS, Coast Guard, DOS, and state and provincial agencies managing the environment, parks, wildlife, highways, and historic and cultural preservation.

In addition to approvals required from U.S. agencies, steps would have to be taken to ensure the approval of local, provincial, and federal officials in Canada. The DOS generally coordinates closely with the government of Canada through the Department of Foreign Affairs and International Trade and the Embassy of Canada on issues affecting the U.S./Canada border. As appropriate, the DOS communicates with the government of Canada via diplomatic notes at various stages in the permit process.

The DOS takes all views expressed, including public comment, into account before making a decision on a permit. Once the consultations and findings referred to above have been made, the Secretary of State or the Secretary’s designee determines whether issuing a permit to the applicant would be in the national interest. Once a determination is made, federal agencies are informed of the DOS’s intention to issue or deny a presidential permit, and, barring

objection(s) from any of the officials specified in the EOs, the presidential permit is issued. For more information on the presidential permit process, see Appendix D.

3.2 SCHEDULE

Figure 3-1 presents a schedule that aligns critical milestones of a U.S. EIS, presidential permit, and B.C. EA. The schedule assumes that the alternatives analysis would take approximately one year, and an EIS and B.C. EA would require approximately five years (including the time needed to obtain a ROD). From a procedural perspective, the schedule could be shortened for a number of tasks; however, this project would require a high level of coordination and analysis, including legal review. While Web-based collaboration and other innovations would enhance communication and performance, binational coordination would take time.

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4 PUBLIC AND AGENCY INVOLVEMENT

NEPA objectives include disclosure of environmental information and enhancing public participation in government planning and decision making. NEPA requires that federal agencies put environmental concerns on an equal footing with technical, social, and economic concerns. It also requires government agencies to consult with other federal agencies, state and local governments, and tribal organizations. Fostering creative ways for the public to become involved in decision making is also critical to the process, and the public must have ways to express concerns about environmental problems. The sections below outline activities that have taken place to date.

4.1 STAKEHOLDER INVOLVEMENT

No plans have been developed for stakeholder involvement at this time, since this is a pre-NEPA effort. Once a decision is made whether to move ahead with this project (following completion of the economic study), the informational mailer drafted for distribution to the stakeholder mailing list will be revised and distributed, if warranted. A mailing list has been developed and is considered a living document that will be revised throughout the process.

4.2 PUBLIC INVOLVEMENT

In preparation for potential public involvement under NEPA, activities to date include amalgamating several mailing lists and updating the resulting master list, developing a draft informational mailer (Appendix E), and preparing a list of potential participating agencies and stakeholders. A plan and strategies for public involvement would be prepared if a decision is made to move the project forward.

Before initiating contact with the B.C. government, a series of meetings took place with B.C. environmental consulting firms that have written EAs for Canadian projects. DOT&PF maintains a Web site that provides access to environmental reports the agency has performed, as well as chapters on department highlights, headlines, department links, and related links. This Web site would be available for project updates, or a separate Web site could be established specifically for the project.

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5 ISSUES INVOLVED IN REACHING A ROD

This section addresses environmental, regulatory, and socioeconomic opportunities and risks that would affect this project, should it move into an EIS/EA. It also explores the potential issues and the steps involved in issuing a ROD on a SE Alaska Mid-Region Access EIS.

5.1 ENVIRONMENTAL ISSUES

The sections below outline the potential effects on fish, wildlife, and the physical environment. Positive and negative possibilities, as well as political issues, are detailed in the subsections that follow.

5.1.1 Fisheries

Impacts to fisheries from road building could include stream canopy disturbance, siltation, erosion, and riparian area impacts. This is a major environmental concern because fish populations present in the project area have economic value for export as well as tourist-related value. Fish also have value for subsistence users, especially Alaska Natives, and provide recreation and sport catch opportunities for local residents. Adverse effects of development on fish populations could trigger regulatory restrictions to protect the species. Fisheries issues would be related to the freshwater rivers, the coastal zone where the terminals would be located, and indirectly, to areas where marine traffic would increase.

5.1.2 Water Quality

Water quality concerns would relate directly to potential changes in habitat for freshwater and marine ecological systems, primarily through sedimentation due to erosion. Indirectly, they would relate to potential pollutants that could affect human health. In developed areas, sewer outfalls may affect water quality.

5.1.3 Geology

Geological or geotechnical issues would affect the constructibility and cost of construction of the roadway and the terminals, as well as safety and maintenance related to landslides and avalanches. In addition, the kinds of methods used to construct cut and fill slopes and disposal areas could affect water quality.

5.1.4 Wildlife

The project would introduce human presence, noise, traffic, and pollutants to areas where these factors are currently minimal or nonexistent, affecting breeding, feeding, and resting activities, as well as terrestrial and aquatic habitat. The project could affect wildlife migration corridors and increase accessibility for hunting. During construction, blasting, pile driving, and other activities would likely disturb some wildlife, including bald eagles. Potential fisheries impacts to marine mammals could also be an issue.

5.1.5 Wetlands and Waters of the United States

Waters of the United States border Southeast Alaska and flow through passages between large islands, creating inland passes. Wetlands are prevalent in Southeast Alaska, and those along the project corridors would have to be identified and boundaries determined. The goal would be to avoid wetlands and, where impacts to wetlands were unavoidable, minimize and mitigate for wetland impacts. Where wetlands and waters of the U.S. impacts would be unavoidable, USACE and USEPA would require implementation of the least environmentally damaging alternative. Appropriate compensatory mitigation would also be required.

5.2 REGULATORY ISSUES

Early strategic consideration of the project's regulatory drivers should focus on (1) running concurrent environmental clearance processes and (2) avoiding regulatory obstacles that lead to higher risk of failure or substantially longer schedules. Regulatory drivers are likely to be regulations other than NEPA; however, the NEPA process would serve as the main method for organizing the decision making and conducting the needed processes.

5.2.1 National Environmental Policy Act

NEPA provides a mechanism for identifying and evaluating the full spectrum of environmental issues associated with federal actions, and for considering a reasonable range of alternatives to avoid or minimize adverse environmental impacts. In the course of implementing NEPA regulations, challenges often relate to process.

The international aspect of this project requires particular attention. The B.C. government would rely on its own EA for addressing environmental impacts in B.C. An EIS concurrently prepared under NEPA would have to address the 1997 Council on Environmental Quality Guidance (CEQ) on NEPA Analyses for Transboundary Impacts (Appendix F). The guidance requires agencies to include analyses of reasonably foreseeable transboundary effects of actions proposed actions in the United States. Such effects are best identified during the scoping stage and should be analyzed to the best of the agency's ability using reasonably available information. Such analysis should be included in the EIS prepared for the proposed action.

The purpose and need statement would be prepared following standard NEPA procedures. To the extent reasonable, consideration should be given to a purpose and need statement that relates to the SATP completed by DOT&PF. This would enable drafting an EIS that would focus on both mode (surface transportation) and location (Southeast Alaska mid region between the Cassiar Highway and the coast).

One main aspect of this Plan is expanding surface transportation capabilities for Southeast Alaska residents. Even if emphasis returned to a focus on fast-speed ferries and inside waters transportation, the flexibility inherent in a land link to the Cassiar Highway would expand methods to move goods both for B.C. and Southeast Alaska residents.

The ROD would have to demonstrate that the selected alternative is the least environmentally damaging practicable alternative from a Section 404 perspective.

5.2.2 Section 4(f)

Pursuant to 23 Code of Federal Regulations (CFR) 771.135(a)(1), DOT&PF and FHWA would have to document that the project would not use land from a significant publicly owned public park, public recreational area, or wildlife and waterfowl refuge, or any significant historic site, unless the following was determined:

1. There is no feasible and prudent alternative to the use of land from the property.
2. The action includes all possible planning to minimize harm to the property resulting from such use.

Given its prescriptive nature, the rigor of the Section 4(f) alternatives evaluation process should be explicitly considered throughout the proposed project development process. For example, simply because an alternative that meets the purpose and need under NEPA is determined to be “unreasonable,” does not, by definition, mean it is imprudent under the higher substantive test of the Section 4(f) preservationist provision.

If there is a feasible and prudent alternative that avoids the use of a 4(f) resource, among alternatives that use a 4(f) resource, the alternative avoiding the use must be selected. Additionally, if using a 4(f) resource is unavoidable, then the proponent must document and support the conclusion that all possible planning to minimize harm to the resource has been conducted. Of alternatives that use one or more 4(f) resources, the alternative that results in the least net harm must be selected.

Although FHWA’s Section 4(f) Policy Paper does not discuss wilderness areas as a specific topic, other discussions within the document provide insight regarding how Section 4(f) may apply to roadway impacts to such areas.

The U.S. project study area encompasses two designated wilderness areas. Wilderness areas, in and of themselves, are not 4(f) properties. Section 4(f) may apply to those portions of wilderness areas that function for, or are designated in, plans of the administering agency as being for significant park, recreation, or wildlife and waterfowl purposes. Significant historic resources within the wilderness area, or otherwise located in the project’s area of potential effect, are also considered. Permanent incorporation or temporary occupancy of such lands for transportation purposes would constitute a use of Section 4(f) land.

5.2.3 Wilderness Designation

The U.S. project study area encompasses two designated wilderness areas: the Stikine/LeConte Wilderness and the Misty Fiords National Monument Wilderness. These areas have the potential for highway route locations between the Cassiar Highway and the Alaska coast. The Alaska National Interest Land Conservation Act (ANILCA; Public Law 96-487, December 2, 1980) established the management plan for these areas. The process involved in developing a highway in wilderness areas would be complex, requiring Congressional action, and could increase the likelihood of procedural or legal delays.

The study area also contains the Craig Headwaters Protected Area on the B.C. side of the border. In addition to the Craig Headwaters Protected Area, Border Lake Provincial Park, another protected area, falls along one of the potential alignments. The exact boundaries of the park are not captured in GIS at this time; however, based on the Management Direction Statement, it appears that a potential Unuk alignment would run through the park. The park has no access for transportation, making this an issue that would have to be addressed with B.C. counterparts. The Management Direction Statement specifies the right to construct a road for mining purposes, and this apparently provides some latitude for the Ministry of Transportation in B.C. in terms of road use (Appendix G).

5.2.4 Endangered Species Act

Section 8 of this Plan contains a list of species protected under the Endangered Species Act. ESA Section 7 requires that consultation occur if risks to threatened and endangered species are identified in the course of the project. Depending on the magnitude of this risk, consultation could require substantial time.

5.2.5 Section 404 of the Clean Water Act

NEPA-related activities, including project purpose, alternatives under consideration, methods for wetlands evaluations, mitigation strategies, and public involvement, must be consistent with information needed and processes to be followed for Section 404 permitting. Agreement between the lead agency and USACE at key milestones is essential to protecting project interests. As with Section 4(f) compliance, the project managers have to demonstrate efforts first to avoid, and then to minimize, impacts to Section 404 resources. USACE and USEPA allow permit issuance for only the least environmentally damaging practicable alternative. The great number of wetlands in Southeast Alaska has resulted in a policy on wetland impacts that differs from practices in the lower 48 states. The policy recognizes that avoidance may not be an option, as many watersheds consist of wetlands. For this reason, most wetland impact management consists of impact minimization. This does not release projects from obligations under the Act, but it does affect how construction activities occur in Alaska.

Similar efforts will be taken to include criteria and factors as identified in Section 404(b)(1) of the Act, which requires discharge guidelines to include similar factors to those applied in territorial waters and oceans.

5.2.6 Cultural Resource Laws

The American Indian Religious Freedom Act, consultation with SHPO, the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act, the Archaeological Resources Protection Act, cultural surveys of routes, and ANILCA all have bearing on traditional Alaska Native interests in the study area. Collaboration with Alaska Native tribes and B.C. First Nation groups would be imperative on issues such as traditional use, archaeological sites, subsistence fishing and hunting, and areas of religious or other cultural significance.

5.3 SOCIOECONOMIC ISSUES

5.3.1 Alaska Native/First Nation Interests

In addition to cultural resource issues, the project may provide construction and environmental assessment work and could cause socioeconomic changes for the Alaska Native/First Nation communities. The issue of environmental justice would have to be evaluated to determine whether a potential proposed action would have an adverse effect on low income and minority populations (EO 12898). Residents' perceptions of impacts and opportunities would affect the viability of this project. Studies and proposals should be conducted in close collaboration with leaders in the Alaska Native/First Nation communities (Appendix H).

5.3.2 Economic Development

The project objectives focus on access to the continent and to the Pacific Ocean, rather than on economic development. While encouraging economic development is a secondary objective, the proposed solution does not have to depend on a specific economic outcome (which would be a constraint). Opportunities for economic development are envisioned as ways to develop project support and potentially help finance its construction, and will be further documented in a combined B.C./Alaska economic report scheduled to be drafted in 2007. Over the past decade, numerous proposals have been drafted to open mines in both B.C. and Southeast Alaska, indicating that additional mine development is possible and

ostensibly possible. The potential for a public/private partnership to construct this road should be explored further, since some of these proposed mines, as well as energy development and/or transmission lines, could benefit from the road.

One aspect of potential economic development in Southeast Alaska is building electrical interties that could produce several possible outcomes:

1. Expanded electric power for Southeast Alaska residents
2. Sale of excess power to B.C.

Economic development in the form of port facilities could create jobs in Southeast Alaska (McDowell Group, Economic Assessment of the Bradfield/Iskut Transportation Corridor, May 2004).

Direct and indirect impacts would have to be considered during development of an EIS. Two residential communities may form as a result of this project, the first at the border crossing and the second at the port facility.

The proposed EIS would present both challenges and opportunities for those who draft the document. They would have to consider all aspects of the road link, particularly because cross-border and government-to-government relations will be critical. Cumulative effects may also be of concern, as they may not stop at the border.

5.4 POTENTIAL FOR APPEALS

Most of the environmental laws and regulations allow for an appeal process. Stakeholder inclusion in the project process can, to some degree, reduce project delays caused by appeals. Given the potential for controversy on this project, however, delays will probably occur.

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6 SUMMARY RECOMMENDATIONS

This Draft Study Delivery Plan includes the following recommendations:

- Develop a joint (B.C./Alaska) economic study.
- Seek project consistency between the SATP and the B.C. Transportation Plan.
- Hold meetings between Alaska and B.C. at milestone decision points to determine the appropriate level of agreements for next steps.
- If the project proceeds to an EIS, conduct the EIS and a B.C. EA concurrently.
- During the EIS phase, develop alternatives in Alaska and B.C. that are mutually compatible with common border crossing points.

This Plan also contains recommendations for an initial project area shown on Figure 1-1, Project Area Map. The project area is defined to recognize the relationship of Petersburg and Wrangell to the development of an interregional access route. It also recognizes that the SATP calls for consideration of alternative routes in the Bradfield River, Stikine River, Unuk River, and Aaron's Creek drainages.

The project area would likely be more tightly defined during NEPA scoping and alternatives development, before publishing a draft EIS. An EIS alternatives analysis should result in a set of alternatives that would be compatible on both sides of the border. Commonly acknowledged alternatives would be required in both an EIS and a B.C. EA. NEPA scoping and an alternatives analysis would have to include environmental considerations, public involvement, and an explicit decision-making process for reducing the number of potential alternatives under consideration.

The use of software technology for locating alternatives for consideration would support the decision-making process as environmental constraints could be identified and considered during modeling runs. Use of corridor routing software as an option for defining alternative corridors would help balance cut and fill, meet required engineering standards, and avoid important resources or hazards. This would save time and expense for design, and it would work if regulatory agencies were willing to consider performance standards rather than design detail during development of an EIS. [As an example, a performance standard to avoid longitudinal encroachment on the 100-year floodplain in a certain area would substitute for a design drawing showing no encroachment.]

Figure 3-1, in Section 3, is a proposed schedule. DOT&PF now has a letter from B.C. agreeing to have Alaska conduct an economic study. Upon completion of the economic study, DOT&PF will work with B.C. to determine whether to proceed with a U.S. EIS and a B.C. EA.

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7 FUNDING

7.1 POTENTIAL COSTS

This section contains a discussion of potential costs associated with developing the project EIS, the B.C./Canadian EA, and the presidential permit. The cost projections are based on the functional organization, work breakdown structure, and management responsibilities described in Section 3.

This project delivery model allocates agency resources by developing a management team supported by executive and strategic review teams that would rely on a consultant delivery team manager. The delivery team manager would direct consultant services that would perform most of the technical work, as well as maintain scheduling, project control, and project documentation.

DOT&PF and FHWA anticipate that planning and environmental compliance costs must reflect the size of the construction effort that would be required to build such a road, the complexity and remoteness of the study area, the numerous regulatory issues associated with the proposal, and the large number of potential stakeholders associated with this international project. For much of the study area, there is no direct traditional access available. As an example, access for any on-the-ground studies in the Stikine Wilderness would be via boat, floatplane, or helicopter up the Stikine to drop-off points. From these drop-off points, studies would be conducted on foot, so the time needed to carry out such work would probably be lengthy.

Based on the factors described above and costs currently associated with other large, complex projects across the nation, FHWA recommends that \$19 million be budgeted for planning and environmental compliance for this project, for combined U.S. and B.C. efforts (Table 7-1). This proposed budget is based on a more detailed breakdown shown in Table 7-2. Professional judgment was applied to estimate costs associated with the major tasks and their scheduled occurrences.

Table 7-1. Forecasted Funding Demand for U.S. and B.C. Efforts

2008	2009	2010	2011	2012	2013	Total
\$4,000,000.00	\$3,500,000.00	\$4,000,000.00	\$3,500,000.00	\$3,000,000.00	\$1,000,000.00	\$19,000,000.00

The amount expended to complete an alternatives analysis in Alaska and B.C. would probably range from \$3.4 million to \$4.8 million. This includes costs for corridor routing software that could considerably reduce subsequent construction costs. Estimated expenditures for an EIS and Presidential Permit could range from approximately \$11 million to \$17 million. An additional \$4.4 million to \$6 million (U.S.) dollars could be required for EA certification in B.C.

As stated in Section 3.1.5, the alternatives analysis could last approximately one year, and an EIS, presidential permit and B.C. EA could require approximately five years. Timing would depend to a large degree on factors such as degree of U.S./Canada cooperation, stakeholder buy-in, and interagency cooperation. A schedule of approximately six years was applied to the basic assumptions about total estimated costs associated with reaching a ROD on this project. Thus, project expenditures are estimated to range from between \$1 million and \$4 million per year, as shown on Table 7-1.

Table 7-2. Budget Estimate, 2008 to 2013

Alaska EIS/Presidential Permit Annual Budget	Year						Totals
	2008	2009	2010	2011	2012	2013	
Agency	\$500,000.00	\$500,000.00	\$500,000.00	\$500,000.00	\$500,000.00	\$300,000.00	\$2,800,000.00
Consultant low	\$2,000,000.00	\$1,500,000.00	\$2,000,000.00	\$1,500,000.00	\$1,000,000.00	\$300,000.00	\$8,300,000.00
Consultant high	\$3,000,000.00	\$2,500,000.00	\$3,000,000.00	\$3,000,000.00	\$2,000,000.00	\$600,000.00	\$14,100,000.00
Low end	\$2,500,000.00	\$2,000,000.00	\$2,500,000.00	\$2,000,000.00	\$1,500,000.00	\$600,000.00	\$11,100,000.00
High end	\$3,500,000.00	\$3,000,000.00	\$3,500,000.00	\$3,500,000.00	\$2,500,000.00	\$900,000.00	\$16,900,000.00
B.C. EA Annual Budget							
Agency	\$300,000.00	\$300,000.00	\$300,000.00	\$300,000.00	\$300,000.00	\$100,000.00	\$1,600,000.00
Consultant low	\$650,000.00	\$500,000.00	\$500,000.00	\$500,000.00	\$500,000.00	\$100,000.00	\$2,750,000.00
Consultant high	\$1,000,000.00	\$800,000.00	\$800,000.00	\$800,000.00	\$800,000.00	\$200,000.00	\$4,400,000.00
Low end	\$950,000.00	\$800,000.00	\$800,000.00	\$800,000.00	\$800,000.00	\$200,000.00	\$4,350,000.00
High end	\$1,300,000.00	\$1,100,000.00	\$1,100,000.00	\$1,100,000.00	\$1,100,000.00	\$300,000.00	\$6,000,000.00
Alaska/B.C. Combined Budget							
Low end	\$3,450,000.00	\$2,800,000.00	\$3,300,000.00	\$2,800,000.00	\$2,300,000.00	\$800,000.00	\$15,450,000.00
High end	\$4,800,000.00	\$4,100,000.00	\$4,600,000.00	\$4,600,000.00	\$3,600,000.00	\$1,200,000.00	\$22,900,000.00
Midpoint	\$4,125,000.00	\$3,450,000.00	\$3,950,000.00	\$3,700,000.00	\$2,950,000.00	\$1,000,000.00	\$19,175,000.00

The staffing and cost estimates discussed above represent preliminary estimates. As the project progresses, they may have to be modified to compensate for unexpected expenses and government-to-government costs that cannot be anticipated at this time.

7.2 FUNDING

This section contains a discussion of current and potential funding mechanisms for this project. Figure 7-1 summarizes the relationship between funding and resource needs over the life of the potential SE Alaska Mid-Region Access EIS.

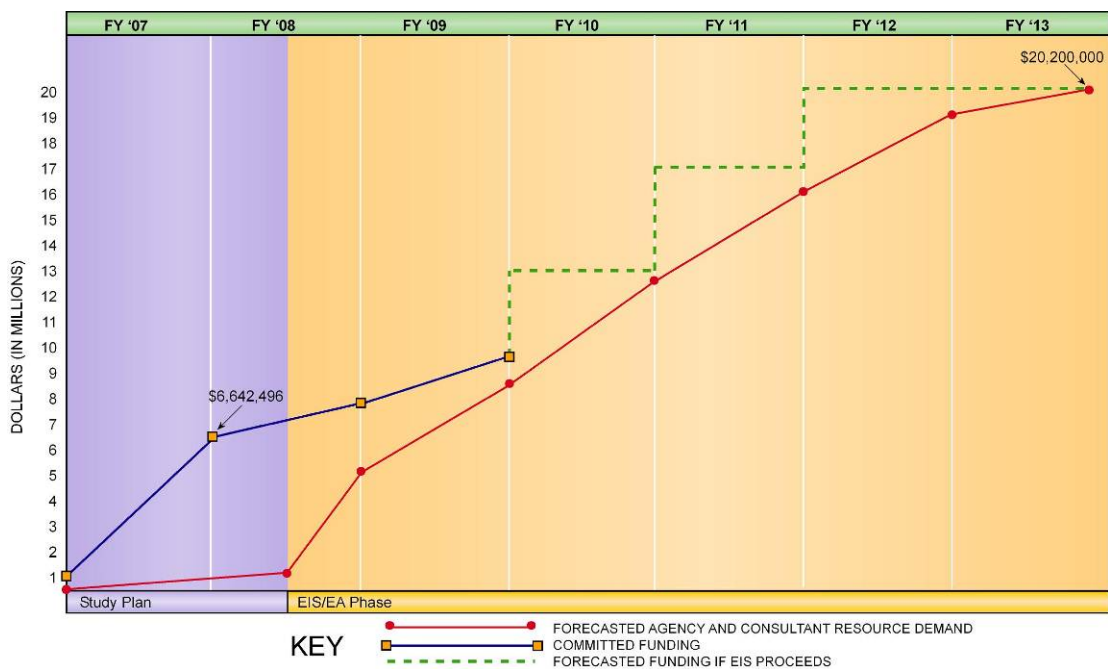


Figure 7-1. Projected Funding Allocations and Demand (U.S. and Canadian Efforts)

Table 7-3, on the next page, identifies funding allocations for from FY 2007 through FY 2009. Funding described in this table, plus other funding methods discussed in this section, is projected to fund the project fully through FY 2013.

Table 7-3. Potential Funding Allocations, 2007 to 2009

Current Funding Source	Estimated Funding by Fiscal Year*			Estimated Funding* (Including Match)
	2007	2008	2009	
Federal/State				
High Priority Project Section 1938	\$1,121,248.00	\$373,750.00	\$373,750.00	\$1,868,748.00
High Priority Project Section 3715	\$1,121,248.00	\$373,750.00	\$373,750.00	\$1,868,748.00
Surface Transportation Program (STP) Federal Highway Aid	\$1,200,000.00	\$400,000.00	\$400,000.00	\$2,000,000.00
National Corridor Infrastructure Improvement Program	\$1,200,000.00	\$400,000.00	\$400,000.00	\$2,000,000.00
State Only				
General Fund State Appropriation	\$2,000,000.00	TBD	TBD	\$2,000,000.00
Current Funding Total	\$6,642,496.00	\$1,547,500.00	\$1,547,500.00	\$9,737,496.00

*Includes state match of federal funding

7.2.1 High Priority Projects

Up to \$4 million would be available for this project through SAFETEA-LU high priority project funding. Table 7-4, below, details this funding.

Table 7-4. High Priority Project Funding Allocations

Project Number	Name	Amount
1938	Planning, design, and EIS for *Bradfield Canal Road	\$2,000,000
3715	Southeast: Planning, design, and EIS for Bradfield Canal Road	\$2,000,000

*The Bradfield Canal Road is another name used to reference this project.

Twenty percent of the total allocation would be available for each fiscal year from 2005 through 2009. High-priority projects are funded by contract authority, and funds are available until expended.

7.2.2 Surface Transportation Program

The STP provides flexible funding that states and localities may use for projects on any federal-aid highway, including the National Highway System, bridge projects on any public road, transit capital projects, and public bus terminals and facilities. The act expands STP eligibilities to include advanced truck-stop electrification systems, environmental restoration and pollution abatement, control of terrestrial and aquatic noxious weeds, and planting of native species.

7.2.3 National Corridor Infrastructure Program

States apply for funding under this SAFETEA-LU program to construct highway projects in corridors of national significance to promote economic growth and international or interregional trade. Funds are subject to the overall federal-aid obligation limitation. Projects receive special “no year” obligation limitation that is available until used. Federal share is generally 80 percent. Table 7-1 identifies \$2 million from this program.

7.2.4 Coordinated Border Infrastructure Program

This program was developed to improve the safe movement of motor vehicles at or across the land border between the United States and Canada and the land border between the United States and Mexico. It replaces the TEA-21 Coordinated Border Infrastructure discretionary program, which ended after 2005.

Alaska's portion of this program is estimated at \$5 million over the five-year span of the transportation bill. Use of the program would not increase the total state allocation for Alaska's Statewide Transportation Improvement Program, but it would accord greater flexibility as to how trust fund accounts were expended within the state, and it would allow for the federally apportioned funds to be spent in bordering countries for planning, environmental processes, design development, and/or construction, provided certain conditions are met.

7.2.5 Advance Construction

Advance construction is a process whereby states can use state funds to initiate a project and then be reimbursed via federal allocations at a future time. Alaska can use advance construction on a number of federal programs, including surface transportation programs, state planning and research, and high-priority projects.

7.2.6 Other Federal Highway Trust Fund Accounts

Federal highway trust fund accounts (e.g., Forest Highway) potentially could be used, but no funds have been allocated or requested.

7.2.7 State Of Alaska General Fund

The state legislature appropriates general fund money. The Alaska Legislature has appropriated \$2 million from the general fund for this project.

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8 U.S. AND CANADIAN FEDERAL, STATE, AND PROVINCIAL PLANS, REPORTS, TREATIES, AND REGULATIONS

This section contains summaries of plans, regulations, and treaties that may affect the construction of a road linking Southeast Alaska to the Cassiar Highway. They may also contribute valuable information when identifying alternatives to be considered in an EIS process.

8.1 FEDERAL AND STATE PLANS AND REPORTS

8.1.1 Tongass Land Management Plan

The Tongass National Forest covers extensive areas throughout much of Southeast Alaska. The Tongass Forest Plan addresses uses within the forest. It would be applicable because potential routes pass through the Tongass National Forest, and the USFS would regulate project analysis and construction activities in such areas. The Forest Plan is currently under review for possible revision, a supplemental EIS, or a full EIS. The projected completion date is July 2007. To access the entire Forest Plan, use the following link:
http://www.fs.fed.us/r10/TLMP/F_PLAN/FPTOC.PDF.

Additional information regarding the Management Prescriptions portion of the Forest Plan is found in Appendix I. The following discussion relates to the Forest Plan's Wilderness designation within the proposed project area.

Public land becomes wilderness through legislation passed by the U.S. Congress in the form of public laws. For the Stikine-LeConte Wilderness (Wilderness), this process began in 1980 when 443,000 acres were designated by Public Law 96-487. The USFS manages the Wilderness, which contains 448,926 acres. The entire Wilderness area lies in the state of Alaska.

The Wilderness (Figure 1-1) is part of the 106-million-acre National Wilderness Preservation System. It is located on the mainland of Southeast Alaska, southeast of Petersburg and north and west of Wrangell. The boundary extends from Frederick Sound on the west to the Alaska-Canada boundary on the east.

The most frequently used means of access is small boat, but some access is by float plane. The Stikine River provides access via small boat from salt water, through the Wilderness, across the Alaska boundary, and into the interior of B.C.

One of the major features of this area is the Stikine River, which flows through the southern portion of the Wilderness. The river valley is relatively narrow in places. The surrounding mountains are steep, rugged, and contain numerous glaciers. Meltwater from these glaciers has a high silt content, giving the Stikine River a milky appearance. The river delta is highly braided with three main navigable channels. North of the Stikine River area is the LeConte Glacier, which flows into LeConte Bay. LeConte is the southernmost glacier in North America that flows directly into salt water. Mountains in the area of LeConte Bay are steep, and most of the upper valleys are glacier-filled. Glaciers and ice fields cover most of the rugged, mountainous area in the eastern part of the Wilderness.

Alpine vegetation, including mosses, lichens, and other small plants, is found at the upper elevations. The lower mountain slopes near salt water support a dense spruce-hemlock rainforest. Closer to the B.C. border, the rain decreases and the vegetation changes to stands of cottonwood. Cottonwoods are also common on the many islands of the Stikine River.

The valley floor along the river is a combination of muskegs and dense alder and willow thickets. The Stikine River delta consists of grass flats, tidal marsh, and sand bars.

Much of the area, particularly the Stikine River drainage, is recognized as an important fish and wildlife area. Moose, mountain goats, brown bear and black bear, deer, and wolves inhabit the area. The delta flats of the Stikine River are a major resting and nesting area for migratory birds. A wide variety of fish, including king and other species of salmon, is found in the waters of the area. As many as 2,000 eagles congregate in the mouth of the river, following a typical run of smelt.

8.1.2 Southeast Alaska Transportation Plan (2004)

The SATP is applicable because it details future activity in Southeast Alaska and discusses a proposed link with the Cassiar Highway. The SATP includes descriptions of three fundamental highway elements that would better link the region to the continental highway system. The first, the preferred alternative for the Juneau Access Project, is a road along the east side of Lynn Canal connecting Juneau to Skagway. It includes a short shuttle ferry crossing to Haines. The second is the construction of new highways in southern Southeast Alaska to establish a through connection from Ketchikan to the Cassiar Highway in B.C. This new route would also include connections to Wrangell and Petersburg. Initially these highway routes would require several shuttle ferry links, which could ultimately be replaced with bridges. With these links in place, travel between these communities and trips into B.C. would no longer require a lengthy ferry trip. The third element is a highway from Sitka across Baranof Island that would improve the level of ferry service to Sitka and reduce costs to travelers and the state.

8.1.3 Southeast Conference Energy Committee 2004 Annual Report

The Southeast Conference Energy Committee 2004 Annual Report was prepared under the auspices of the Southeast Conference. It is applicable because it may provide guidance regarding energy corridors along the various routes analyzed over the course of this project.

The Southeast Conference was formed in 1958 as an association of communities joined to advocate for establishment of the Alaska Marine Highway System (AMHS). Today, the Southeast Conference is a regional, nonprofit corporation, and its membership includes municipalities, Native corporations and village councils, regional and local businesses, civic organizations, and individuals from throughout the region. The Southeast Conference is the state-designated Alaska Regional Development Organization, the federally designated Economic Development District, and the federally designated Resource Conservation and Development Council for Southeast Alaska. As such, it takes an active role in regional resource management and economic development planning.

Relevant information for this report is as follows:

Potential Interconnection into British Columbia and Cascade Creek Federal Energy Regulatory Commission filing: The state of Alaska proposes to pursue a potential road link into British Columbia via the SE Alaska Mid Region Access Study. A transmission line could also be added, thus linking Southeast Alaska to the North American grid. Cascade Creek LLC filed an application with the Federal Energy Regulatory Commission to develop an 80 megawatt hydropower project called Cascade Creek in Thomas Bay, which lies about 15 miles north of Petersburg. Work has begun on a run-of-the-river hydro project along the Iskut River 5 miles, more or less, to the Cassiar Highway in British Columbia.

A transmission line running south and linking up with the existing B.C. grid is planned.

The completion of the Bradfield Road and intertie would provide access to export hydropower from Southeast Alaska, such as the Cascade Creek power and other hydro resources along the existing and planned interties, into the B.C. grid and ultimately into the lower 48 states.

8.1.4 Coastal Zone Management Plan (Excerpted from ADNR Management Plan)

The state of Alaska developed the following program description of the Alaska Coastal Management Program (ACMP) at the request of NOAA's Office of Ocean and Coastal Resource Management. The ACMP is applicable because it would guide activities occurring in coastal areas over the course of this project. The project would most likely require a Coastal Zone Management Plan (CZMP) determination. The description developed by the state reads as follows:

The state of Alaska's coastline consists of approximately 44,500 miles. This area, measured either on the tide line or around an average perimeter that parallels the mainland limits of the Territorial Sea, exceeds that of the entire continental United States. The Alaska coastal area has national and international significance for its vast, healthy ecosystems, and it is a generous source of renewable and non-renewable resources, especially proven and potential energy resources.

See Appendix J for additional information from the ACMP.

8.1.5 Canadian Guidances, Acts, Plans, and Reports

The information provided below is applicable to this report because a concurrent EA process occurring in B.C. would be necessary to ensure successful completion of a potential EIS. Each of the documents described in this section may provide guidance for activities occurring over the course of this project. Several Canadian Parks are adjacent to the proposed project area on the U.S. side of the border, and the highway linking Southeast Alaska with the Cassiar Highway may pass through one or more of these parks.

8.1.5.1 B.C. Park Management Planning Process

The information presented below has been paraphrased and summarized, based on B.C.'s original plan description.

What is a Management Plan?

B.C. Parks prepares management plans to guide how a protected area will be managed over 10 to 20 years. The plan sets out objectives and strategies for conservation, development, interpretation, and operation of a protected area. B.C. management plans rely on current information relating to such subjects as natural values, cultural values, recreation opportunities within a protected area, and resource activities occurring on surrounding lands.

What is the Process Used to Prepare Management Plans?

The process for preparing management plans involves careful analysis of the overall goals of the protected area, use patterns, management objectives, and possible sources of conflict among protected area policies. Through the planning process, various options for managing the protected area are developed and assessed. In choosing the most appropriate option, the

intent is to reach a balance between protecting natural values from damage and managing human uses of the protected area.

B.C. Parks prepares management plans with a high degree of public involvement. The general public and public interest groups have opportunities to review management planning documents and to provide comments to B.C. Parks through a variety of means, including public meetings and mail-outs. Similarly, B.C. Parks consults with First Nations, other levels of government, and other provincial government agencies in the development and review of management plans. In certain instances, public advisory committees help prepare the management plan and often function as partners with B.C. Parks in implementing and monitoring the plan.

Management Direction Statements

Management direction statements describe protected area values and management issues and concerns. They provide strategic management direction to deal with immediate priority objectives and strategies. Management direction statements do not negate the need for future, more detailed plans.

Purpose Statements/Zoning Plans

To expedite the process to secure approved management direction for all remaining protected areas, B.C. Parks developed the purpose statement/zoning plan.

A purpose statement/zoning plan is a brief document that identifies the purpose of a protected area, provides a high-level overview of protected area values and their significance, documents key known management issues and interim management direction, and sets out a zoning plan. Purpose statement/zoning plans do not negate the need for future, more detailed plans.

Background Reports

Background reports are documents prepared to provide background information on a protected area. These reports present information on natural and cultural values; land tenure, occupancy rights, and resource uses; outdoor recreation opportunities and facilities; visitor use and trends; and known management issues.

8.1.5.2 B.C. Transportation Plan

The B.C. Transportation Plan contains descriptions of proposed activities throughout B.C. (Appendix K). The relevant information for this report is summarized below.

While the plan does not include a mid region access, it does call for significant investments in the B.C. heartland, including upgrading the Cassiar Highway by paving the final sections of gravel surface that have not been upgraded yet. The road has a hard surface, either seal coat or pavement, for the majority of the highway. One focus of the plan is improving resource access. According to the plan, investments in northwestern B.C. will focus on improving highways and resource roads, building Prince Rupert's capacity as a port and cruise-ship terminal, and fulfilling government's commitment to upgrading the Nisga'a Highway. One project relevant to this Plan would be replacing the Todagin Bridge, 90 kilometers (km) south of Dease Lake on Highway 37, to improve safety and reduce maintenance costs.

8.1.5.3 Craig Headwaters Provincial Park Report

The Craig Headwaters Protected Area protects the Craig River valley from the Alaska border to its junction with the Iskut River. The Craig Headwaters Provincial Park covers

7,500 hectares. This park, bordered on the southwest by Alaska, is approximately 120 km south of the community of Telegraph Creek. Access is by helicopter, jet boat, and foot only.

The Provincial Government protected Craig Headwaters in 2001, following recommendations of the Cassiar Iskut-Stikine Land and Resource Management Plan. Craig Headwaters Protected Area lies within the asserted traditional territory of the Tahltan First Nation.

The Craig Headwaters Protected Area is located in the Boundary Ranges Ecoregion. The park protects a representative example of low-elevation coastal western hemlock forest and associated ecosystems. Sockeye and bull trout inhabit the Craig River, and it is one of the main coho spawning areas in the Stikine. Annual spawning counts of coho are conducted in the Craig in the fall as an indicator. Grizzly bears also inhabit the coastal forest valley of the Craig River.

8.1.5.4 Guide to the British Columbia Environmental Assessment Process, March 2003

The information below is drawn from B.C. documents, hence the British spelling. The Guide to the British Columbia Environmental Assessment Process (Guide) provides information on the Environmental Assessment Act and details how EAs are conducted in B.C. Sections 1 to 3 of the Guide provide an introduction, background information, and explanations of the regulatory context for environmental assessment in B.C. and the legal and policy context for First Nation consultation. Section 4 provides an overview of the Environmental Assessment Act and its accompanying regulations. Section 5 describes the process for a typical environmental assessment, led and managed by the Environmental Assessment Office. This typical process is followed in nearly all cases. However, there are special circumstances in which the typical assessment process is not followed; these circumstances are explained in Section 6. Section 7 contains a description of how to access information through the Project Information Centre.

8.1.5.5 Parks Canada Agency Act

The Canadian Parliament recently passed the Parks Canada Agency Act, which provides a new operational framework for Parks Canada. The act also establishes Parks Canada as a separate service agency of the federal government. Elements of this act may be adopted by the B.C. government.

Parks Canada currently delivers its mandate for the protection of natural heritage through the National Parks Act. Passage of Bill C-48, An Act respecting Marine Conservation Areas, enhances Parks Canada's ability to implement this mandate. The National Parks Act sets out the legislative mechanisms for preserving Canada's most outstanding natural landscapes. Over the years, the National Parks Act has been substantially amended to reflect the evolving role of the parks system.

The new Parks Canada Agency Act strengthens the protection of nationally significant heritage resources, facilitating the completion of the parks system and enabling Canada to make wiser and more efficient use of public funds. The changes to the act are intended to limit commercial development in the national parks and to streamline the legislative process for establishing national parks.

Previous legislation and amendments have been consolidated, making the act more understandable and user-friendly for government employees, the courts, and the general public. The new act includes the following components potentially relevant to U.S. agencies:

- The Pacific Rim National Park Reserve in B.C. will be formally established.

- The new act simplifies and accelerates the process of establishing or enlarging future parks or park reserves by using a more efficient and cost-effective Order In Council mechanism once a park establishment agreement has been concluded. Parliamentary oversight will be maintained.
- The act provides for the continuation of traditional resource harvesting activities in keeping with comprehensive land claim agreements and federal-provincial agreements to establish parks.

Controlling Commercial Development

The boundaries of all communities in the national parks will be fixed, and commercial development will be capped in those communities. The goal is to ensure that a legal framework for community management is appropriate to local needs and the national interest while maintaining ecological integrity in the national parks system.

Protecting Park Resources

Amendments facilitate the government's commitment to the conservation of nationally and internationally significant heritage resources by increasing the maximum fines and penalties for certain poaching offenses and creating a new offense for trafficking in wildlife and other natural resources. These amendments coincide with provisions in other conservation statutes such as the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act.

Administration and Housekeeping

Amendments authorize the Minister of Canadian Heritage to enter into agreements with other governments and organizations. This provides the needed flexibility to ensure maximum effectiveness in the implementation of Parks Canada's responsibilities; it also enables Parks Canada to develop creative partnerships to meet management objectives in the future.

The boundary descriptions of some parks have been altered to reflect the addition of lands to existing parks, the excision of land in settlement of Aboriginal land claims, and the use of up-to-date survey terminology and measurements.

Housekeeping changes have been made to consolidate the several amending Acts and Schedules, to repeal the spent clauses, and to regroup and renumber like sections.

8.2 TREATIES

Three treaties may affect this project.

The first relevant treaty is the **Convention between Great Britain and Russia**. This treaty was signed February 28, 1825, in Petersburg, Russia. It established "different points connected with the Commerce, Navigation, and Fisheries of the Subjects on the Pacific Ocean, as well as the limits of their respective Possessions on the North West Coast of America." It also established the geographic limits of territories belonging to Russia and those belonging to Great Britain. One critical article of this treaty is as follows:

***Article VI.** It is understood that the subjects of his Britannic Majesty, from whatever Quarter they may arrive, whether from the Ocean, or from the interior of the Continent, shall for ever enjoy the right of navigating freely, and without any hindrance whatever, all the rivers and streams which, in their course towards the Pacific Ocean, may cross the line of demarcation upon the line of coast described in Article 3 of the present Convention.*

The second treaty is the **Treaty of Washington between Great Britain and the United States**. Enacted May 8, 1871, and signed at Washington D.C., this treaty addresses unlimited transport of “goods, wares, or merchandise” with no duty through both Canada and the United States. Article XXXIII specifies that the treaty will remain in effect for 10 years, after which time either party may terminate the agreement.

The third treaty potentially affecting this project is the “**Treaty between his majesty and the United States of America relating to boundary waters and questions arising along the boundary between Canada and the United States,**” signed at Washington, D.C., January 1909, with ratifications exchanged May 5, 1910. This treaty defines boundary waters and indicates that navigation of all navigable boundary waters will continue to be free for purposes of commerce to the inhabitants and for ships, vessels, and boats of both countries equally. It also indicates that waterway tolls can be charged, but that they must be applied to entities from both nations in the same manner.

8.3 REGULATIONS AND STATUTES POTENTIALLY APPLICABLE TO THE SE ALASKA MID REGION ACCESS PROJECT

The following is a preliminary list of the major laws, regulations, and Executive Orders (EOs) that may be directly applicable to the proposed action to date. DOT&PF will conduct additional reviews regarding applicability of these laws at the appropriate time in the process.

8.3.1 Federal Acts

8.3.1.1 Act for the Preservation of American Antiquities (1906), 16 U.S.C. §§ 431-433

This act provides for the protection of historic or prehistoric remains on federal lands, establishes criminal sanctions for unauthorized destruction or appropriation of antiquities, authorizes the president to declare national monuments by proclamation, and authorizes the scientific investigation of antiquities on federal lands, subject to permit and regulations.

Applicability: If there are historic or prehistoric remains on federal lands, these resources will have to be protected.

8.3.1.2 Alaska Mental Health Enabling Act, Pub.L. No. 84-830, 70 Stat. 709 (1956)

Congress granted the then Territory of Alaska the right to select 1 million acres of land as a public trust to be used first for the necessary expenses of the mental health program of the state of Alaska.

Applicability: There are mental-health-designated trust lands located within Southeast Alaska, and the proposed right-of-way may require the acquisition of such lands. Trust lands are managed separately from other state of Alaska lands, in accordance with regulations adopted in 1997. The regulations provide that trust lands are managed solely in the best interest of the Alaska Mental Health Trust and its beneficiaries and among other things, require that the Trust Lane Office do the following:

- Protect and enhance the long-term productivity of trust land.
- Maximize long-term revenue from trust land.
- Encourage a diversity of revenue-producing uses of trust land.
- Manage trust land prudently, efficiently, and with accountability to the trust and its beneficiaries.

8.3.1.3 Alaska National Interest Lands Conservation Act of 1980

This act protected 5.4 million acres in Southeast Alaska from harmful development (of this area, 3.6 million acres consist of rock, ice, muskeg, and non-commercial forest), including the Stikine/LeConte Wilderness and Misty Fjords National Monument.

Section 811 mandates that the Secretary of the Interior or the Secretary of Agriculture (depending on whether the land is managed by USFS, USFWS, or BLM) “shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on public lands.” This section further directs that, other laws (including the Wilderness Act) notwithstanding, the secretary “shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation.”

Section 1110(a), Special Access, requires that the Secretary of Agriculture “shall permit” on conservation units, which include Wilderness, “the use of snow machines (during periods of adequate snow cover or frozen river conditions, in the case of Wild or Scenic rivers), motorboats, airplanes, and nonmotorized surface transportation methods for traditional activities (where such activities are permitted by this Act or other law) and travel to and from villages and home sites.” Such use is subject to reasonable regulation, but shall not be prohibited unless after notice and hearing the secretary finds that such use would be detrimental to the resource values of the area.

Applicability: This act governs activities within Wilderness areas and national monuments, and thus would apply to the project area.

8.3.1.4 Alaska Native Allotment Act of 1906

Land ownership within the Tongass National Forest is complicated by several ongoing land selection processes. The Alaska Native Allotment Act of 1906 provided for Native individuals who had occupied lands before their designation as National Forest to apply for conveyance of up to 160 acres, under conditions prescribed by the act and federal regulations. As of October 1995, 2,014 acres in 37 Native allotments had been conveyed, with an additional 7,914 acres pending adjudication by the Bureau of Land Management (BLM). The act was repealed by the passage of the Alaska Native Claims Settlement Act of 1971 (ANCSA).

Applicability: BLM is responsible for adjudicating native allotment claims. Some of the claims are located in Southeast Alaska. If there were native allotment claims within the project area that had not been adjudicated, and the property were needed for the road, then there could be a delay in project construction as these issues are addressed.

8.3.1.5 Alaska Native Claims Settlement Act of 1971, 43 U.S.C. §§ 1601-1629e, as amended

ANCSA provided for conveyance of 23,040 acres of land to each of the ten Native village corporations and two urban corporations located in Southeast Alaska, additional acres to Sealaska, the Regional Corporation, and up to 160 acres to native individuals who had occupied that land as a primary place of residence on August 31, 1971. To date, approximately 560,000 acres have been conveyed under this legislation. In addition to the above legislation, ongoing discussions and negotiations regarding future land exchanges between the USFS and a number of Native Corporations and other entities may influence land ownership on the Tongass.

Applicability: Numerous provisions of ANILCA (as well as other federal laws, regulations, and policies) require federal agencies to consult with the state. In addition, the current federal administration emphasizes the importance of federal agencies involving state and local interests in federal decision making. ANILCA issues closely monitored by the state of Alaska include public access for traditional activities, access to holdings, subsistence, and recognition of state authorities concerning fish, wildlife, navigable waterways, water columns, tidelands, and submerged lands.

8.3.1.6 Alaska Statehood Act

The Alaska Statehood Act of 1959 authorized the state of Alaska to select 400,000 acres of vacant and unappropriated land from within the Tongass and Chugach National Forests in Alaska to further the development and expansion of Alaska communities. To date, approximately 308,000 acres have been approved for selection. The state received title to approximately 249,000 acres located in the Tongass National Forest. The state has completed its National Forest selection process, and most of the land Alaska requested has been approved for transfer by the USFS. To date, approximately 50,000 acres remain to be conveyed from the Chugach and Tongass National Forests.

Applicability: If any of the 50,000 acres remaining to be conveyed were needed for the SE Alaska Mid-Region Access Project, then the adjudication process could delay project construction as these issues of property ownership were addressed. If any of these properties were considered recreation areas by the USFS, then 4(f) would apply.

8.3.1.7 Archaeological Resources Protection Act of 1979

This act preserves and protects archaeological, historic, and paleontological resources. It requires the issuance of permits to excavate or remove any archaeological or paleontological resources from federal lands and tribal lands.

Applicability: If the tribal consultation requires the excavation or removal of an archaeological or paleontological resource from the proposed right-of-way, then a permit will be required.

8.3.1.8 Bald and Golden Eagle Protection Act, 16 U.S.C. §§ 668-668d, as amended

USFWS is responsible for conservation of bald eagles and has regulatory authority under the Bald and Golden Eagle Protection Act of 1940, as amended (16 U.S.C. 668–668d). This law prohibits the taking of bald eagles and the disruption of bald eagle nests. The Bald and Golden Eagle Protection Act applies to all nest sites, regardless of whether they are active in a particular year. The secretary may enter into cooperative agreements with state fish and wildlife agencies or other appropriate authorities to facilitate enforcement of the act and may delegate enforcement authority to state law enforcement personnel as appropriate. The MBTA and the Fish and Wildlife Coordination Act also give the USFWS the regulatory authority for the protection of bald eagles.

Applicability: Bald eagles are present within the project area. Construction of the SE Alaska Mid-Region Access Project has the potential to disrupt any bald eagle nesting and nests within the project area. The sites of these nests could affect the location of the road.

8.3.1.9 Clean Air Act Amendments of 1990

This legislation creates a new, balanced strategy for the nation to address the problem of urban smog. The law requires states to make progress in reducing emissions. It requires the federal government to reduce emissions from cars, trucks, and buses; from consumer

products such as hair spray and window washing compounds; and from ships and barges during loading and unloading of petroleum products. The federal government must also develop the technical guidance that states need to control stationary sources.

The law addresses the urban air pollution problems of ozone (smog), carbon monoxide, and particulate matter (PM-10). Specifically, it clarifies how areas are designated, redesignates attainment, and allows USEPA to define the boundaries of nonattainment areas (geographical areas where air quality does not meet federal air quality standards designed to protect public health).

Applicability: Air quality issues based on the introduction of vehicular traffic would have to be analyzed in an EIS.

8.3.1.10 Coastal Zone Management Act (CZMA) of 1972, 16 U.S.C. §§ 1451-1465, October 27, 1972, as amended

This act establishes an extensive federal grant program within the U.S. Department of Commerce to encourage coastal states to develop and implement coastal zone management programs. Activities that affect coastal zones must be consistent with approved state programs. The act also establishes a national estuarine reserve system.

Applicability: A portion of the SE Alaska Mid-Region Access Project falls within Alaska's coastal zone. Construction of a road, port facilities, etc., must be consistent with Alaska's approved program.

8.3.1.11 Comprehensive Environmental Response, Compensation, and Liability Act, 1980, 42 U.S.C. § 9601 et seq.

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), commonly known as the Superfund Act, created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that might endanger public health or the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous materials at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified.

Applicability: This act applies to any project that might take a right-of-way containing hazardous substances.

8.3.1.12 CZMA Reauthorization Amendments of 1990

The act requires management of non-point source pollution of activities located in coastal zones. The act applies to all developmental activities located in coastal zone areas that are subject to non-point source control measures developed by the state or a local government with an approved CZMP.

Applicability: All developmental activities located in coastal zone areas would be subject to non-point source control measures developed by the state.

8.3.1.13 Department of Transportation Act of 1966 (49 U.S.C. § 303, 23 U.S.C. Section 138), Section 4(f), as amended

FHWA may not approve the use of land from a significant publicly owned park, recreation area, or wildlife and waterfowl refuge, or any significant historic site unless a determination is made that there is no feasible and prudent alternative to the use of the land from the

property, and the action includes all possible planning to minimize harm to the property resulting from such use.

A 'use' is defined as follows:

1. Land from a 4(f) site is permanently incorporated into a transportation facility associated with an action of the agencies within the U.S. Department of Transportation.
2. There is a temporary occupancy of land that is adverse in terms of the Section 4(f) statute's preservationist purposes.
3. When there is a constructive use of land (or, when a transportation project does not incorporate land from a Section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired).

Applicability: If there are any publicly owned public parks, recreation areas, or wildlife and waterfowl refuges, then DOT&PF and FHWA would have to avoid these resources unless there were no prudent and feasible alternative.

8.3.1.14 Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544, as amended

The Endangered Species Act (ESA) protects the ecosystems upon which threatened and endangered species depend, provides a program for the conservation of populations of threatened and endangered species, and enables taking such steps as may be appropriate to achieve its stated objectives. Federally listed threatened and endangered species are those plant and animal species formally listed by USFWS or NMFS, under authority of the ESA of 1973, as amended.

The federally listed species within the boundary of the Tongass National Forest, and that may occur in the proposed project area, include those listed below.

Endangered Species

- Humpback whales (*Megaptera novaeangliae*)
- Upper Columbia River spring Chinook (*Oncorhynchus tshawytscha*)
- Upper Columbia River steelhead (*Oncorhynchus mykiss*)

Threatened Species

- Steller (northern) sea lion (*Eumetopias jubatus*)
- Snake River spring/summer Chinook salmon (*Oncorhynchus tshawytscha*)
- Snake River fall Chinook salmon (*Oncorhynchus tshawytscha*)
- Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*)
- Lower Columbia River Chinook salmon (*Oncorhynchus tshawytscha*)
- Upper Willamette River Chinook salmon (*Oncorhynchus tshawytscha*)
- Snake River Basin steelhead (*Oncorhynchus mykiss*)
- Lower Columbia River steelhead (*Oncorhynchus mykiss*)
- Upper Willamette River steelhead (*Oncorhynchus mykiss*)
- Middle Columbia River steelhead (*Oncorhynchus mykiss*)

- Recovery plans have been prepared for the humpback whale and Steller sea lion.

In 1997, pursuant to ESA Section 7, the USFS prepared a biological assessment (BA) for the endangered humpback whale, American peregrine falcon, and Snake River sockeye salmon, as well as the threatened Steller sea lion, Snake River spring/summer Chinook salmon, and Snake River fall Chinook salmon. The BA was submitted to NMFS for its review and concurrence in the 1997 Tongass Forest Plan Revision process. Since the 1997 Forest Plan Revision Final EIS, the American peregrine falcon has been delisted. The final delisting rule for this falcon was published on August 25, 1999 (64 FR 46542).

The Aleutian shield-fern (*Polystichum aleuticum*) is the only plant in Alaska that is federally listed or proposed for listing as endangered by the USFWS. The Aleutian shield-fern is only present on Adak Island and is not expected to occur in the Tongass National Forest.

The northern goshawk and Alexander Archipelago wolf were the subjects of listing petitions under ESA; the USFWS reviewed and accepted them in 1994. In 1995, the USFWS concluded that listing was not warranted for either subspecies, but the agency remains concerned over their long-term viability. In part, the USFWS decisions were based on expectations that the USFS would incorporate species-specific conservation strategies into the 1997 Tongass National Forest Plan Revision.

Applicability: Section 7(a)(2) of the ESA requires federal agencies to consult with the USFWS and NMFS to ensure that any action they authorize (construction of the proposed roadway, the filling of wetlands, etc.) is not likely to jeopardize the continued existence of a listed species or to result in the destruction or adverse modification of designated critical habitat. A BA would have to be performed to determine if the proposed project has the potential to jeopardize the continued existence of the species identified above, or to destroy or adversely modify any critical habitat designated for these species. Should the SE Alaska Mid-Region Access Project affect a federally listed species, a Section 7 consultation would be required.

8.3.1.15 Estuarine Areas Act of 1968, 16 U.S.C. §§ 1221-1226

The act requires consideration of estuarine areas in federal projects and states' requests for federal financial assistance. The act provides a means to consider the need to protect, conserve, and restore these estuaries in a way that balances the conservation of natural resources with the need to further the growth and development of the nation.

Applicability: The Stikine estuary is located within the project area. DOT&PF and FHWA would have to consider these areas as part of the impact analysis for the SE Alaska Mid-Region Access Project.

8.3.1.16 Federal Aid Highway Act of 1970 (PL 91-605, § 1713)

Among other requirements, this act specifies the social and economic impacts that must be taken into account in federally funded highway projects: air, noise, and water pollution; destruction or disruption of manmade resources, aesthetic values, community cohesion, and availability of public facilities and services; adverse employment effects and tax and property value losses; injurious displacement of people, businesses, and farms; and disruption of desirable community and regional growth.

Applicability: This act applies to federally funded highway projects. The SE Alaska Mid-Region Access Project would likely be a federally funded highway project. DOT&PF would have to consider social and economic impacts of the project.

8.3.1.17 Federal Cave Resources Protection Act of 1988

The purposes of this act are (1) to secure, protect, and preserve significant caves on federal lands for the perpetual use, enjoyment, and benefit of all people; and (2) to foster increased cooperation and exchange of information between governmental authorities and those who utilize caves located on federal lands for scientific, educational, or recreational purposes.

Applicability: If there are caves within the SE Alaska Mid-Region Access Project area, then the project DOT&PF and FHWA would have to avoid them.

8.3.1.18 Federal Water Pollution Control Act (Clean Water Act) of 1972, 33 U.S.C. §§ 1251-1387, as amended

The Clean Water Act requires states to set water quality standards for all surface waters, based on the beneficial or designated uses for the water body, and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. The act also recognizes the need to address the problems posed by nonpoint source pollution. Some of the permitting processes that fall within the purview of the Clean Water Act include National Pollutant Discharge Elimination System (NPDES) permits, Section 404 permits, and Section 401 Water Quality Certifications.

USEPA requires NPDES permits for industrial sites and construction activities, as well as for certain sizes of municipalities that discharge storm water into waterways. In Alaska, USEPA administers these permits, although ADEC is applying for NPDES primacy.

Section 303(d) of the Clean Water Act requires states and territories to issue water quality status reports every two years. These reports identify water quality trends, prioritize polluted waters, and target waters for total maximum daily load (TMDL) development. TMDLs identify the pollutant load reductions that are necessary from point and nonpoint sources and guide implementation work by federal, state, tribal, territorial, and local water quality protection programs.

Section 404 of the Clean Water Act requires a permit issued by USACE for any activity involving discharging, dredging, placing fill material, or otherwise altering a water of the United States or adjacent wetlands. This permit would be required for any build alternative that involved work within a jurisdictional wetland or below the ordinary high water mark of any of the water bodies in the area of potential impact.

Section 401 of the Clean Water Act requires anyone applying for a federal license or permit to conduct an activity that may result in a discharge to waters of the state or United States to obtain certification that the activity complies with water quality requirements and standards. Dredging, filling, and other activities that alter a waterway require a Section 404 permit and Section 401 certification. The applicant submits a Section 404 application form to the appropriate state agency and USACE, which then forward the application to the certifying state agency. The appropriate state agency then certifies that the project meets state water quality standards and does not endanger waters or wetlands of the state or the United States. In Alaska, ADEC issues water quality certifications.

Applicability: This act requires that a permit be issued before dredging, or the placement of fill materials into any waters of the United States. If bridge bents/piers would be placed below ordinary high water in any streams, or if any jurisdictional wetlands would be filled, then a permit would be required. The project could require the dredging or filling of wetlands and waters of the United States.

8.3.1.19 Fish and Wildlife Coordination Act, 1934, 16 U.S.C. §§ 661-667, as amended

The Fish and Wildlife Coordination Act requires consultation with the USFWS and the appropriate state wildlife agency when a project will impound, divert, channelize, or otherwise control or modify the waters of any stream or other body of water. Such actions also require compliance with Section 404 of the Clean Water Act. Consideration must be given to preventing damage or loss to wildlife and mitigating any effects caused by a federal project. The environmental documentation must include an evaluation of how the actions may affect fish and wildlife resources, and it must identify measures to reduce impacts to fish and wildlife.

Applicability: The proposed project may involve the impoundment, diversion, channelization, or other control or modification to streams. DOT&PF and FHWA would have to consult with the USFWS to ensure that the proposed project would not damage or result in loss of wildlife or affect migration patterns. Roads typically affect migration patterns and, where streams are present, would involve some type of control or modification.

8.3.1.20 Historic Sites and Buildings Act of 1935, 16 U.S.C. §§ 461-471

This act authorizes the Historic American Buildings Survey, the Historic American Engineering Record, and the National Survey of Historic Sites; authorizes the establishment of national historic sites and designation of national historic landmarks; and authorizes interagency, intergovernmental, and interdisciplinary efforts for the preservation of cultural resources. The act created a national policy to preserve for the public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States.

Applicability: This would only be applicable if there were historic buildings that may be affected by the proposed project.

8.3.1.21 Land and Water Conservation Fund (LWCF) Act of 1965, Section 6(f) (16 U.S.C. §§ 4601-4 et seq.)

This section of the act establishes the LWCF, a matching assistance program that provides grants that pay half the acquisition and development cost of outdoor recreation sites and facilities. State and local governments often obtain grants through the LWCF to acquire or make improvements to parks and recreation areas. Section 6(f) prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without the approval of the Department of Interior (DOI) National Park Service. Under Section 6(f), the DOI must ensure that replacement lands of equal value, location, and usefulness are provided as a condition of such conversions. Consequently, where conversions of Section 6(f) lands are proposed for federally funded transportation projects, replacement lands are required.

Applicability: This act would only be applicable if the SE Alaska Mid-Region Access Project had the ability to affect park lands that were acquired with land and water conservation funds or where LWCF funds were used for development of the park. Unless there were a local or state park within the project area that might be affected by the SE Alaska Mid-Region Access Project, this law would not apply.

8.3.1.22 Magnuson-Stevens Fisheries Conservation Management Act. 1976. 16 U.S.C. §§ 1801 - 82, as amended

Under the Fishery Conservation and Management Act of 1976 (Magnuson-Stevens Fishery Conservation and Management Act or Magnuson-Stevens Act), NMFS received legislative authority to regulate the fisheries of the United States. The act also established eight regional

fisheries management councils, which prepare fishery management plans (FMPs) to govern management activities in their regions; these plans are submitted to NMFS for approval.

The Magnuson-Stevens Act requires cooperation among NMFS, fishery management councils, fishing participants, federal and state agencies, and others to achieve essential fish habitat (EFH) protection, conservation, and enhancement.

Applicability: Federal and state agencies are required to cooperate with NMFS to protect EFH. EFH exists within the project area.

8.3.1.23 Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361 - 89, 16 U.S.C. §§ 1401 - 1407, 1411 - 17, and §§ 1421 - 1421h, as amended

NMFS administers this law, which provides for the protection of marine mammals by prohibiting, except under certain specified conditions, the taking, possession, and commercial use of such mammals. The Marine Mammal Protection Act, as amended, gives NMFS management and regulatory authority for Steller sea lions. The eastern stock of Steller sea lions are listed as threatened under ESA (16 U.S.C. 1531 et seq.).

Applicability: The SE Alaska Mid-Region Access Project may include construction of a port facility, which could affect Stellar sea lions.

8.3.1.24 Migratory Bird Treaty Act of 1936, 16 U.S.C. §§ 703-12, as amended

Migratory birds and habitat are protected under the Migratory Bird Treaty Act (MBTA), which regulates unauthorized destruction of active nests and disturbances that lead to the abandonment of active nests. Under the MBTA, stands of trees suitable for migratory bird nesting may not be cut during the breeding season (April 15 to August 1), and surveys for nests maybe required based on input from local U.S. Fish and Wildlife officials.

Applicability: This act provides limitations on certain construction activities during the migratory bird nesting season, such as the removal of nesting trees or disturbing ground nesting habitat.

8.3.1.25 Multiple-Use Sustained Yield Act of 1960, 16 U.S.C. §§ 528-531

This act declares that the purposes of the national forest include outdoor recreation, range, timber, watershed, and fish and wildlife. The act directs the Secretary of Agriculture to administer national forest renewable surface resources for multiple use and sustained yield.

Applicability: The applicability of this act is unclear, but it is included in case it has standing.

8.3.1.26 National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347, as amended

NEPA of 1969 requires that an EIS be prepared for major federal actions significantly affecting the human environment.

Applicability: Federal funds would be used, and federal permitting would be required, for the SE Alaska Mid-Region Access Project. Both funding and permitting are the federal nexuses triggering NEPA compliance. The SE Alaska Mid-Region Access Project would have the potential to affect the human environment significantly, thereby requiring the highest level of scrutiny, i.e., an EIS.

8.3.1.27 National Forest Management Act of 1976, 16 U.S.C. §§ 1600-1614, August 17, 1974, as amended

Federal law, which amended the Forest and Rangeland Renewable Resources Planning Act of 1974, requires each National Forest to create and maintain an updated forest plan and to manage the forest in accordance with the plan. Among other things, the National Forest Management Act regulations direct the use of management indicator species (MIS) in forest planning to help display the effects of forest management. MIS are species whose population changes are believed to indicate the effects of land management activities. For the Tongass Forest Plan Revision, various MISs were identified. They include, but are not limited to, the following: bald eagle, marbled murrelet, goshawk, brown bear, marten, Sitka black-tailed deer, Alexander Archipelago (gray) wolf, pink salmon, coho salmon, Dolly Varden char, and cutthroat trout.

Applicability: The SE Alaska Mid-Region Access Project would cross the Tongass National Forest. Consideration of the Forest Plan and the associated MISs would have to occur during development of an EIS.

8.3.1.28 National Historic Preservation Act (NHPA) of 1966 (P.L. 102-575; 16 U.S.C. § 470), as amended

This act declares a national policy of historic preservation to protect, rehabilitate, restore, and reuse districts, sites, buildings, structures, and objects significant in American architecture, history, archaeology, and culture; Section 106 mandates that federal agencies take into account the effect of an undertaking on a property that is included in, or eligible for inclusion in, the National Register of Historic Places. The NHPA establishes the National Register of Historic Places, State Historic Preservation Offices and programs, and the Advisory Council on Historic Preservation.

Applicability: This act applies to all properties designated as national historic landmarks and to all properties in or eligible for inclusion in the National Register of Historic Places.

The act would require the preparation of an historical resources survey to determine whether any historical resources were present within the project area and whether they might be affected by the SE Alaska Mid-Region Access Project.

8.3.1.29 Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. § 3001 et seq.)

This act applies in situations where certain Native American cultural items, including human remains, funerary objects, sacred objects, and objects of cultural patrimony, are encountered. It provides a process for museums and federal agencies to use for the return of such items to linear descendants, culturally affiliated Indian tribes, and Native Hawaiian organizations.

Applicability: This act would apply to federal lands and tribal lands.

8.3.1.30 Resource Conservation and Recovery Act (RCRA), 1976 42 U.S.C. § 6901 et seq.

RCRA gives the USEPA the authority to control hazardous waste from its creation to its disposal, including generation, treatment, storage, transportation, and disposal. RCRA also sets up a framework for the management of non-hazardous waste.

Applicability: This act applies to any project that might take a right-of-way containing hazardous wastes.

8.3.1.31 Rivers and Harbors Act of 1938, 33 U.S.C. § 540

The act places federal investigations and improvements of rivers, harbors, and other waterways under the jurisdiction of the Department of the Army, under the direction of the Secretary of the Army, and under the supervision of the Chief of Engineers. It also requires that all investigations and improvements include due regard for wildlife conservation. The act initially authorized more than 50 individual water projects.

Applicability: This act would be applicable only if the project involved a USACE water resource project.

8.3.1.32 Rivers and Harbors Appropriations Act, 1899, 33 U.S.C. § 403, as amended

The act applies to any construction affecting navigable waters and any obstruction, excavation, or filling. Section 10 requires permits for all structures such as riprap and activities such as dredging in navigable waters of the United States. Section 9 requires permits for construction of bridges over navigable waters. Navigable waters are defined as those subject to the ebb and flow of the tide and susceptible to use in their natural condition or by reasonable improvements as means to transport interstate or foreign commerce.

Applicability: This act requires the issuance of a Section 10 permit for any structure or dredging that occurs within a navigable waterway. Within the project area, the Stikine River is a navigable waterway.

8.3.1.33 SAFETEA-LU, Public Law 109-59 (2005)

Section 6002, Efficient Environmental Reviews for Project Decision Making

This section sets forth requirements for improving the efficiency of project environmental reviews. A public comment process is required for all EISs during development of the project purpose and need and project alternatives. This process requires development of a coordination plan and schedule that must be provided to all participating agencies and made available to the public.

Section 6009, Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites

This section provides that avoidance, minimization, mitigation, and enhancement measures be considered in making a determination that an impact on a Section 4(f) resource is *de minimis*, so long as the agencies with jurisdiction over the resource concur in writing with the determination.

Applicability: In addition to the public involvement requirements of NEPA, Section 6009 requires specific public notice and comment opportunities. Additionally, avoidance, minimization, mitigation, and enhancement efforts could be considered in determining whether an impact was *de minimis*.

8.3.1.34 Stikine River Region Access Study Report to Congress, Section 1113, Alaska National Interest Lands Conservation Act. 1987

Section 1113 updates the 1986 report and deals with the Government of Canada's expressed concern that ANILCA might restrict transportation access across the panhandle of Alaska. The section deals specifically with Canada's concern, and the report analyzes the need for access and the social, environmental, and economic impacts that could result from various forms of access, including, but not limited to, a road along the Stikine and Iskut Rivers or other alternative routes, should such access be permitted. The report acknowledges Canada's

treaty rights to navigational access and is focused on future Canadian access needs not currently addressed by existing treaties.

Applicability: This report acknowledges B.C.'s concern over navigational treaty rights, increased access, and the attendant social, environmental, and economic effects.

8.3.1.35 The Wilderness Act of 1964, 6 U.S.C. §§ 1131-1136, as amended

Wildernesses are federal lands designated by congress to “be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as Wilderness, and so as to provide for the protection of these areas, the preservation of their Wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as Wilderness” (Wilderness Act of 1964, Sec. 2. [a]).

Wilderness is further defined in the act as an area of underdeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres of land or is large enough as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Subject to existing private rights, the act prohibits permanent roads and, except as necessary for realizing the recreation and other Wilderness purposes of the area, commercial enterprises.

Applicability: The Stikine/LeConte Wilderness Area and Misty Fjords are located within the project area. ANILCA Section 1113 recognizes the treaty requirement to provide access for Canada through to the ocean if requested. This may include access through wilderness areas; however, any access across wilderness areas would require Congressional approval.

8.3.1.36 Sustainable Fisheries Act of 1996, Public Law 104-297

Public Law 104-297, the Sustainable Fisheries Act of 1996, amended the Magnuson-Stevens Act to emphasize the sustainability of the nation’s fisheries and create a new habitat conservation approach called EFH. This law established requirements for EFH descriptions in federal FMPs and required federal agencies to consult with NMFS on activities that may adversely affect EFH. NMFS issued a final rule on January 17, 2002, to revise the regulations implementing the EFH provisions requiring all fishery management councils to amend their FMPs to describe and identify EFH for each managed fishery.

Applicability: This act requires federal agencies to analyze the effects of a project on EFH. Such an analysis would occur as part of the biological assessment preparation under Section 7 of ESA.

8.3.1.37 The Uniform Relocation Assistance and Real Property Acquisition Policy Acts of 1970, 42 U.S.C. § 61, as amended

The act provides for uniform and equitable treatment of persons displaced from their homes, businesses, non-profit associations, or farms by federal and federally assisted programs. It establishes uniform and equitable land acquisition policies. The Act ensures that such persons

are treated fairly, consistently, and equitably, so that they will not suffer disproportionate injuries.

Applicability: If the SE Alaska Mid-Region Access Project would require the acquisition of private property, then DOT&PF and FHWA would have to comply with this act.

8.3.1.38 Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d

Title VI of the Civil Rights Act of 1964 requires that “no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” The FHWA Guidance for Preparing and Processing Environmental and Section 4(f) Documents (FHWA Technical Advisory 6640.8A) provides direction for documenting the potential social, economic, and environmental effects considered in the selection and implementation of highway projects. EO 12898 provides a renewed focus on the Title VI law with respect to minority populations, and adds low-income populations as an emphasis area when addressing socioeconomic concerns.

Applicability: This act applies to all federal programs and projects.

8.3.1.39 Water Resources Development Act of 1990, 33 U.S.C. §§ 2316-2324

This act establishes a new interim goal for the USACE water resources program of no overall net loss of the nation’s remaining wetland base and a long-term goal of increasing the quality and quantity of the nation’s wetlands. The act also directs the Secretary of the Army to include environmental protection as one of USACE’s primary missions. The act contains other general provisions affecting USACE’s water resources projects.

Applicability: If wetlands would be affected by the SE Alaska Mid-Region Access Project, DOT&PF and FHWA would have to provide appropriate compensatory mitigation for these wetlands.

8.3.2 Federal Regulations

8.3.2.1 CEQ, “Regulations for Implementing NEPA,” U.S. Code of Federal Regulations (CFR) (40 CFR 1500-1508)

These regulations provide the means for implementing NEPA policy and guide federal agencies on how to comply with NEPA. The procedures ensure that environmental information is available to public officials and the general public prior to decision making regulated under NEPA.

Applicability: This regulation is integral to all NEPA-related work conducted by agencies to comply with NEPA. 40 CFR 1500-1508 applies to section 102(2) of NEPA, and they must be read together as a whole in order to comply with the spirit and letter of the law.

8.3.2.2 23 CFR 750-752, FHWA, “Highway Beautification,” U.S. Code of Federal Regulations

These are the implementing procedures for the Highway Beautification Act of 1965, which was enacted to provide effective control of outdoor advertising and junkyards, protect public investment, promote the safety and recreational value of public travel, preserve natural beauty, and provide landscapes and roadside development reasonably necessary to accommodate the traveling public.

Applicability: DOT&PF and FHWA would have to minimize impacts to the landscape as much as is practicable. This would include site restoration, as well as landscaping, for all ground disturbance areas.

8.3.2.3 23 CFR 771, FHWA, “Environmental Impact and Related Procedures,” U.S. Code of Federal Regulations

These are the implementing procedures for environmental impacts and related policies and procedures based on NEPA regulations and applied to ensure that environmental considerations, such as impacts related to aesthetics and visual quality, are given due weight in project decision making.

Applicability: These regulations would govern how DOT&PF and FHWA would propose to minimize environmental effects during construction and what mitigation measures would be taken following construction.

8.3.2.4 Federal Highway Administration, Procedures for Abatement of Highway Traffic Noise and Construction Noise, 23 CFR 772

The FHWA Procedures for Abatement of Highway Traffic Noise and Construction Noise specify noise abatement criteria. Each state defines quantitative levels considered to approach or substantially exceed the criteria. Projects that include construction of new highways or that reconstruct existing highways by significantly changing either the horizontal or vertical alignment or by increasing the number of through-traffic lanes require analysis and consideration of abatement. A significant change in the horizontal or vertical alignment occurs when the change is likely to result in increased noise levels to a development.

Applicability: The SE Alaska Mid-Region Access Project would involve the construction of a new highway. This regulation requires the analysis and consideration of noise abatement measures.

8.3.2.5 Roadless Area Conservation Rule

The Roadless Area Conservation Rule is an administrative rule issued by USFS in January 2001 to protect the last remaining wildlands in the national forest system. The rule places about one-third of the National Forest System’s total acreage off-limits to virtually all road building and logging. Based on a 2003 settlement on pending litigation, USFS amended the Roadless Rule to exclude the Tongass National Forest from regulation.

Applicability: DOT&PF and FHWA would have to determine whether the Tongass National Forest has designated any lands within the SE Alaska Mid-Region Access Project area as roadless. If so, then any need to build within these areas will require documentation on the decision and impacts within these areas.

8.3.3 U.S. Department of Transportation/FHWA Orders

8.3.3.1 FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (FHWA Order 6640.23, 1998)

In response to EO 12898 and USDOT Order 5610.2, FHWA issued its own order on environmental justice, FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The FHWA order contains language almost identical to that contained in the USDOT order.

Applicability: As part of NEPA, DOT&PF and FHWA would have to address whether the proposed project has the potential for a disproportionately high and adverse effect on minority and low-income populations. The agencies would have to allow these populations to participate in the planning and development of the SE Alaska Mid-Region Access Project. This might include providing language translators and placing public meeting notices in appropriate publications.

8.3.3.2 U.S. Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations (USDOT Order 5610.2, 1997)

In response to EO 12898, USDOT, in its Order to Address Environmental Justice in Minority Populations and Low-Income Populations, outlined general terms for how environmental justice analyses should be performed and how transportation project decisions should be made to avoid disproportionately high and adverse effects on minority and low-income populations. The USDOT Order requires agencies to accomplish the following:

- Explicitly consider human health and environmental effects related to transportation projects that may have a disproportionately high and adverse effect on minority or low-income populations.
- Implement procedures to provide “meaningful opportunities for public involvement” by members of those populations during project planning and development (USDOT Order 5610.2, § 5(b)(1)).

Applicability: As part of NEPA, DOT&PF would have to address whether the proposed project would have the potential to create a disproportionately high and adverse effect on minority and low income populations. The agencies would have to allow these populations to participate in the planning and development of the SE Alaska Mid-Region Access Project. This might include providing language translators and placing public meeting notices in appropriate publications.

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8.3.4 Executive Orders

8.3.4.1 EO 11593, Protection and Enhancement of the Cultural Environment

This order directs federal agencies to protect and enhance cultural sites, including those non-federally owned, through inventory and evaluation (EO 1971).

Applicability: If an historic structure might be affected by the SE Alaska Mid-Region Access Project, DOT&PF would have to initiate measures to ensure that the tasks described below are completed.

If property listed on the National Register of Historic Places is to be substantially altered or demolished, timely steps must be taken to make or have made records, including measured drawings, photographs, and maps of the property. The copy of such records must then be deposited in the Library of Congress as part of the Historic American Buildings Survey or Historic American Engineering Record for future use and reference. Agencies may call on DOI for advice and technical assistance in the completion of the above records.

8.3.4.2 EO 11988, Floodplain Management

The order directs all federal agencies to avoid the long- and short-term adverse impacts associated with the modification of floodplains, to avoid direct or indirect support of floodplain development wherever there is a practicable alternative, and to restore and preserve the natural and beneficial values served by floodplains.

Applicability: As part of the planning process, DOT&PF would have to ensure that the SE Alaska Mid-Region Access Project did not adversely impact floodplains.

8.3.4.3 EO 11990, Protection of Wetlands (1977)

Each agency shall provide leadership and take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; and (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

In furtherance of the National Environmental Policy Act of 1969 (42 U.S.C. 4331(b)(3)) to improve and coordinate federal plans, functions, programs, and resources to the end that the nation may attain the widest range of beneficial uses of the environment without degradation and risk to health or safety, each agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding, the head of the agency may take into account economic, environmental, and other pertinent factors.

Applicability: There are wetlands within the SE Alaska Mid-Region Access Project area. DOT&PF would have to undertake appropriate measures to avoid and minimize impacts to these resources.

8.3.4.4 EO 12114, Environmental Effects Abroad

This EO dating from 1979 requires federal agencies to establish procedures to take environmental considerations into account for federal actions outside of the United States.

Applicability: The SE Alaska Mid-Region Access Project would involve construction of a road in both the United States and Canada. This EO requires that consideration be given to the effects of the project on Canada's environmental resources.

8.3.4.5 EO 12847, Amending EO 11423

This EO gives the Secretary of State the power to receive all applications for permits for construction, connection, operation, or maintenance at the borders of the United States of (1) pipelines, conveyor belts, and similar facilities for the exportation or importation of petroleum, petroleum products, coal, minerals, or other products to or from a foreign country; (2) facilities for the exportation or importation of water or sewage to or from a foreign country; (3) facilities for the transportation of persons or things, or both, to or from a foreign country; (4) bridges, to the extent that congressional authorization is not required; and (5) similar facilities above or below ground.

Applicability: The SE Alaska Mid-Region Access Project would involve a border crossing. DOT&PF and FHWA would have to prepare an application for the permits necessary for construction of the road and related structures.

8.3.4.6 EO 12866, Regulatory Planning and Review

The requirements for all regulatory actions specified in EO 12866 are summarized in the following statement from the order:

In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environment, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

EO 12866 and the regulatory flexibility analysis (RFA) require a determination of whether an action is significant under EO 12866 or will result in significant impacts on small entities under RFA. This determination is found in a regulatory impact review. EO 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be significant.

Applicability: This EO would require evaluating environmental justice (EJ) through an assessment of minority and low-income populations in the project area and developing procedures to ensure EJ's integration into the project.

8.3.4.7 EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

This executive order establishes a series of working groups, studies, and factors for federal agencies to consider as they undertake their work. The goal of these actions is to prevent disproportionately high impacts to health and the environment in minority or low-income populations. The order requires agencies to study and consider their actions and the impacts of those actions on human health and the environment and to study species harvested in subsistence practices.

Applicability: The order would require that decisions made and methods of implementation for the SE Alaska Mid-Region Access Project be studied and evaluated to evaluate impacts to communities with minority or low-income populations. Opportunities for public involvement would be required. Additionally, coordination with federally recognized tribes would be required as part of the process.

8.3.4.8 EO 12962, Recreational Fisheries

This EO directs that federal agencies shall, to the extent permitted by law and where practicable, improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities. This EO requires evaluation and documentation of the effects caused by federally funded, permitted, or authorized actions on aquatic systems, fishing access, and recreational fisheries. Provisions of this EO are implemented through the NEPA process.

Applicability: If the SE Alaska Mid-Region Access Project has the ability to “improve the quantity, function, sustainable productivity, and distribution of aquatic resources to benefit recreational fishing opportunities,” then the project should provide for these types of improvements. The analysis for determining this would be part of an EIS.

8.3.4.9 EO 13112, Invasive Species

This EO is intended to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. It directs federal agencies to expand and coordinate their efforts to combat the introduction and spread of plants and animals not native to the United States.

FHWA has developed guidances to implement this EO, which provides a framework for preventing the introduction of and controlling the spread of invasive plant species on highway rights-of-way. Under the EO, federal agencies cannot authorize, fund, or carry out actions that they believe are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere, unless all reasonable measures to minimize risk of harm have been analyzed and considered. This means that Federal Aid and Federal Highway Program funds cannot be used for construction, revegetation, or landscaping activities that purposely include the use of known invasive species.

Applicability: Bid specifications for revegetation and landscaping would have to specify the use of non-invasive species.

8.3.4.10 EO 13274, Environmental Stewardship and Transportation Infrastructure Project Reviews

Executive departments and agencies (agencies) shall take appropriate actions, to the extent consistent with applicable law and available resources, to promote environmental stewardship in the nation’s transportation system and expedite environmental reviews of high-priority transportation infrastructure projects.

Applicability: The SE Alaska Mid-Region Access Project could be funded, in part, by FHWA. As a federal agency, it must promote environmental stewardship on this project.

8.3.4.11 EO 13337, Issuance of Permits With Respect to Certain Energy-Related Facilities and Land Transportation Crossings on the International Boundaries of the United States

This EO allows the Secretary of State to expedite reviews of permits as necessary to accelerate the completion of energy production and transmission projects. It provides a systematic method for evaluating and permitting the construction and maintenance of certain border crossings for land transportation, including motor and rail vehicles, that do not require construction or maintenance of facilities connecting the United States with a foreign country, while maintaining safety, public health, and environmental protections.

Applicability: The SE Alaska Mid-Region Access Project would involve a border crossing. This EO would only be applicable if the construction did not involve facilities connecting the United States to B.C.

8.3.5 Federal Permits

The permits/approvals listed below may be required for this project:

- **USFS Special Use Permit**—Federal authorization to allow specified activities on National USFS lands
- **USACE Section 404 Permit**—Excavating or placing fill in the waters of the U.S., including wetlands
- **USACE Section 10 Permit**—Dredging, placing structures, or other work in or affecting navigable waters
- **USACE 103 Permit**—Transporting dredged material for disposal in ocean waters
- **U.S. Coast Guard Section 9 Permit for Bridges Over Navigable Waters**—Construction of bridges over navigable waters
- **U.S. Coast Guard**—Applications for Private Aids to Navigation under Title 33, Parts 62.25, 64, 66, and 67—Installation of private aids to navigation
- **USEPA**—National Pollution Discharge Elimination System Notice of Intent—Point source discharge of wastewater or storm water into waters of the United States
- **ADEC - Wastewater disposal permit:** Disposing of wastewater into or upon waters or lands of the state
- **USFWS or NMFS Endangered Species Act of 1973, Section 7 Consultation**—Activities that may affect or are likely to adversely affect threatened or endangered species
- **NMFS Marine Mammal Protection Act Consultation**—Activities that may affect marine mammals
- **DOS Presidential Permit**—Required because of border crossing

8.3.6 Alaska Statutes

8.3.6.1 AS 16.20.010, Jurisdiction of Fish and Wildlife

The Alaska legislature recognizes that the state has jurisdiction over all fish and game in the state except in those areas where it has assented to federal control.

Applicability: The state has authority to regulate fish and game species, including enacting regulations requiring permits for the take of an endangered species or for impacts to fish passage.

8.3.6.2 AS 16.20.180, Program Development

The Alaska legislature recognizes that, due to growth and development, certain species or subspecies of fish and wildlife are now and may in the future be threatened with extinction. The state has the authority to establish programs for the continued conservation, protection, restoration, and propagation of these species.

Applicability: The state has the authority to enact conservation, protection, and restoration programs that could affect the SE Alaska Mid-Region Access Project.

8.3.6.3 AS 16.20.185, Protection of Habitat

This chapter requires the commissioners of ADF&G and the ADNR to take measures to preserve the natural habitat of species or subspecies of fish and wildlife that are recognized as threatened with extinction on lands under their jurisdiction.

Applicability: This applies to any state lands within the SE Alaska Mid-Region Access Project area. A permit from the ADNR would be required for fish passage impacts.

8.3.6.4 AS 16.20.190, Determining Endangered Species

This statute authorizes the commissioner of ADF&G to list a species as endangered or a species of concern and sets forth the criteria to be used in making the determination.

Alaska Listed Species

- Eskimo curlew (*Numenius borealis*)
- Short-tailed albatross (*Diomedea labraus*)
- Humpback whale (*Megaptera novaeangliae*)
- Right whale (*Eubalaena glacialis*)
- Blue whale (*Balaenoptera musculus*)

Alaska Species of Concern

- Aleutian Canada goose (*Branta canadensis leucopareia*)
- American peregrine falcon (*Falco peregrinus anatum*)
- Arctic peregrine falcon (*Falco peregrinus tundrius*)
- Northern goshawk (*Accipiter gentiles laingi*) (Southeast Alaska population)
- Spectacled eider (*Somateria fischeri*)
- Steller's eider (*Polystica stelleri*)
- Olive-sided flycatcher (*Contopus cooperi*)
- Gray-cheeked thrush (*Catharus minimus*)
- Townsend's warbler (*Dendroica townsendii*)
- Blackpoll warbler (*Dendroica striata*)
- Brown bear (*Ursus arctos horribilis*) (Kenai Peninsula population)
- Steller sea lion (*Eumetopias jubatus*)
- Harbor seal (*Phoca vitulina*)
- Beluga whale (*Delphinapterus leucas*) (Cook Inlet population)
- Bowhead whale (*Balaena mysticetus*)
- Sea Otter (*Enhydra lutris*)
- Chinook salmon (*Onchorhynchus tshawytscha*) (fall stock from Snake River)

Applicability: This statute allows the commissioner of ADF&G to list species as endangered. It could affect what state permits would be needed for impacts to endangered species.

8.3.6.5 AS 16.20.195, Permit for Taking Endangered Species

This statute requires issuance of a permit by the commissioner of ADF&G for the harvest, capture, or propagation of any species or subspecies of fish or wildlife listed as endangered under AS 16.20.190. Permits may be issued for scientific or educational purposes, or for propagation in captivity for the purpose of preservation.

Applicability: If any scientific studies were needed for the NEPA analysis, then a permit would be required if the studies involved the harvest, capture, or propagation of an endangered species (low likelihood).

8.3.6.6 AS 16.20.200, Prohibitions

This statute prohibits individuals without a permit from harvesting, injuring, importing, exporting, or capturing a species or subspecies of fish or wildlife listed under AS 16.20.190.

Applicability: During construction of the SE Alaska Mid-Region Access Project, the contractor would be prohibited from injuring a species or subspecies of fish or wildlife listed under state law as endangered.

8.3.6.7 19.22.010, Landscaping and Scenic Enhancement

The purpose of this chapter is to promote the safety, convenience, and enjoyment of travel on and protection of the public investment in highways of the state and to authorize the restoration, preservation, and enhancement of scenic beauty within and adjacent to highways of the state.

Applicability: DOT&PF would have to ensure the restoration, preservation, and enhancement of the scenic beauty of the area following construction of the SE Alaska Mid-Region Access Project.

8.3.6.8 AS 41.17, Alaska Forest Resources and Practices Act

The act governs how timber harvesting, reforestation, and timber access occur on state, private, and municipal lands. Forest management standards on federal land must also meet or exceed the standards for state land established by the act. The act is designed to protect fish habitat and water quality, and sets standards for forest management along water bodies, including buffers.

Applicability: Increased access to timber would occur as a result of road construction. A road would enable loggers to move product to market with greater ease and would save costs.

8.3.6.9 AS 46.39, Alaska Coastal Zone Management Program, et. seq.

The law gives ADNR the authority to render on behalf of the state, all federal consistency determinations and certifications authorized by 16 U.S.C. 1456 (Sec. 307, CZMA of 1972) and each conclusive state consistency determination when a project requires a permit, lease, or authorization from two or more state resource agencies or federal agencies.

Applicability: This law applies for projects located, in whole or in part, within the state's coastal zone. The SE Alaska Mid-Region Access Project is located, in part, within the coastal

zone. ADNR would determine whether the proposed project is consistent with the state's coastal zone management program.

8.3.6.10 AS 46.11.060, Recycling of Materials by State Agencies

Each state agency is required, to the greatest extent practicable, to recycle reusable materials, including, but not limited to, paper, glass, and cans. ADEC has the responsibility to encourage, through cooperative means, the adoption of all available and practicable methods throughout federal, state, and local governments that recycle, reuse, and conserve materials.

Applicability: DOT&PF would have to ensure the reuse or recyclability of products and materials used during construction of the project.

8.3.7 State Permits/Approvals

The following are some of the relevant Alaska state permits and approvals that may affect this project:

- **ADNR Tidelands Lease**—Placing structures or fill on state tidelands
- **ADNR Tidelands Permit**—Temporary use of state tidelands
- **ADNR Right of Way Permit**—Placement of discharge/outfall/intake lines on state tide and submerged lands
- **ADNR Land Use Permit**—Constructing projects on state-owned lands or crossing state-owned lands for access
- **ADNR Temporary Water Use Permit**—Appropriating freshwater from any subsurface or surface source, on a temporary basis, on all lands regardless of ownership
- **ADNR Water Rights Permit/Certificate**—Appropriating freshwater from any subsurface or surface source, on a permanent basis, on all lands regardless of ownership
- **ADNR Fish Habitat Permit**—Construction or other activities in specified anadromous streams or that block fish passage in streams with resident fish
- **ADNR, State Historic Preservation Office Section 106 Review**—Activities that may affect cultural or historic resources
- **ADF&G Special Area Permit**—Construction, continuing use, or other activity in state game refuges, critical habitat areas, or sanctuaries
- **ADEC 401 Certificate of Reasonable Assurance**—Activities requiring a permit under the Clean Water Act
- **ADEC Design Plan Approval**—Construction of sewer and drinking water facilities
- **Alaska Division of Governmental Coordination, Coastal Consistency Determination**—Activities in or outside of the coastal zone that affect a land or water use or natural resource of the state of Alaska coastal zone, as defined in the volume Coastal Zone Boundaries of Alaska, dated 1988, updated in 1991

The lengthy list of plans, reports, regulations, and treaties presented above is a tool to be used to ensure that there would be few surprises as an EIS unfolded. While there may be some material included that would not apply to this process, all should be evaluated for potential effects on the process.

9 BACKGROUND RESEARCH

This section contains a limited annotated bibliography of studies previously performed in the project area. Documents relating to this project were reviewed and summarized to build a record to contribute to the project history. Background research included annotating relevant documents, developing a mailing list of agencies, individuals, and stakeholders, and describing interagency hierarchies and relationships.

9.1 U.S. TRANSPORTATION PROJECT-RELATED DOCUMENTS

USFS, Alaska Region. 1998. Feasibility of Providing Road Access from Wrangell to Canada and Ketchikan. February 1998.

This document describes the Wrangell and Ketchikan road access to Canada project. According to the report, the road would be designed to provide access between these two Alaska communities and the continental road system in northwestern B.C. Previous studies identified the Bradfield River corridor as the most feasible location for providing road access. The proposal for this 182-mile route via the Bradfield River includes consideration of the following highway segments:

- Wrangell/Fools Inlet
- Bradfield/Craig Rivers (United States)
- Ketchikan/Revillagigedo
- Eagle River

The project would consist of upgrading 75 miles of existing resource road to public highway standards and constructing 107 miles of new two-lane road, at a cost of approximately \$427.2 million (1998 dollars). Annual road maintenance cost was estimated at \$5.9 million, including snow removal for year-round operation. Road maintenance for seasonal operation only was estimated at \$2.6 million.

Purchase of three ferries and construction of five terminals would cost approximately \$12.4 million. Annual maintenance cost of the ferry system is estimated at \$3.3 million. Total cost of the project is estimated at \$439.6 million for construction and capital costs and \$9.2 million for annual maintenance. Preparing an environmental assessment and an environmental impact statement is expected to cost \$6 million.

DOT&PF, Southeast Region. 1984. Reconnaissance Study, Stikine Highway Access, Project No: A87221. November 1984.

The purpose of this study was to reevaluate all of the proposed routes between the coastal waters of Southeast Alaska and the Canadian northwest and to provide updated comparative cost estimates. The information in this study will assist in developing management alternatives should a highway link within this area be deemed necessary and in the best interest of both the United States and B.C. This study did not include any economic evaluation; it was solely an engineering feasibility study consisting of field review, evaluation, and office analysis. The major components studied were terrain analysis, route location (alignment and grade), structures (short span bridges, long span bridges, and snow sheds), and geophysical hazards (primarily avalanches). The study included reconstruction of existing roads, as well as analysis of steep-terrain, moderate-terrain, and flat-terrain construction.

McDowell Group, Peratrovich, Nottingham, & Drage, Inc, Avalon Development Corporation, and BST Associates. 1994. A Benefit/Cost Study for the Proposed Ketchikan/Bradfield/Cassiar Transportation Corridor. Prepared for the Alaska Department of Commerce and Economic Development. November 1994.

Economists conducting this study determined a benefit/cost ratio of 1.24 for a Bradfield pioneer road and 0.76 for a two-lane highway.

USFS, Region 10. 1986. Stikine River Region Access Study, Report to Congress, Section 1113, Alaska National Interest Lands Conservation Act. 1986.

Section 1113 required that the president consult with the Government of Canada within five years of ANILCA's enactment and submit a report to Congress with findings and recommendations regarding the need to establish access in the Stikine River region of Southeast Alaska (i.e., a road along the Stikine and Iskut Rivers). Other alternative routes could also be considered.

This report reviews the current transportation needs of the Government of Canada; the physical, biological, social, and economic conditions; existing transportation corridors; alternative corridors; and the scope of possible effects should development be required. The report establishes a process to analyze and develop appropriate recommendations at such time as access in the Stikine River region is requested by the Government of Canada. The process is as follows:

1. The Government of Canada shall notify the U.S. Department of State of its desire to open formal negotiations with the Government of the United States for the purpose of obtaining transportation or utility system access through the Stikine River Region of Southeast Alaska.
2. Upon receipt under Item 1 above, the U.S. Department of State will request that the Chief of the USFS provide the Secretary of State with an analysis and recommendation with respect to the requested areas on the U.S. side of the border. A formal process will ensue, including congressional approval.

USFS, Region 10. 1987. Stikine River Region Access Study. Report to Congress, Section 1113, Alaska National Interest Lands Conservation Act. 1987.

This report updates the 1986 report and deals with the Government of Canada's expressed concern that ANILCA might restrict transportation access across the panhandle of Alaska. Section 1113 of ANILCA deals specifically with Canada's concern, and this report analyzes the need for access and the social, environmental, and economic impacts that could result from various forms of access, including, but not limited to, a road along the Stikine and Iskut Rivers or other alternative routes, should such access be permitted. The report acknowledges Canada's treaty rights to navigational access and is focused on future Canadian access needs not currently addressed by existing treaties.

DOT&PF, FHWA, USFS, and City of Wrangell. 2005. Bradfield River Road Final Scoping and Pre-NEPA Engineering Feasibility Study. January 10, 2005.

This study provides a quantity-based estimate of a land link transportation route from the mouth of the Bradfield River to the Canadian Border. It provides a conceptual framework to analyze various route alternatives within the Bradfield Canal, the Bradfield River drainage, and the headwaters of the Craig River drainage. The transportation route analyzed in this report is divided into five segments for design purposes. The conceptual cost estimate used bid tabulations extracted from a recent FHWA project. Project totals ranged from approximately \$240 million to \$352 million (2004 dollars). DOT&PF's preliminary cost

estimate was \$175.5 million. DOT&PF also recommended investigating an alternate route along the north side of the Bradfield River for reduced costs and an improved ferry terminal location.

McDowell Group, G.E. Bridges and Associates, McElhanney Consulting Services, and Peratrovich, Nottingham and Drage. 2004. Economic Assessment of the Bradfield/Iskut Transportation Corridor. May 2004.

This document contains a review of the economic considerations inherent in development of the Bradfield/Iskut Transportation Corridor. The report contains analyses of industrial benefits (i.e., mining, forest products, seafood industry, general freight, electric intertie benefits, and household travel) and community impacts on Wrangell, Ketchikan, Prince of Wales Island, Petersburg, Sitka, Stewart, Prince Rupert, and the Tahltan First Nation. The project would include construction of an 86-mile road from the head of Bradfield Canal, up the Bradfield River valley 28 miles to the Alaska/B.C. border, then down the Craig River valley in B.C., and along the Iskut River to Highway 37 at Bob Quinn Lake. The Canadian portion of the road would use 23 miles of the existing Eskay Creek mining road and would be 58 miles long. Access from Alaska would include construction of a ferry terminal in Fools Inlet, with regular ferry service to and from Bradfield.

In the longer term, a road linking Bradfield and Ketchikan would provide that community with a link to the continental highway system. The Bradfield/Iskut road would have a variety of economic impacts in Alaska and B.C., including benefits to the mining, timber, and seafood industries. Wrangell and, eventually, Ketchikan businesses and households would have improved access to the continental highway system, and non-Alaskans would have better access to Southeast Alaska.

McDowell Group, G.E. Bridges and Associates, McElhanney Consulting Services, and Peratrovich, Nottingham and Drage. 2005. Supplemental Economic Assessment of the Bradfield/Iskut Transportation Corridor. Prepared for DOT&PF. January 2005.

This document represents the combination of two sets of economic data, one from cost estimates drawn from DOT&PF and the other based on estimates from FHWA. The supplemental document was produced because the representative data were derived too late for inclusion in the original report. The state of Alaska's reduced estimates reflect some predicted savings not anticipated by DOT&PF. The supplemental document reflects a higher benefit/cost ratio. DOT&PF anticipates even lower costs through design of a less costly alignment. The benefit/cost ratios reflected within these studies would be refined by alternative and lower cost alignment as the environmental analysis process proceeded towards final permitting.

The document also includes an analysis of economic effects on B.C., conducted by McElhanney Consulting Services, a B.C. firm. Stewart would experience the most significant effects in terms of resource transportation to and from the Cassiar Highway region, but it could also expect increased visitor traffic, according to the study. Other B.C. communities would experience increased vehicular traffic along Highways 37 and 16. Increased visitor travel would eventually result in more spending. Prince Rupert would also experience a decline in AMHS and van traffic, but would experience an overall increase in traffic with completion of the Ketchikan/Bradfield link and the startup of daily ferry service between Ketchikan and Prince Rupert. Movement of coal, containerized freight, and other commodities through Prince Rupert would not be affected by the Bradfield/Iskut Road.

9.2 OTHER PROJECT-RELATED DOCUMENTS

S.C. Jacoby and Associates. 1989. Bradfield Industrial Road Feasibility Study. Prepared for DOT&PF. 1989.

The authors of this study concluded that a mine access road could be built from the Bradfield Canal to the Canadian Border for \$23 million, including the construction of a tunnel.

Bosworth, Robert G., Peggy Ledyard, and Beatrice Van Horne. 1974. A Southeast Alaska Transportation Study: An inquiry into the history, present status, and development potential of transportation systems in Southeast Alaska. University of California, Santa Cruz. 1974.

This report, one of a series of reports prepared by the Alaska Environmental Policy Issues program, described the [then] current status of transportation planning and compared the merits of a marine transportation system with a land highway/shuttle ferry transportation system in Southeast Alaska. The report includes a literature review; consultation with federal, state, and local agencies; and field investigations.

Clayton Resources, Ltd., Robinson Consulting & Associates, Ltd., and Western Economic Consulting, Ltd. 1989. A Benefit Cost Analysis of Transportation Alternatives for the Iskut Valley. Prepared for the Ministry of Energy, Mines and Petroleum Resources, Victoria, B.C. November 1989.

This report is a benefit/cost analysis that examines road access alternatives for the Iskut Valley in northwestern B.C. It focuses on nine mining properties which the Ministry of Energy, Mines and Petroleum Resources identified as potential beneficiaries of such access. The report considers two main access options. The first is a road to be constructed through the Iskut Valley that would connect with existing Highway 37. This would provide direct road access to Stewart, Prince Rupert, and other centers in the region.

A second option is a road to be built from the Iskut Valley through the Alaska Panhandle, to tidewater at the head of the Bradfield Canal in Alaska. The consultants concluded that, given the assumptions applied to both routes, the Iskut Valley Road is an economically viable project and is superior to the Bradfield Canal alternative.

Thurber Consultants, Ltd. 1989. Iskut Valley Road Option Study. Report to B.C. Ministry of Energy, Mines and Petroleum Resources. August 30, 1989.

This report presents an assessment of corridors to provide road access along the Iskut, Unuk, and Craig Rivers in northwestern B.C. The corridors lie in the Iskut and Craig River valleys between Highway 37 near Bob Quinn Lake and the Alaska/B.C. Border, and along the Unuk River valley as far as the Sulphurets Creek area. The study focuses on engineering factors, including feasibility, road alignment, and cost. Environmental considerations are addressed in an overview, using information compiled from existing sources. Previous engineering and geological reports were reviewed and supplemented by detailed terrain analysis of the corridors by aerial photo interpretation. Road alignments were established on 1:10,000-scale topographic maps produced for the study and field-checked for engineering aspects by helicopter reconnaissance in July 1989. Construction and maintenance costs of the road were established.

Kolodziej, Daniel and Ian Williamson. 2003. A Comparison of American and Canadian Environmental Statutes. Prepared for the Federal Highway Administration's Office of the Chief Counsel. September 2003.

This document compares NEPA with the CEAA. Analysts concluded that NEPA is more stringent than CEAA. Although CEAA has stricter rules for timing, more elaborate rules on international actions, and would require an agency to conduct more stringent environmental reviews more often, NEPA's EIS process requires an agency to evaluate more resources than CEAA's comprehensive study. NEPA also requires more public involvement and dialogue with other agencies.

The material found in the summarized documents may provide useful information when drafting the history of the project and outlining the affected environment. During an EIS process, such historical records might provide opportunities to save funds by incorporating the results of previous studies.

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APPENDIX A

Memorandum of Cooperation between the Province of British Columbia and the State of Alaska

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MEMORANDUM OF COOPERATION BETWEEN
THE PROVINCE OF BRITISH COLUMBIA
AND
THE STATE OF ALASKA

WHEREAS the Province of British Columbia and the State of Alaska, as neighbours sharing a common border, have established a long-standing relationship of friendship and trust;

WHEREAS through various forms of contact, the deepening of their mutual understanding and strengthening of their friendship will enhance positive relations; and

WHEREAS their respective national governments have signed agreements that provide for enhanced cooperation between Canada and the United States; and

WHEREAS British Columbia and Alaska recognize the importance of working cooperatively to influence the two federal governments in areas of mutual interest; and

WHEREAS British Columbia and Alaska understand that environmental impacts are not constrained by political boundaries and recognize the significant benefits of cooperation and collaboration on mutual environmental interests;

WHEREAS British Columbia and Alaska share a mutual desire to promote common goals, expeditiously resolve potential cross-border concerns, and to learn from each other's best practices in areas such as agriculture, energy, environment, forestry, food production, mining, oil and gas development, tourism, transportation, telecommunications, and wildlife management;

WHEREAS both governments wish to explore specific opportunities for enhanced trade and investment between British Columbia and Alaska;

WHEREAS both governments wish to advance economic development opportunities and minimize environmental impacts of infrastructure projects that might be required to access the wealth of natural resources such as lumber, oil and gas, and minerals in British Columbia and Alaska;

THEREFORE, the Province of British Columbia and the State of Alaska hereby affirm their commitment to the special relationship outlined in this Memorandum of Cooperation in consideration of their mutually expressed desire to enhance understanding and cooperation;

The Province and the State will establish routine contacts between their respective governments in order to share information, promote understanding and identify areas for joint formal and informal cooperation;

The Premier and the Governor will meet periodically to review issues of mutual interest and to monitor progress towards joint cooperative efforts;

The Premier and the Governor will designate officials to serve as principal points of contact and liaison for the sharing of information of mutual interest;

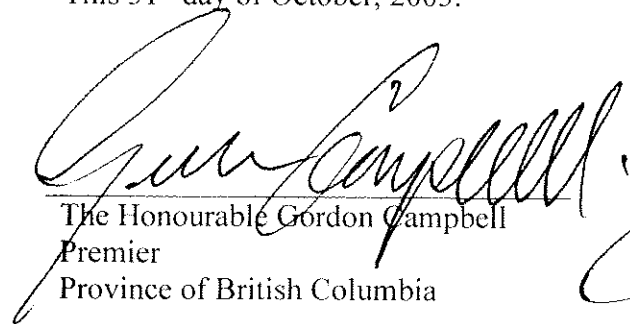
The Premier and the Governor will encourage the Ministries of the Province and Departments of the State to work together with respect to responsibilities within their area;

The Premier and the Governor will, when appropriate, enter into specific cooperation arrangements on particular matters of common interest. Such arrangements will be incorporated as appendices to this general Memorandum of Cooperation.

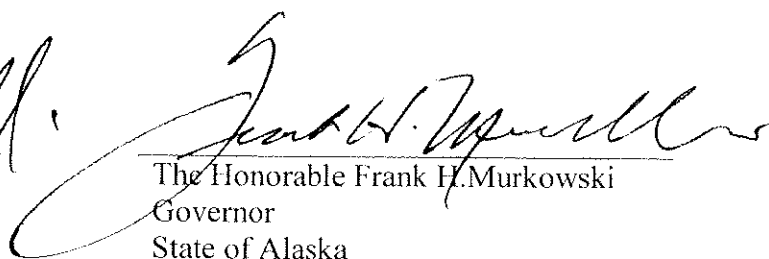
This Memorandum of Cooperation comes into effect upon signing and shall remain in effect for a period of three years, unless one of the Parties notifies the other, in written form, of its intention to terminate. This Memorandum can be renewed for a further period upon written consent of both signatories or their designated representatives. Any provisions may be amended or waived by mutual consent.

Signed in the City of Vancouver, B.C.

This 31st day of October, 2005.



The Honourable Gordon Campbell
Premier
Province of British Columbia



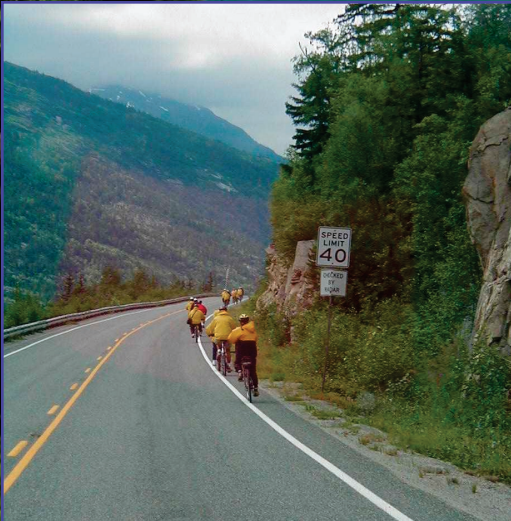
The Honorable Frank H. Murkowski
Governor
State of Alaska

APPENDIX B

Southeast Alaska Transportation Plan

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Southeast Alaska Transportation Plan



August 2004

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STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

August 12, 2004

My Fellow Alaskan:

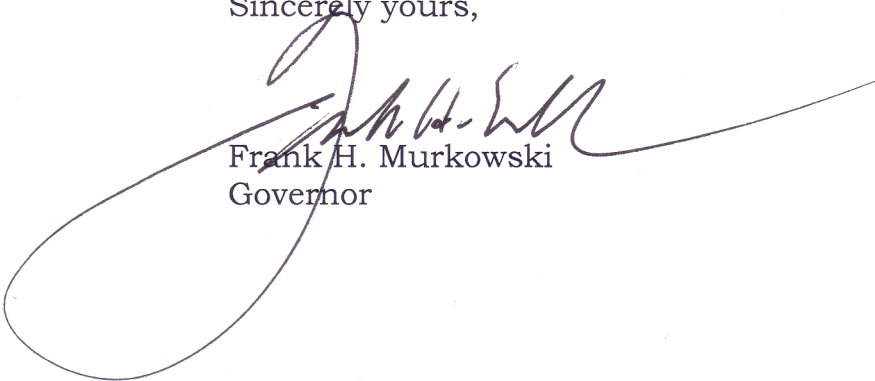
We now face the exciting challenge of extending the reach of the continent's highway system into Southeast Alaska. Southeast has many valuable attractions and resources that are needed in world markets and are vital to the future economic growth and stability of this region. Many of these potentials currently lay fallow, limited at least partly by the lack of affordable access. A good transportation system will be the backbone of our economy and will ensure a healthy economic future for our children and grandchildren.

Through extensive public involvement the Department of Transportation and Public Facilities has developed a long-range plan that lays out how to translate opportunities into action. This plan contains both long and short-range projects and goals which when implemented will significantly reduce our current dependence on long line ferries and provides better service to Alaskans. This plan provides a transition to a system of roads and shuttle ferries, operating on regular daily schedules which will link our island communities. Main line ferries will continue to service main line communities as traffic warrants.

The original mission of the Alaska Marine Highway System was to provide service between our towns and villages, and upon the construction of roads, the system was intended to transition into service from road head to road head. The creators of this system were correct in their vision and this plan will implement that goal. My goal is to provide Southeast Alaska with efficient, reliable, and cost-effective transportation. This can only happen by the development of a system of roads that are linked by short ferry crossings where applicable.

I wish to thank those who participated in developing this exciting plan, and ask each of you to join me in implementing this exciting vision to provide for our future by building a better, more reliable transportation system today.

Sincerely yours,



Frank H. Murkowski
Governor

Southeast Alaska Transportation Plan

Frank Murkowski, Governor

**Mike Barton, Commissioner,
Alaska Department of Transportation and Public Facilities**

This plan is one of a series of regional, multi-modal transportation plans that are components of the Alaska Statewide Transportation Plan. State regulations require review and update of the Statewide Transportation Plan and its components every five years. This plan identifies area needs, provides general guidance on transportation development, and recommends specific transportation improvements for Southeast Alaska. For additional information or questions, contact:

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E-mail comments on the plan to: satp@dot.state.ak.us

Adopted 2004 SATP Becomes Component of Statewide Plan

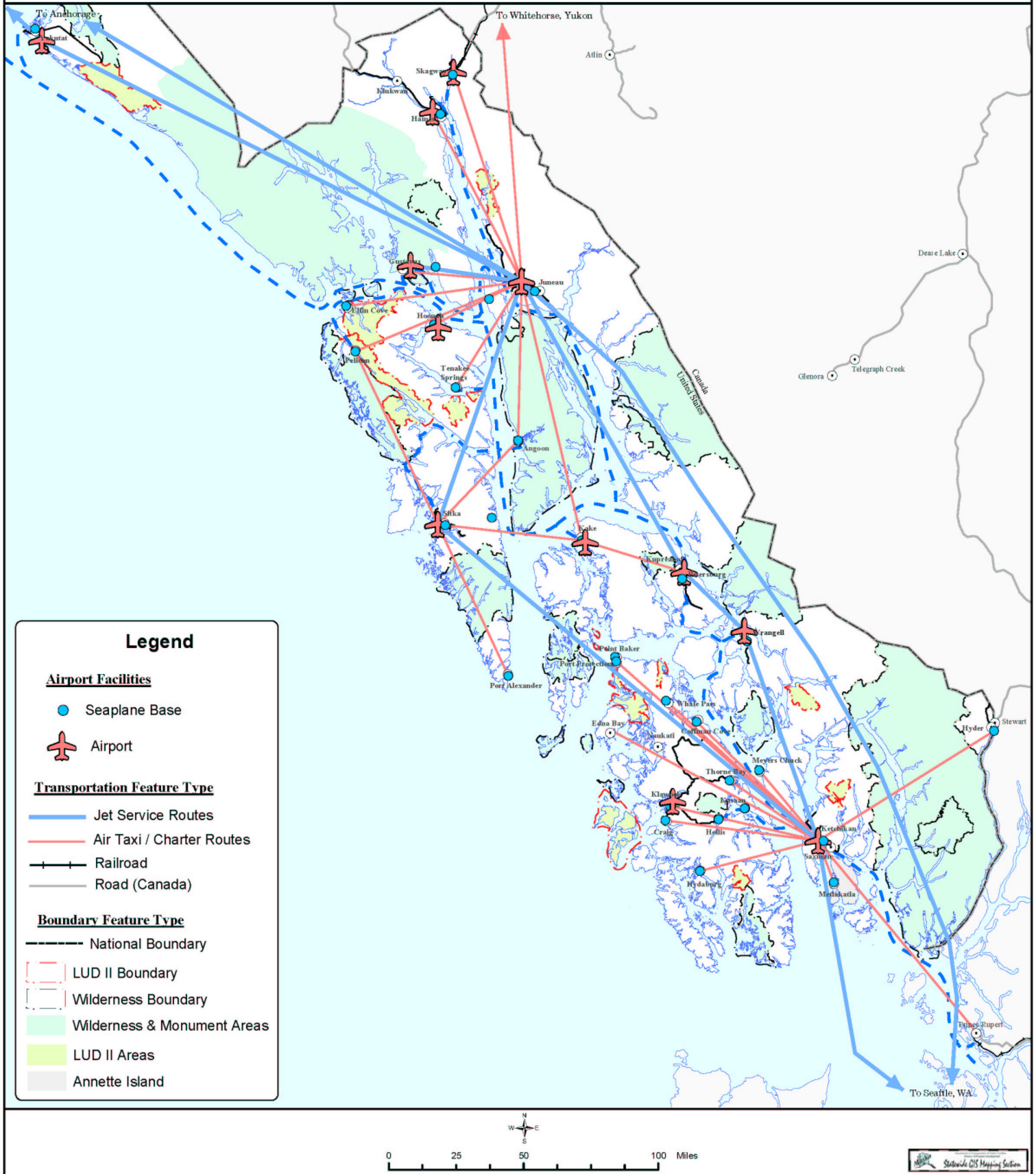
This SATP update draws its authority from Alaska Statute 44.42.050 and is a component of the Alaska Statewide Transportation Plan as defined in 23 CFR 450.214. In accordance with 17 AAC 05.150, I am proud to hereby approve and adopt the August 2004 Southeast Alaska Transportation Plan, as a component of the Alaska Statewide Transportation Plan.

Adopted: 
Mike Barton, Commissioner

Date: 8/14/04
August 14, 2004

Map 1

Study Area & Existing Transportation System: Southeast Alaska



EXECUTIVE SUMMARY

The Southeast Alaska Transportation Plan (SATP) includes three fundamental highway elements that better link the region at large to the continental highway system:

- The preferred alternative for the Juneau Access project is a road up the east side of Lynn Canal connecting Juneau to Skagway, and includes a short shuttle ferry crossing to Haines.
- In southern Southeast, the construction of new highways would establish a through connection from Ketchikan to the Cassiar Highway in Canada. This new route would also include connections to Wrangell and Petersburg. Initially these highway routes would require several shuttle ferry links, which ultimately could be replaced with bridges. With these links in place, travel between these communities and trips into Canada, would no longer require a lengthy ferry trip.
- A highway from Sitka across Baranof Island would improve the level of ferry service to Sitka and reduce cost to the traveler and the state.

A bridge to replace the airport ferry crossing of Tongass Narrows to Ketchikan International Airport (on Gravina Island) is key to improving air access to Ketchikan and outlying communities. Existing highways, especially portions of the Haines Highway, are in need of widening and upgrading, and all pavements require periodic rehabilitation. The plan recognizes the importance of completing the Walden Point Road Project to improve access to Metlakatla and the need for continued improvement of the road system providing access to communities on Prince of Wales Island.

The Ultimate Plan – Development of the Essential Transportation and Utility Corridors

The plan identifies 34 essential transportation and utility corridors to be reserved and protected to meet future transportation needs. (For details, see Map 3 and Appendix A.) The ultimate highway development plan in the SATP is to construct roads through all of these transportation corridors. Key corridors and proposed highway designations are depicted in Map 3.

Map 1, to the left, shows the study area and existing transportation system in Southeast Alaska. Maps 2 and 3 at the end of this Executive Summary depict the 20-year transportation plan and the ultimate regional highway development plan, respectively.

Development of the corridors is necessary to efficiently connect communities to the regional transportation system, establish a regional power grid, and optimize service to the public. Through adoption of this SATP, the state requests that the Forest Service incorporate each of the 34 essential transportation and utility corridors (identified in Appendix A) into the Tongass Land Management Plan and reserve and protect these corridors for transportation and utility purposes. Adoption of this plan is an official expression of state policy that no other action by any other party should be taken (such as recommending wilderness areas) that would interfere with public use of any of the mapped corridors. In addition, the state requests that the Forest Service contribute to state efforts by improving and connecting forest roads that are located within essential road corridors identified by the state. Corridors of particular interest are Kake - Petersburg, Kake - Totem Bay, and North Prince of Wales Island Road - Red Bay.

Retirement of older ferries will occur, as new ferries and road segments are constructed. Following completion of highway links serving Juneau, Ketchikan, and Sitka, the primary roles of ferries in Southeast Alaska would be as follows:

- Continued operation of mainline service out of Bellingham and between Prince Rupert, British Columbia, and Prince William Sound.
- Expanded operations of new fast vehicle ferries serving Juneau, Petersburg, and Sitka. Fast ferry service is planned between Ketchikan and Petersburg, and a new southern gateway shuttle ferry is planned between Ketchikan and Prince Rupert. Following completion of the highway connections, the fast ferry between Ketchikan and Petersburg would be redeployed between Sitka and Petersburg. The southern gateway shuttle ferry between Ketchikan and Prince Rupert would continue to serve as demand warranted.
- Shuttle ferry connections for through highways links.
- Inter-Island Ferry Authority ferry connections to Prince of Wales Island via Hollis to Ketchikan and ferry service connecting Coffman Cove, Wrangell, and Petersburg.
- Ferry connections to less populous communities that remain isolated from the land highway network.

The plan includes a new airport at Angoon, public seaplane floats at Edna Bay and Naukati, and continued improvement of the region's 12 airports and 33 public seaplane floats.

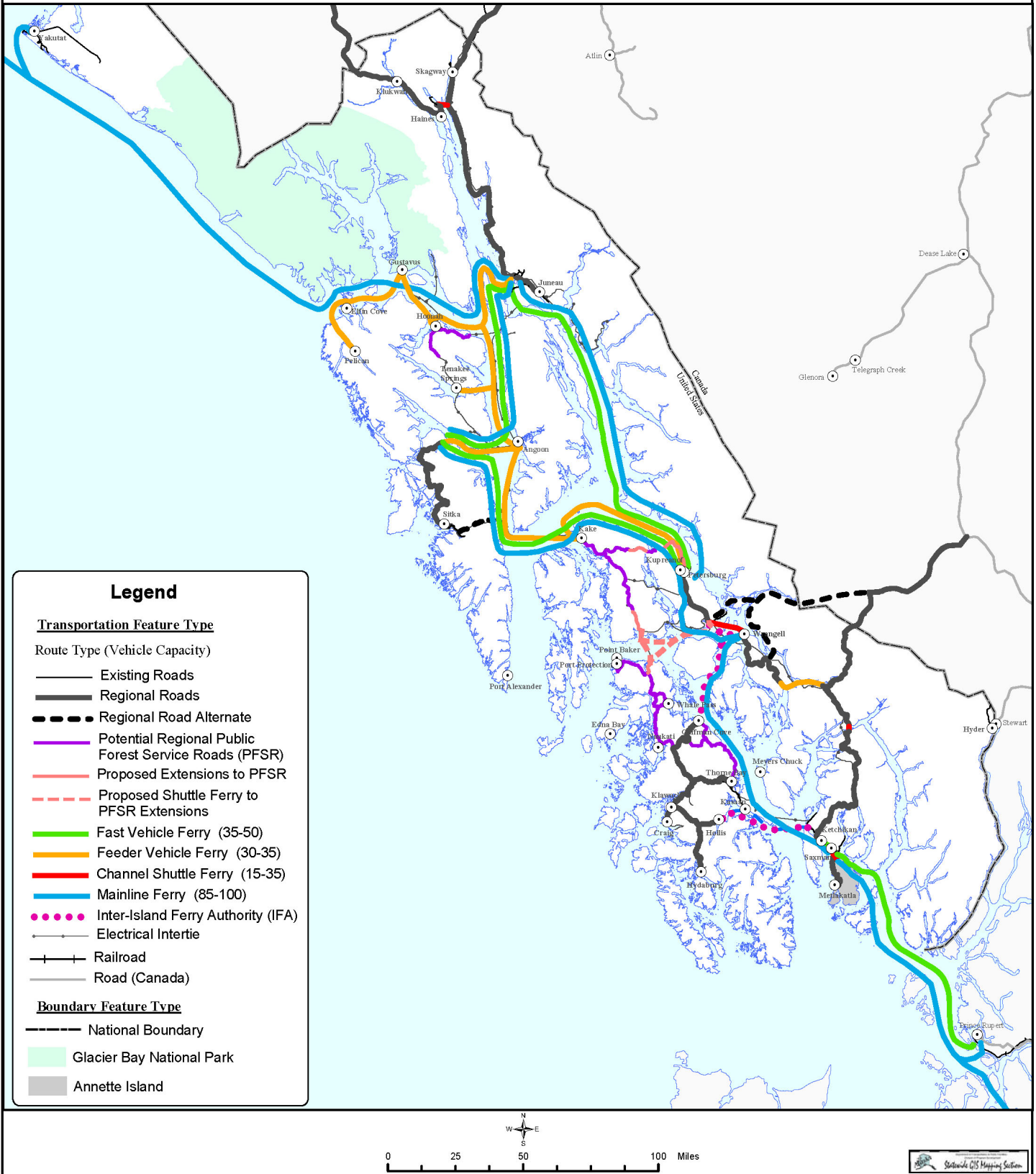
The recommendations of the SATP are general. Uncertainties remain, such as the outcome of the necessary environmental and preliminary engineering studies. The performance of the new fast ferry, the *M/V Fairweather*, is being

evaluated to determine whether the state would purchase additional fast ferries or pursue different ferry technology to replace an aging fleet. Should the state decide not to purchase additional ferries of the Fairweather class, existing ferries would be maintained, until replaced with more conventional vessels and road segments. Although the SATP proposes that specific road routes be developed and specific types of ferries be acquired, this approach does not preclude substitution of a different road route or vessel if subsequent information directs the state to a better transportation alternative to accomplish the same objective.

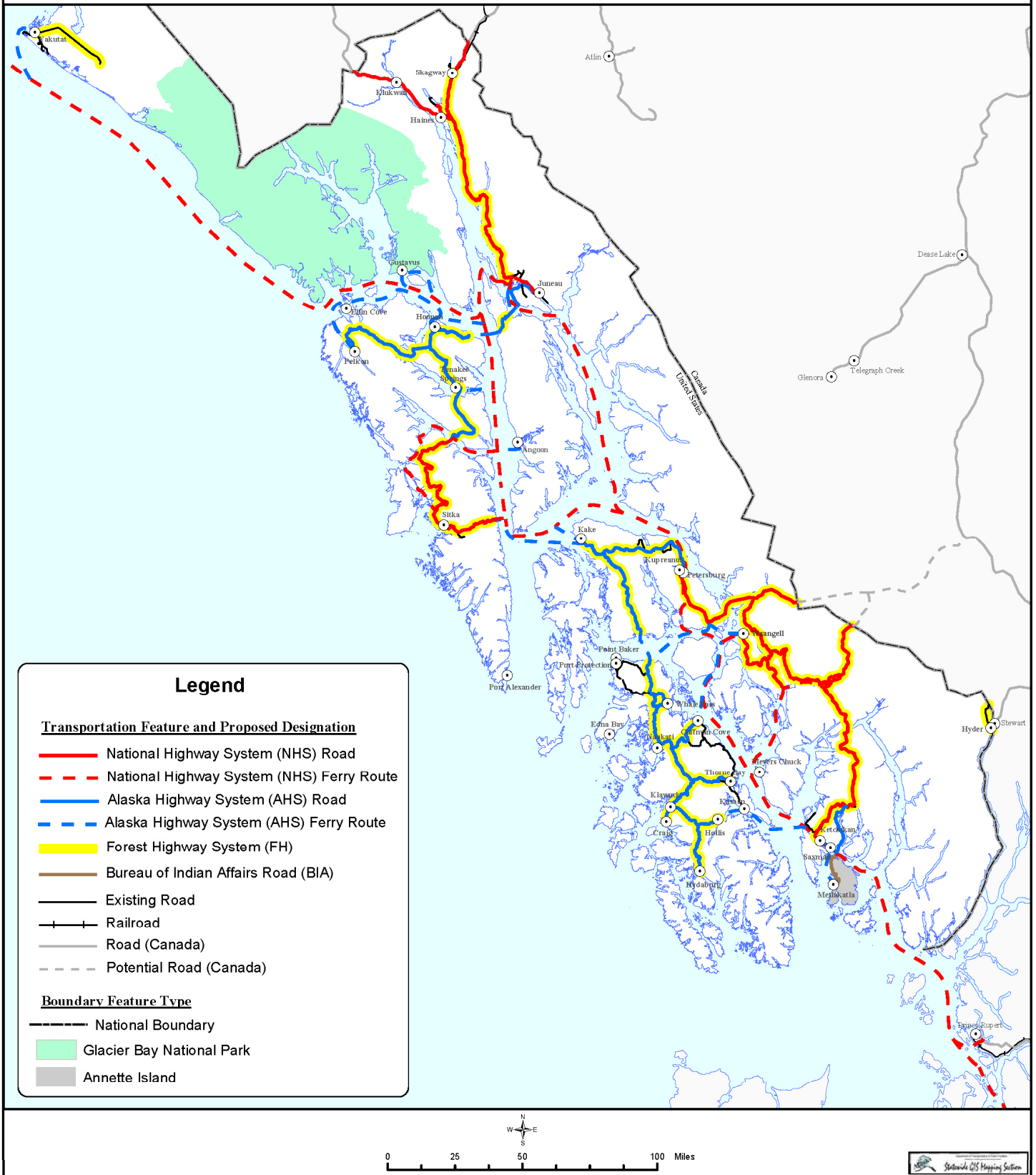
Fiscal requirements for the SATP are substantial. In the interim, until the highway connections included in the SATP can be completed, the region will need to rely on the Alaska Marine Highway System to fill many of the gaps in the highway system.



Map 2 Southeast Alaska 20 Year Transportation Plan



Map 3 Ultimate Regional Highway Development Plan



PREFACE

The Alaska Department of Transportation and Public Facilities (the “department” or “ADOT&PF” hereafter), as the agency responsible for state highways, ferries, airports, and ports and harbors, undertakes regional planning efforts to ensure that future transportation investments are in the public interest. Since statehood, there have been several plans for Southeast Alaska. The previous Southeast Alaska Transportation Plan (SATP) was adopted in 1999 and amended by “Addendum One” in February 2001. This 2004 update is comprehensive in its applicability and replaces the 1999 SATP. The SATP is revised to include new highway components in pursuit of greater mobility and efficiency, while continuing the emphasis of lowering costs to the traveler and the state. The SATP is an approved component of the Alaska Statewide Transportation Plan.

Substantial public interest and response resulted from circulation of the Draft Plan Update. This final report has been rewritten to better present the revised SATP. Nineteen public meetings were held around the region, and hundreds of individuals participated by attending meetings, providing comments, or both. The consultant team inventoried more than 1,000 comments that were then reviewed and evaluated by team members and ADOT&PF planners.

In response, department planners substantially revised how key elements are presented and described. The basic recommendations of the draft remain intact, but are now described in a more organized and systematic manner. These revisions improve readability, and make it easier to understand the underlying basis for plan recommendations and conclusions. Public involvement and comment during the review process has led to a much better final product. ADOT&PF appreciates that reviewers took the time and effort to offer their thoughts and comments concerning the state’s active involvement in providing transportation to the region.

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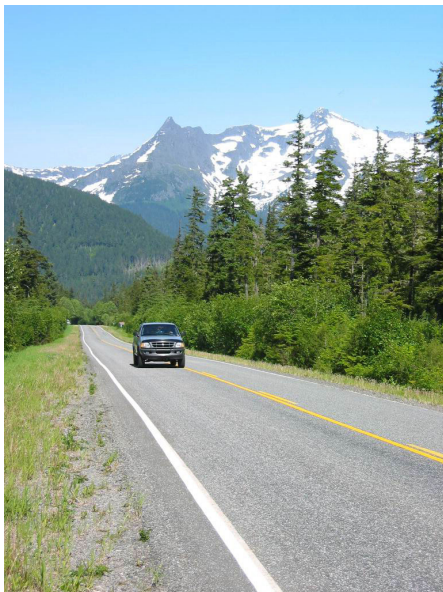
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ABBREVIATIONS

ADOT&PF	Alaska Department of Transportation and Public Facilities
AEPTF	Alaska Energy Policy Task Force
AHS	Alaska Highway System
AMHS	Alaska Marine Highway System
EA	environmental assessment
EAS	Essential Air Service
EIS	environmental impact statement
FFY	Federal Fiscal Year
FH	Forest Highway
FHWA	Federal Highway Administration
FVF	Fast vehicle ferry
IFA	Inter-Island Ferry Authority
ITS	Intelligent Transportation Systems
LCP	least-cost planning
mph	miles per hour
NEPA	National Environmental Policy Act
NHS	National Highway System
PFSR	Public Forest Service Road
SATP	Southeast Alaska Transportation Plan
SEATrails	Southeast Alaska Trail System
SEI	Southeast Intertie
STIP	Statewide Transportation Improvement Program

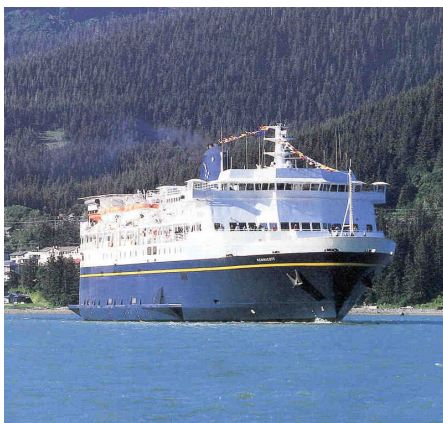
I. INTRODUCTION



Southeast Alaska is at a crossroads in terms of surface transportation. There is general agreement that upgrading these transportation capabilities is critical to the region and to the state as a whole. Although general agreement is in place, proceeding to select and pursue the next generation of improvements is proving contentious. Coming to terms with the absence of land highway connections is especially difficult. Accomplishing upgrades will be challenging because of large fiscal requirements and the lack of regional consensus concerning key proposed improvements.



The past half century has seen substantial progress in linking Alaska's panhandle (Map 1, preceding the Executive Summary) with other parts of Alaska and the "Lower 48," in spite of challenging topography and difficult climatic conditions. The largest communities now enjoy daily jet service, in the northbound and southbound directions, for passengers and freight. Each summer the cruise ship industry brings more than 600,000 visitors to each of three major ports of call. The private sector carries most freight to the region, with the presence of two regional operations ensuring competition at most ports served by barge. Rounding out this picture is the Alaska Marine Highway System (AMHS) and the Inter-Island Ferry Authority (IFA). In combination, these public operations provide roll-on/roll-off highway links between communities and the continental highway system by operating ferries that carry vehicles and passengers on the waterways of the Inside Passage.

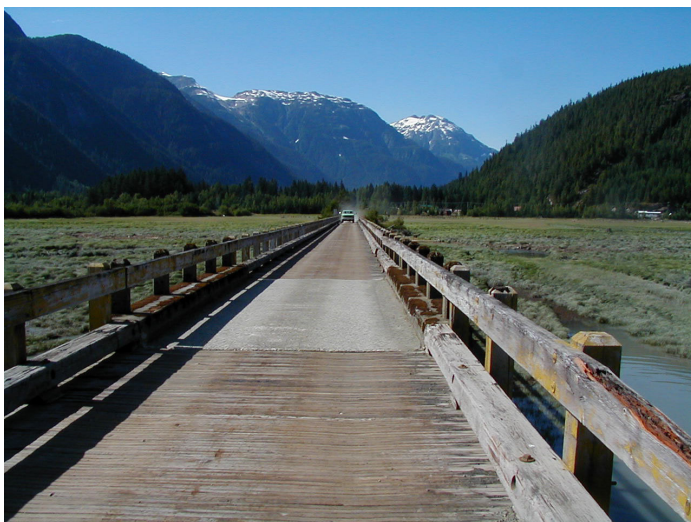


The Southeast Alaska Transportation Plan (SATP) provides answers concerning what needs to happen next, and lays out ways to boost mobility within the region. The objective is to shift from the limitations of long-distance ferry service to a robust network of surface transportation connections, which would consist of road links and connecting ferries,

supplemented by long-distance ferries. Through a balanced investment program, it is possible to improve the regional transportation system and its capabilities, and to continue progress toward establishment of an integrated network of land highway connections, ferry routes, and airports.

II. PLAN FOCUS AND RELATIONSHIPS

The SATP is one of a series of regionwide, multi-modal transportation plans that are components of the Alaska Statewide Transportation Plan. Each component identifies improvement needs, provides general direction for development of the area transportation system, and recommends specific improvements. The SATP provides a framework for state involvement in the regional transportation system over the next 20 years.



The SATP focuses on regional transportation improvements that increase system efficiency and increase mobility for both Alaskans and visitors traveling through Southeast Alaska. It focuses on construction of new highways and construction of new ferries to replace an aged ferry fleet. Replacement of old ferryboats with roads and more efficient ferryboats is critical to reducing the cost of transportation services provided by the state and reducing cost to the user. Highways are more efficient

and provide much greater mobility to the user. Reducing the length of ferry connections, providing more frequent ferry service at convenient hours, and providing direct point-to-point shuttle ferry connections will improve overall system efficiency and service. Although proposed changes will increase reliance on ground transit services, the SATP proposes to continue provision of some long-haul mainline ferry connections through the region to Bellingham, Washington, and Prince Rupert, British Columbia, and across the Gulf of Alaska. Reducing reliance on ferries will reduce state transportation operating expense and increase user capacity to travel more frequently at less cost.

The SATP sets overall direction for future decisions regarding transportation investments and operating decisions. It is a “dynamic” plan in the sense that new information and potential opportunities are assessed and, when appropriate, incorporated into the planning framework. On the other hand, the SATP framework is not aimed at details, and does not pre-determine those decisions that are best made by operating managers. For example, it does not discuss the specifics of the many decisions that need to be made

concerning ferry schedules or itineraries. It rarely touches upon concerns or improvements that would be considered local in nature.

The SATP was prepared under the direction of the Alaska Department of Transportation and Public Facilities (the “department” or “ADOT&PF” hereafter). Continued progress toward making transportation work better in Southeast Alaska could not have been accomplished without contributions from others. These partners include communities; tribal organizations; the Bureau of Indian Affairs (U.S. Department of the Interior); IFA, which pioneered the “dayboat” concept; and the Forest Service (U.S. Department of Agriculture). Federal agencies that work as partners with state and local governments in funding transportation improvements include the Federal Highway Administration (FHWA), Federal Aviation Administration, Federal Transit Administration, Forest Service, and U.S. Army Corps of Engineers.

The SATP takes an important step toward the pursuit of large capital investments by the state, but many follow-up steps are necessary for the development of major projects. These steps include opportunities for public involvement and comment. The next major steps are identification of specific projects in the Statewide Transportation Improvement Program (STIP) and the subsequent funding of individual projects. For many additions, the SATP uses the term elements to identify the overall highway, ferry, or aviation component or services that need to become part of the regional transportation system. To accomplish each addition requires at least one project, and potentially a series of individual projects, in the STIP. Most projects in the STIP accomplish the construction of a new or improved highway or the building (or refurbishment) of a ferry or terminal. At a minimum, each project has design and construction phases, with a multi-year schedule (for all but the simplest projects) before construction is funded and under way.



An important feature of STIP projects is the environmental assessment (EA) phase. For most projects, the first milestone after initial funding is environmental approval. This milestone is reached when the concept on which the project is based has been adequately reviewed and refined. Other government agencies participate in the environmental review, as do members of the public if the project is of concern. In relation to the SATP, the environmental

phase provides a more rigorous test of the workability of a plan element and its component projects. In some cases, the environmental phase results in major revisions to the initial concept. These revisions have the potential to be substantial enough to require change to specific features of the SATP.

Thus, the SATP provides the initial, detailed look at the feasibility of a proposed component or service that needs to become part of the regional transportation system. This review is much less comprehensive than the environmental phase. The primary thrust of the SATP review is to verify the effectiveness of a new component or service in terms of its transportation capabilities. Although other concerns, such as impacts to the natural environment, are noted, it is during the environmental phase that the determination of the appropriate balance between improved transportation capabilities, impacts, and other concerns is made.

Major plan elements have already entered the environmental phase, and the completion of the update process means that two large projects also need to advance to the environmental phase. Furthermore, two follow-on studies need to be completed. The following list includes the two studies and projects in the environmental phase for which either an environmental impact statement (EIS) or an EA is being completed or soon to be started:

- Northern Panhandle Transportation Study
- Southeast Aviation System Plan Study
- Gravina Island Access EIS
- Juneau Access EIS
- Juneau International Airport EIS
- Ketchikan Airport Runway Safety Area EA
- Ketchikan Access EIS
- Mid-Region Access EIS
- Petersburg Airport Runway Safety Area EA
- South Mitkof Terminal EA
- Sitka Access EIS
- Sitka Airport Runway Safety Area EIS
- Wrangell Airport Runway Safety Area EA

It is important to note that the SATP is not intended to substitute for systemwide planning on the part of AMHS. A separate effort is required for this purpose. Changes to AMHS service are critical to the region, and are

included in this plan. The addition of new vessels to the Southeast transportation network has already benefited the overall system, and has made the *Aurora* available for redeployment. Additional changes need to be pursued, and system-level planning can integrate recommendations from several area plans into the operations of AMHS as a whole. Completion of the 2004 SATP update is an indicator that pursuit of a system-level planning effort for AMHS is needed.

Similarly, the SATP is not the appropriate forum for mode-specific planning concerning the future of the regional aviation system. With some exceptions,¹ the key components of this system are already in place. Although projects are needed and will be scheduled, these improvements will enhance and expand capabilities that are already available. For the most part, the startup of air services is constrained by the ability of the private sector to make a profit from new services, not a lack of government-provided infrastructure. Investment in the aviation infrastructure will come in response to future carrier decisions concerning equipment, service, and networks.

State regulations require review and update of the Alaska Statewide Transportation Plan and its components, including the SATP, every five years. Consequently, this SATP update will need to be reviewed, and as necessary, updated in 2009, or earlier if circumstances warrant.

¹ In terms of airport facilities, the most notable exception is Angoon. The community is served by a seaplane base, but it does not have an airfield. Selection of the preferred site for an airport is now complete.

III. SETTING

Southeast Economy

Government services, forest products, fishing, mining, and tourism dominate the economy of Southeast Alaska. Employment in these areas continues; however, forest products industries have declined drastically, and government services, tied to oil revenue, are under budgetary pressure. The commercial fishery is under stress as well. A declining job market and lower per capita personal income has resulted in a net out-migration of regional population during the past decade. Demand for transportation is down and has in some markets shifted to cheaper modes of transportation because residents can no longer afford to travel as frequently by air. A brief summary of the region's principal resources and demographics related to transportation demand is presented below.

The primary land manager in Southeast Alaska is the Forest Service. The Tongass National Forest is the nation's largest national forest, encompassing 17 million acres, most of Southeast Alaska. The Forest Service manages the Tongass consistent with the policy and guidance provided by the Tongass Land Management Plan, which the agency maintains and updates periodically.

Principal Resources and Industries

Scenery and Wildlife

Southeast Alaska offers an unparalleled combination of spectacular scenery, misty vistas, majestic mountains, tidewater glaciers, abundant fish and wildlife, vivid Native cultures, fascinating history, and colorful residents. The region has one of the richest and most varied systems of trails, roads, highways, waterways, and scenery in the world. In 2002, the federal government designated Alaska's Marine Highway as a National Scenic Byway, recognizing that these routes have exceptional recreational, cultural, historical, scenic, and natural qualities. In addition, the state designated the Haines Highway as an Alaska Scenic

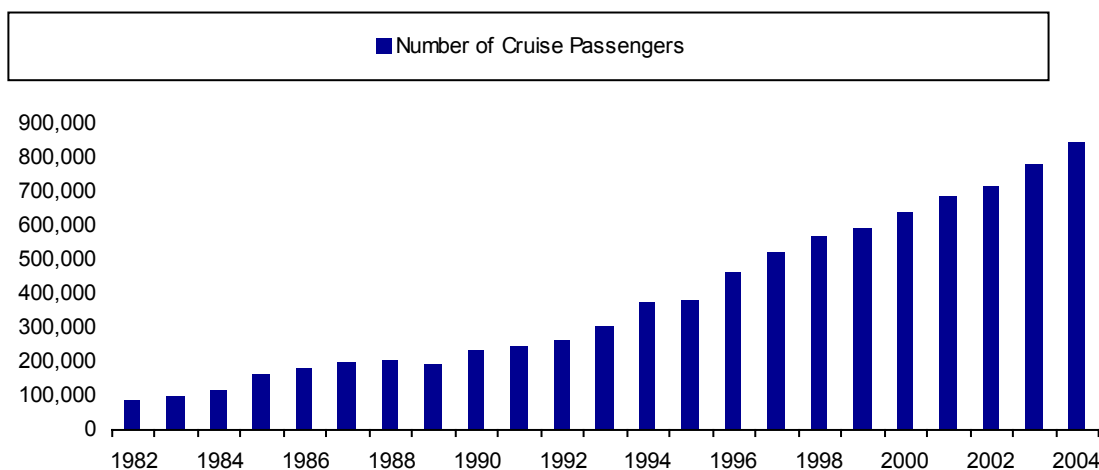


Byway, because of spectacular wildlife viewing along the route, as well as scenic, historical, and recreational qualities.

The visitor industry in Southeast Alaska is robust and active. As measured by passenger counts, large cruise ships dominate the industry. Figure 1 shows the upward trend in cruise passengers visiting Southeast Alaska. Visitor counts at each of the three major ports of call exceed 600,000 annually. Most of these visitors spend the day in port, with the ship departing for another port the same evening. During 2004, itineraries are about evenly split between round-trips through Southeast Alaska and visitors passing through on their way to or from ports in Railbelt Alaska. Smaller cruise operators offer more personalized options, including embarkations within the region and stops at more remote locations. Map 4 shows the routes traveled most frequently by cruise ships.

Figure 1. Southeast Alaska Cruise Traffic, 1982–2004

Source: McDowell Group

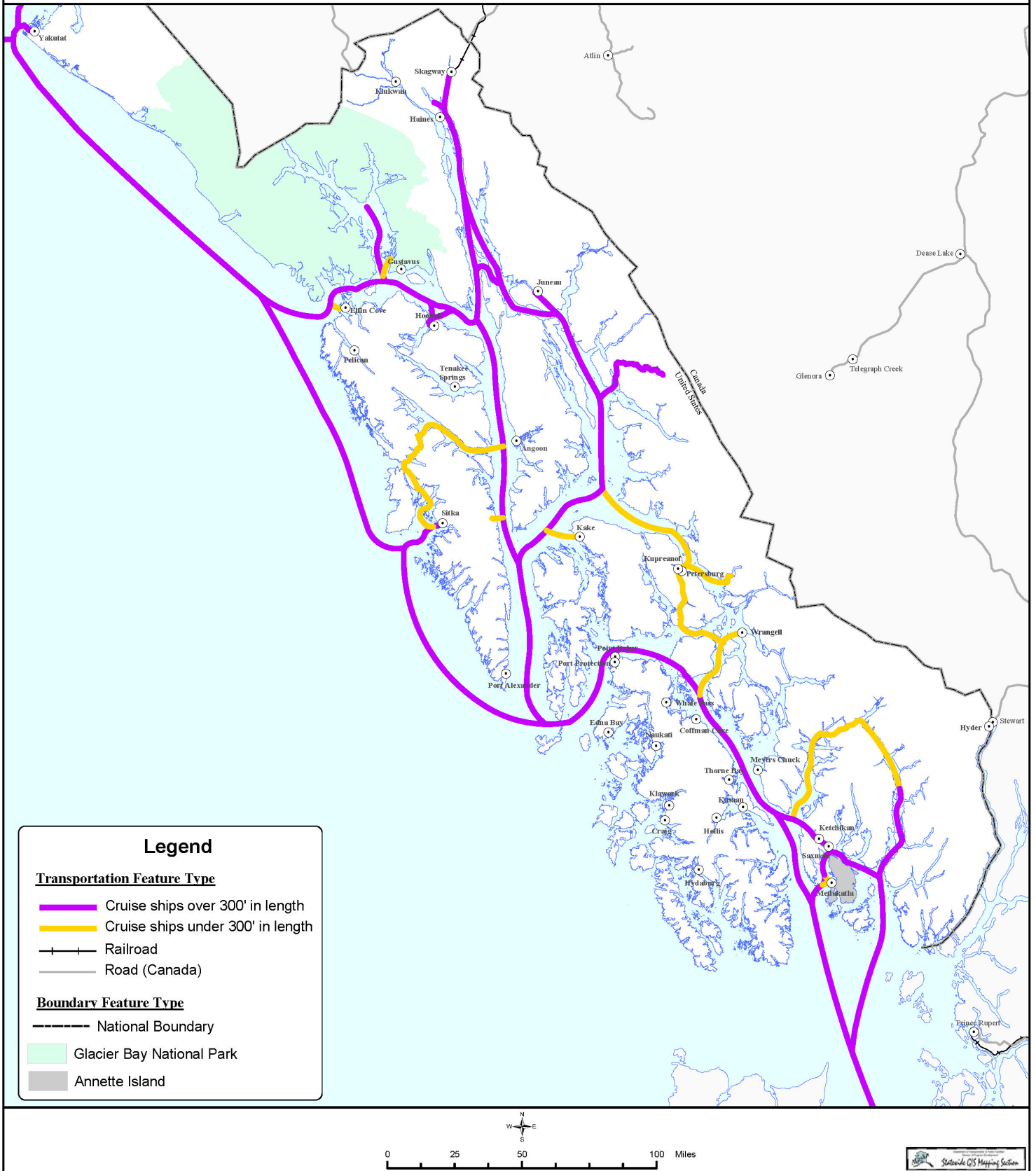


In addition to cruise visitors, many people choose to travel on their own to the region, arriving by air, ferry, and highway. Independent travelers are critical to local economies, especially in smaller communities. Recent years have seen steady growth in visits to sport fishing lodges, some of which can be reached only by seaplane or boat. Current emphasis on the Southeast Alaska Trail System (SEATrails) initiative is highlighting the region’s long-distance recreational corridor available to travelers.

Timber

The lower elevations of Southeast Alaska are blanketed with extensive forests, where the temperate, wet climate fosters the growth of large, valuable trees. The forest products industry has played an essential

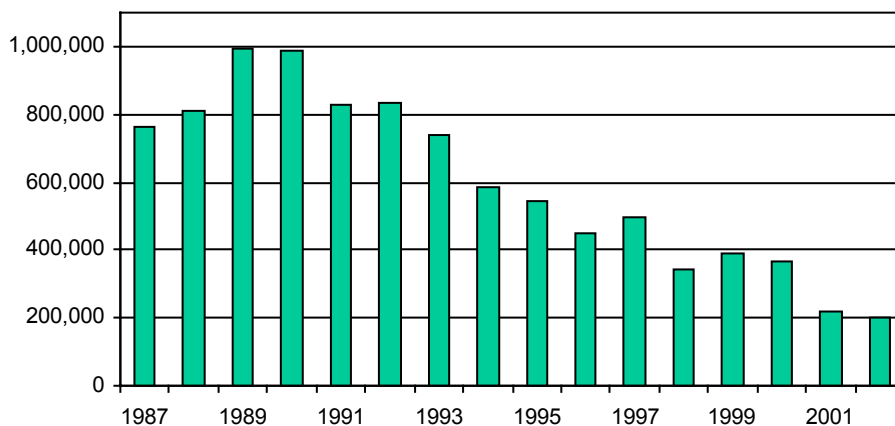
Map 4 Most Frequented Cruise Ship Routes



economic role for more than 50 years, accounting for as much as one-third of the region’s overall economy. By statehood, the timber industry was growing rapidly. In the 1970s, employment in timber harvesting and production reached nearly 4,500 jobs. In 1974, the annual harvest from the Tongass National Forest peaked at 600 million board feet. Within the last 15 years, however, the region has lost thousands of jobs and millions of dollars in accompanying activities; wood processing plants have closed in Sitka, Haines, Ketchikan, Metlakatla, and Wrangell. Changes in the global marketplace, combined with new federal legislation, crippled the harvest effort. The Alaska Pulp Corporation ended its Sitka operations in 1993 and Wrangell operations in 1994. These closures were followed by the cessation of Ketchikan Pulp Corporation operations in 1997, 1998, and 1999. Figure 2 shows the total Southeast Alaska timber harvest from 1987 to 2002.

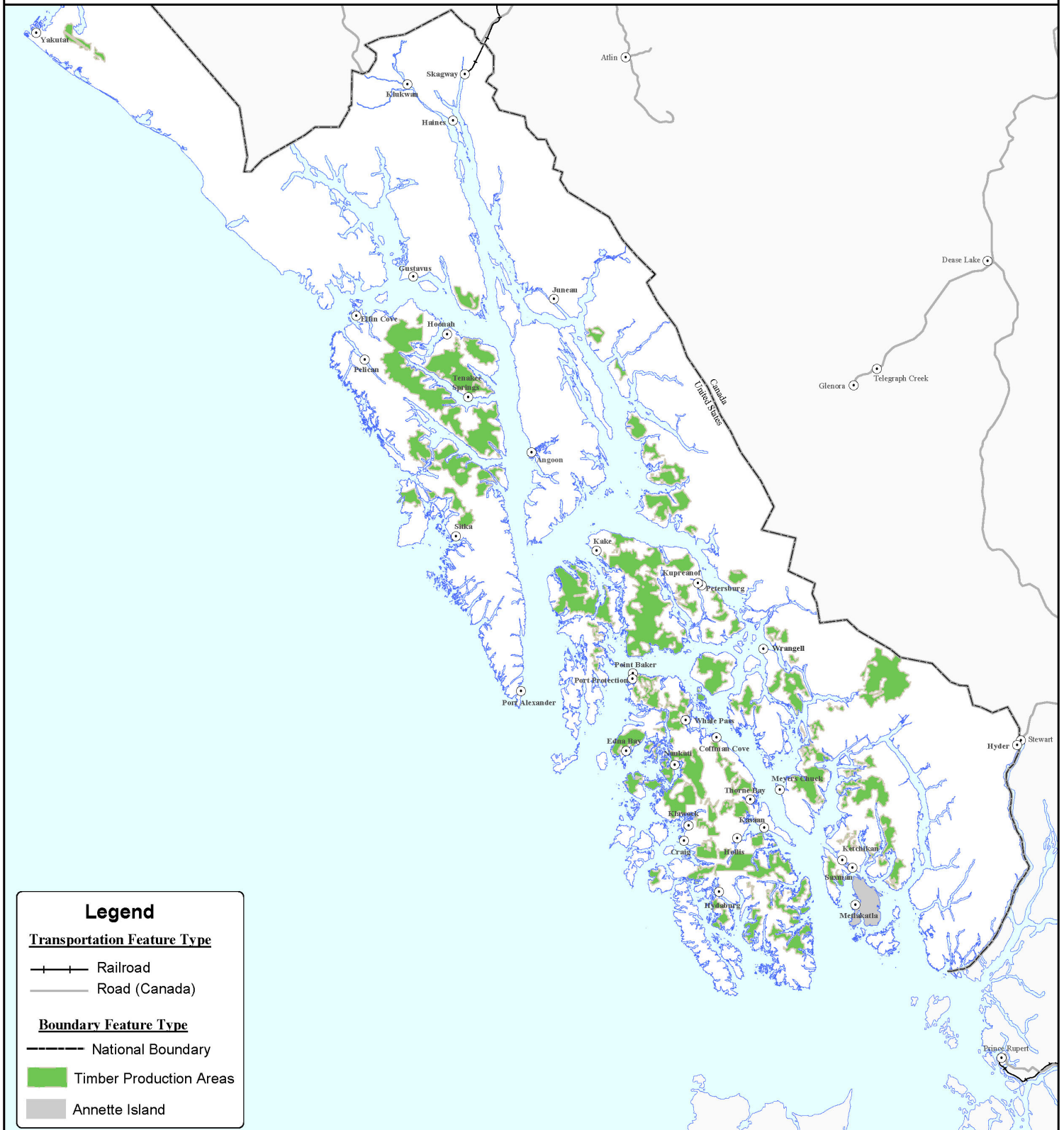
Figure 2. Total Southeast Alaska Timber Harvest, 1987-2002
Federal, state, and private harvest in thousands of board feet

Source: McDowell Group



The timber industry has been a primary economic engine for many of the region’s communities. With year-round, high-paying jobs, the industry increased the standard of living and assembled an infrastructure that made growth possible in other industries such as tourism. The current decline affects transportation costs, along with many other public and private services. The future outlook remains uncertain. One opportunity is the conversion of lower grade logs into veneer. This material can be used to make a variety of building products, including veneer lumber and plywood. Test results show that the region’s hemlock and spruce peel well and offer attributes not available from other domestic sources. Map 5 identifies the areas managed as timber production areas in the Tongass National Forest.

Map 5 Tongass National Forest Timber Production Areas



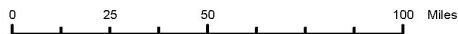
Legend

Transportation Feature Type

- +—+— Railroad
- Road (Canada)

Boundary Feature Type

- National Boundary
- Timber Production Areas
- Annette Island



Minerals

Published mineral availability and activity maps clearly indicate that Southeast Alaska is endowed with a variety of mineral deposits and other commodities. Consequently, the mining industry in Southeast Alaska is in relatively good condition and generates a substantial amount of employment. One large mine is operating – the Greens Creek mine on Admiralty Island (near Juneau). Recently issued permits will allow this mine to continue production for another 20 years. The mine produces concentrates containing silver, zinc, gold, and lead, and is one of the nation’s leading producers of silver. Also in the Juneau vicinity, the Kensington gold mine is close to obtaining final permits to begin operation.

Favorable market forecasts and recent price increases for base metals and platinum group metals should stimulate further interest in prospects. However, federal land withdrawals prevent exploration and development of several areas with high mineral potential. Near Ketchikan, exploration for platinum is under way. Demand for transportation service to support mining is expected to increase. Map 6 shows the locations of Southeast Alaska’s mineral resources.

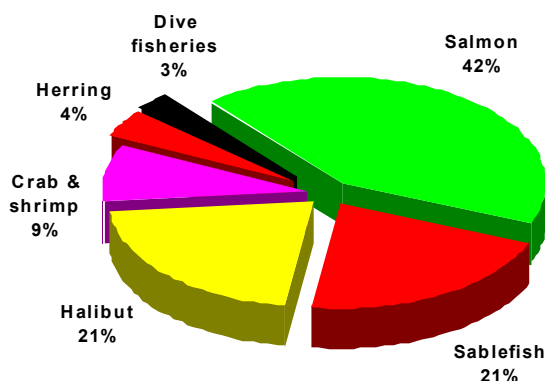
Fisheries

Important fisheries in Southeast Alaska include salmon, halibut, black cod, herring, crab (king, Tanner, and Dungeness), shrimp, oysters and other shellfish, geoducks, and sea urchins. Figure 3 shows the comparative value of fishery harvests in 2003. According to the McDowell Group, preliminary figures for 2003 show total value of \$121 million.

All five salmon species are abundant, but the fishing industry has been negatively affected by competition from farmed salmon. Figure 4 charts the

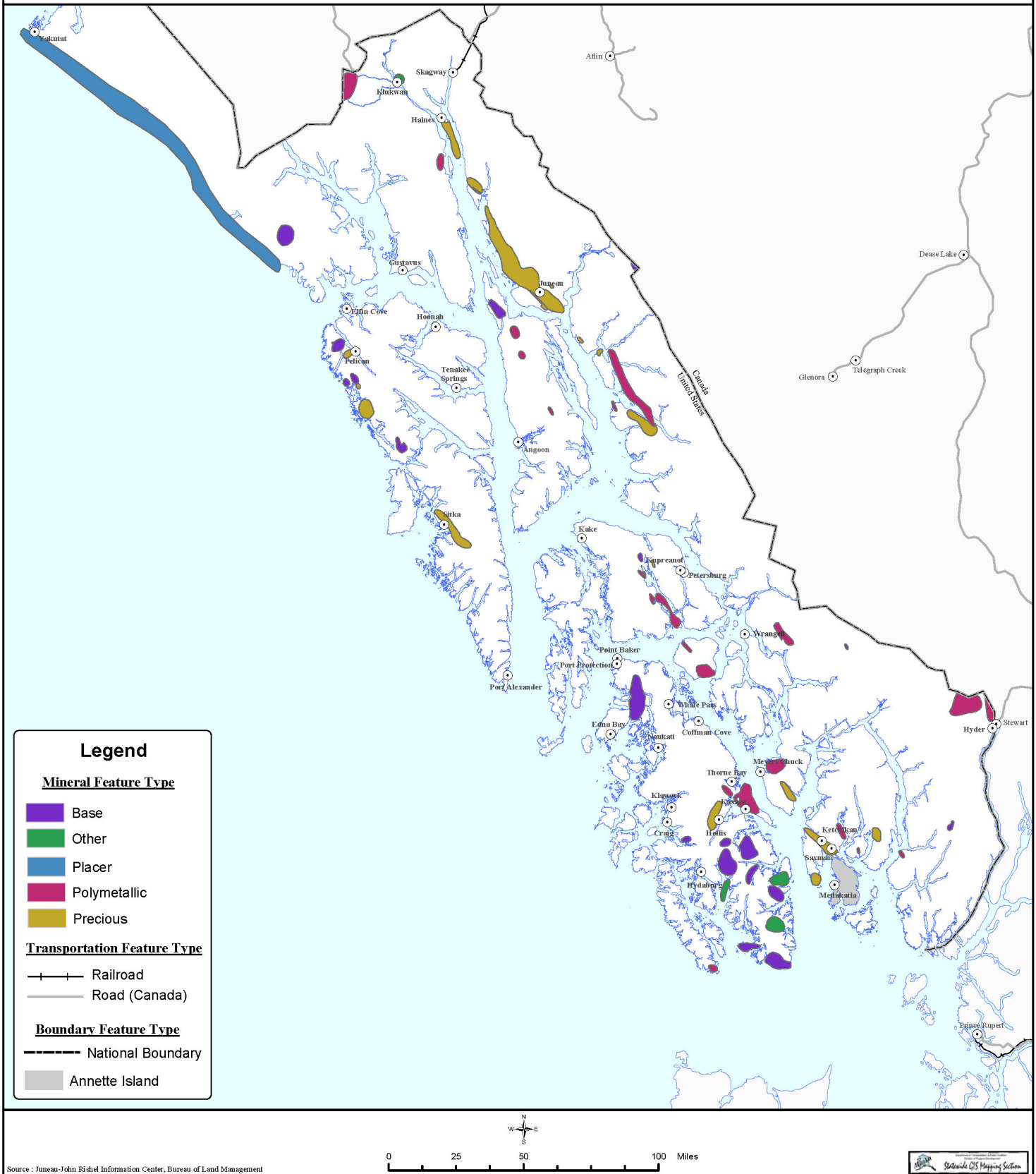
Figure 3. Major Southeast Alaska Fishery Harvests in 2003

Source: McDowell Group



value of Southeast Alaska salmon harvests from 1994 through 2003. Continued increases in farmed salmon production have driven down the price for wild salmon, which has caused severe problems for processors in Southeast Alaska and, in turn, the fishing fleet that supplies them. The bottom-line impact on Alaskan fishermen has been volatile and often low prices for the fish that they catch. The market for canned salmon is declining, but demand for processed and market-packaged fish products that consumers can pop in microwave ovens is increasing.

Map 6 Mineral Resources

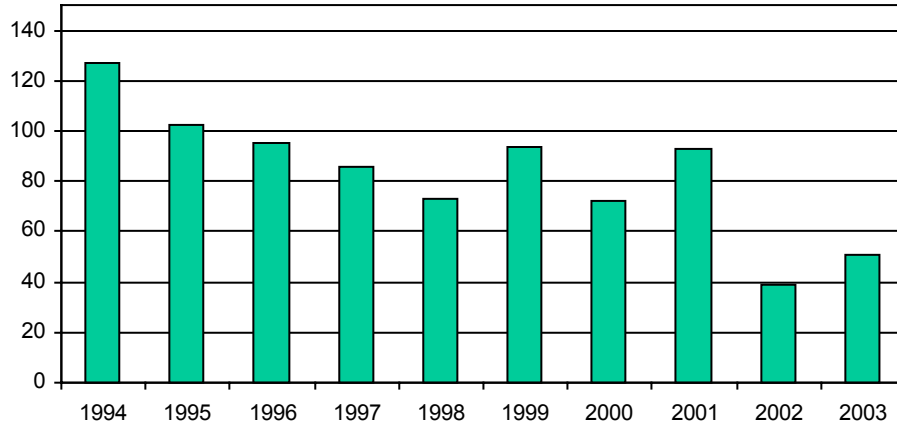


Combined, these factors are likely to lead to a decline in the size of the fishing fleet. The market for fresh fish has potential to increase, however, and the availability of more efficient means of transporting fresh fish is expected to lead to greater volumes of this product.

Figure 4. Value of Southeast Alaska Salmon Harvests, 1994-2003

Shown in millions of dollars, ex-vessel

Source: McDowell Group



Hydroelectric Resources and Delivery of Electricity

The mountainous terrain of Southeast Alaska coupled with a wet, maritime climate provides significant opportunities for hydroelectric generation. However, mountainous terrain intersected by extensive waterways limits the development of roads and other infrastructure, including transmission lines, that are needed to connect the communities within the region.

Hydroelectric power plants and diesel generators provide nearly all of the electric power generation in Southeast Alaska. Natural gas and coal, the primary fuel sources for electric generation in the Railbelt areas of the state, are not commercially available in Southeast. There are many opportunities for further hydroelectric development. A recent report prepared by the Alaska Energy Policy Task Force (AEPTF) called *NonRailbelt Report, Findings and Recommendations* (April 15, 2004), identifies the potential new hydroelectric projects listed in Table 1.

Table 1. Potential New Hydroelectric Projects in Southeast Alaska

Location	Community/ Utility	Annual Energy Generation Capacity (kilowatts)	Estimated Capital Capability (megawatt- hours)	Cost (\$ millions)
Upper Lynn Canal Region				
Kasidaya Creek ¹	Haines-Skagway/AP&T	3,000	12,000	7.0
Connelly Lake	Haines-Skagway/AP&T	5,000	30,000	14.0
North Region				
Lake Dorothy - Ph. 1 ¹	Juneau/AEL&P	15,000	75,000	
Lake Dorothy - Ph. 2	Juneau/AEL&P	32,000	94,000	
Gartina Falls	Hoonah	600	1,900	3.8
Water Supply Creek	Hoonah	600	1,800	3.1
Falls Creek ¹	Gustavus/GEC	800	2,500	4.1
West Central Region				
Takatz Lake	Sitka	20,000	82,800	82.0
Katlian River	Sitka	7,000	29,800	70.5
Thayer Creek	Angoon	1,000	8,500	
Tyee-Swan Region				
Thomas Bay (Swan Lake)	Petersburg	40,000	164,400	193.0
Lake Tyee 3rd Turbine	Petersburg – Wrangell	10,000	1,000	
Sunrise Lake	Wrangell	4,000	12,200	
Anita - Kunk Lake	Wrangell	8,000	28,200	
Virginia Lake	Wrangell	12,000	42,700	
Thoms Lake	Wrangell	7,300	25,600	
Whitman Lake	Ketchikan/KPU	4,600	19,640	7.6
Connell Lake	Ketchikan/KPU	1,900	11,640	5.5
Mahoney Lake	Ketchikan/KEC	9,600	45,600	
Triangle Lake	Metlakatla/MP&L	3,900	16,885	12.9
Prince of Wales Region				
South Fork ¹	Craig-Klawock/AP&T	2,000	7,000	3.5
Lake Mellon/Reynolds Creek	Craig-Klawock/AP&T	10,000		

¹ These projects are under active development and all are expected to be on line by 2008.

According to the AEPTF report (page 28), the total amount of electricity sold in the region was 743,296 megawatt-hours. This electricity is generated by existing hydroelectric and diesel facilities. Most smaller communities rely on very expensive diesel power generation. Except for transmission lines connecting several Prince of Wales Island communities, the Lake Tye to Wrangell and Petersburg transmission line, and a submarine cable connecting Haines and Skagway, the communities within Southeast Alaska are not currently interconnected.

A study for creating an intertie to connect the communities was completed in 1997. The results of the study served as the basis for passage of a bill by the U.S. Congress authorizing the Southeast Intertie (SEI) project and including federal funding participation. A follow-up engineering and economic analysis of the intertie was completed in 2003. The three transmission segments described below are currently under varying stages of development.

1. Swan Lake - Lake Tye Segment. Development of this segment, which began several years ago, is now poised for completion. All necessary permits are in hand; all but 1 mile of the 57-mile right-of-way between the Swan Lake and Tye Lake hydroelectric plants has been cleared; the structure sites have been surveyed and sampled; and final engineering design is nearly complete. The surplus power from Lake Tye will be used to offset diesel generation in Ketchikan and allow more efficient use of existing generation facilities.

2. Juneau - Greens Creek Mine - Hoonah Segment. The 63.5-mile Juneau - Greens Creek Mine - Hoonah segment is coupled with the private development of the \$35 million, 15-megawatt Lake Dorothy Hydroelectric project. The first 11 miles of the segment, from the Douglas Bridge to North Douglas Island, have been completed by Alaska Electric Light & Power. Hydroelectric energy delivered across the Juneau - Greens Creek Mine - Hoonah net will completely replace diesel-generated energy in Hoonah and at the Greens Creek Mine, saving a combined total of 5.4 million gallons of fuel annually.

3. Petersburg - Kake Segment. The project for this segment would construct 46 to 59 miles of transmission line (depending on the route selected) to connect Petersburg with Kake. Completion of this segment would allow the use of surplus electricity from the Lake Tye hydroelectric project to offset diesel generation in Kake. An additional benefit would be the ability to serve the Woewodski Island Mine project that is currently under exploration. The estimated cost of this project is \$23.1 million if the shortest and most direct route is selected. Most of the line would parallel existing logging roads in the region. The Petersburg - Kake segment will be designed for eventual interconnection west to Sitka. Eventual interconnection from Sitka to the Juneau - Hoonah segment is also planned.

Routes for transmission lines between the communities of Southeast Alaska have been identified based on previous studies. These routes combine lengthy submarine cables with overhead transmission lines, generally through undeveloped areas. For the most part, the routes are included as identified power system corridors in the Tongass National Forest Land Management Plan. The costs to construct and develop each of these lines at current cost levels have been estimated and are summarized in Table 2.

Table 2. Intertie Component Costs and Lengths

Intertie Component	Location	Estimated Cost (\$ millions)	Line Length (miles)		
			Submarine Cable	Overhead	Total
SEI-1	Juneau – Greens Creek – Hoonah	37.1	34.5	18.7	53.2
SEI-2	Kake – Petersburg	23.1	1.7	49.9	51.6
SEI-3	Metlakatla – Ketchikan	6.0	1.0	16.0	17.0
SEI-4	Ketchikan – Prince of Wales	31.7	17.2	18.0	35.2
SEI-5	Kake – Sitka	50.3	35.0	24.0	59.0
SEI-6	Hawk Inlet – Angoon – Sitka	81.2	82.0	22.0	104.0
	Less: SEI-6 costs common to SEI-5	(9.5)		(20.0)	(20.0)
SEI-7	Hoonah – Gustavus	26.4	29.0	1.0	30.0
SEI-8	Juneau – Haines	69.8	2.8	82.5	85.3
Total system		316.0	203.2	212.1	415.3

It should be noted that significant alternative configurations and route options exist for SEI-2, SEI-4, SEI-6 and SEI-8 that would change the estimated length and cost of these lines. The various alternatives will need to be evaluated more thoroughly in the future as development of these lines proceeds. Depending on the timing of construction of the SEI segments, estimated costs will need to reflect the estimated impact of inflation.

The total estimated cost of the system is \$316.0 million. Of this amount, approximately \$7.0 million is for inclusion of fiber optic systems in both the submarine and overhead portions of the transmission lines.

The AEPTF report forecasts growth in Southeast Alaska electric loads of approximately 1 percent per year. Some communities are expected to see slightly higher rates of growth in the next few years because of expanded economic activity in their areas. Energy demand may increase significantly in some areas to support new mining operations. The planned additions of new small hydroelectric facilities and the relatively slow growth expected in electrical loads reduce the near-term benefits that could be realized by

constructing some of the mainline electrical connections between certain communities.

An evaluation of the costs and benefits of the SEI segments was prepared to determine when the savings in production expenses for diesel energy generation would exceed the costs of purchasing and delivering power over the SEI system. The results of this analysis indicate when new SEI segments would be considered “economically justifiable.” The recommended timing of the new SEI segments, determined by the evaluation, are provided in Table 3. The primary hydropower sites are shown in Figure 5.

Table 3. Recommended Timing of Southeast Intertie Segments

Intertie Component	Location	Projected On-Line Year
SEI-1	Juneau – Greens Creek – Hoonah	2007
SEI-2	Kake – Petersburg	2007
SEI-3	Metlakatla – Ketchikan	2015-2020
SEI-4	Ketchikan – Prince of Wales	2020-2025
SEI-5	Kake – Sitka	2025-2030
SEI-6	Hawk Inlet – Angoon – Sitka	2020-2025
SEI-7	Hoonah – Gustavus	After 2030
SEI-8	Juneau – Haines	After 2030

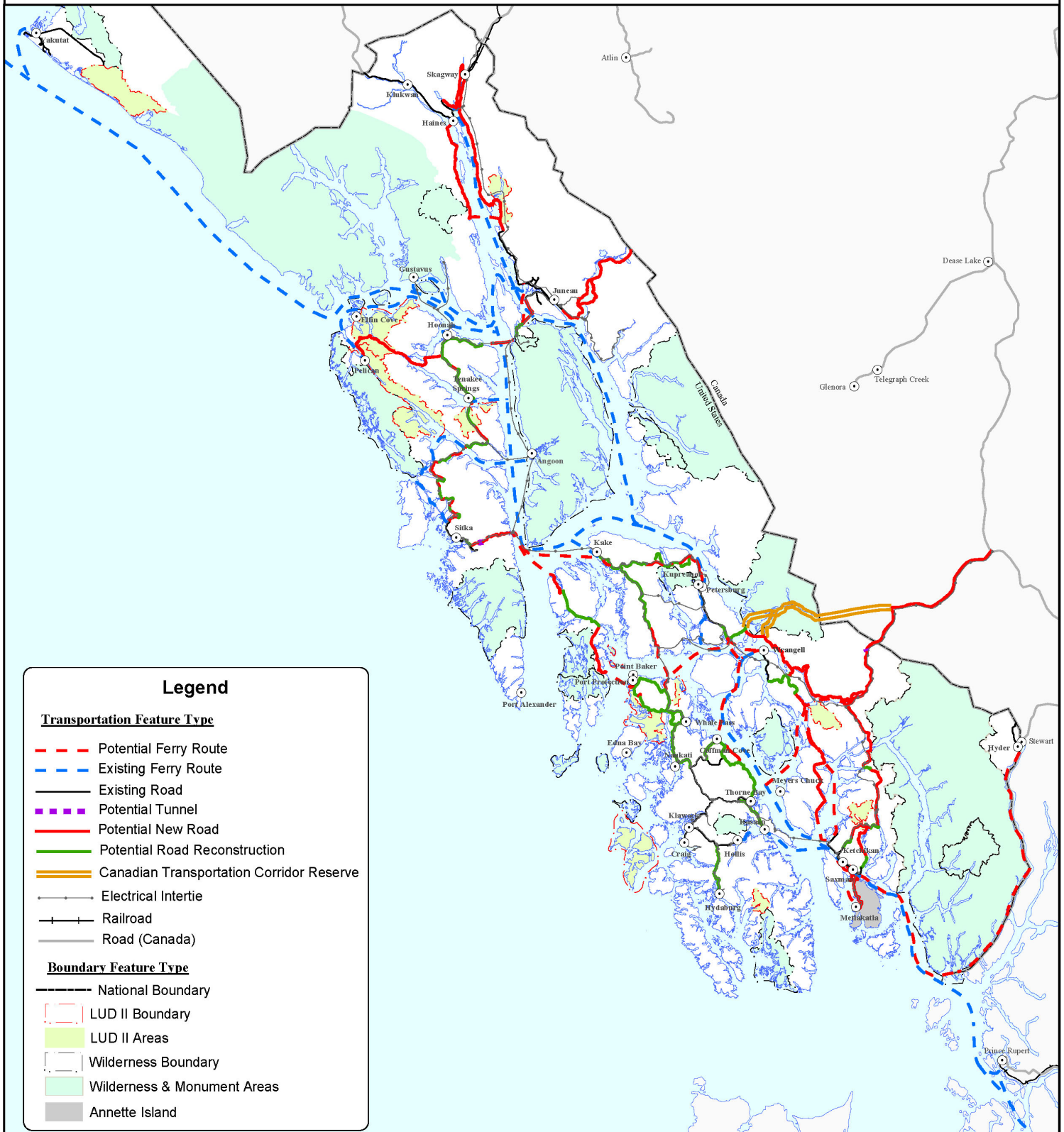
Essential Transportation and Utility Corridors

In a region as rugged as Southeast Alaska, valleys and mountain passes represent invaluable corridors for highways and utility transmission lines. Map 7 identifies the transportation and utility corridors considered essential for the state to preserve for potential development.

These corridors are required to connect communities to the regional transportation system and to establish a regional power grid. The state requests that the Forest Service incorporate all of these transportation and utility corridors into the Tongass Land Management Plan and reserve and protect these corridors for these purposes. Adoption of this plan is an official expression of state policy that no other action by any other party should be taken (such as designations of wilderness areas) that would interfere with public use of any of the mapped corridors. (See Appendix A for more detail). In addition, the state requests that the Forest Service contribute to state efforts by improving and connecting forest roads that are located within essential road corridors identified by the state.

Map 7

Essential State Land and Marine Transportation & Utility Corridors



Legend

Transportation Feature Type

- - - Potential Ferry Route
- - - Existing Ferry Route
- Existing Road
- - - Potential Tunnel
- Potential New Road
- Potential Road Reconstruction
- Canadian Transportation Corridor Reserve
- Electrical Intertie
- Railroad
- Road (Canada)

Boundary Feature Type

- - - National Boundary
- - - LUD II Boundary
- LUD II Areas
- - - Wilderness Boundary
- Wilderness & Monument Areas
- Annette Island

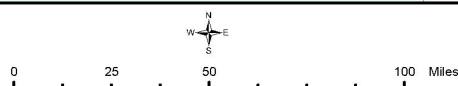
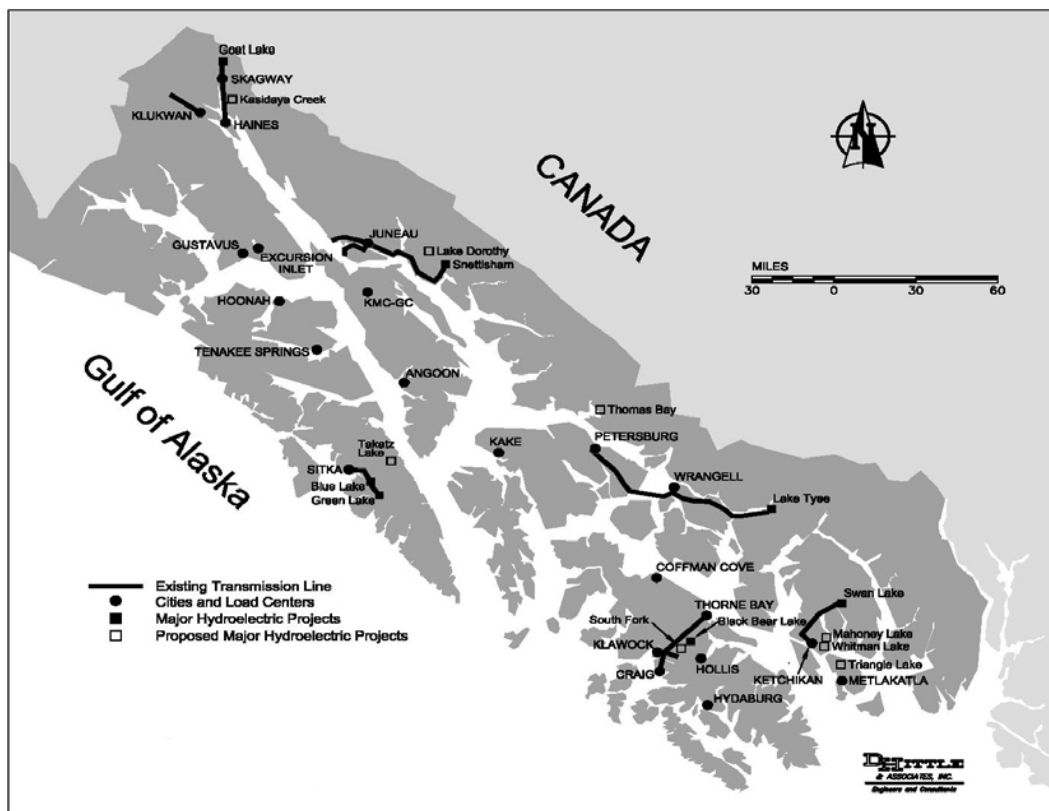


Figure 5. Southeast Alaska Hydropower Sites

Source: *NonRailbelt Report: Findings and Recommendations*, Alaska Energy Policy Task Force, April 15, 2004

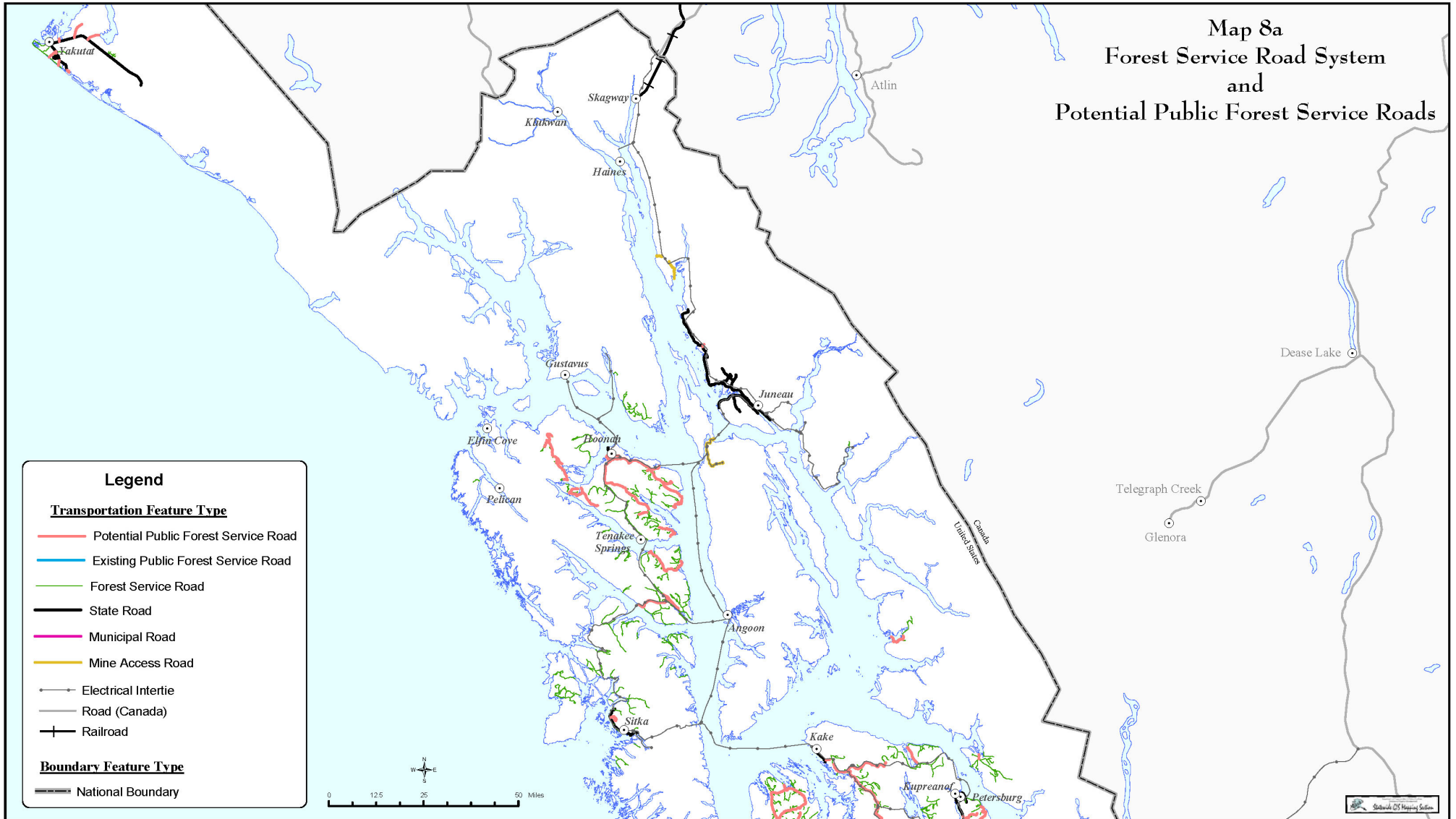


Forest Service as a Transportation Partner

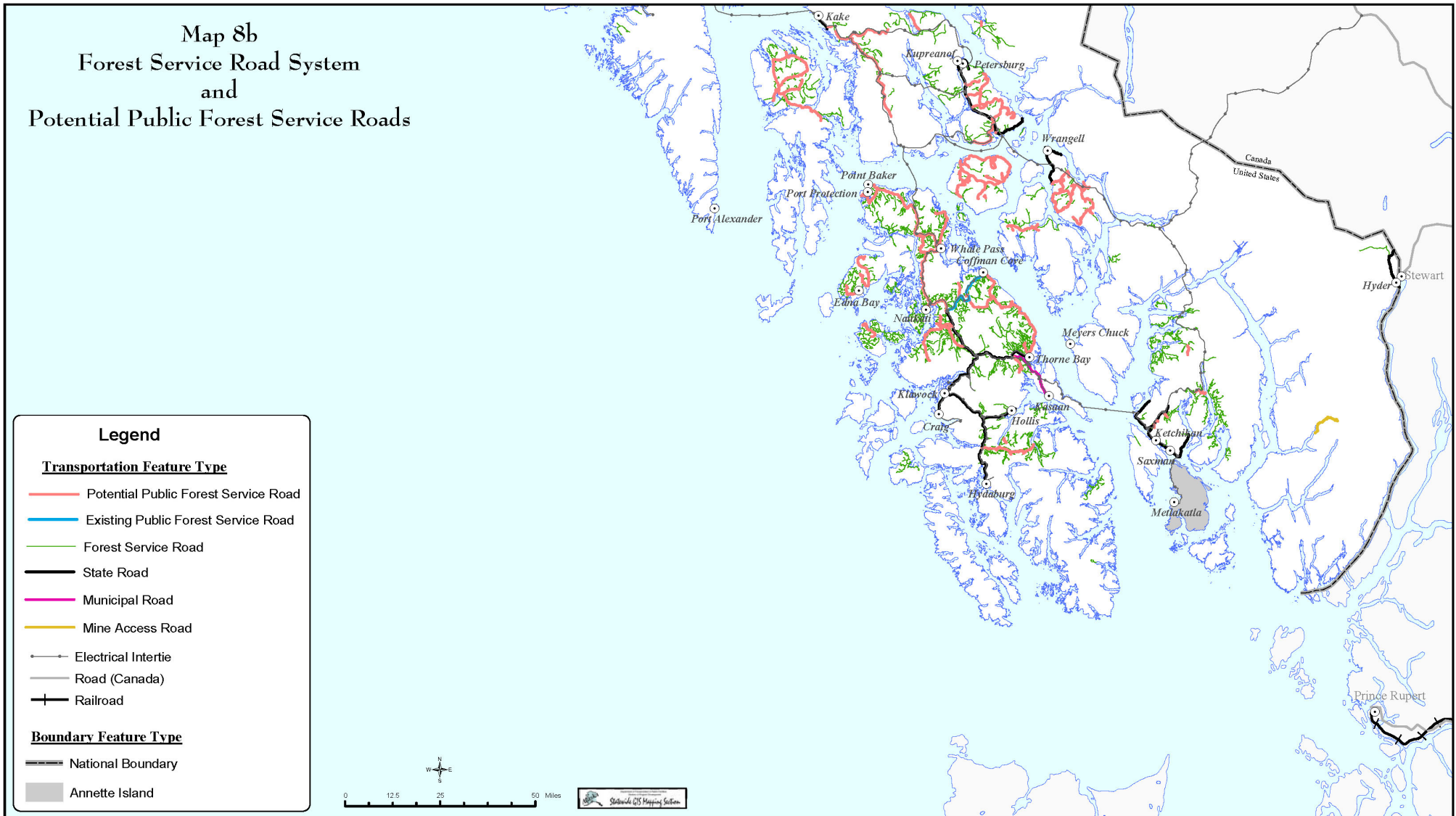
Forest roads play a vital role in management and protection of the Tongass National Forest. The Forest Service manages about 3,600 miles of classified Forest Service roads in the Tongass National Forest. Roughly a third of these roads are mainline logging roads suitable for passenger-carrying vehicles such as cars or buses. Another third are suitable only for high clearance vehicles like pickups and logging trucks. The remaining roads are not open to travel at this time.

These roads provide vital access to most natural resources, along with basic access to recreational, timber, and mineral resources in Southeast Alaska. Several communities depend on Forest Service roads to reach the regional transportation system. Many communities use these roads for access to the forest for subsistence food gathering, hunting, fishing, recreation, and other activities.

Maps 8a and 8b show the Forest Service roads. One-third of the mainline logging roads are on isolated road systems only accessible by boat or barge



Map 8b Forest Service Road System and Potential Public Forest Service Roads



and serve as higher-speed haul routes for timber sale access. Two-thirds of the mainline logging roads are connected to communities, providing access to the National Forest and connections between several communities.

The Forest Service used authorities included in the 1998 Reauthorization Act to assume public road roles for a key Forest Service road on Prince of Wales Island, the Coffman Cove Road. The Forest Service has proposed authorization of a Public Forest Service Road (PFSR) program that would enable the Forest Service to improve existing mainline forest resource roads and connect and extend them in support of the SATP.

A PFSR program in Alaska would allow rural communities to enjoy the benefits of a basic transportation infrastructure for the movement of people and goods between communities and would improve access to National Forest lands. Also, this improved road system would facilitate more recreation and tourism (and related employment and income) when it is connected with the expanded facilities and service that will soon be provided by the IFA.

Forest Service roads that serve isolated communities in Alaska are not built to state highway standards. Some small unincorporated communities lack the resources and financial capability to assume maintenance responsibility for roads, especially for long segments that are expensive to maintain. The Forest Service has responded by continuing operation and maintenance responsibilities, excluding snow plowing, for Forest Service roads that provide community access.

The proposed PFSR roads are shown on Maps 8a and 8b. The Forest Service recommends that, as funding becomes available, most of these roads be reconstructed to public road standards. Map 7 identifies the transportation and utility corridors considered essential to the state in ultimately connecting Southeast Alaska communities to the regional highway system and electrical power grid. (See Appendix A for additional detail.) As noted above, the state requests that the Forest Service reserve and protect these corridors to address both current and future transportation and utility needs. The state also requests that the Forest Service recognize state transportation corridors and support improving and connecting National Forest road segments within these essential road corridors as state priorities for development.

Demographics

After years of relative prosperity, communities are experiencing hard times and a collapse in income levels because of declining fish and forest products industries. Under these conditions, residents can no longer afford to pay premium prices for trips to and from their community of residence by air and ferry. In most parts of the country, affordable ways to make long-

distance trips are available. These opportunities need to be extended to Southeast Alaska.

Table 4 shows that per capita income in Southeast communities has declined since 1980. Because of lower incomes compared to other communities in the United States, residents of Southeast Alaska are less able to afford travel. The declining income demonstrates the critical importance of lowering transportation costs to residents of the region. Figure 6 charts decreasing population in Southeast Alaska, a trend attributed to declining resource industries.

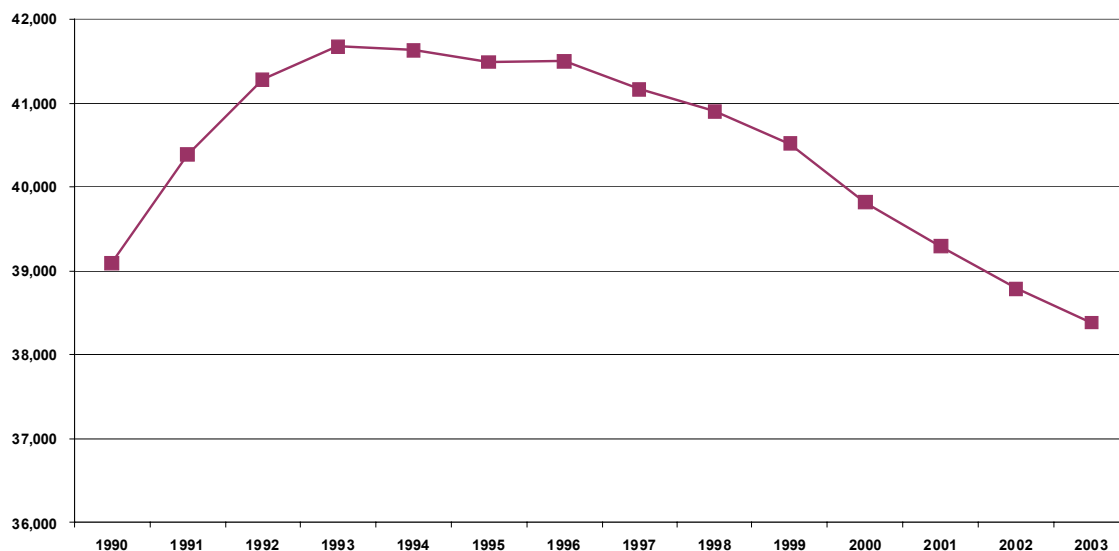
Table 4. Per Capita Income Trends

Community	Percent of U.S. Average		
	1980	1990	2001
Ketchikan	161	144	112
Juneau	188	136	113
Sitka	142	116	98
Prince of Wales Island/Outer Ketchikan Census Area	116	95	66
Wrangell/Petersburg	143	123	95
Haines	129	136	108

Prepared by the McDowell Group based on data from the U.S. Department of Commerce, Bureau of Economic Analysis

Figure 6. Southeast Alaska Population without Juneau, 1990-2003

Source: McDowell Group



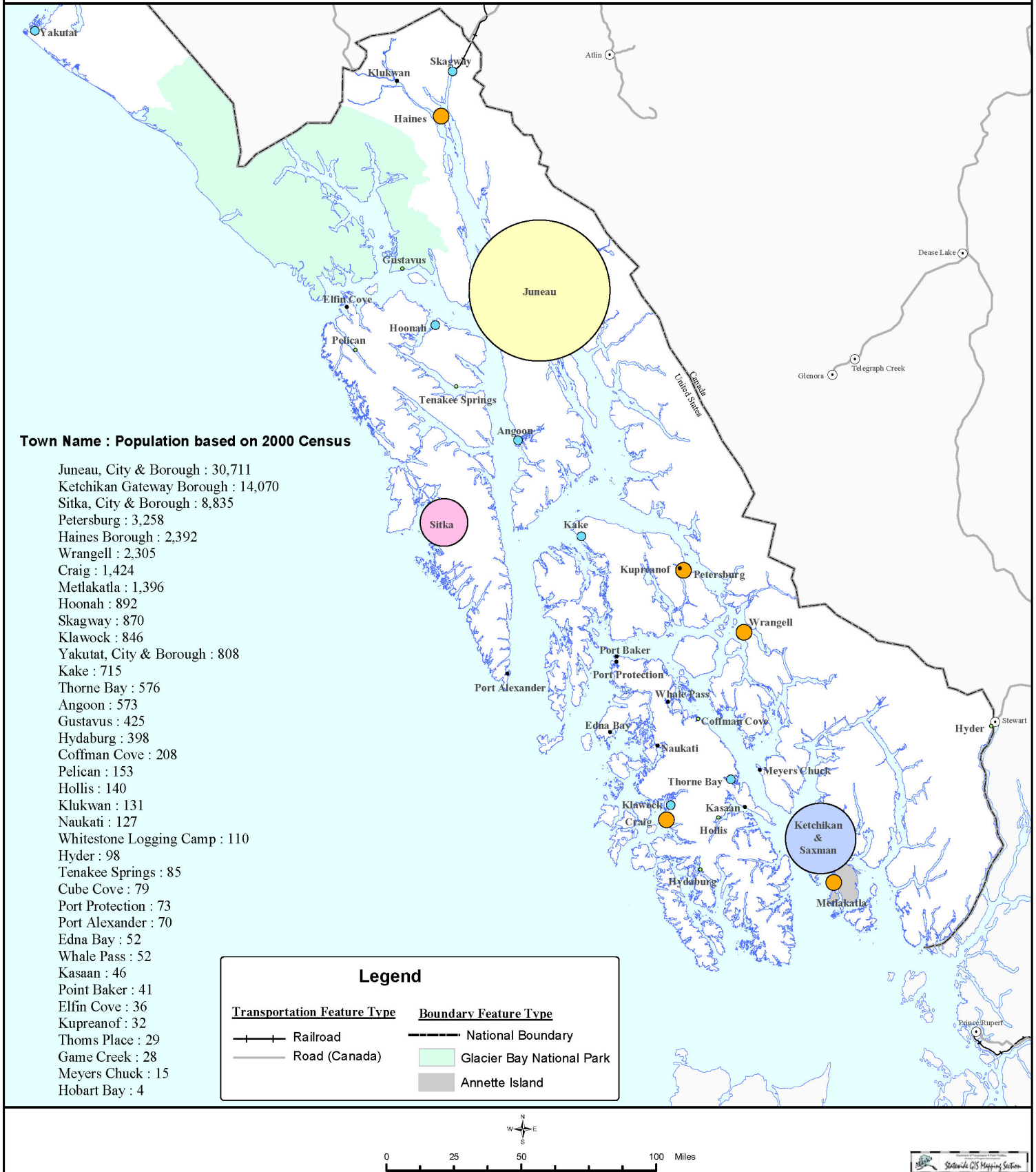
Existing Transportation System

The geography of Southeast Alaska affects mobility within and through the region. The area consists of isolated communities on the mainland, mountains to the north and east, major islands separated by multiple fjords, and water bodies throughout. From the northwest corner of the study area at Yakutat Bay to the southernmost point (Cape Muzon on Dall Island), the region is about 450 miles in length. Map 9 shows the population centers in the region.

Residents of the region are dependent on air and water transportation, rather than roads or rail, for travel between communities. This travel is characterized by long-distance movements, low traffic volumes, limited transportation modal choices, and wide seasonal variations in the level of travel demand. The regional transportation system incorporates the following components:

- Roadway networks within the various communities and on Prince of Wales Island. The only connections to the continental highway system are at Haines, Skagway, and Hyder.
- AMHS operates a fleet of 10 vessels, with 8 serving 14 ports in Southeast Alaska. In addition, AMHS sailings provide through service to two southern gateways (Bellingham, Washington, and Prince Rupert, British Columbia) and four northern gateways (Skagway, Haines, Whittier, and Valdez).
- IFA operates the *M/V Prince of Wales* from Hollis on Prince of Wales Island to Ketchikan and has funding to add a second vessel operating from Coffman Cove on Prince of Wales Island to Wrangell and Petersburg.
- Private ferry services that are primarily for passengers and generally connected to sightseeing and tourism, although at least one effort has also provided vehicle passage.
- Cruise ship activity in the summer months, on a fleet exceeding 20 large vessels and dozens of smaller vessels that brings significant numbers of visitors to the region. On many days each summer, the number of visitors and crewmembers visiting several small communities by cruise ship exceeds the local population.
- An airport system composed of 12 airports and 33 public seaplane floats, which are served by jet carriers such as Alaska Air, cargo airlines, and many air taxi operators.

Map 9 A Proportionate Depiction of Regional Population Centers



In general, ferry services are operated by the state through AMHS, which is an “essential part of the Alaska transportation system.”¹ IFA, and potentially other authorities, can play an important role in operating specific services.



AMHS provides access for commerce, education, medical care, and a wide variety of personal and commercial travel purposes. By bridging gaps in the highway system, AMHS plays a vital role in moving truck trailers (vans), which contain fresh and frozen fish, groceries and produce, and many items necessary for the viability of the communities served. AMHS is the primary means of moving personal vehicles into and out of communities in Southeast Alaska, and is the only way to take a vehicle from Southeast to either Interior Alaska or the Lower 48 without driving through Canada.

Recent Trends in Traffic Demand

Between communities in Southeast Alaska, the choice of travel mode has not changed appreciably in 25 years, except for extensions of the road network on Prince of Wales Island. This lack of change results in extensive use of air and ferry options.

Table 5² shows reported travel by air and ferry for Southeast communities. At most locations, passengers have a choice of traveling by air or ferry and the resulting choices vary by community. Air traffic has declined in the past few years in most communities, as it has throughout the state. See Figure 7. Travelers have cited higher fares to outlying communities as one factor; another factor is economic decline in key industries and a corresponding drop in local populations.

¹ Source: Alaska Statute, Title 19, Chapter 65, Section 50 (a) (1).

² Carrier reports are the source used to generate the totals in Table 5, which shows the level of long-distance travel to and from each community. Reporting practices differ by mode, and not all carriers report. Table 5 is accurate in terms of comparing relative magnitudes, but most counts would be adjusted if reporting were standardized. The graphs in Figures 7 and 8 that follow are also based on these reports, with some graphs including cruise ship passenger counts from the McDowell Group.

Table 5. Comparison of Air and Ferry Passengers, 1998-2002

Community	Calendar Year 1998		Calendar Year 1999		Calendar Year 2000		Calendar Year 2001		Calendar Year 2002	
	Air ¹	Ferry	Air ¹	Ferry	Air ¹	Ferry	Air ¹	Ferry	Air ¹	Ferry ²
Angoon	6,642	7,437	5,730	8,431	6,018	8,027	6,548	7,290	4,118	8,386
Gustavus	22,654	-	23,140	-	29,552	-	29,304	-	14,406	-
Haines	48,682	78,068	22,120	81,383	21,310	78,939	19,304	68,095	11,694	75,036
Hoonah	20,874	11,428	18,252	13,008	20,966	11,834	19,020	11,099	12,708	11,438
Juneau	766,236	142,550	755,118	160,227	787,810	149,602	804,234	126,547	706,002	143,550
Kake	10,654	3,133	6,932	3,849	7,508	3,987	6,696	4,112	4,212	4,617
Ketchikan	283,806	97,294	258,364	106,894	224,420	97,406	205,268	88,614	199,256	117,689
Ketchikan Harbor	73,166	-	68,882	-	92,384	-	76,154	-	86,892	-
Metlakatla	31,538	12,308	30,774	14,197	20,054	12,780	20,052	10,250	17,386	17,450
Pelican	2,254	1,472	2,044	1,486	2,020	1,163	1,780	1,384	1,836	1,411
Petersburg	38,770	21,925	35,910	24,510	37,996	22,040	36,584	21,547	33,688	21,917
Prince of Wales Island (Total)	30,032	41,663	29,048	43,516	30,978	39,806	27,960	37,424	19,530	52,137
Clark Bay Seaplane Facility	-	-	-	-	6,824	-	6,328	-	4,890	-
Coffman Cove Seaplane Float	2,486	-	1,410	-	514	-	338	-	272	-
Craig Seaplane Facility	10,784	-	11,796	-	12,804	-	7,934	-	7,810	-
Hydaburg Seaplane Float	1,494	-	378	-	72	-	264	-	96	-
Kassan Seaplane Float	1,844	-	910	-	518	-	-	-	-	-
Klawock Airport	-	-	7,800	-	4,936	-	6,820	-	1,712	-
Thorne Bay Seaplane Float	13,424	-	6,754	-	5,310	-	6,276	-	4,750	-
Sitka	134,842	32,601	136,924	31,004	136,004	26,401	145,824	27,300	140,190	27,260
Skagway	61,836	70,174	22,042	70,930	46,004	68,506	20,336	56,611	12,578	63,360
Tenakee Springs	1,030	2,401	2,144	2,537	2,718	2,363	2,548	2,274	1,892	2,552
Wrangell	28,554	14,976	27,810	16,440	26,118	14,989	20,462	14,415	18,434	15,739
Yakutat	28,608	53	29,404	120	30,716	134	29,530	168	23,406	138
Regional Totals	1,590,178	537,483	1,474,638	578,532	1,522,576	537,977	1,471,604	477,130	1,308,228	562,680

¹ Estimate based on traffic data reported to ADOT&PF and Federal Aviation Administration.

² 2002 ferry traffic for Hollis and Ketchikan includes IFA traffic, in addition to AMHS traffic.
Source: ADOT&PF

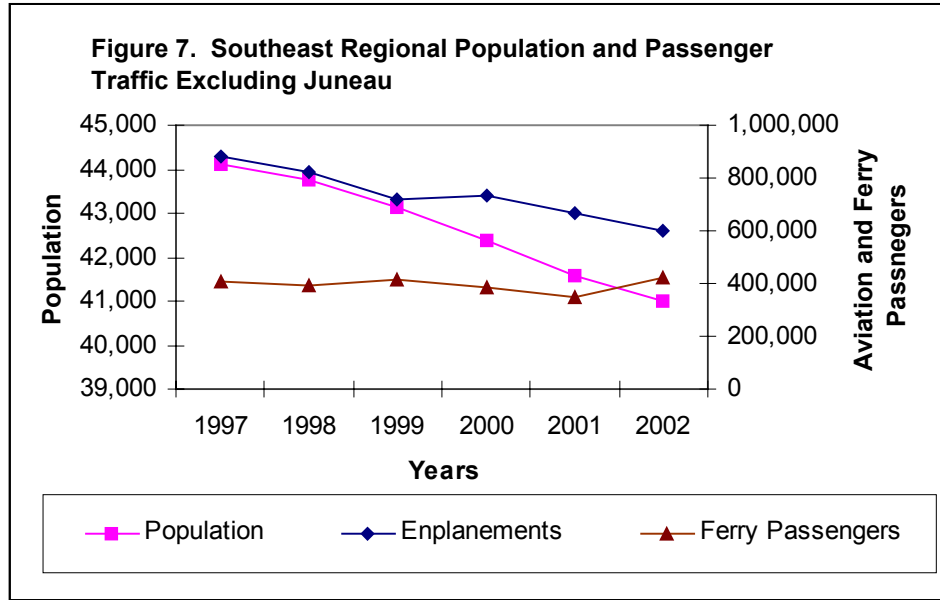


Figure 8 presents community graphs depicting travel activity. There are major differences in the level of activity, and the scale is adjusted accordingly. Six communities are regular ports of call for large cruise ships, and these totals are included in the graphs for these communities.

Twenty years ago, the majority of tourists destined for Southeast Alaska arrived on the marine highway system; a smaller proportion arrived by air. Although tourists still constitute a large proportion of AMHS passengers, many tourists now arrive by cruise ship (almost 50 percent of tourists). Airline service to and within Southeast Alaska has improved dramatically since the mid-1960s; about one-third of visitors now arrive by air. Tourist demand for ferry use remains heavy during the summer months. However, overall ridership has remained “flat” during the past ten years. In some portions of the ferry system, tourist ridership has declined because of improvements in private-sector alternatives such as air travel and cruise ships, which have been able to expand capacity and service to meet the increased demand.

AMHS has been pulled in opposing directions because of such a large component of tourism activity. AMHS plays an essential role in the transportation system by providing steady and stable service to Southeast communities while enhancing the visitor industry through a dependable pattern of service. The imperative to serve Alaskan communities and regional needs, the original basis for creation of the ferry system, remains important. Serving the tourism industry also offers clear benefits. Tapping the market potential of the visitor industry has proven to provide a significant revenue source for the system. However, caution must be exercised in increasing fleet capacity to service a highly seasonal tourist traffic demand if the additional capacity cannot be effectively utilized or

Figure 8. Air, Cruise, and Ferry Passengers in Southeast Communities, 1998–2002

--- Air Passengers ◆—◆ Cruise Passengers — Ferry Passengers

Air passenger totals are estimated to be twice the number of enplaned passengers that are reported to the Federal Aviation Administration. Because the number of passengers arriving and departing at an airport are assumed to be equal over the long term, doubling the enplaned passengers yields a number that can be compared directly to the sum of embarking and disembarking ferry passengers. The air passenger total is considered to be conservative because the number of enplaned passengers is known to be under-reported in many cases. *Cruise passengers* are the total passengers reported by ports (data provided by McDowell Group). *Ferry passenger* totals are the sum of passengers embarking and disembarking at a port.

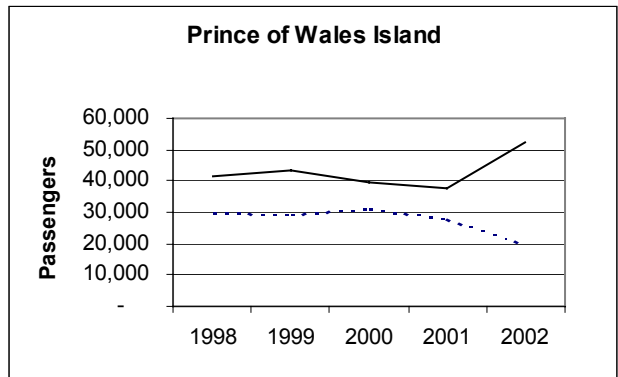
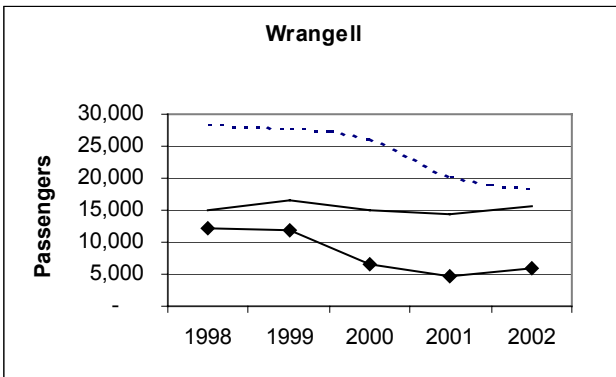
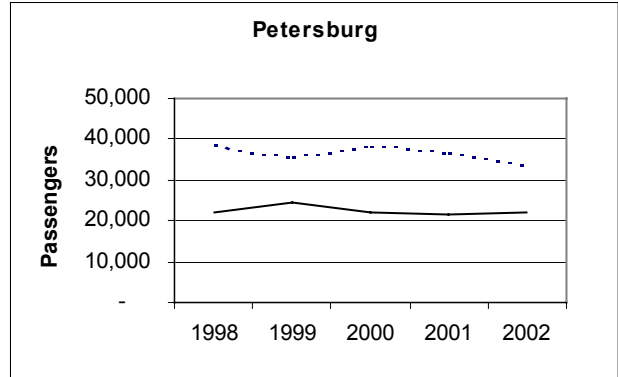
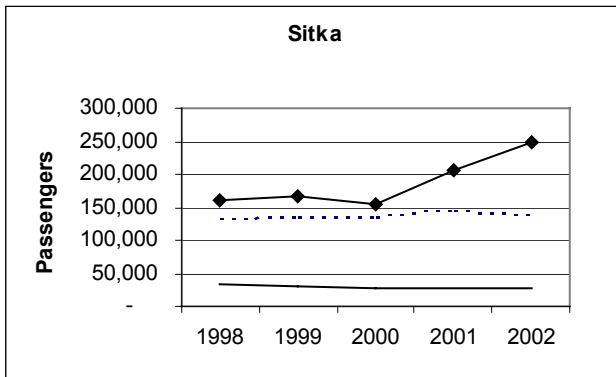
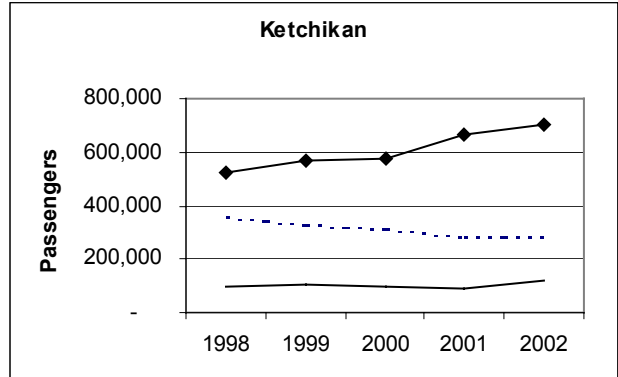
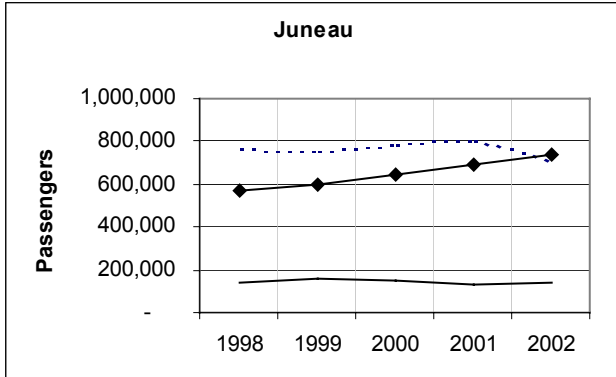
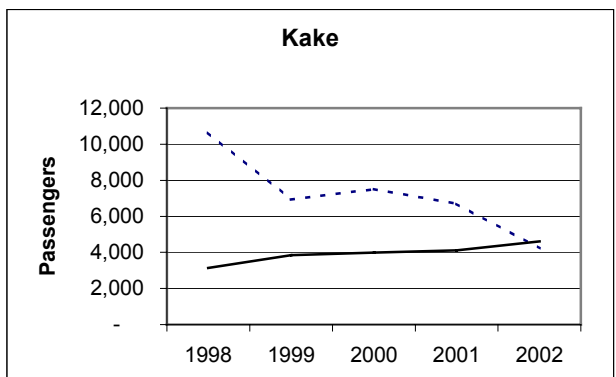
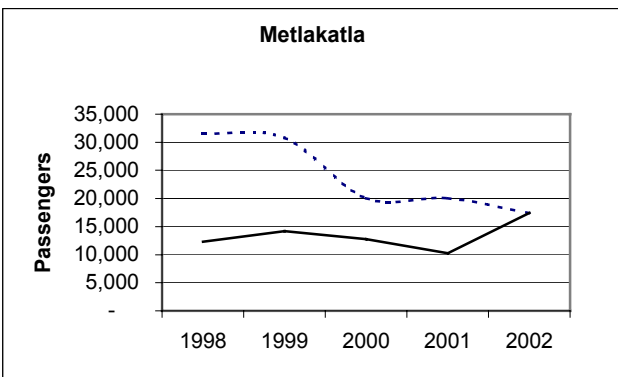
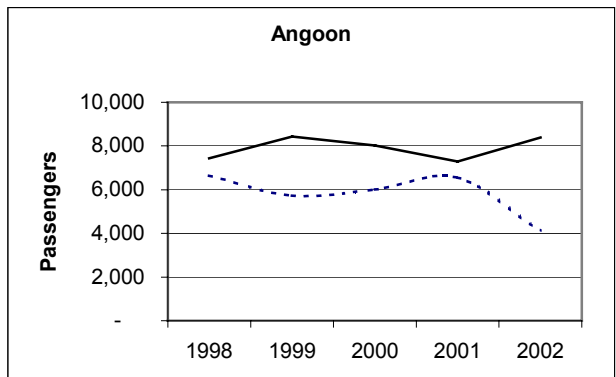
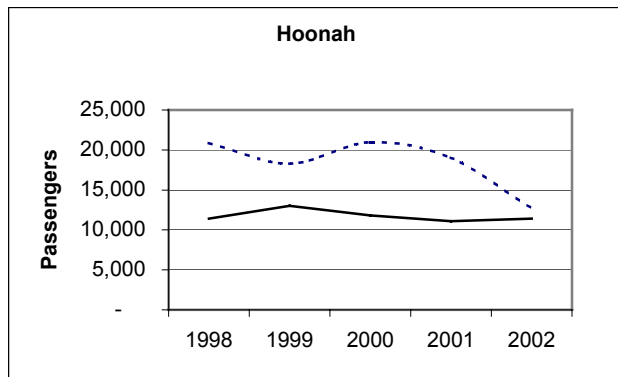
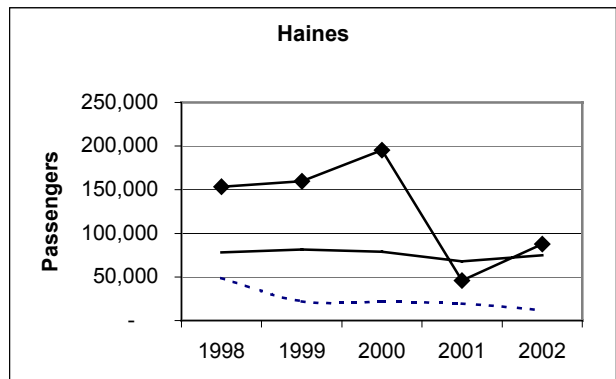
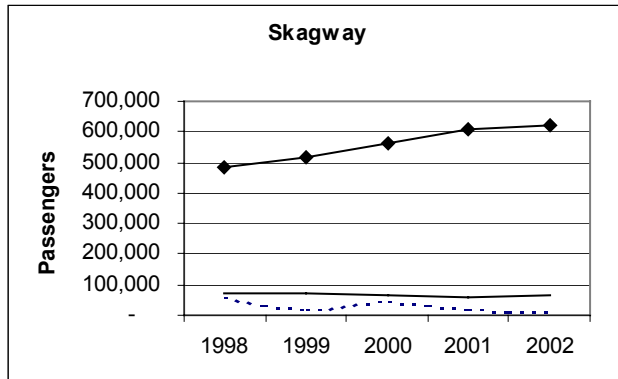


Figure 8. Air, Cruise, and Ferry Passengers in Southeast Communities, 1998–2002 (continued)

----- Air Passengers ◆—◆ Cruise Passengers — Ferry Passengers

Air passenger totals are estimated to be twice the number of enplaned passengers that are reported to the Federal Aviation Administration. Because the number of passengers arriving and departing at an airport are assumed to be equal over the long term, doubling the enplaned passengers yields a number that can be compared directly to the sum of embarking and disembarking ferry passengers. The air passenger total is considered to be conservative because the number of enplaned passengers is known to be under-reported in many cases. *Cruise passengers* are the total passengers reported by ports (data provided by McDowell Group). *Ferry passenger* totals are the sum of passengers embarking and disembarking at a port.



economically removed from service during the off season. Removing large vessels from service during the off season can prove costly. The cruise ship and airline industry redeploy their fleets to markets outside the region and state during the off-season, an option AMHS does not have.

IV. SHAPING THE PLAN

The planning process poses a basic question – are the previous efforts achieving the desired improvements in regional transportation capabilities? In particular, are travelers more mobile in terms of their ability to make a trip at a time of their choosing? Are there impediments to trip completion, such as lack of capacity? Can travelers reach their destination point at the desired time with a minimum of delay and inconvenience? Are there changes in the cost to the traveler? Do state facilities and services needed for regional travel operate in a safe and cost-effective manner?

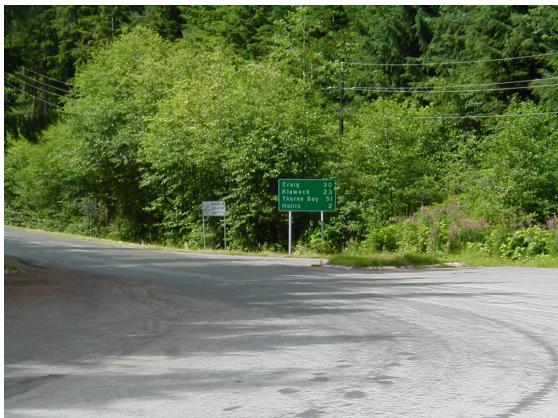
In providing regional transportation, the existing capabilities of the aviation system are profoundly different from the existing capabilities of the surface network of highways and ferries. In terms of the current activities of air carriers, aviation facilities are mostly in place and provide adequate support for scheduled operators, cargo shippers, flightseeing, and itinerant movements. On the other hand, the surface network is in its infancy in terms of matching the operating range of those who drive.

Alaska has a developing economy and only a rudimentary highway system. There is unmet transportation demand for travel through the region and between the region and the continental highway system that could be addressed by extension of the regional highway system. This plan seeks those opportunities where highway construction will boost mobility in the region and establish more efficient community access. Where these links can be added, they will establish the prerogative of individual choice in the making of travel plans while lowering costs to both the traveler and the travel provider.

Along these lines, the planning team examined new approaches to improving regional transportation links in the context of the following mission statement:

SATP Mission Statement

To increase system capacity and improve efficiency, shift from a surface network that is based on long-distance ferry runs to a surface network that relies on land highways to connect communities and other destinations. Land highways will dramatically expand activity and mobility by increasing traveler flexibility, choice, and speed while reducing or eliminating toll costs.



In allocating resources, a distinction is made between critical basic transportation service and supplemental or alternative transportation service. If alternative transportation (provided by routes, services, or both) is available or can be provided, the need to continue (or the need to provide supplemental service) should be evaluated to identify cumulative benefits and costs to the transportation system and its users. The ideal transportation solution is one that provides equal service to each community at

the same cost to both the user and the government for each user served. Implementation of the ideal solution is challenged, however, by differences in demand and by isolation from the primary routes between the population centers that generate the largest amount of traffic. Consequently, in the interest of overall system users, compromises must be made.

Transportation service routing and scheduling decisions should be based on maximizing the overall system user benefits, versus benefiting a few users at the expense of the majority of the users. Decisions should be made to promote the most free and unrestricted movement of the greatest number of users possible between the communities and through the region by using the available transportation resources at the least cost to both the user and the state.

SATP Transportation Goals, Objectives, and Performance Measures

Transportation goals have been reordered and revised to reflect the expanded SATP focus on improving system efficiency and mobility in support of the regional economy. During the past decade, the regional economy has been in a state of decline. Because transportation is the backbone of the regional economy, improvements in mobility and transport efficiency will be critical to promoting a strong and healthy economic climate in the future. The SATP goals have been structured to emphasize the need for a more efficient transportation system to foster future economic growth.

Goal 1: Transportation System Efficiency – Provide regional transportation facilities and services in the most efficient and cost-effective way possible

Objectives

- Implement transportation improvements that reduce overall regional system operating costs.

- Develop ferry route options and road-shuttle ferry combinations to improve service at lower cost to the user and the state.
- Develop airport and seaplane facility improvements that improve the efficiency of air transportation.
- Provide public infrastructure and services in support of a healthy competitive commercial environment in the provision of commercial air, marine, and land transportation services in Southeast Alaska.
- Utilize ferries designed to serve specific travel markets in the most efficient manner.

Performance Measures

- Travel time between communities.
- Cost to travel between communities.
- Transportation costs for person trips and for goods movement.

Goal 2: Transportation Mobility and Convenience – Improve the mobility and convenience of the regional transportation system in Southeast Alaska

Objectives

- Provide more frequent transportation services that reduce duration between opportunities to travel between communities.
- Reduce the time required to travel between communities through faster modes of transportation.
- Provide more choices of transportation modes or options for travel between communities at convenient times of the day.
- Improve reliability of service.
- Improve connections and scheduling between transportation modes to reduce waiting times.
- Provide convenient “real time” information to travelers so that they can plan their travel more efficiently.

Performance Measures

- Average time required to travel between communities in Southeast Alaska.

- The likelihood that travelers in any community in Southeast Alaska can make the journey to and between the communities of Ketchikan, Juneau, or Sitka in one day, without having to spend the night en route.
- Frequency and timing of regional transportation connections between communities. (Examples include the number of ferry stops per week, number of commercial flights per week, schedule of arrivals and departures of ferries and air service, and ability to drive between communities.)

Goal 3: Economic Vitality – Support local economic development and strength through the provision of adequate and affordable transportation for people, goods, and vehicles

Objectives

- Develop transportation improvements that reduce user costs, increase mobility, and improve level of service.
- Provide public infrastructure and services in support of a healthy competitive commercial environment for the provision of commercial air, marine, and land transportation services in Southeast Alaska.
- Provide public transportation services to bridge transportation gaps that are uneconomic for commercial carriers to serve.

Performance Measures

- Reduction in user costs.
- Improvements in level of service.
- Changes in the amount of travel to and from individual communities following transportation system improvements.
- Post-construction economic impacts of transportation investments in local communities.

Goal 4: Transportation System Safety – Improve the overall safety and reliability of the regional transportation system in Southeast Alaska

Objectives

- Implement improvements in air and marine navigation systems.
- Implement safety improvements to the regional airport and highway infrastructure.
- Provide pilot and driver education safety programs.

- Support safety inspections of aircraft, vehicles, and marine vessels.
- Increase modal choices.

Performance Measures

- Accident rates per 100,000 people by transportation mode.
- Frequency of incidents that interrupt inter-community travel in Southeast Alaska.
- Frequency of opportunities for isolated community residents to travel to health care providers.

Goal 5: Long-Term Funding Stability – Secure stable long-term funding to implement the Southeast Alaska Transportation Plan

Objectives

- Pursue federal funding to the fullest extent possible in support of implementation of SATP transportation improvements.
- Ensure that funds generated by specific transportation facilities and services are returned to support the operation and maintenance of that facility or service.
- Foster partnerships among local communities (public and private sectors) to provide inter-community transportation facilities and services.

Performance Measures

- Total transportation resources by source available for Southeast Alaska.
- Stability and predictability of funds over time.

Goal 6: Consultation with Affected Communities, Tribal Entities, Business, and the Public and Provision of the Opportunity for Public Comment – Inform and provide opportunity for community, tribal, business, and public input

Objectives

- Consider affected community, tribal, business, and public interests in decisions about transportation system needs and investments.
- Encourage participation by affected communities, tribes, businesses, and the public in review and comment on the development and provision of transportation facilities and services.

- Encourage participation by governmental resource agencies and conservation groups in review and comment on the development and provision of transportation facilities and services.

Performance Measures

- Number of meetings and opportunities for local government, community, tribal, business, and public input into the planning and project development process.
- Number of opportunities and media utilized to inform community, tribal, business, and public interests.

Goal 7: Continuation of the Planning Process – As appropriate, integrate political and project (environmental and design study) decisions into the SATP by amendment

Objectives

- Maintain a continuing and dynamic regional planning process.
- Carry out detailed social, economic, and environmental studies of regional system plan components during project planning and development phase.
- Periodically update the SATP in response to the findings, recommendations, and decisions issuing from project planning, environmental, and design studies.
- Periodically update the SATP as appropriate in response to political decisions with respect to improving the regional transportation system and providing state transportation services.

Performance Measures

- Up-to-date content of the SATP.
- Timely amendments to incorporate new information between periodic updates.

V. PURPOSE AND NEED

Previous work on the SATP served as the starting point for defining the broad “tests” used to assess and select proposed transportation improvements. The expression of these tests is termed Purpose and Need. This term is borrowed from federal regulations that implemented the National Environmental Policy Act (NEPA). While under NEPA this term is specifically defined, the SATP update uses the term Purpose and Need in a broader fashion that is conceptual in nature and thus more flexible in its application. This chapter identifies an overall Purpose and Need for regional transportation improvements and provides supporting information for its components.

Generally speaking, Purpose and Need is used to evaluate which set of improvements does the best job of moving the regional transportation system toward the desired condition. It is most useful in identifying and tracking the key characteristics that the proposed improvements need to have, and measuring the effectiveness of these characteristics in delivering improvements in performance.

State transportation improvements need to serve the best overall public interest as they respond to changes in public travel needs. In identifying Purpose and Need, the SATP update relies extensively on expressions of transportation need, as previously documented in the 1999 SATP and as indicated by the public during the update process.

Purpose and Need Statement

To address the unique characteristics of the Southeast Alaska setting by calling for transportation improvements that lessen the isolation between communities, add or improve long-distance connections, increase mobility and lower costs to the user, and respond to financing concerns while providing transportation capacity that meets regional transportation needs.

Purpose and Need consolidates nine strategies, which are discussed by topic area in Table 6 on the following page.

Table 6. Purpose and Need Strategies

Topic Area	Strategy	Transportation Concepts	Expression of Concerns
Roads	Where possible, shift to a surface network that relies on land highways to connect communities and other destinations.	<p>Construct roads to increase capacity and improve the efficiency of the transportation system. Shifting from a surface network that is based on long-distance ferry runs and shortening ferry routes will substantially improve the overall system.</p> <p>Transportation connections are a prerequisite for exchanges between population centers. The public is likely to travel for many reasons, but can be deterred by high cost, lack of service, and difficulties in matching travel plans to restrictive schedules.</p> <p>Land highways require fewer staff to maintain and allow expanded user choice and flexibility.</p> <p>A more self-sufficient system improves sustainability, ensuring service over the long term.</p>	<p>Less than 10 percent of the regional population can reach the nation's highway system without paying a toll and waiting for a scheduled sailing.</p> <p><u>Household Survey (1997)</u>: Nearly every community expressed strong support for faster trips, which implies that total travel time is an important consideration in trip-making decisions.</p> <p><u>Household Survey (1997)</u>: 68 percent said they would travel more if "daily round-trips" could be accomplished.</p> <p>The <u>Advisory Committee (1997-1998)</u> frequently emphasized that the need to reduce the level of user costs and state costs was a defining goal of the plan.</p>
Emergency response	Add travel options that can be used to reach those in need, and move the sick and injured to treatment facilities where they can be stabilized.	<p>Time is a critical factor when responding to emergencies and transporting those in need of treatment. The most versatile and generally fastest way of reaching incident scenes is by vehicle if a highway is available for this purpose.</p> <p>All-weather surface connections to airports are needed so that medivac aircraft can be used to reach specialized treatment facilities.</p>	The public places immediate, effective response to emergencies at the top of the priority list. Reasonable actions that improve response time and effectiveness are broadly supported.

Table 6. Purpose and Need Strategies

Topic Area	Strategy	Transportation Concepts	Expression of Concerns
Weather conditions	Add travel options that are less sensitive to problematic weather conditions such as reduced visibility, low cloud ceilings, and high winds.	<p>Limited visibility (due to weather) or high winds do not close a highway. The driver is responsible for making appropriate choices in terms of traveling the route, and has more flexibility to take advantage of breaks in the weather.</p> <p>Pilots are prohibited from flying when visibility is below minimums, and often encounter worsening conditions during a flight. High winds may interrupt or cancel service.</p> <p>Ferries are able to operate under most weather conditions, with larger vessels having the greatest capabilities. High winds may interrupt or cancel service, particularly for smaller vessels.</p>	Flight delays and cancellations due to weather are common in Southeast Alaska, particularly in the winter months. Poor weather conditions can result in multi-day gaps in service, with planes not able to fly until conditions improve. These gaps are particularly problematic in emergency situations, such as when a medical evacuation is required.
Landing and take-off mishaps	Expand the surface area that surrounds the paved runway so that it is available to errant aircraft.	Various circumstances can lead to a situation in which an aircraft requires a firm surface area adjacent to the paved runway. These circumstances include pilot error, equipment malfunctions, mechanical failures, poor weather conditions, and sudden shifts in wind.	Expansion of each runway safety area (the surface area around the runway) is a national initiative of the Federal Aviation Administration. In Southeast Alaska, most airports with daily jet operations have little surface area beyond the edge of the paved runway.
Readiness	Ensure that basic transportation capabilities are in place so that they are available for evacuation and defense purposes.	Transportation facilities serve many purposes. While all too often ignored, the capabilities they provide are critical in the aftermath of a natural disaster or when needed in response to threats or attacks.	A primary justification for continuing the federal role in financing transportation improvements is the defense and disaster response capabilities that they provide.
Demand	Plan for future activity and use so that peak demand is accommodated in a cost-effective manner.	Facilities are sized and improved based on demand projections. Reports of existing use are carefully evaluated, along with analysis of possible new sources of activity and use.	Demand exceeds capacity on several surface links, in both summer and winter. Capacity shortages prevent some travelers from making the trip, force changes in mode selection, and require that others alter their travel plans by lengthening (or not making) their trip.

Table 6. Purpose and Need Strategies

Topic Area	Strategy	Transportation Concepts	Expression of Concerns
Cost	Where possible, use standard state practices for financing transportation facilities. Reduce overall costs to the public and state	<p>Employ existing roads and construct highways to reduce ferry route distances and thereby reduce customer costs because roads are less costly to use than ferries.</p> <p>Dayboats operate with fewer crewmembers, which leads to lower operating costs, lessening pressure to increase fares.</p> <p>Increase ferry system ridership and fare revenue by making the system more attractive to users in terms of frequency, travel time, and convenient time-of-day operations.</p> <p>Decrease operating costs by reducing ferry route distances and using smaller, less costly ferries.</p>	<p>The <u>Advisory Committee</u> (1997-1998) emphasized that the need to reduce the level of user costs and state costs was a defining goal of the plan.</p> <p><u>Household Survey</u> (1997): Nearly half of all households felt lower costs would increase their travel on AMHS.</p> <p><u>Customer Survey</u> (1998): 67 percent of Southeast residents said the vehicle fares were “too high” and 56 percent said passenger fares were “too high.”</p>
Hard times	Lower costs to the user by shifting to transportation arrangements that do not require special charges or other impositions on travelers.	Lower cost transportation is essential to American prosperity, Alaskan competitiveness, population growth, and increasing mobility. Over time, economic activity shifts from higher cost locations to lower cost settings.	Because of economic difficulties, residents of Southeast Alaska cannot afford always having to pay fares for long-distance travel between communities. Both air and ferry options are expensive, and there is no alternative for most personal and business trips.
Security	Identify and remedy vulnerabilities of transportation facilities to damage and destruction from physical attacks.	Some elements of the system are more vulnerable to attack than others. The capabilities that transportation provides are lessened, and may be lost, if attacks against critical links or elements are successful.	It is a national priority to assess where the weak points in transportation are, and to take measures that lessen the likelihood of successful attacks and shield facilities from damage during possible attacks.

VI. LONG-TERM VISION

This chapter describes the long-term vision for the surface elements of the regional transportation system. During the interim, ferry connections will continue to bridge waterways to provide surface transportation between communities. For several community pair connections in the region, it is not feasible to shorten or replace the ferry route with a bridge or road. However, a number of opportunities exist to replace or shorten ferry routes and connections by construction of roads and bridges.

Surface transportation development priorities over the next 20 years are depicted on Map 2. (Maps 2 and 3 are repeated on the following pages.) The ultimate highway development plan and proposed highway designations are depicted on Map 3. Map 10 portrays the planned Southeast Alaska airport system. The proposed improvements are based on the following mission statement (discussed in Chapter IV):

SATP Mission Statement

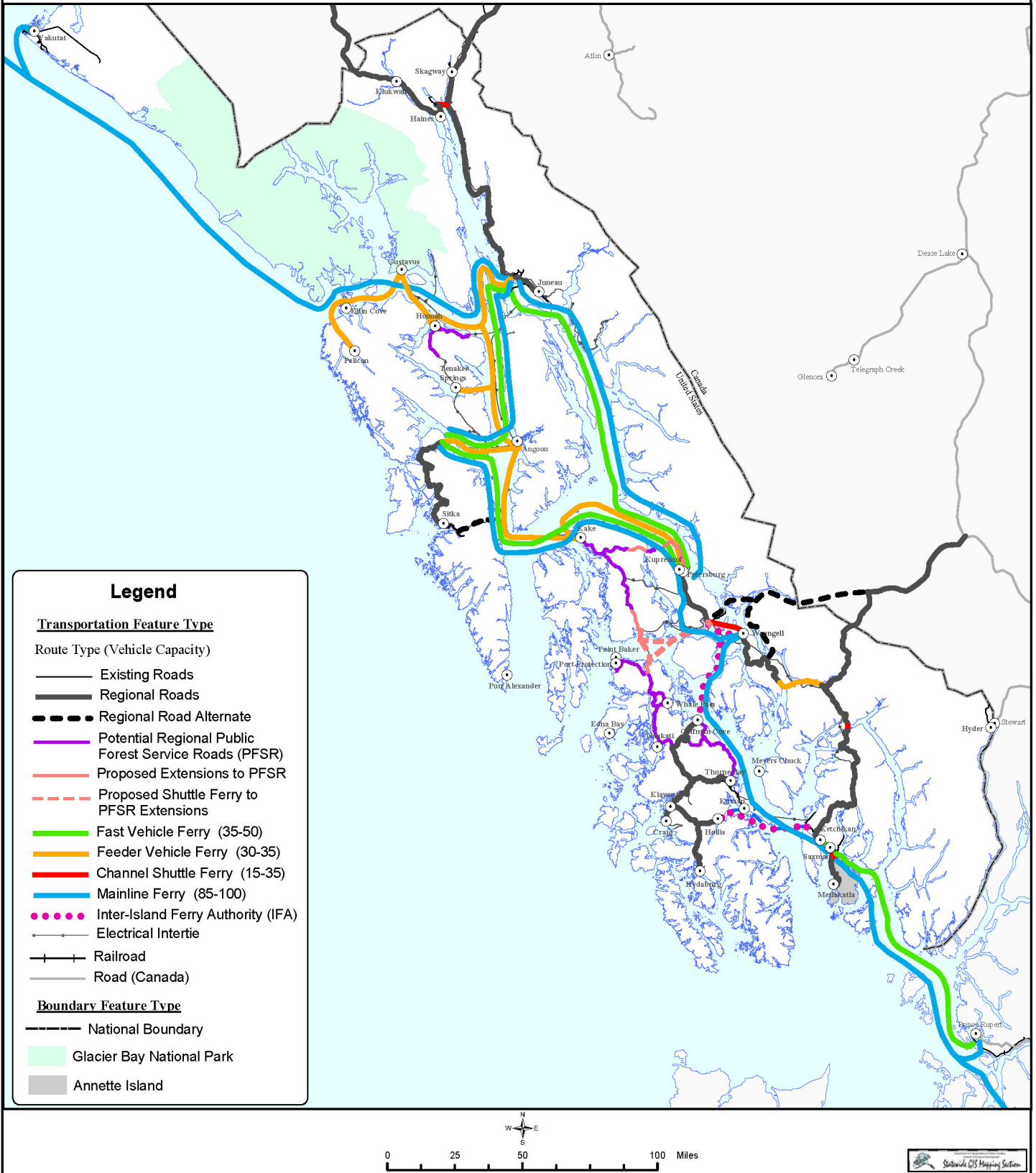
To increase system capacity and improve efficiency, shift from a surface network that is based on long-distance ferry runs to a surface network that relies on land highways to connect communities and other destinations. Land highways will dramatically expand activity and mobility by increasing traveler flexibility, choice, and speed while reducing or eliminating toll costs.

The land highways and connecting ferry links that make up this vision do the best job of completing a surface network for Southeast Alaska that meets Purpose and Need (Chapter IV). This network serves the best overall public interest for future state investments in the regional transportation system. The improvement efforts of others, especially the Forest Service, are also supported by this planning effort. Chapter III describes the state's relationship to the initiatives of the Forest Service.

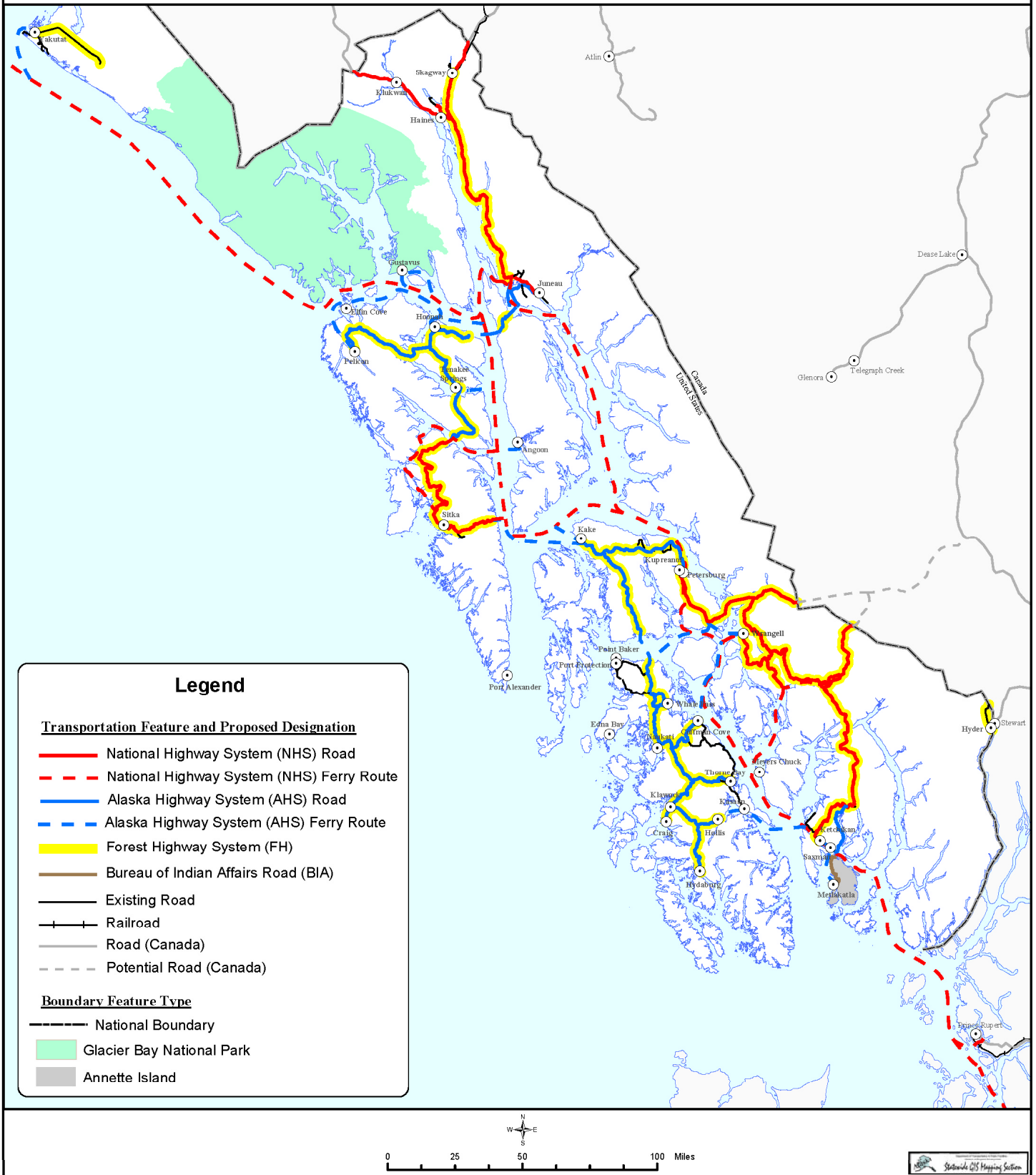
The 20-year plan depicted in Map 2 relies on new highways that provide through connections to the continental highway system from the two most populous communities. Ferries continue to play a vital role in bridging gaps in the highway system.

This chapter examines transportation elements that include road and marine transportation for regional and community access, regional aviation improvements, and computer and communication technology. The development of cost estimates also is discussed. The following section describes the primary regional system proposed to carry traffic between the

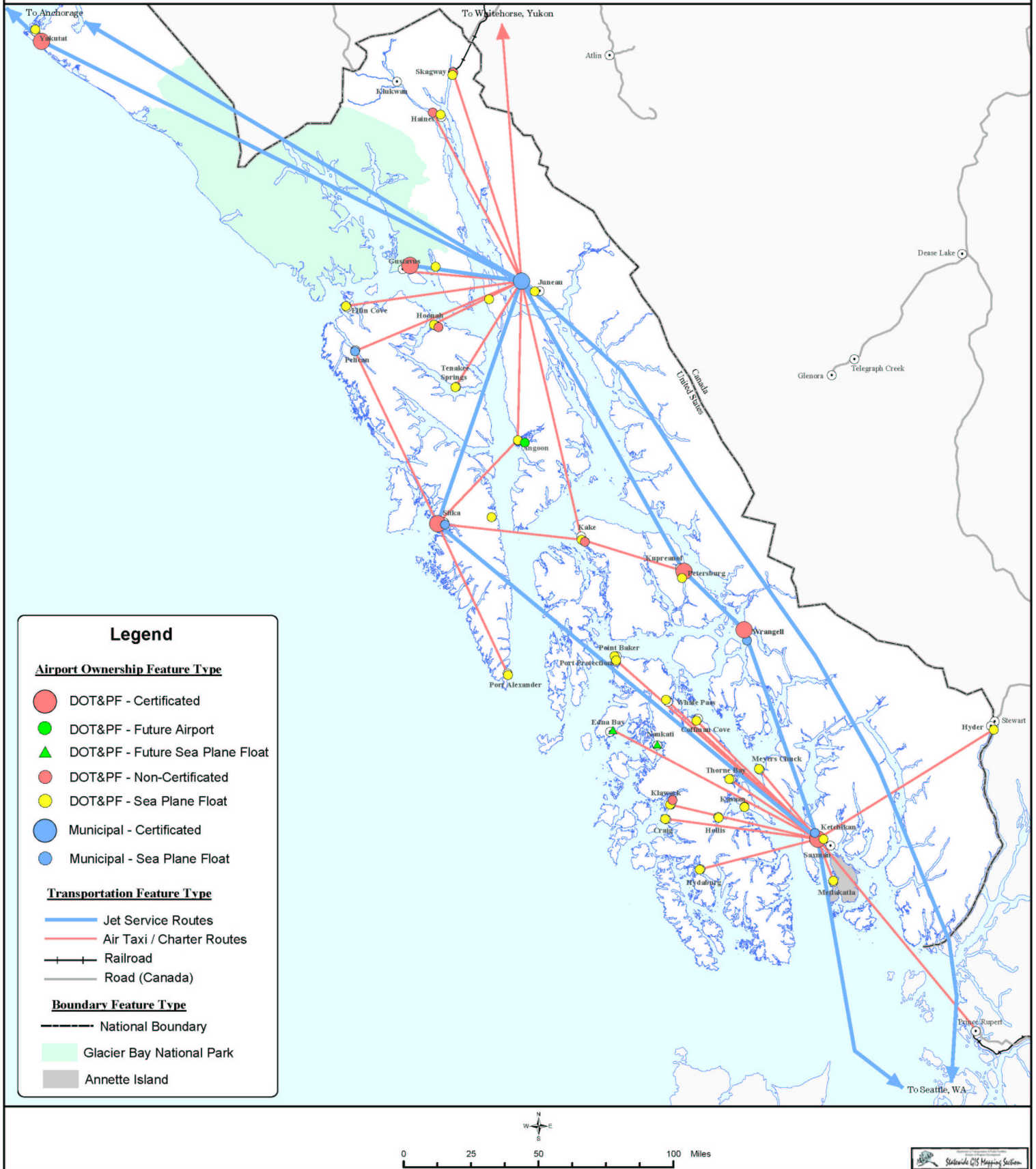
Map 2 Southeast Alaska 20 Year Transportation Plan



Map 3 Ultimate Regional Highway Development Plan



Map 10 Southeast Alaska Airport System Plan



principal Southeast communities and through and between the region and the rest of the world.

Regional Highway System

Regional Road Element

Juneau Access — Lynn Canal Highway (Juneau – Skagway)

The purpose of the SATP preferred alternative is to remove the gap that prevents the land highway network from reaching Juneau, and to make it easier to travel between Haines, Skagway, and Juneau (the Lynn Canal Corridor). Juneau is the largest community on the North American mainland without a highway connection to the continental highway system. Removing this gap can be accomplished by construction of a highway between Juneau and Skagway. The SATP recommends construction of a highway between Juneau and Skagway with a short shuttle ferry connection between Haines and a new terminal at the Katzeihin River delta. Ultimately, when traffic demand warrants, the Haines shuttle ferry can be replaced with a bridge. A breakout of the cost estimate for the preferred alternative follows:

Construction of 68 miles of roadway	\$265,000,000
Construction of Katzeihin Ferry Terminal	\$15,700,000
Refurbish <i>Aurora</i>	\$5,000,000
Total	\$285,700,000

The annual operation and maintenance cost is estimated at \$1.5 million for the road and \$2.9 million for the shuttle ferry.

Mid-Region Highway Access to the Continental Highway System (Bradfield Road)

This highway corridor would connect Ketchikan, Wrangell, and Petersburg to the Cassiar Highway in Canada. A route has not been selected between the terminus (on Bradfield Canal) of the proposed Revillagigedo Highway connection to Ketchikan and the future highway junction in Canada. The basic choice is between one of two large river valleys on the Alaska side of the border. There is also the question of how to link Wrangell and Petersburg. In Canada, construction of new highway is required to reach the international border. The associated international coordination complicates, and potentially delays, the use of federal funds on Mid-Region Access, including environmental analysis.

This new highway would provide a regional highway connection for Southeast Alaska that has no counterpart today. A mid-region highway connection extended to Ketchikan would reduce reliance on ferry

transportation to support the regional economy. A highway connection to Ketchikan would enable further reduction in the mainline fleet which will be pursued, if continued service to Prince Rupert and Bellingham requires a state subsidy. Planning-level cost estimates are not available for all corridors. For the Bradfield corridor from the border to a ferry terminal at Duck Point on the Bradfield Canal (including extension of Zimovia Highway from Wrangell and construction of a ferry terminal at Fools Inlet), the planning-level estimate for design and construction is \$314 million, including terminals. This estimate for the Bradfield Road includes a high-cost feature – twin single lane tunnels approximately 1.6 miles in length. Annual road maintenance costs are estimated at \$507,000 plus \$1.7 million to operate the Bradfield Canal ferry.

Revillagigedo Highway

This highway will extend north from the Ketchikan road system across Revillagigedo Island and the upper part of Cleveland Peninsula. It connects to the Mid-Region Access (described above). In combination with Mid-Region Access, this new route links the second largest community in Southeast Alaska with the continental highway system. Today, there is no highway or ferry access along this corridor. Because Ketchikan is the regional center for southern Southeast, this new travel route would also serve residents of Prince of Wales Island and Metlakatla.

The Revillagigedo Highway includes construction of about 58 miles on Revillagigedo Island, at least one state maintenance facility, terminals on each side of Behm Canal, deployment of a ferry, and 22 miles of highway across the upper part of Cleveland Peninsula to reach the Mid-Region Access at Duck Point. The best connecting point to the Ketchikan road system has not been determined, and the location of the alignment across Revillagigedo Island requires further review.

The combined planning-level estimate for design and construction (including ferry acquisition) is \$265 million. Although many terrain features are favorable, construction along the south side of Bradfield Canal would be expensive. Annual maintenance costs are estimated at \$738,000, plus \$864,000 to operate the ferry that crosses Behm Canal.

Baranof Highway

This highway would cross Baranof Island from the Sitka road system to a new terminal that is closer to, and potentially on, Chatham Strait. The corridor to be traversed by the highway has not been selected. Any route would shorten the ferry link to Sitka from both Juneau and Petersburg. Sitka, the third largest community in Southeast Alaska, is on the outer coast of Baranof Island. A range of mountains on Baranof Island separates Sitka from the Inside Passage. Complicating navigation to Sitka is the fact that the narrowest part of the connecting waterway, Sergius Narrows in Peril Strait,

has the most severe tidal current restrictions of any waterway on AMHS routes.

Two basic alternatives have been identified for the Baranof Highway: (1) construction of 49 miles of new highway to Rodman Bay on the north end of the island (estimated at about \$160 million for highway and terminal); and (2) construction of 18 miles of new highway to Baranof Warm Springs Bay on the east side of the island (estimated at about \$250 million for highway and terminal). The second route is complicated by the need for a two-mile-long tunnel that has significant capital cost as well as operating cost implications. The potential of other routes also needs to be addressed. Preliminary estimates for maintaining and operating a highway to Rodman Bay and to Baranof Warm Springs Bay are \$869,000 and \$950,000, respectively.

Gravina Access — Bridge from Ketchikan to Gravina Island

This project would construct a bridge across Tongass Narrows, connecting Ketchikan with its airport and developable lands on Gravina Island. The preferred crossing will also provide access to Pennock Island. Ketchikan has the only primary airport in the United States where airport access is by ferry. The bridge would improve air access to Ketchikan by providing seamless transfers to and from the airport. The current service interval for ferry crossings is one-half hour in winter and every 15 minutes in summer.

The preferred alternative in the Gravina Access EIS proposes to construct a high bridge crossing of the east channel of the Tongass Narrows from Revillagigedo Island to Pennock Island south of the Coast Guard Base, a highway across Pennock Island, a second bridge across the west channel of the Tongass Narrows to Gravina Island, and a highway to Ketchikan International Airport. The highway would extend to an industrial park at the northwest end of the airport. The estimated construction cost of the bridge and access road to Ketchikan International Airport is \$180 million.



Construction of airport parking structures and other airport improvements to accommodate vehicle traffic would increase the total construction cost to approximately \$206 million. The cost of the EIS is \$9 million, and design would cost an additional \$15 million. Annual maintenance and operation costs are estimated at \$100,000.

Coffman Cove Road

Overall, there is general agreement that the highest priority for Prince of Wales Island is establishing the island's northern gateway (at Coffman Cove) for ferry service to and from the island. Addressing this priority requires reconstruction of 20 miles of log haul road between the end of the state highway system at the intersection of North Prince of Wales Island Road and Coffman Cove Road and construction of a new ferry terminal in Coffman Cove. Reconstruction is currently under way from both ends.

The project is being constructed in segments. A nine-mile segment from North Prince of Wales Island Road to Hatchery "Y" intersection with Luck Lake Road is scheduled for completion in 2005. Reconstruction on the middle segment from Hatchery "Y" to the end of construction on the Coffman Cove end will not be completed until 2007. The entire road will not be paved until 2008. The Coffman Cove Ferry Terminal is planned for completion by spring 2006 in time to receive the new IFA ferry *Stikine*. Vehicle traffic will use the Luck Lake (log haul) Road as a detour route until road reconstruction is completed.

The SATP reiterates the previous recommendation that the state increase its responsibilities by adding the 20 miles of Coffman Cove Road to the state highway system. Both ends of this route are currently being upgraded, with the Forest Service and the City of Coffman Cove responsible for maintenance following project completion. The addition of Coffman Cove Road to the state highway system would follow completion of paving. A second state maintenance facility will be needed on the north end when state maintenance begins because Coffman Cove is too far from the ADOT&PF maintenance station at the Klawock airport.

Reconstruction of the Coffman Cove Road from the end of state maintenance on North Prince of Wales Island Road to the site of the new Coffman Cove Ferry and Bus Terminal is estimated to cost approximately \$47 million when completed. This estimate includes construction of a second state highway maintenance station on Prince of Wales Island. Annual maintenance and operation of the addition of 20 miles to the state road system is estimated at \$144,000. Construction of the Coffman Cove Terminal is estimated at \$9.4 million with an estimated annual maintenance expense of \$25,000. The terminal will be owned and operated by the City of Coffman Cove.

Kake to Petersburg and Kake to Totem Bay

The SATP recommends construction of a road between Kake and Petersburg as a regional road. This road is not supported by Kake at this time; however, because this road and the proposed road connection to Totem Bay present significant benefits to the regional transportation system, these road links will continue to be pursued from a regional perspective. The Kake - Petersburg Road will require a short shuttle ferry crossing of the Wrangell

Narrows between Kupreanof and Petersburg. The Totem Bay Road will require a shuttle ferry crossing of Sumner Strait to Red Bay and reconstruction and extension of the North Prince of Wales Island Road to Red Bay to complete the connection to the Prince of Wales Island highway system. These two road links are considered essential transportation – utility corridors to be preserved to meet future needs. Either road connection has the potential of making Kake a ferry terminus for ferries connecting with Sitka and potentially Juneau to serve through traffic that would make use of the regional road system via Kake.

North Prince of Wales Island Road Upgrade to El Capitan

The Forest Service has completed an EA supporting reconstruction of 24 miles of North Prince of Wales Island Road from Coffman Cove Road junction to Neck Lake Road. This section is ready for a design-build contract. The existing single lane forest road would be reconstructed to a paved two-lane standard. Design and construction of this segment awaits \$62 million in funding. The remaining 16-mile section to El Capitan is estimated to cost \$42 million to reconstruct.

Essential Transportation and Utility Corridors

In a region as rugged as Southeast Alaska, valleys and mountain passes represent invaluable corridors for surface routes and utility transmission lines. Map 7 (on page 19) identifies the transportation and utility corridors considered essential to the state. The SATP focuses priority on protection and development of these essential highway corridors. Construction of roads and utility transmission lines through these corridors will occur to address current and future needs, as the need and opportunity for development occur.

Regional Ferry Element – Alaska Marine Highway System

By 2025, the surface network of primary highways will still be incomplete. During the interim, shuttle ferries will be required to bridge several critical gaps and ferries will remain vital to serving routes and communities isolated by waterways and wilderness. With respect to ferry operations, the SATP includes mainline routes, shuttle ferry connections, and further evaluation of options for one or more shuttle or circuit ferry routes to serve less populous communities in the Northern Panhandle. The new highways will require shuttle ferries to bridge the gap between Haines and the Lynn Canal Highway, across Behm Canal, across Bradfield Canal, and between Wrangell and Petersburg until a road connection can be accomplished. The *Aurora* may provide interim summer service between Haines and Skagway beginning in 2005 to serve traffic demand.

Mainline Ferry System

The mainline ferry is currently the primary means of moving personal vehicles into and out of communities in Southeast Alaska, and is the only way to travel with a vehicle from Southeast to the interior of the state and to the Lower 48 without driving through Canada. By 2010, the mainline fleet serving Southeast Alaska will be reduced from five to three ferries. Between 2010 and 2018, two of these vessels will have been replaced with new ferries. Two will serve between Juneau and Bellingham, Washington, stopping at the principal communities on the mainline route in Southeast Alaska. The



Kennicott will serve between Whittier and Prince Rupert, British Columbia. Each ferry will make a round-trip per week through the region in the summer and will operate at reduced service in the winter. Mainline service will be maintained commensurate with traffic demand and revenue cost recovery. The SATP anticipates greater reliance on the highway and shuttle ferry system to meet the region's transportation needs.

The primary objective of mainline service is to serve Alaskans by bridging gaps in the highway network. A second objective of the ferry system is to transport tourists and vans to support state industry. The mainline routes address the following objectives:

1. Continue this travel option for Alaskans and visitors, including access to Alaska from traditional southern gateways
2. Provide community-to-community transit service for passengers traveling without cars
3. Provide a basic service for tourists traveling with vehicles
4. Provide a transportation option that enhances freight service, by supplementing the sailing schedules of private-sector freight carriers
5. Provide important support in the movement of fresh fish product to markets at critical times of the year
6. Avoid Canadian customs, which presents a barrier to those citizens who desire to transport personal firearms or other items prohibited by Canada or have either a Driving Under the Influence of Alcohol Conviction on their record or a criminal record

To meet these service objectives, the *Columbia* and *Malaspina*, in the interim, will serve mainline ferry routes between Lynn Canal (eventually Juneau) and

Bellingham with stops in both directions at Juneau, Sitka, Petersburg, Wrangell, and Ketchikan. The *Kennicott* also will provide service between Whittier and Prince Rupert. Each ferry will complete one round-trip over its route each week. Mainline operations will be reduced in the winter.

Construction of the highway between Juneau and Skagway will enable the mainline ferries serving the Bellingham point of origin to turn south in Juneau instead of Skagway. Following completion of a road between Juneau and Skagway along the east side of the Lynn Canal, Juneau would become the northernmost port on the mainline route in Southeast Alaska. If a ferry option were selected, the two Bellingham mainliners would likely serve through Lynn Canal. Future itineraries are subject to change in response to traffic demand, budget constraints, and competing system needs.

In the future, mainline ferry segments that parallel (or provide an alternative to) a through highway connection should be priced to recover the cost of providing this service, because this service would not be considered critical when a highway alternative is in place. Specific examples are the service provided across the Gulf of Alaska between Juneau and Whittier and the segment between Ketchikan and Bellingham, Washington. Both routes benefit a segment of travelers but, because highway alternatives exist, should be maintained only as long as they recover costs. The roads in Canada and interior Alaska will be maintained whether or not these ferry connections are provided. Currently, the Bellingham segment recovers its cost and the cross-Gulf of Alaska service operates at close to breakeven.

Shuttle Ferry System

The purpose of the primary shuttle ferry system is to increase the mobility of Southeast Alaska residents by significantly increasing the frequency of service between Southeast communities during convenient daytime hours. More specifically, travelers and freight will be able to move between all communities within the region and complete the trip in one day. The system will offer this service every day in the summer and several times a week in the winter. The primary shuttle ferry system addresses the following service objectives:

1. Provide daily point-to-point passenger and vehicle service between the principal communities within the region with connecting shuttle connections between the principal communities and the outlying smaller communities during the summer. Reduced service frequency would be provided during the fall, winter and spring seasons commensurate with traffic demand
2. Provide convenient regular daytime service schedules
3. Increase the overall system efficiency

4. Reduce the average cost to the user where possible by taking advantage of road extensions to shorten ferry connections
5. Reduce travel time between communities within the region
6. Provide a transportation option that enhances freight service, by supplementing the sailing schedules of private-sector freight carriers
7. Provide important support in the movement of fresh fish product to markets at critical times of the year

It will take both time and funding to implement the above improvements. In the interim, it will be necessary to improve the efficiency of the existing ferry system and to make the best and most equitable deployment of ferry resources. Mainline and circuit feeder ferries should serve communities between route termini to the degree that the incremental costs (to the system and the majority of the passengers) are reasonable and equitable.

Several current AMHS vessels will be retired from the fleet by 2010. The *M/V Bartlett* was retired in 2003. The mainliner *M/V Taku* will be laid up in 2004, following successful deployment of the *Fairweather* and repair of the *LeConte*. The *M/V Aurora* will work in Prince William Sound in 2004 and will either be retired or redeployed in 2005. One proposal is to redeploy the *Aurora* between Haines and Skagway during the summer until a new Haines-Skagway shuttle ferry is needed to meet demand. The Southern Gateway Shuttle is anticipated to arrive in 2008, at which time the *M/V Matanuska* will be retired.

In summary, the long-term vision calls for 13 ferries (and related terminal improvements) to serve the region. In addition to mainline service, the following ferry elements need to be added to the surface network during the next 20 years to bridge the gaps in the highway network. The estimated cost of new ferry construction and refurbishment during the next 20 years is presented in current dollars in Table 7. Operations costs are estimated based on the estimated number of weeks each ferry is anticipated to operate in a year.

The first of a new fast vehicle and passenger ferry class, the *Fairweather*, entered service between Juneau, Skagway, Haines, and Sitka in June 2004. The *Fairweather* is capable of carrying 35 standard cars or a lower-quantity mixture of vans, campers, and cars, plus 250 passengers, at an average service speed of 32 knots. . Initially, the vessel will operate between Juneau and Haines and between Juneau and Skagway four days per week and between Juneau and Sitka three days per week during the summer with reduced service during fall, winter, and spring. When operating north from Juneau, the *Fairweather* will make two point-to-point round-trips per day up Lynn Canal: one to Haines and one to Skagway. During winter, the

Table 7. AMHS Fleet Expenditures through 2025

Ferry	New Vessel Construction (\$ millions)	Refurbishment (\$ millions)	Operating Weeks	Maintenance & Operations Cost (\$ millions)
<i>Malaspina</i>	0	6	46	11
Bellingham Mainliner	120	26	46	14
<i>Columbia</i>	0	23	26	8
Bellingham Mainliner – Seasonal	120	6	26	8
<i>Kennicott</i> Prince Rupert – Whittier	0	26	46	11.5
Haines/Skagway (Katzehin) Shuttle	17	11	46	0.8
<i>Matanuska</i>	0	0	46	11
<i>Taku</i>	0	0	46	9.5
<i>LeConte</i>	0	0	46	6
<i>Aurora</i>	0	5	46	6
Juneau – Petersburg FVF Shuttle	40	14	46	4.5
Ketchikan – Petersburg FVF Shuttle	40	11	46	4.5
<i>Fairweather</i> Sitka Shuttle	0	16	46	4.5
Ketchikan – Prince Rupert FVF Shuttle (Southern Gateway)	67	12	46	4.5
Northern Panhandle Shuttles (Undefined)	45	12	46	4.5
<i>Lituya</i>	0	10	46	1.2
Behm Canal Shuttle	8	5	46	0.9
Bradfield Canal Shuttle	25	5	46	1.7
Total	482	188		not meaningful

FVF = Fast vehicle ferry

Fairweather may make only one trip per day, stopping at both Haines and Skagway in a single circuit trip. When operating south from Juneau it will make one round-trip per day to the existing Sitka Ferry Terminal. Redeployment of the *Fairweather* from Lynn Canal service will depend on completion of the Juneau-Skagway road or other transportation improvements in the Lynn Canal corridor. Longer-term plans are for the *Fairweather* to serve primarily the Juneau-Sitka link to provide direct daily service between Sitka and Juneau. As part of the AMHS fleet, it will be deployed where it will most effectively serve the regional highway system at a given point in time.

Fast vehicle ferries will provide point-to-point daily service in the summer over routes connecting Juneau, Sitka, and Petersburg in the Northern Panhandle. This daily service will be supplemented by three mainline ferry trips per week in each direction. The frequency of service will be reduced

during the winter months commensurate with traffic demand. In general, these services will be operated and subsidized by the state through AMHS, which is an “essential part of the Alaska transportation system.”¹ IFA, and similar authorities, can play an important role in operating specific services.

Pending successful deployment and performance of the *Fairweather*, two additional fast vehicle ferries need to be constructed for deployment between



Juneau and Petersburg and between Ketchikan and Petersburg. The SATP recommends deployment of a fast vehicle ferry between Juneau and the existing Petersburg Terminal in 2006, and deployment of another fast vehicle ferry in 2007 between Ketchikan and the planned South Mitkof Terminal south of Petersburg at Blind Slough. Eventually the Ketchikan-South Mitkof fast vehicle ferry would be redeployed to serve between the terminus of the cross-Baranof Highway and Petersburg when the Revillagigedo Highway is complete.

***Ketchikan to Prince Rupert, British Columbia,
as the Southern Gateway***

The SATP recommends continuation and improvement of ferry service between Ketchikan and Prince Rupert. It also recommends construction of a new ferry, referred to as the Southern Gateway Shuttle. The Southern Gateway Shuttle should be capable of transporting large loads (capacity of 50 to 65 standard cars and 15 loaded vans) at a service speed in excess of 22 knots, depending on the location of the Prince Rupert Terminal. Proposals to improve access between Prince Rupert and Port Simpson will be evaluated for the efficiency of a transportation system connection at Port Simpson versus Prince Rupert. The goal is to minimize both the length of the ferry connection and the need for modal transfers to the degree that is practical. Shorter ferry routes are generally less costly to provide ferry service; however, additional modal transfers can be more costly to the user in terms of longer travel time, inconvenience, and out-of-pocket expense.

The community of Hyder, near the head of the Portland Canal, has also been evaluated several times as a potential Alaskan gateway for transfers to the continental highway system. Because of the much longer ferry distance between Ketchikan and Hyder, Hyder is at a considerable disadvantage to Prince Rupert as the location for a gateway terminal. The marine distance to Hyder is 50 percent greater than to Prince Rupert; therefore, use of the Hyder

¹ Source: Alaska Statute, Title 19, Chapter 65, Section 50 S 19.65.050 (a) (1).

gateway presents a significant service and cost penalty for use as a transportation connection.

The SATP recommendation is to specifically design a Southern Gateway Shuttle ferry to maximize service efficiency between Ketchikan and Prince Rupert. The Southern Gateway Shuttle is proposed to enter service as early as 2008. If this ferry is not available when the fourth fast vehicle ferry is delivered in 2007, the ferry *Matanuska* is recommended to be deployed as a dayboat between Ketchikan and Prince Rupert until the new ferry is available.

Deployment of Fast Vehicle Shuttle Ferries

A fast shuttle ferry system is proposed to replace two mainline ferries in the short term and ultimately, in conjunction with the planned extension of the highway system, provide the primary connection between the communities of Juneau, Sitka, and Petersburg in the Northern Panhandle. Three fast vehicle ferries would serve to move traffic through the region and between communities on a convenient and regular schedule.

As noted above, three fast vehicle ferries and the new Southern Gateway Shuttle ferry would initially fill the gap in the regional highway system for traffic moving through the region. When the new highway-shuttle connection for Juneau, Haines, and Skagway is completed, the *Fairweather* would connect Sitka and Juneau, and the remaining two fast vehicle ferries would connect Juneau and Ketchikan via terminals and transfers in Petersburg. The Southern Gateway Shuttle ferry would provide the primary link to the continental highway system via Prince Rupert. The fast shuttle ferry between Juneau and Petersburg is programmed to enter service in spring 2006 at the same time that the new IFA ferry *Stikine* is programmed to enter service connecting Coffman Cove, Wrangell, and Petersburg. The fast shuttle ferry between Ketchikan and Petersburg is programmed to enter service in spring 2007, followed by the Southern Gateway Shuttle ferry in spring 2008. The two fast vehicle ferries operating between Juneau and Ketchikan would depart Juneau and Ketchikan each morning on a regular schedule (approximately 8:00 a.m.) and arrive at noon at their respective Petersburg terminals, located at Petersburg and Blind Slough, approximately 28 miles south of Petersburg. Upon arrival at the Petersburg area terminals, the two fast ferries would unload and wait for two hours at their respective terminals to allow sufficient time for vehicles and passengers to travel between terminals and load before returning to Juneau and Ketchikan. The entire trip between Juneau and Ketchikan would take about ten hours.

The IFA ferry *Stikine* would arrive at the Blind Slough Terminal ahead of the fast shuttle ferry, unload, and pull forward to a holding berth at the terminal and not load until after the departure of the fast shuttle ferry from Ketchikan. The *Stikine* would pull back to the transfer berth following the departure of

the fast shuttle ferry to load all traffic bound for Wrangell and Prince of Wales Island.

The interim deployment of the two fast vehicle ferries between Juneau and Ketchikan in conjunction with the IFA ferry *Stikine* (described above) allows a person originating a trip from anywhere on Prince of Wales Island, Ketchikan, Wrangell, Petersburg, or Juneau to complete trips between all of these places (daily in the summer) during one daylight period. When Juneau Access is in place, Skagway and Haines would be added to this list of communities. With the Revillagigedo Highway and Baranof Highway in place, Sitka will be added to the list. The availability of these day trips would result in a tremendous increase in transportation mobility within the region. Travel time between communities within the region would be reduced significantly. Travel over highway routes and shortened ferry routes would be characterized by greater mobility at lower cost.

Ultimately, the fast ferry between Ketchikan and Petersburg will be redeployed between Sitka and Petersburg, following completion of the Revillagigedo Highway between Ketchikan and Wrangell. When all proposed highway systems are in place, the most efficient through shuttle ferry connection between Juneau and Petersburg via Sitka may be the two ferries departing Juneau and Petersburg each morning scheduled to meet at the Sitka Terminal to exchange either passengers and vehicles or crew and return to the port of origin or pass through to the opposite port. Further evaluation of traffic flow and operations will determine the best operational scenario.



IFA Service Expansion

In 2006, the IFA plans to initiate ferry service with the new ferry *Stikine* to connect Coffman Cove, Wrangell, and Petersburg. The *Stikine* would operate between a new terminal to be constructed at Coffman Cove, the existing AMHS terminal at Wrangell, and the new terminal 28 miles south of Petersburg, which would be just off the existing Mitkof Highway. The section of Mitkof Highway from Crystal Lake Hatchery Road to the new South Mitkof Ferry Terminal at Blind Slough would be paved. During the summer months, a daily sailing would depart each morning from Coffman Cove for Wrangell and then to South Mitkof, with a return trip through Wrangell. There is no direct service linking these communities today. Besides adding a new link to Prince of Wales Island, IFA service on the second route would establish a daily connection (at least during the summer

months) between Petersburg and Wrangell. In addition to the second route, a third IFA ferry is proposed to address anticipated traffic growth on the route between Hollis and Ketchikan.

The estimated costs for construction are as follows:

Each new IFA ferry boat	\$16 million
Coffman Cove Ferry Terminal	\$9.4 million
South Mitkof Ferry Terminal	\$14.5 million
Improvements to Wrangell Ferry Terminal	\$500,000

The estimated cost to operate the two ferries is \$3 million, but fares would cover these costs.

Community Access Elements

The regional system includes transportation access to individual communities. The community access connectors generally are not needed to move traffic through the region. Plans for meeting important community access needs within the region are described below.

Metlakatla Access – Walden Point Road and Ferry Service

The new ferry *M/V Lituya* serves the Metlakatla to Ketchikan route exclusively, providing daily service in the summer and less frequent service during the winter. As early as 2008, the road could be completed to Walden Point and two new ferry terminals constructed at Annette Bay and Saxman. While the Annette Bay Terminal would be scheduled for completion with completion of the road, the Saxman Terminal may be accelerated to reduce congestion at the Ketchikan Terminal and improve service to Metlakatla in the interim. The Walden Point Road, in conjunction with the much shorter ferry link, would significantly improve the transportation connection between Metlakatla and Ketchikan by increasing frequency of service and reducing user cost and travel time. The ferry crossing to Annette Bay would also reduce exposure to rough water conditions.

Construction of the new road is governed by a multi-agency Memorandum of Agreement between the military, Bureau of Indian Affairs, Metlakatla Indian Community, FHWA (Western Federal Lands Division), and ADOT&PF. The state is responsible for constructing the ferry and terminals. The other agencies are responsible for constructing the road.

Kake to Seal Point Road

The Forest Service has circulated an EA for upgrading (as a Forest Highway project) the seven-mile segment from Kake to Seal Point. The first six miles of this segment are on the same alignment as the proposed road to Petersburg and Totem Bay.

Kake to Petersburg Road

The SATP recommends construction of a road between Kake and Petersburg as a regional systems objective. This road link is recognized as an essential transportation and utility corridor to be preserved to meet future needs. The Kake - Petersburg road connection positions Kake to service through ferry traffic to and from Sitka and ports north that would make use of the regional highway system via Kake. The road to Petersburg could serve Kake as a community connection to the regional transportation system. After reaching Petersburg, the traveler could obtain daily service by either air or ferry to both Juneau and Ketchikan plus ties to the future mid-region highway connection. Without local community support, this regional road segment remains lower in importance than other transportation priorities. Although Kake does not want a road, the community does want improved ferry service.

Prince of Wales Island Roads

More than 200 miles of highways and forest roads connect communities on Prince of Wales Island. About half of this network is state-maintained, linking the four most populous communities with each other and transportation gateways (ferry and airport) for travel to and from the island. State responsibilities include older highways that do not have adequate roadside environments (45 miles) and modern highways that meet current standards (58 miles). Of the state highways, the 22-mile Hydaburg Road is the only segment that does not support travel speeds above 35 miles per hour. Augmenting the state network are several segments serving less populous communities, which are maintained (several routes are not plowed in winter) through the efforts of the Forest Service and local governments.

Naukati and Kasaan Roads. Public comment requested that the state increase its involvement with non-state routes to other communities. Roads serving Naukati and Kasaan were of particular concern. Unfortunately, without additional funding the state does not have the resources to increase



its involvement in response to these requests and concerns. Upgrading small community access roads falls behind the need to improve the primary regional transportation system and roads with higher traffic volumes.

North Prince of Wales Island Road Upgrade. The Forest Service has completed an EA supporting reconstruction of 24 miles of North Prince of Wales Island Road from Coffman Cove Road to Neck Lake

Road. The existing single-lane forest road would be reconstructed to a paved two-lane standard. Reconstruction of this road segment would improve access to communities such as Whale Pass on the north end of the island. Design and construction of this segment awaits funding estimated at \$62 million.

Hydaburg Road. This road is a two-lane state highway with a hard surface and 30- to 35-mile per-hour design speed. The surface, alignment, and roadside environment of the 22-mile Hydaburg Road are constructed to a lower design standard than the rest of the state system on the island. The recommendation is to continue efforts to improve Hydaburg Road as funding permits.

Hyder, Salmon River Road

Hyder is a small unincorporated community near the head of the Portland Canal and adjacent to the City of Stewart, British Columbia. The community has a small boat harbor, seaplane float, and good road connection to Stewart and the continental highway system. The City of Stewart has a small airport with a gravel runway, bus service, and limited port facilities capable of handling barges and ships. Although development of an Alaskan southern gateway port to connect with the continental highway system is possible, Hyder's location is a disadvantage; the marine distance between Ketchikan and Hyder is much longer than the marine distance between Ketchikan and Prince Rupert.

Prince Rupert, because of its geographic location, offers the most efficient and cost-effective connection to the continental highway system. Diverting expensive ferry system resources to Hyder would be at the expense of the system at large in terms of both cost and traffic transported throughout the entire regional system. A Southern Gateway Shuttle ferry designed and dedicated to move traffic between Ketchikan and Prince Rupert can move more traffic at less cost to the user and the state.

Recommendations are to continue to improve Hyder's road, small-boat harbor, and seaplane float in response to local traffic demand. Road improvements include reconstruction of Salmon River Road from border to border and paving from the southern border crossing to the bear viewing area. Road improvements beyond the bear viewing area would be coordinated with improvements needed to support British Columbia's needs for access to a proposed provincial park above the northern border. Road improvements include improving the connection between the community and the seaplane float in the harbor, which may involve replacement of a single-lane wood trestle. Access to Hyder would continue to be available by air or by highway and ferry via Prince Rupert.

The Hyder Community Association proposes to develop a multi-modal marine terminal to serve freight and sightseeing vessels. Because community

docks and freight facilities are constructed, owned, and maintained by either local governments or commercial operators, state involvement is limited. The SATP recommends that ferry service between Ketchikan and Hyder continue to be evaluated in future updates of the SATP and in response to future studies and development.

Angoon, Elfin Cove, Gustavus, Hoonah, Kake, Pelican, Port Alexander, Tenakee Springs, and Yakutat

Map 2 on page ES-4 illustrates the route that serves several Northern Panhandle communities. The SATP recommends replacing the existing service with more efficient service. The Northern Panhandle Transportation Study will evaluate the full range of air service and ferry service alternatives. The objective is to enable a resident in Angoon, Elfin Cove, Gustavus, Hoonah, Kake, Pelican, Port Alexander, or Tenakee Springs to get to Petersburg, Sitka, or Juneau in a single day of travel and to have such an opportunity at least once a week. More frequent service is recommended for individual communities, as supported by traffic demand. Ferry terminal buildings have been identified as priorities of Angoon and Kake. A new community dock, harbor, and ferry service are priorities of Gustavus.

Major improvements have been made to the Yakutat airport. Surface transportation to Yakutat will continue to be restricted to ferry travel across the Gulf of Alaska and private freight carriers.

Regional Aviation Improvements in Progress

Aviation improvements being undertaken or planned include the following:

- A new airport for Angoon carried forward from the previous SATP, for which planning to develop the new airport has begun
- Planned new public seaplane floats for Naukati and Edna Bay
- Planned expansion of runway safety areas at airports certificated to serve large passenger aircraft to meet Federal Aviation Administration standards
- Runway safety area improvements at Juneau, Ketchikan, Sitka, Wrangell, Petersburg, and Gustavus that have been identified as regional priorities
- Pavement rehabilitation work on several runways, taxiways, and aprons
- Apron expansion projects to meet demand for additional aircraft parking and cargo-handling capacity

Airport development projects do not compete for funding in the same process as road and ferry projects; they are funded through a separate



program. Therefore, aviation facility projects do not proceed at the expense of or languish because of funding decisions for a highway or ferry project.

A Southeast Region Aviation System Plan Study will be initiated in 2004 and completed in 2005. The results of this study will be incorporated into the SATP by amendment. Having identified the highway development plan and a proposed schedule for development, the department

will be better able to assess the impact of surface transportation changes on the aviation system. For example a new road connection may result in less demand for air service in some communities. The aviation planning process will include forecasting the demand for freight and passenger service in and through the region, identification of the probable changes in the aircraft fleet that serves the region, analysis of the impact of potential changes in the Essential Air Service (EAS) program and other financial and regulatory factors that may effect the system, and a determination of the unmet needs that should be addressed during the planning period. In addition, individual airport planning and development efforts are carried out continuously to ensure that the region's aviation facilities keep up with the demands of the aviation system.

Identifying regional demands is the purpose of a system plan, as opposed to an individual airport plan. A number of anticipated changes will have to be accommodated in airport plans; the challenge is to know when and to what extent the changes will affect facilities in the region. In the next year, the department will endeavor to answer those questions through development of a Southeast Region Aviation System Plan. Some issues the aviation plan will address are listed below:

- The further development and implementation of the Capstone program (which places significantly improved navigation and flight information tools in the cockpits of small aircraft) will change the operating environment in the region.
- Continuing improvement in global positioning system (GPS) and associated navigation technology will also result in new operational demands at airports in the region.

- The aging of the existing small aircraft fleet in the region will result in fewer of the planes for which facilities in the region are designed and replacement of those aircraft with other aircraft.
- The advent of new, small, high-performance, low-cost jet aircraft that are expected to be strong competitors in the air taxi market will likely require airport improvements.
- A new service that will provide transportation between communities in the region with ground-effect vessels has been proposed. This new mode of transportation will employ a vessel, regulated by the U.S. Coast Guard, that flies on an air cushion near the surface of the water at high-speed. The new vessels may compete directly with air taxi services because service would be similar at much lower costs. When ground-effect vessels will enter service in Southeast Alaska is uncertain.
- Pressure to make changes to the EAS program will likely continue at the national level. Because much of the service provided to communities in the region is subsidized through EAS, any substantial change in the program may have ramifications in Southeast Alaska.

Intelligent Transportation Systems

Within the transportation field, emerging methods to improve and enhance transportation systems through the use of computer and communication technologies are termed Intelligent Transportation Systems (ITS). Typically these applications are aimed at high-volume transportation settings such as urban highway and transit systems; however, there are opportunities to implement ITS in Southeast Alaska.

The following ITS technologies are available, and their limited use could be expanded:

- Full-time digital communications network linking AMHS reservations, operations center, vessels, and terminals to provide “real-time” vessel arrival and departure times, seating and car space availability, and other operational information to employees, management, and the public
- Weather information systems for roadways designed to provide both “travel advisories” to the public and optimal snow and ice removal timing to maintenance forces
- Real-time information about transportation system availability provided through one or more of the following techniques: Internet access; public

message signs on highways, vessels or terminals; local radio broadcasts; and personal digital assistants

- Automated or semi-automated vehicle weighing, sizing, and ticketing applications for vehicles entering terminal sites

Basis for Cost Estimates

The descriptions of elements discussed in this chapter include planning-level estimates of construction, including ferry acquisition and maintenance costs. These estimates are preliminary in nature, and provide a basis for comparing the relative magnitude of the different elements. Because they are computed with the use of 2003 dollars, over time it would be appropriate to adjust for inflation. The origin of estimates varies by element. For example, two elements include projects for which an EIS is being prepared; the estimates for these elements are based on that work.

For new highways, planning-level estimates were compiled by applying a per mile figure for design and construction costs of a new paved road. This figure varies based on terrain considerations and roadway type, from a base of \$2.3 million to a high of \$4.8 million per mile. Estimates were also increased if a special feature (such as a tunnel) was present. A similar approach was used for estimating maintenance costs. In identifying roadway type, the emphasis was on completing the through connection, as opposed to building a high-speed highway. Thus, the new routes would seem narrow because of the width of unpaved shoulders and would be posted for a moderate travel speed (either 30 or 35 miles per hour).

For new ferries and terminals, planning-level estimates are based on recent experience in the acquisition of new ferries and the construction of marine facilities. Firm cost estimates can be prepared based on the recent construction of the *Fairweather*, *Prince of Wales*, *Lituya*, *Oral Freeman* (Ketchikan airport ferry), and *Kennicott*. The estimates of vessel construction and operations and maintenance costs have been updated by a naval architect to reflect current market conditions. With respect to terminal costs, the department has extensive experience with the construction and modification of marine facilities. The most recent terminal work consists of replacement at Valdez and new stern berths in Ketchikan and Juneau.

VII. WHAT DOES THE SATP ACCOMPLISH?

How New Links Broaden the Transportation Network

The improvement package that makes up the SATP brings a comprehensive transportation network to Southeast Alaska. This network ties together the communities of the region, and links them to the continental highway system and population centers in Alaska and the Lower 48. It shortens travel times, reduces out-of-pocket costs to travelers, and supports economic development. With respect to state financing, it adds facilities that are financed in a similar manner on a statewide basis and lessens the need to supplement (with state general funds) revenues from AMHS operations.

Table 8 identifies changes for basic transportation links. It lists improvements, changes, and assessments of transportation benefits expected to be gained by the end of the planning horizon (2025). The table includes six points of origin – communities in the region with a population of 2,000 or more. All of these communities receive “mainline” service from AMHS today, and five of the six have daily jet service to Anchorage and Seattle. Haines, the only community without jet service, can be reached by the continental highway system.

Generally speaking, the precise locations (specific sites) of many elements (and their components) have not yet been determined. This status complicates the identification of changes for origin and destination pairs. Planning of several elements has progressed to the point for which an EIS is being prepared, but alternatives have not been selected. Similarly, a separate

study is being pursued concerning ferry service in the Northern Panhandle. Consequently, the information in the table is general and does not anticipate a specific outcome from the studies in progress. Specifics for these origin and destination pairs will be available when the studies are completed.



Table 8. Effects of Basic Transportation Links

Transportation Link	Improvement	Change	Assessment
Links from Ketchikan			
To Ketchikan International Airport	Bridge and road to Ketchikan International Airport	Highway connection to Airport	Direct highway connection removes schedule, cost, and capacity restrictions of airport shuttle ferry system. A highway will improve emergency response to the airport.
To Wrangell	Revillagigedo Highway	Mostly land highway, with longer (Bradfield Canal) and shorter (Behm Canal) ferry crossings	Daily surface trips possible; more choice about when to schedule; improved connectivity
To Prince of Wales Island	Additional IFA Ferry	More frequent summer ferry service to Hollis	More choice about when to travel; improved capacity and connectivity
To Metlakatla	Walden Point Road	Shortens length of ferry link	Increased frequency of daily surface trips; improved connectivity
To Canada	Revillagigedo Highway and Bradfield Road	Land highway with one short ferry crossing (Behm Canal)	Biggest change is addition of a new highway connection to the continental highway system for long-distance travel.
Links from Wrangell			
To Prince of Wales	IFA Northern Ferry	Adds direct ferry link between Wrangell and Coffman Cove	Biggest change is addition of new daily ferry connection between Wrangell and Prince of Wales Island in summer with reduced service in winter.
To Petersburg	IFA Northern Ferry	More frequent and regular ferry service between Wrangell and Petersburg	Daily ferry service in summer with reduced service in winter
To Canada	Mid-Region Access (Bradfield Road)	New continental highway connection with one ferry crossing (Bradfield Canal)	Biggest change is improved regional access to continental highway system.

Table 8. Effects of Basic Transportation Links

Transportation Link	Improvement	Change	Assessment
Links from Petersburg			
To Kake	Pending completion of NPTS	Pending completion of NPTS	Pending completion of NPTS
To Sitka	Baranof Highway	Extends highway across Baranof Island to shorten ferry access to Sitka	Improves ferry connections to Juneau and Petersburg and reduces transportation cost
	Fast Ferry Connection	Makes daily ferry connection to Petersburg more viable	Improves viability of regular fast and frequent ferry service
To Juneau	Direct fast ferry connections to Juneau and to Juneau via Sitka	Adds intra-region fast ferry connection	Surface travel time reduced to less than 5 hours; daily trips most of the year
To Canada	Mid-Region Access, supplemented by mainline and IFA connections to Wrangell	New continental highway connection with two ferry crossings (Sumner Strait and Bradfield Canal)	Biggest change is improved access to continental highway system with regular ferry connections at lower cost.
Links from Sitka			
To Juneau	Baranof Highway	Extension of road across Baranof Island with shorter ferry link.	Improves efficiency and reduces user cost; makes reliable daily trips available most of the year
To Kake and Port Alexander	Baranof Highway and Northern Panhandle ferry service	Shortens ferry connection to Kake. Type of ferry service pending completion of NPTS	Pending completion of NPTS
To Angoon, Tenakee Springs, and Hoonah	Baranof Highway and Northern Panhandle ferry service	Shortens ferry connection to Angoon. Type of ferry service pending completion of NPTS	Pending completion of NPTS
To Canada	Baranof Highway, then ferry links to Juneau Access and Mid-Region Access projects	Shortens length of ferry links required to reach the continental highway system; increased trips via Juneau and Petersburg	Biggest change is improved access to the continental highway system via two new highway options.
Links from Juneau			
To Haines and Skagway	Juneau – Skagway Road	Depends on the outcome of Juneau Access EIS	Increased mobility at lower cost resulting in increased traffic between communities
To Hoonah, Tenakee Springs, and Angoon	Pending completion of NPTS	Pending completion of NPTS	Pending completion of NPTS
To Kake, Pelican, and Gustavus	Pending completion of NPTS	Pending completion of NPTS	Pending completion of NPTS

Table 8. Effects of Basic Transportation Links

Transportation Link	Improvement	Change	Assessment
To Canada	Juneau – Skagway Road	To the north, depends on the outcome of Juneau Access EIS (to the south, Mid-Region Access is closer than Prince Rupert)	Biggest change is improved access to the continental highway, providing increased mobility at lower cost.
To Whittier with stops at Yakutat	<i>Kennicott</i> deployment	More sailings between these points	Provides “All-Alaska” surface link to Juneau and links Whittier to Prince Rupert , British Columbia
Links from Haines			
To Skagway	Juneau – Skagway Road with shuttle ferry	Regular frequent shuttle ferry connection	Increased mobility with frequent service and lower-cost shuttle ferry connection
To Canada	Haines Highway and Juneau – Skagway Road with shuttle ferry	Shorter route to Whitehorse, south and eastern Canada, and Lower 48 via Skagway and the Klondike Highway	Shortens travel time and reduces cost to Whitehorse and points east

NPTS = Northern Panhandle Transportation Study

Benefit-Cost Analysis

As part of the SATP update, the planning team refined an analytical model from the earlier work. This enhanced model includes an integrated benefit-cost evaluation tool. Revenue generation and other user benefit analyses can be prepared with this tool for use in comparing new systems to those previously examined. The model predicts regional intercommunity travel based on a comparative evaluation of alternative modal choices, trip



frequency, fare, and travel time. This model was calibrated for 2002 travel demands and fare structure.

A benefit-cost model was developed to evaluate the relative merits of user benefits and system costs among alternative intercommunity transportation systems within Southeast Alaska. Key outputs from this process involve the relationship of marginal user benefits to marginal costs. The model was derived using the principles of least-cost planning

(LCP). The LCP process consists of choosing the lowest-cost method for providing a given level of service (that is, benefit). Conceptually, it is possible to configure alternative transportation systems that combine air, automobile, and ferry modes that generate roughly equivalent levels of benefits in a region such as Southeast Alaska. The alternative that generates this base level of benefits at the least cost represents the optimal system.

The travel forecast model was developed to perform the following:

- Assess the growth in demand for transportation (people and vehicles) over time by major travel corridor and estimate origin and destination patterns of travel throughout the region
- Evaluate intercommunity travel demand by mode (ferry, air, roadway) for competing modes based on travel time and cost parameters for any system alternative
- Assess the potential for induced travel demand generated by new transportation facilities and services
- Evaluate the impacts of system supply constraints on travel demand

To estimate nonresident travel demands, existing tourist markets were increased by a factor of 1.03 applied each year of the planning period. This factor was derived from forecasts of tourism employment by the Institute of Social and Economic Research (University of Alaska Anchorage).

Additional factors representing latent demand were included, consistent with the demand assumptions and findings of other department studies. For Lynn Canal, latent demand factors were derived through a calibration of annualized demand projections (documented in the Juneau Access EIS for the year 2010) with projections estimated by using the integrated model. On route segments north of Juneau, the latent demand factors are 3.6 times the estimates from the integrated model. On all trips originating from or destined for Lynn Canal, the latent demand factors are 1.2 times the estimates. For mainline service to Bellingham, recent marketing efforts indicate that a doubling of service on this tourism corridor would double demand (indicating a large latent demand).¹ For the SATP update, a latent demand factor of 1.5 was applied.

The following user benefits represent the majority of user benefits of any system alternative and are the focus of the quantitative analysis within the benefit-cost examination:

- Changes in travel and waiting time
- Changes in trip frequency

¹ Source: *AMHS Marketing and Pricing Study*, McDowell Group, 2000.

- Changes in out-of-pocket costs
- Changes in total number of trips made

In the analysis, benefits associated with changes in accessibility and economic development were not quantified, but are closely correlated with these user benefits and can be indexed to changes in user benefits. However, these benefits were not measured for the SATP.

These specific elements were used in the detailed evaluation of travel demand and benefit-cost analyses:

- Changes that each system would provide in travel time and service frequency
- Capital, maintenance, and operating costs

Tables 9 and 10 summarize the results of the detailed evaluation (provided in Appendix B). Benefit and cost in terms of net present value summaries were prepared for the same time periods and horizon years as used in the travel demand forecasts. Capital costs are summarized by time period; operating costs and revenue projections are shown in the horizon year in current (2003) dollars. Roadway travel demand forecasts for Juneau Access are from the EIS effort. Estimates of roadway travel demand for Mid-Region Access are based on earlier SATP development, and include resource extraction trips and increased latent demand to proximate communities, including Wrangell, Petersburg, Prince of Wales Island, and Ketchikan.

Restructuring the existing ferry service level by 2010, coupled with the assumption that revenue will cover costs on new short ferry links (such as Haines - Skagway and Bradfield Canal), appears to result in zero operating subsidy (excluding AMHS management, administration, marketing, and other indirect overhead costs). Fares on new links to Bradfield Canal are based on a \$20 one-way vehicle fare per trip segment. Fares on all other routes were held constant with current levels. With respect to demand, fast vehicle ferries will accommodate demand on an annual average basis. During summer months, there may be a shortage of capacity on peak days for the busiest ferry links. The ability to meet peak day demand in every instance is not possible because of the excess capacity that would result much of the year; however, the SATP standard is to provide capacity that meets at least 80 percent of peak month demand for a given ferry link. With respect to this standard, potential shortages of capacity need to be evaluated in future updates of the SATP.

Table 9. Cost-Benefit Evaluation Summary

Implementation Period	Capital Costs for Period (\$ millions)	Annual Operating Costs to ADOT&PF ¹ (Horizon Year)	Annual AMHS Ridership (Horizon Year)	Annual Revenue ² (Horizon Year)	Annual ADOT&PF Subsidy ³ (in Horizon Year) (\$ millions)	ADT Forecasts on Juneau – Skagway Road (AADT/Peak Summer ADT)	ADT Forecasts on Bradford Road at Hwy. 37 (AADT/Peak Summer ADT)
Existing System⁴							
2004-2010	92	75	299,500	38	(37)	-	-
2011-2015	124	75	320,300	40	(35)	-	-
2016-2020	172	75	341,400	41	(34)	-	-
2021-2025	146	75	362,900	43	(32)	-	-
SATP Addendum 1⁵							
2004-2010	435	69	496,900	52	(17)	-	-
2011-2015	195	69	533,200	55	(14)	-	-
2016-2020	129	69	570,000	58	(11)	-	-
2021-2025	143	69	607,400	61	(8)	-	-
2004 SATP Update⁶							
2004-2010	881	59	456,800	47	(12)	500/900	-
2011-2015	513	63	541,200	52	(11)	600/1,075	100/270
2016-2020	395	65	595,300	56	(9)	650/1,200	110/280
2021-2025	226	69	648,800	58	(11)	725/1,325	130/320

AADT = Annual average daily traffic ADT = Average daily traffic

Notes: Dollars reflect 2003 values.

Horizon year is the year at the end of the implementation period tested. The horizon years are 2010, 2015, 2020, and 2025, as shown in Column 1.

These benefit-cost summaries assumed a shuttle-road system between Juneau and Sitka in 2021 and 2025. These plan components are no longer included in the SATP 2025 priorities, but could move up as funding become available.

¹ Operating costs include annual AMHS management, administration, marketing costs, and Southeast Region operating and maintenance costs. Included are the operating costs of all new roadways, terminal facilities, and vessels. Existing highway, airport and harbor facilities are not included.

² Fares are held constant. Ferry revenue is adjusted to account for IFA-generated revenue between POWI and other ports as well as loss in Lynn Canal ferry revenue north of Juneau.

³ A negative subsidy figure represents continued expenditures that exceed revenues.

⁴ Existing system scenario does not include fast vehicle ferry in the 2003 fleet; it only includes existing vessels operating consistent with current schedules/levels of service.

⁵ The SATP Addendum 1 scenario assumes continued reliance on mainline ferries from Prince Rupert and Bellingham, overlaid with fast vehicle ferry service. It also assumes a ferry solution in Lynn Canal consistent with the previous SATP plan and updates with forecast adjustments consistent with Juneau Access EIS.

⁶ The 2004 SATP update scenario assumes reduced mainline service down to only three mainline ferries, consisting of the *Columbia*, *Kennicott*, and either the *Malaspina* or *Matanuska*. In Southeast and latent demand estimates from AMHS marketing study; a road solution in Lynn Canal consistent with the most current EIS by 2010 with forecast adjustments consistent with the Juneau Access EIS; the Sitka Access Road by 2015; and the Bradford Road by 2015 with forecast adjustments for Bradford Road consistent with original SATP plan.

Table 10. Comparison of Regional Transportation Alternative Scenarios: Summary of Net Present Value Benefits and Costs, 2005-2025

Net Present Value in Millions of Dollars (2003 \$)										
Scenario	Total Costs ¹	Revenues	Costs Less Revenues	Change in Net Costs from Adopted Plan	Change in Consumer Surplus ²	User Benefits of Fares Eliminated in Lynn Canal	User Costs in Additional Driving on New Roadways	Change in Net User Benefits from Adopted Plan	Total Net Present Value: Benefits Minus Costs	
Present Value of Total Costs and Benefits										
2001 SATP Addendum 1	(1,608)	804	(804)							
2004 SATP	(2,398)	846	(1,552)	(748)	907	108	(58)	957	209	
2004 SATP (without implementation packages) ³	(1,972)	697	(1,275)	(471)	615	108	(30)	693	222	
Present Value of Operating and Maintenance Costs and Benefits⁴										
2001 SATP Addendum 1	(939)	804	(135)							
2004 SATP	(867)	846	(21)	114	907	108	(58)	957	1,071	
2004 SATP (without implementation packages) ³	(986)	697	(289)	(154)	615	108	(30)	693	539	

¹ Includes all capital, operation, and maintenance costs of roadway and ferry systems. This benefit-cost analysis assumes that the Juneau Access Road is not part of the baseline system; therefore, all user benefits associated with the roadway are included in the 2004 SATP scenarios.

² Change in consumer surplus includes value of time in travel, waiting, and service frequency.

³ The implementation packages are four major road components: Baranof Road, Bradfield Road, Fools Inlet Road, and Revillagigedo Road.

⁴ The lower portion of this table excludes capital cost from the total costs column.

Table 11 shows summer service levels for AMHS routes. Traffic demand, cost, and revenue are key determinants for the provision and level of ferry service over the regional highway system.

Table 11. Summer Service Levels in Relation to Cost and Revenue

AMHS Route	Summer Service Level Determination
Existing Capabilities	
Mainline service (Bellingham)	Based on revenue generation. Each year, revenues need to exceed the costs of vessel operations.
<i>Kennicott</i> (within Southeast)	Determined in the context of ensuring surface links between ports of call through a combination of fast-vehicle ferries, mainline service, IFA, and <i>Kennicott</i> sailings.
<i>Kennicott</i> (across the Gulf of Alaska)	Based on revenue generation. Each year, revenues need to exceed the costs of vessel operations.
<i>Lituya</i> (Metlakatla)	Up to two round-trips a day; increase possible if supported by revenues or following completion of Walden Point Road.
<i>Fairweather</i> (post Juneau Access)	Determined in the context of ensuring surface links between Sitka, and Petersburg through a combination of fast-vehicle ferries, mainline service, and <i>Kennicott</i> sailings.
New Segments: Long-Term Vision	
Behm Canal (Revillagigedo Highway)	Multiple trips a day; increase in service hours possible if supported by revenues.
Bradfield Canal (Mid-Region Access)	Three round-trips a day; increase possible if supported by revenues.
Possible ¹ shuttle service between Wrangell and South Mitkof	Service level of two round-trips a day; increase possible if supported by revenues.
Between Petersburg and Sitka	Up to one round-trip a day if supported by revenues; minimum of two trips a week.
Between Petersburg and Juneau	One round-trip a day; increasing demand to be evaluated in future updates and may require added capacity.
Between Sitka and Juneau	Up to one round-trip a day if supported by revenues; minimum of four trips a week.
Northern Panhandle	Pending completion of Northern Panhandle Transportation Study; anticipated that revenues will not cover all costs.
Between Haines and Skagway	Determined following the outcome of Juneau Access.
Interim Services	
Between Ketchikan and Prince Rupert	One round-trip a day if supported by travel demand and revenue generation.
Between Ketchikan and South Mitkof	One round-trip a day if supported by travel demand and revenue generation.
North of Juneau	Combination of fast vehicle ferry and mainline service pending completion of Juneau Access EIS and project development
Between Haines and Skagway	Three round-trips a day if supported by revenues.

¹ Assumes a land highway connection is not pursued.

VIII. DISTRIBUTION OF COSTS

How large is the annual amount of state general funds required to operate and maintain state transportation facilities and services serving Southeast Alaska? The focus of the state's effort in Southeast Alaska is to maintain a highway system, 11 state airports, 33 public seaplane floats, and a ferry system that bridges extensive gaps in the region's highway system.

Table 12 presents the annual cost to the state over the last three years to operate and maintain AMHS services, the highway system, airports and harbors¹ to support movement of people, vehicles, and freight through Southeast Alaska and between the region and surrounding regions. The table shows the AMHS revenues earned from operating the Southeast ferries in 2001, 2002, and 2003. Substantial fuel tax, operator license fees, and vehicle license fees that are levied on the highway user go directly into the state's general fund. These fees and taxes are not shown in Table 12 because no breakout of these revenues on a regional basis is prepared.

There is continuing pressure to reduce the state's operating budget, including the level of general fund support for AMHS. Revenues fall far short of covering the full costs of AMHS operations. The remaining costs must be provided from the state's general fund. Revenues earned during the summer from visitors traveling in and through Southeast Alaska help to support winter ferry service on which residents rely. Garnering ongoing support for the ferry system is challenging because less than half of the state's legislative districts are directly served by AMHS, although AMHS provides the only direct surface connection between Interior Alaska, Southeast Alaska, and the Lower 48. Compounding this challenge, the AMHS services included in the 1999 SATP assumed lower costs and a higher level of revenue income from these services than has been achieved. Consequently, additional appropriations have been required to support the current level of AMHS service.

Table 13 shows expenditures, appropriations, and revenues for 2003 and 2004 fiscal years, and identifies the most recent shortfalls for AMHS statewide.

¹ Very little of the state's operation and maintenance effort is devoted to harbor facilities because most of the region's harbor facilities are maintained by municipalities or are in the process of being transferred to municipalities.

Table 12. State Expenditures and Revenues for Southeast Alaska Transportation, State Fiscal Years 2001-2003

Southeast Alaska Transportation Cost Component	Annual Cost (\$)			Modal Expense (%)
	2001	2002	2003	
State Transportation Expenses for AMHS Operations and Maintenance — Southeast Alaska				
Vessels Operations	57,467,215	56,362,246	61,997,256	
Shore Operations	2,976,431	2,894,289	2,931,847	
Administration, Engineering, and Overhaul	4,951,336	5,063,116	5,313,099	
Total Expense, including Administration	65,394,982	64,321,653	70,242,202	
Southeast Alaska Revenue	32,658,000	34,541,000	36,376,000	
Southeast Alaska AMHS Expense less Revenue	32,736,982	29,780,653	33,866,202	78.2
State Transportation Expenses for Operations and Maintenance of Other Modes— Southeast Alaska				
Highways, including Administration	6,924,794	7,650,824	7,290,872	16.8
Airports, including Administration	2,611,729	2,238,436	2,097,133	4.9
Harbors, including Administration	51,874	30,878	38,730	0.1
Southeast Alaska Transportation All Modes	42,325,379	39,700,791	43,292,937	100.0

Source: ADOT&PF

Note: The above figures exclude support services and some miscellaneous expenses. Although the total for expenditures is greater, the data present a fair picture of state transportation expense by mode.

Table 13. AMHS Expenditures, Appropriations, and Revenues, 2003 and 2004

AMHS Funding	Fiscal Year 2003 (\$000)	Fiscal Year 2004 (\$000)
Expenditures	84,675	85,701
Revenues	41,162	43,000
General fund contribution	40,492	40,000
Shortfall covered by AMHS Fund	3,021	5,701
State funding requirement	43,513	45,701

Notes:

The AMHS fund balance declined during these two years, but was sufficient to mitigate the shortfalls that occurred in Fiscal Year 2003 and Fiscal Year 2004.

The dollar amounts have been revised since preparation of the draft SATP to reflect updated data.

The cost to maintain and operate the ferry system has been increasing because of several factors, including previous deferment of vessel modernization, maintenance, and refurbishment. Because it is labor intensive, the operation of large vessels on a round-the-clock basis is expensive. Over time, new regulatory requirements (which require vessel upgrades) and changes to labor contracts (which dictate wages, benefits, and operating conditions) contribute to higher costs. Most recently, rising fuel prices have driven up operating costs. Increases in AMHS operating costs are difficult for the state to finance because these costs are paid for through higher fares, appropriations of state general funds, or both. All revenues from AMHS operations are retained in the Alaska Marine Highway System Fund. Appropriations of state general funds to supplement revenue income are subject to annual legislative approval.

The good news is that pending federal legislation may increase the level of federal funding for transportation improvements above previous levels. An increase would provide the opportunity to use federal funds for strategic capital investments in transportation facilities in Southeast Alaska. These strategic capital investments could reduce the region's transportation operation and maintenance costs over the long term. Tables 14, 15, and 16 summarize the capital expenditures required to implement the SATP.


Table 14. Summary of Cost Estimates for SATP 20-Year Plan Components

Funding Source	Description	Recommended Interim Typical Section or Vessel (capacity)	Estimated Interim Average Speed (mph)	Segment Length Statute (miles)	Ferry Service (round-trips per day)	Total Estimated Capital Cost (\$ 000)	Total Annual Estimated M&O Cost (\$ 000)
STIP	Sitka Access EIS and North Panhandle Transportation Study					6,000	
STIP & FEMRK	Mid-Region Access (Bradfield & Fools Inlet) EIS					8,000	
STIP	Ketchikan Access EIS					6,000	
STIP	Auke Bay Terminal Modifications					7,000	10
STIP	South Mitkof Hwy. Reconstruction: Crystal Lake to Blind Slough	Island Collector	35	6.99		10,920	57
STIP	South Mitkof Terminal					14,500	10
IFA	Ferry Link: IFA Ferry, South Mitkof/Wrangell/Coffman Cove	IFA (30)	17.3	53.0	1	17,000	1,276
STIP	Coffman Cove Terminal					9,400	25
STIP	Fast Vehicle Ferry Auke Bay to Petersburg	FVF (35)	36.8	144	1	40,000	4,561
STIP	Fast Vehicle Ferry: South Mitkof to Ketchikan	FVF (35)	36.8	101.2	1	40,000	4,561
STIP	Saxman Terminal					7,500	10
BIA	Walden Point Road, built and maintained by BIA	Minor Rural Arterial	45	14.29		N/A	N/A
STIP	Annette Bay Terminal					7,000	10
FH	Coffman Cove Road: North Prince of Wales Island Road Intersection to Coffman Cove	Island Collector	30	17.52		18,400	144
FEMRK	Southern Gateway Shuttle Ferry: Ketchikan to Prince Rupert	FVF (50)	25.3	109.3	1	67,000	N/A
STIP	Angoon Ferry Terminal Improvements					6,500	25
STIP	Two small day ferry boats to replace <i>LeConte</i>	Dayboat	17.3	N/A		20,000	2,500
FEMRK	Gustavus Ferry Terminal					11,000	50
STIP	Haines Ferry Terminal Improvements					7,000	10
STIP	Ferry Link: Haines/Katzeihin Ferry	<i>Aurora</i>		6.5	9	5,000	2,900
FEMRK	Katzeihin Ferry Terminal					15,700	10
FEMRK	Lynn Canal Road (Echo Cove to Skagway)	Arterial	45	68		265,000	1,500
FEMRK	Gravina Island Access	Arterial	35			230,000	100
	2010 Total					809,220	
STIP & FEMRK	Rodman Bay Road	Island Arterial	35	48.83		148,950	869
STIP	Rodman Bay Terminal					12,000	135
STIP	Ferry Link: South Mitkof to Wrangell Shuttle Ferry	IFA (30)	17.3	13.8	1	17,000	1,276
FEMRK	Fools Inlet Road	Island Collector	30	22.08		50,830	181


Table 14. Summary of Cost Estimates for SATP 20-Year Plan Components

Funding Source	Description	Recommended Interim Typical Section or Vessel (capacity)	Estimated Interim Average Speed (mph)	Segment Length Statute (miles)	Ferry Service (round-trips per day)	Total Estimated Capital Cost (\$ 000)	Total Annual Estimated M&O Cost (\$ 000)
STIP	Fools Inlet Terminal					7,000	10
STIP	Bradfield Canal Ferry	Modified <i>LeConte</i> (35)	17.3	17.3	5	25,000	1,692
STIP	Bradfield Terminal					7,000	10
FEMRK	Bradfield Road: Duck Point Ferry Terminal to Border	Minor Rural Collector	30	32.15		250,000	366
FEMRK	Road: Duck Point Ferry Terminal to Behm Canal Terminal	Island Collector	30	19.53		50,400	160
FEMRK	Point Lees Terminal					7,000	10
STIP	Ferry Link: Behm Canal Ferry	Double end (20)	13.8	2.3	9	8,000	864
FEMRK	Claude Point Terminal					7,000	10
FEMRK	Revilagigedo Highway: Behm Canal to George Inlet	Island Arterial	35	43.5		130,180	387
FH	Harriet Hunt Lake Road: George Inlet to Harriet Hunt Lake	Island Arterial	35	10.98		30,300	98
FH	Harriet Hunt Lake/Ward Lake Road Upgrade	Island Arterial	35	6		10,350	53
FEMRK	Mainline Ferry (<i>Columbia</i> Replacement)	<i>Columbia</i>	19.9	N/A	0.14	120,000	N/A
FEMRK	Mainline Ferry (<i>Malaspina</i> Replacement)	<i>Malaspina</i>	19.0	N/A	0.14	120,000	N/A
IFA	Ferry: Add 2nd IFA Ferry between Hollis & Ketchikan	IFA (30)	17.3	42.5	1	17,000	1,276
IFA	North Tongass Ferry Terminal					7,000	75
	2025 Total					1,843,930	

 = Environmental impact statement

 = Ferry terminal

 = Road

 = Ferry boat

 = Total

BIA = Bureau of Indian Affairs

M&O = Maintenance and operations

FEMRK = Federal Earmark

N/A = Not available

FH = Forest Highway Program

STIP = Statewide Transportation Improvement Program

IFA = Inter-Island Ferry Authority

Notes:

All costs are preliminary and include design costs. Values are expressed in current (2003) dollars.

Island collector indicates a rural road expected to have lower traffic volumes.

Island arterial indicates a road reachable from a large community that is expected to have higher traffic volumes.

Table 15. Summary of Capital Cost Estimates for Types of SATP Component

Component Type and Funding Source	Total Estimated Capital Cost (\$ 000)
Highway Program	
Statewide Transportation Improvement Program (STIP)	73,870
Federal Earmark (FEMRK)	1,082,410
Forest Highway Program (FH)	59,050
Bureau of Indian Affairs (BIA)	N/A
Total 20-year Highway Program	1,215,330
Ferry Program	
Ferries	
Statewide Transportation Improvement Program (STIP)	155,000
Federal Earmark (FEMRK)	307,000
Inter-island Ferry Authority (IFA)	34,000
Total ferries	496,000
Terminals	
Statewide Transportation Improvement Program (STIP)	80,900
Federal Earmark (FEMRK)	40,700
Inter-island Ferry Authority (IFA)	11,000
Total terminals	122,900
Total 20-year Ferry Program	628,600
Total 20-year SATP Program	1,843,930

Table 16. Summary of Capital Cost Estimates by Funding Source

Funding Source	Total Estimated Capital Cost (\$ 000)
Statewide Transportation Improvement Program (STIP)	309,770
Federal Earmark (FEMRK)	1,430,110
Forest Highway Program (FH)	59,050
Bureau of Indian Affairs (BIA)	Not available
Inter-island Ferry Authority (IFA)	45,000
Total 20-year plan program	1,843,930

IX. WHAT COMES NEXT?

Studies and Construction Address Transportation Needs

Opportunities for shaping development of transportation-related development abound. As described in Chapter II, the SATP provides an overall framework for state involvement in the regional transportation system during the next 20 years; more detailed planning will follow. Specific studies play important roles in identifying needs and the approaches for implementing improvements. Two current planning efforts are the Northern Panhandle Transportation Study and Southeast Alaska Aviation System Plan Study.

The Northern Panhandle Transportation Study is expected to be complete in 2005. This study will address the best way to transport people, vehicles, and goods to and from eight outlying communities, and will consider air and ferry alternatives. Either AMHS or a contractor could provide ferry services. The objective is to enable community residents to get to Petersburg, Sitka, or Juneau in a single day of travel and to have such an opportunity at least once a week.

AMHS currently operates ferry service to Angoon, Hoonah, Kake, Pelican, and Tenakee Springs with the *LeConte*. The community of Gustavus receives commercial passenger ferry service during the summer months in conjunction with tourist sightseeing operations. The communities of Elfin Cove and Port Alexander are only served by air taxi operators. Less costly ferry service that includes vehicle-hauling capability is recommended for additional study, along with other options. Although more frequent service is desired by many communities, the primary constraint is the level of service that can be supported by traffic demand.

Although more frequent ferry service is desired by many communities, the primary constraint is the level of service that can be supported by traffic demand.

The Southeast Alaska Aviation System Plan Study will be initiated in 2005 to evaluate the regional air transportation system, forecast regional air traffic demand, and assess the need for improvement to aviation facilities in the region. A number of changes will have to be accommodated at individual airports; the challenge is to know when and to what extent the changes will affect facilities in the region. Thus, the study will consist of forecasting the demand for freight and passenger service in and through the region, identifying probable changes in the regional aircraft fleet, and analyzing the impact from potential changes in the EAS program and other financial and

regulatory trends. The primary study product is determination of the unmet needs that will need to be addressed by 2025.

Airport planning and development are carried out continuously to ensure that facilities are in place to meet demand. A primary purpose of a system plan is to quantify demand in a regional context, as opposed to for an individual airport. Some issues the study will address are listed in Chapter VI, on page 63 .

Project Activity

Major SATP road components that are representative of projects to be developed in the next 20 years are discussed below.

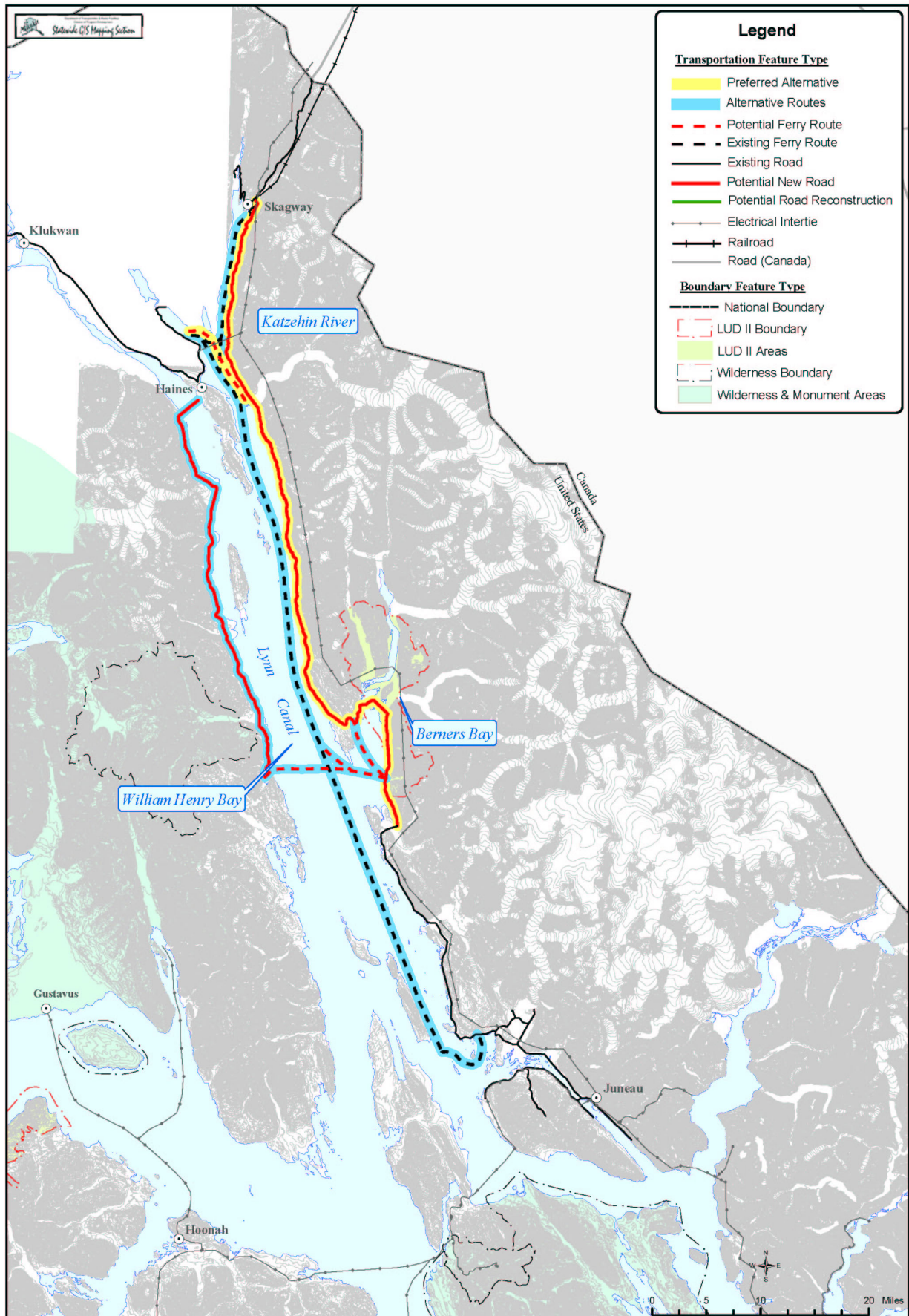
Juneau Access EIS

The planned Juneau-Skagway Road, shown on Map 11, includes a short shuttle ferry connection to Haines. This project would provide significant transportation benefit to the regional and state transportation systems. The road link will reduce state maintenance and operations cost, reduce user costs significantly, and benefit the overall regional and state economy.

The department is currently preparing a supplemental draft EIS for the Juneau Access Improvements Project. The supplemental draft EIS will update the information in the 1997 draft EIS and evaluate an expanded range of alternatives. Map 11 depicts the preferred alternative and the road and marine alternative routes under consideration. The supplemental draft EIS is expected to be available in fall 2004. Although the State of Alaska identified the East Lynn Canal Highway as its preferred alternative in 2000, all reasonable alternatives will be fully evaluated, and no final decision will be made until after the public has had the opportunity to comment on the supplemental draft EIS. A Record of Decision is anticipated in 2005. If another alternative is selected, the SATP would need to be amended to reflect the change.

The road, if selected, can be completed in 2009 if funding is available. Construction could begin in 2005 at both ends and several points in the middle. Some segments would be completed under design-build contracts; other segments would be designed and bid as construction contracts. This construction scenario requires the design and construction funding be available as follows: \$126 million in Federal Fiscal Year (FFY) 2005, \$139 million in FFY 2006, and any remaining funding in FFY 2007 and FFY 2008. Delays in funding would delay project completion.

Map 11 : Juneau Access EIS Reasonable Alternative Routes



The total estimated cost of the EIS is \$11 million, and this funding is already obligated. The cost estimate to complete final design and construct the preferred alternative follows:

Construction of 68 miles of roadway	\$265 million
Construction of Katzehin Ferry Terminal	\$15.7 million
Refurbish the <i>Aurora</i>	\$5 million
Total	\$285.7 million

Gravina Access EIS

This project is almost through the environmental phase. The preferred alternative is a high bridge to the east side of Pennock Island and a low bridge from the west side. The final EIS will be complete in 2004 with a Record of Decision and design to follow. Construction could be complete in a few years, pending funding. The estimated costs are as follows:

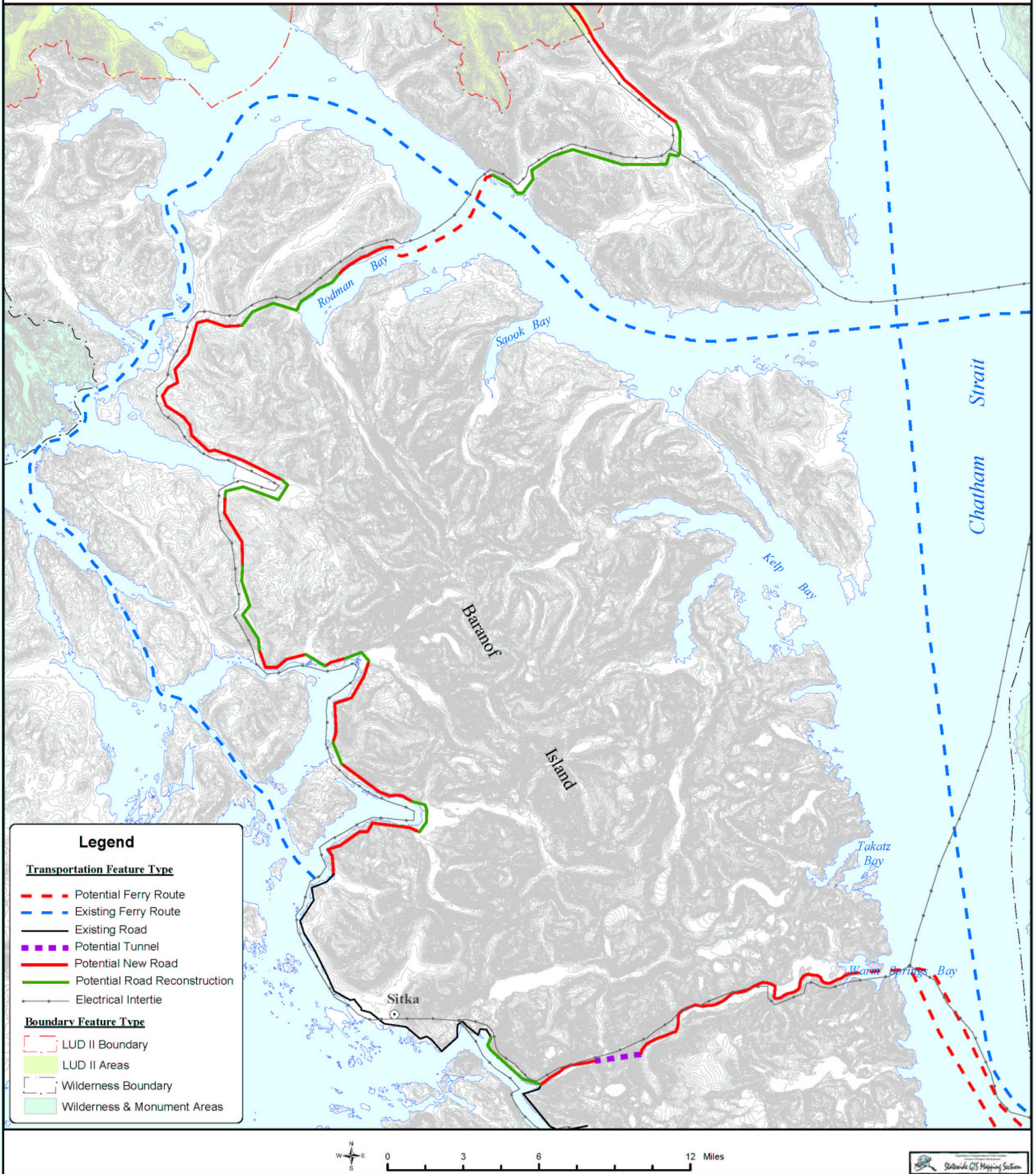
Total EIS	\$9 million
Design	\$15 million
Construction	\$206 million

Sitka Access EIS

Access and the frequency of ferry service would be greatly improved by the addition of a road to the east side of Baranof Island where a new ferry terminal would be located. The single most difficult aspect of scheduling ferry service to Sitka is the limitation imposed by strong tidal currents through the Sergius Narrows in Peril Strait. The fast vehicle ferries should be able to navigate the Narrows through most tidal currents while conventional ferries must wait for limited periods of slack water. The Narrows creates costly delays and scheduling problems in serving Sitka with mainline ferries. The distance between Sitka and Petersburg makes point-to-point day shuttle ferry service marginal even for a Fairweather class ferry. A ferry terminal on the Chatham Strait side of the Narrows would solve these problems and make ferry service to Sitka much more efficient. See Map 12.

The department initiated an EIS in 2004 to study Sitka Access. The EIS will evaluate the proposed roads from Sitka to Rodman Bay and Warm Springs Bay and other potential land and marine alternatives. The study will conduct a more detailed assessment of the two principal road alternatives across Baranof Island and any other alternatives, including routes across the mountains to alternative ferry terminal locations, such as Kelp Bay, and corresponding potential ferry service alternatives. A detailed assessment of principal road/ferry and ferry service options will be modeled and evaluated to compare the benefits and costs of each alternative for improving mobility and efficiency of transportation access connecting Sitka, Juneau, Petersburg, the Northern Panhandle, and the rest of the world.

Map 12 : Sitka Access / Across Baranof Highway



The initial phase will take the project through preliminary NEPA scoping to develop the Purpose and Need and identify the alternatives that satisfy NEPA requirements. The estimated costs are as follows:

Total EIS	\$6 million
Construction for Rodman Bay Road and Terminal	\$160 million
Construction for Warm Springs Bay Road and Terminal	\$250 million

Mid-Region Access EIS

This plan recommends that Congress be presented with an EIS that includes both the Bradfield and Stikine corridors and the transportation components necessary to connect Petersburg and Wrangell via either route to the continental highway system in Canada. Some parties may take the position that the Stikine LeConte Wilderness Area precludes Alaska from developing a road connection between Petersburg and Wrangell and the Cassiar Highway in Canada. The department believes, however, that the benefits of the Stikine route are so great that the benefits and costs should be identified and compared to those of the Bradfield route. Assuming that benefits versus costs of the Stikine significantly outweigh those for the Bradfield route, the results could be used to convince both Canada and Congress to support development of the Stikine route. The existing treaty and agreements with Canada should favor this proposal.

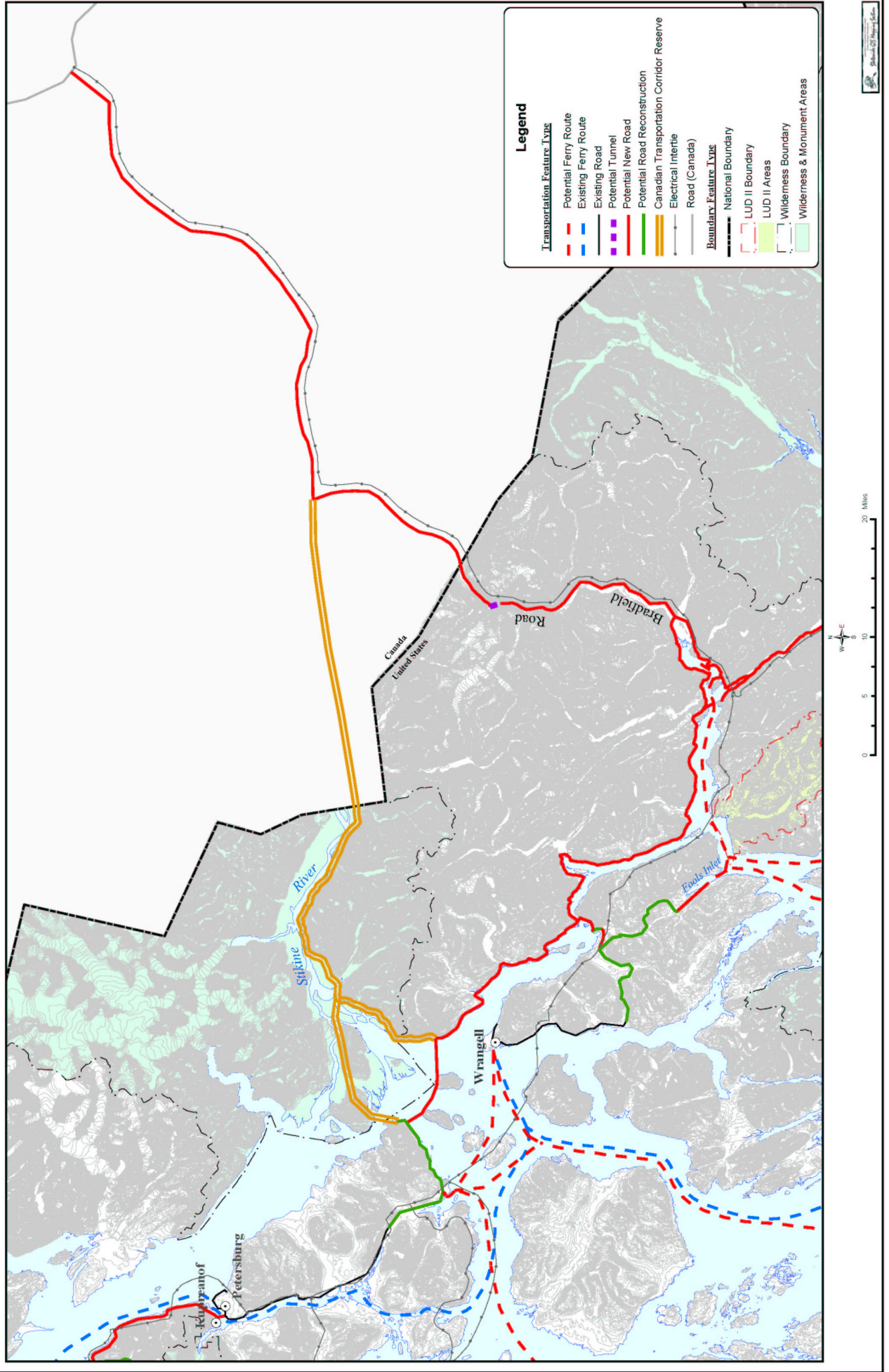
The FHWA, Western Federal Lands Division, Vancouver, Washington, is conducting preliminary reconnaissance work on the Bradfield route, and the department has conducted preliminary reconnaissance work on the road to Fools Inlet on Wrangell Island.

Map 13 shows potential and existing routes. The estimated costs for the project are as follows:

Total EIS	\$6 million to \$10 million
Construction for Bradfield Road from head of Bradfield Canal to the border	\$220 million
Construction for 8-mile extension of Bradfield Road to Duck Point and ferry terminal	\$37 million
Construction for 22-mile extension of Zimovia Highway and ferry terminal at Fools Inlet	\$57 million

The Fools Inlet connection would be required to provide an efficient northbound connection to a Bradfield Road connection to Canada, a connection to a proposed shuttle ferry-road connection to Ketchikan, or both.

Map 13 : Mid-Region Access / Bradfield Highway



The ultimate objective would be to someday connect Petersburg and Wrangell by road and bridges with a direct highway connection to the continental highway system in Canada.

No current cost estimate is available for the Stikine Highway alternative.

Ketchikan Access EIS

This project would connect Ketchikan to the proposed Mid-Region Access Road to Canada and to Wrangell and Petersburg, as shown on Map 14. The road would run north from Ketchikan to the Behm Canal near Bell Island, and a shuttle ferry crossing would be supplied. The road would then run across the east end of the Cleveland Peninsula to the Bradfield Canal (or still farther to Stikine River if that mid-region access route is selected.) A highway up the middle of Revillagigedo Island to Behm Canal would benefit Ketchikan residents by providing access to developable land on the rest of the island and to the island's recreational, timber, and mineral resources. In addition, it would add capacity to the regional transportation system. This EIS would be coordinated with the Mid-Region Access EIS, but the proposed action would offer independent utility, regardless of the conclusion of the Mid-Region Access EIS. Three to six years would be needed to complete the EIS.

This project is independent of the Mid-Region Access (discussed above). Although one does not have to be built for the other to be built, the projects would clearly benefit one another if both were built. A resident of Ketchikan could drive out to the continental road system with only a single 20-minute ferry crossing of Behm Canal, probably on a vessel much like the double-enders serving the Ketchikan International Airport - Tongass Narrows crossing.

The estimated costs are as follows:

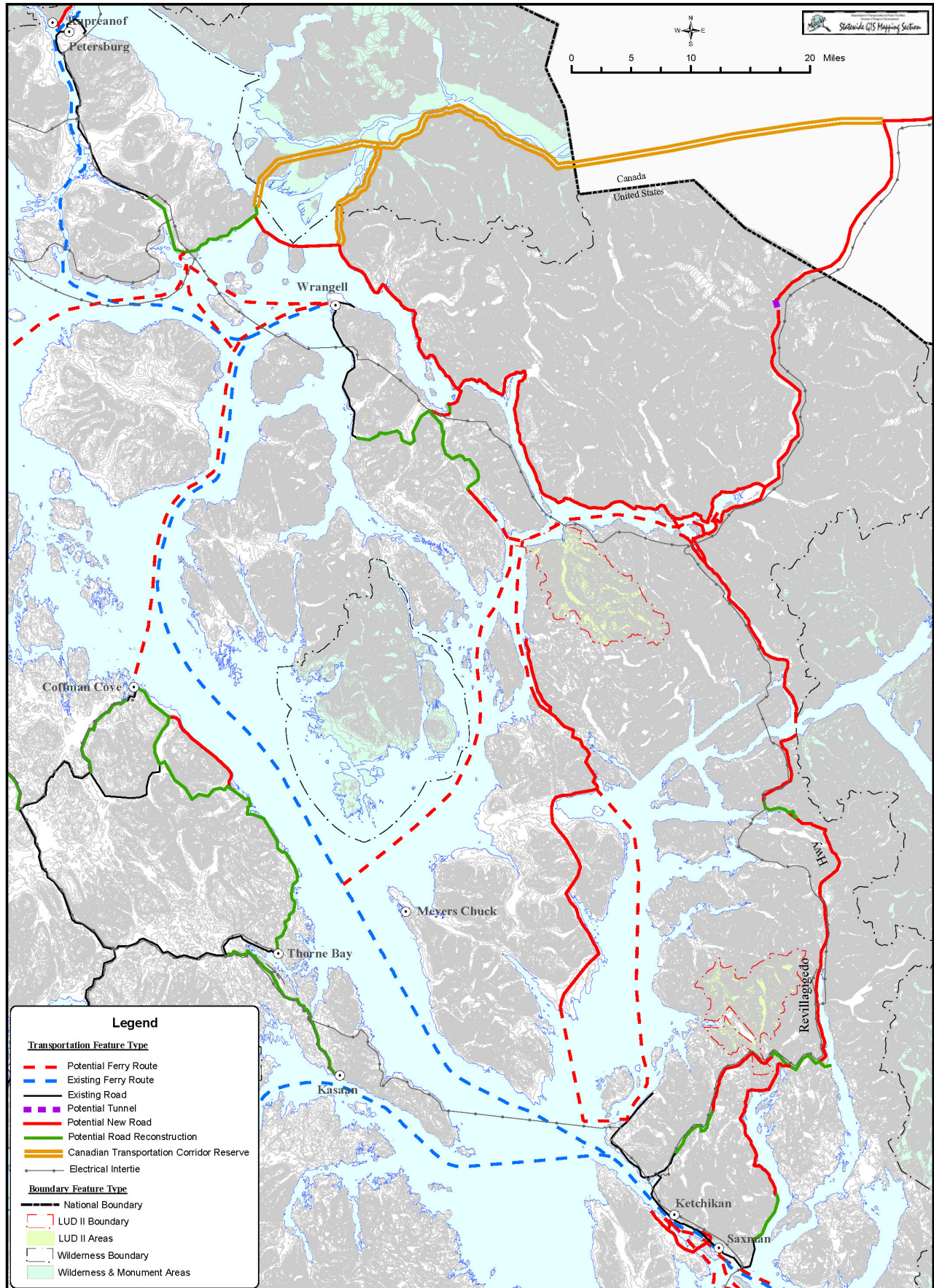
Total EIS	\$6 million
Construction for Revillagigedo Highway to Duck Point, including Behm Canal ferry crossing	\$265 million

The ultimate objective would be to someday connect Ketchikan to Petersburg and Wrangell by road and bridges with a direct highway connection to the continental highway system in Canada.

Procurement of Additional Fast Ferries

The SATP planning team reviewed the fast ferry concept and reaffirms the need to acquire two additional Fairweather class ferries for service in Southeast. The two additional vessels will run between Juneau and

Map 14 : Ketchikan Access / Revillagigedo Highway





Petersburg and between Petersburg and Ketchikan. A third, larger fast ferry, the Southern Gateway Shuttle, needs to be acquired for service between Ketchikan and Prince Rupert. These three ferries will replace an existing mainline ferry between Prince Rupert and Juneau, in addition to the mainline ferry capacity requirements replaced by Juneau Access improvements. Subject to due diligence on the performance of the

Fairweather (see the next section), funding for these two fast vehicle ferries would be obligated. The third fast vehicle ferry must be obligated by May 2005 to secure delivery in time for the 2006 summer season. The fourth fast vehicle ferry must be obligated by March 2006 to secure delivery in time for the 2007 summer season. Delivery of these fast ferries will enable the department to provide more frequent, regular, and convenient service between communities in Southeast Alaska in both winter and summer at less overall cost.

The *M/V Matanuska* would provide dayboat service between Ketchikan and Prince Rupert until the new Southern Gateway Shuttle ferry is designed and constructed to replace her in 2008, available funding permitting.

Deployment of the fast vehicle ferries will require the terminal modifications described below.

Auke Bay Ferry Terminal — Homeport

The existing terminal at Auke Bay has two side-load berths and a homeport stern berth for a fast vehicle ferry. The existing side berth layouts are floating transfer bridges with fixed dolphins. They accommodate the mainline ferries, but will need modifications to accommodate a fast ferry. The existing side berth (east or west) will need to be modified to accommodate the third fast vehicle ferry as a homeport. The required modifications are as follows:

- Addition of two all-tide dolphins to provide overnight moorage
- Modification or addition of new catwalks as required to access the new dolphins and existing dolphins
- Adjustment of the ballast in the bridge support float and modification of the apron lift beam to prevent interference with the vessel sponson (a projective structure similar to a car bumper)
- Addition of utilities (fuel, sewer, water, and electric) requested by AMHS

The improvements will require environmental documentation and a U.S. Army Corps of Engineers permit. Geotechnical work for new dolphins may be needed. The project will be within existing right-of-way.

Petersburg Ferry Terminal Mooring Improvements

The existing terminal in Petersburg is a side-load facility with a floating transfer bridge and fixed dolphins. The layout accommodates the mainline ferries, but will need modifications to accommodate a fast ferry. The required modifications are as follows:

- Addition of a dolphin to provide a more secure moorage for the stern of the fast vehicle ferry. The existing dolphin could be expanded to provide more fendering area, but would need to be raised for the higher freeboard of the fast vehicle ferry.
- Two new catwalks for access to the new dolphin and existing dolphins
- Raising the fender panels on three existing dolphins
- Adjustment of the ballast in the bridge support float and modification of the apron lift beam to prevent interference with the vessel sponson
- Addition of any utilities (fuel, sewer, water, electric) requested by AMHS

This project will require environmental documentation and a U.S. Army Corps of Engineers permit. Geotechnical investigations may be required for a new dolphin. The project will be within existing right-of-way.

Ketchikan Berth 3 Modifications — Homeport

The existing terminal at Ketchikan has two side-load berths (Berths 1 and 2) and a stern berth (Berth 3), which is now being used by the IFA vessel *Prince of Wales* and the *Lituya*. The existing stern berth is a floating berth, but will need to be modified to accommodate the fourth fast vehicle ferry as a homeport. The following additions will be required:

- One all-tide bow dolphin
- New, taller steel fender panels for the existing fendering float
- Electrical shore power and fueling capability. Water and sewer utilities exist at this facility.

The project will require environmental documentation and a U.S. Army Corps of Engineers permit. It may require geotechnical work for a new dolphin. The project will be within existing right-of-way.

Petersburg South Mitkof Island Terminal

The South Mitkof Terminal is scheduled for a Phase 1 construction to accommodate the IFA vessel *Stikine*. Phase 2 of this project will consist of

improvements to accommodate the fourth fast vehicle ferry. Phase 2 requires the following improvements:

- Three additional dolphins to allow the IFA vessel to slide forward when its schedule conflicts with the fast vehicle ferry schedule
- Expansion of terminal building and staging area
- Addition of utilities (fuel, sewer, water, electric) requested by AMHS

Environmental documents and permits, geotechnical investigations, and right-of-way requirements are expected to be addressed under Phase 1.

Wrangell Ferry Terminal

Modifications are proposed to the Wrangell Terminal to provide scheduling flexibility to meet special and seasonal needs for fast vehicle ferry service. The existing facility in Wrangell is a side-load berth with a transfer bridge that has a lift system and fixed dolphins. The facility accommodates mainline vessels, both port and starboard, but will require modifications for the fourth fast vehicle ferry. The required modifications are as follows:

- Raising the fender panels on three existing mooring structures
- Addition of utilities (fuel, sewer, water, electric) requested by AMHS

This project will require a nationwide permit and will be within existing right-of-way.

Prince Rupert Ferry Terminal

The City of Prince Rupert needs to refurbish the existing AMHS terminal. Additional modifications required to accommodate the proposed Southern Gateway Shuttle ferry cannot be determined until the new ferry has been designed. Existing terminal facilities would be considered during vessel design.

Due Diligence for Fast Ferry Implementation

Concern was expressed about whether the proposed construction of two additional Fairweather class fast passenger and vehicle ferries is prudent before gaining experience from operation of the *M/V Fairweather*. The Alaska Legislature withheld authorization to receive and expend federal funding receipts until an investment plan was submitted confirming that the planned acquisition of two additional Fairweather class ferries will contribute to creating an efficient and effective transportation system for coastal Alaska.

After significant due diligence, the department is confident that the *Fairweather* has been designed and constructed consistent with vessel technology proven around the world and that the intended applications in

the AMHS route structure and the routes selected are appropriate for this type of ferry.

To ensure that the fast vehicle ferries are well suited to the conditions in Alaska, no further orders will be placed until operating experience is obtained during both summer and winter operating conditions. Should the state decide not to purchase additional fast vehicle ferries, existing ferries would be maintained until they are replaced with more conventional vessels and road segments. Although the SATP proposes specific road routes be developed and specific types of ferries be acquired, this conceptualization does not preclude substitution of a different road route or vessel if subsequent information directs the state to a better transportation alternative to accomplish the same objectives.

Procurement of Additional IFA Ferries

IFA intends to initiate construction of the new ferry *M/V Stikine* in 2004. Contracts will be awarded in early 2005 to construct new ferry terminals at South Mitkof and Coffman Cove. Minor improvements will be made to the Wrangell Ferry Terminal to facilitate mooring. All improvements will be completed by spring 2006. Beginning in 2006, the *Stikine* will operate between Coffman Cove, Wrangell, and Petersburg. IFA anticipates an additional ferry will be needed in the future for summer service between Hollis and Ketchikan.

X. UPDATES AND ANTICIPATED PROGRESS BY 2010

Several amendments or updates to the SATP are anticipated within the next two years. The Northern Panhandle Transportations Study, expected to be completed in 2005, will provide recommendations on how best to transport people, vehicles, and goods to and from the communities of Angoon, Elfin Cove, Gustavus, Hoonah, Kake, Pelican, Port Alexander, and Tenakee Springs. The Southeast Alaska Aviation System Plan Study will be initiated in 2004 to evaluate the regional air transportation system, forecast regional air traffic demand, and clarify the need to improve the region's aviation facilities. The results of both efforts will be incorporated into the SATP in 2005.

The planning and development studies identified below (and described on pages 84 to 90) support major projects that are scheduled for completion during the next six years:

- Completion of the Gravina Access EIS and obtaining the Record of Decision on the preferred alternative are anticipated in 2004.
- The Juneau Access EIS is scheduled to be completed in 2004, and the Record of Decision on the preferred alternative is anticipated in early 2005.
- The Sitka Access EIS, which will examine road alternatives across Baranof Island, will be initiated in 2004.
- The Mid-Region Access EIS is anticipated to be initiated in 2004–2005.
- The Ketchikan Access EIS is expected to be initiated in 2005–2006.

The full benefits and cost of these important road links should be known by the conclusion of these studies. The studies will either confirm SATP recommendations or identify the need for SATP amendments and updates.

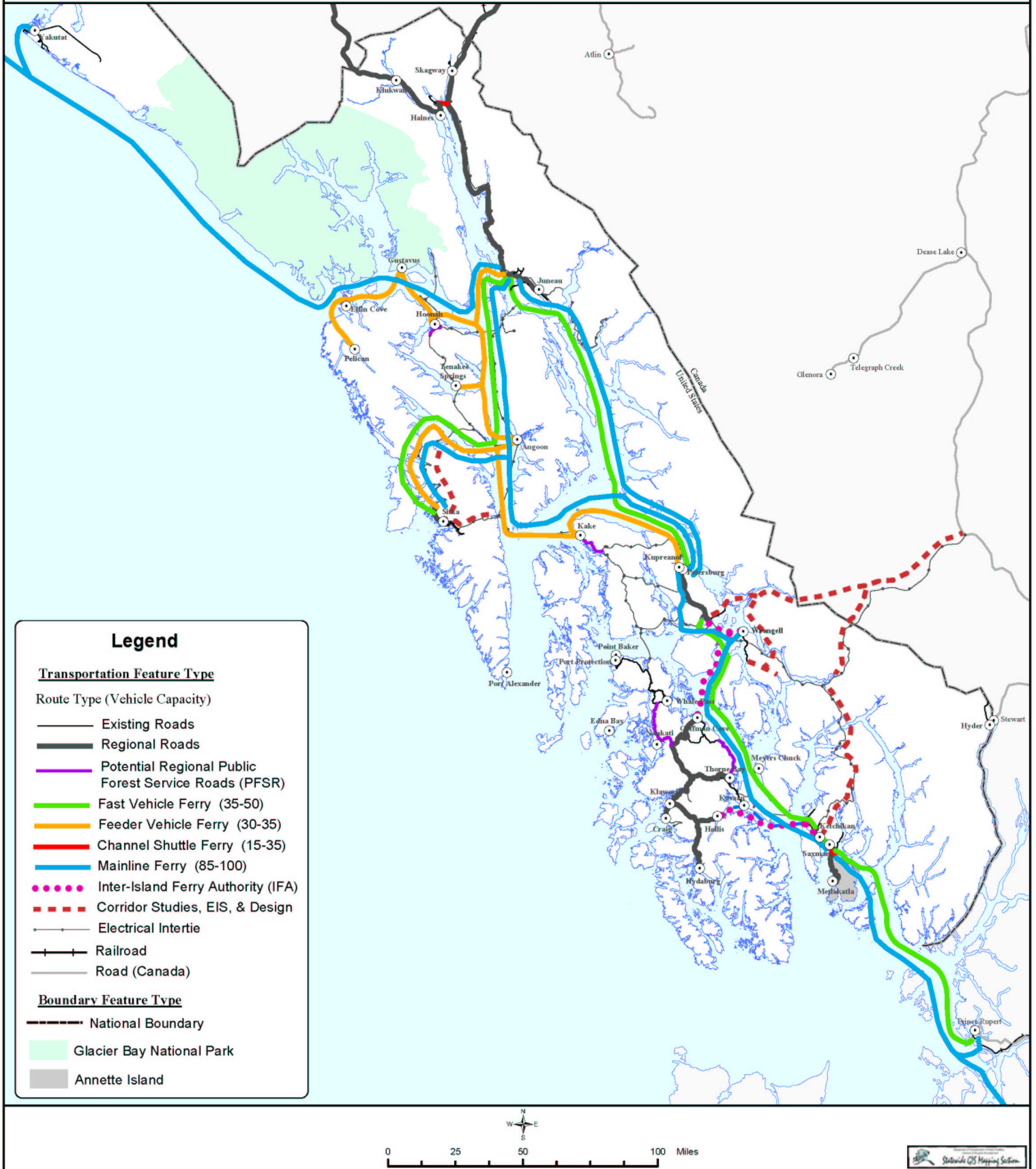
Anticipated progress in transportation improvements by 2010 includes construction of the Metlakatla Access (Walden Point Road currently under construction) (page 59), Gravina Access, (pages 49 and 86), and Juneau Access (pages 47 and 84) projects. Finishing construction of these projects assumes completion of Records of Decision and availability of necessary funding

In addition, reconstruction of the Coffman Cove Road (page 50) should be completed by 2008. Surface improvements will continue to be made to the existing regional road system during the next six years throughout the region. The Forest Service plans to reconstruct several segments of the

Alaska Forest Highway System, including North Prince of Wales Island Highway from Coffman Cove Road to El Capitan and Sandy Beach Road on Prince of Wales Island, Kake to Seal Point, and Hoonah to Spirit Camp.

Map 15 depicts the progress toward implementation of the SATP that is expected by 2010. It shows the completed Gravina Bridge, Walden Point Road, and the Juneau-Skagway Highway, as well as new road routes for which planning and environmental studies are anticipated to be completed by 2010. Other map features include the routes of ferry service and distinctions between mainline ferry routes, fast vehicle ferry links, feeder ferry service, and IFA ferry routes.

Map 15 Anticipated Progress by 2010



XI. WHAT HAPPENS IF FUNDING IS NOT AVAILABLE?

The improvements recommended for construction during the next 20 years are estimated to cost approximately \$1.8 billion. Although the 2004 SATP shifts the emphasis of the previous SATP from improving ferry service to reducing reliance on the ferry system by constructing key road segments, the key goal remains one of improving mobility and the overall efficiency of the Southeast Alaska transportation system. Both approaches are incorporated into the 2004 SATP. Replacing aged and obsolete ferries with more efficient ferries will improve overall system efficiency; however, much greater system efficiencies and mobility improvements can be achieved by construction of several key highway segments coupled with compatible fleet replacement.

Initial regional priorities are construction of the bridge from Ketchikan to Gravina Island, the road between Juneau and Skagway, Walden Point Road, and a number of new ferries, including several fast vehicle ferries. New ferries are already supplementing and replacing older ferries to improve system operations. Key to accomplishing a major reduction in system operations and maintenance expense will be construction of the road to Juneau, replacement of older ferries with more efficient vessels and reliance on Bellingham runs for most mainline sailings. The priorities of the other key road projects will be determined by the findings of the detailed environmental studies, which are yet to be accomplished.

On a timely basis, full funding of each component is required to realize the full range of anticipated benefits (in service) and cost savings (to both the traveler and the state). To the degree that adequate funding is delayed, the anticipated incremental benefits and cost savings will not be realized. Project deferments caused by funding delays will not mean that the region will operate without a viable transportation system. Instead, without the projects, the region will have to invest more funds in maintaining existing infrastructure and obsolete ferries and make do with a less efficient system.



The SATP is an ambitious plan with big goals. By adding new highway links to the system, the SATP aims to remove the fundamental impediment to making long-distance movements in Southeast Alaska. Premises of the plan include not accepting existing impediments as givens and rejecting the approach of lowered expectations. The SATP

emphasizes what is needed now – highway links serving the population of the region.

The 2004 SATP offers both change and continuity with respect to the previous plan. Change is achieved by recommending construction of key roads to reduce reliance on ferries by either shortening or eliminating ferry connections to increase mobility and reduce cost to the traveler and the state. Continuity is achieved by continuing a program of adding new ferries and retiring old ferries to provide a viable, more efficient, and more flexible ferry fleet.

Despite its capital funding requirements, the SATP directs the region toward implementation of a transportation system that emphasizes increased mobility at lower cost. In a rural setting, the primary factor limiting efficiency gains in transportation is the availability of funding for the construction of new facilities. The benefits from efficiency gains are substantial. In Southeast Alaska, inefficiency is obvious because there are major restrictions at the system level in terms of mobility and cost. The SATP calls for implementing the most efficient system that can be afforded at any point in time. A more efficient transportation system supports greater economic activity and a higher standard of living.

XII. PUBLIC COMMENT AND RESPONSE SUMMARY

This chapter summarizes comments received from January 5 through February 23, 2004, and provides corresponding responses. In response to circulation of the *Southeast Alaska Transportation Plan, Draft Update for Public Review, January 2004*, comments were received on six major topics. Summaries are generally by subtopic, and do not indicate community origin. Comments were submitted through letters, e-mails, completed questionnaires, and the SATP website, as well as verbally and in writing during public meetings held in 18 communities throughout the region.

Comment	Response
1. SATP — PROCESS AND CONTENT	
1.1 General Comments	
<p>Concern was expressed that the current update is unnecessary, rushed, and arbitrary in its analysis and use of data. From this perspective, there have not been changes in the conditions or assumptions underlying the 1999 SATP that warrant its reconsideration.</p>	<p>The timing of the update effort is based both on changes in assumptions and conditions and the importance of currency for SATP recommendations. The plan text has been substantially revised so that changes in assumptions and conditions are clearly identified, and the presentation of data and accompanying analysis has been improved. State regulations require review and update of the Alaska Statewide Transportation Plan and its component area plans every five years. Because the previous SATP was dated March 1999, an update effort was due.</p>
<p>Concern was expressed that the draft was inherently biased toward roads, and that data and analysis are selectively presented so that the choice of land highways is a foregone conclusion.</p>	<p>The project team conducted an open and balanced technical process that assessed, without bias, different kinds of transportation solutions for specific corridors. There were problems with presentation in the draft, but these problems did not poison the process nor corrupt the technical analysis. Presentation problems are now corrected.</p>
<p>Concern was expressed that time for public input/debate was too short and public comment would not influence the final outcome. Other comments complemented and encouraged the SATP update work and process.</p>	<p>The comment period was 45 days in length, which is the standard period used by the department for public review of planning documents. There was adequate time during the review period to receive comments from those who wanted to provide them. In response to public comment, deployment recommendations for the <i>Kennicott</i> have changed and the plan text has been substantially revised.</p>
<p>Comments requested that the process include government-to-government meetings with Indian tribes, as called for in the Millennium Agreement.</p>	<p>The update process included active coordination with representatives designated by Indian tribes. Two meetings with tribal representatives were held in Juneau. The draft SATP update was presented to the Sitka Tribe of Alaska in response to the Tribe's request.</p>

Comment	Response
1.2 Goals and Objectives	
<p>Concern was expressed that the draft SATP placed too much emphasis on the goal of reducing costs to the state, to the exclusion of other goals related to an effective transportation system for people and freight in the region.</p>	<p>Boosting mobility and improving efficiency are the primary emphases of the SATP. Greater mobility is indicated by more trips being made, and more flexibility with respect to when those trips are completed. Efficiency improvements are frequently measured in economic terms, such as costs to the traveler and to the state. Although cost to the state is easier to measure than other indicators, it is only one of many indicators of what the SATP aims to accomplish.</p>
<p>Comments requested that meeting of freight needs be highlighted as a goal of the plan.</p>	<p>The SATP envisions an improved, integrated regional transportation system that accommodates all movements without the need for measures specific to freight haulers. Individual components would be designed so that standard highway loads could make the trip without restrictions. With respect to air movements, state facilities are already in place for the landing and loading of cargo aircraft.</p>
1.3 Analysis	
<p>Broaden the analysis: Comments requested that the SATP demonstrate that it is comprehensive. It was suggested that a more comprehensive plan would include a more detailed analysis of the relationship between transportation and the visitor industry, an analysis of air transportation, inclusion of programs (Trails and Recreational Access for Alaskans [TRAAK] and SEATrails) for trails, and more detailed consideration of bicyclists and pedestrians.</p>	<p>The elements of the SATP provide a surface transportation system for the region that is integrated with the aviation mode and accommodates future travel demand from the visitor industry, including bicyclists and pedestrians. The revised text does a better job of explaining the broad scope of the plan. Planners recognize the timeliness of a system-level study of the state role in Southeast Alaska aviation. A study on this topic is funded and will begin shortly.</p>
<p>Economic Impact on Communities: Comments requested that economic impacts on communities be analyzed and presented. (Examples include communities that may be affected by AMHS job loss or changes in ferry service and communities that may benefit from new transportation projects or approaches.)</p>	<p>A primary aim of regional transportation planning is to ensure that state involvement in transportation is synchronized with community growth and development. However, the state is not proposing to turn its transportation involvement into the primary economic engine for a community. Previously, impacts for one community were explored in detail as part of the Petersburg Transportation Impact Analysis. In general, specific identification and analysis of economic impacts on communities takes place during the environmental phase of project development.</p>
<p>Freight Analysis: Comments requested a much more detailed analysis of the impacts on freight, including effects on cost, capacity, reliability, time in transit, and frequency. Comments focused on shipments of seafood; some stated that mainline ferry service is more suitable than a road system or fast vehicle ferry for shipping seafood, with others favoring new shipping alternatives.</p>	<p>The planning team gave thorough consideration to freight concerns, and recognizes that the transportation of seafood products to market is critical to the regional economy. SATP elements provide adequate capacity for current and future freight movements on all state highway and ferry links.</p>
<p>Travel Times: Comments requested more information about travel times (passenger and freight) under the proposed transportation scenarios.</p>	<p>Comparisons of travel time have been included in Appendix B.</p>

Comment	Response
<p>Project Costs: Comments requested more detailed and accurate information on costs, including the costs to users of the proposed road/shuttle ferry system (especially for those traveling without vehicles), and capital and maintenance costs for roads and ferries. A clearer listing of the detailed costs for the proposed projects was requested.</p>	<p>The economic analysis in the SATP looks at the regional system as a whole. It uses general measures of costs, and does not attempt to achieve absolute precision in individual cost estimates. Planners are confident that the relative accuracy of the cost estimates is consistent across modes.</p> <p>The economic analysis does not record every discrete change in cost to the traveler. The changes proposed have different effects on different types of travelers, and direct costs for passengers (when traveling without a vehicle) could be higher on some segments. In the economic analysis, benefits to the majority of travelers outweigh the increased costs that some travelers (passengers) would experience.</p> <p>Development of more detailed cost data takes place during the environmental phase of project development, frequently in the form of an EA or EIS. Public concerns about cost impacts are identified, quantified, and analyzed prior to final selection of an alternative.</p>
<p>Ferry versus Road Cost Comparison: Concern focused on the text that indicated that ferries cost \$2.00 per vehicle mile while roads cost one cent per vehicle mile. Criticisms included that costs could not be compared meaningfully between the two systems, the appropriate test was passenger miles instead of vehicle miles, the full costs of roads were not considered (planning, permitting, construction, maintenance, reconstruction, and indirect costs of managing use and ensuring safety), and road use counts used in the analysis were unrealistically high for a road system in Southeast Alaska.</p>	<p>This comparison has been removed. It was considered to be too general and simplistic to speak to the many choices available and the likely variation between solutions in different corridors. Planners continue to seek a good way to summarize differences between ferries and land highways in terms of maintenance and operations costs, revenues, and other considerations. A breakout of the relevant cost and revenue data necessary to make an accurate comparison is not readily available; however, available traffic and cost data do support this general comparison.</p> <p>On the other hand, it is clear to planners that the choice of land highways is more cost-effective from the perspective of the user and annual operations and maintenance cost as traffic volumes increase from an overall cost perspective, including capital cost. Variables such as feasibility, traffic levels, construction costs, and environmental impacts require detailed analysis during project development in the context of the environmental process. The environmental process is the appropriate forum for reaching a firm conclusion for a specific transportation project.</p>

Comment	Response
1.4 Implementation	
<p>Schedule: Comments requested a detailed schedule for plan implementation, including a more detailed schedule for when projects would be completed and when ferries would be retired and new ferries would come on-line.</p>	<p>Because the timing of project completion and changes in ferry operations are subject to numerous factors, it is inappropriate for the SATP to provide a more detailed schedule. Clearly, elements of the plan cannot proceed until they are funded. The SATP is a direction-setting document, but it does not commit funding to projects, nor account for scheduling changes as projects are advanced. This role is played by the Statewide Transportation Improvement Program (STIP). Those interested in a more detailed schedule would want to participate in formulation of and modifications to the STIP, which is circulated to the public prior to adoption.</p>
<p>Financing: Comments questioned whether the SATP is supported by a sound economic analysis and realistic funding scenarios for construction and for maintenance and operation costs. Reliance on federal earmarks for major projects was noted with concern by some, who suggested that alternative funding mechanisms be explored. The SATP must be able to respond to changing economic realities if original economic assumptions are not met.</p>	<p>The program of transportation improvements in the SATP is ambitious, and consequently funding requirements are substantial. The primary factor governing progress will be the availability of federal earmarks for major projects. Recent years have seen substantial increases in the amount and availability of federal earmarks. If this trend continues, enough funding will be available to complete major elements of the SATP. If there is a shortfall in federal earmarks, and other funding sources are not found, then the next update of the SATP will need to revise the program and identify an updated funding strategy.</p>
<p>Contingency Plans: Comments suggested that the SATP include alternative or contingency plans in the event that major elements of the program cannot be accomplished (for example, because of lack of capital funding or because of permitting constraints).</p>	<p>See previous response. Although delays would be unfortunate, elements can proceed on varying timelines without disrupting the integrity of the overall plan.</p>
<p>Public Forest Service Road Program: Comments requested that this program be identified as a legislative proposal and not relied upon, unless it has been authorized at the national level and adequately funded.</p>	<p>The SATP includes the Public Forest Service Road Program for coordination purposes, but critical elements of the plan do not rely upon it. This initiative of the Forest Service has the potential to substantially benefit Alaska. The text has been revised, and remaining references do not imply that the program has been authorized and funded.</p>
<p>NEPA Coordination: The Forest Service expressed concern that the presentation of some proposed roads did not provide an adequate basis for establishing Purpose and Need at the start of the environmental process.</p>	<p>The SATP includes a description of Purpose and Need (Chapter V), and there is a clear basis for commencing the environmental process for state-initiated plan elements. This comment refers to corridors (such as Kake to Petersburg) that are shown as proposed regional Public Forest Service Roads. The SATP has identified essential transportation and utility corridors and requests that the Forest Service preserve, improve, connect, and maintain forest roads within the corridors designated essential by the state. The state believes that sufficient need has been identified to commence the environmental process. The environmental process will expand and refine the purpose and need for each individual project.</p>

Comment	Response
<p>Pioneer Roads: The Forest Service suggested consideration of initial, interim construction of a much narrower road, followed by upgrades over time that bring the route up to modern highway standards.</p>	<p>This approach was considered and rejected by the planning team. With respect to state highways, public expectations are high. Once basic road access is in place, many members of the public drive as if the route can support higher travel speeds, even when it is obvious that this choice is inappropriate. The SATP calls for basic, “no frills” state highways, but not without key elements such as two travel lanes, a paved surface, and several feet of roadside width that can be used when needed for evasive maneuvers and emergency parking.</p>
<p>2. ALASKA MARINE HIGHWAY SYSTEM</p>	
<p>2.1 Fast Vehicle Ferries</p>	
<p>More than 120 comments were received about the use of fast vehicle ferries. Approximately 60 percent favored use of fast vehicle ferries, and about 40 percent opposed or expressed concerns.</p>	<p>The department is confident that fast vehicle ferries will perform acceptably, based on several factors, including research into the successful operation of similar ferries in other parts of the world. The <i>Fairweather</i> has begun service and is performing consistently and reliably.</p>
<p>Those who supported the fast vehicle ferry cited its shorter travel time between ports, which makes it easier to schedule frequent service. They generally saw greatest utility for the fast vehicle ferry in the Lynn Canal corridor and connecting Sitka to Juneau.</p>	<p>The shift to fast vehicle ferries means more frequent opportunities to make shorter trips via ferry. Although each sailing has less car deck space, through capacity increases because of the greater number of trips the fast vehicle ferry can make in a given time period. Because fast vehicle ferries are able to haul trucks, heavier loads are able to make the trip.</p>
<p>Those concerned about the use of fast vehicle ferries raised the following concerns: expense to operate (related to fuel consumption), safety questions, capacity limitations for vehicles and freight, loss of aesthetic and relaxing ferry travel experience, reductions in crew jobs, and the potential for collisions with marine mammals.</p>	<p>The fast vehicle ferry will consume more fuel than a comparable conventional ferry. However, decreases in crew costs will more than offset higher fuel costs. There are parallels here with jet aircraft – fuel consumption is high but the speed at which the trip is completed leads to lower costs overall.</p> <p>Fast vehicle ferries operate at higher speeds than do conventional ferries, and consequently are subjected to more stringent requirements to ensure safety. Higher speeds may have other effects, such as making it somewhat less likely that collisions with marine mammals will be completely avoided. Because they prefer slower travel speeds, some travelers may avoid the fast vehicle ferry and choose to travel by mainliner.</p>

Comment	Response
<p>There were concerns and objections with freight-hauling changes associated with fast vehicle ferries, specifically that a tractor and driver would need to accompany a freight trailer while it was in transit.</p> <p>Wrangell residents asked that fast vehicle ferry service between Ketchikan and South Mitkof be routed through Wrangell. Similar requests involving service between Juneau and Sitka were received from Hoonah and Angoon residents.</p>	<p>Unlike mainliners, fast vehicle ferries are intended for point-to-point service. Like the IFA's <i>Prince of Wales</i>, the ferries rely on the use of the stern door at one end of the sailing. This approach shortens the loading and unloading cycles and simplifies the loading process for larger vehicles (such as recreational vehicles), but it does have consequences. In response, AMHS loading and scheduling practices for fast vehicle ferries are different than for mainliners.</p> <p>The first consequence is specific to trucks. It has been suggested that after driving onto the vehicle deck, the tractor should not be detached from the trailer and instead be transported with the trailer to the unloading point. This practice would speed up the loading and unloading cycles; however, carriers have pointed out that this practice may make use of the ferry uneconomic for them. AMHS is exploring the feasibility of loading only the vans.</p> <p>The second consequence is that the scheduling of intermediate stops on a point-to-point sailing is ruled out. For example, fast vehicle ferries will not stop at Wrangell when traveling between Ketchikan and South Mitkof. Instead, IFA will be the initial operator to provide connecting service between the fast vehicle ferry and Wrangell.</p>
<p>Concern was expressed that the fast vehicle ferry is not the right choice for service between Ketchikan and Juneau because fast vehicle ferries will require consistently high revenue to offset operating costs.</p>	<p>When compared to mainliners, it will not be difficult for fast vehicle ferry service to meet or exceed the ratio of revenue recovery achieved by existing service out of Prince Rupert. For example, the <i>Taku</i> spent 44.1 weeks sailing out of Prince Rupert, according to the most recent 2003 AMHS Annual Financial Report. Revenues totaled \$4.8 million, whereas operating costs were \$9.5 million. The precise cost parameters of the first fast vehicle ferry will not be known until labor negotiations are complete and operating experiences are gained. In particular, these parameters are needed to identify the breakeven point for this vessel (the average load that covers costs for a sailing). However, operating costs per hour will clearly be lower. Because there are fewer operating hours to cover, a comparable revenue stream will go farther toward funding operating costs.</p>
<p>Several people suggested that ADOT&PF provide a longer, all-season evaluation period for the first fast vehicle ferry, <i>Fairweather</i>, before a decision is made to purchase the third and fourth fast vehicle ferries.</p>	<p>The decision to purchase the third and fourth fast vehicle ferries has not been made, and the Marine Transportation Advisory Board will participate in the decision process. AMHS has already demonstrated the sailing capabilities of the <i>Fairweather</i> in a variety of sea conditions. Some level of operational experience will be gained before it is decided to acquire additional fast vehicle ferries. The state will determine when the information is sufficient to provide reasonable confidence that the fast vehicle ferries will perform as intended.</p>

Comment	Response
<p>2.2 General Comments About AMHS Service</p>	
<p>More than 60 comments were received about stabilizing and improving traditional AMHS (non-fast vehicle ferry) service. Frequent suggestions are noted below.</p>	
<p>Find ways to improve mainline service, thus ensuring sustainability and availability for freight shipments.</p>	<p>Mainline service will continue with two mainliners operating from Bellingham during the summer schedule and one throughout the year. This service is expected to generate revenues that exceed vessel operating costs, and thus is sustainable. In addition, the <i>Kennicott</i> is partially available for mainline service. A change from the draft SATP update is to maintain <i>Kennicott</i> as a 24/7 vessel and operate a weekly service between Prince Rupert, British Columbia, and Whittier (including intermediate stops). Marketing efforts are under way to increase traffic on sailings, and thus enhance sustainability.</p>
<p>Improve ferry scheduling.</p>	<p>Too many constraints govern current schedules for the results to ever be satisfactory to all constituents. In response, new ways of providing service have been put in place by IFA and AMHS. These new services offer schedules that are much more attractive and acceptable to the traveling public. Reliable and predictable departure and arrival schedules are very important to businesses and the public. Further progress in this direction is recommended, with the ultimate outcome that highway links, including various shuttle ferry connections, are in place for primary travel corridors. Thus, most restrictions related to ferry schedules would be eliminated for travelers.</p>
<p>Retain the <i>Taku</i>.</p>	<p>The <i>Taku</i> cannot be retained if there is no opportunity to deploy her in a breakeven capacity. According to the 2003 AMHS Annual Financial Report, the <i>Taku</i> spent 44.1 weeks sailing out of Prince Rupert in fiscal year 2003. Revenues totaled \$4.8 million, whereas operating costs were \$9.5 million. Several million in deferred maintenance would have to be made just to maintain her over the next couple of years, and more than \$40 million would have to be invested to operate her over the next 15 years.</p>
<p>Ensure equitability of service (particularly for small communities such as Hoonah, Angoon, and Kake).</p>	<p>The current balance in AMHS–provided service between communities is appropriate, given funding limits, revenue generation, and other constraints. In response to public concerns, new ways of providing service are actively being investigated. The next step along these lines is the Northern Panhandle Transportation Study, which will be started during 2004 in conjunction with the Sitka Access EIS.</p>

Comment	Response
Upgrade small vessels (such as <i>LeConte</i>) for safety and comfort.	The <i>LeConte</i> is safe, but the limited passenger capacity (250) is not sufficient for travel to special events. On most trips, passenger loads are well below capacity. On those trips for which passenger counts approach capacity, some travelers find that not all of their fellow passengers are considerate when it comes to the sharing of the limited public space. There is no obvious solution to inconsiderate behaviors, beyond encouraging all passengers to respect the needs of others.
Locate ferry terminals close to communities or ensure convenient ground transportation.	Proposed terminal locations are based on optimizing system efficiency. Although overall efficiency increases, the effects on individual travelers vary. Direct costs for passengers (when traveling without a vehicle) could be higher to complete some trips, for reasons such as having to pay a shuttle bus or taxi fare for transportation to or from the terminal. In Southeast, three mainline terminals are already outside the communities. At these terminals, the current practice is to rely on the private sector to provide ground transportation to the community center.
Take steps to increase ridership.	<p>AMHS is increasing its marketing efforts; however, its marketing budget is limited. In terms of system finances, an increase in ridership is useful only to the degree that it increases the ratio of revenue recovery above current levels. The amount of traffic with high revenue-generating capabilities that is not already using AMHS is unclear.</p> <p>The SATP prescribes more frequent regular scheduled service on convenient daylight schedules. Frequent, regular, convenient service should increase ridership.</p>
Increase the capacity of the transfer bridge in Prince Rupert so that it does not restrict truckers in hauling legal loads.	The weight limit on the transfer bridge in Prince Rupert is 70,000 pounds. This limit is well below Alaska's maximum for a five-axle truck, which if properly configured (in terms of tires and axle spacing) can weigh 88,000 pounds. The Port of Prince Rupert owns this transfer bridge. The magnitude of this payload restriction was identified from public comments, and the appropriate response has yet to be determined.

Comment	Response
3. INTER-ISLAND FERRY AUTHORITY	
<p>More than ten comments addressed IFA, and expressed the following:</p> <p>Some who commented expressed support for IFA and its expansion to a second corridor (Coffman Cove, Wrangell, South Mitkof). They noted its importance in tying small communities together and providing an alternative connection to mainline ferry service.</p>	<p>The addition of service (initially during the summer months) in the northern corridor (Coffman Cove, Wrangell, and South Mitkof) is a basic element of the SATP. Funding for the required improvements (including ferry acquisition) is identified and is close to being fully committed.</p>
<p>Others who commented raised concerns about IFA's long-term financial stability and the possible need for a state subsidy.</p>	<p>IFA has demonstrated that it can cover its operating costs from revenues. The premise that traffic levels in the Hollis to Ketchikan corridor are adequate to support the costs of daily service has been confirmed.</p> <p>Unlike the AMHS budget, the IFA budget is not part of the state's operating budget. There is no annual appropriation of state operating funds to IFA. Although IFA is financially independent, there are financial exchanges between IFA and the state. For example, the ferry terminal in Ketchikan is state-owned. A second example would be the AMHS link to Metlakatla, for which IFA has provided service when it was not cost-effective for AMHS to do so. Because these arrangements are new, both IFA and the state are determining the appropriate financial exchanges. The state is seeking arrangements that emphasize the greatest amount of service to the traveling public, while ensuring that IFA compensates the state for those costs that are directly related to IFA use of state facilities.</p>

Comment	Response
4. FERRIES VERSUS ROADS	
<p>The topic that received the most response was the basic question of whether Southeast Alaska would be better served by continuing to rely on AMHS (and substantially improving the network of marine connections between communities) or by constructing a network of new highways, including shuttle ferry connections. More than 300 comments were directed at this question. Comments on ferries were usually general in nature, while comments on roads were often directed to specific roads and specific issues (See Comment Section 6 below.)</p> <p>Approximately 90 percent of the commentary on this topic urged that the SATP focus on AMHS improvements, not on construction of new roads in Southeast Alaska. Concerns related to potential impacts of an expanded road system included potential changes in community and regional quality of life; environmental and aesthetic impacts of roads; impacts to wilderness areas; the high costs and uncertain feasibility of road construction, maintenance, remote ferry terminals, and emergency services on road corridors; inconvenience for travelers, especially those without vehicles; opening up areas to additional hunting pressure; loss of ferry jobs; and the prospect that road travel would be less safe and dependable than ferry travel in inclement weather and in avalanche conditions.</p> <p>About 10 percent of the commentary specifically favored the road/shuttle ferry model as more efficient and cost-effective than a system reliant on ferries. These comments acknowledged the long-term affordability and sustainability of a transportation system based on roads, particularly as pressure increases to reduce the AMHS subsidy. Other comments supporting the model reflected belief that it would stimulate the Southeast Alaska economy, support tourism, reduce freight costs, and expand access to resources. Those who commented noted that benefits to road users would include more frequent travel unfettered by ferry schedules, a less expensive travel alternative, and improvements to emergency access for communities dependent on less frequent scheduled travel by ferry or air.</p>	<p>Over the long term, roads do far more for the traveling public in terms of lower costs, increased capacity, and greater choice. The ongoing cost to crew and operate large ferries on a 24/7 basis are substantial, and have no counterpart in comparison to the costs of keeping a rural highway open, even if avalanche control or tunnel operation is required. It is a necessary function of the planning process to identify these cost differentials, and to seek the best means of providing transportation at the lowest overall cost to travelers and the state.</p> <p>There is no question that the substitution of a land highway on a link currently served by ferry will bring change. If costs to travel are reduced, this change will bring substantial benefit to the traveling public and the state. The estimated size of these benefits needs to be quantified and compared to the impacts associated with road construction. The environmental process during project development is the ideal forum for these comparisons and impact assessments. In preparing the SATP update, the state recognized specific legal barriers or obstacles to road-building, such as designated wilderness areas.</p> <p>Many of those who commented prefer that the state should simply accept the existing situation (ferry access only) for Southeast communities and not try to change it. This approach ignores the rising cost of operations and opportunities to seek capital funding with which to construct roads that would end the need for ferry access. The department cannot pursue its mission of improving transportation if it precludes consideration of all reasonable alternatives. It is incumbent on department planners to seek the best ways of improving access, boosting mobility, and increasing efficiency in the transportation system.</p>

Comment	Response
5. COMMUNITIES	
The following comments address specific transportation improvements desired by Southeast Alaska communities.	
5.1 Angoon	
Increased ferry service (frequency), possibly through including Angoon in the Sitka to Juneau fast vehicle ferry run. Support for better ferry connections between Angoon, Kake, and Hoonah.	The current balance in AMHS–provided service between communities is appropriate, given funding limits, revenue generation, and other constraints. In response to public concerns, new ways of providing service are actively being investigated. Community participation in the Northern Panhandle Transportation Study, which will be under way in 2004 (in conjunction with the Sitka Access EIS), is essential.
Larger, cleaner ferry to serve the community.	Concerns with cleanliness have been forwarded to AMHS. For most trips, passenger loads on the <i>LeConte</i> are well below capacity. It is not cost-effective to routinely use a larger ferry for light loads. Instead, it makes sense to schedule more frequent service in response to spikes in demand. This approach is not currently available, but will be explored in the Northern Panhandle Transportation Study.
Upgrade the ferry terminal.	The terminal in Angoon is less versatile than other AMHS terminals, a characteristic that limits service to <i>LeConte</i> class vessels. The recommendations of the Northern Panhandle Transportation Study will identify a specific course of action for this terminal. A high community priority is construction of a new terminal building with public facilities.
The community does not have an airport.	Angoon is the largest community in the region without an airport. An airport master planning study will begin in 2004. A project to construct a new airport will be presented to the project evaluation board following completion of the airport plan in 2005.
5.2 Gustavus	
<p>Support for adding ferry service to Gustavus.</p> <p>Need to raise the priority of construction of a ferry dock and use regular program funds (similar to upgrades to ferry facilities in other places) rather than relying on a federal “earmark.”</p>	<p>It makes sense to add ferry service to Gustavus. For many years the community did not support this course of action, but the recent loss of regular freight service has made the scheduling of AMHS service acceptable. The next step is community participation in completing the Northern Panhandle Transportation Study. This study is the appropriate forum for establishing the priority and funding mechanisms for construction of a ferry terminal. New construction at the current location of the Gustavus dock will be expensive, and users would continue to be exposed to severe weather.</p> <p>Because it is more sheltered, Bartlett Cove would be a much better location for a ferry terminal. Replacement of the dock at the current site will be difficult to fund because it is relatively high in cost in relation to the population served.</p>

Comment	Response
5.3 Haines	
<p>Support for frequent and reliable ferry service, including fast vehicle ferry, connecting Haines to Skagway and Juneau.</p>	<p>Since 1998, Haines (along with Skagway and Juneau) has benefited from dayboat service during the summer in the Lynn Canal corridor. For five years, this new service featured a daily sailing on a standard schedule.</p> <p>This year, the <i>Fairweather</i> is replacing dayboat service. There is direct service from Juneau to Haines five days a week and from Juneau to Skagway four days per week. This service is supplemented by mainline sailings. On the <i>Fairweather</i>, onboard travel time to Haines is cut in half and onboard travel time to Skagway drops by 63 percent.</p>
<p>Requests that the previous AMHS summer connection between Haines and Skagway be retained, because it is a critical link in the "Golden Circle" route that features the Haines Highway, Alaska Highway, and Klondike Highway.</p>	<p>This interruption in service is not permanent, and may be restored as early as 2005 with a new shuttle ferry service. Unlike in previous years, <i>Fairweather</i> service does not carry traffic to and from Skagway through Haines. Consequently, during the summer, service frequency between Haines and Skagway is reduced, and there is no longer a daily sailing on a standard schedule. Vehicle travel is not precluded, because both a highway connection and mainline sailings are available between the two communities. In addition, the private sector provides ferry service for passengers.</p>
<p>Concern about construction of the preferred alternative (East Lynn Canal Highway to Skagway) for Juneau Access, focusing on social and economic impacts to Haines, which is on the west side of Lynn Canal (see Comment Section 6.7).</p>	<p>These concerns have been recorded, and made available to those preparing the Supplemental Draft EIS for Juneau Access.</p>
<p>Concern that the draft SATP update did not show all alternatives being evaluated as part of the Juneau Access EIS.</p>	<p>The draft SATP update included a note indicating that the EIS process was not complete. The final SATP presents the preferred alternative as the road between Juneau and Skagway with a short shuttle ferry crossing connecting Haines to a new shuttle ferry terminal in the Katzeihin River Delta. Map 11 (page 85) depicts the preferred route and alternative routes under consideration in the supplemental draft EIS.</p>
5.4 Hoonah	
<p>Need more frequent (daily) ferry service between Hoonah and Juneau. Can Hoonah receive fast vehicle ferry service? Would like to be able to travel to Juneau and back without having to spend the night in Juneau.</p> <p>Hoonah to serve as the hub for shuttle ferry service (one to two times per week) to Gustavus, Pelican, Elfin Cove, and Tenakee Springs.</p>	<p>The current balance in AMHS-provided service between communities is appropriate, given funding limits, revenue generation, and other constraints. In response to public concerns, new ways of providing service are actively being investigated. Community participation in the Northern Panhandle Transportation Study, which will be under way in 2004 in conjunction with the Sitka Access EIS, is essential.</p>

Comment	Response
5.5 Hydaburg	
Hydaburg Road is unsafe and lacks guardrails.	The safety of Hydaburg Road is evaluated annually in terms of reported crashes, including their location. Not many crashes are reported, and reports often indicate that drivers are traveling too fast with respect to weather conditions and roadway alignment. The installation of additional guardrail was examined as part of the recent upgrade. It was rejected because benefits were outweighed by costs and risks associated with guardrail placement, including the prospect of vehicle collisions with the guardrail.
Need for widening and realignment of Hydaburg Road, as has been done for other state highways on Prince of Wales Island.	Widening and realignment of Hydaburg Road has not been identified as a priority in the Statewide Transportation Improvement Program (STIP). This plan recommends that Hydaburg Road be added to the Alaska Highway System so that it can compete for funding within this STIP component.
Improve access between Hydaburg and Masset, British Columbia, to support tourism and cultural exchanges.	The surface transportation system links Hydaburg and Masset, and plan elements such as the daily Southern Gateway Shuttle from Ketchikan to Prince Rupert, will improve this connection. BC Ferries operates a vessel from Prince Rupert to Graham Island, on which Masset is located. The trip takes seven hours, one way. There are three round-trips per week in winter months and six round-trips per week in summer. A Hydaburg resident could take IFA to Ketchikan on one day, travel via the Southern Gateway Shuttle to Prince Rupert, and arrive in time to take the BC ferry to Graham Island, probably on the same day.
5.6 Hyder	
Need to significantly update section of SATP describing "Service to Hyder" (page 55) to accurately reflect current situation and interest of community.	Document organization has changed, and this material has been revised.
More than 50,000 visitors reach Hyder per year from the Cassiar Highway, but otherwise bypass Southeast Alaska. Adding a ferry link to Ketchikan would tap this market and add a route for freight.	AMHS does not provide a ferry link between Hyder and Ketchikan because the trip from Ketchikan to Hyder is 50 percent longer than the trip from Ketchikan to Prince Rupert. Travelers can still reach Ketchikan by driving from Hyder to Prince Rupert, where there is AMHS service to Ketchikan. Hyder has been evaluated as a continental highway connection alternative to Prince Rupert. The results continue to favor Prince Rupert as the more efficient highway connection for AMHS. Other operators of ferry service could serve this route.

Comment	Response
5.7 Juneau	
<p>Comments centered on Juneau Access and its impacts, benefits, and implications for AMHS.</p> <p>There were also numerous comments on other aspects of the SATP.</p>	<p>See the comment summary and response under Comment Section 6.7 (Juneau Access).</p> <p>Summaries of these comments and responses are provided by topic and subtopic.</p>
5.8 Kake	
<p>Strong community interest in improving ferry service, especially frequency, itineraries, and the passenger waiting shelter (which is open on two sides because of fire damage). The Organized Village of Kake conducted its own survey, in which 64 of 67 respondents urged improved ferry service.</p>	<p>Scheduling AMHS service to Kake poses special challenges because of the community's location in relation to other ports. In response to public concerns, new ways of providing service are actively being investigated. Community participation in the Northern Panhandle Transportation Study, which will be under way in 2004 (in conjunction with the Sitka Access EIS), is essential.</p>
5.9 Ketchikan	
<p>Support from many, including the City of Ketchikan, for daily ferry service from Ketchikan to northern communities and to Prince Rupert.</p>	<p>Support noted.</p>
<p>Concern that the SATP update could lead to a loss of jobs in Ketchikan because mainliners would be retired.</p>	<p>Reduction in AMHS costs means, to a large extent, reductions in labor. There will be jobs lost, and in some communities, there may be no obvious way to substitute for the loss. For the region as a whole, the losses are not devastating. They will be phased in over time during a period when AMHS is having difficulty finding qualified staff for all positions. In addition, new jobs will be created, both for new transportation services and in response to efficiency gains for the economy as a whole.</p>
<p>Previously, the third fast vehicle ferry was to run between Ketchikan and South Mitkof and the fourth ferry was to connect Petersburg and Juneau. Why the change?</p>	<p>The order of deployment was reversed because it made more sense to deploy the third fast vehicle ferry between Juneau and Petersburg pending the arrival of the fourth fast vehicle ferry. This deployment is logical because there would be no shuttle ferry capacity north of Petersburg. In comparison, the third fast vehicle ferry could be coordinated with the IFA ferry between South Mitkof, Wrangell, and Coffman Cove. It would also enable the third fast vehicle ferry to cover for the <i>Fairweather</i> during overhaul.</p>
<p>Requests that transfers to and from Prince of Wales Island be considered when planning regional transportation connections in Ketchikan because the population of Prince of Wales Island is more than 4,000, or almost a third of the population of the Ketchikan Gateway Borough (14,070).</p>	<p>Ease of transfer is one of many considerations that go into locating transportation facilities and coordinating schedules. The facilities in place and those that are planned enhance transfer opportunities. The state pushed for a consolidated ferry terminal in Ketchikan served by both AMHS and IFA. There is a seaplane float outside the airport terminal building.</p>

Comment	Response
5.10 Pelican	
Requests for more ferry service to Pelican.	Scheduling AMHS service to Pelican poses special challenges because of the community's location and traffic levels. In response to public concerns, new ways of providing service are actively being investigated. Community participation in the Northern Panhandle Transportation Study, which will be under way in 2004 (in conjunction with the Sitka Access EIS), is essential.
5.11 Petersburg	
Skepticism was expressed about many features of the plan. A specific focus was that the economy depends on shipping seafood via AMHS. Many comments emphasized the importance of mainline ferry service, especially southbound, for continued reliability and affordability in the shipment of freight, particularly seafood. Concern was expressed about the capacity, reliability, and potential added costs of using fast vehicle ferries to provide freight service.	Concerns about freight, specifically the shipment of seafood, were prevalent in Petersburg, Wrangell, and a number of other communities. Currently, most freight, including seafood shipments, is carried by the private sector, with AMHS available as scheduled. During peak periods, it is important to the regional economy that adequate capacity be in place. The SATP provides capacity for this purpose through a combination of highway links, shuttle ferries, fast vehicle ferries, and mainliners, providing shipping options for those shipments that can take advantage of a scheduled sailing. AMHS will always work with shippers to the degree that schedules and fleet availability permits.
Concerns that the shift to relying on highway transportation to reach a distant ferry terminal was problematic. These concerns include maintenance costs, vehicle operation in difficult winter conditions, provisions for passengers traveling without a vehicle, and construction expense. The proposed location of South Mitkof Ferry Terminal has been questioned because of environmental impacts and separation from the settled area.	There are already several existing terminals that are not in a settled area. For those traveling with vehicles, there is little or no effect. Those traveling without vehicles need to make additional arrangements to reach their destinations. Because ferry terminals provide inter-city transportation, the level of state road maintenance is a higher priority in the vicinities of these terminals. With respect to future terminal locations, the biggest changes involve increasing the road distance that needs to be traveled to reach the terminal and the likelihood that some terminals will be located at sites in the region where there currently is no community. Foot passengers will require some sort of for hire public transportation from remote terminals.
5.12 Port Alexander	
Need to include Port Alexander in the SATP.	Port Alexander is included in the Northern Panhandle Transportation Study, which will be under way in 2004 (in conjunction with the Sitka Access EIS).
5.13 Prince of Wales Island	
General agreement, including a letter from the Prince of Wales Community Advisory Committee (POWCAC), about the importance of specific projects on Prince of Wales Island. Projects are listed in Comment Section 6.4.	Support noted.

Comment	Response
5.14 Sitka	
Extensive comment against the cross-Baranof road options and many comments against the choice of the road option anywhere in Southeast Alaska.	A road across Baranof Island will benefit the traveling public in important ways because it makes it easier to schedule AMHS sailings that serve Sitka. The current location of the Sitka terminal cannot be reached without extensive out-of-direction travel for those not stopping there. Any option for the cross-Baranof road would move the terminal location closer to the through route, thus reducing the need for out-of-direction travel.
Many comments from Sitka urged that a fast vehicle ferry be based in that community, which would lead to more frequent service.	The results of the Juneau Access EIS are important to Sitka because the <i>Fairweather</i> can be redeployed if she is no longer needed in Lynn Canal. At this time, there is no available fast vehicle ferry to base in Sitka. Determined by current demand, the sequence of deployment of the next Southeast fast vehicle ferries is between Petersburg and Juneau, and then between Ketchikan and South Mitkof.
Comments about the importance of connectivity with outlying villages (Kake, Angoon, and Hoonah) for health care, cultural ties, and commercial relationships.	For more than 25 years AMHS has scheduled service that connects these villages with each other, Sitka, and Juneau. The state recognizes the importance of this service, and through the Northern Panhandle Transportation Study is seeking the best means of ensuring that these surface transportation links are in place in the future.
5.15 Skagway	
Comments from Skagway residents focused on the proposed construction of a road from Echo Cove to Skagway and other Juneau Access alternatives (For specific concerns, see Comment Section 6.7).	Public participation in preparation for the Juneau Access EIS is the appropriate forum for identifying impacts and assessing concerns with the preferred alternative and other means of accomplishing the proposed action. Juneau Access EIS managers were present at the Skagway meeting.
5.16 Tenakee Springs	
Once-a-week AMHS service (in each direction) works well, but not if service is interrupted when the <i>LeConte</i> is unavailable.	The Northern Panhandle Transportation Study will examine alternatives that are more versatile and flexible in terms of vessel substitutions when the primary vessel is unavailable.

Comment	Response
5.17 Wrangell	
Concern that the draft SATP does not include AMHS service to the community.	The primary factors governing future AMHS service to Wrangell will be traffic demand and the location of Mid-Region Access. Overall, there will continue to be room in mainline schedules to include Wrangell, and the IFA link to Prince of Wales is likely to increase AMHS traffic at Wrangell. The plan maps are revised accordingly, and show that mainline routes include Wrangell.
Wrangell needs to be served by both mainliners and the fast vehicle ferry.	The SATP recommends fast vehicle ferry service between Ketchikan and South Mitkof (Petersburg) with the schedule coordinated with the IFA ferry to connect with Wrangell. Only by transporting traffic directly to South Mitkof can the majority of passengers make the trip within ten hours or a single day between the region's two largest cities. This trip length is not possible if the fast vehicle ferry unloads and turns around at Wrangell. The fast vehicle ferry's service speed does not permit stops at Wrangell for both directions en route to Petersburg. The fast vehicle ferry is designed for point-to-point service.
Support for the Bradfield Road, including requests that its priority is increased and funding accelerated.	The EIS for Mid-Region Access will include Bradfield Road. Current work involving Bradfield Road is funded as pre-NEPA scoping. Before the project advances to EIS preparation, questions concerning Canadian involvement and support need to be resolved.
Concern that seafood shipments would no longer travel directly to Prince Rupert, British Columbia, because mainline service is not shown and other links are indirect.	The SATP provides adequate capacity for freight movements through a combination of highway links, shuttle ferries, fast vehicle ferries, and mainline service. For Wrangell, the availability of the highway and shuttle ferry options will depend on the outcome of the Mid-Region Access EIS. However, mainline service and IFA service through Wrangell will be available on an ongoing basis. Before Mid-Region Access would be complete, fast vehicle ferry service will be available via South Mitkof.
5.18 Yakutat	
Support for increasing cross-Gulf of Alaska sailings that include Yakutat. Need schedule and other information (about service to Yakutat) to be easily available and user-friendly.	Support noted. Concerns about information availability have been forwarded to AMHS.
Interest in special ferry runs to Yakutat for events like Celebration.	Yakutat's location rules out the scheduling of special runs. Event organizers need to contact AMHS well in advance so that, to the extent possible, the AMHS schedule can be coordinated with the event.

Comment	Response
6. SPECIFIC TRANSPORTATION PROJECTS	
6.1 Mid-Region Access (includes Bradfield Road)	
<p>More than 60 comments were received concerning the Bradfield Road. About one-third of the comments expressed support, and almost two-thirds indicated opposition.</p> <p>Supporters pointed to economic benefits for communities and the region, especially with respect to seafood transport, tourism, and mining. The proposed link was seen as an efficient and cost-effective connection to the Lower 48. Many urged that the timeline for construction be advanced.</p> <p>Opponents pointed to safety concerns, doubts there would be substantial use of the road for either private travel or seafood shipping, impacts to quality of life in communities, costs of construction and maintenance, uncertain financial feasibility, environmental impacts, and impacts to commercial fishing and wildlife hunting.</p>	<p>The proposed Mid-Region Access deserves further study because it will establish a regional highway connection to the continental highway system. Such work is ongoing. Currently, a study is under way to assess economic benefits of the project, and informal consultation is taking place between local, state, and provincial government officials.</p> <p>An EIS would evaluate all reasonable alternatives and address the anticipated social, economic, and environmental impacts. When funding becomes available, an EIS will be initiated following formal consultation through appropriate channels (assuming Canadian involvement). Principal alternatives to be considered are the Bradfield Road route, the route via the Stikine River Valley (which would connect both Petersburg and Wrangell), and road and shuttle ferry connections between Petersburg, Wrangell, Ketchikan, and the Bradfield Road route. The EIS process is the appropriate forum for presenting the proposed action, establishing the range of alternatives, identifying impacts, and assessing concerns with the various alternatives.</p> <p>See also the discussion above under Comment Section 3, Ferries versus Roads.</p>
6.2 Wrangell Access (to Fools Inlet)	
<p>Several comments were received in support of providing road access to Wrangell, through upgrade and extension of an existing forest road, construction of a terminal on Fools Inlet, and a shuttle ferry to the Bradfield Road.</p>	<p>Support noted.</p> <p>The Fools Inlet road and ferry terminal will likely be developed in conjunction with the Mid-Region Access.</p>
6.3 Ketchikan Access (including roads across Cleveland Peninsula)	
<p>More than 20 comments addressed Ketchikan Access. Most concerned a specific element – the need to cross Cleveland Peninsula with a highway. Some support was expressed; however, more than 85 percent were in opposition. Opponents pointed to environmental impacts.</p>	<p>Ketchikan Access connects to Mid-Region Access, and once Mid-Region Access is in place, would link the region's second most populous community to Wrangell, Petersburg, and the continental highway system to the east. If completed before Mid-Region Access, the highway across Revillagigedo Island offers benefits that include expanding where residents and visitors can drive while in Ketchikan, connecting several existing outlying settlements, and enhancing further settlement of outlying areas and the likelihood that currently inaccessible resources would be linked to the marketplace. To provide the connection to Mid-Region Access, however, it is necessary to cross the upper Cleveland Peninsula with a road. In addition, beyond 2025, there may be a need for a highway across the lower Cleveland Peninsula. The corridor for this route is shown on Map 7, Essential State Land and Marine Transportation & Utility Corridors on page 19.</p>

Comment	Response
6.4 Roads on Prince of Wales Island	
<p>More than 25 comments supported road projects that would improve surface transportation on Prince of Wales Island. Some of these projects would be administered by the Forest Service, and others would require state administration. Forest Service projects include road upgrades from the end of state maintenance at Coffman Cove Junction to Naukati Junction, and from this point to El Capitan, upgrade of Sandy Beach Road (the "Coast" road) between Coffman Cove and Thorne Bay, and the construction of part of the "Coast" road on a new alignment between Ratz Harbor and Eagle Creek.</p> <p>Those projects that could involve state administration are identified below.</p>	<p>Upgrade of the primary regional transportation system, which includes highways on Prince of Wales Island, is a priority of the state. Routes on this system carry traffic through the region and provide primary access to communities. Upgrade of Coffman Cove Road, followed by the upgrade of North Prince of Wales Island Road, are high state priorities. Although improving basic access to all communities is a state goal, the priority has to go to the roads and transportation connections with higher traffic volumes.</p> <p>The Forest Service plays an important role in providing surface transportation to the northern part of Prince of Wales Island. Forest roads provide the only surface connections to Coffman Cove, Naukati, and Whale Pass. The SATP supports the efforts of the Forest Service, such as the Public Forest Service Roads initiative, that improve and maintain these links.</p>
<p>Add Naukati Road to the state highway system.</p>	<p>The three-mile spur road into Naukati has not been identified as part of the primary regional transportation system. Thus, it is not a priority for state maintenance and operation (addition to the state highway system).</p>
<p>Make upgrade of Kasaan Road a high priority.</p>	<p>The road to Kasaan has not been identified as part of the primary regional transportation system; therefore, its upgrade is not a high priority of the state.</p>
<p>Connect the Port St. Nicholas Road to the Hydaburg Road through new road construction along the north side of Trocadero Bay.</p>	<p>This proposed route would not be part of the primary regional transportation system. The role of Port St. Nicholas Road is to provide local access, not carry through traffic.</p>
<p>Construction of new road south from Whale Pass that provides a more direct connection to the IFA ferry terminal at Coffman Cove.</p>	<p>The state does not view construction on a new alignment as a priority for this link. Instead, it is more cost-effective to upgrade the existing surface link (via Neck Lake) that connects Whale Pass to the rest of the island, including Coffman Cove.</p>
6.5 Gravina Access (Ketchikan)	
<p>More than ten comments stated specific positions about access to Gravina Island. Most favored construction of a bridge.</p>	<p>Comments noted. The EIS process for Gravina Access is close to completion; the Record of Decision is expected to be signed in 2004.</p>

Comment	Response
<p>6.6 Sitka Access (Cross-Baranof Road)</p>	
<p>More than 100 comments stated specific positions on a road across Baranof Island to a new ferry terminal at either Rodman Bay or Warm Springs Bay. Some support was expressed; more than 85 percent of comments stated opposition.</p> <p>Supporters noted that it would speed up the ferry system generally, reduce freight costs, and improve access in many ways.</p> <p>Opponents noted the potential for socioeconomic and quality of life changes; the high cost of road construction and maintenance; safety, maintenance and winter access concerns (winter conditions, avalanche, landslides); aesthetic impacts; wilderness and wild and scenic river impacts; environmental impacts (water quality, wetlands, fisheries, wildlife, marine mammals); inconvenience to non-vehicle travelers; loss of AMHS revenue from Lynn Canal service; and diversion of financial resources from other transportation needs.</p>	<p>New road construction (following completion of the Sitka Access EIS) would offer many benefits. The most important benefit is improved AMHS service because the Sitka terminal would be relocated. With less distance to cover, the round-trip by fast vehicle ferry to Petersburg would easily fit within a 12-hour period. Similarly, the round-trip by fast vehicle ferry to Juneau would require less time and fuel. With the terminal either on or near Chatham Strait, less time, fuel, and out-of-direction travel would be required for mainliners, and tidal currents would no longer constrain schedules. Passengers would spend less time aboard, and those traveling with a vehicle could choose their own pacing for the highway portion of the trip. These changes would result in cost savings to travelers, freight shippers, and the state.</p> <p>Other benefits would include expanding where residents and visitors can drive while in Sitka, the possibility of settlement in outlying areas, and the likelihood that currently inaccessible resources would be linked to the marketplace.</p> <p>Many concerns need to be examined through preparation of an EIS. These concerns involve both the need for the proposed action and possible impacts from road construction. Initiation of the EIS process is expected shortly, and provides the appropriate forum for presenting the proposed action, establishing the range of alternatives, and identifying potential impacts.</p> <p>See also the discussion above under Comment Section 3, Ferries versus Roads.</p>

Comment	Response
<p>6.7 Juneau Access</p>	
<p>More than 140 comments stated positions on a road alternative for Juneau Access. About one-quarter of the comments expressed support, and three-quarters indicated opposition.</p> <p>Supporters noted the increase in access for communities, improved user convenience, lower user cost, access to state capital, stimulation of regional economy, road travel being more fuel efficient than ferry travel, lower freight cost, and enhanced access for recreation.</p> <p>Opponents noted the potential for socioeconomic and quality of life changes; high cost of road construction and maintenance; safety, maintenance and winter access issues (winter conditions, avalanche, landslides); aesthetic impacts; wilderness and wild and scenic river impacts; environmental impacts (water quality, wetlands, fisheries, wildlife, marine mammals); inconvenience to non-vehicle travelers; loss of AMHS revenue from Lynn Canal service; and diversion of financial resources from other transportation needs.</p>	<p>The preferred alternative for Juneau Access would place most surface travel to and from Juneau and northern destinations on a land highway. Those traveling by vehicle would enjoy full flexibility in scheduling the trip at their convenience, and would not have to pay a large toll to complete it. Vehicle travel levels are forecasted to increase tenfold if a land highway is completed. Travel demand is concentrated in the daylight hours during the summer months. Most of winter, the same travel flexibility would be in place, but occasionally weather conditions may delay trip completion for up to a day or two.</p> <p>Shifting from ferries to a land highway would bring transportation changes. Besides a dramatic increase in vehicle travel, AMHS mainliners would have more time in their schedules to serve Sitka and the <i>Fairweather</i> would serve surface travel demand between Sitka and Juneau. Extending the continental highway system to Juneau would place all of the communities in Southeast Alaska with more readily available and lower-cost access to Interior Alaska and the Yukon and for communities in the Northern Panhandle and the Lower 48.</p> <p>Because the preferred alternative adds a human-made feature along the rugged east shore of Lynn Canal and Taiya Inlet, there clearly would be impacts during and following construction. A supplemental draft EIS (followed by a final EIS) will describe and assess ten alternatives, including the no action alternative, and examine impacts from each alternative on the environment.</p> <p>See also the discussion above under Comment Section 3, Ferries versus Roads.</p>
<p>Opponents pointed out that selection of a road alternative would be contrary to a public vote in Juneau and resolutions from the Haines Borough and City of Skagway.</p>	<p>The decision to select an alternative (following EIS preparation) is not an action of local government. For Juneau Access, the department is preparing an EIS that ultimately will lead to a Record of Decision, which requires approval of the Federal Highway Administration. Voting results and the actions of local governments are two of numerous factors that will be considered, evaluated, and weighed during the decision-making process.</p>
<p>Other points included:</p> <p>If an East Lynn Canal road is built, then it is essential to have shuttle ferry service (or a road) between Haines and Skagway.</p> <p>Objections to the draft SATP update showing only one alternative, because it predetermines the outcome of the Juneau Access EIS.</p>	<p>The preferred alternative includes a short shuttle ferry connection across Lynn Canal that connects Haines to the highway at the Katzeihin River delta. The parameters of shuttle ferry service will be identified as part of EIS preparation.</p> <p>Planning documents (such as the SATP) do not predetermine EIS outcomes. The presentation in the draft indicated that the Juneau Access EIS was under way and that several alternatives were under consideration. Map 11 (page 85) depicts the plan's preferred route and the alternative routes under consideration in the supplemental draft EIS.</p>

Comment	Response
6.8 Cross-Gulf Mainline Service (including Yakutat)	
Several comments objected to cross-Gulf of Alaska service, because it diverts mainline ferries from Southeast Alaska when there is the alternative of traveling by road to Railbelt Alaska, including Whittier.	Although this marine route parallels the Alaska Highway, it serves travelers who cannot pass through Canadian customs or do not want to drive the highway or fly. This route also includes “whistle” stops in Yakutat, which otherwise would not be served by AMHS. Because the route duplicates an existing transportation system, the SATP recommends provision of this service to the extent that it recovers its costs.

Appendix A

Essential State Transportation and Utility Corridors

APPENDIX A. ESSENTIAL STATE TRANSPORTATION AND UTILITY CORRIDORS

Essential Transportation and Utility Corridors

The Southeast Alaska Transportation Plan (SATP) identifies 34 essential highway and utility corridors to be reserved and protected to meet future transportation needs. These corridors are required to connect communities to the regional transportation system and to establish a regional power grid. The state requests that the Forest Service incorporate all of these highway and utility corridors into the Tongass Land Management Plan and reserve and protect these corridors for these purposes. Adoption of this plan is an official expression of state policy that no other action by any other party should be taken (such as designations of wilderness areas) that would interfere with public use of any of the mapped corridors. In addition, the state requests that the Forest Service contribute to state efforts by improving and connecting forest roads that are located within essential road corridors identified by the state. Corridors of particular interest are Kake - Petersburg, Kake - Totem Bay, and North Prince of Wales Island Road - Red Bay.

In a region as rugged as Southeast Alaska, valleys and mountain passes represent invaluable corridors for highway routes and utility transmission lines. Maps 16 to 23 identify the transportation and utility corridors considered essential to the state. These corridors are identified below.

Corridor Descriptions

Lynn Canal Corridors — Juneau to Haines and Skagway

1. From Echo Cove northerly along the shore of Berners Bay and Lynn Canal to Skagway with a ferry terminal near the mouth of the Katzhin River.
2. From Skagway southerly along Taiya Inlet to Taiya Point, then northwesterly along Lutak Inlet to Haines.
3. From Haines across the Chilkat River/Inlet at or above Pyramid Island, then southerly along the west shore of Lynn Canal to a suitable ferry terminal site on William Henry Bay.

Taku River Corridors

4. From Thane Road southeasterly along Gastineau Channel to Bishop Point, then northeasterly along Taku Inlet to a suitable bridge crossing at Grizzly Bar.
5. From Jaw Point northeasterly along the southeast shore of Taku Inlet and River to the Canada border to provide ferry crossing options.

Mansfield Peninsula Crossing, Admiralty Island, Corridor

6. From Young Bay to Greens Creek, Hawk Inlet.

Chichagof Island Corridors

7. From a suitable ferry terminal site on Whitestone Harbor to Hoonah.
8. From Hoonah to a suitable ferry terminal site on Tenakee Inlet.
9. Pelican cut-off road from Tenakee Inlet Road to Pelican.
10. Kadashan Road from a suitable ferry terminal site on Tenakee Inlet southeasterly along the Kadashan River to a suitable ferry terminal site on the north shore of Peril Strait across from Rodman Bay.

Baranof Island Corridors

11. From the end of Halibut Point Road to a suitable ferry terminal site on Rodman Bay.
12. From the end of Sawmill Creek Road to a suitable ferry terminal site on Warm Springs Bay.

Kuiu Island Corridor

13. From a suitable ferry terminal site on Security Bay to a suitable ferry terminal site on Reid Bay for crossing Sumner Strait to Labouchere Bay on Prince of Wales Island.

Kupreanof Island Corridors

14. From Kake to a suitable ferry terminal site in Kupreanof for crossing the Wrangell Narrows.
15. From Kake to a suitable ferry terminal site in Totem Bay for crossing Sumner Strait to Red Bay on Prince of Wales Island.

Prince of Wales Island Corridors

16. North Prince of Wales Island Road from the intersection with Coffman Cove Road to a suitable ferry terminal site in the vicinity of Red Bay on Sumner Strait.

17. Neck Lake Road from North Prince of Wales Island Road easterly along Neck Lake to Wale Pass.
18. Cavern Lake Road from Wale Pass westerly to North Prince of Wales Island Road.
19. Caulder Road from North Prince of Wales Island Road near El Capitan northwesterly to a suitable ferry terminal site on Labouchere Bay.
20. North Prince of Wales Island Road north, then west from Cavern Lake Road to a suitable ferry terminal location on Labouchere Bay.
21. Sandy Beach Road from Thorne Bay north to Ratz Harbor, then along the east shore of Prince of Wales Island to Coffman Cove.

Mid-Region Access Corridors

22. Stikine Delta Causeway to South Mitkof Island to Rynda Island to Kadin Island to mainland, near Green Point, then along the eastern side of Eastern Passage to a bridge crossing point at “the Narrows.”
23. Stikine River Corridor (according to the Alaska National Interest Lands Conservation Act [ANILCA], Section 1113).
24. A bridge crossing Eastern Passage at the Narrows between Wrangell Island and the mainland.
25. East side of Eastern Passage from the Narrows south to Bradfield Canal, then east along the north side of Bradfield Canal to the Bradfield River at the head of the Bradfield Canal.
26. Bradfield Road from the head of the Bradfield Canal along the North Fork of the Bradfield River to the Canada border at the Craig River.
27. From the head of Bradfield Canal along the south side of the Bradfield Canal west to Duck Point (or other suitable ferry terminal site on the Bradfield Canal).

Wrangell Island Corridors

28. From Zimovia Highway easterly along McCormack Creek, to Eastern Passage, then southerly to a suitable ferry terminal site on Fools Inlet.
29. From Zimovia Highway easterly along McCormack Creek to Eastern Passage, then to the Narrows bridge crossing site.

Cleveland Peninsula Corridors

30. Upper Cleveland Peninsula crossing from Bradfield Canal southeasterly along Eagle River to Point Lees to a suitable ferry terminal on the Behm Canal.

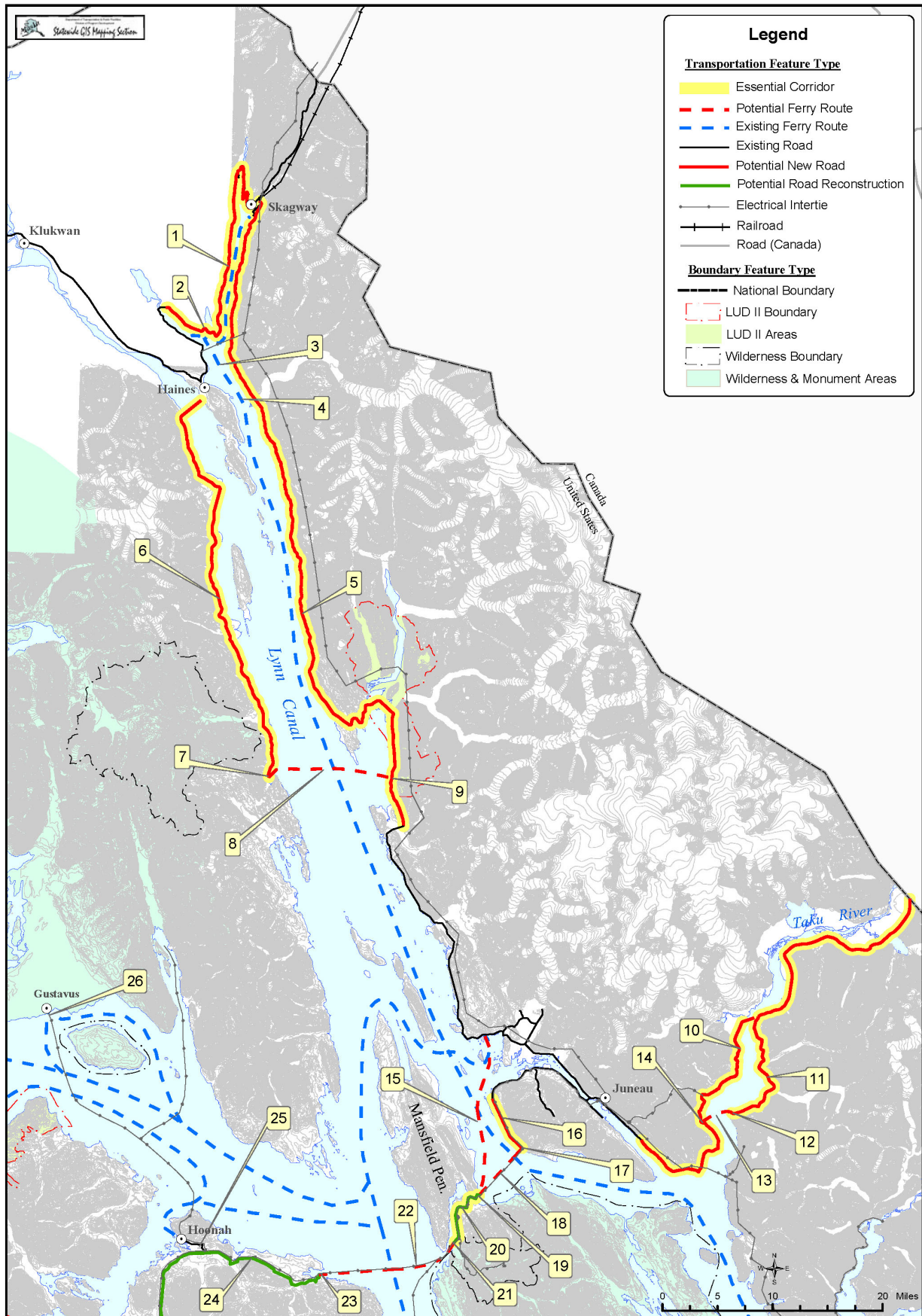
Lower Cleveland Peninsula crossings:

31. From a suitable ferry terminal site on Santa Anna Bay southeasterly to a suitable ferry terminal site on Spacious Bay.
32. From a suitable ferry terminal site on Frosty Bay south to Santa Anna Bay, then southeasterly to Spacious Bay, then south to Port Stewart and along the southwest shore of Port Stewart to a suitable ferry terminal site on Helm Bay.

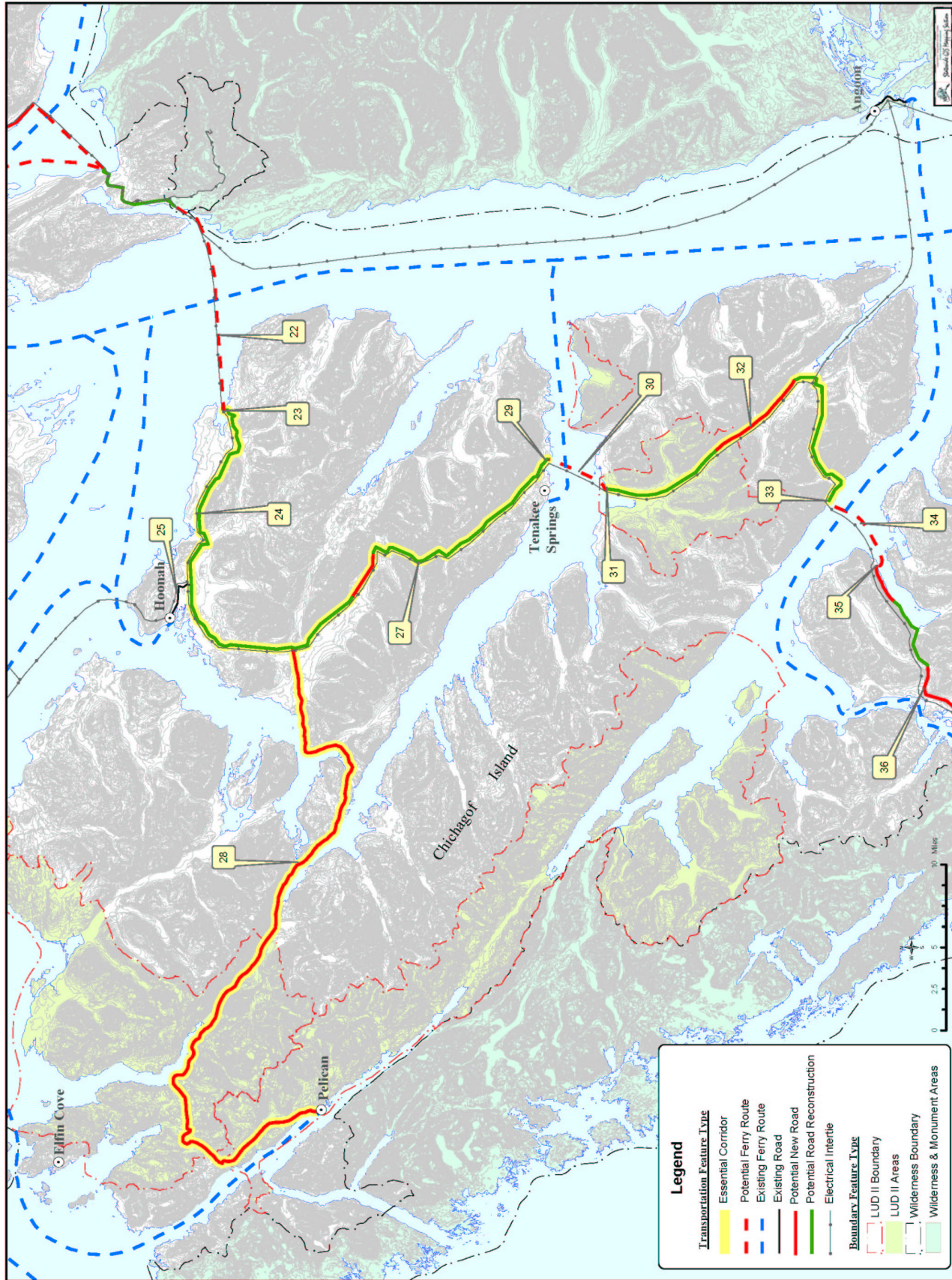
Revillagigedo Island Corridors

33. From a suitable ferry terminal site at or near Claude Point, then southwesterly via Benrer and Klam creeks to Shrimp Bay, then easterly to Cedar Lake and Orchard Creek, then southeasterly along Orchard Creek to a south branch extending toward Carroll Creek, then south to Carroll Inlet, then south along the west shore of Carroll Inlet to Shelter Cove, then westerly to the head of George Inlet to Ward Lake Road.
34. From the head of George Inlet south along the west shore of George Inlet to the end of South Tongass Highway.

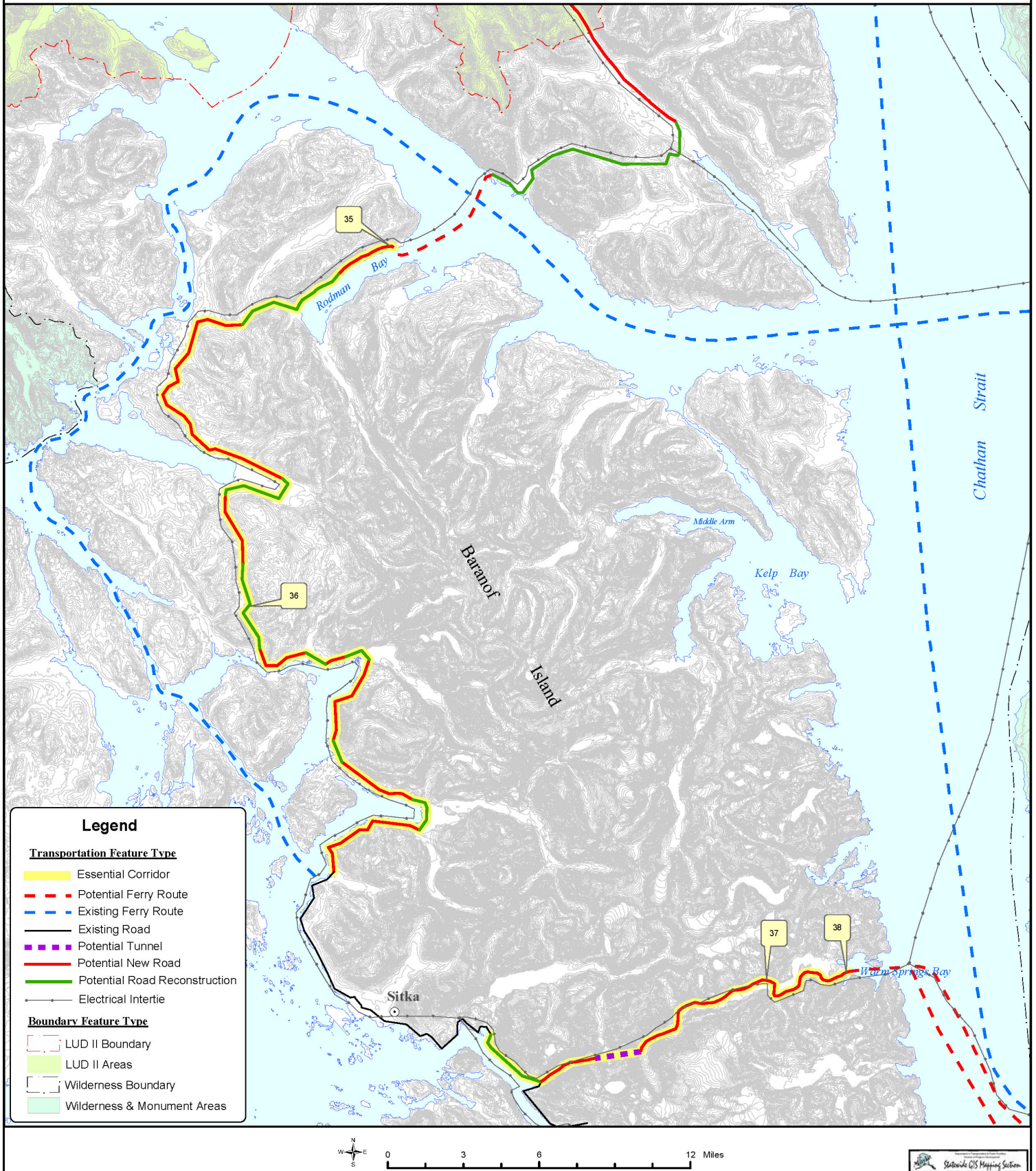
Map 16 : Lynn Canal, Taku River & Mansfield Peninsula Crossing Corridors



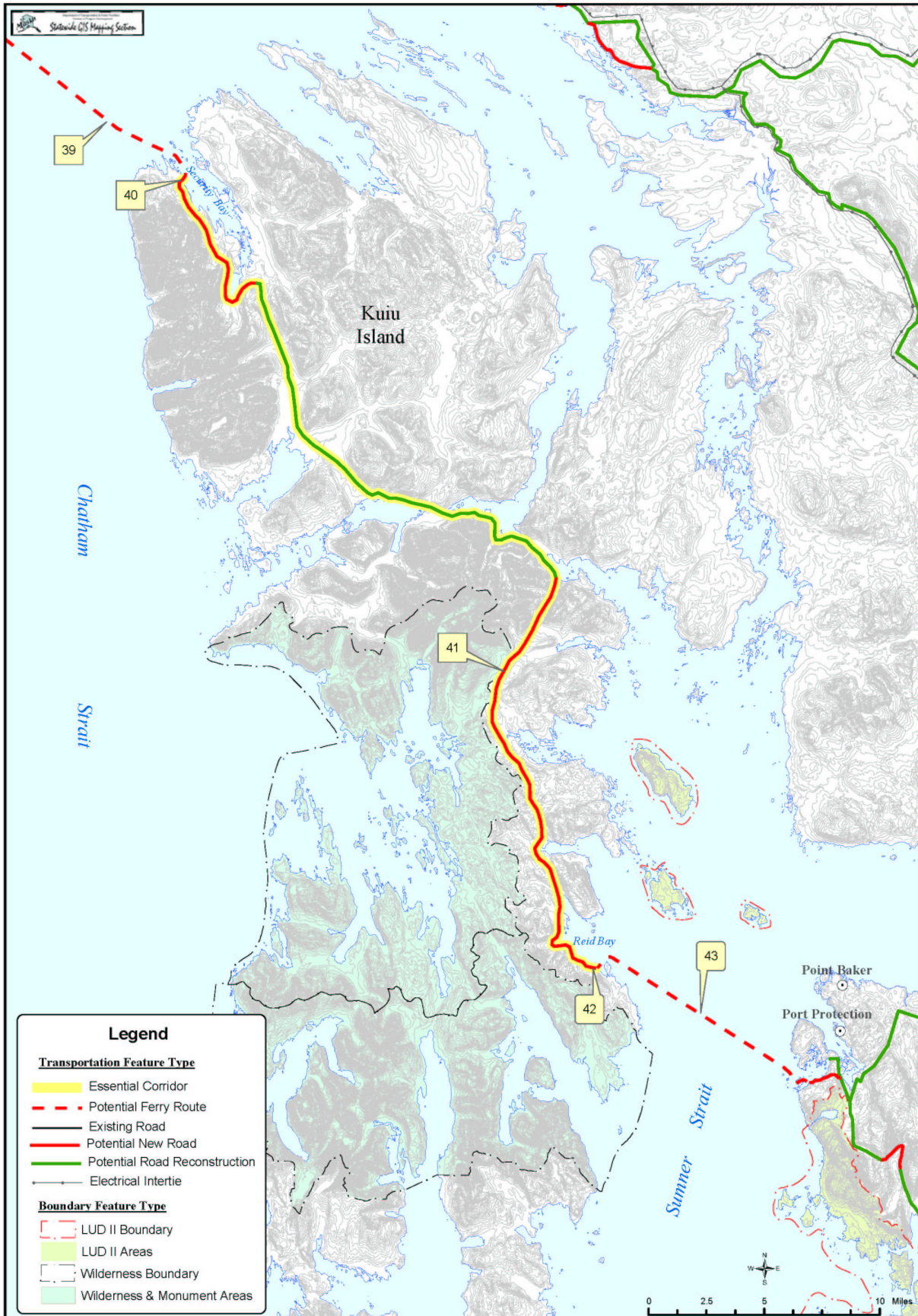
Map 17 : Chichagof Island Corridors



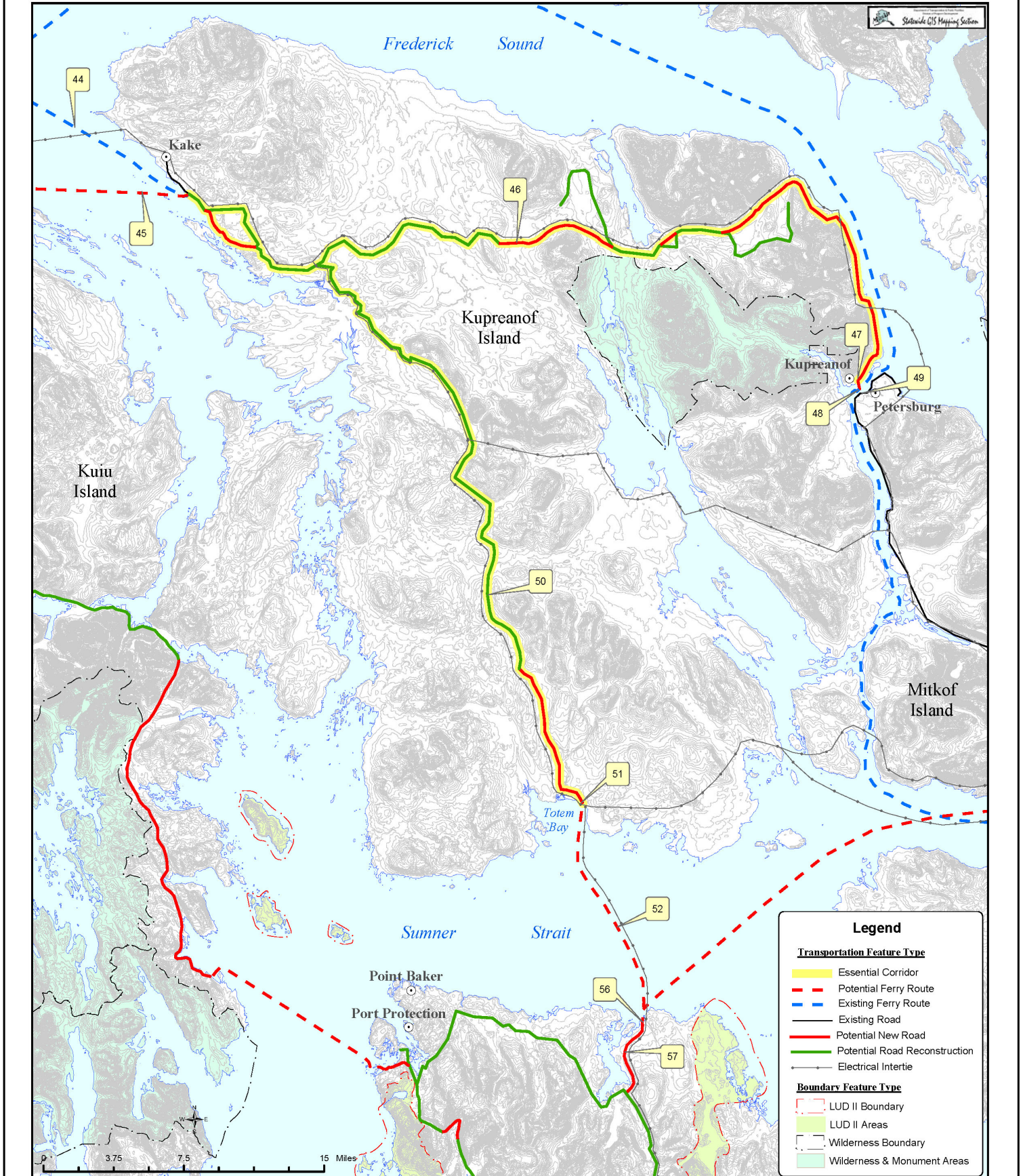
Map 18 : Baranof Island Corridors



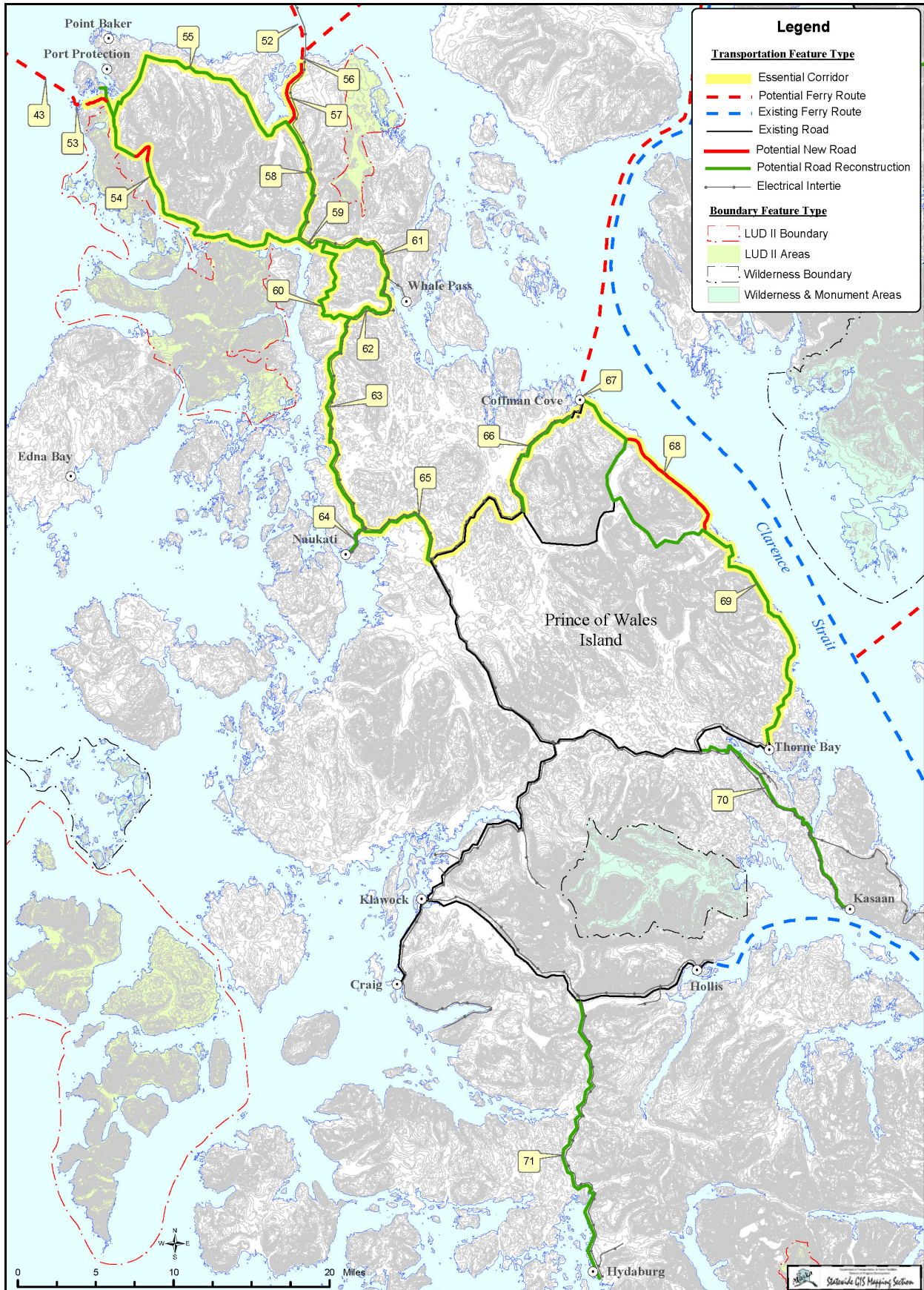
Map 19 : Kuiu Island Corridor



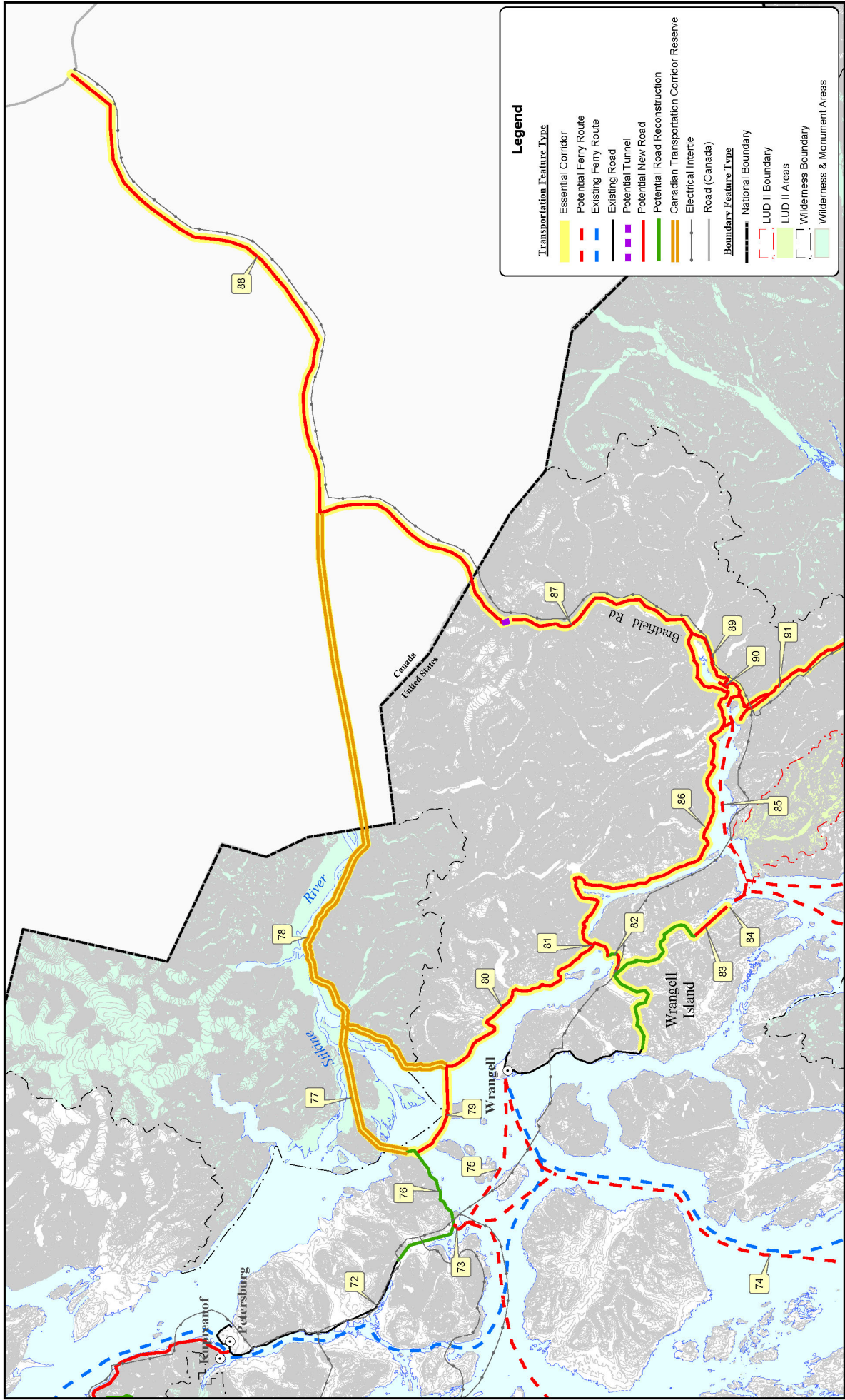
Map 20 : Kupreanof Island Corridors



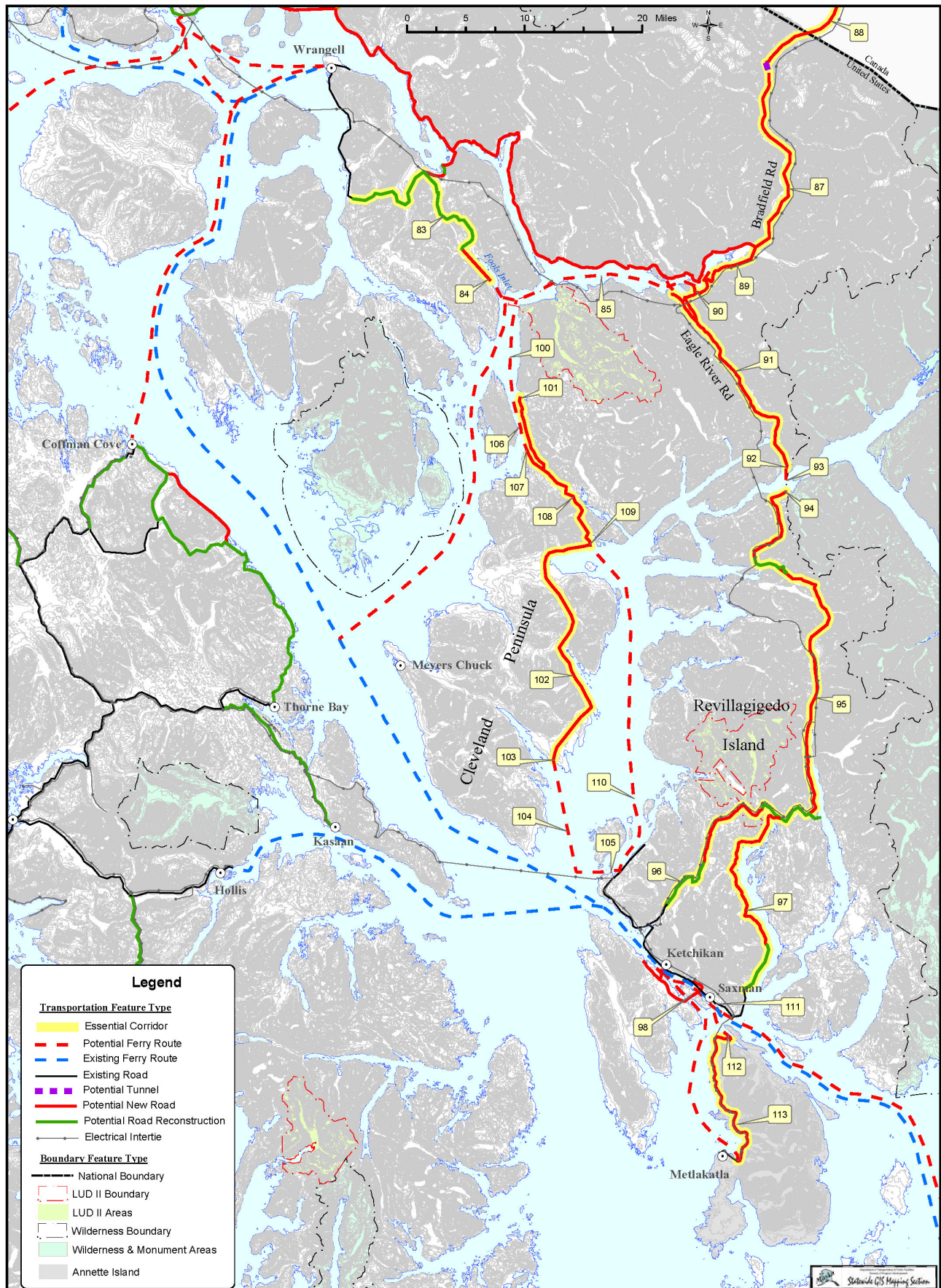
Map 21 : Prince of Wales Island Corridors



Map 22 : Mid-Region Access Corridors



Map 23 : Revillagigedo Island & Cleveland Peninsula Corridors



Transportation Component Cost Estimates

Table A-1 provides descriptive information and estimates of construction and annual operation and maintenance costs for the principal transportation components considered for each corridor. The cost estimates are based on the assumptions described below.

Marine Components

Cost estimates are based on six classes of vessels as follows:

1. The fast vehicle ferry with 36.8-mile-per-hour- (mph) service speed and a capacity of 35 cars. The *Fairweather* will be the lead ship in the Fairweather class of fast vehicle ferries.
2. The Inter-Island Ferry Authority's design with 17.3-mph speed and a capacity of 30 cars.
3. A modified 235-foot LeConte class with 17.3-mph speed and a capacity of 35 cars.
4. A small "double ender" design like the Ketchikan Airport ferry with 13.8-mph speed and a capacity of 20 cars.
5. The Lituya class with 13.8-mph service speed, a capacity of 18 cars, and an open car deck. The *Lituya* began service between Metlakatla and Ketchikan in spring 2004.
6. A new "mainliner" ferry with 19.0-mph speed and a capacity of at least 100 vessels.

Highway Components

This study assumes the Alaska Department of Transportation and Public Facilities (department or ADOT&PF) would first build lower-speed roads – interim typical sections – that could be upgraded later. These interim typical sections are shown in Figure A-1.

As can be seen, these roads would be narrow. They would be paved and posted for moderate speed. The average total cost of the roads would range from \$2.3 million per mile for design and construction of roads that would travel over gentle country to more than \$4 million per mile for roads that would cross rugged country.

Table A-1 also includes the 113 components shown on Maps 16 to 23. In addition to cost estimates for each component, basic features are provided.

Table A-1. Descriptions of and Cost Estimates for SATP Components

Segment Map Ref. Number	Description	Recommended Interim Typical Section or Vessel (capacity)	Estimated Interim Average Speed (mph)	Segment Length Statute (miles)	Ferry Service Frequency (trips per day)	Total Estimated Capital Cost (\$ 000)	Total Annual Estimated M&O Cost (\$ 000)
Lynn Canal Corridor (See Map 16)							
1	Haines - Skagway Road	Arterial	40	35		130,000	400
2	Haines Ferry Terminal Improvements					7,000	10
3	Haines - Katzeihin Shuttle Ferry (<i>Aurora</i>)	Aurora	16.7	6.5	9	5,000	2,900
4	Katzeihin Ferry Terminal					15,700	25
5	Lynn Canal Road (Echo Cove to Skagway)	Arterial	45	68		265,000	1,500
6	West Lynn Canal Road (Haines to William Henry Bay)	Arterial	45	39		179,000	1,200
7	William Henry Bay Ferry Terminal					14,300	25
8	Shuttle Ferry Link: William Henry Bay - Berners Bay	2 Car Ferries (42)	17.3	13	12	59,000	4,900
9	Berners Bay Ferry Terminal					16,700	25
Taku River Corridor (See Map 16)							
10	Taku Highway Route (Bridge crossing of Taku River)	Arterial	45	49		290,000	442
11	Taku Highway Route (Ferry crossing of Taku Inlet - see 12-14)	Arterial	45	49		160,000	428
12	West Taku Ferry Terminal (Lag Point)					7,000	10
13	Taku Inlet Shuttle Ferry	Mod- <i>LeConte</i> (35)	17.3	3.1	6	25,000	1,692
14	East Taku Ferry Terminal (South side of Jaw Point)					7,000	10
Mansfield Peninsula Crossing (See Map 16)							
15	Ferry Link: Auke Bay/Young Bay Ferry	Mod- <i>Lituya</i> (20)	13.8	15.3	3	12,000	1,263
16	Douglas Highway Extension to Middle Point	Island Arterial	35	5.29		14,630	47
17	Middle Point Ferry Terminal					7,000	10
18	Ferry Link: Middle Point/Young Bay Ferry	Mod- <i>Lituya</i> (20)	13.8	6.4	6	12,000	1,263
19	Young Bay Ferry Terminal					7,000	10
20	Hawk Inlet Road	Island Collector	30	6.31		14,490	52
21	Hawk Inlet Ferry Terminal					7,000	10

Table A-1. Descriptions of and Cost Estimates for SATP Components

Segment Map Ref. Number	Description	Recommended Interim Typical Section or Vessel (capacity)	Estimated Interim Average Speed (mph)	Segment Length Statute (miles)	Ferry Service Frequency (trips per day)	Total Estimated Capital Cost (\$ 000)	Total Annual Estimated M&O Cost (\$ 000)
Chichagof Island Corridors (See Map 17)							
22	Ferry Link: Hawk Inlet/Whitestone Harbor	Mod-Lituya (20)	13.8	15.0	3	12,000	1,263
23	Whitestone Harbor Ferry Terminal					7,000	10
24	Whitestone Harbor Road to Hoonah Cutoff Road	Island Collector	30	12.96		29,900	106
25	Hoonah Cutoff Road	Island Collector	30	2.88		4,310	15
26	Gustavus Ferry Terminal					11,000	50
27	Hoonah - Tenakee Inlet Road: Hoonah Cutoff to Tenakee Inlet	Island Collector	30	30.64		70,470	251
28	Pelican Cutoff Road	Island Collector	30	47.64		138,230	391
29	Tenakee Inlet Ferry Terminal					7,000	10
30	Ferry Link: Tenakee Inlet Ferry	Double end (20)	13.8	2.7	10	8,000	864
31	Kadashan Ferry Terminal					7,000	10
32	Kadashan Road	Island Collector	30	24.15		64,010	198
33	Peril Strait Ferry Terminal					7,000	10
34	Ferry Link: Peril Strait Ferry	Double end (20)	13.8	6.2	5	8,000	864
Baranof Island Corridors (See Map 18)							
35	Rodman Bay Ferry Terminal					12,000	135
36	Rodman Bay Road	Island Arterial	35	48.83		148,950	869
37	Warm Springs Bay Road (Sawmill Creek Road to Warm Springs Bay)	Island Arterial	35	18.01		234,410	950
38	Warm Springs Bay Terminal					15,000	135
Kuiu Island Corridor (See Map 19)							
39	Ferry Link: Warm Springs Bay - Kuiu Island Ferry	Mod-LeConte (35)	17.3	25.3	2	25,000	1,692
40	Security Bay Ferry Terminal					7,000	10
41	Kuiu Road: Security Bay to Reid Bay	Island Collector	30	48.7		115,920	399
42	Reid Bay Ferry Terminal					7,000	10
43	Ferry Link: Sumner Strait Ferry (Reid Bay to Labouchere Bay)	Mod-Lituya (20)	13.8	11.5	5	12,000	1,263
Kupreanof Island Corridors (See Map 20)							
44	Ferry Link: Rodman Bay - Kake Ferry	Mod-LeConte (35)	17.3	82	2	25,000	1,692
45	Ferry Link: Warm Spring Bay - Kake Ferry	Mod-LeConte (35)	17.3	37.4	2	25,000	1,692
46	Kake - Petersburg Road	Island Collector	30	50.61		131,560	415
47	Kupreanof Ferry Terminal					4,000	10

Table A-1. Descriptions of and Cost Estimates for SATP Components

Segment Map Ref. Number	Description	Recommended Interim Typical Section or Vessel (capacity)	Estimated Interim Average Speed (mph)	Segment Length Statute (miles)	Ferry Service Frequency (trips per day)	Total Estimated Capital Cost (\$ 000)	Total Annual Estimated M&O Cost (\$ 000)
48	Ferry Link: Kupreanof Ferry (Wrangell Narrows)	Double end (20)	13.8	1.2	10	4,000	738
49	Petersburg Ferry Shuttle Terminal					4,000	10
50	Kake - Totem Bay Road	Island Collector	30	45.65		105,000	374
51	Totem Bay Ferry Terminal					7,000	10
52	Ferry Link: Sumner Strait Ferry to Red Bay	Mod-Lituya (20)	13.8	12.3	3	12,000	1,263
Prince of Wales Island Corridors (See Map 21)							
53	Labouchere Bay Ferry Terminal					7,000	10
54	Calder Road: Labouchere Bay to NPOWI Road near El Capitan	Island Collector	30	22.03		59,870	181
55	NPOWI Road: Labouchere Bay to Red Bay Cutoff	Island Collector	30	16.75		38,520	137
56	Red Bay Terminal					7,000	10
57	Red Bay Cutoff	Island Collector	30	4.51		10,370	37
58	NPOWI Road: Red Bay Cutoff to Calder Road Intersection	Island Collector	30	8.07		18,560	66
59	NPOWI Road: Calder Road Intersection to Cavern Lake Rd.	Island Collector	30	2.14		6,460	18
60	NPOWI Road: Cavern Lake Road to Neck Lake Road Inters.	Island Collector	30	7.83		18,010	64
61	Cavern Lake Road: NPOWI Road to Whale Pass	Island Collector	30	5.87		19,320	48
62	Neck Lake Road: Whale Pass to NPOWI Road	Island Collector	30	5.7		13,800	47
63	NPOWI Road: Neck Lake Road to Naukati Cutoff	Island Collector	30	15.11		34,750	124
64	Naukati Cutoff	Island Collector	30	2.25		5,180	18
65	NPOWI Road: Naukati Cutoff to Coffman Cove Road	Island Collector	30	7.48		17,200	61
66	Coffman Cove Road: NPOWI Rd. Intersection to Coffman Cove	Island Collector	30	17.52		18,400	144
67	Coffman Cove Terminal					9,400	25
68	Sandy Beach Road: Ratz Harbor to Thorne Bay	Island Collector	30	17.63		40,550	145
69	Sandy Beach Road: Coastal Corridor Coffman C. to Ratz Harbor	Island Collector	30	12.25		28,180	100
70	Kasaan Road (Thorne Bay Rd. to Kasaan)	Island Collector	30				
71	Hydaburg Road	Island Collector	30	21		36,220	0
72	South Mitkof Hwy. Reconstruction: Crystal Lake to Blind Slough	Island Collector	35	6.99		10,920	57
73	South Mitkof Ferry Terminal					14,500	10

Table A-1. Descriptions of and Cost Estimates for SATP Components


Segment Map Ref. Number	Description	Recommended Interim Typical Section or Vessel (capacity)	Estimated Interim Average Speed (mph)	Segment Length Statute (miles)	Ferry Service Frequency (trips per day)	Total Estimated Capital Cost (\$ 000)	Total Annual Estimated M&O Cost (\$ 000)
74	Ferry Link: IFA Ferry, South Mitkof/Wrangell/Coffman Cove	IFA (30)	17.3	49.5	1	17,000	1,276
75	Ferry Link: South Mitkof to Wrangell Shuttle Ferry	IFA (30)	17.3	13.8	1	17,000	1,276
76a	South Mitkof Hwy. Reconstruction: Blind Slough to Causeway	Island Collector	30	5.9		9,300	50
76b	South Mitkof Hwy. Reconstruction: Blind Slough to Dry Straits Crossing	Island Arterial	35	8		13,600	67
77	Stikine Highway: Dry Straits & Stikine River Crossing	Island Arterial	35	12.25		187,000	150
78	Stikine Highway: Eastern Passage Narrows Bridge to Border	Island Arterial	35	47.64		110,000	391
79	Stikine Causeway	Island Collector	30	8.26		460,000	83
80	Eastern Passage Highway to Narrows Bridge	Island Collector	30	18.45		42,320	151
81	Narrows Bridge	Island Collector	30	0.8		75,000	40
82	Wrangell Cutoff: Narrows Bridge to Fools Inlet Road	Island Collector	30	4.81		11,060	39
83	Fools Inlet Road: Zimovia Highway to Fools Inlet	Island Collector	30	22.08		50,830	181
84	Fools Inlet Ferry Terminal					7,000	10
85	Bradfield Ferry: Fools Inlet to Bradfield Canal Duck Point Terminal	Mod- <i>LeConte</i> (35)	17.3	17.3	5	25,000	1,692
86	Eastern Passage Hwy: Narrows Bridge to Bradfield Road Junction	Island Collector	30	41.54		123,140	341
87	Bradfield Road: Bradfield Road Junction to Canada Border	Rural Collector	30	24.13		220,000	240
88	Bradfield Road: Canada Border to Iskut & Cassiar Hwy. #37	N/A	N/A	48		N/A	N/A
89	Bradfield Road: Bradfield Road Junction to Duck Point Term.	Rural Collector	30	8.02		30,000	66
90	Duck Point Ferry Terminal					7,000	10


Table A-1. Descriptions of and Cost Estimates for SATP Components


Segment Map Ref. Number	Description	Recommended Interim Typical Section or Vessel (capacity)	Estimated Interim Average Speed (mph)	Segment Length Statute (miles)	Ferry Service Frequency (trips per day)	Total Estimated Capital Cost (\$ 000)	Total Annual Estimated M&O Cost (\$ 000)
Revillagigedo Island and Upper Cleveland Peninsula Corridors (See Maps 22 & 23)							
91	Eagle River Road: Bradfield Canal Duck Point to Behm Canal	Island Collector	30	19.53		50,400	160
92	Point Lees Ferry Terminal					7,000	10
93	Ferry Link: Behm Canal Ferry	Double end (20)	13.8	2.3	9	8,000	864
94	Claude Point Ferry Terminal					7,000	10
95	Revillagigedo Highway: Behm Canal to George Inlet	Island Arterial	35	43.5		130,180	387
96a	Harriet Hunt Lake Road: George Inlet to Harriet Hunt Lake	Island Arterial	35	10.98		30,300	98
96b	Harriet Hunt Lake/Ward Lake Road Upgrade	Island Arterial	35	6		10,350	53
97a	George Inlet Road: Head of George Inlet to South Tongass Hwy.	Island Arterial	35	14.3		42,690	127
97b	South Tongass Highway Reconstruction & Paving	Island Arterial	35	4.55		7,940	40
98	Bridge to Gravina Island	Arterial	35			230,000	100
99	Lower Cleveland Peninsula Corridors						
100	Ferry Link: Fools Inlet/Frosty Bay Ferry	Mod-Lituya (20)	13.8	10.4	5	12,000	1,263
101	Frosty Bay Ferry Terminal					7,000	10
102	Cleveland Peninsula Road: Frosty Bay to Helm Bay	Island Collector	30	39.57		10,670	324
103	Helm Bay Ferry Terminal					7,000	10
104	Ferry Link: Helm Bay Ferry to North Tongass Hwy. Terminal	Mod-Lituya (20)	13.8	13.0	4	12,000	1,263
105	North Tongass Hwy. Ferry Terminal					7,000	135
106	Ferry Link: Fools Inlet/Santa Anna Inlet Ferry	Mod-Lituya (20)	13.8	15.4	3	12,000	1,263
107	Santa Anna Ferry Terminal					7,000	10
108	Cleveland Peninsula Cutoff: Santa Anna to Spacious Bay	Island Collector	30	10.62		24,380	87
109	Spacious Bay Ferry Terminal					7,000	10
110	Ferry Link: Spacious Bay Ferry to North Tongass Hwy. Terminal	Mod-LeConte (35)	17.3	33.4	2	25,000	1,692

Table A-1. Descriptions of and Cost Estimates for SATP Components

Segment Map Ref. Number	Description	Recommended Interim Typical Section or Vessel (capacity)	Estimated Interim Average Speed (mph)	Segment Length Statute (miles)	Ferry Service Frequency (trips per day)	Total Estimated Capital Cost (\$ 000)	Total Annual Estimated M&O Cost (\$ 000)
Metlakatla Access Corridor (See Map 23)							
111	Saxman Ferry Terminal					7,500	10
112	Annette Bay Ferry Terminal					7,000	10
113	Walden Point Road	Rural Arterial	45	14.29		55,000 ¹	N/A

 = Road

 = Ferry terminal

 = Ferry links

 = Total

IFA = Inter-Island Ferry Authority

N/A = Not available

M&O = Maintenance and operations

NPOWI = North Prince of Wales Island

Mod- = Modified vessel type

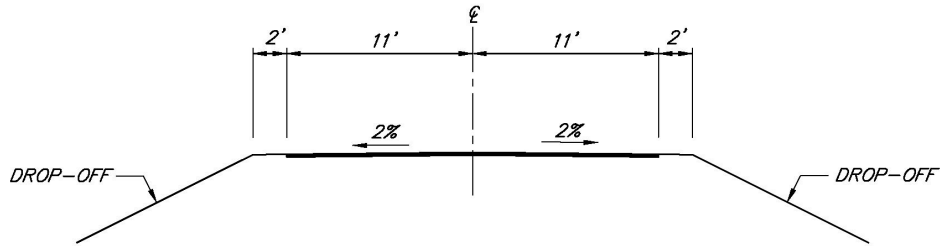
¹ Walden Point Road capital dollar estimate represents funding needed to complete the road in addition to the military training program.

Notes:

All costs are preliminary and include design costs. Values are expressed in current (2003) dollars.

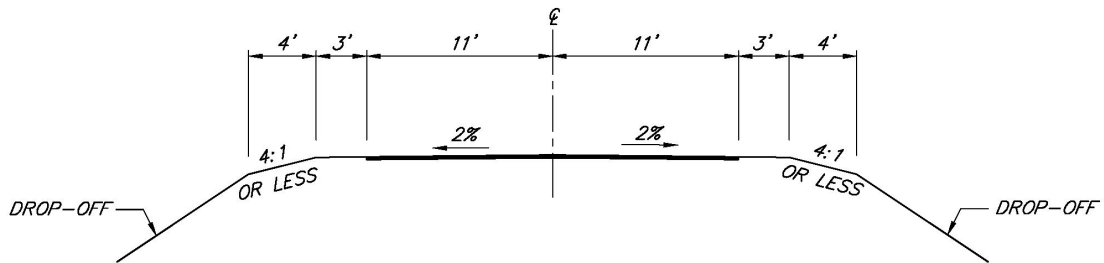
Island collector indicates a rural road expected to have lower traffic volumes.

Island arterial indicates a road reachable from a large community that is expected to have higher traffic volumes.



ISLAND COLLECTOR

POSTED SPEED: 30 MPH
SPECIAL MEASURES FOR CURVE & GRADE SECTIONS (ONLY)
VOLUMES BELOW 400 ADT



ISLAND ARTERIAL

POSTED SPEED: 35 MPH
SPECIAL MEASURES FOR CURVE & GRADE SECTIONS (ONLY)
VOLUMES BELOW 400 ADT

Figure A-1. Interim Typical Sections

Proposed Highway System Designations

This part of Appendix A identifies how the changes in the SATP will require revisions and additions to the National Highway System (NHS), the Alaska Highway System (AHS), and Forest Highway (FH) designations. In summary, a number of routes already identified as AHS would be added to the NHS, other routes would be added to the AHS, and several routes would be designated as FH routes.

Map 24 depicts proposed highway system designations for SATP highway corridors. Ferry terminals at the end of NHS routes are designated NHS terminals, and those at the end of AHS routes are designated AHS terminals. Ferry routes connecting NHS terminals are designated NHS routes, and those connecting AHS terminals are designated AHS routes. Marine shuttle-ferry routes and ferry terminals connecting FH routes to the regional transportation system are included in FH route designations.

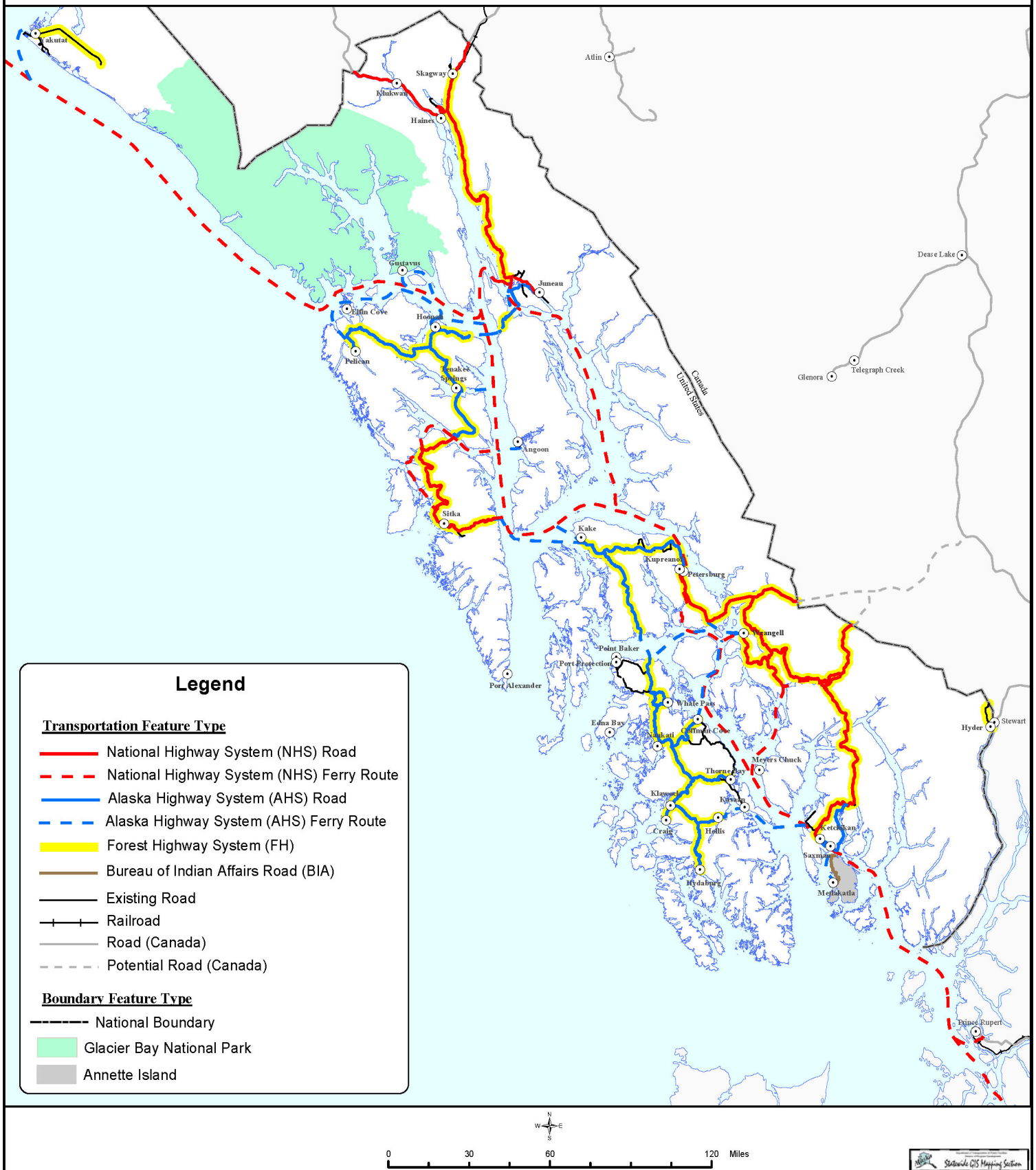
One aspect of bringing a comprehensive transportation network to Southeast Alaska is that the region can be more fully integrated into the NHS. Currently, two segments of the NHS end at tidewater on Lynn Canal, but there is no through highway link to Juneau or other principal destinations south of Skagway and Haines. Because the NHS consists of routes important to interstate travel, national defense, and the nation's commerce, it makes sense to extend these types of highway links into Southeast Alaska and to the state capital.

The SATP preferred alternative for Juneau Access would construct 68 miles of new NHS route that would connect the Klondike Highway, an NHS route, with the end of the Glacier Highway at Echo Cove. The 26-mile segment of Glacier Highway from Echo Cove to Auke Bay Terminal would become an NHS route, and would connect to the existing 14-mile NHS route that extends from the Auke Bay Terminal past the airport to downtown Juneau.

In southern Southeast Alaska, Mid-Region Access would construct a new highway west from the continental highway system in Canada. This NHS route would connect to the road system in Ketchikan, the region's second most populous community. In combination with Gravina Access, Mid-Region Access would provide a through highway link to the Ketchikan International Airport. There would also be a connection from Mid-Region Access to Wrangell and Petersburg. This connection would be part of the NHS route that connects Ketchikan to Sitka and Juneau.

As part of the through highway connection between Ketchikan, Sitka, and Juneau, a segment of the Mitkof Highway would be an NHS route because it connects ferry terminals on both sides of Wrangell Narrows. For funding

Map 24 Proposed Highway Designations



purposes, this 26-mile segment is already treated as NHS in the Statewide Transportation Improvement Program (STIP).

The construction of the two new NHS routes would connect the two largest population centers in Southeast Alaska with the continental highway system.

On Baranof Island, an eight-mile NHS route runs from the airport through town to the existing site for the ferry terminal. A new highway would be constructed to a new location for the ferry terminal on or near Chatham Strait. Depending on the selected alignment, the NHS route would be either an extension of the existing route or would tie to the existing route in the downtown vicinity.

The AHS complements the NHS, and includes those routes of statewide significance that are not part of the NHS. Several routes discussed above are already part of the AHS, including the Glacier Highway beyond the Auke Bay Terminal, part of the Mitkof Highway and the two trunk highways of the Ketchikan road system. In Ketchikan, the future NHS link would include the connection to Gravina Island, and would extend along either the North Tongass Highway or South Tongass Highway from the existing NHS segment (three miles in length), which serves the Ketchikan core.

On Prince of Wales Island, 81 miles of AHS routes link the island's three most populous communities with each other and transportation gateways (ferry and airport) for travel to and from the island. This network needs to be expanded. The road south to Hydaburg, which requires a major upgrade to current standards, needs to be added to the AHS. North from Control Lake junction, the AHS includes 15 miles of state highway. It is recommended that this designation be extended (along with state maintenance) to a ferry terminal in Coffman Cove. In addition the existing FH 43 on Prince of Wales Island, which reaches El Capitan Junction, needs to be extended north to a ferry terminal site near Red Bay, across Sumner Strait from Totem Bay. The connecting routes to Whale Pass via Cavern Lake and Neck Lake roads are recommended for inclusion in the AHS with the route to Red Bay.

On Kupreanof Island, the proposed road east from Kake to Petersburg is partially constructed, and already designated as FH. This route, part of which is not built, needs to be added to the AHS. Addition of this route to the AHS would recognize that this route is of statewide significance because it connects two communities and extends the regional highway system, along with providing access to recreational sites and areas of resource development. South from the constructed portion of the proposed road from Kake to Petersburg, an existing road extends toward Totem Bay at the south end of Kupreanof Island. The constructed and unconstructed portions of this route need to be added to the AHS. This route is of statewide significance because it provides a direct connection between Kake and Prince of Wales

Island and offers an alternative regional route between Ketchikan and the communities in the Northern Panhandle.

The roads and corridors identified as essential by the SATP on Chichagof Island between Hoonah, Whitestone Harbor, Pelican, and Tenakee Inlet, including the road up Kadashan to Peril Strait, are recommended for addition to the AHS. Other routes recommended for inclusion in the AHS are North Douglas Highway and its extension to Middle Point and the road between Young Bay and Hawk Inlet. All of these roads, with the exception of the North Douglas Highway, are recommended additions to the FH system.

FH designations are established and administered by the Federal Highway Administration (FHWA), Western Federal Lands Highway Division, through a tri-agency process that coordinates efforts of representatives from FHWA, the Forest Service, and ADOT&PF. Representatives of the three agencies meet annually (at a minimum) to report progress, reach decisions on the FH program, and discuss project development issues. FH designations are primarily for funding purposes, and overlay other highway designations.

South from the constructed portion of the proposed road from Kake to Petersburg, an existing road extends toward Totem Bay at the south end of Kupreanof Island. The constructed and unconstructed portions of this route need to be designated as FH. Similarly, existing FH 43 on Prince of Wales Island, which reaches El Capitan Junction, needs to be extended north to a ferry terminal site near Red Bay, which is across Sumner Strait from Totem Bay. In addition, the connecting routes to Whale Pass via Cavern Lake and Neck Lake roads are recommended FH routes.

In conjunction with major access improvements to and between Juneau, Ketchikan, and Sitka, four extensions of existing FH routes are needed. North of Juneau, FH 2 (Glacier Highway) extends from Auke Bay Terminal north for 31 miles, including an unconstructed portion to Sawmill Creek. This designation needs to be extended to the junction with the Klondike Highway in Skagway. In Ketchikan, FH 39 (Ward Lake Road) traverses 24 miles to Shelter Cove, and needs to be extended to the Canadian border. South from Wrangell, FH 16 (Zimovia Highway) reaches the national forest boundary, and needs to be extended to Fools Inlet. Finally, FH 11 crosses Starrigavan Creek near the Sitka Terminal, and needs to be extended to Rodman Bay. East from Sitka, the proposed road to Warm Spring Bays is already designated FH 47.

Appendix B

Benefit-Cost Analyses

APPENDIX B. BENEFIT-COST ANALYSES

This appendix summarizes the methodologies, the benefit-cost analyses, and models applied during the evaluation of transportation systems as part of the 2004 update to the Southeast Alaska Transportation Plan (SATP). The benefit-cost model employed is integrated with a regional intercommunity travel demand model that is based on a comparative evaluation of alternative modal choices, trip frequency, fare, and travel time. These models were originally developed as part of the 1997 SATP. The benefit-cost evaluation tool provides revenue generation and other user benefit analyses that were employed in comparisons of new systems to those previously explored as part of the 1997 SATP.

Preliminary Screening Process

An initial set of more than 120 individual roadway, ferry, terminal, and vessel improvements were identified as possible transportation system improvements within the Southeast region at the onset of the SATP update in fall 2003. These individual projects were combined into logical combinations of corridor segments, subregional improvements, and regional systems to evaluate alternative systems and trade-offs in roadway and ferry options. Evaluation criteria were developed for each of these combinations on a number of area and regional routes, which either currently exist or would be new connections. These preliminary screening criteria included very basic elements that considered:

- Capacity
- Travel time
- Convenience to user (which also include predictability and regularity of service)
- Cost to state
- Cost to user

Attachment 1 contains a summary of individual and systems of components evaluated as part of a preliminary screening process that was used to identify those elements that underperformed on individual routes, corridors, or a systemwide basis. Specific elements of the 2004 SATP transportation system used in the detailed evaluation of travel demand and benefit-cost analyses included changes in travel time and service frequency that would be

provided under each scenario, and updated capital, maintenance, and operating costs necessary to support each scenario.

Intercommunity travel demand forecasts were prepared for the 2004 SATP schedules as well as for those of SATP Addendum 1 for the 2025 horizon year. Roadway travel demand forecasts for the Juneau Access road are referenced from the ongoing environmental and economic analyses. Roadway travel demand estimates for the Bradfield Road were prepared based on previous estimates prepared as part of the 1999 SATP. They include resource extraction trips and increased latent demand to the nearby communities of Wrangell, Petersburg, Prince of Wales Island, and Ketchikan. These forecasts were added to travel via Alaska Marine Highway System (AMHS) ferry services in the region, but are also summarized separately and converted into daily traffic forecasts on an average annual basis and during peak summer months.

Benefit-Cost Analysis

The benefit-cost model was derived by using the principles of least-cost planning (LCP) that employed a process for choosing the lowest-cost method for providing a given level of service (benefit). Key outputs from this process involve the relationship of marginal user benefits to marginal costs. Conceptually, it is possible to configure alternative transportation systems that combine air, automobile, and ferry modes that generate roughly equivalent levels of benefits in a region such as Southeast Alaska. The system alternative that generates this base level of benefits at the least cost would then represent the optimal system. Within the models, the system alternatives were designed to optimize different ferry technologies while maintaining constant air service levels.

Although it is important to keep limitations in mind, the framework and tools of the LCP provide the best approach for systematically addressing the relative benefits and costs of transportation alternatives. In practice, estimating with precision all benefits and costs of a proposed transportation system is impossible. In particular, a wide range of spillover costs and benefits of transportation facilities and programs have yet to be estimated reliably. Moreover, it is difficult to foresee long-range changes in transportation, land use, and energy markets that could have profound effects on the performance of different components of the transportation system. The appropriate use of key outputs from this process permitted ADOT&PF to directly evaluate the inherent uncertainties in estimating long-term benefits and costs and determine whether consideration of these uncertainties alters the relative rankings of the system alternatives.

The following explanation provides a more detailed description of the technical steps that were taken in estimating the value of costs and benefits of a transportation system alternative.

Benefit-Cost Methodologies Employed

Estimating net present values of capital investments and annual operating costs began with annualized cost streams for each alternative, including the base case in each year of the planning period. The total capital and operating costs were then summarized for the entire planning period and the present value was determined by using an appropriate discount rate. The relative change in net present value of costs of a variant system alternative was then made to base conditions.

The mathematics of discounting is typically straightforward and is described in any text on benefit-cost analysis. What is typically more difficult is determining the appropriate discount rate to apply. Extensive literature is available on the appropriate discount rate to use for different types of social decision-making. For evaluating public investments, ADOT&PF specified use of the real interest rate published in Circular A-94 issued by the White House Office of Management and Budget for discounting costs in cost-effectiveness analysis of federally funded projects. This figure is an accepted estimate of the opportunity cost of capital. The rate is currently 3.5 percent for 30-year cost-effectiveness analysis (as revised February 13, 2004). Assuming a discount rate higher than this figure tends to lower the value today of benefits and costs that are incurred in the future.

For each potential origin-destination pair, the user benefit for each mode and trip is determined by using the following formula:

$$\text{User benefits} = (U_0 - U_1) (V_0 + V_1)/2$$

where:

U_0 = the user cost per trip for the base case

U_1 = the user cost per trip for the system alternative

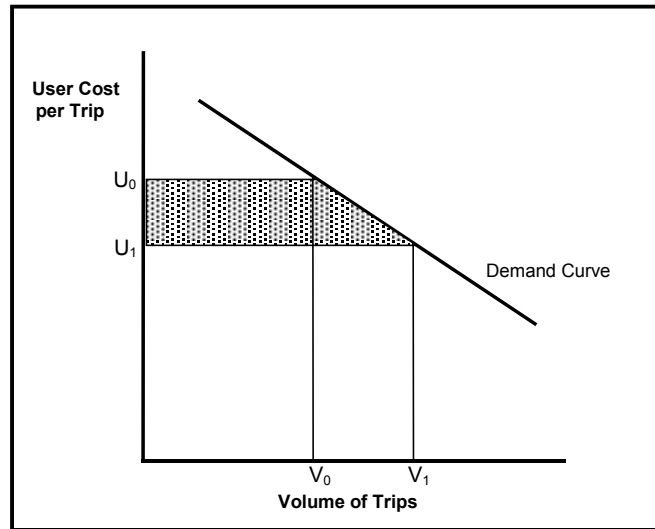
V_0 = the volume of trips for the base case

V_1 = the volume of traffic for the system alternative

A transportation improvement lowers the user costs for a trip from U_0 to U_1 , which results in an increase in the volume of trips taken from V_0 to V_1 (the essence of "latent demand").

The benefit to users of the new facility is the increase in consumer surplus shown by the shaded area in Figure B-1.

Figure B-1. User Benefits from Transportation Improvements



The volume of future trips is input directly from the travel demand module. This module transfers annual person trips by trip purpose for each origin and destination pair within Southeast Alaska, including links to external zones.

The following user benefits represent the majority of user benefits of any system alternative and are the focus of the quantitative analysis within the benefit-cost module:

- Changes in travel and waiting time
- Changes in trip frequency
- Changes in out of pocket costs
- Changes in total number of trips made

The benefits associated with changes in accessibility and economic development are not measured, but are closely correlated with these user benefits and can be indexed to the changes in user benefits. For the SATP update, out-of-pocket costs are also estimated for additional driving that is introduced between certain origins and destinations where roadways replace all or a portion of ferry travel.

Value of Time

The value of time is determined by interaction of each individual with the marketplace. Each individual has a unique set of skills, knowledge, and personal values that they hold and present to the labor market. It is the interaction of the individual's personal values and need for employment

with the labor market (versus individual preferences for spending time engaged in other activities) that determines each individual's value for time. Different individuals will perform a given task at a different price based on a large range of possible combinations of needs and values held by workers and employers.

Everyone views the value of their time differently. Although no two people value time the same, everyone agrees that time holds value to each individual and to each employer. The question is, what is the most appropriate value to place on time for purposes of comparing systems (in this case, transportation systems) that involve different time periods to use or complete?

Transportation systems move multiple people and goods with varying sensitivities to time differentials depending on their unique demographic and personal values. Although some broad user profile information is available on travelers who use the regional transportation system and their trip purposes, this information is quite limited, often dated, and varies among the different air, marine, and land transportation services. The user profiles vary by transportation mode, transportation route, and season. Southeast Alaska traffic contains a very high seasonal tourism component that exceeds in volume the entire annual resident traffic volume through the system. In addition to adults, the traffic data include infants and children whose time holds little immediate economic value.

Recognizing the variability discussed above, the following methodologies for value of time and range of user benefits were employed in the benefit-cost analyses for the SATP update:

- **Average Time Value.** Because current, consistent, and detailed user profile information is not available for air, marine, and land transportation across the various transportation routes, an average value for time to represent all users was recommended to compute and compare the economic benefit accruing to users from transportation system alternatives that affect travel time between two points. The average or median value selected should be based on the available information and values that best represent the individual users of the transportation systems under evaluation.
- **User Benefits Range.** Although the demographic and analytic information available to both accurately identify and represent the aggregate user value of the time of the group of users served by the transportation system is deficient, sufficient information is available to draw broad comparisons and conclusions. A reasonable value range should represent user benefits with respect to savings in travel time for system alternatives. The range should include a comparison presenting user benefits for an average or median value for time bounded by a

higher and lower value to provide a reasonable range and also to present user benefits without time as a factor.

Regarding the selection of an average time value, ADOT&PF decided that the U.S. Department of Labor's annual average hourly wage for all workers in the nation for 2003 be used as the base economic values for time evaluation. This data source best represents the mix of users on the Southeast Alaska transportation system. For 2003, this figure is calculated at \$15.35 per hour.

This figure was reduced to represent an average of all travelers on the Alaska Marine Highway System (AMHS), including children. AMHS traffic data for 2002 provide a breakout of the percentage of traffic by tariff codes, which indicates the percentage of several age groups traveling AMHS during 2002. The travel by age group was determined as follows:

Children under 12	10.6 percent
Seniors	3.2 percent
12 and over	86.2 percent

To represent adults 18 and older, the age 12 and over group was reduced to 80 percent of total travelers, which reduces the average U.S. average hourly wage of \$15.35 by roughly 20 percent to \$12.48 per hour. This value of time (\$12.48 per hour) was employed as the economic hourly time value to changes in transportation system characteristics for purposes of computing an average user benefit time differential between alternatives. As a sensitivity analysis, the following additional values of time were considered for comparison:

\$0.00	Null Time Value
\$5.38	Low Time Value 1
\$8.02	Low Time Value 2
\$10.47	Juneau Access Time Value
\$12.48	2004 SATP Time Value
\$13.50	High SATP Time Value

Summary Findings (December 2003)

Table B-1 summarizes the results of the detailed evaluation. Intercommunity travel demand forecasts were prepared for the SATP update schedules as well as for the existing system¹ and SATP Addendum 1 for the 2010, 2015, 2020, and 2025 horizon years. Benefit-cost summaries were also prepared for the same time periods and horizon years as the travel demand forecasts. Capital costs are summarized by time period. Operating costs and revenue projections are shown for the horizon year in current dollars (2003). It should be noted that capital projects originally assumed as part of the SATP update from 2021 to 2025 (a shuttle-road system between Juneau and Sitka) were removed from the SATP update after the initial benefit-cost analyses were completed.

As shown in Table B-1, subsidies for the existing system would continue to increase over time. Addendum 1 is “revenue positive” in the later years of the system implementation, but this result is based on optimistic latent demand forecast adjustments for service to Bellingham and in the Lynn Canal.

The 2004 SATP is presented in Table B-1 with and without four implementation packages or components: Baranof Road, Bradfield Road, Fools Inlet Road, and Revillagigedo Road. Under the 2004 SATP scenario (with and without the implementation packages), AMHS revenue is lost north of Juneau with the assumed Juneau Access Road. However, reduction in mainline service level (by 2010), coupled with revenue-neutral return assumptions on new short ferry links (Haines-Skagway, Fools Inlet shuttle, and others), results in a substantial reduction in operating subsidy. Fares on new links to Bradfield Canal are based on \$20 one-way fare per trip segment. All fares on existing routes remain constant with current levels.

SATP Update – Final Benefit-Cost Analyses and Results (July 2004)

Table B-2 summarizes scenario costs and user benefits in net present value from 2005 to 2025 for the same three scenarios examined in Table B-1. As shown, a significant increase in capital expenditures would result from the 2004 SATP, with an improvement in user system benefits over the planning horizon (net benefit minus costs of approximately \$209 million). Without consideration for capital expenditures, a positive net present value of

¹ The existing system scenario is defined as those vessels and service characteristics operating in effect during calendar year 2003 by AMHS for ferry services. Regional air services are operated by local carriers and Alaska Airlines (regional jet service), according to a survey by Transportation Engineering Northwest, LLC, in October 2003.

approximately \$1.0 billion in benefits over operating and maintenance costs would result. If the four implementation packages identified after 2010 in Table B-1 are not assumed, the net gross user benefits for the 2004 SATP would be reduced by approximately \$500 million.

These results assume an average value of time in the user benefit-cost results. Attachment 2 contains a sensitivity analysis of “value of time” ranges in the benefit-cost analysis.

Table B-1. Cost-Benefit Evaluation Summary

Implementation Period	Capital Costs for Period (\$ millions)	Annual Operating Costs to ADOT&PF ¹ (Horizon Year)	Annual AMHS Ridership (Horizon Year)	Annual Revenue ² (Horizon Year)	Annual ADOT&PF Subsidy ³ (in Horizon Year) (\$ millions)	ADT Forecasts on Juneau – Skagway Road (AADT/Peak Summer ADT)	ADT Forecasts on Bradfield Road at Hwy. 37 (AADT/Peak Summer ADT)
Existing System⁴							
2004-2010	92	75	299,500	38	(37)	-	-
2011-2015	124	75	320,300	40	(35)	-	-
2016-2020	172	75	341,400	41	(34)	-	-
2021-2025	146	75	362,900	43	(32)	-	-
SATP Addendum 1⁵							
2004-2010	435	69	496,900	52	(17)	-	-
2011-2015	195	69	533,200	55	(14)	-	-
2016-2020	129	69	570,000	58	(11)	-	-
2021-2025	143	69	607,400	61	(8)	-	-
2004 SATP⁶							
2004-2010	881	59	456,800	47	(12)	500/900	-
2011-2015	513	63	541,200	52	(11)	600/1,075	100/270
2016-2020	395	65	595,300	56	(9)	650/1,200	110/280
2021-2025	226	69	648,800	58	(11)	725/1,325	130/320

AADT = Annual average daily traffic ADT = Average daily traffic

Notes: Dollars reflect 2003 values.

Horizon year is the year at the end of the implementation period tested. The horizon years are 2010, 2015, 2020, and 2025, as shown in Column 1.

These benefit-cost summaries assumed a shuttle-road system between Juneau and Sitka in the 2021 to 2025 period. These plan components are no longer included in the SATP 2025 priorities, but could move up as funding become available.

¹ Operating costs include annual AMHS management, administration, marketing costs, and Southeast Region operating and maintenance costs. Included are the operating costs of all new roadways, terminal facilities, and vessels. Existing highway, airport and harbor facilities are not included.

² Fares are held constant. Ferry revenue is adjusted to account for IFA-generated revenue between POWI and other ports as well as loss in Lynn Canal ferry revenue north of Juneau.

³ A negative subsidy figure represents continued expenditures that exceed revenues.

⁴ Existing system scenario does not include fast vehicle ferry in the 2003 fleet; it only includes existing vessels operating consistent with current schedules/levels of service.

⁵ The SATP Addendum 1 scenario assumes continued reliance on four mainline ferries — two from Prince Rupert and two from Bellingham, overlaid with fast vehicle Access EIS. It also assumes a ferry solution in Lynn Canal consistent with the previous SATP plan and updates with forecast adjustments consistent with Juneau Access EIS.

⁶ The 2004 SATP update scenario assumes reduced mainline service down to only three mainline ferries, consisting of the *Columbia*, *Kennicott*, and either the *Malaspina* or *Matanuska*, in Southeast and latent demand estimates from AMHS marketing study; a road solution in Lynn Canal consistent with the most current EIS by 2010 with forecast adjustments consistent with the Juneau Access EIS; the Sitka Access Road by 2015; and the Bradfield Road by 2015 with forecast adjustments for Bradfield Road consistent with original SATP plan.

Table B-2. Comparison of Regional Transportation Alternative Scenarios: Summary of Net Present Value Benefits and Costs, 2005-2025

Net Present Value in Millions of Dollars (2003 \$)										
Scenario	Total Costs ¹	Revenues	Costs Less Revenues	Change in Net Costs from Adopted Plan	Change in Consumer Surplus ²	User Benefits Eliminated in Lynn Canal	User Costs in Additional Driving on New Roadways	Change in Net User Benefits from Adopted Plan	Total Net Present Value: Benefits Minus Costs	
Present Value of Total Costs and Benefits										
2001 SATP Addendum 1	(1,608)	804	(804)							
2004 SATP	(2,398)	846	(1,552)	(748)	907	108	(58)	957	209	
2004 SATP (without implementation packages) ³	(1,972)	697	(1,275)	(471)	615	108	(30)	693	222	
Present Value of Operating and Maintenance Costs and Benefits⁴										
2001 SATP Addendum 1	(939)	804	(135)							
2004 SATP	(867)	846	(21)	114	907	108	(58)	957	1,071	
2004 SATP (without implementation packages) ³	(986)	697	(289)	(154)	615	108	(30)	693	539	

¹ Includes all capital, operation, and maintenance costs of roadway and ferry systems. This benefit-cost analysis assumes that the Juneau Access Road is not part of the baseline system; therefore, all user benefits associated with the roadway are included in the 2004 SATP scenarios.

² Change in consumer surplus includes value of time in travel, waiting, and service frequency.

³ The implementation packages are four major road components: Baranof Road, Bradfield Road, Fools Inlet Road, and Revillagigedo Road.

⁴ The lower portion of this table excludes capital cost from the total costs column.

2025 Travel Demand Forecasts

Table B-3 summarizes annual person-trip forecasts on ferry and major roadway corridors by scenario in 2025. As shown, while changes in ferry ridership would not vary by more than 10 percent from the base scenario (SATP Addendum 1), varying degrees of increased travel opportunity are afforded by new roadway corridors included in the 2004 SATP.

Table B-3. Comparison of 2025 General Travel Demand Forecasts by Scenario

Scenario	AMHS Routes in Southeast Alaska (annual person-trips)	Juneau Access Road (APT/AADT)	Bradfield Road (APT/AADT)	Revillagigedo Highway (APT/AADT)	Sitka Access Road (APT/AADT)
2001 SATP Addendum 1	607,400	N/A	N/A	N/A	N/A
2004 SATP	665,700	583,000/725	118,150/130	54,750/60	73,000/80
2004 SATP (without implementation packages)	558,100	583,000/725	N/A	N/A	N/A

APT = Annual person-trips
 AADT = Annual average daily vehicle trips
 N/A = Not applicable

Summary of Key Benefit-Cost Analytical Assumptions

Key assumptions for the final benefit-cost analysis included the following:

- Evaluation period: 20 years (from 2005 to 2025)
- Cost estimates: planning level only
- Value of time: \$12.48 per hour was applied where transportation scenarios change travel or wait time to the traveler from those previously calculated for SATP Addendum 1.
- Inflation: All cost and benefit amounts were estimated in 2003 dollars. A real discount rate of 3.5 percent was applied, according to the current *real* rate recommended for 30-year analysis in Office of Management and Budget Circular A-94, *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*, Appendix C, revised February 2004.
- Fares: All ferry and air fares were assumed to remain at existing 2003 levels. For new ferry shuttle links, a one-way \$20 adult fare was assumed.
- Vehicle operating costs: New vehicle miles of travel generated by a scenario were estimated at \$0.137 per mile, according to Department of

Energy estimates and AAA 2003 statistics of average fuel and oil, maintenance, and tire operating costs.

Attachment 1

Preliminary Screening Evaluation – Component Selection by Corridor

ATTACHMENT 1. PRELIMINARY SCREENING EVALUATION – COMPONENT SELECTION BY CORRIDOR

Table 1-1 contains the results of the preliminary evaluation for selection of components by corridor. Note that the figures identified in the first column, labeled “Figure Reference,” are conceptual route maps prepared for evaluation purposes. To obtain a copy of the maps, contact the Alaska Department of Transportation and Public Facilities (see the title page of this report for contact information).

Note that the phrase “currently adopted SATP” in the table notes refers to the 1999 Southeast Alaska Transportation Plan, as amended by Addendum 1 in 2001.

Table 1-1.

SATP Update
Preliminary Evaluation Matrix - Component Selection by Corridor

Figure Reference	Route/Corridor by Alternative	Travel Time (one-way in hours)				Service Ferry (Trips/Day or Week)	Resulting Capacity Daily One-Way Vehicle Capacity (vehicles per day)	Ferry Annual M&O Cost		Road M&O Cost		Total Annual M&O Cost of Alternative	Daily Ferry Operating Cost Per Veh. Capacity Provided	One-Way Driving Costs ⁵	Total User Costs (One-Way)
		Ferry(s)	Road ³	Transfers & Dwell ¹	Total			Annual Service Hours	Total Annual Cost	Length	Total Annual Cost				
Ketchikan-Metlakatla															
Fig 1	Alt F1 - KET-MET Shuttle	2.00	0.00	2.25	4.25	2.0	40	3,520	\$1,267,200	-	\$0	\$1,267,200	\$43	\$0	\$43
Fig 2	Alt RF2 - Saxman-Walden Point Shuttle	0.25	0.50	0.50	1.25	12.0	240	2,920	\$1,051,200	14.5	\$118,900	\$1,170,100	\$6	\$2	\$8
Ketchikan-Wrangell															
Fig 3	Alt RF1 - KET-WRG Shuttle Road System via Cleveland Peninsula Santa Anna to North Tongass	2.25	3.00	2.75	8.00	4.0	80	7,040	\$2,534,400	63.25	\$518,650	\$3,053,050	\$43	\$12	\$56
Fig 3a	Road and Shuttle from Spacious Bay	2.75	0.75	2.25	5.75	2.0	40								
Fig 3b	Road and Shuttle From Helm Bay Fools Inlet to Cleveland Peninsula	1.25	1.50	1.50	4.25	4.0	80								
Fig 3c	Shuttle to Frosty Bay	1.00	0.25	1.25	2.50	4.0	80								
Fig 3d	Shuttle to Santa Anna	1.50	0.00	1.75	3.25	3.0	60								
Fig 4	Alt RF2 - KET-WRG Shuttle Road System via Revillagigedo Spacious Bay to Klu Bay	2.25	3.25	2.75	8.25	3.0	60	7,040	\$2,534,400	74.5	\$647,608	\$3,182,008	\$58	\$13	\$71
Fig 5	Alt RF3 - KET-WRG via Behm Canal to Bradfield Canal to Fools Inlet	1.75	4.00	2.25	8.00	4.0	120	7,040	\$2,147,200	103.25	\$889,868	\$3,037,068	\$25	\$16	\$41
Fig 6	Alt F4 - KET-PSG FVF Shuttle via IFA	4.00	0.00	4.50	8.50	1.0	35	3,520	\$4,576,000	0	\$0	\$4,576,000	\$179	\$0	\$179
Fig 7	Alt R5 - Eastern Passage Road WRG-KET	0.25	4.75	0.50	5.50	12.0	240	4,280	\$1,070,000	144.5	\$1,286,050	\$2,356,050	\$6	\$23	\$29
Ketchikan Access to Continental Road System (Measured to Highway 16/37 Intersection in Canada)															
Fig 5A	Alt RF1 - KET-WRG via Bradfield Road and Dedicated FVF Shuttle	5.25	8.50	2.25	16.00	1.0	35	4,380	\$5,694,000	67.5	\$596,718	\$6,290,718	\$223	\$39	\$262
Fig 5B	Alt RF2 - KET-WRG via Bradfield Road and Revillagigedo Island	0.25	11.25	0.50	12.00	12.0	240	3,520	\$880,000	163.25	\$1,381,868	\$2,261,868	\$5	\$58	\$63
Fig 8	Alt F3 - KET-YPR FVF Shuttle	2.75	5.00	2.25	10.00	2.0	70	3,520	\$4,576,000	0	\$0	\$4,576,000	\$90	\$27	\$117
Fig 8A	Alt F4 - KET-YPR Fast Monohull Shuttle	5.25	5.00	2.25	12.50	1.0	40	3,650	\$2,737,500	0	\$0	\$2,737,500	\$94	\$27	\$121
Fig 9	Alt F5 - KET-HYD IFA Shuttle	9.50	6.00	2.25	17.75	< 1/day	15	4,380	\$1,571,574	0	\$0	\$1,571,574	\$144	\$33	\$176
Fig 9a	Alt F6 - KET-HYD FVF Shuttle	4.50	6.00	2.25	12.75	1.0	35	4,380	\$5,694,000	0	\$0	\$5,694,000	\$223	\$33	\$256
POWI to Ketchikan															
Fig 10	Alt F1 - HOL-KET IFA Service	2.75	0.75	2.25	5.75	2.0	60	3,520	\$1,267,200	0	\$0	\$1,267,200	\$29	\$3	\$32
Fig 10A	Alt F2 - HOL-KET IFA Service with Two Vessels	2.75	0.75	2.25	5.75	4.0	120	5,280	\$1,900,800	0	\$0	\$1,900,800	\$22	\$3	\$25
Fig 10B	Alt F3 - HOL-North Tongass Terminal with Two Vessels	2.25	1.00	2.25	5.50	4.0	120	5,280	\$1,900,800	0	\$0	\$1,900,800	\$22	\$4	\$26
Fig 11	Alt RF4 - POWI-KET Shuttle Road System via Grindall and North Tongass Hwy	1.00	1.75	1.25	4.00	4.0	120	4,380	\$1,576,800	31.0	\$254,200	\$1,831,000	\$18	\$7	\$25
Petersburg to Ketchikan															
Fig 12	Alt F1 - IFA Shuttle Service via Mitkof and POWI (Alt F1)	4.50	6.50	4.50	15.50	1.0	30	3,650	\$1,314,000	67.5	\$553,500	\$1,867,500	\$60	\$36	\$96
Fig 13	Alt F2 - PSG-KET FVF Shuttle	2.75	0.75	2.25	5.75	1.0	35	3,520	\$4,576,000	0	\$0	\$4,576,000	\$179	\$4	\$183
Fig 5 ext.	Alt RF3 - Shuttle to Wrangell, Fools Inlet to Bradfield Canal via Revillagigedo Road (Fig 5)	2.75	4.75	3.25	10.75	3.0	90	10,560	\$3,801,600	103.25	\$889,868	\$4,691,468	\$58	\$20	\$77
Southern Panhandle Regional Routes Beginning from Warm Springs Bay or Petersburg (selected alternative systems based upon local screening of corridors)															
Fig 13	Alt F1 - KET-PSG FVF Shuttle	2.75	0.75	3.25	6.75	1.0	35	3,520	\$4,576,000	0	\$0	\$4,576,000	\$179	\$4	\$183
Fig 14	Alt RF2 - Kuiu Island-POWI using Hollis	5.00	4.25	5.25	14.50	2.0	60	11,420	\$4,111,200	109.00	\$893,800	\$5,005,000	\$94	\$23	\$117
Fig 15	Alt RF3 - Kake via POWI using Hollis	5.75	4.25	5.75	15.75	2.0	60	11,420	\$4,111,200	106.50	\$873,300	\$4,984,500	\$94	\$17	\$111
Fig 15a	Alt RF3 - Kake via POWI using Grindall Point to North Tongass	3.00	4.50	5.00	12.50	2.0	60	10,560	\$3,801,600	148.25	\$1,215,650	\$5,017,250	\$87	\$18	\$105
Fig 16	Alt RF4 - Kake via PSG and PSG-KET Alternative	5.00	2.50	5.75	13.25	1.0	35	17,600	\$5,948,800	51.75	\$424,350	\$6,373,150	\$233	\$10	\$243

- 1 - This estimate includes transfer penalties of 15 minutes per ferry trip and wait or dwell time at each terminal of 1/2 the headway (this dwell is capped at 2 hours for each ferry link).
- 2 - For cost purposes a maximum 12-hour crew day was assumed during summer seasons and an 8-hour crew day for winter/shoulder seasons.
- 3 - Driving travel time through Canada to Bellingham, WA, includes an 8-hour overnight penalty.
- 4 - Screened alternatives include 24-hour vessels which serve multiple ports. Hours of operation for 24-hour vessels between ports considered in the screening were included to provide as best direct comparatives as possible.
- 5 - Based upon estimated costs/mile of operating a vehicle in 2003 (\$0.137/mile) consistent with 2000 Department of Energy estimates and AAA 2003 statistics of average fuel/oil, maintenance, and tire operating costs.

Regional corridors that connect regional communities in the Southeast will be determined based upon subcorridor elements, combined, and then evaluated against transportation elements in the currently adopted SATP.

Table 1-1.

SATP Update
Preliminary Evaluation Matrix - Component Selection by Corridor

Figure Reference	Route/Corridor by Alternative	Travel Time (one-way in hours)				Service Ferry (Trips/Day or Week)	Resulting Capacity Daily One-Way Vehicle Capacity (vehicles per day)	Ferry Annual M&O Cost		Road M&O Cost		Total Annual M&O Cost of Alternative	Daily Ferry Operating Cost Per Veh. Capacity Provided	One-Way Driving Costs ⁵	Total User Costs (One-Way)
		Ferry(s)	Road ³	Transfers & Dwell ¹	Total			Annual Service Hours	Total Annual Cost	Total Annual Cost	Length				
Northern Panhandle Regional Routes JUN-SIT (selected alternative systems based upon local screening of corridors)															
Fig 17	Alt RF1 - Shuttle-Ferry Road System from Juneau to Sitka Auke Bay to Young Bay	2.50	4.75	3.00	10.25	3.0	60	14,080	\$4,294,400	123.5	\$1,047,329	\$5,341,729	\$98	\$20	\$118
Fig 17a	Road to Middle Point on Douglas Island	0.50	0.75	0.75	2.00	6.0	120								
Fig 17b	Shuttle Ferry to Young Bay	1.50	0.15	1.75	3.40	3.0	60								
Fig 18	Alt RF2 - Partial Shuttle Road System with Ferry from Hawk Inlet to Rodman Bay	5.75	2.50	3.25	11.50	1.0	35	7,040	\$3,379,200	49.5	\$440,550	\$3,819,750	\$132	\$10	\$143
Fig 18A	Alt RF2 - Partial Shuttle Road System with FVF from Hawk Inlet to Rodman Bay	2.75	2.50	4.25	9.50	2.0	70	6,440	\$5,063,200	49.5	\$440,550	\$5,503,750	\$99	\$10	\$109
Fig 19	Alt RF3 - Partial Shuttle Road System with FVF from Hawk Inlet to Warm Springs Bay	4.00	1.50	3.25	8.75	2.0	70	7,040	\$5,843,200	24.75	\$970,275	\$6,813,475	\$114	\$6	\$121
Fig 19A	Alt RF3 - Partial Shuttle Road System with Monohull from Hawk Inlet to Warm Springs Bay	4.25	1.50	4.25	10.00	1.0	40	6,440	\$3,457,200	24.75	\$970,275	\$4,427,475	\$118	\$6	\$125
Fig 20	Alt RF4 - JUN-SIT FVF Shuttle	4.50	0.00	2.25	6.75	1.0	35	3,520	\$4,576,000	0	\$0	\$4,576,000	\$179	\$0	\$179
Sitka Southern Access to Ketchikan															
Fig 21	Alt RF1 - Rodman Bay to Hawk Inlet (Alt RF2) to PSG via FVF, via KET-PSG FVF Shuttle	9.50	3.25	16.50	29.25	1.0	35	13,480	\$14,215,200	49.50	\$440,550	\$14,655,750	\$556	\$18	\$574
Fig 22	Alt RF2 - Rodman Bay to Petersburg via FVF, via KET-PSG FVF Shuttle	7.25	2.00	4.50	13.75	1.0	35	7,040	\$9,152,000	48.75	\$433,875	\$9,585,875	\$358	\$11	\$369
Fig 23	Alt RF2 - Rodman Bay to Petersburg via FVF, via Wrangell/Fools Inlet/Revillagigedo (Fig 5)	7.25	2.00	5.25	14.50	1.0	35	11,320	\$10,222,000	152.0	\$1,323,743	\$11,545,743	\$400	\$11	\$411
Fig 24	Alt RF3 - Warm Springs Bay to Kuiu Island via POWI	5.00	5.00	5.25	15.25	4.0	80	10,560	\$3,801,600	140.25	\$1,900,050	\$5,701,650	\$65	\$27	\$92
Fig 25	Alt RF4 - Rodman Bay to Kake via POWI	6.00	5.50	5.75	17.25	2.0	70	11,320	\$10,222,000	155.25	\$1,307,175	\$11,529,175	\$200	\$26	\$226
Fig 26	Alt RF4 - Warm Springs Bay to Kake via POWI	5.75	5.00	5.75	16.50	4.0	80	10,560	\$3,801,600	148.25	\$1,965,650	\$5,767,250	\$65	\$21	\$86
Ketchikan/Petersburg to Bellingham⁴															
Fig 27	Alt F1 - KET-BEL via Conventional Service	37.00	0.00	2.50	39.50	2/week	30	5,390	\$8,354,500	0	\$0	\$8,354,500	\$381	\$0	\$381
	Alt RF1 - KET-BEL via FVF to YPR and Road System to Bellingham	2.75	31.00	2.25	36.00	2.0	60	3,520	\$4,576,000	0	\$0	\$4,576,000	\$104	\$151	\$255
	Alt F3 - PET-BEL via Conventional Service	48.00	0.00	2.50	50.50	2/week	30	6,930	\$10,741,500	0	\$0	\$10,741,500	\$490	\$0	\$490
Fig 28	Alt RF4 - PET-BEL via Wrangell and Bradfield Road	2.75	35.25	2.25	40.25	4.0	120	7,040	\$2,534,400	89.6	\$797,262	\$3,331,662	\$29	\$162	\$191
Northern Panhandle Smaller Communities															
	Alt RF1 - 24-LeConte Class Composition Route	Will be tested further in November formal evaluation. No clear screening criteria available given alternative permutations of service.													
	Alt RF2 - Dayboat Hub and Spoke System on Chatham Strait	Simple answer is dayboat configuration of two shuttle ferries would cost less to operate than conventional 24-hour operation with hub on Chatham Strait.													
Regional Access Connections to US/Canadian Continental Highway System (selected alternative systems based upon local screening of corridors)															
	Alt R1 - Juneau Access Road	Will be tested further in November formal evaluation. No clear screening criteria available at preliminary stage given unknown criteria and regional nature of projects.													
	Alt R2 - Bradfield Road	Focus will be on benefit-cost analysis of travel demands, user benefits and system costs in detailed evaluation.													
	Alt F3 - Juneau Access Road with YPR Shuttle														

1 - This estimate includes transfer penalties of 15 minutes per ferry trip and wait or dwell time at each terminal of 1/2 the headway (this dwell is capped at 2 hours for each ferry link).

2 - For cost purposes a maximum 12-hour crew day was assumed during summer seasons and an 8-hour crew day for winter/shoulder seasons.

3 - Driving travel time through Canada to Bellingham, WA, includes an 8-hour overnight penalty.

4 - Screened alternatives include 24-hour vessels which serve multiple ports. Hours of operation for 24-hour vessels between ports considered in the screening were included to provide as best direct comparatives as possible.

5 - Based upon estimated costs/mile of operating a vehicle in 2003 (\$0.137/mile) consistent with 2000 Department of Energy estimates and AAA 2003 statistics of average fuel/oil, maintenance, and tire operating costs.

Regional corridors that connect regional communities in the Southeast will be determined based upon subcorridor elements, combined, and then evaluated against transportation elements in the currently adopted SATP.

Attachment 2

Value of Time Sensitivity in Benefit-Cost Analyses

ATTACHMENT 2. VALUE OF TIME SENSITIVITY IN BENEFIT-COST ANALYSES

Within the benefit-cost report, average values of travel time were used in the evaluation. Because the use of time values can be questioned, a sensitivity analysis was conducted on the value of time in the benefit-cost analysis. The following hourly time value ranges were tested. As shown, the resulting ranking of the system scenarios confirmed the conclusion that the SATP update with all implementation packages would result in the greatest net present value (benefit in relation to cost).

It should be noted that, as the value of time increases, the relative benefits afforded because of transportation improvements result in proportionally higher benefit totals, assuming that there are savings in travel times.

The range of values for time tested in this sensitivity analysis is shown in the list below. Table 2-1 shows consumer surplus benefits under differing value of time assumptions.

- a. \$0.00 Null Alternative
- b. \$5.38 Low Time Value 1
- c. \$8.02 Low Time Value 2
- b. \$10.47 Juneau Access Time Value
- c. \$12.48 SATP Time Value
- d. \$13.50 High Time Value

Table 2-1. Consumer Surplus Benefits under Differing Value of Time Assumptions: Present Value of Operating and Maintenance Costs and Benefits, 2005-2025

Scenario	Change in Consumer Surplus NPV (2003 \$ millions)	NPV of Other User Benefits & Costs (2003 \$ millions)	Total NPV (Benefits Minus Costs) (2003 \$ millions)
Null Alternative — \$0 per Hour Value in Travel Time Changes			
2001 SATP Addendum 1			
2004 SATP	0	50	164
2004 SATP (without implementation packages)	0	78	(76)
Low Time Value 1 — \$5.38 per Hour Value in Travel Time Changes			
2001 SATP Addendum 1			
2004 SATP	424	50	588
2004 SATP (without implementation packages)	298	78	222
Low Time Value 2 — \$8.02 per Hour Value in Travel Time Changes			
2001 SATP Addendum 1			
2004 SATP	604	50	768
2004 SATP (without implementation packages)	416	78	340
Juneau Access Time Value — \$10.47 per Hour Value in Travel Time Changes			
2001 SATP Addendum 1			
2004 SATP	770	50	934
2004 SATP (without implementation packages)	525	78	449
2004 SATP Time Value — \$12.48 per Hour Value in Travel Time Changes			
2001 SATP Addendum 1			
2004 SATP	907	50	1,071
2004 SATP (without implementation packages)	615	78	539
High Time Value — \$13.50 per Hour Value in Travel Time Changes			
2001 SATP Addendum 1			
2004 SATP	976	50	1,140
2004 SATP (without implementation packages)	660	78	584

**Alaska Department of Transportation
and Public Facilities (ADOT&PF)
Division of Statewide Planning
6860 Glacier Highway
Juneau, AK 99801-7999**



APPENDIX C

Project Management Plan

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APPENDIX C

Project Management Plan

INTRODUCTION

This Project Management Plan (PMP) will serve as a template should DOT&PF and FHWA proceed with the next phase of the SE Alaska Mid-Region Access Project: conduct of alternatives analysis and the environmental regulatory process. Figure C-1 shows the project area.

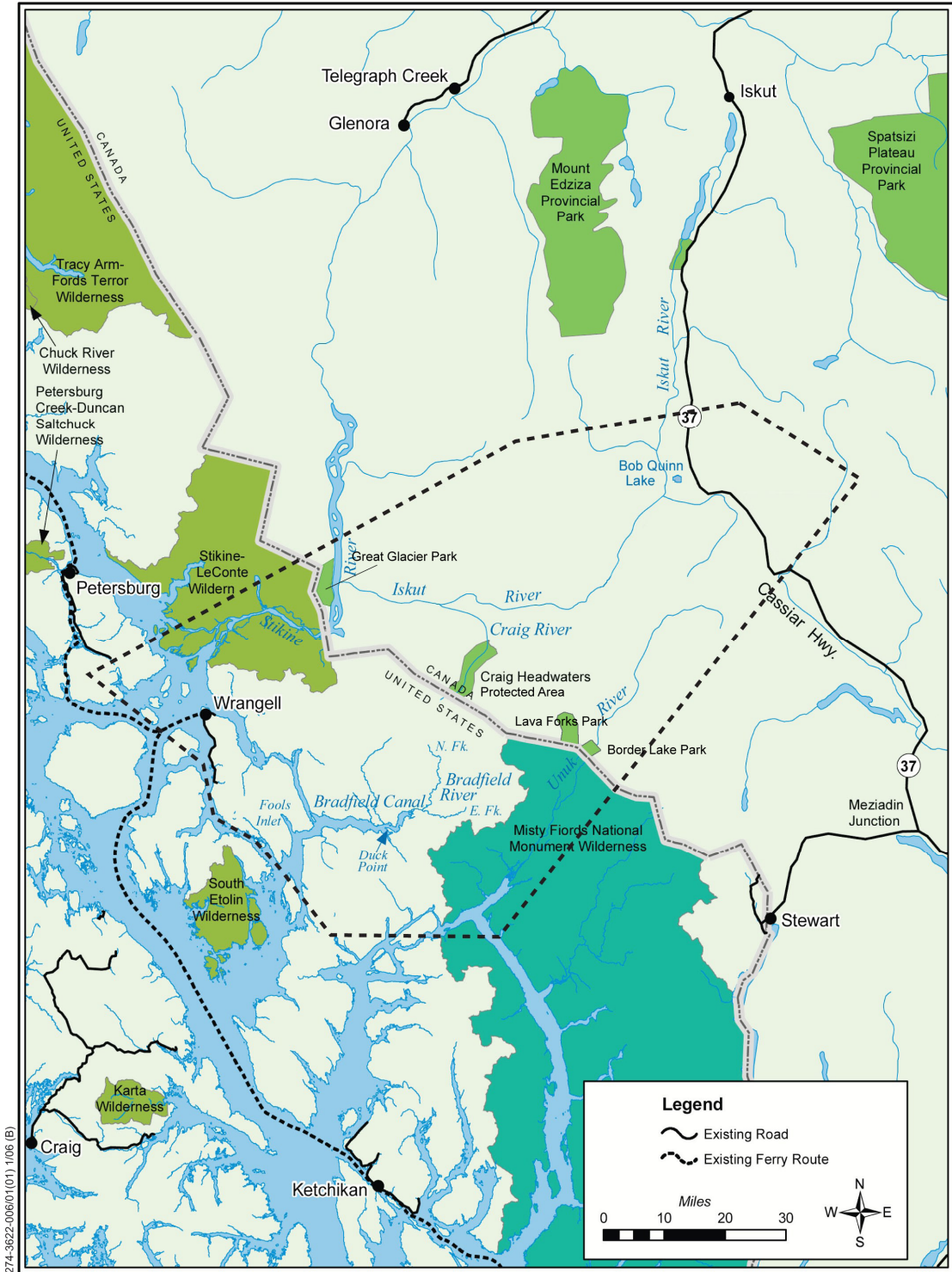


Figure C-1. Project Area Map

This project management plan will help frame potential future project controls, protocols, scope, schedule, and budget.

PROJECT ORGANIZATION

Organization Chart

Figure C-2 shows an organization chart for the project.

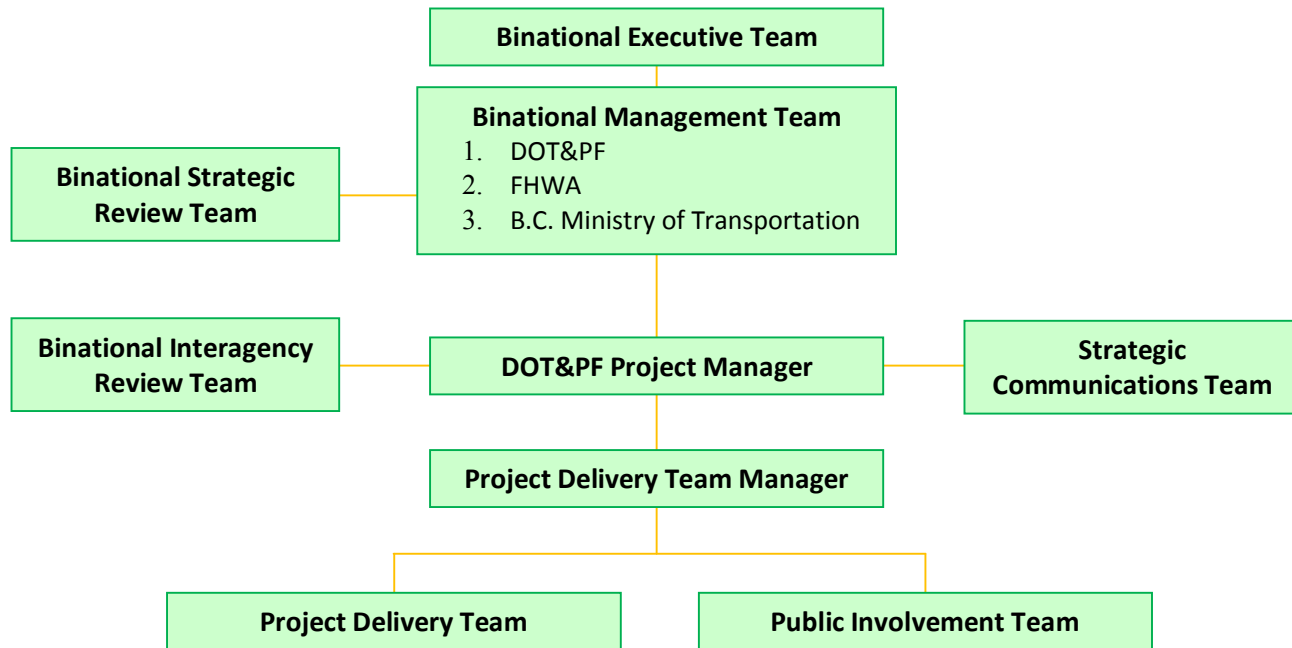


Figure C-2. Project Organization

The management responsibilities for the categories shown in Figure C-2 are further described in Table C-1. The relationship between the management functions shown in Figure C-2 and the work plan for this project is explained in Table C-2, Work Breakdown Structure, shown below.

Table C-1. Binational Study Management Functions

Management Element	Function
Binational Executive Team	<ul style="list-style-type: none"> • Represents agency management policy positions • Identifies information needed for high-level decision making • Makes high-level decisions on the project, e.g., sets milestone steps in the project • Approves strategic communications • Approves project financing
Strategic Communications Team	<ul style="list-style-type: none"> • Coordinates media communications • Crafts and delivers strategic communications approved by Binational Executive Team • Reviews and comments on public involvement communications plan
Binational Management Team	<ul style="list-style-type: none"> • Ensures implementation of agency management positions • Makes recommendations on milestone decisions • Makes recommendations on information needed for Binational Executive Team decisions • Leads Binational Strategic Review Team participation • Recommends strategic communications
Binational Strategic Review Team	<ul style="list-style-type: none"> • Provides high-level, project-wide quality assurance • Reviews and comments on project process and methodologies • Reviews and comments on major deliverables • Reviews and comments on communications plan
DOT&PF Project Manager	<ul style="list-style-type: none"> • Manages and assumes responsibility for project delivery • Approves project management plan • Chairs the Binational Management Team • Coordinates Binational Strategic Review Team participation • Coordinates Binational Interagency Review Team participation • Coordinates technical communications
Binational Interagency Review Team	<ul style="list-style-type: none"> • Includes specialists' review of deliverables and quality control assessment for individual areas of expertise
Project Delivery Team Manager	<ul style="list-style-type: none"> • Prepares public involvement plan • Prepares project agency and jurisdiction involvement plan
Public Involvement Team	<ul style="list-style-type: none"> • Prepares public involvement plan • Develops and manages public outreach • Assists in implementing project agency and jurisdiction involvement plan
Project Delivery Team	<ul style="list-style-type: none"> • Implements project based on scope, schedule, and budget according to PMP procedures

**Table C-2 Southeast Alaska Mid Region Access Project
Work Breakdown Structure**

1.1 Manage Project Delivery	
1.1.1	Initiate project
1.1.1.1	Execute cooperative agreements on project delivery
1.1.1.2	Assign management teams
1.1.1.3	Set up project and administrative record systems
1.1.1.4	Prepare scope of work
1.1.1.5	Prepare schedule
1.1.1.6	Prepare budget
1.1.1.7	Procure contractors
1.1.1.8	Update project management plan
1.1.1.9	Distribute existing database
1.1.2	Manage policy-level and government-to-government coordination
1.1.3	Manage project-level coordination
1.1.4	Review deliverables
1.1.4.1	Review geospatial analysis deliverables
1.1.4.2	Review alternatives analysis deliverables
1.1.4.3	Review environmental assessment deliverables
1.1.4.4	Review engineering deliverables
1.1.4.5	Review public and agency involvement deliverables
1.1.5	Implement project controls
1.1.6	Manage project financing
1.1.7	Close out project
1.2 Conduct EIS Alternatives Analysis	
1.2.1	Update project objectives
1.2.2	Prepare decision making structure
1.2.3	Initiate corridor analysis
1.2.3.1	Identify evaluation measures
1.2.3.2	Identify context-sensitive solutions
1.2.3.3	Rank and weigh evaluation measures
1.2.4	Run Quantm or similar routing software
1.2.4.1	Determine corridors study limits
1.2.4.2	Run unconstrained modeling
1.2.4.3	Run constrained modeling
1.2.5	Prepare corridor study report
1.3 Provide Geospatial Mapping and Analysis	
1.3.1	Review existing data and data gaps
1.3.2	Develop base mapping
1.3.2.1	Conduct corridor control survey
1.3.2.2	Conduct bathymetric surveys
1.3.2.3	Obtain photogrammetry and LiDAR
1.3.3	Develop GIS Database
1.3.3.1	Gather identified data fields
1.3.3.2	Field-sample for environmental resources/hazards
1.3.3.3	Interpolate resource coverages
1.3.4	Conduct GIS Analysis
1.3.4.1	Analyze alternatives
1.3.4.2	Produce draft EIS/B.C. EA

**Table C-2. Southeast Alaska Mid Region Access Project
 Work Breakdown Structure (continued)**

1.4 Conduct Environmental Process	
1.4.1	Coordinate with participating and cooperating agencies
1.4.2	Prepare purpose and need statement
1.4.3	Identify environmental analysis methods
1.4.4	Identify environmental constraints and hazards
1.4.5	Conduct detailed environmental analysis
1.4.5.1	Conduct aesthetics/visual analysis
1.4.5.2	Conduct noise analysis
1.4.5.3	Conduct air quality analysis
1.4.5.4	Conduct water resources analysis
1.4.5.5	Conduct hydraulics and floodplains analysis
1.4.5.6	Conduct energy analysis
1.4.5.7	Conduct geology/geotechnical analysis
1.4.5.8	Conduct hazardous materials analysis
1.4.5.9	Conduct paleontology analysis
1.4.5.10	Conduct biological assessment
1.4.5.11	Conduct wetlands analysis
1.4.5.12	Conduct natural environment assessment
1.4.5.13	Conduct invasive species analysis
1.4.5.14	Assess historic resources
1.4.5.15	Assess ethnology/traditional use
1.4.5.16	Conduct archaeology assessment
1.4.5.17	Perform Native American consultation
1.4.5.18	Perform community impact analysis/subsistence
1.4.5.19	Conduct environmental justice assessment
1.4.5.20	Assess utilities
1.4.5.21	Perform land use assessment
1.4.5.22	Perform recreational use assessment
1.4.5.23	Perform economic analysis
1.4.5	Prepare draft environmental documents
1.4.5.1	Prepare draft EIS
1.4.5.2	Prepare joint B.C./Canadian EA application
1.4.5.3	Prepare 4(f) evaluation
1.4.6	Respond to comments on EIS and B.C. EA
1.4.7	Identify preferred alternative
1.4.8	Prepare mitigation report, including effectiveness evaluation
1.4.9	Prepare final environmental documents
1.4.9.1	Prepare Presidential Permit application
1.4.9.2	Prepare final EIS
1.4.9.3	Produce joint Canadian/B.C. EA assessment report
1.4.9.4	Finalize 4(f) evaluation
1.4.10	Perform other regulatory compliance
1.4.10.1	Perform Section 404 consultation

**Table C-2. Southeast Alaska Mid Region Access Project
Draft Work Breakdown Structure (continued)**

1.4 Conduct Environmental Process (continued)	
1.4.10.2	Perform Section 106 consultation
1.4.10.3	Perform Section 7 consultation
1.4.10.4	Prepare floodplain finding
1.4.10.5	Prepare wetlands finding
1.4.10.6	Draft coastal zone permit
Prepare Record of	
1.4.11 Decision (ROD)	
1.5 Provide Engineering Support	
1.5.1	Provide engineering support for alternatives analysis
1.5.1.1	Update design criteria
1.5.1.2	Assess roadway location support
1.5.1.3	Develop bridge/culvert concepts
1.5.1.4	Provide port location support
1.5.1.5	Provide border facility location support
1.5.1.6	Develop operations concepts for alternatives
1.5.2	Conduct conceptual engineering studies
1.5.2.1	Conduct materials investigation
1.5.2.2	Perform preliminary geotechnical evaluation
1.5.2.3	Conduct hydraulics investigation
1.5.2.4	Develop concept geometrics
1.5.2.4.1	Horizontal and vertical alignments
1.5.2.4.2	Cross sections and typical sections
1.5.2.5	Assess location and design aesthetics
1.5.2.6	Perform structures advanced planning
1.5.2.6.1	Bridges
1.5.2.6.2	Tunnel
1.5.2.6.3	Other
1.5.2.7	Develop port facility plan
1.5.2.8	Develop border facility plan
1.5.2.9	Update transportation operations concepts for alternatives
1.5.2.10	Develop preliminary maintenance plan
1.5.2.11	Develop construction limits plans
1.5.2.12	Develop erosion control plan
1.5.2.13	Develop construction and staging plan
1.5.2.14	Estimate costs
1.5.3	Prepare intermediate design for selected alternative
1.5.3.1	Prepare geometrics plan
1.5.3.2	Prepare structures plan
1.5.3.3	Prepare port facility plan

**Table C-2. Southeast Alaska Mid Region Access Project
 Work Breakdown Structure (continued)**

1.5 Provide Engineering Support (continued)	
1.5.3.4	Prepare border facility plan
1.5.3.5	Prepare transportation operations plan
1.5.3.6	Prepare maintenance plan
1.5.3.7	Prepare construction limits plan
1.5.3.8	Prepare erosion control plan
1.5.3.9	Prepare construction and staging plan
1.5.3.10	Prepare mitigation design plan
1.5.3.11	Prepare cost estimate
1.6 Conduct Public and Agency Involvement	
1.6.1	Prepare public participation plan
1.6.2	Prepare cooperating and participating agency involvement plan
1.6.3	Prepare public information plan
1.6.4	Conduct NEPA NOI scoping
1.6.5	Conduct public meetings
1.6.5.1	Conduct stakeholder meetings
1.6.5.2	Conduct scoping meetings
1.6.5.3	Conduct public meetings
1.6.5.4	Conduct context-sensitive solutions workshops
1.6.5.5	Conduct public hearings
1.6.6	Prepare project communications
1.6.6.1	Prepare strategic communications plan
1.6.6.2	Prepare fact sheets
1.6.6.3	Prepare newsletters
1.6.6.4	Draft media releases
1.6.6.5	Design and develop WEB site
1.6.6.6	Prepare public presentations
1.6.7	Conduct agency and jurisdiction coordination
1.6.7.1	Conduct cooperating agency coordination
1.6.7.2	Conduct participating agency coordination
1.6.7.3	Coordinate with B.C. partners
1.6.8	Consult with Native Americans/First Nations
1.6.9	Manage public, stakeholder, and agency participation
1.6.9.1	Solicit comments
1.6.9.2	Categorize comments
1.6.9.3	Respond to comments
1.6.9.4	Consider project modifications

COMMUNICATION

Verbal Communications and Media Interactions

The DOT&PF project manager will chair the Binational Management Team and serve as the central point of communication among the Binational Executive Team, the Binational Strategic Review Team, and the Project delivery project manager, who will lead consultant work on the project.

Task leaders are encouraged to contact each other as appropriate. When such contacts occur, the task leads should prepare an email record of the conversation for any communication that should be shared for the good of the project. As examples, if the conversation imparts project information, or establishes an internal commitment, the event should be recorded. These records should then be filed to build an archive of conversations. Please see the project file section of this plan for more information.

Written Communications

Email: Please consider all emails relating to this project as part of the project file and the public record. Any email text that will be widely distributed should be reviewed by a peer (quality assurance/quality control [QA/QC]) before it is sent.

Please print and file emails that you believe are important to the project file. Electronic portable document format (PDF) versions are encouraged.

Deliverables: All deliverables will undergo QA/QC before delivery to the DOT&PF project manager, who will assign appropriate reviewers.

Contact Information

Include contact information for the Binational Management Team, Binational Interagency Review Team, Strategic Communications Team, the project delivery team, and task leads.

SCOPE OF WORK AND DELIVERABLES

Scope of Work

Develop and insert the scope of work based upon the following work breakdown structure.

[Future insert—scope of work]

Deliverables

Prepare a master list of major deliverables, along with lead responsibility and scheduling information, for reviews and submittals as shown in the table below.

Table C-3. Deliverable Schedule and Responsible Task Lead

Task	Deliverable	Responsible Party	Start Date	Draft Submittal Date	Comments Returned Date	Final Submitted Date
1						
2						
3						
...						

[This table is a template to be filled in once a team is in place.]

QA/QC

The project delivery team manager will assign an individual to conduct technical QA/QC on all deliverables. This is not an editing task. The person assigned to conduct QA/QC will provide written comments. The internal draft will be modified as appropriate based on comments. Comments not incorporated will be reported, along with an explanation of why they were not addressed. Documentation of the QA/QC process will be included in the project file and made available to DOT&PF upon request. Documentation will include the reviewers’ comments and the responses regarding how the comments were addressed.

SCHEDULE

Figure C-3, shown below, shows the overall schedule for major tasks.

[Future insert: schedule for contracted scope]

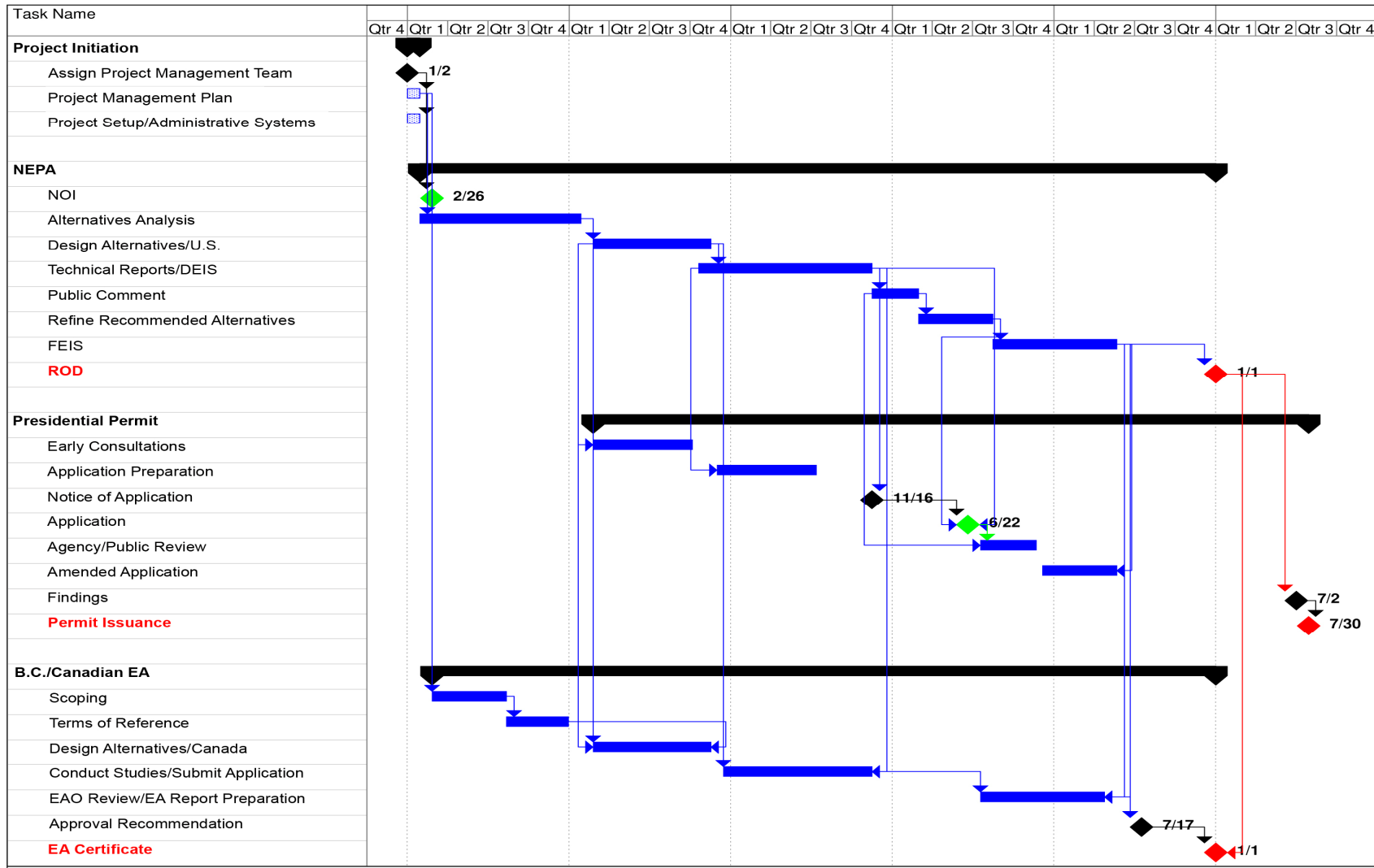


Figure C-3. Process Schedule

PROJECT BUDGET AND PERFORMANCE CONTROL

Budget Control Responsibilities and Procedures

The project has been created with budgeted hours by task and job classification. These hours will be monitored closely to control the budget. Team members will be notified regarding their expected level of effort and updated on progress so they may plan their efforts accordingly. If a task requires more or less effort than is assigned, it is the team member's responsibility to inform the project delivery team manager as soon as a discrepancy appears to exist between budget and required deliverables.

The tools outlined below will be used to monitor and manage the budget.

Status Reports

The status report format is based on the project scope of work and deliverables.

The project delivery team manager will call task leaders at least twice a month to check on progress. Task leaders will send an email to the project delivery team manager for activities they believe are important to track using the status report.

Financial Tracking

[Future insert—contractor-specific financial tracking system]

Progress Assessment

Throughout the month, the project delivery team manager will assess the progress of the project at the individual task level. This progress assessment will be shared informally with the client and will be used near the end of each month to measure the total monthly progress. This monthly measure will be used in the invoicing process and, therefore, must be accurately assessed. Each team member will be able to guarantee the accuracy of this assessment through the status reports.

ADMINISTRATIVE PROCEDURES

Project File System

[Future insert—contractor-specific filing system for hard copy and electronic files including emails]

Monthly Invoices

[Future insert—contractor-specific filing system for invoice procedures including progress reporting]

Sample Invoice

[Future insert—contractor-specific sample invoice]

Sample Monthly Status Report Format

[Future insert—contractor-specific monthly status report]

Personnel Assignment

The task leaders and the project manager will collaborate to assign personnel.

Travel Reporting

[Future insert: latest federal travel policies and procedures]

APPENDIX D

Presidential Permit Process

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APPENDIX D

Presidential Permit Process

Presidential Permits from the Department of State for Facilities on the U.S.-Canada Border

What is a Presidential Permit?

Presidential Permits are required for “the full range of facilities” on the border, including, *inter alia*, bridges, pipelines, tunnels, conveyor belts and tramways. Permit applications for most facilities at the border are processed by the Department of State, although other agencies do permit certain cross-border facilities under separate legal authority. In processing permit applications, the Department of State is responsible for coordinating compliance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. § 4321 et seq.), the National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. § 470f), and Executive Order 12898 of February 11, 1994 (59 Fed. Reg. 7629), concerning environmental justice. To issue a Presidential Permit, the Department must find that issuance would serve the national interest. The Department consults extensively with concerned federal and state agencies, and invites public comment in arriving at this determination.

Legal Authorities

The State Department’s legal authority to issue Presidential Permits for international bridges, oil pipelines and certain other transboundary facilities is found in Executive Order 11423 of August 16, 1968, as amended by Executive Order 12847 of May 17, 1993 (58 Fed. Reg. 29511) and, to the extent applicable, the International Bridge Act of 1972 (33 U.S.C. § 535 et seq.)

Early Consultations

Applicants should consult early with the following federal and state agencies: GSA, Federal Inspection Services (Immigration and Naturalization Services, Customs Service), Environmental Protection Agency, U.S. Fish and Wildlife Service, Coast Guard, and Department of State, and state and provincial agencies managing the environment, parks, wildlife, highways, and historic and cultural preservation.

How to Apply and What to Include in the Application

Applications for Presidential Permits for international bridges and most other transboundary facilities at the U.S.-Canada border should be made to the Secretary of State, Attention: Office of Canadian Affairs, WHA/CAN, Room 3917 HST, Department of State, 2201 C Street NW, Washington, D.C. 20520. Applicants should provide the Department with five copies of the application and should be prepared to submit approximately 25 more copies directly to the Department or other federal and state agencies at the Department’s request. Applications should generally include the following:

Identifying Information. Precisely identify the person or entity applying for the permit.

Description of Facility. Provide a detailed description of the proposed facility, including its location, design, anticipated use, the safety standards to be applied, access routes, and details of proposed construction methods. The application should also include photographs of the construction site; maps that identify, *inter alia*, the parcel of land intended to be provided by the sponsor as a site for the border crossing, if applicable; engineering drawings including the anticipated cross-section, technical specifications, and such other explanatory materials as are available.

National Interest. Explain how, in the view of the applicant, the proposed facility would serve the national interest. This explanation may be supported by reports, correspondence, and other material indicating the desirability and feasibility of the proposed facility.

Similar Facilities. Provide a list of similar facilities in the area, including names and addresses of owners. Identify such facilities on a map.

Traffic Information. If applicable, provide information about existing and projected levels of international road traffic and describe the road system that would serve the facility on each side of the border. In the case of bridges, the application should project the volume of traffic to be carried by the proposed bridge, as well as the effect that traffic would have on, and its compatibility with, the existing road system and nearby bridges and border crossings. Maps showing U.S. and Canadian roads with traffic counts, weight or other use-restricted routes, and any roads that would be built along with the facility would be helpful. These maps and other application materials should show the origin of the projected traffic and the likely impact of any traffic diversion caused by the bridge on other border crossings. This information will help establish the required size of any inspection facility at the proposed bridge site.

Construction Plan. Provide an action plan for construction of the facility, including an expected schedule for securing other necessary permits and approvals, financing, and construction. Identify any specific problems anticipated in the development and construction of the facility and describe potential remedies.

Financing. Explain financing, including estimated costs, and, if applicable, the proposed toll structure. Specify whether the facilities, including any access roads, would involve approval or funding from state or federal sources and indicate the steps needed to secure such approval and/or funding.

Canadian Approvals. Describe all steps that have been or will be taken to secure the approval of local, provincial, and federal officials in Canada. Indicate any known views of Canadian officials regarding the facility, and describe general arrangements for financing, construction, and ownership of the Canadian portion of the facility. Attach copies of any agreements or understandings about these matters. In accordance with the 1972 International Bridge Act, all required authorizations of the Government of Canada must be obtained before an international bridge may be constructed. It is not necessary to satisfy all Canadian requirements before applying for a Presidential Permit. However, to avoid the unnecessary expenditure of resources by both the U.S. Government and the applicant, the applicant should present evidence that Canadian authorities do not object in principle to the construction of the proposed facility.

Other U.S. Approvals. Provide a list of all permits or approvals from U.S. federal, state, and local agencies that the applicant believes are required in connection with the proposed facility, and describe what steps have been or will be taken to secure them.

Historic Preservation. List all the properties in the project area that are included in, or potentially eligible for, inclusion in the National Register of Historic Properties.

Environmental Justice. Provide information on minority and low-income populations likely to be affected by construction of the proposed facility.

Compatibility with NEC Recommendations. Provide information that shows that, consistent with the recommendations contained in the August 8, 1994, National Economic Council White Paper, "Staff Recommendations of the Task Force on Border Infrastructure and Facilitation for Improved U.S. Border Operations," (A) there are the commitments necessary to ensure an adequate support infrastructure, including access roads, consistent with state and regional plans; (B) Canadian development plans and priorities have been taken

into account; and (C) a viable financing plan for inspection facilities and inspection agency staffing, as well as for the crossing itself, is in place.

Environmental Review

In addition to the above items, the applicant should include information about foreseeable environmental impacts of the proposed facility. Pursuant to NEPA, in considering an application for a Presidential Permit, the Department of State must take into account environmental impacts of the proposed facility and directly related construction.

Environmental impacts may be direct, indirect, or cumulative. Before deciding whether to issue the Presidential Permit, the Department of State may be required to prepare, circulate for comment, and file environmental documentation. Applications should include any environmental documentation applicants believe is required under NEPA and the regulations found in 40 CFR Parts 1500-1508, whether that is an environmental assessment (EA) or an environmental impact statement (EIS). If an EA is produced, it may be necessary, depending upon the finding of the Department of State, to produce an EIS.

Applicants will likely have to submit the following information in connection with the environmental review requirement:

- A description of the site of the proposed facility showing the types of environment (e.g., wildlife habitats, agricultural land, or urban areas) that will be affected by construction of the facility and related facilities such as access roads.
- The probable impact of construction and operation of the proposed facilities on these environments. This should cover the positive and negative aspects of primary (construction and operation) and secondary (related to long-term growth stimulated by the facility) impacts.
- Ways in which adverse impacts might be mitigated through construction techniques, site planning, safety features, etc.
- Any probable adverse impacts that cannot be avoided.
- A brief discussion of any tradeoffs between short-term environmental losses and long-term environmental gains, or vice versa.
- The relationship of the proposed facility to other land use plans, policies, and controls in the affected area.
- A description of the extent to which the construction of the proposed facility irreversibly curtails the range of potential uses of the environment.
- A description of alternatives to the proposed facility that were considered and an assessment of the relative environmental benefits and costs of the alternatives.

Other Pertinent Information

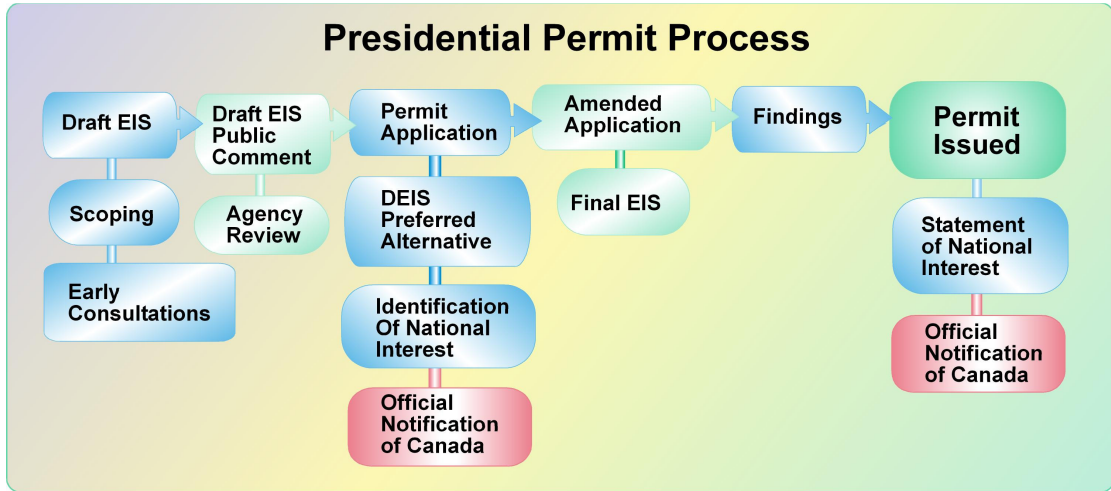
Agency Review and Public Comment

Once the application is completed, the Department of State will instruct the applicant to provide copies—including all environmental and other documentation—to other federal and state agencies, as appropriate, for their comments. The Department will also publish a notice in the Federal Register inviting public comment. Should questions from the agencies arise during the review, they will be referred to the applicant. The Department of State, participating agencies, and the applicant will work together to resolve such questions, as appropriate.

The applicant may have to prepare an amended application reflecting any agreements made in the course of mitigation and/or addressing agency concerns. The Department of State would then circulate the amended application for final agency review. If the Department of State determines that the project would have no significant environmental impact, the Department will issue a Finding of No Significant Impact (FONSI). The Department will publish the

FONSI in the Federal Register. If a significant impact is found, a full environmental impact statement must be prepared before the Permit application may be considered further.

The following graphic depicts the process that would most likely apply to the Southeast Mid Region Access Project:



National Interest Criteria

The Department is required to request the views of the federal officials specified in the Executive Orders and may also consult with such other federal, state, and local government officials as is appropriate. The Department takes all views expressed, including public comment, into account before making a decision on a permit. Once the consultations and findings referred to above have been made, the Secretary of State or the Secretary's designee will make a determination whether or not issuance of a permit to applicant would be in the national interest. Once a determination is made, federal agencies are informed of the Department's intention to issue or deny a Presidential Permit, and, barring objection(s) from any of the officials specified in the Executive Orders, the Presidential Permit is issued 15 days thereafter. If such an objection is expressed, and it cannot be resolved, the matter is referred back to the Secretary for referral of the application directly to the President for the President's consideration and a final decision.

Other Approvals Needed Before Authorizing Construction

Under the provisions of the International Bridge Act of 1972 (33 U.S.C. § 535, 535c-535h), the Coast Guard has jurisdiction over the construction, modification, operation, and maintenance of any bridge connecting the United States with a foreign country. Applicants should consult with the Coast Guard directly regarding that agency's permit process.

Receipt of a Presidential Permit does not guarantee the availability of sufficient U.S. personnel to provide essential inspection services. If applicable, applicants should periodically consult with the Federal Inspection Services to keep abreast of staffing decisions that could affect the opening of the proposed facility.

Under the Boundary Waters Treaty of 1909 ("Treaty"), international approval by the United States and Canada may be required for projects that affect water levels, flows of boundary waters, or, in some cases, transboundary rivers or rivers flowing from boundary waters downstream of the boundary. Such international approval may take the form of a special agreement as defined by the Treaty or an approval by the International Joint Commission, which was established by the Treaty. Applicants for projects that affect any of the above-noted waters should consult with the Department of State's Office of Canadian Affairs (contact information is found below) for advice on whether international approval is required.

International Boundary Commission approval is required for all projects within 10 feet of the United States-Canadian boundary and within 60 feet when those projects are on federal land. Applicants for any such project should consult with the International Boundary Commission for information on its approval process.

Bilateral Coordination with the Government of Canada

The Department of State generally coordinates closely with the Government of Canada through the Department of Foreign Affairs and International Trade (DFAIT) and the Embassy of Canada on issues affecting the U.S.-Canada border. As appropriate, the Department communicates with the Government of Canada via diplomatic notes at various stages in the Permit process. For example, the Department generally informs the Government of Canada via diplomatic note when Permit applications are received and when Permits are issued. Construction generally cannot begin until the U.S. and Canadian Governments exchange diplomatic notes specifically authorizing construction. The Department must approve any contractual arrangement between state or local authorities and Canadian federal, provincial, or municipal authorities concerning construction of the facility prior to the exchange of notes authorizing construction. After notes are exchanged, permittees must keep the Department informed of all significant developments related to construction so that the Department may conduct the necessary bilateral coordination with the Government of Canada.

More Information

Questions about Presidential Permits for facilities relevant to the SE (Alaska) Mid Region Access Study should be directed to the address below:

Pedro Gustavo Erviti
Border Affairs and Law Enforcement
Canadian Affairs - U.S. Dept. of State
202-647-2256 (landline)
202-257-0354 (cellular)
202-647-4088 (fax)

General questions about Presidential Permits for most facilities at the U.S. Canada border can also be directed to the Department of State's Office of Canadian Affairs in the Bureau of Western Hemisphere Affairs at the address below or at 202-647-2170:

Department of State
2201 C Street NW
Washington, DC 20520

APPENDIX E

Draft Mailer

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APPENDIX E

Draft Mailer



Mountains along the Stikine River

Dear Prospective Participant:

The Alaska Department of Transportation and Public Facilities (DOT&PF) seeks your participation in developing an environmental impact statement to analyze the alternative ways to link Southeast Alaska with the Cassiar Highway in British Columbia.

DOT&PF has identified a need for an environmental impact statement (EIS), which the agency will develop for the SE (Alaska) Mid Region Access. This EIS will allow the DOT&PF to examine a range of alternatives to link Southeast Alaska with the Cassiar Highway in British Columbia. DOT&PF and the Federal Highway Administration (FHWA) are working with a consultant team to make a determination on the global EIS study approach and decide what resource commitments will be necessary to achieve a successful EIS.

The paragraphs below and the map on the flip side detail the project objectives, illustrate the project area, and provide some background information regarding the proposed project.

Background Information:

The current ferry system in Southeast Alaska considerably limits timely travel within the region and constrains connectivity to continental markets. The Southeast Alaska Transportation Plan (SATP; 2004) provides a new direction for transportation development by reducing long-distance ferry runs and constructing a surface network of roads supported by high-speed, short-distance ferries that can provide faster, more frequent service. This change will considerably reduce

transportation costs for the state. It will expand economic activity and mobility by increasing transportation flexibility, choice, and speed while reducing or eliminating toll costs for Alaskans. It will also encourage economic development opportunities in Southeast Alaska, British Columbia, and adjacent provinces.

This new system will need improved connections with the Continental Highway System. Existing connections to the Continental Highway System are limited to Stewart and Prince Rupert, Canada, to the south and to Skagway to the north. The SATP proposed a mid region highway access route from the Cassiar Highway in British Columbia to the vicinity of Wrangell to serve the communities of Wrangell, Petersburg, and Ketchikan.

Description of Work:

DOT&PF, FHWA, and the consultant team are currently identifying a delivery process that outlines costs, timeframes, organization operational and structural issues, agency and international coordination, and collaboration issues. The study plan is intended to be a starting point from which an EIS delivery team can work, and which it can continue to update, as the EIS progresses.

This preliminary effort will enable all parties to achieve a better understanding of the complexities and resource commitments needed to deliver the EIS. The objective is to document the process needed to deliver the EIS, identify project participants' roles and responsibilities, and estimate the resources and time needed to deliver an EIS. With this information, DOT&PF can make a final decision on the process and strategy for leading the EIS development.



River near the Bradfield Canal

The ways DOT&PF and FHWA can invite participation are described below:

◆ Participating Agency—FHWA can invite another federal agency to participate in the environmental review process. The invited agency may decline for the following reasons:

- It has no jurisdiction or authority with respect to the project.
- It has no expertise or information relevant to the project.
- It does not intend to submit comments on the project.

Designation as a participating agency does not obligate the designee to support a project, nor does it give the designee any jurisdiction over, or imply special expertise in, project evaluation.

Please provide the following information if you would like to be on the mailing list for this project.

Name _____

Agency _____

Mailing Address _____

Email Address _____

Telephone Number _____

You may also email this information to:
andy-hughes@dot.state.ak.us

❖ Cooperating Agency – The lead agency can choose to designate a participating agency as a cooperating agency. This implies both a staff time commitment and a financial obligation on the part of the cooperating agency (40 CFR. 1500).

❖ Stakeholder – A stakeholder can be any federal, state, or local government agency, as well as any individual or group interested in the project for any reason. Such entries will be included on the mailing list for project updates.

Purpose and Need (Preliminary Draft):

The purpose and need is to develop a highway connection between the Cassiar Highway in Canada and a port facility in

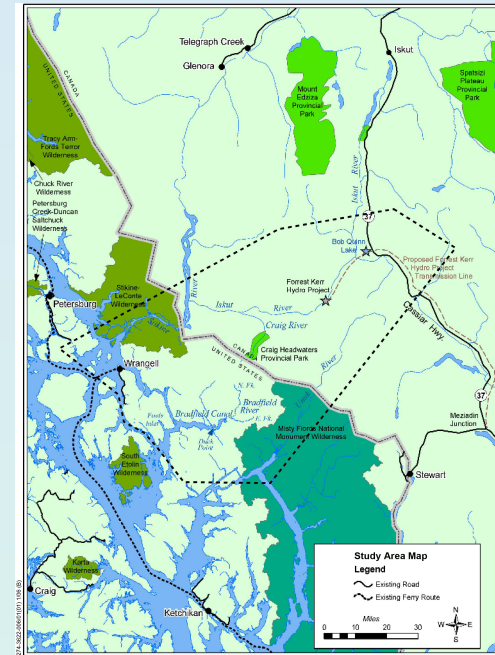
BULK MAIL PERMIT #

Andy Hughes
Alaska Department of Transportation
and Public Facilities
6860 Glacier Highway
Juneau, AK 99801-7999

Southeast Alaska. This new highway is a prerequisite for prosperity in the region. The completed highway would link Petersburg, Wrangell, and Ketchikan and the region at large to the Continental Highway System.

The 2004 Southeast Alaska Transportation Plan calls for shifting from regional ferries to construction of a network of regional highways that will connect Southeast Alaska communities and other destinations. Implementation would be accomplished in stages. The initial stage would be construction of a mid-region highway access between the continental highway system and a strategic port and ferry terminal site. The project is needed because it would lessen isolation between communities, improve long-distance travel, increase mobility, lower user costs and improves regional economic prospects.

The new Alaska port facility will connect the new highway to the communities of Petersburg, Wrangell, and Ketchikan by using a combination of ferries (where roads are impractical or deferred pending funding) and new roads. The Revillagiedo Highway, which would link Ketchikan to the Mid-Region Highway Access, is described as a separate project in the Transportation Plan.



APPENDIX F

1997 CEQ Guidance on NEPA Analyses for Transboundary Impacts

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APPENDIX F

Council On Environmental Quality Guidance On Nepa Analyses For Transboundary Impacts

JULY 1, 1997

The purpose of this guidance is to clarify the applicability of the National Environmental Policy Act (NEPA) to proposed federal actions in the United States, including its territories and possessions, that may have transboundary effects extending across the border and affecting another country's environment. While the guidance arises in the context of negotiations undertaken with the governments of Mexico and Canada to develop an agreement on transboundary environmental impact assessment in North America,¹ the guidance pertains to all federal agency actions that are normally subject to NEPA, whether covered by an international agreement or not.

It is important to state at the outset the matters to which this guidance is addressed and those to which it is not. This guidance does not expand the range of actions to which NEPA currently applies. An action that does not otherwise fall under NEPA would not now fall under NEPA by virtue of this guidance. Nor does this guidance apply NEPA to so-called “extraterritorial actions”; that is, U.S. actions that take place in another country or otherwise outside the jurisdiction of the United States². The guidance pertains only to those proposed actions currently covered by NEPA that take place within the United States and its territories, and it does not change the applicability of NEPA law, regulations or case law to those actions. Finally, the guidance is consistent with long-standing principles of international law.

NEPA LAW AND POLICY

NEPA declares a national policy that encourages productive and enjoyable harmony between human beings and their environment, promotes efforts which will prevent or eliminate damage to the environment and biosphere, stimulates the health and welfare of human beings, and enriches the understanding of ecological systems.³ Section 102(1) of NEPA “authorizes and directs that, to the fullest extent possible . . . the policies, regulations and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in [the] Act.”⁴ NEPA's explicit statement of policies calls for the federal government “to use all practical means and measures . . . to create and maintain conditions under which man and nature can exist in productive harmony . . .”⁵ In addition, Congress directed federal agencies to “use all practical means . . . to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may . . . attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.”⁶ Section 102(2)(C) requires federal agencies to assess the environmental

¹ The negotiations were authorized in Section 10.7 of the North American Agreement on Environmental Cooperation, which is a side agreement to the North American Free Trade Agreement. The guidance is also relevant to the ECE Convention on Environmental Impact Assessment in a Transboundary Context, signed in Espoo, Finland in February, 1991, but not yet in force.

² For example, NEPA does apply to actions undertaken by the National Science Foundation in the Antarctica. *Environmental Defense Fund v. Massey*, 986 F.2d 528 (D.C. Cir. 1993).

³ 42 USC 4321

⁴ 42 USC 4332(1)

⁵ 42 USC 4331(a)

⁶ 42 USC 4331(b)(3)

impacts of and alternatives to proposed major federal actions significantly affecting the quality of the human environment⁷. Congress also recognized the “worldwide and long-range character of environmental problems” in NEPA and directed agencies to assist other countries in anticipating and preventing a decline in the quality of the world environment⁸.

Neither NEPA nor the Council on Environmental Quality's (CEQ) regulations implementing the procedural provisions of NEPA define agencies' obligations to analyze effects of actions by administrative boundaries. Rather, the entire body of NEPA law directs federal agencies to analyze the effects of proposed actions to the extent they are reasonably foreseeable consequences of the proposed action, regardless of where those impacts might occur. Agencies must analyze indirect effects, which are caused by the action, are later in time or farther removed in distance, but are still reasonably foreseeable, including growth-inducing effects and related effects on the ecosystem⁹, as well as cumulative effects¹⁰. Case law interpreting NEPA has reinforced the need to analyze impacts regardless of geographic boundaries within the United States¹¹, and has also assumed that NEPA requires analysis of major federal actions that take place entirely outside of the United States but could have environmental effects within the United States¹².

Courts that have addressed impacts across the United States' borders have assumed that the same rule of law applies in a transboundary context. In *Swinomish Tribal Community v. Federal Energy Regulatory Commission*,¹³ Canadian intervenors were allowed to challenge the adequacy of an environmental impact statement (EIS) prepared by FERC in connection with its approval of an amendment to the City of Seattle's license that permitted raising the height of the Ross Dam on the Skagit River in Washington State. Assuming that NEPA required consideration of Canadian impacts, the court concluded that the report had taken the requisite “hard look” at Canadian impacts. Similarly, in *Wilderness Society v. Morton*,¹⁴ the court granted intervenor status to Canadian environmental organizations that were challenging the adequacy of the trans-Alaska pipeline EIS. The court granted intervenor status because it found that there was a reasonable possibility that oil spill damage could significantly affect Canadian resources, and that Canadian interests were not adequately represented by other parties in the case.

In sum, based on legal and policy considerations, CEQ has determined that agencies must include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States.

PRACTICAL CONSIDERATIONS

CEQ notes that many proposed federal actions will not have transboundary effects, and cautions agencies against creating boilerplate sections in NEPA analyses to address this issue. Rather, federal agencies

⁷ 42 USC 4332(2)(C)

⁸ 42 USC 4332(2)(F)

⁹ 40 CFR 1508.8(b)

¹⁰ 40 CFR 1508.7

¹¹ See, for example, *Sierra Club v. U.S. Forest Service*, 46 F.3d 835 (8th Cir. 1995); *Resources Ltd., Inc. v. Robertson*, 35 F.3d 1300 and 8 F.3d 1394 (9th Cir. 1993); *Natural Resources Defense Council v. Hodel*, 865 F.2d 288 (D.C. Cir. 1988); *County of Josephine v. Watt*, 539 F.Supp. 696 (N.D. Cal. 1982).

¹² See *Sierra Club v. Adams*, 578 F.2d 389 (D.C. Cir. 1978); *NORML v. Dept. of State*, 452 F.Supp. 1226 (D.D.C. 1978).

¹³ 627 F.2d 499 (D.C. Cir. 1980)

¹⁴ 463 F.2d 1261 (D.C. Cir. 1972)

should use the scoping process¹⁵ to identify those actions that may have transboundary environmental effects and determine at that point their information needs, if any, for such analyses. Agencies should be particularly alert to actions that may affect migratory species, air quality, watersheds, and other components of the natural ecosystem that cross borders, as well as to interrelated social and economic effects.¹⁶ Should such potential impacts be identified, agencies may rely on available professional sources of information and should contact agencies in the affected country with relevant expertise.

Agencies have expressed concern about the availability of information that would be adequate to comply with NEPA standards that have been developed through the CEQ regulations and through judicial decisions. Agencies do have a responsibility to undertake a reasonable search for relevant, current information associated with an identified potential effect. However, the courts have adopted a “rule of reason” to judge an agency’s actions in this respect, and do not require agencies to discuss “remote and highly speculative consequences”.¹⁷ Furthermore, CEQ’s regulation at 40 CFR 1502.22 dealing with incomplete or unavailable information sets forth clear steps to evaluating effects in the context of an EIS when information is unobtainable.¹⁸ Additionally, in the context of international agreements, the parties may set forth a specific process for obtaining information from the affected country which could then be relied upon in most circumstances to satisfy agencies’ responsibility to undertake a reasonable search for information.

Agencies have also pointed out that certain federal actions that may cause transboundary effects do not, under U.S. law, require compliance with Sections 102(2)(C) and 102(2)(E) of NEPA. Such actions include actions that are statutorily exempted from NEPA, Presidential actions, and individual actions for which procedural compliance with NEPA is excused or modified by virtue of the CEQ regulations¹⁹ and various judicial doctrines interpreting NEPA²⁰. Nothing in this guidance changes the agencies’ ability to rely on those rules and doctrines.

¹⁵ 40 CFR 1501.7. Scoping is a process for determining the scope of the issues to be addressed and the parties that need to be involved in that process prior to writing the environmental analyses.

¹⁶ It is a well accepted rule that under NEPA, social and economic impacts by themselves do not require preparation of an EIS. 40 CFR 1508.14.

¹⁷ Trout Unlimited v. Morton, 509 F.2d 1276, 1283 (9th Cir. 1974). See also, Northern Alaska Environmental Center v. Lujan, 961 F.2d 886, 890 (9th Cir. 1992); Idaho Conservation League v. Mumma, 956 F.2d 1508, 1519 (9th Cir. 1992); San Luis Obispo Mothers for Peace v. N.R.C., 751 F.2d 1287, 1300 (D.C. Cir. 1984); Scientists Institute for Public Information, Inc. v. Atomic Energy Commission, 481 F.2d 1079, 1092 (D.C. Cir. 1973).

¹⁸ See Preamble to Amendment of 40 CFR 1502.22, deleting prior requirement for “worst case analysis” at 51 Federal Register 15625, April 25, 1986, for a detailed explanation of this regulation.

¹⁹ See Preamble to Amendment of 40 CFR 1502.22, deleting prior requirement for “worst case analysis” at 51 Federal Register 15625, April 25, 1986, for a detailed explanation of this regulation.

²⁰ For example, courts have recognized that NEPA does not require an agency to make public information that is otherwise properly classified information for national security reasons, Weinberger v. Catholic Action of Hawaii, 454 U.S. 139 (1981).

INTERNATIONAL LAW

It has been customary law since the 1905 Trail Smelter Arbitration that no nation may undertake acts on its territory that will harm the territory of another state²¹. This rule of customary law has been recognized as binding in Principle 21 of the Stockholm Declaration on the Human Environment and Principle 2 of the 1992 Rio Declaration on Environment and Development. This concept, along with the duty to give notice to others to avoid or avert such harm, is incorporated into numerous treaty obligations undertaken by the United States. Analysis of transboundary impacts of federal agency actions that occur in the United States is an appropriate step towards implementing those principles.

CONCLUSION

NEPA requires agencies to include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States. Such effects are best identified during the scoping stage, and should be analyzed to the best of the agency's ability using reasonably available information. Such analysis should be included in the EA or EIS prepared for the proposed action.

²¹ *Trail Smelter Arbitration, U.S. v. Canada*, 3 UN Rep. Int'l Arbit. Awards 1911 (1941). The case involved a smelter in British Columbia that was causing environmental harm in the state of Washington. The decision held that “under principles of International Law, as well as the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is described by clear and convincing injury.” *Id.* at 1965). Also see the American Law Institute’s Restatement of the Foreign Relations Law of the United States 3d, Section 601, (“State obligations with respect to environment of other States and the common environment”)

APPENDIX G

Plan for Craig Headwaters Park

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Skeena Region

**MANAGEMENT DIRECTION
STATEMENT**

March 2003

for Craig Headwaters
Protected Area



**BRITISH
COLUMBIA**

Ministry of Water, Land
and Air Protection
Environmental Stewardshi
Division

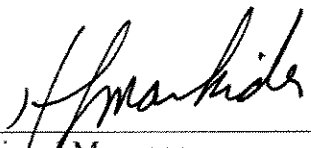
Craig Headwaters Protected Area Approvals Page

Forward

This management direction statement for Craig Headwaters Protected Area provides management direction until such time as the plan is revised or a more detailed management plan is prepared. Ongoing consultation with First Nations may require changes to this management direction statement. Aboriginal rights are honoured and respected within the protected area.

Implementation of strategies identified in the MDS will be dependent on available funding and Environmental Stewardship Division priorities.

Approvals



Regional Manager
Skeena Region
Environmental Stewardship Division



Assistant Deputy Minister
Environmental Stewardship Division

**This management direction statement was developed through direction received from the
Cassiar Iskut-Stikine Land and Resource Management Plan**

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Craig Headwaters Protected Area Management Direction Statement

Introduction

Purpose of the Management Direction Statement

Management direction statements (MDS) provide strategic management direction for protected areas that do not have an approved management plan. Management direction statements also describe protected area values, management issues and concerns; a management strategy focused on immediate priority objectives and strategies; and direction from other planning processes. While strategies may be identified in the MDS, the completion of all these strategies is dependent on funding and funding procedures. All development associated with these strategies is subject to the Parks and Protected Areas Branch's Impact Assessment Policy.

Context

The provincial government established Craig Headwaters Protected Area by an Order in Council under the *Environment and Land Use Act* in April 2001. Craig Headwaters has been identified as a Goal 2 Special Feature protected area to protect a representative example of low elevation coastal western hemlock forest and associated ecosystems. In addition, the protected area conserves a remote, coastal valley containing verdant forest values and extensive undisturbed salmon spawning and grizzly bear habitat. Designation followed the recommendations of the Cassiar Iskut-Stikine Land and Resource Management Plan (LRMP).

Craig Headwaters Protected Area covers 7,101 hectares of the Craig River Valley bottomland from the Alaskan border to its junction with the Jekill River, about 120 kilometres south of the community of Telegraph Creek. The protected area extends over the bottomland and mid slope of the river valley. The protected area is surrounded by the 202,000 hectare lower Stikine-Iskut Coastal Grizzly/Salmon Zone established to maintain habitat values for grizzly and salmon in recognition of their role as keystone species in the ecosystem of the Stikine-Iskut.

Currently, road access is unavailable to this remote protected area. A road may be considered through the protected area as part of a future mining development. Some business and political groups in Alaska have also expressed interest in building a road through the Craig River Valley to reach the Bradfield Canal in Alaska where a deep-sea port would be constructed. The latter road project for purposes other than mining is not provided for in the order establishing the protected area.

The protected area lies within the asserted traditional territory of the Tahltan First Nation.

Several provincial protected areas are located near Craig Headwaters Protected Area. About 20 kilometres southeast lies Lava Forks Provincial Park which protects Canada's most recent lava flow. Just another 10 kilometres further east is Border Lake Provincial Park that conserves high value fish habitat and significant wetland ecosystems. Great Glacier Provincial Park offers a spectacular glacial landscape next to the lower Stikine River, about 45 kilometres west of Craig Headwaters Protected Area. Just across the Stikine River from Great Glacier Provincial Park is the Choquette Hot Springs Provincial Park. About 100 kilometres to the north and northeast, lay several large protected areas including Spatsizi Plateau Wilderness Park, Gladys Lake Ecological

Reserve, Stikine River Provincial Park, and Mount Edziza Provincial Park. These protected areas protect entire ecosystems and offer a wide variety of backcountry outdoor recreation opportunities.

Protected Area Attributes

Conservation

- One of only four protected areas in the Southern Boundary Ranges Ecosection. This ecosection is poorly represented (2.11%) in the protected areas system. Craig Headwaters Protected Area provides the best representation of this ecosection in the protected areas system (47.62% of overall representation).
- This protected area is situated in the CWHwm (wet maritime coastal western hemlock biogeoclimatic subzone). The protected areas system conserves 7.46% of the CWHwm biogeoclimatic subzone. Craig Headwaters Protected Area provides the second best representation of this ecosystem in the protected areas system (21.27% of overall representation).
- Protects important micro-sites with 60 metre tall Sitka spruce trees.
- Conserves high value fish habitat including main stem spawning and rearing habitats; one of the main coho spawning areas in the Stikine; also sockeye, chinook, Dolly Varden/bull trout, and steelhead. Rainbow trout, cutthroat trout and mountain whitefish may also occur.
- Preserves undisturbed high value/quality coastal grizzly bear habitat.
- Key area of grizzly/salmon interaction.
- Mountain goat populations on south facing habitats may extend into the protected area.
- High value moose habitat.
- Conserves cool springs and mud with associated uncommon plant communities.
- Opportunities for baseline salmon and bear research.

Recreation and Tourism

- Supports high backcountry recreation values.
- Provides backcountry outdoor recreation opportunities for a range of wilderness activities in a remote forested coastal valley.

Commercial Business Opportunities

- Provides limited to moderate commercial business opportunities for backcountry recreation activities, guided hunting and angling. (See Appendix 1 for activities allowed in this park).

Cultural Heritage

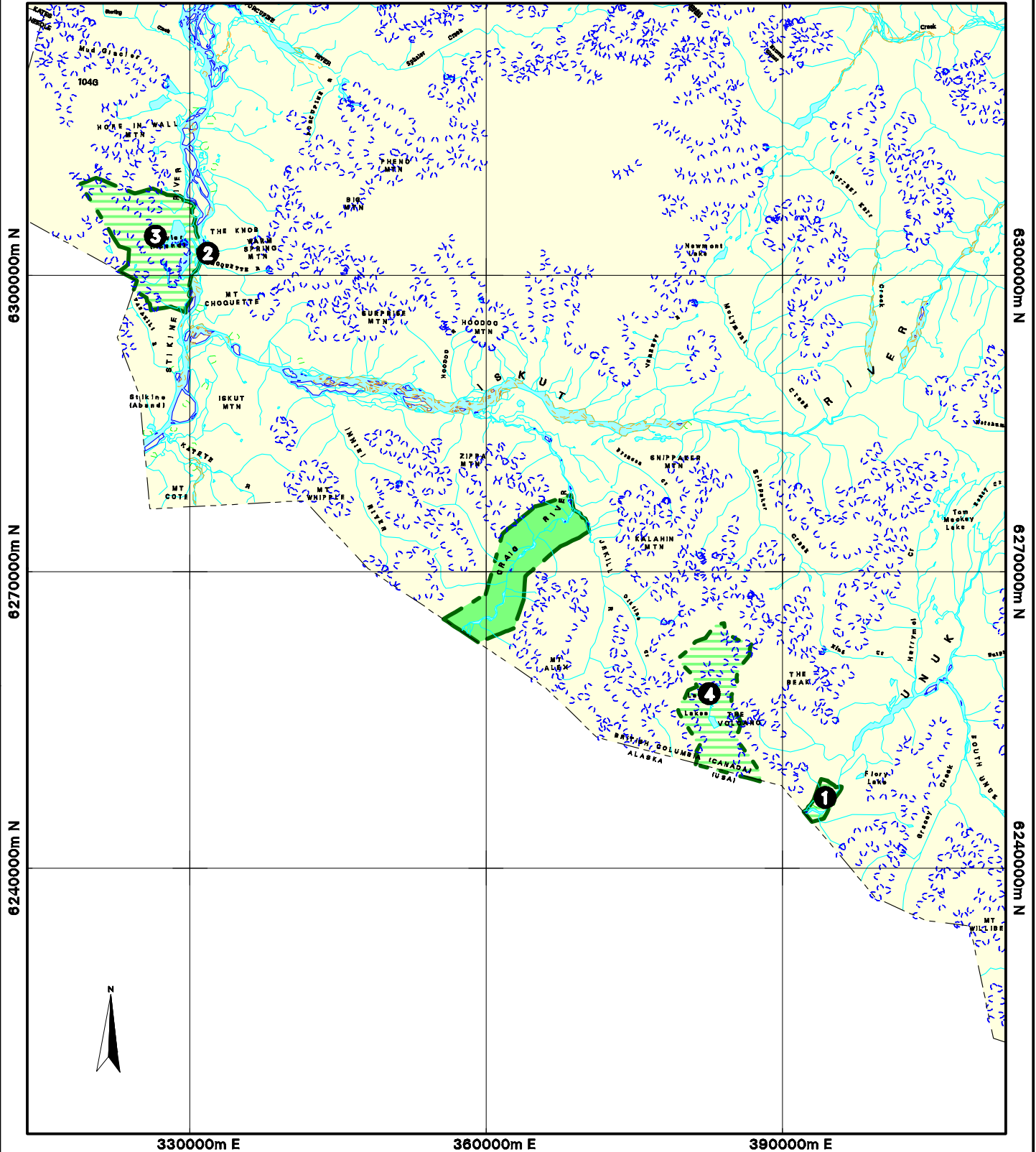
- Cultural heritage values remain undocumented at this time. Environmental Stewardship Division is seeking Tahltan First Nations' contributions to resolve this lack of knowledge.

Significance in the Protected Areas System

- Provides the second best representation of the CWHwm ecosystem in the protected areas system (21.27% of overall representation).
- Protects important grizzly bear and fish habitats.

Figure 1: Context





Craig Headwaters Protected Area







Projection: UTM Zone 9
Datum: NAD83

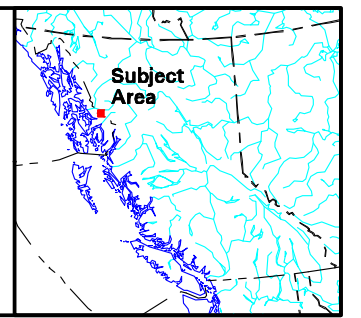
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Produced in Jan 2003
for Ministry of Water,
Land and Air Protection

	Subject Area
	Other Protected Areas
	Highway
	Road

0 10
km

- Other Provincial Protected Areas
-  Border Lake
 -  Choquette Hot Springs
 -  Great Glacier
 -  Lava Forks



Land Uses, Tenures and Interests

Access

Craig Headwaters Protected Area is remote and accessible by boat and helicopter. Highway 37 runs 100 kilometres to the east. Access may change because of possible mining development on lands adjacent to the protected area.

Existing Tenures, Alienations and Encumbrances

- Mineral tenures exist within the protected area but they are save and excepted from the protected area until they lapse. (See Figure 2).
- Active traplines 621T002 and 621T011 but these resource use activities are not authorized under valid park use permits.
- Guide-outfitters territories 621G002 and 621G003 authorized by park use permit SK9710016.

Existing Land Use Activities and Facilities

- No permanent or fixed facilities.
- The protected area is visited on rare occasions by hunters, fishers and backcountry hikers and campers.

Adjacent Patterns of Land Use

- Lies within the Lower Stikine-Iskut Coastal Grizzly/Salmon Resource Management Zone allowing mineral exploration, but no commercial forest harvesting.
- Alaska forms the southwest border of the protected area. The adjacent area in Alaska is within an inventoried roadless area in the Tongass National Forest.
 - Under a decision on roadless area conservation (36CFR Part 294 RIN 0596-AB77; US Federal Register Department of Agriculture – Forest Service), roads are currently prohibited in the area¹.

First Nations Interests

- The protected area is within the asserted traditional territory of the Tahltan First Nation.
- Tahltan First Nation has an interest in maintaining their aboriginal traditional uses and activities in the protected area.

Other Agency Interests

- Department of Fisheries and Oceans has an interest in the fisheries values of the Craig River and uses the Craig as a coho indicator stream (i.e. the Department carries out annual spawning counts in the autumn).
- Ministry of Water, Land and Air Protection, Skeena Region Fish and Wildlife Science and Allocation Section has an interest in wildlife, particularly grizzly bears.
- Ministry of Energy and Mines has an interest in road access through the protected area and in active mining tenures within the protected area.

¹ In December 2002, a federal appeals court lifted a stay on the implementation of the Roadless Area Conservation Rule, a landmark forest-conservation measure opposed by timber industry interests in the United States. The court's ruling came in response to an appeal filed by National Resources Defense Council of New York and the Earthjustice Legal Defense Fund located in California.

Private and Public Stakeholder Interests

- Mining interests have an interest in the Craig Headwaters Protected Area because protected area status places a more intensive management regime governing active mineral claims and mine access road proposals affecting the protected area.
- Backcountry outdoor recreation enthusiasts are interested in the protected area as a place to enjoy an undisturbed natural environment.
- Fishers have an interest in Craig Headwaters Protected Area because of its important angling opportunities provided by the Craig River.
- Scientists who have recently visited the area have an interest in continuing studies.
- The trapline holders are interested in the protected area because protected area regulations may place limits on their exploitation of fur-bearing animal species in the protected area.
- The guide-outfitter owner is interested in the protected area because protected area regulations may place restrictions on the trapping of fur-bearing animal species in the protected area.

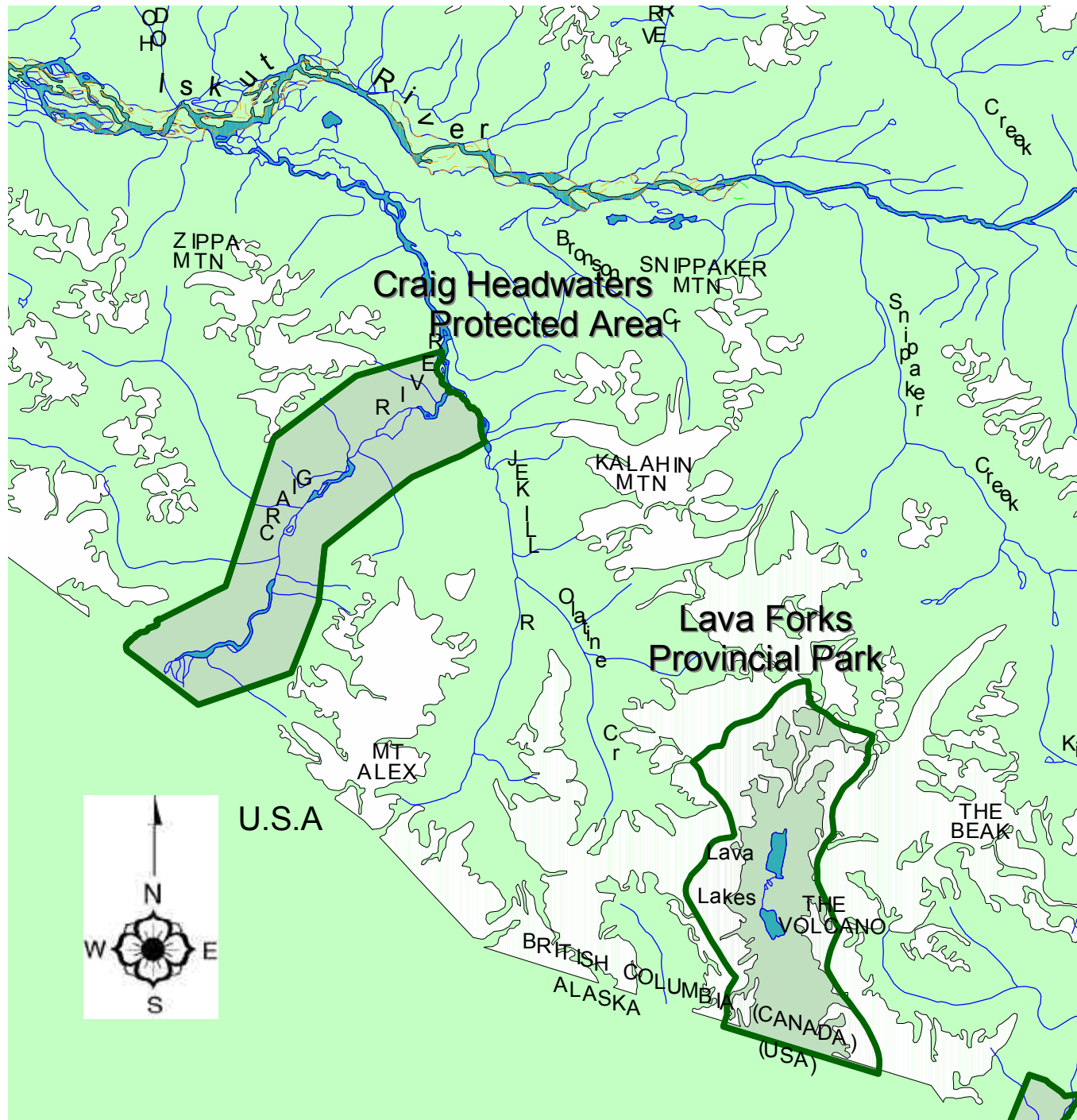
Role of Craig Headwaters Protected Area

The primary role of Craig Headwaters Protected Area is to conserve about 7,101 hectares of the Craig River bottomland extending north from the international boundary between Canada and the United States of America to the river's confluence with Jekill River. The protected area protects old-growth spruce forests. In addition, extremely significant salmon spawning and rearing habitats are contained in the protected area. Craig Headwaters Protected Area's conservation role is further highlighted by transient and resident coastal grizzly bears that depend on this river valley as a source of food and shelter. Also, the protected area likely supports moose and mountain goat habitat and populations.

Craig Headwaters Protect Area fulfills a secondary outdoor recreation role. The protected area presents significant backcountry recreation opportunities in a relatively undisturbed natural wildland setting. Moderate to excellent opportunities exist for hikers, fishers and hunters who are able to reach this remote river valley.



Craig Headwaters Protected Area & Lava Forks Provincial Park



Legend

- | | | | |
|---------------------------|---------------------------|-------|---------------------------|
| Natural Features | | — | River/Stream - Right Bank |
| | freshWater | — | Lake - Definite |
| | glaciersAndSnow | - - - | Lake - Indefinite |
| Rivers and Streams | | - - - | Marsh |
| | River/Stream - Definite | — | Island - Definite |
| | River/Stream - Indefinite | - - - | Sand/Gravel Bar |
| | River/Stream - Left Bank | | BC Parks Protected Area |

2.5 0 2.5 5 7.5 10 Kilometers



1 : 109,556 1 inch = 2.78 kilometers

Management Commitments and Issues

Direction from Previous Planning

The Cassiar Iskut-Stikine LRMP recommended Craig Headwaters for protection in 2000 and provided the following management direction:

- To protect a representative example of low elevation coastal western hemlock forest and associated ecosystem which includes high fisheries values, high value grizzly habitat, key area of grizzly/salmon interaction and high recreation values.
- Consider allowing road access through the protected area: “In the event that a request is made for access and where reasonable review determines that no practicable alternative exists outside of the protected area, then a decision regarding the most appropriate access will be made by Government authorities. The decision will be made in full consideration of the functional integrity of the protected area and the need for access for mineral activities, in accordance with applicable review and approval processes.”²
- Exclude mineral tenures from the protected area until such time as the tenures lapse.
- Allow hunting.

Management Issues

The following management issues require attention:

Theme	Issue
Protecting protected area ecological values.	<ul style="list-style-type: none"> • The protected area’s natural features remain relatively unknown because an accurate inventory is incomplete. • The protected area’s forest and aquatic ecosystems may be at risk because road construction and development may occur within the protected area. • The trapline owners are in contravention of the <i>Park Act</i> because the owners do not have valid park use permits authorizing this resource activity. • The protected area’s fish and wildlife populations and their habitats may be at risk because mine road access will permit higher levels of human angling and hunting activities and direct impacts on habitats.
Protecting protected area outdoor recreation values	<ul style="list-style-type: none"> • The protected area’s outdoor recreation values associated with its wildland, forest and river environments may be at risk because road construction and development may occur within the protected area. Such development would likely have major impacts on the wilderness qualities of the protected area. • Impacts on salmon stocks of possible road construction could affect traditional, recreational and commercial fisheries downstream on the Stikine River.
Protecting protected area cultural heritage values	<ul style="list-style-type: none"> • Craig Headwaters Protected Area’s cultural heritage features may be at risk because an inventory of such values is incomplete.

² Province of BC, *Cassiar Iskut-Stikine Land and Resource Management Plan* Table in Section 2.5.2 New Protected Areas, Internet version of the plan, URL: http://5rmwww.gov.bc.ca/rmd/rmp/cassiar/final/2_5htm#2.5.2. 2000.

Management Direction

The vision for Craig Headwaters Protected Area comprises the retention of an undisturbed river corridor with associated intact forest and aquatic ecosystems that receives occasional visitors.

Priority Management Objectives and Strategies

The following table describes the priority management objectives and strategies to resolve identified management issues. In addition, Appendix 1 contains a list of acceptable activities, uses and facilities for this protected area.

Objectives	Strategies
<p>To protect the protected area's ecological integrity</p>	<ul style="list-style-type: none"> • Undertake baseline inventories of fauna and flora in the protected area as soon as practical. <ul style="list-style-type: none"> ➤ Focus the highest priority on an accurate survey of fish populations and their habitats, compiling data on grizzly bear populations and their habitat, and grizzly/salmon interactions, and cultural heritage values; ➤ Other inventories should proceed as funding permits. ➤ Complete inventories so that they are available for consideration of any proposals for mineral road access. • As per the Cassiar Iskut-Stikine LRMP and <i>Environment and Land Use Act</i> order, consider road access for mineral purposes through the protected area if no practical alternative exists outside the protected area. <ul style="list-style-type: none"> ➤ Investigate potential effects on the protected area's natural environment should industrial interests propose road development through the protected area. ➤ Work cooperatively with the BC Environmental Assessment Office, the Ministry of Sustainable Resource Management, the Ministry of Water, Land and Air Protection (Skeena Region Fish and Wildlife Science and Allocation Section), Ministry of Energy and Mines and the federal government Department of Fisheries and Oceans to document and mitigate the effects of road development within the protected area as stipulated in the Craig Headwaters Protected Area Order in Council. (See Appendix 2). • Contact the trapline owners to place their trapping operations affecting the protected area under valid park use permits. • Work with the US National Forest Service to coordinate management programs and initiatives. <ul style="list-style-type: none"> ➤ Investigate status of appeal on the roadless area decision. • Review of the <i>Environment and Land Use Act</i> order to better reflect the approved LRMP with respect to conditions for possible mining road access.
<p>To protect the protected area's outdoor recreation opportunities and recreation features.</p>	<ul style="list-style-type: none"> • Investigate potential effects on protected area outdoor recreation values and features caused by industrial road development through the protected area. <ul style="list-style-type: none"> ➤ See the above management strategies for the protection of the protected area's ecological integrity. • Consider opportunities for commercial recreation ventures.

Objectives	Strategies
To protect the protected area's cultural heritage values	<ul style="list-style-type: none"> • Investigate and collate, in cooperation with the Tahltan First Nation, existing information on cultural heritage values within Craig Headwaters Protected Area. • Meet with the Tahltan First Nation to discuss issues that affect the protection and management of Craig Headwaters Protected Area.
To provide information to the public about the protected area	<ul style="list-style-type: none"> • Ensure information about Craig Headwaters Protected Area on the official Ministry of Water, Land and Air Protection web site is accurate and current. • Emphasise the protected area's conservation role rather than outdoor recreation themes.

Consultation and Future Planning

The Environmental Stewardship Division will manage Craig Headwaters Protected Area as issues arise with a minimal level of monitoring. The Environmental Stewardship Division will collaborate with internal ministry sections and with the Ministry of Sustainable Resource Management, the Environmental Assessment Office, the Department of Fisheries and Oceans, the Tahltan First Nation and local stakeholders to investigate potential impacts and mitigation measures for any proposed road through the protected area. If a road is proposed, the preparation of a management plan, with full public input, will be developed for the approval of the Ministry of Water, Land and Air Protection.

The priority for preparing a management plan for Craig Headwaters Protected Area is ranked as high if the mine road is proposed.

Zoning Plan

All of Craig Headwaters Protected Area is placed within a Wilderness Recreation Zone which entails the following:

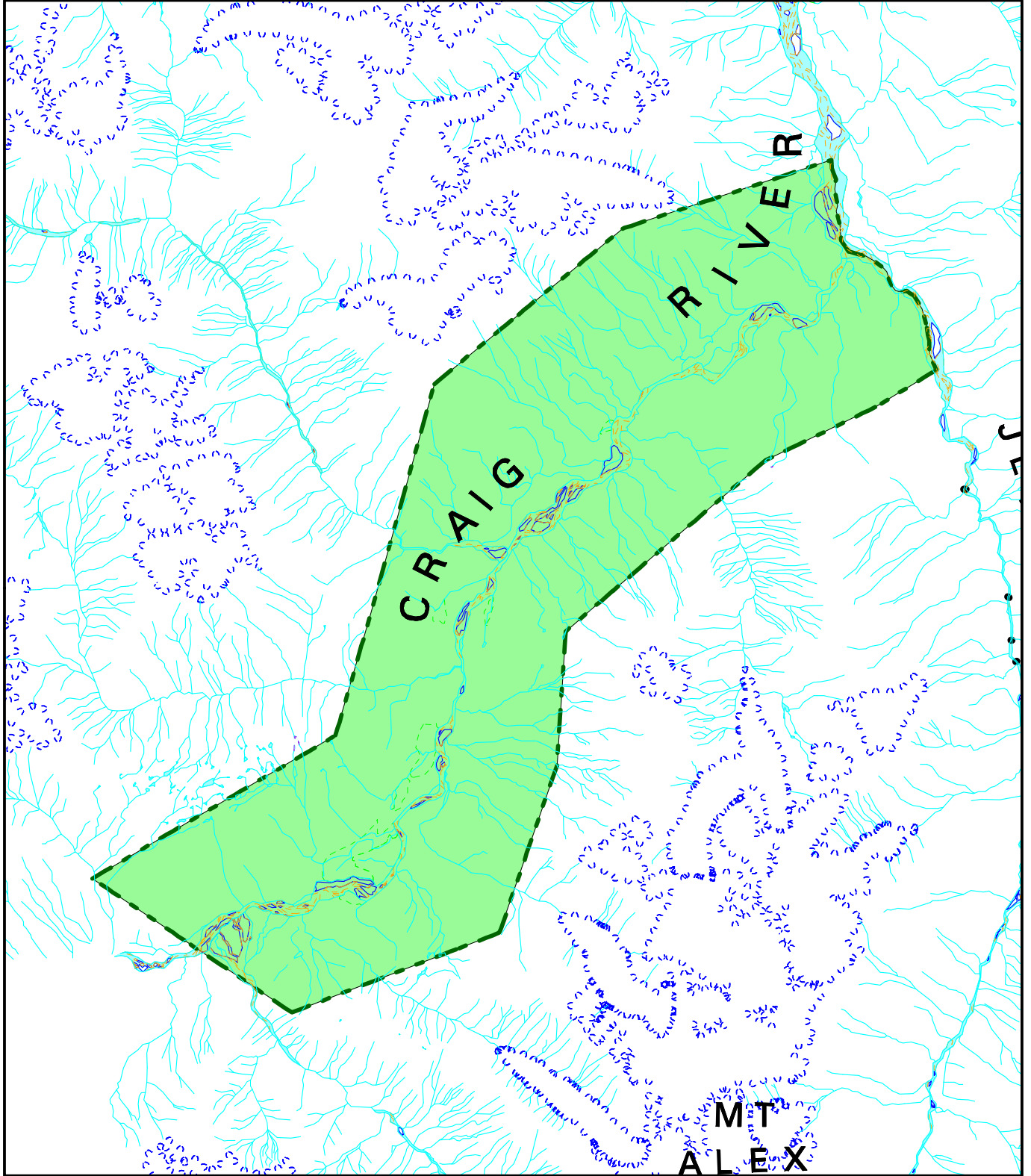
Objective: To protect a remote, undisturbed natural landscape and to provide backcountry recreation opportunities dependent on a pristine environment where air access may be permitted to designated sites.

Zone Description: Covers the entire protected area.

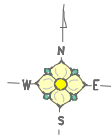
Management Guidelines: Oriented to protecting a pristine environment. Management actions are minimal and not evident. Managed to ensure low visitor use levels. Visitor access may be restricted to protect the natural environment and visitor experience.

Figure 3: Zoning

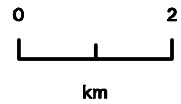
Craig Headwaters Protected Area



Projection: UTM Zone 9
Datum: NAD83



-  Wilderness Recreation
-  Protected Area Boundary



Produced in Jan 2003 for Ministry
of Water, Land and Air Protection

This is a visual representation
only and should not be used for
legal purposes.

**Appendix 1. Craig Headwaters Protected Area
Table of Acceptable Uses, Activities and Facilities**

Activity/Use/Facility	Acceptability
Aboriginal traditional uses and activities	Y
Hunting	Y
Fishing	Y
Trapping	Y
Grazing (domestic livestock)	N
Recreational gold panning/rock hounding	N
Utility corridors	N
Communication sites	N
Horse use/pack animals	M
Guide outfitting (hunting)	Y
Guide outfitting (fishing)	Y
Guide outfitting (nature tours)	Y
Guide outfitting (river rafting)	M
Cat-assisted skiing	N
Ski hills	N
Commercial recreation (facility-based)	N
Commercial recreation (non-facility-based)	N
Backcountry huts	N
Water control structures	N
Fish stocking and enhancement	N
Road access (see Order-in-Council)	M
Off-road access (snowmobiling)	N
Off-road access (motorised)	N
Off-road access (mechanical activities)	N
Motorised water access	N
Aircraft access	Y
Fire management (suppression)	N
Fire management (prescribed fire management)	N
Fire management (prevention)	N
Forest insect/disease control	N1
Noxious weed control	N1
Exotic insect/disease control	N1
Commercial filming	M
Scientific research (specimen collection)	M
Scientific research (manipulative activities)	M

Y = allowed subject to conditions identified in the management direction statement or management plan

M = may be permitted if compatible with protected area objectives

N = not allowed

N1 = allowed for expressed management purposes only

N2 = present and allowed to continue, but not normally allowed

Appendix 2 – Order in Council for Craig Headwaters Protected Area

CRAIG HEADWATERS PROTECTED AREA ORDER

Contents

1. Definitions
2. Protected Area
3. Application of the *Park Act*
4. Management and Administration of Protected Area
5. New Roads
Schedule

Definitions

1. In this order:

“**minister**” means, unless the context requires otherwise, the minister responsible for the *Park Act*, and includes a person designated in writing by the minister;

“**protected area**” means the protected area established under section 2.

Protected Area

2. Craig Headwaters Protected Area, consisting of the land described in the Schedule, is established as a protected area.

Application of the *Park Act*

3. Subject to this order, sections 1, 2, 3, 6, 8 (1) and (2), 9 (1) and (2) and 13 to 30 of the *Park Act* and the regulations under the *Park Act* apply to the protected area as though it is a “park” of Class A continued or established under section 2 of the *Protected Areas of British Columbia Act*.

Management and Administration of Protected Area

4. Subject to this order, the minister is authorized to and must manage and administer the protected area.

New Roads

5. (1) Subject to the completion of a process acceptable to the minister to assess the impacts of and to determine mitigation requirements for building a road through the protected area, the minister must approve on terms and conditions acceptable to the minister the construction, use and maintenance of a road through the protected area for the purpose of providing access to support mineral development.
- (2) The minister may require that the cost of the process referred to in subsection (1) be borne in whole or in part by the person or persons requesting permission to construct the road referred to in that subsection or by the person or persons who will use and maintain the road.

- (3) The terms and conditions referred to in subsection (1) may include, but are not limited to, a requirement that the person or persons who construct, use or maintain the road must be authorized to do so by park use permit, which permit may be issued despite sections 8, 9 and 30 of the *Park Act*.

Schedule

All those parcels or tracts of Crown land, together with all that foreshore or land covered by water, situated in Cassiar District and contained within the described boundaries as shown on the Official Plan deposited in the Crown Land Registry as Plan 7 Tube 1868; except the Crown land subject to the mineral rights under the *Mineral Tenure Act* for the “Stanley 7”, “Zeehan 5” to “Zeehan 7” and “Reg#9” claims, Record No.'s 222226, 222342 to 222344 and 302602 respectively.

The whole protected area containing approximately 7 101 hectares.

Skeena Region

MANAGEMENT DIRECTION STATEMENT

March 2003



**for Border Lake
Provincial Park**



**BRITISH
COLUMBIA**

**Ministry of Water, Land
and Air Protection
Environmental Stewardship
Division**

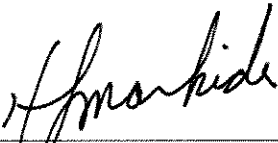
Border Lake Provincial Park Approvals Page

Forward

This management direction statement for Border Lake Provincial Park provides management direction until such time as the plan is revised. Ongoing consultation with First Nations may require changes to this management direction statement. Aboriginal rights are honoured and respected within the park.

Implementation of strategies identified in the MDS will be dependent on available funding and Environmental Stewardship Division priorities.

Approvals



Regional Manager
Skeena Region
Environmental Stewardship Division



Assistant Deputy Minister
Environmental Stewardship Division

**This management direction statement was developed through direction received from the
Cassiar Iskut-Stikine Land and Resource Management Plan.**

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Border Lake Provincial Park Management Direction Statement

Introduction

Purpose of the Management Direction Statement

Management direction statements (MDS) provide strategic management direction for protected areas that do not have an approved management plan. Management direction statements also describe protected area values, management issues and concerns; a management strategy focused on immediate priority objectives and strategies; and, direction from other planning processes. While strategies may be identified in the MDS, the completion of all these strategies is dependent on funding and funding procedures. All development associated with these strategies is subject to the Parks and Protected Areas Branch's Impact Assessment Policy.

Context

The provincial government designated Border Lake Provincial Park as a Class A park on January 25, 2001 by order in council under the *Park Act*. The park is currently named and described in Schedule C of the *Protected Areas of British Columbia Act*. Border Lake had been identified as a Goal 2, Special Feature protected area in recognition of its exceptionally productive lake and wetland ecosystem. The Cassiar Iskut-Stikine Land and Resource Management Plan (LRMP) recommended Border Lake as a protected area.

Border Lake Provincial Park covers 814 hectares of the Unuk River Valley, bordering Alaska, about 180 kilometres south of the community of Telegraph Creek. No road access is available to this remote area. The park lies within the asserted traditional territory of the Tahltan First Nation.

Border Lake Provincial Park includes a wetlands environment surrounding three small lakes within the wide Unuk River valley. The braided Unuk River runs through the east and south part of the park and flows into Misty Fjords National Monument in Alaska.

Nearby, Lava Forks Provincial Park protects Canada's most recent lava flow. Craig Headwaters Provincial Park protects representative riparian and forested ecosystems. Great Glacier Provincial Park, on the Stikine River, provides outstanding riverside glacier scenery. About 150 kilometres to the north and northeast lay several large protected areas, including Mount Edziza Provincial Park, Spatsizi Plateau Wilderness Provincial Park, Stikine River Provincial Park and Tatlatui Provincial Park. These parks protect intact ecosystems and provide a wide range of backcountry recreation opportunities.

Provincial Park Attributes

Conservation

- One of only four protected areas in the poorly represented Southern Boundary Ranges Ecoregion (2.11%); Border Lake Provincial Park contributes 5% of the overall protected areas system representation of this ecoregion.
- One of seven protected areas contributing to the representation of the CWHwm (wet maritime coastal western hemlock biogeoclimatic subzone). This ecosystem is

underrepresented (7.46%) in the protected areas system. Border Lake's contribution is minimal as it contributes only 3% of the overall representation of this ecosystem.

- Highly productive lake and wetland environments.
- Lush plant communities including rare species (e.g. *Caltha palustris* - yellow marsh-marigold).
- Very high value fish habitat for sockeye salmon (lake spawning) and unusual anadromous cutthroat trout.
- Critical spring patch habitat for grizzly bears.
- Excellent waterfowl nesting and forage habitat.

Recreation and Tourism

- Presents high outdoor recreation values, primarily for river rafting, because of the Unuk River's pristine, free-flowing condition.
- Offers potential wilderness campsites for river travellers.

Commercial Business Opportunities

- Provides limited commercial business opportunities for guided river rafting tour groups and angling. (See Appendix 1 for activities allowed in this park).

Cultural Heritage

- Cultural heritage values remain undocumented at this time. Environmental Stewardship Division is seeking Tahltan First Nations' contributions to resolve this lack of knowledge.

Significance in the Protected Areas System

- Protects regionally significant fish and grizzly bear habitats; the sea-run cutthroat population is provincially significant.
- Protects rich wetland plant communities including rare plants.
- Offers excellent river-based backcountry recreation opportunities.

Land Uses, Tenures and Interests

Access

Border Lake Provincial Park is extremely remote. River rafters fly from Bell II to the upper reaches of the Unuk River, and float down to the park. Highway 37 runs 70 kilometres to the north. Border Lake is too small to land float planes.

Existing Tenures, Alienations and Encumbrances

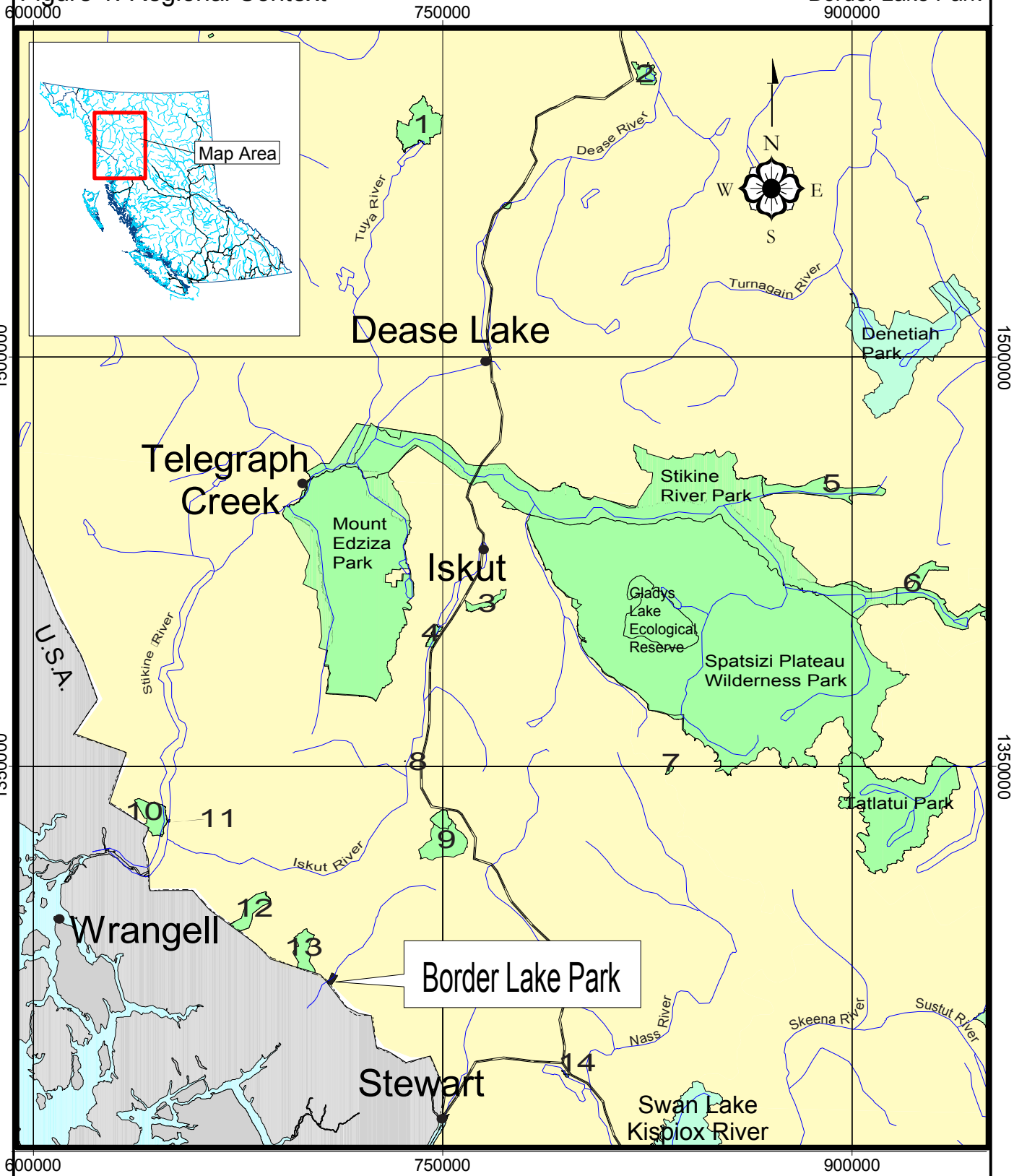
- Active trapline 621T001 but this resource use activity is not authorized under a valid park use permit.
- Guide-outfitter 621G002 authorized under park use permit SK9710016.

Existing Land Use Activities and Facilities

- Small cabin near lake of unknown status.
- Few river rafting trips along the Unuk River (about one a year).
- Occasional hunting trips, primarily up river from Alaska.

Figure 1: Regional Context

Border Lake Park
90000



1500000

1500000

1350000

1350000

U.S.A.

1:2000000

20 0 20 Kilometers



- MDS Study Area
- Lakes, Ocean
- Rivers

- | | |
|-----------------------------------|------------------------------------|
| 1 Tuya Mountains Park | 8 Iskut River Hot Springs |
| 2 Boya Lake Park | 9 Ningunsaw River Park |
| 3 Todagin South Slope Park | 10 Great Glacier Park |
| 4 Kinaskan Lake Park | 11 Choquette Hot Springs Park |
| 5 Pitman River Protected Area | 12 Craig Headwaters Protected Area |
| 6 Chukachida River Protected Area | 13 Lava Forks Park |
| 7 Spatsizi Headwaters Park | 14 Meziadin Junction Park |



Adjacent Patterns of Land Use

- Lies within the Unuk Resource Management Zone with direction to maintain high value grizzly bear habitat and to maintain visual quality from the Unuk River while allowing for resource development.
- Located within Ministry of Forests initial attack zone for fire management.
- Misty Fjords National Monument lies in Alaska, adjacent to the park's southwest border; the purpose of Wilderness National Monuments is to protect and perpetuate natural biophysical and ecological conditions.

First Nations Interests

- Asserted traditional territory of the Tahltan First Nation.
- Tahltan First Nation has an interest in maintaining their aboriginal traditional uses and activities in the park.

Other Agency Interests

- Note that Department of Fisheries and Oceans does not have a management plan for this watershed as there is no Canadian in-stream fishery.
- Ministry of Water, Land and Air Protection, Skeena Region Fish and Wildlife Science and Allocation Section, has an interest in the park's wildlife, particularly grizzly bears.
- Ministry of Sustainable Resource Management (British Columbia Conservation Data Centre (CDC)) has an interest in the species at risk in this park.

Private and Public Stakeholder Interests

- Naturalists have an interest in the park because of its variety of important grizzly bear and fish habitats and the significant vegetation.
- Anglers have an interest in the park because of its excellent cutthroat trout and sockeye salmon habitats as well as the important angling opportunities in Border Lake and the Unuk River.
- The trapline holder has an interest in the park because it contains fur bearers and the park may be an area for restrictions to trapping.
- Private and commercial river rafters have an interest in the park because of the opportunities to travel down the Unuk River below Border Lake.
- Guide outfitters have an interest in the park because park regulations may require limits to hunting opportunities to meet conservation and visitor safety requirements.

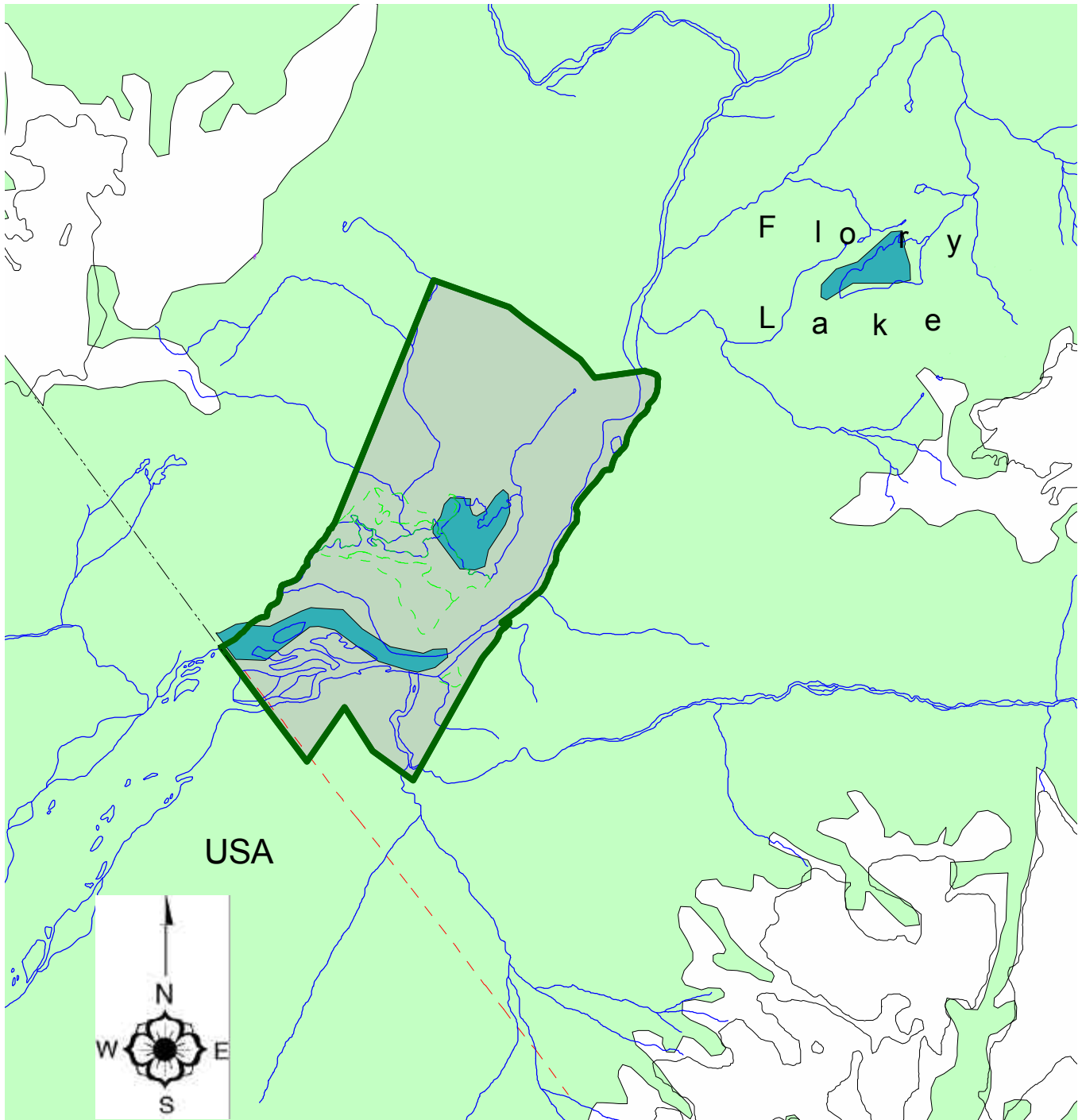
Role of Border Lake Provincial Park

Border Lake Provincial Park plays primarily a conservation role, protecting significant fish habitat, grizzly bear habitat and wetland plant communities in the Unuk River Valley. Little fish habitat exists further up the watershed.

Border Lake Provincial Park performs a secondary outdoor recreation role because the Unuk River offers excellent river recreation opportunities in a beautiful, remote wilderness river setting. Use, however, will likely remain low because of the relative closeness of the spectacular, more accessible Stikine River. The susceptibility of Border Lake Provincial Park's lake and wetland environments to damage through human use limits land-based outdoor recreation opportunities.

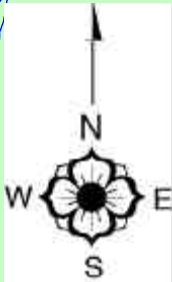


Border Lake Provincial Park



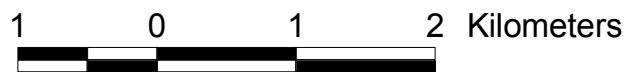
USA

Fiorly
Lake



Legend

- | | |
|---------------------------|----------------------------------|
| BC Parks Protected Area | Ice Field - Permanent Snow & Ice |
| Rivers and Streams | Island - Definite |
| River/Stream - Definite | Seismic Lines |
| River/Stream - Left Bank | Outline Seismic Line |
| River/Stream - Right Bank | Natural Features |
| Lake - Definite | freshWater |
| Lake - Intermittent | glaciersAndSnow |
| Marsh | |
| Swamp | |



1:54307

Management Commitments and Issues

Direction from Previous Planning

The Cassiar Iskut-Stikine LRMP recommended Border Lake for protection as a Goal 2 protected area in 2000 and gave management direction to:

- Allow hunting to continue;
- Manage recreation use to be compatible with the ecological sensitivity of the lake and wetland complex

Management Issues

The following management issues require attention:

Theme	Issue
Protecting ecological values	<ul style="list-style-type: none"> • The park's natural features remain relatively unknown because an accurate inventory is incomplete. <ul style="list-style-type: none"> ➤ Border Lake may have formed because of a recent lava flow (as did Blue Lake nearby in Alaska) and has, as a result, interesting chemistry and pioneer vegetation. • Park values may be at risk because of mineral exploration activities on lands next to the park with high mineral values. • Park values may be at risk because land next to the park may be open to specially-managed forestry activities. • The trapline owner may be operating in the park without a valid park use permit. • Risk of illegal activities associated with helicopter access from nearby Alaska.
Protecting cultural heritage values	<ul style="list-style-type: none"> • Border Lake Provincial Park's cultural features may be at risk because no inventory of such values is completed.

Management Direction

The vision for Border Lake Provincial Park includes maintaining the park's ecological integrity, healthy fish and wildlife populations, and presenting park visitors stopping on trips along the Unuk River with spectacular wildland scenery and wetland ecosystems.

Priority Management Objectives and Strategies

The following table describes the priority management objectives and strategies to deal with the identified management issues. In addition, Appendix 1 contains a list of acceptable activities, uses and facilities for this provincial park.

Objectives	Strategies
To protect the park's natural values	<ul style="list-style-type: none"> • Undertake an inventory of fauna and flora. <ul style="list-style-type: none"> ➤ Grizzly bear and fish species will be the highest priority in this inventory. ➤ A second priority is identifying rare plant species in the park. ➤ Request the assistance and cooperation of the Department of Fisheries and Oceans and the Wildlife and Habitat Management Branch, Ministry of Water, Land and Air Protection in this inventory work. • Investigate the geological origin of Border Lake. • Monitor development activities on lands next to the park. <ul style="list-style-type: none"> ➤ Place priority on potential road development • Liaise with the owners of the Eskay Creek Mine, the Ministry of Energy and Mines and the Ministry of Forests to reduce any

Objectives	Strategies
	<p>potential impacts on Border Lake Provincial Park.</p> <ul style="list-style-type: none"> ➤ In particular, discuss the possibility for access controls on roads developed for mining activities. • Communicate with the US National Forest Service about cross-border ecosystem management that embraces Misty Fjords National Monument in Alaska and Border Lake Provincial Park in British Columbia. • Determine status, condition and use of cabin on Border Lake. • Manage recreational use so it is compatible with the ecological fragility of the Border Lake and its wetlands. • Evaluate potential for damage to park values should access to the park change because of development on lands next to the park. • Contact the trapline owner to place this resource use under a valid park use permit.
To protect the park's cultural heritage values.	<ul style="list-style-type: none"> • Investigate and collate, in cooperation with the Tahltan First Nation, existing information on cultural heritage values within Border Lake Provincial Park. • Meet with the Tahltan First Nation to discuss issues that affect the protection and management of Border Lake Provincial Park.
To provide information to the public about Border Lake Provincial Park	<ul style="list-style-type: none"> • Ensure information about Border Lake Provincial Park on the official Ministry of Water, Land and Air Protection Website is accurate and current. <ul style="list-style-type: none"> ➤ Emphasis will be on conservation rather than outdoor recreation themes.
To manage outdoor recreation that occurs within Border Lake Provincial Park.	<ul style="list-style-type: none"> • Consider the need for guidelines controlling recreational use (e.g. location for stopping and/or camping; commercial use).

Consultation and Future Planning

Environmental Stewardship Division will continue to consult with the Tahltan First Nation through the Tahltan – Environmental Stewardship Division Protected Areas Committee. The Environmental Stewardship Division will meet with local stakeholders and resource users as issues arise.

The priority for developing a management plan for Border Lake Provincial Park is ranked as low at this time.

Zoning Plan

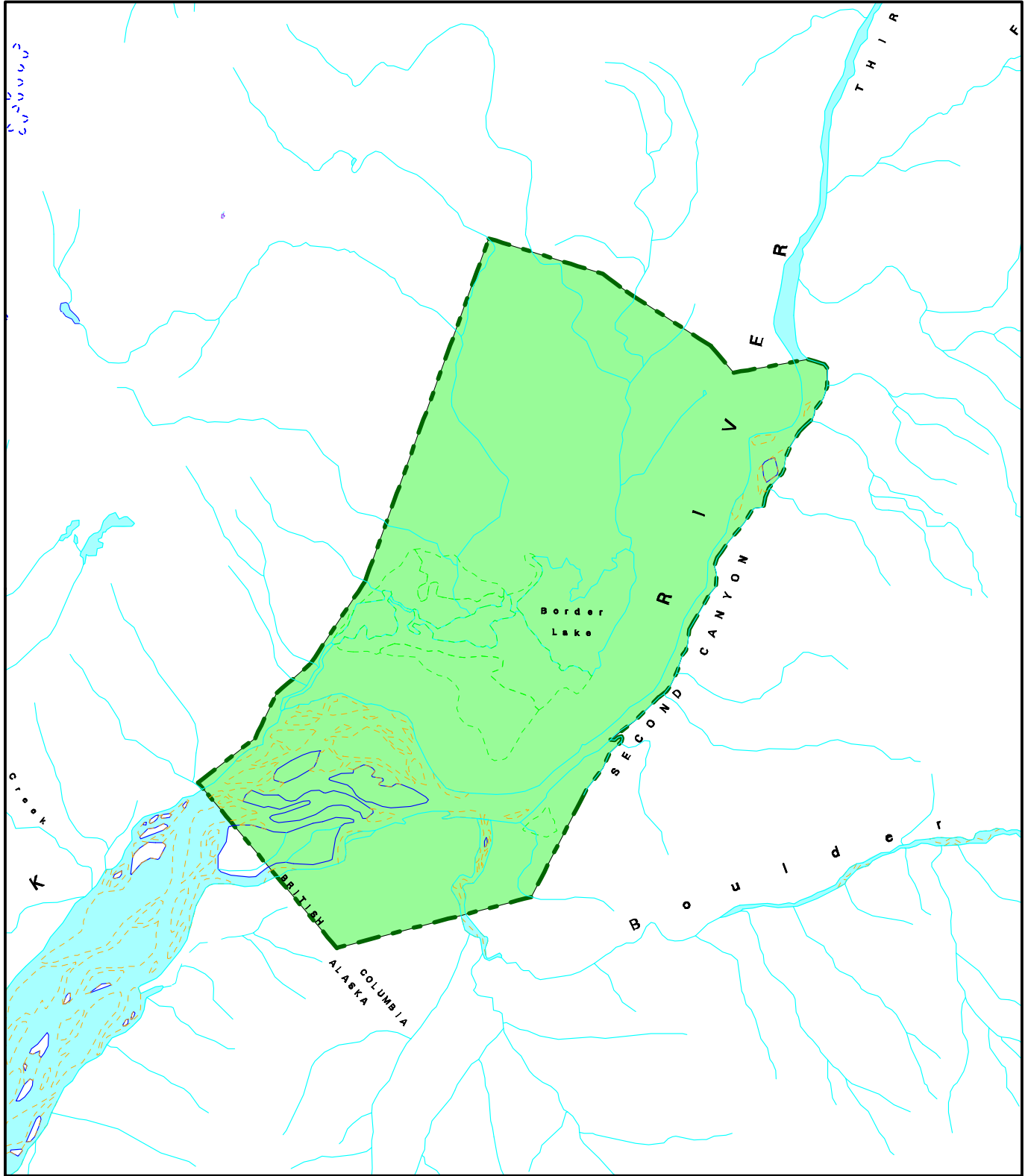
All of Border Lake Provincial Park is placed within a Wilderness Recreation Zone which entails the following:

Wilderness Recreation Zone

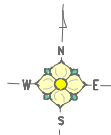
Objective: To protect a remote, undisturbed natural landscape and to provide backcountry recreation opportunities dependent on a pristine environment where air access may be permitted to designated sites

Zone Description: covers 814 hectares of the park. This zone covers all of Border Lake Park.

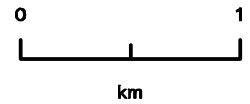
Figure 3: Zoning



Projection: UTM Zone 9
Datum: NAD83



 Wilderness Recreation
 Protected Area Boundary



Produced in Jan 2003 for Ministry
of Water, Land and Air Protection

This is a visual representation
only and should not be used for
legal purposes.

Appendix 1 - Border Lake Provincial Park
Table of Acceptable Uses, Activities and Facilities

Activity/Use/Facility	Acceptability
Aboriginal traditional uses and activities	Y
Hunting	Y
Fishing	Y
Trapping	Y
Grazing (domestic livestock)	N
Recreational gold panning/rock hounding	N
Utility corridors	N
Communication sites	N
Horse use/pack animals	N
Guide outfitting (hunting)	Y
Guide outfitting (fishing)	M
Guide outfitting (nature tours)	M
Guide outfitting (river rafting)	M
Cat-assisted skiing	N
Ski hills	N
Commercial recreation (facility-based)	N
Commercial recreation (non-facility-based)	Y
Backcountry huts	N
Water control structures	N
Fish stocking and enhancement	N
Road access	N
Off-road access (snowmobiling)	N
Off-road access (motorised)	N
Off-road access (mechanical activities)	N
Motorised water access	N
Aircraft access – (helicopter access subject to prior approval)	Y
Fire management (suppression)	Y subject to initial attack plan
Fire management (prescribed fire management)	N
Fire management (prevention)	N
Forest insect/disease control	N1
Noxious weed control	N1
Exotic insect/disease control	N1
Commercial filming	M
Scientific research (specimen collection)	M
Scientific research (manipulative activities)	M

Y = allowed subject to conditions identified in the management direction statement or management plan

M = may be permitted if compatible with protected area objectives

N = not allowed

N1 = allowed for expressed management purposes only

N2 = present and allowed to continue, but not normally allowed

APPENDIX H

Tribal Government-to-Government Protocols

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APPENDIX H

Tribal Government-to-Government Protocols



U.S. Department
of Transportation

Office of the Secretary
of Transportation

ORDER

DOT 5301.1

November 16, 1999

**SUBJECT: Department of Transportation Programs, Policies, and Procedures
Affecting American Indians, Alaska Natives, and Tribes**

1. **PURPOSE.** To ensure that programs, policies, and procedures administered by the Department of Transportation (DOT) are responsive to the needs and concerns of American Indians, Alaska Natives, and tribes.
2. **REFERENCES.** This list is not all-inclusive but is intended to help in the understanding of this DOT Order.
 - a. **Executive Orders and Memoranda:**
 - (1) Executive Order 12866, Regulatory Planning and Review (58 Federal Register 51739, October 4, 1993), dated September 30, 1993.
 - (2) Executive Order 12875, Enhancing the Intergovernmental Partnership (58 Federal Register 58093, October 28, 1993), dated October 26, 1993.
 - (3) Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 Federal Register 7629, February 16, 1994), dated February 11, 1994.
 - (4) Executive Order 13007, Indian Sacred Sites (61 Federal Register 26771, May 29, 1996), dated May 24, 1996.
 - (5) Executive Order 13021, Tribal Colleges and Universities (61 Federal Register 54929, October 23, 1996) dated October 19, 1996
 - (6) Executive Order 13045, Protection of Children from Environmental Health and Safety Risks (62 Federal Register 19885, April 23, 1997) dated April 21, 1997.
 - (7) Executive Order 13084, Consultation and Coordination with Indian Tribal Governments (63 Federal Register 27655, May 19, 1998), dated May 14, 1998
 - (8) Executive Order 13096, American Indian and Alaska Native Education (63 Federal Register 42681, August 11, 1998), dated August 6, 1998.
 - (9) Policy Concerning Distribution of Eagle Feathers for Native American Religious Purposes, Memorandum for the Heads of Executive Departments and Agencies signed by the President, April 29, 1994.
 - (10) Presidential Memorandum on Government-to-Government Consultation with Native American Tribal Governments (59 Federal Register 22951, May 4, 1994)
 - (11) Office of Management and Budget Memorandum M-95-20, September 21, 1995

Distribution: All Secretarial Offices; All Heads of Administration

OPI: S-3

b. **DOT Orders:**

- (1) DOT 1000.12, Implementation of the Department of Transportation's Title VI Program, dated January 19, 1977.
- (2) DOT 1300.1, ONE DOT Management Strategy, dated September 18, 1998.
- (3) DOT 1325.2C, DOT Correspondence Policy, dated October 29, 1993.
- (4) DOT 5610.1C, Procedures for Considering Environmental Impacts, dated September 18, 1979.
- (5) DOT 5610.2, Environmental Justice in Minority Populations and Low-Income Populations, dated April 4, 1997.

c. **Statutes:**

- (1) Antiquities Act of 1906, as amended, 16 U.S.C. §§ 431-433 (1998).
- (2) Historic Sites Act of 1935, 16 U.S.C. §§ 461-467.
- (3) National Historic Preservation Act of 1966, as amended, 16 U.S.C. §§ 470-470w-6.
- (4) National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321, 4321 note, 4331-4335, 4341-4346b, 4347.
- (5) Alaska Native Claims Settlement Act of 1971 (ANCSA), as amended, 43 U.S.C. §§ 1601-1629g.
- (6) Indian Self-Determination and Education Assistance Act of 1975, as amended, 25 U.S.C. § 450.
- (7) American Indian Religious Freedom Act of 1978, as amended, 42 U.S.C. § 1996.
- (8) Tribally Controlled Community College Assistance Act of 1978, 25 U.S.C. §§ 1801-1815.
- (9) Navajo Community College Assistance Act of 1978, 25 U.S.C. § 640a.
- (10) Native American Graves Protection and Repatriation Act of 1990, 25 U.S.C. §§ 3001-3013.
- (11) Federally Recognized Indian Tribe List Act of 1994, as amended, 25 U.S.C. §§ 479a and 479-a-1 (63 Federal Register 71941, December 30, 1998).

- (12) Tribal Self-Governance Act of 1994, 25 U.S.C. §§ 458aa - 458hh.
- (13) Equity in Educational Land Grant Status Act of 1994, 7 U.S.C. § 301 note.
- (14) Unfunded Mandates Reform Act of 1995, 2 U.S.C. §§ 602, 658, 658a - 658g, and Chapter 25.
- (15) Archeological Resources Protection Act of 1979, as amended, 16 U.S.C. §§ 470aa - 470mm.
- (16) Religious Freedom Restoration Act of 1992, 42 U.S.C. §§ 2000bb - 2000bb - 4.
- (17) Buy Indian Act (as amended 1994), 25 U.S.C. § 47.
- (18) Transportation Act of 1966, as amended 49 U.S.C. § 303 (formerly known as Section 4f).
- (19) Intergovernmental Personnel Act 5 U.S.C. § 4701 (allows temporary employment of tribal government officials) and 42 U.S.C. §§ 4771- 4772 (authority allowing tribal officials to participate in Federal training)
- (20) Title VI of the Civil Rights Act of 1964, as amended 42 U.S.C. § 2000d, et seq.

3. DEFINITIONS.

- a. American Indian and Alaska Native. "American Indian" refers to the term used in the OMB Statistical Policy Directive 15, "Race and Ethnic Standards for Federal Statistics and Administrative Reporting" to identify descendants of the populations indigenous to North America at the time of European discovery. American Indian includes Alaska Natives. "American Indian" however, is commonly used to refer to individuals of such populations residing in the lower 48 States. "Alaska Native" came into use with the passage of the Alaska Native Claims Settlement Act of 1971. Alaska Native is the usage preferred according to results of the Census Bureau's Race and Ethnic Targeted Test (RAETT), included in the Office of Management and Budget's Recommendations from the Interagency Committee for the Review of the Racial and Ethnic Standards to the Office of Management and Budget Concerning Changes to the Standards for the Classification of Federal Data on Race and Ethnicity; Notice and Proposed Request for Comments, 62 Federal Register 36873-36946 (July 9, 1997). Alaska Native refers to Alaskan Indians (including American and Canadian Indians living in Alaska), Eskimo, and Aleut. Note that "Alaska Native" and "American Indian" is not necessarily equivalent to the terms "tribe" and "tribal member." Therefore, since the application of specific statutes and executive orders vary, the definitions contained within these laws should be referred to for additional information.

- b. **Consultation.** Refers to meaningful and timely discussion in an understandable language with tribal governments during the development of regulations, policies, programs, plans, or matters that significantly or uniquely affect federally recognized American Indian and Alaska Native tribes and their governments. The specific guidelines and instructions for implementing the Unfunded Mandates Reform Act of 1995 found in OMB Memorandum M-95-20 and the recommendations in the Presidential Memorandum on Government-to-Government Consultation with Native American Tribal Governments dated April 29, 1994, also provide general principles for intergovernmental consultation under this Order.
- c. **DOT Component.** Refers to each agency, office, mode, administration or other entity of the Department of Transportation.
- d. **Environmental Justice.** Refers to avoiding, minimizing, and mitigating disproportionately high and adverse effects of DOT policies, programs, and activities on minority populations and low-income populations.
- e. **Federally Recognized Tribe.** Refers to the tribal government and tribal members of any tribe, band, pueblo, nation, or other organized group or community including any Alaska Native village or regional or village corporation (as defined in, or established pursuant to the Alaska Native Claims Settlement Act, 43 U.S.C. 1601 et seq.), or that is acknowledged by the Federal Government to constitute a tribe with a government-to-government relationship with the U.S. and eligible for the programs, services, and other relationships established by the U.S. for Indians because of their status as Indians.
- f. **Government-to-Government Relations.** Refers to the protocol for communicating between the Federal Government and tribes as sovereigns in accordance with the Presidential Memorandum on Government-to-Government Consultation with Native American Tribal Governments dated April 29, 1994. The first point of contact should be the Chairman of the Tribal Council or the President of the Tribe.
- g. **Indian Preference.** Refers to a preference, typically in employment and contracts, based on the political relationship between the U.S. and members of federally recognized tribes. Indian preference applies only to members of federally recognized tribes and not to individuals who are racially classified as "Indians" but who are not members of federally recognized tribes.
- h. **ONE DOT Management Strategy.** Refers to the Department's management strategy and intermodal collaboration that builds on the strengths of DOT modes and the Office of the Secretary of Transportation (OST) to achieve the Department's mission and goals as prescribed in paragraph 2b(2).
- i. **Tribe.** The term "tribe," when used in its ethnographical sense to describe a cultural group, does not necessarily confer legal status on a tribe. Therefore, for purposes of this Order, the term "tribe" refers to "Indian tribe" or "Federally recognized tribe" and may also refer to State recognized tribes which are not Federally recognized but which are eligible for certain Federal benefits and privileges under specific Federal laws.

- j. **Tribal Colleges and Universities.** Refers to those institutions cited in Section 532 of the Equity in Educational Land Grant Status Act of 1994 (7 U.S.C. 301 note) and any other institution that qualifies for funding under the Tribally Controlled Community College Assistance Act of 1978 (25 U.S.C. 1801 et seq.) and Navajo Community College, authorized in the Navajo Community College Assistance Act of 1978 (Public Law 95-471), Title II (25 U.S.C. 640a note).
- k. **Tribal Government.** Refers to the recognized government of a tribe.
- l. **Tribal Member.** Refers to a member of a tribe as determined by tribal membership rules.
- m. **Tribal Sovereignty.** Refers to the unique legal status of federally recognized Indian tribes as set forth in the U. S. Constitution, treaties, and Federal statutes, executive orders, and court decisions, which establish these tribes, as domestic dependent nations subject to the protection of the U.S. Government. As domestic dependent nations, these tribes exercise inherent sovereign powers over their members and territory unless explicitly removed by Congress.
- n. **Trust Resources.** Refers to natural resources such as, but not limited to, water, fish, wildlife, air, minerals, natural gas, oil, forests, plants, land, rivers, cultural resources, that are held in trust by the Federal Government on behalf of the federally recognized tribes.

4. **BACKGROUND.**

- a. American Indians and Alaska Natives have a special place in our Nation's history and culture, and certain laws and policies apply to them.
- b. The Federal Government has a unique legal and political relationship with federally recognized tribes that have been found by the U.S. Supreme Court to be sovereign, domestic dependent nations, subject to the protection of the United States.
- c. The Federal Government has a moral obligation of the highest responsibility and trust for resources held by the Federal Government on behalf of federally recognized tribes and their members, who are properly concerned that trust resources should be conserved for the benefit of present and future generations.
- d. The Federal Government, in carrying out its trust responsibility, has the duty to act in good faith and loyalty to the best interests of American Indians, Alaska Natives, and tribes, among these being their interest in self-government and that it is the express policy of Congress and the President to strengthen tribal self-governance.
- e. In 1975, Congress passed the Indian Self-Determination and Education Assistance Act (Public Law 93-638). This Act recognized the obligation of the United States to respond to the strong expression of the Indian people for self-

determination by assuring maximum Indian participation in the direction of Federal services.

- f. On April 29, 1994, a Presidential Memorandum was issued, entitled, "Government-to-Government Relations with Native American Tribal Governments." This Memorandum directed all Executive Departments and Agencies to implement activities affecting Indian tribal rights or trust resources by consulting with tribes in a knowledgeable, sensitive manner respectful of tribal sovereignty.
 - g. Executive Order 13084, dated May 14, 1998, entitled, "Consultation and Coordination with Indian Tribal Governments," directs Federal agencies to work with Indian tribes by: establishing regular and meaningful consultation and collaboration with them on Federal matters that significantly or uniquely affect their communities; reducing the imposition of unfunded mandates on them; and streamlining the application process and availability of waivers to them.
5. **POLICY.** In conducting and administering activities and programs, and fostering relationships with American Indians, Alaska Natives, and tribes, all components within DOT must, to the extent practicable and permitted by law:
- a. Carryout DOT's mission, strategic goals, policies, programs, and activities affecting American Indians, Alaska Natives, and tribes in a manner that reflects a high commitment to the ONE DOT management strategy.
 - b. Consult with Indian tribes before taking any actions that may significantly or uniquely affect them. This process may be supplemented by seeking information from other relevant sources and may be required by specific laws, regulations, and executive orders. This includes, but is not limited to, traditional leaders or elders and associations of tribal officials.
 - c. Work with federally recognized tribes and their designated representatives on a government-to-government basis respecting their rights to represent their respective interests.
 - d. Recognize American Indian and Alaska Native statutory preferences in employment, Federal financial assistance arrangements and contracting, subject to eligibility.
 - e. Assess the environmental impact of DOT activities on tribal trust resources and ensure that tribal interests are considered before DOT activities are undertaken. This assessment must include ensuring that the concerns of federally recognized tribes, regarding the potential impact on trust resources, are properly addressed in agency policies, programs, and activities.
 - f. Respond effectively to the transportation concerns of American Indians and Alaska Natives related to environmental justice, children's safety and environmental health risks, occupational health and safety, and other environmental matters.
 - g. Streamline DOT procedures for working directly with tribes on activities that affect trust resources or tribal self-governance of the tribes.

- h. Seek tribal representation in relevant DOT sponsored meetings, negotiated rulemaking efforts, forums, advisory committees, listening sessions, focus groups, public surveys, research protocols, and data collection activities.
 - i. Design solutions and tailor DOT programs as appropriate to address specific or unique needs of tribal communities.
 - j. Consider opportunities under the Intergovernmental Personnel Act for temporarily hiring tribal members and publicizing eligibility of tribal members to participate in Federal training activities
 - k. Foster opportunities such as internships, fellowships, scholarships, or other related DOT programs in education and research for American Indians, and Alaska Natives.
 - l. Include tribal colleges and universities in DOT educational, research, and program activities as prescribed in paragraph 2a(5). This may also include helping the institutions through such activities as providing DOT personnel as temporary instructors and providing surplus property and equipment.
 - m. Support government-wide educational efforts aimed at American Indian and Alaska Native students such as improving literacy and mathematics skills and increasing high school completion rates.
 - n. Ensure non-discrimination in employment of and services to American Indians and Alaska Natives.
 - o. Integrate information about Federal laws and policies on relations with American Indians and Alaska Natives into DOT training.
 - p. Treat correspondence from leaders of federally recognized tribes in the same manner as congressional correspondence as prescribed in the DOT Correspondence Manual (refer to paragraph 2b(3) of this document).
 - q. Cooperate with other Federal, State, or local agencies to accomplish government-to-government relations, carryout consultation, address regulatory issues, and solve problems in accordance with the policy objectives above.
6. RESPONSIBILITIES OF EACH DOT COMPONENT. In carrying out policies, programs, and activities affecting American Indians, Alaska Natives, and tribes, each DOT component must to the extent practicable and permitted by law:
- a. Ensure that an effective mechanism is in place to achieve the following goals:
 - (1) Improve communication with American Indians, Alaska Natives, and tribes to respond more effectively to their transportation concerns.
 - (2) Develop an intergovernmental consultation process for that component in coordination with the designated office established under paragraph 7 of this Order.

- (3) Adapt processes to recognize American Indian, Alaska Native, and tribal culture and traditions.
 - (4) Address American Indian, Alaska Native, and tribal transportation issues and concerns under the ONE DOT management strategy.
 - (5) Ensure consistency within procedures, regulations, and guidance of the various DOT components for addressing American Indian, Alaska Native, and tribal transportation issues.
 - (6) Maximize cooperation and coordination with the OST, other DOT components, other Federal agencies, and appropriate public and private organizations on transportation matters affecting American Indians, Alaska Natives, and tribes.
 - (7) Share information about DOT components, programs, activities, and accomplishments as they relate to American Indian, Alaska Native and tribal matters.
 - (8) Maximize participation of tribal colleges and universities in DOT education, employment, and mission-related programs.
 - (9) Avoid infringing on tribal lands and accommodate access to and ceremonial use of sacred sites and ancestral burial grounds on Federal and tribal lands to the extent practicable and consistent with essential agency functions.
 - (10) Invite participation of American Indian, Alaska Native or other tribal employees of DOT to help achieve communication goals.
- b. Periodically review efforts to achieve the goals listed in paragraphs 6a(1) through 6a(10) and take appropriate action, as necessary, to improve accomplishment of established goals.
 - c. Designate a point of contact, experienced in working with tribes or knowledgeable in laws, regulations, and policies regarding federally recognized American Indians, Alaska Natives, and tribes, to serve as a resource for the Department.
7. **DESIGNATED DOT OFFICE.** The Secretary will designate an office to facilitate effective implementation of the policies and requirements of this Order. In this regard, the designated office will advise and make recommendations to the Secretary of Transportation on American Indian, Alaska Native, and tribal policies, issues, programs, and activities. The designated office's mission and responsibilities are further described below.
- a. **Mission.** To facilitate a consistent Departmental policy, and strategy relative to American Indian, Alaska Native, and tribal transportation matters to the extent practicable and permitted by law.
 - b. **Duties.** The designated DOT Office must perform the following duties:
 - (1) Provide Departmental oversight, guidance, direction, and recommendations to the Secretary and DOT components with regard to implementing this Order and achieving the goals listed in paragraphs 6a(1) through 6a(10) of this Order. This includes providing summary information and/or reports on the Department's efforts as described in paragraph 6b.

- (2) Educate DOT employees on American Indian, Alaska Native and tribal laws, policies, programs, activities, culture, and traditions.
- (3) Stress the importance of tribal involvement in transportation planning and decision-making.
- (4) Ensure tribes' involvement in DOT decision-making that significantly or uniquely affects them.
- (5) Encourage direct relationships with the tribes.
- (6) Exercise creativity and flexibility in fostering partnerships among the tribes, States, and local governments.
- (7) Ensure implementation of the goals listed in paragraphs 6a(1) through 6a(10) of this Order through the following:
 - (a) **Improve Communication.**
 - 1 Maintain a current directory of DOT programs, including a list of contact persons, for which American Indians, Alaska Natives, and tribes are eligible.
 - 2 Coordinate and promote innovative partnerships among Federal, State, and local government programs and activities that will have the optimal positive effect on American Indians, Alaska Natives, and tribes.
 - 3 Serve on the White House Domestic Policy Council/Native American Subcommittee.
 - 4 Participate in interagency forums on American Indian and Alaska Native issues or concerns.
 - 5 Seek opportunities for training and information exchange via meetings, conferences, workshops, and forums.
 - 6 Facilitate communication and dialogue among Federal, State, tribal representatives, and other government entities.
 - 7 Ensure the DOT website focusing on DOT programs, policies, activities, and issues affecting American Indians, Alaska Natives, and tribes convey the ONE DOT message.
 - 8 Determine through information or recommendations from tribes the best communication channels to disseminate DOT information.
 - 9 Establish a mechanism for initiating contact and providing information about DOT programs, policies, and activities to tribal officials using their preferred protocol.

- (b) **Employ the ONE DOT Management Strategy.**
 - 1 Facilitate full and open internal and external communications that allow DOT to speak with one voice concerning American Indian, Alaska Native and tribal transportation concerns.
 - 2 Maintain a point of contact to address, coordinate, and resolve American Indian, Alaska Native, and tribal policy, programs, and activities from a ONE DOT perspective while providing for maximum participation by DOT components and recognizing the unique nature of the programs and operations of each component.
- (c) **Improve Regulations and Guidance.**
 - 1 Assist and make recommendations concerning the development, establishment, and maintenance of Departmental American Indian, Alaska Native, and tribal policy, guidance, procedures and regulations.
 - 2 Participate in Department-wide review and resulting modification of existing regulations affecting American Indian, Alaska Natives, and tribes.

This Order is intended to improve the internal management of the Department, consistent with paragraph 1 of this Order, and is not intended to create any right enforceable in any cause of action by any party against the U.S., its agencies, officers or any person. In addition, this Order should not be construed to create any right to judicial review involving the compliance or noncompliance with this Order by the Department, its operating administrations, its officers, or any other person.

SECRETARY OF TRANSPORTATION

Rodney E. Slater



U.S. Department
of Transportation
**Federal Highway
Administration**

Subject **ACTION:** Interim Guidance: Consultation with
: Tribal Governments on Federal-aid Projects

Date: November 9, 2000

Original signed by:

From: Cynthia J. Burbank, Program Manager
Planning and Environment

Reply to
Attn of: HEPH

To: Division Administrators

Purpose: This memorandum responds to recent questions from Division staff by providing interim guidance on FHWA's responsibility to conduct consultation with Indian Tribes for Federal-aid projects. This guidance is interim in order to allow time for your feedback, and to afford us an opportunity to develop a model consultation process that Divisions can use, as needed, to facilitate tribal consultations. We envision that this would be a flexible model adaptable to various circumstances.

Background: The basis for our guidance is Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" (November 6, 2000), as well as the President's Executive Memorandum of April 29, 1994, "Government to Government Relations with Native American Tribal Governments," the DOT Order 5301.1, "Department of Transportation Programs, Policies, and Procedures Affecting American Indians, Alaska Natives, and Tribes," the Advisory Council for Historic Preservation regulations, and the FHWA February 24, 1998 policy memorandum and guidance document. These documents affirm our commitment to tribal sovereignty and self-government and establish the policy of government-to-government relations between the Federal government and Indian Tribal Governments.

Interim Guidance: In keeping with the President's Executive Order and the aforementioned regulations and guidance documents, it is the policy of the FHWA to operate within a government-to-government relationship with federally recognized tribal governments, and FHWA's responsibility to initiate and carry out consultation with federally recognized Indian Tribes to the greatest extent permitted by law. This responsibility may not be officially delegated to the State DOTs. However, with the agreement of the affected Indian Tribes and State DOTs, FHWA Divisions may rely on the State DOTs to carry out day-to-day and project specific consultation. The FHWA still retains responsibility for the overall consultation, including conflict resolution, and adherence to all Federal requirements and related laws.

We fully recognize the substantial burden this places on FHWA, specifically the Divisions. To assist with this burden, we support Division efforts to establish initial dialogues with Indian Tribes to develop programmatic approaches that allow for projects to be batched, with day-to-day, project-specific consultation carried out by State DOTs. We emphasize, however, that this is possible only with the agreement of the affected Indian Tribes.

Further Information and Comment: If you need further information, please contact Gloria Shepherd at (202) 366-0106. We welcome comments from the Divisions, including examples of good practices and successful approaches which can be shared with other Divisions. We hope to have a full-time Native American Coordinator in place shortly to provide further advice and assistance. After experience with this Interim Guidance, we will develop Final Guidance.

cc: RC Directors of Field Services

Presidential Documents

Title 3—

Executive Order 13175 of November 6, 2000

The President

Consultation and Coordination With Indian Tribal Governments

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes; it is hereby ordered as follows:

Section 1. Definitions. For purposes of this order:

(a) "Policies that have tribal implications" refers to regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

(b) "Indian tribe" means an Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a.

(c) "Agency" means any authority of the United States that is an "agency" under 44 U.S.C. 3502(1), other than those considered to be independent regulatory agencies, as defined in 44 U.S.C. 3502(5).

(d) "Tribal officials" means elected or duly appointed officials of Indian tribal governments or authorized intertribal organizations.

Sec. 2. Fundamental Principles. In formulating or implementing policies that have tribal implications, agencies shall be guided by the following fundamental principles:

(a) The United States has a unique legal relationship with Indian tribal governments as set forth in the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. Since the formation of the Union, the United States has recognized Indian tribes as domestic dependent nations under its protection. The Federal Government has enacted numerous statutes and promulgated numerous regulations that establish and define a trust relationship with Indian tribes.

(b) Our Nation, under the law of the United States, in accordance with treaties, statutes, Executive Orders, and judicial decisions, has recognized the right of Indian tribes to self-government. As domestic dependent nations, Indian tribes exercise inherent sovereign powers over their members and territory. The United States continues to work with Indian tribes on a government-to-government basis to address issues concerning Indian tribal self-government, tribal trust resources, and Indian tribal treaty and other rights.

(c) The United States recognizes the right of Indian tribes to self-government and supports tribal sovereignty and self-determination.

Sec. 3. Policymaking Criteria. In addition to adhering to the fundamental principles set forth in section 2, agencies shall adhere, to the extent permitted by law, to the following criteria when formulating and implementing policies that have tribal implications:

(a) Agencies shall respect Indian tribal self-government and sovereignty, honor tribal treaty and other rights, and strive to meet the responsibilities that arise from the unique legal relationship between the Federal Government and Indian tribal governments.

(b) With respect to Federal statutes and regulations administered by Indian tribal governments, the Federal Government shall grant Indian tribal governments the maximum administrative discretion possible.

(c) When undertaking to formulate and implement policies that have tribal implications, agencies shall:

(1) encourage Indian tribes to develop their own policies to achieve program objectives;

(2) where possible, defer to Indian tribes to establish standards; and

(3) in determining whether to establish Federal standards, consult with tribal officials as to the need for Federal standards and any alternatives that would limit the scope of Federal standards or otherwise preserve the prerogatives and authority of Indian tribes.

Sec. 4. *Special Requirements for Legislative Proposals.* Agencies shall not submit to the Congress legislation that would be inconsistent with the policy-making criteria in Section 3.

Sec. 5. *Consultation.* (a) Each agency shall have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications. Within 30 days after the effective date of this order, the head of each agency shall designate an official with principal responsibility for the agency's implementation of this order. Within 60 days of the effective date of this order, the designated official shall submit to the Office of Management and Budget (OMB) a description of the agency's consultation process.

(b) To the extent practicable and permitted by law, no agency shall promulgate any regulation that has tribal implications, that imposes substantial direct compliance costs on Indian tribal governments, and that is not required by statute, unless:

(1) funds necessary to pay the direct costs incurred by the Indian tribal government or the tribe in complying with the regulation are provided by the Federal Government; or

(2) the agency, prior to the formal promulgation of the regulation,

(A) consulted with tribal officials early in the process of developing the proposed regulation;

(B) in a separately identified portion of the preamble to the regulation as it is to be issued in the **Federal Register**, provides to the Director of OMB a tribal summary impact statement, which consists of a description of the extent of the agency's prior consultation with tribal officials, a summary of the nature of their concerns and the agency's position supporting the need to issue the regulation, and a statement of the extent to which the concerns of tribal officials have been met; and

(C) makes available to the Director of OMB any written communications submitted to the agency by tribal officials.

(c) To the extent practicable and permitted by law, no agency shall promulgate any regulation that has tribal implications and that preempts tribal law unless the agency, prior to the formal promulgation of the regulation,

(1) consulted with tribal officials early in the process of developing the proposed regulation;

(2) in a separately identified portion of the preamble to the regulation as it is to be issued in the **Federal Register**, provides to the Director of OMB a tribal summary impact statement, which consists of a description of the extent of the agency's prior consultation with tribal officials, a summary of the nature of their concerns and the agency's position supporting the

need to issue the regulation, and a statement of the extent to which the concerns of tribal officials have been met; and

(3) makes available to the Director of OMB any written communications submitted to the agency by tribal officials.

(d) On issues relating to tribal self-government, tribal trust resources, or Indian tribal treaty and other rights, each agency should explore and, where appropriate, use consensual mechanisms for developing regulations, including negotiated rulemaking.

Sec. 6. Increasing Flexibility for Indian Tribal Waivers.

(a) Agencies shall review the processes under which Indian tribes apply for waivers of statutory and regulatory requirements and take appropriate steps to streamline those processes.

(b) Each agency shall, to the extent practicable and permitted by law, consider any application by an Indian tribe for a waiver of statutory or regulatory requirements in connection with any program administered by the agency with a general view toward increasing opportunities for utilizing flexible policy approaches at the Indian tribal level in cases in which the proposed waiver is consistent with the applicable Federal policy objectives and is otherwise appropriate.

(c) Each agency shall, to the extent practicable and permitted by law, render a decision upon a complete application for a waiver within 120 days of receipt of such application by the agency, or as otherwise provided by law or regulation. If the application for waiver is not granted, the agency shall provide the applicant with timely written notice of the decision and the reasons therefor.

(d) This section applies only to statutory or regulatory requirements that are discretionary and subject to waiver by the agency.

Sec. 7. Accountability.

(a) In transmitting any draft final regulation that has tribal implications to OMB pursuant to Executive Order 12866 of September 30, 1993, each agency shall include a certification from the official designated to ensure compliance with this order stating that the requirements of this order have been met in a meaningful and timely manner.

(b) In transmitting proposed legislation that has tribal implications to OMB, each agency shall include a certification from the official designated to ensure compliance with this order that all relevant requirements of this order have been met.

(c) Within 180 days after the effective date of this order the Director of OMB and the Assistant to the President for Intergovernmental Affairs shall confer with tribal officials to ensure that this order is being properly and effectively implemented.

Sec. 8. Independent Agencies. Independent regulatory agencies are encouraged to comply with the provisions of this order.

Sec. 9. General Provisions. (a) This order shall supplement but not supersede the requirements contained in Executive Order 12866 (Regulatory Planning and Review), Executive Order 12988 (Civil Justice Reform), OMB Circular A-19, and the Executive Memorandum of April 29, 1994, on Government-to-Government Relations with Native American Tribal Governments.

(b) This order shall complement the consultation and waiver provisions in sections 6 and 7 of Executive Order 13132 (Federalism).

(c) Executive Order 13084 (Consultation and Coordination with Indian Tribal Governments) is revoked at the time this order takes effect.

(d) This order shall be effective 60 days after the date of this order.

Sec. 10. *Judicial Review.* This order is intended only to improve the internal management of the executive branch, and is not intended to create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law by a party against the United States, its agencies, or any person.

William Clinton

THE WHITE HOUSE,
November 6, 2000.

[FR Doc. 00-29003
Filed 11-8-00; 8:45 am]
Billing code 3195-01-P

Millennium Agreement

between the
Federally Recognized
Sovereign Tribes of Alaska
and the State of Alaska

I. PREAMBLE

1. Tribes exist in Alaska. Since time immemorial, indigenous peoples have lived on their land in organized societies and distinct traditional cultures with their own forms of autonomous sovereign government that predate the United States and the State of Alaska.
2. This AGREEMENT, dated April 11, 2001, is executed between each of the federally recognized sovereign Tribes of Alaska that are signatory to this AGREEMENT (hereinafter the “Tribes”), through their Tribal Governments, and the State of Alaska, through its Governor, in order to better achieve mutual goals through an improved relationship between their governments. This AGREEMENT provides a framework for the establishment of lasting government-to-government relationships and an implementation procedure to assure that such relationships are constructive and meaningful and further enhance cooperation between the parties.
3. Each party to this AGREEMENT acknowledges the sovereignty of the others. The parties share particular respect for the values and cultures of Alaska’s indigenous peoples. Further, the parties share a desire for an agreement between the State of Alaska and the Tribes that reflects full government-to-government relationships.
4. The parties desire that this AGREEMENT between the Tribes and the State of Alaska be strong enough to withstand the test of time and ensure fair treatment of both the Tribes and the State of Alaska.

II. PARTIES

5. The parties to this AGREEMENT are the State of Alaska and the signatory Tribes.
6. As of the date of this AGREEMENT, there are 229 federally recognized Tribes in the State of Alaska. Each Tribe is a unique government with different management and decision-making structures and distinct customs, traditions, practices, and values.

7. The State of Alaska is organized into three branches of government: executive, legislative, and judicial. The executive branch is divided into principal departments under the authority of the Governor.

III. GUIDING PRINCIPLES

8. The following guiding principles shall facilitate the development of government-to-government relationships between the Tribes and the State of Alaska:
 - (a) The Tribes have the right to self-governance and self-determination. The Tribes have the right to determine their own political structures and to select their Tribal representatives in accordance with their respective Tribal constitutions, customs, traditions, and laws.
 - (b) The government-to-government relationships between the State of Alaska and the Tribes shall be predicated on equal dignity, mutual respect, and free and informed consent.
 - (c) As a matter of courtesy between governments, the State of Alaska and the Tribes agree to inform one another, at the earliest opportunity, of matters or proposed actions that may significantly affect the other.
 - (d) The parties have the right to determine their own relationships in a spirit of peaceful co-existence, mutual respect, and understanding.
 - (e) In the exercise of their respective political authority, the parties will respect fundamental human rights and freedoms.

IV. PURPOSES

9. This AGREEMENT confirms the commitment by the parties to overcome any and all impediments to a more constructive dialogue and to implement government-to-government relationships. The objectives of this AGREEMENT include (1) enhancing and improving communication between the parties, (2) facilitating the resolution of issues to avoid potentially adverse effects on any party, and (3) working toward greater public recognition, respect, and support for Tribal self-governance and self-determination.
10. This AGREEMENT is intended to build confidence among the parties in the government-to-government relationships by outlining a process for its implementation. It is also intended to solidify such relationships within the respective political structures of the parties. The parties will strive to reinforce the government-to-government relationships through consultation and agreement on matters of mutual concern. This AGREEMENT does not, in itself, address substantive issues.
11. The parties commit to the full implementation, effectiveness, and permanence of this AGREEMENT. The parties further commit, through these government-to-government relationships, to provide more efficient, improved, and beneficial services to all Alaskans and, in particular, to Tribal members/citizens. This AGREEMENT provides the foundation and framework for further and more specific agreements between two or more of the parties outlining methods, mechanisms, and policies to address and resolve matters of concern to the Tribes.
12. In furthering the objective of positive government-to-government relationships, the State of Alaska acknowledges that:

- (a) Each Tribe has its own independent form of government and exercises inherent sovereign authority;
 - (b) Actions undertaken by the State of Alaska in relation to the Tribes must be implemented in an informed and sensitive manner, respectful of Tribal sovereignty and Alaska Native traditional and cultural values, beliefs, and principles; and
 - (c) The development of strong, reliable government-to-government relationships between the State of Alaska and the Tribes will be beneficial to all Alaskans.
13. In furthering the objective of positive government-to-government relationships, the Tribes acknowledge that:
- (a) The State of Alaska operates under the authority given by the United States Constitution, the Alaska Constitution, and state laws and regulations;
 - (b) The State of Alaska has a major responsibility to provide for the health, safety, and welfare of all Alaskans;
 - (c) Actions taken by the Tribes that affect or may affect non-Tribal members must be implemented in an informed and sensitive manner, respectful of individual rights; and
 - (d) The development of strong, reliable government-to-government relationships between the Tribes and the State of Alaska will benefit all Alaskans.
14. The parties recognize that implementation of this AGREEMENT requires a comprehensive educational effort to promote understanding of the government-to-government relationships within their own governmental organizations and with the general public.

V. IMPLEMENTATION PROCESS AND RESPONSIBILITIES

15. This AGREEMENT commits the parties to the following tasks:

A. Accountability, Education, and Consultation

16. The parties shall ensure that officials working to resolve issues of mutual concern will act in a manner consistent with the spirit, intent, and purposes of this AGREEMENT. Each Tribe and the State shall develop an effective process to permit representatives of the other to provide meaningful and timely input on matters that significantly or uniquely affect that government. Consultations carried on in application of this AGREEMENT shall be undertaken in good faith and in a form appropriate to the circumstances. In working to resolve these issues of mutual concern, the parties will strive to achieve consensus, agreement, or mutual consent.
17. The Governor has designated his chief of staff to be responsible and accountable for the State of Alaska’s implementation of this AGREEMENT, including interdepartmental coordination. State department heads are accountable to the Governor through the chief of staff for the related services and activities of their respective departments.
18. The Office of the Governor will assist the chief of staff in implementing this AGREEMENT by providing State department heads with information to educate their employees and constituent groups about the requirements of, and principles for, upholding the government-to-government relationships.

19. Each Tribe also recognizes that a system of responsibility and accountability within its governmental departments is essential to successful implementation of this AGREEMENT, and each Tribe will designate an official to be responsible and accountable for its own implementation of this AGREEMENT.
20. As a component of the system of responsibility and accountability within the State and Tribal governments, the parties will review and evaluate the implementation of the provisions of this AGREEMENT at the annual meeting of the State-Tribal Forum, described in Paragraph 21 below. Authors selected by both the Tribes and the State of Alaska will prepare a management report summarizing this evaluation; the report will include mutually acceptable strategies and agreements to outline tasks, overcome obstacles, and achieve specific goals.

B. State-Tribal Forum

21. The parties recognize the need for ongoing dialogue, at the highest level, between the Tribes and the State of Alaska. Therefore, a permanent State-Tribal Forum will be established to initiate and maintain such dialogue. The State-Tribal Forum shall include Tribal government political leaders or their designees and the Governor or his designee and appropriate cabinet officials. The Governor will invite the participation of representatives from the legislative and judicial branches of state government to enhance their participation in the process of creating government-to-government relationships between the State of Alaska and the Tribes. The State-Tribal Forum shall be held at least once annually.
22. The parties to this AGREEMENT will set a date for the first State-Tribal Forum within 60 days of the initial signing of this AGREEMENT.
23. At the first State-Tribal Forum following execution of this AGREEMENT, the parties shall establish "working groups" in order to facilitate interdepartmental dialogue and coordination with Tribal government representatives on issues that are relevant to more than one State department or agency. The working groups shall meet at least twice a year and report annually to the Governor and the Tribes at the State-Tribal Forum.

C. Oversight Office, Council, or Commission

24. The parties recognize the need for a centralized office, council, or commission to oversee Tribal-State relations. The functions of this body shall include, but not be limited to, the following:
 - (a) Review, monitor, and recommend policies on issues related to Tribal-State relations;
 - (b) Work toward greater understanding, tolerance, sensitivity, and awareness among Alaska's peoples and between Tribal and State government officials and representatives;
 - (c) Compile and disseminate information about Tribal and State government services;
 - (d) Develop and sponsor programs to inform Tribal members/citizens and non-Tribal citizens of the services available to them and to make Tribal needs and concerns known to the public and private agencies whose programs and activities serve or affect them;
 - (e) Encourage and support public and private agencies to expand and improve their services for Tribal members/citizens;

- (f) Assess effects of state programs on Tribes and Tribal members/citizens and make recommendations to the appropriate agencies, as well as periodic follow-up of such agencies and programs;
 - (g) Promote increased participation by Tribal members/citizens in State government affairs; and
 - (h) Report to the Tribes, the Governor, and the Alaska State Legislature on all matters of concern under the AGREEMENT.
25. In order to develop such an office, council, or commission, the parties shall establish a temporary committee for the sole purpose of researching and developing proposals or guidelines for how such a body may be constituted, structured, and governed. The committee will be comprised of no less than four State officials and four Tribal officials. The committee will complete its recommendations within 90 days of the initial signing of this AGREEMENT. The committee will seek public comment before finalizing its recommendations. The parties agree that efforts will be made to consult with State legislators in order to increase, improve, and enhance legislative participation in Tribal-State relations.

D. Procedures, Protocols, and Key Contacts

26. The parties recognize that there is a need to develop mechanisms for ongoing clear, consistent, and direct dialogue between the Tribes and State departments on a variety of issues in order to give full effect to the government-to-government relationships.
27. Cabinet officials, in consultation with Tribal Government leaders or their designees, will establish protocols and procedures within their respective agencies to implement this AGREEMENT. These protocols and procedures should ensure mutual consultation on matters that significantly affect concerned parties. Once these protocols and procedures have been adopted, all supervisory and management-level employees in State departments shall be informed of their provisions.
28. Tribal governments are encouraged to share their current tribal structures, methods of decision-making, procedures, and the names of relevant tribal personnel with the State.
29. Each party shall identify “key contacts” in its respective government for coordination between the State of Alaska and the Tribes to ensure the promotion of dialogue between State departments and the Tribes.

E. Coordination of AGREEMENT Implementation

30. The parties agree to work with the Alaska Inter-Tribal Council (AI-TC) to provide logistical support, coordination, and facilitation of meetings of the parties.

VI. SOVEREIGNTY AND DISCLAIMERS

31. In executing this AGREEMENT, no party waives any rights, including treaty rights, immunities, sovereign immunities, or jurisdiction it may possess. This AGREEMENT in no way diminishes any rights or protections afforded any persons or entities, whether parties or

not, under applicable tribal, state, federal, or international law. Through the provisions of this AGREEMENT the parties strengthen their collective ability to successfully address and resolve issues of mutual concern. This agreement is a policy directive and does not create legally binding or enforceable rights. By signing this AGREEMENT no party is making an admission, nor may this document be used in any court of law.

32. The government-to-government relationships between the Tribes and the State of Alaska shall in no way alter or diminish the unique relationship that Tribal governments have with the federal government or any other government.

VII. RESOLUTION OF DISPUTES AND AMENDMENTS

33. Conflicts or disputes between parties pertaining to the meaning, interpretation or methodology of this AGREEMENT will be brought before the State-Tribal Forum for resolution.
34. Each Tribe has the right to elevate an issue of importance to any executive decision-making authority of the State of Alaska. The State of Alaska has the right to elevate an issue of importance to any decision-making authority of the Tribe concerned.
35. Any signatory party may propose amendments to this AGREEMENT. Proposed amendments must be presented to the State-Tribal Forum at its next meeting for discussion before circulation to all parties. The party proposing the amendment is responsible for circulating the amendment to all signatories. Each party shall have ninety days from circulation to approve the proposed amendment by resolution or otherwise. The proposed amendment takes effect only if approved by all parties responding.

VIII. SIGNATORIES AND PARTICIPATION

36. The parties encourage Tribes that are not initial signatories to this AGREEMENT to join in as subsequent signatories with full rights of participation in its implementation.
37. A party may withdraw its participation from this AGREEMENT upon 90 days written notice to all other parties to the AGREEMENT.
38. All signatories shall promote respect for and full realization of the provisions of this AGREEMENT. The initial signatory parties have executed this AGREEMENT on this 11th day of April 2001, and have agreed to be duly bound by its commitments.



Memorandum

SENT BY ELECTRONIC MAIL

Subject: **INFORMATION:** Consultation with Indian Tribal Governments on Federal-aid Projects

Date: October 24, 2001

Original signed by:

From: Cynthia J. Burbank, Program Manager
Planning and Environment

In Reply Refer To:
HEPH

To: Bill Jones
Division Administrator
Colorado Division

We have received your October 2, 2001, memorandum regarding consultation with Indian tribal governments. Colorado Department of Transportation's (CDOT) involvement and consultation with tribes is consistent with the FHWA Interim Guidance issued on November 9, 2000.


While the Interim Guidance states that the responsibility to initiate and carry out consultation cannot be delegated, it also states that FHWA may rely on the State DOTs to carry out day-to-day and project specific consultation, with the agreement of affected Indian tribes.

The provision in 36 CFR 800.2(c)(4) which allows FHWA to authorize CDOT to initiate consultation is one instance where FHWA would rely on the State DOT to carry out project specific consultation.

The FHWA cannot delegate its government-to-government responsibility and overall consultation and coordination responsibilities duties. The United States has a unique legal relationship with Indian tribal governments as set forth in the Constitution, treaties, statutes, Executive Order and court decisions – a relationship that States do not have with tribal governments. However, the arrangement that you have entered is not a delegation of Federal responsibilities.

The division office as part of FHWA's government-to-government relationship, and consultation and coordination, should discuss the Federal-aid program, the division office role, and the State role with interested tribal governments to ensure tribe's needs are appropriately considered. This is particularly important in statewide planning as required under 23 USC 135(d) and (f).

We concur in this procedure that ensures tribes have opportunity to provide input on projects that affect them. Your memo indicates that the division office continues to provide program oversight and monitoring and would take the lead responsibility back should any tribal representative not accept the current arrangement. With these oversight mechanisms in place, we think this is an acceptable and appropriate arrangement.

	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES		POLICY AND PROCEDURE NUMBER 01.03.010	PAGE 1 of 5
	Policy and Procedure			EFFECTIVE DATE 3/18/02
SUBJECT Government-To-Government Relations with the Federally-Recognized Tribes of Alaska		SUPERSEDES New	DATED	
TITLE Commissioner's Office	CHAPTER Interagency/Intra- Agency Actions	APPROVED BY		

PURPOSE

This policy reinforces government-to-government relationships between the Department of Transportation and Public Facilities (department) and the tribes in Alaska through consultation on significant matters of mutual concern.

This policy provides guidance to all employees of the department involved in any departmental action(s) that significantly or uniquely affect a tribe in Alaska, and pertaining to any tribal action that significantly or uniquely affects this department. It also reinforces the foundation for establishing and maintaining effective government-to-government communications between the department and the tribes in Alaska, and promotes consultation and coordination with these tribes, with the goal of ensuring that the Department conducts consultation in a culturally sensitive manner.

POLICY

The department is committed to consulting with tribes in Alaska as early in the department's decision-making process as practicable, and as permitted by law, prior to taking action or undertaking activities that significantly or uniquely affect a tribe. Department actions shall favor maximum participation of the affected tribes(s), with the goal of achieving informed decision-making through mutual consultation.

PROCEDURE

Responsibilities, Process, and Protocols

To ensure that the department's processes and procedures throughout all of Alaska are generally uniform and consistent, while maintaining necessary flexibility, the department will adhere to the following steps when consulting with a tribe:

1. Notice to Affected Tribe The department will make a good faith effort to notify a tribe, at the earliest practicable time, of any proposed departmental actions that significantly or uniquely affect the tribe. When circumstances permit, the department will afford the tribe reasonable time to respond to any notification and to participate

in consultation with the department. Consultation will be initiated as early in the decision-making process as practicable. Consultation will continue throughout the department's decision-making process except where expressly prohibited by law. If the department determines that any state or federal law expressly prohibits continued consultation at a specified point in the decision-making process, the department will so inform the tribe at the outset of the consultation process, or as soon as possible after the department becomes aware of the prohibition. The department is not obligated to notify a tribe of any departmental actions identified in the Exclusions provision.

2. Dissemination of Information At the outset of the consultation process, prior to the first consultation meeting, the department will provide the affected tribe(s) with sufficient information about the proposed action(s) to ensure that the tribe(s) can properly assess and respond to such proposed action(s).
3. Identification of the Participants The department and the affected tribe(s) will identify their respective representatives for the consultation process. The department will work with the tribal representative(s) of the affected tribe(s) to identify any other affected tribes that should be involved in the consultation.
4. Authorized Initiators Any member of the department with decision-making authority regarding an action that significantly or uniquely affects a tribe(s) is authorized to initiate a request for consultation with the affected tribe(s). The department will likewise accept an unsolicited request for consultation from any representative of a tribe who has decision-making authority on behalf of that tribe. The department member will provide timely notification to the department's "Key Contact" regarding any consultation.
5. Consultation Process Consultation will incorporate processes for ongoing communications between the parties that will be established by mutual agreement whenever possible. The department will, at the beginning of the consultation, work with the affected tribe(s) to develop a mutually agreed upon list of participants, establish a timeline, and establish the method and frequency of communication to be used during the consultation. At the conclusion of the consultation the department will notify the tribe(s) of any final decisions on a proposed action within a reasonable time period and prior to the time that the decision takes effect, unless extraordinary or emergency circumstances preclude it.
6. Tribal Request for Consultation The department will maintain a list of its "Key Contacts" and will provide a copy of this list to the tribes. This list will include any information that the tribes may need to contact the "Key Contacts." Any time a tribe desires to request government-to-government consultation regarding a matter that significantly or uniquely affects the tribe, or to notify the department of any tribal action that significantly or uniquely affects the department, the tribe should provide one of the "Key Contacts" with this information.
7. Inter-departmental Cooperation The department will work cooperatively with other state agencies, and as appropriate, with other federal agencies, to accomplish the goals and responsibilities outline within this policy. Requests for consultation that

are determined to be outside of the department's jurisdiction will be referred to the appropriate "Key Contact" of another state department.

8. Working Group Participation The department recognizes the importance of participating in the Working Groups established within the State-Tribal Forum to facilitate meaningful dialogue between the departments and the tribes regarding issues of mutual concern, as well as inter-departmental communication on issues that are relevant to more than one state department or agency. The department will make a good faith effort to ensure that its "Key Contacts" actively participate in all meetings of any Working Group that includes the department.
9. Exclusions The department has an obligation to enforce the statutes and regulations of the State of Alaska and to provide services that protect the safety and wellbeing of its peoples. Departmental activities relating to actual or suspected violations of state law, or to criminal investigations or initiation of the criminal justice process, civil law enforcement investigations, initiation of the civil law enforcement process, or civil litigation are exempt from this policy. Nothing in this policy is intended to prohibit communication between authorized representatives of parties in litigation.

General Provisions:

1. This policy is intended to assure consistency within the different divisions and offices of the department and to improve the internal management of the department.
2. This policy clarifies the department's protocol for consulting with federally-recognized tribes in Alaska in a government-to-government relationship.
3. This policy will be effective upon signature of the Commissioner of the Department of Transportation and Public Facilities.
4. This policy is not intended to expand, contract, or otherwise diminish or limit the sovereignty held by the state or any federally-recognized tribe in Alaska.

Definitions: For the purposes of this Policy:

1. "Tribe" means any tribe in Alaska that is on the list of federally-recognized tribes published by the federal Bureau of Indian Affairs.
2. "Consultation" means the timely process of meaningful inter-government dialogue between departmental divisions and/or offices and federally-recognized tribes in Alaska regarding a proposed departmental action(s) that significantly or uniquely affects a tribe(s). When assessing what action will be subject to consultation, the department shall take into account the cultural and traditional activities of the tribe that could be significantly or uniquely affected by the proposed action, as well as any relevant state and/or federal law. "Consultation" may take place by in-person meeting, teleconference, videoconference, and exchange of written documents, e-mail, or other means appropriate to the circumstances.

3. "Departmental Action" means any proposed actions, activities, decisions, legislation submitted by the Governor to the Legislature, development of regulations, plans, policy, procedures, programs, projects, services, or other actions that significantly or uniquely affect a tribe in Alaska other than those described below under the Exclusions provision.
4. "Department" means the State of Alaska, Department of Transportation and Public Facilities and its divisions and regions, including offices, officials, and/or employees.

AUTHORITY

Administrative Order 186

IMPLEMENTATION RESPONSIBILITY

Regional and Headquarter Directors

DISTRIBUTION

All holders of the DOT/PF Policy and Procedures Manual.

State of Alaska
Department of Transportation and Public Facilities

REQUEST FOR CONSULTATION

Tribe:

Tribal Representative:

DOT/PF Representative:

Requestor:

Date of Request:

Narrative-Departmental Action:

Narrative-How does this action significantly affect the Tribe(s), or the State of Alaska - Department of Transportation and Public Facilities?

Consultation Participants:

Time line, frequency, method of consultation: How long, how many times to meet, by conference call, meeting in person, etc.

Outcome: Decision made, solutions, referral, rejected, etc.

Notification to Tribe of Outcome: To whom, what format; letter, phone call, date-time.

**Template for Tribal Section 106 Consultation Initiation Letters
August 27, 2004**

Template instructions:

- Word Document; 1” borders on all borders; Times New Roman; 12 pt font; left justified; single line spacing; no headers, footers, tabs, page numbers, or dates.
- Prepare draft letter using following format.
- Contact each tribal entity by telephone to confirm the name, title and address of current leadership.
- Do not provide distribution list as a separate document.
- A completed Project Consultation Options form is to be included with each Tribal Consultation Initiation letter; the appropriate number of forms will vary on project-by-project basis.
- Regional Environmental Coordinator reviews the letter for sufficiency and transmits an electronic file version along with the Project Consultation Options form to the appropriate FHWA representative.
- Forward to FHWA the appropriate number of complete hard copy sets of any referenced enclosures for all parties in the Distribution List and one complete hard copy set for the FHWA.

[Fed/State Project #] [Right Justified]

See Distribution List

Subject: **[Project name]**, Initiation of Consultation pursuant to Section 106 of the National Historic Preservation Act

The Alaska Department of Transportation and Public Facilities (AKDOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to **[Describe the proposed project; indicate its location by reference to the section(s), township(s), range(s), Meridian, and USGS topographical map; and reference and provide at least one figure that illustrates the APE (as discussed below)]**.

For purposes of the National Historic Preservation Act, we are initiating this consultation to assist us in identifying places that may be of traditional religious and cultural importance to your tribal organization. Please note that we are requesting information only on such places that you believe may be impacted by the proposed project so that we may try to avoid impacts. We would be pleased to discuss with you any confidential concerns you may identify and discuss project details.

Alternatives currently under consideration by AKDOT&PF include **[define alternatives; one build alternative will be fine if the project is a CE; or just say that you don't know the full range of alternatives if you are early in the project development stage]**.

[Define Area of Potential Effect (APE) and provide appropriate illustrations or figures. Depending on the scope of the project, it may be possible to include the APE on the earlier referenced figure.]

[Discuss what the current Alaska Heritage Resources Survey list indicates and, if available, include other information pertaining to known properties/sites in the APE.]

[Discuss identification efforts (i.e., literature, reconnaissance, intensive, or any combination of these), if any, and who and when AKDOT/PF intends to employ them.]

If you wish to provide comments related to this proposed project, please contact **[Name and Title of appropriate FHWA representative]**, at the address above, at 907-586-[xxxx], or by e-mail at [xxxx]; or please feel free to contact me directly.

In addition, I encourage you to include the AKDOT&PF in your response so that your comments and concerns may be immediately directed to project development. The AKDOT&PF point of contact for this project is:

[Left indent point of contact]

Name/Regional Environmental Coordinator
Alaska Department of Transportation and Public Facilities
Address, phone and email contact information

Your timely response will greatly assist us in incorporating your concerns into project development. For that purpose, we respectfully request that you complete the enclosed Project Consultation Options form and forward it to the FHWA within thirty days of your receipt of this correspondence.

[Left indent signature block]

Sincerely,

David C. Miller
Division Administrator

Enclosures:

[Left indent, and list enclosures (do not say “as stated”)]

Project Consultation Options form

cc w/o enclosures:

[Left indent]

[Name, AKDOT&PF (Identify Region), Project Manager]

[Name, AKDOT&PF (Identify Region), Regional Environmental Coordinator]

Laurie Mulcahy, AKDOT&PF HQ, Environmental Program Manager

Distribution List:

[List all appropriate tribal parties (which includes native villages, village corporations, and regional corporations as defined by ANCSA section 3) and include the full name and title of each entity’s designated leader as well as the complete address for each party].

**List of Federal-Tribal Consultation and Coordination Policies,
Documents, and Executive Orders**
September 2004

1. *Presidential Documents*

President Clinton: Government-to-Government Relations with Native American Tribal Governments. May 1994
<http://www.epa.gov/indian/clinton.htm>

President Bush: Statement by the President Reaffirming the Government-to-Government Relationship Between the Federal Government and Tribal Governments. June 14, 1991
<http://www.epa.gov/indian/pdfs/bush91.pdf>

President Reagan: American Indian Policy. January 24, 1983
<http://www.epa.gov/indian/pdfs/reagan83.pdf>

President Nixon: President Nixon's Special Message on Indian Affairs. July 8, 1970.
<http://www.epa.gov/indian/pdfs/nixon70.pdf>

2. *Executive Orders*

EO 13175 on Consultation and Cooperation with Tribal Governments – November 6, 2000.
<http://www.epa.gov/indian/pdfs/13175.pdf>

EO 13007 on Sacred Sites (May 1996)
<http://www.worldnetdaily.com/resources/govdocs/eos/eo13007.html>

3. *Departmental/Agency Tribal Policies*

USDA Policies on American Indians and Alaska Natives
<http://www.usda.gov/news/pubs/indians/appenb.htm>

U. S. Department of Defense American Indian and Alaska Native Policy. October 28, 1998.
<http://www.denix.osd.mil/denix/Public/Native/Outreach/policy.html>

Department of the Navy Policy For Consultation With Federally-Recognized Tribes
http://neds.nebt.daps.mil/Directives/11010_14.pdf

DOD American Indian and Alaska Native Policy Alaska Implementation Guidance
Copy available from Alaskan Command by calling 907/552-2769

U.S. Department of Energy American Indian and Alaska Native Tribal Government Policy.
October 2000

<http://www.ci.doe.gov/indianbk.pdf>

U.S. EPA Policy for the Administration of Environmental Programs on Indian Reservations.
November 8, 1984

<http://www.epa.gov/indian/1984.htm>

U.S. EPA-Region 10 Tribal Consultation Framework
U.S. EPA-Region 10 Strategic Plan for Tribal Programs. August 1999
Go to U.S. EPA Region 10 Tribal Homepage

U.S. EPA Region 8 Policy for Environmental Protection in Indian Country

<http://www.epa.gov/region8/tribes/policy.html>

Guide on Consultation and Collaboration with Indian Tribal Governments and the Public
Participation of Indigenous Groups and Tribal Members in Environmental Decision Making
EPA/300-R-00-009 November 2000

http://www.epa.gov/Compliance/resources/publications/ej/ips_consultation_guide.pdf

Federal Emergency Management Agency (FEMA) Final Agency Policy for Government-to-
Government Relations with American Indian and Alaska Native Tribal Governments

<http://www.fema.gov/library/natamerpolicy.shtm>

U.S. DHHS Indian Health Service Circular No. 9707. Tribal Consultation and Participation
Policy. July 25, 1997

<http://www.hhs.gov/iga/tribal/9707.html>

American Indian/Alaska Native Consultation Plan. May 2001
Agency for Healthcare Research and Quality, Rockville, MD

<http://www.ahrq.gov/about/tribalplan.htm>

Department of Housing and Urban Development Tribal Government-to-Government Consultation
Policy. June 28, 2001 Updated August 17, 2001

http://www.hud.gov/offices/pih/ih/regs/govtogov_tcp.cfm

Department of Interior Bureau of Indian Affairs Government-to-Government Consultation Policy
December 13, 2000

<http://www.doi.gov/oait/docs/g2gpolicy.htm>

U.S. DOI--Advisory Memorandum from Assistant Secretary – Indian Affairs re: Guidance on
Federal/Tribal Government-to-Government Policy. February 24, 1995

<http://www.doi.gov/oait/docs/guiddoc.htm>

U.S. Fish and Wildlife Service Native American Policy. June 28, 1994
http://policy.fws.gov/npi94_10.html

National Park Service Director's Order #71: Relationships with American Indians and Alaska Natives
Comment period closed 9/14/99
<http://www.nps.gov/refdesk/DOrders/DOrder71-rev.html>

National Park Service American Indian Liaison Office
<http://www.cr.nps.gov/ailo/ailohome.htm>

U.S. Department of the Interior. General Procedural Guidance for Native American Consultation. H-8610-1.
<http://www.blm.gov/nhp/efoia/wo/handbook/h8160-1.html>

U.S. Geological Survey Manual. Policy on Employee Responsibility Towards American Indians and Alaska Natives. August 14, 1995
<http://www.usgs.gov/usgs-manual/500/500-4.html>

Department of Justice Policy on Indian Sovereignty and Government-to-Government Relations with Indian Tribes
<http://www.usdoj.gov/otj/sovtrb.htm>

U.S. Department of Transportation Programs, Policies, and Procedures Affecting American Indians, Alaska Natives, and Tribes
<http://isddc.dot.gov/OLPFiles/OST/009273.pdf>

Consultation in Indian Affairs: Prepared for the Tribal Leadership Summit on Government-to-Government Relationship and Management of Indian Trust/Natural Resources
November 13-15, 1995 Denver, Colorado @copyright Philip S. DeloriaNative American

Consultation Database (NAGPRA)
http://www.cast.uark.edu/other/nps/nacd/help/nacd_help.html

Advisory Council on Historic Preservation – Consulting with Tribes in the Section 106 Review Process
<http://www.achp.gov/regs-tribes.html>

Agency for Toxic Substances and Disease Registry (ATSDR) Policy on Government-to-Government Relations with Native American Tribal Governments. FR61-42255
ATSDR Consultation and Coordination Policy with Indian Tribal Governments. August 1999. FR99-19677 may be accessed at the following:
<http://atsdr1.atsdr.cdc.gov/tribal/policy.html>

Federal Communications Commission Policy Statement June 23, 2000. Reaffirmation of Principles of Tribal Sovereignty and the Federal Trust Responsibility
<http://www.fcc.gov/Bureaus/OGC/Orders/2000/fcc00207.doc>

American Association of State Highways and Transportation Officials, Tribal Consultation. AASHTO Center for Environmental Excellence
http://environment.transportation.org/environmental_issues/tribal_consultation/overview.htm

U.S. DOI Indian Policy of the Bureau of Reclamation
<http://www.usbr.gov/native/naao/policies/policy.html>

References for the Indian Policy of the Bureau of Reclamation
<http://www.usbr.gov/native/naao/policies/refer.html>

(1) the amount of any benefits which were not paid during the period beginning with January 1, 2001, and ending with December 31, 2003, under the LTV Steel Supplemental Pension Plan or through the section 4049 trust referred to in subsection (b)(2).

(2) any liability for benefits under the LTV Steel Supplemental Pension Plan or through the section 4049 trust referred to in subsection (b)(2) that were included in the LTV Steel Salaried Defined Benefit Retirement Plan, as in effect on January 1, 1999,

(3) any liability for additional benefits that were included in the LTV Steel Supplemental Pension Plan to compensate for any liability of participants and beneficiaries under chapter 21 of the Internal Revenue Code of 1986 in connection with benefits payable under such Plan, and

(4) any liability under the LTV Steel Supplemental Pension Plan for temporary supplements.

(d) **TIMING AND APPLICATION OF DETERMINATIONS.**—Determinations of the increase in liability pursuant to subsection (b) shall be made as of December 31, 2003, using the mortality and interest assumptions otherwise applicable to plan terminations under title IV of the Employee Retirement Income Security Act of 1974 on such date. The recomputation under this section shall apply only with respect to benefits payable after such date.

SEC. 158. In addition to amounts appropriated or otherwise made available in other Acts, \$9,692,000 is hereby appropriated to the Department of Defense Family Housing Improvement Fund, to remain available until expended, for family housing initiatives undertaken pursuant to the provisions of subchapter IV of chapter 169, title 10, United States Code: Provided, That such funds shall be available to cover the costs, as defined in section 502(5) of the Congressional Budget Act of 1974, of direct loans or loan guarantees issued by the Department of Defense pursuant to the provisions of such subchapter: Provided further, That of the funds available in the "Foreign Currency Fluctuations, Construction, Defense" account, \$9,692,000 are rescinded.

SEC. 159. For an additional amount to carry out section 257 of the Help America Vote Act of 2002, \$1,000,000,000, to remain available until expended: Provided, That no more than $\frac{1}{10}$ of 1 percent of funds available for requirements payments under section 257 of the Help America Vote Act of 2002 shall be allocated to any territory.

SEC. 160. (a) DESIGNATION.—The United States courthouse located at 333 Lomas Blvd N.W. in Albuquerque, New Mexico, shall be known and designated as the "Pete V. Domenici United States Courthouse".

(b) Any reference in law, map, regulation, document, paper, or other record of the United States to the United States courthouse referred to in subsection (a) shall be deemed to be a reference to the "Pete V. Domenici United States Courthouse".

SEC. 161. The Director of the Office of Management and Budget shall hereafter consult with Alaska Native corporations on the same basis as Indian tribes under Executive Order No. 13175.

SEC. 162. Notwithstanding any other provision of law, in addition to amounts provided in this or any other Act for fiscal year

APPENDIX I

Tongass Land Use Management Plan

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APPENDIX I

Tongass Land Management Plan

TONGASS LAND USE MANAGEMENT PLAN EXCERPTS

The following are excerpts from the Tongass Land Use Management Plan.

Management Prescriptions

3-71 Municipal Watershed

Glossary

HERITAGE Heritage Resource Activities: HER

Inventory/Evaluation

- A. Develop priorities and schedule management activities to implement heritage resource inventory, evaluation, protection, and interpretation.
 - 1. Identify, classify, and evaluate known Heritage Resources.
 - 2. Identify heritage properties to be nominated to the National Register of Historic Places.
 - 3. Identify heritage properties that require stabilization or other protective measures.
 - 4. Identify opportunities for interpretation of Heritage Resources for public education and enjoyment. Interpretation will generally occur outside the municipal watershed.

KARST AND CAVE Cave Management Program: CAVES

- A. Caves may be made available for general public recreation and education uses, only when compatible with watershed objectives and in consultation with the municipality.
- B. Identify opportunities for interpretation of caves for public education and enjoyment. Interpretation will generally occur outside this Land Use Designation.

LANDS Special Use Administration (Non-Recreation): LAND122

- A. Manage special uses in accordance with the legislation establishing the watershed (if any) and to safeguard the quality and quantity of municipal water supplies. Limit special uses to those which support development activities. Coordinate all proposals with affected municipalities and obtain written concurrence before issuing special-use authorizations. (Consult 36 CFR 251.9, 36 CFR 251.35, and FSM 2700.)
 - 1. Analyze special-use proposals on a case-by-case basis, using an interdisciplinary process, to determine probable effects.
 - 2. Do not permit any activities which would lead to violation of State Drinking Water Regulations or degradation of water quality below State of Alaska Water Quality Standards for water supply.
 - 3. Terminate or bring into conformance, existing uses which are causing violation of State Drinking Water Regulations or degradation of water quality below State of Alaska Water Quality Standards for water supply.
- B. This Land Use Designation represents a Transportation and Utility System (TUS) "Avoidance" Area. Transportation and utility sites and corridors may be located in this Land Use Designation only after an analysis of potential TUS corridors has been completed and no feasible alternatives exist outside this Land Use Designation.

Land Ownership Adjustments: LAND26

- A. Protect municipal interests in land adjustment decisions. Unless otherwise prohibited by law, encourage actions which result in the affected municipality owning the land.
 - 1. Dispose of lands only when allowed to by applicable legislation.
 - 2. When disposal is contemplated, involve the affected municipality early in the process.
 - 3. Encourage state land selections under the Statehood Act for subsequent transfer to the municipal governing body.
 - 4. If legislation allows, consider exchange of these lands with the affected.

APPENDIX J

Coastal Zone Management Plan

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APPENDIX J

Coastal Zone Management Plan

The Alaska Legislature enacted the Alaska Coastal Management Act (ACMA) on June 4, 1977, (ch 84 SLA 1977), which established the ACMP. In passing the ACMP, the Alaska Legislature noted several issues: waterfront space scarcity, energy resource development impacts, maintaining the fisheries, managing the forest resources, transportation needs and impacts, impacts of mining, impacts of Western culture on Native cultures, providing for the Alaska subsistence lifestyle, geological hazards, changing land ownership patterns, bottom fish, and governmental regulation. To address these issues, the legislature made the following findings about the state's coastal area, which apply as much today as they did in 1977:

- (1) The coastal area of the state is a distinct and valuable natural resource of concern to all the people of the state.
- (2) The demands upon the resources of the coastal area are significant and will increase in the future.
- (3) The protection of the natural and scenic resources and the fostering of wise development of the coastal area are of concern to present and future citizens of the state.
- (4) The capacity of the coastal area to withstand the demands upon it is limited.
- (5) The degree of planning and resource allocation which has occurred in the coastal area has often been motivated by short-term considerations, unrelated to sound planning principles.
- (6) In order to promote the public health and welfare, there is a critical need to engage in comprehensive land and water use planning in coastal areas and to establish the means by which a planning process and management program involving the several governments and areas of the unorganized borough having an interest in the coastal area may be effectively implemented.

In 1978, Alaska adopted the Standards of the Alaska Coastal Management Program at 6 AAC 80 and the Guidelines for District Coastal Management Programs at 6 AAC 85 to implement the ACMP and to implement the finding of the Alaska Legislature. The Coastal Policy Council revised the original Standards and Guidelines in 1979, and ultimately guided the ACMP to final federal approval that same year.

Since ACMP approval in 1979, 33 coastal district plans and 33 areas meriting special attention and special area management plans have been approved. Another significant development occurred in the early 1980s when the coordinated consistency review process was adopted by regulation. The original ACMA did not include a specific process to determine a project's consistency with the statewide standards and coastal district enforceable policies. The regulations at 6 AAC 50, adopted in 1984, created the process for coordinating the permitting and consistency review of a project.

Another set of significant developments occurred in 1994 when the Legislature added a section addressing consistency reviews and included the first of a series of needed reforms in the consistency review process. A new section, AS 46.40.096, "Consistency Reviews and Determinations," was added to identify the key elements of the consistency review process (am § 2 ch 34 SLA 1994). AS 46.40.100(b) was amended to provide procedures for when and how certain parties can petition the Coastal Policy Council (CPC) during an ACMP consistency review (am §§ 3-6 ch 34 SLA 1994). The petitioner could seek CPC review as to whether the petitioner's comments had been fairly considered by the state agency

coordinating the ACMP consistency review, whereupon the CPC could either dismiss the petition or remand the proposed consistency determination to the agency for reconsideration of the petitioner's comments. Another section was added, AS 46.40.094, to provide consistency determinations for phased uses and activities (sec. 8 ch. 38 SLA 1994).

The ACMP has evolved significantly since 1979. Each district coastal management plan, statutory or regulatory revision, or other program amendment that gains state and federal approval is incorporated into the ACMP. Today, two chapters of statutes, three chapters of regulations, 33 coastal district plans, and 33 areas meriting special attention and special area management plans are part of the ACMP.

SECTION 1.2: OBJECTIVES, INTENT, AND APPROACH OF THE ACMP

The legislature set forth at AS 46.40.020 the following objectives for the ACMP, which remain unchanged over its nearly thirty-year life:

- (1) The use, management, restoration, and enhancement of the overall quality of the coastal environment
- (2) The development of industrial or commercial enterprises that are consistent with the social, cultural, historic, economic, and environmental interests of the people of the state
- (3) The orderly, balanced utilization and protection of the resources of the coastal area consistent with sound conservation and sustained yield principles
- (4) The management of coastal land and water uses in such a manner that, generally, those uses which are economically or physically dependent on a coastal location are given higher priority when compared to uses which do not economically or physically require a coastal location
- (5) The protection and management of significant historic, cultural, natural, and aesthetic values and natural systems or processes within the coastal area
- (6) The prevention of damage to or degradation of land and water reserved for their natural values as a result of inconsistent land or water usages adjacent to that land
- (7) The recognition of the need for a continuing supply of energy to meet the requirements of the state and the contribution of a share of the state's resources to meet national energy needs
- (8) The full and fair evaluation of all demands on the land and water in the coastal area

When the legislature addressed the coastal issues it identified in 1978, it developed a comprehensive management program to satisfy the requirements of the Coastal Zone Management Act (CZMA) and as the general solution to managing important coastal resources, and set forth basic program policy in Section 2 of the Alaska Coastal Management Act:

- (1) Preserve, protect, develop, use, and, where necessary, restore or enhance the coastal resources of the state for this and succeeding generations.
- (2) Encourage coordinated planning and decision making in the coastal area among levels of government and citizens engaging in or affected by activities involving the coastal resources of the state.
- (3) Develop a management program which sets out policies, objectives, standards and procedures to guide and resolve conflicts among public and private activities

involving the use of resources which have a direct and significant impact upon the coastal land and water of the state.

- (4) Assure the participation of the public, local governments, and agencies of the state and federal governments in the development and implementation of a coastal management program.
- (5) Utilize existing governmental structures and authorities, to the maximum extent feasible, to achieve the policies set out in this section.
- (6) Authorize and require state agencies to carry out their planning duties, powers and responsibilities and take actions authorized by law with respect to the programs affecting the use of the resources of the coastal area in accordance with the policies set out in this section and the guidelines and standards adopted by the Alaska Coastal Policy Council under AS 46.40.

The articulation of the Program's objectives from 1978 carries through to today. So does the explanation that, while the ACMP is a program of government, the private sector is viewed as a partner in coastal management. This partnership applies to the business community, public interest groups, environmental organizations and rural interests, as well as the public at large. Certainly, the ACMP has environmental goals, but these goals are part of a spectrum of management goals set forth as policies for the program by the legislature.

Continued development of Alaska's coastal resources is vital to both the state and local economies and to national interests as well. Local governments, aside from being closest to coastal issues, are also most familiar with local conditions and have the traditional political right and responsibility to govern local land use on city-owned land within their municipal boundaries. Alaska is little different from other states in this respect. Thus, the reader will note an emphasis on state management and use of coastal resources, with local input on matters of local knowledge and concern. Through this management philosophy, state, local, national, and private goals and aspirations which depend on the use of coastal resources can be met through an open planning and management process where interested parties can be brought together to resolve their differences and eliminate potential conflicts before more serious problems occur.

With this in mind, the legislature called on local governments to prepare plans to govern the use of coastal resources in their areas. At the same time, a state level element was established by the formation of the Alaska CPC. The CPC, made up of state agency and local government officials, provided overall leadership for the program and established the basic guidelines and standards to be used by the local governments in the development of their coastal plans and by state agencies in making coastal permitting and management decisions. While the CPC no longer exists, the ACMP was designed, and continues to operate, as a "networked" program. Rather than establishing its own comprehensive coastal permitting structure, Alaska instead coordinates existing agencies' authorization and permitting authorities and processes to determine whether a given use is consistent with the standards and objectives of the ACMP.

Alaska's program is voluntary at the local level, but the networking process encourages local land use planning, which, coupled with statewide policies, provides coordinated, intergovernmental evaluation of a proposed coastal project. The process involves a partnership between the project review team, the applicant, the coastal districts, the state/federal agencies, and the public. The ACMP thus emphasizes coordination between state, local, national, and private interests in the management and use of coastal resources. The networking approach satisfies Alaska's commitment to manage properly the competing demands upon, preservation of, and sustainable use of its precious coastal resources.

APPENDIX K

British Columbia Transportation Plan

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Opening *up* B.C.



A transportation plan for British Columbia



**BRITISH
COLUMBIA**
MINISTRY OF
TRANSPORTATION



A Transportation Plan to Open Up B.C.

The B.C. government has committed to a significant, provincewide program of transportation investment and revitalization. This commitment is driven and guided by the need to:

- Improve safety and reliability for travellers and businesses.
- Expand B.C. as Canada's trade gateway to the world, through improved ports, airports and border crossings.
- Revitalize B.C.'s economy through a more efficient, cost-effective and competitive transportation system.
- Support B.C.'s communities and their resource industries, tourism and businesses.
- Free up the movement of goods in B.C.
- Expand our transportation infrastructure to meet the needs of a growing population.
- Provide needed investment with no new public debt.

CHEAKAMUS CANYON: Railways are part of a transportation network that helps B.C. export \$30 billion in goods each year.

Why Transportation Infrastructure Is Vital

New jobs and investment depend on revitalized transportation.

B.C.'s transportation network sustains 44 per cent of the province's gross domestic product and supports almost one million jobs directly and indirectly. Maintaining and expanding this network is crucial to increasing investment and jobs in B.C.

Transportation is vital to strong resource and tourism industries

An expanded, well-maintained provincial highway system and improved rail service will help resource industries move their products to market more efficiently.

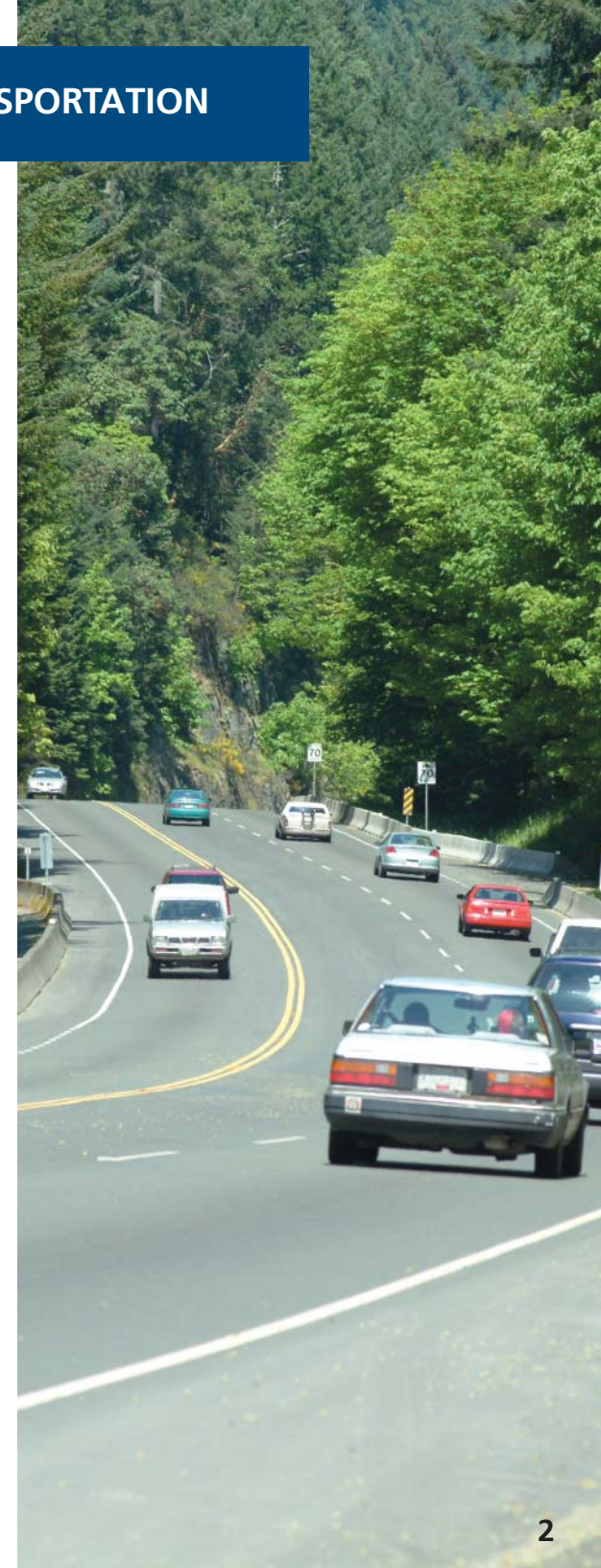
For coastal communities, revitalized and improved ferry service and strategic investments in B.C. ports will fuel new economic opportunities. In Interior communities, improved and expanded regional airports will improve access for local and international tourists.

Transportation makes B.C. a gateway to world markets

To grow as a gateway – to the U.S., Asian markets and the rest of Canada – B.C. must meet the transportation needs of both business and a growing population.

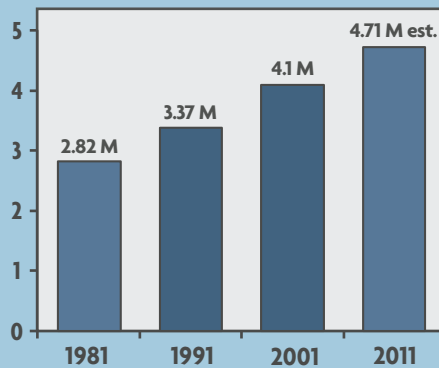
Our goal is an integrated transportation system that moves goods, services and people safely, quickly and economically.

HIGHWAY 1 NEAR DUNCAN: Nearly one million B.C. jobs depend on our transportation network.

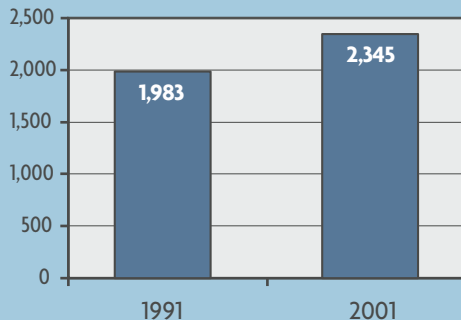


Demand on our transportation network is growing

B.C.'s Population - Up 22% in a Decade
(millions)



B.C. Traffic - Up 18% in a Decade
(thousands of licensed vehicles)



Why B.C. Needs to Invest Now

A vibrant, strong transportation system is vital to economic growth.

B.C. exports more than \$30 billion in goods each year – all of which depend on our transportation network. But we face a number of challenges.

Challenge: Border delays

Delays at our border crossings now cost B.C. truckers an estimated \$60 million a year. This means lost opportunities for producers, higher costs for consumers, and fewer job opportunities.

Challenge: More people on our roads

B.C.'s population has grown 21 per cent in the past decade – from 3.3 million to four million – and is forecast to gain another 620,000 people by 2010. Tourism, which grew 15 per cent between 1994 and 2000, has placed further demands on our existing transportation network.

Challenge: Traffic congestion and gridlock

In the last five years, traffic has increased 14 per cent in Greater Vancouver and seven per cent in the central Okanagan – but the highway capacities in these regions have not changed.

FACT:

In the Lower Mainland alone, traffic congestion now costs our economy as much as \$1.5 billion a year. It also lengthens commuting times, increases energy consumption and reduces air quality. It weakens our competitive position.

Challenge: Roads are aging – the maintenance deficit

Throughout the 1990s, investment in rehabilitating B.C.'s roads was substantially reduced. Our roads aged and carried rapidly increasing amounts of traffic.

The neglect of timely maintenance is costly. B.C. has almost 42,000 kilometres of provincial roads and 2,750 bridges, tunnels and snowsheds.

A decade of neglect has left B.C. with deteriorating infrastructure and bottlenecks that impact public safety and undermine our economic competitiveness.

We must act now. Delay is costly. The longer we wait to carry out necessary maintenance and rehabilitation of our infrastructure, the more expensive it becomes.

FACT:

It costs \$65,000 to re-surface one kilometre of highway after 12 years of use – but the cost rises to \$400,000 if the same stretch is left for just eight more years.

Challenge: Reducing our dependence on our children

The old model of paying for improvements with public debt is no longer sustainable. B.C.'s debt doubled in the 1990s. Interest costs on the debt are now the third greatest expense to government after health and education. They now exceed \$2.6 billion a year.

FACT:

Interest costs on B.C.'s debt will account for enough money to fund the total combined budgets of 13 ministries in 2003-04.

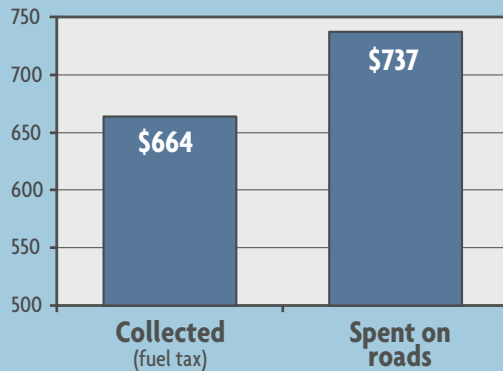
We should not force the costs of our neglect on our children. Our obligation is to get the best value for each dollar we spend and to try to reduce our dependence on our children's future earnings.



OLD PRINCE GEORGE HIGHWAY (NEAR HIGHWAY 97): B.C.'s transportation plan will reverse a decade of deteriorating road conditions.

B.C. Spends More Than It Collects in Fuel Tax

\$ in millions - 2002/2003



B.C. is now the only province in Canada to dedicate fuel-tax revenue to transportation improvements.

A Plan to Fund Transportation Improvements

Responsible, innovative financing options

Clearly, government cannot meet all of B.C.'s transportation needs using only public funds, without new funding approaches like:

- Dedicated fuel-tax revenue.
- New federal resources.
- Innovative partnerships.

It's time to stop asking our children to pay for what we need. It's time to pay as we go.

New transportation improvements without new borrowing

As was the case with our parents, government believes in taking a pay-as-we-go approach to new transportation investments.

Government's Plan Will:

- Directly invest \$1.1 billion, including \$828 million for Heartlands roads over the next three years.
- Leverage an additional \$1.7 billion in investment from federal, private and other partners over three years.

Dedicating new fuel-tax revenue to transportation improvements

Dedicating revenue from fuel tax will help ensure that those who use and depend on our transportation system share in the cost of improving and maintaining it.

This year's 3.5-cents-per-litre increase in fuel tax will generate \$650 million over three years – all of which government has committed to priority transportation projects.

FACT:

B.C. spends more each year on transportation than it collects in provincial fuel taxes.

Securing federal resources

The federal government received \$795 million in fuel tax from B.C. in 2002-03. The province is committed to retrieving more of those dollars to improve B.C.'s road system.

Since committing to renewing the Canada-B.C. Partnership, the province has aggressively pursued cost-shared funding from the federal government for transportation priorities. The result to date: \$225 million in new federal funding for B.C. roads and border crossings.

Harnessing private-sector expertise

When appropriate, government will enter into arrangements with private-sector partners to build, operate and maintain new or expanded infrastructure. This will build on B.C.'s history of involving the private sector in highway maintenance and designing and building new infrastructure.

In every case, government's top priority will be protecting the public interest and safety while getting the greatest value for B.C. taxpayers and the travelling public.

Potential Partnership Benefits:

- Use tax dollars more efficiently.
- Reduce debt-financing costs.
- Shift construction risks from taxpayers to the private sector.
- Increase the number of projects for immediate construction.
- Encourage innovative design and construction.
- Complete projects faster.
- Improve use of land and other assets.

New regional transportation advisory committees to guide future planning

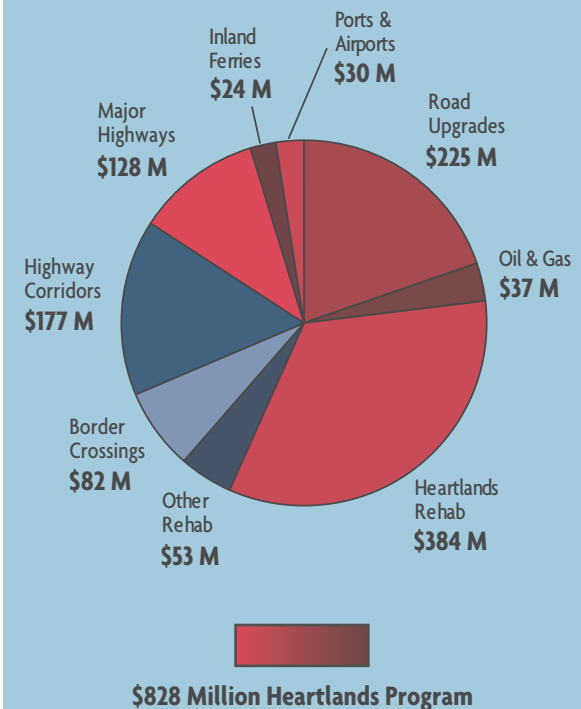
The government wants regions to set transportation priorities, so it has established eight regional transportation advisory committees.

These committees will identify regional transportation needs and advise the Minister of Transportation on regional priorities.

The regional insight these committees provide will help the province to target project funding and maximize its benefits across the province.

\$1.1 Billion in Direct Provincial Investment to Open Up B.C.'s Transportation Network

(\$ in millions)



Safeguarding the public interest with fair and reasonable tolling guidelines

Government has introduced a comprehensive set of principles to ensure any new tolling in B.C. serves – first and foremost – the interests of British Columbians and their communities.

A full copy of the government’s tolling policy is available at www.th.gov.bc.ca/tolling online.

B.C. Tolling Principles:

- Only major projects that result in significant increases in capacity will be subject to tolling.
- Tolls will be implemented only if there are clear and demonstrable net benefits for the users of the new or improved transportation facilities.
- Tolls will be implemented only if a reasonable untolled alternative is available.
- The level of tolls and limits on the amount and frequency of increases will be established in advance.
- Public consultation will occur in all cases where new tolls are considered.
- The public will have the same rights to access tolled highways as non-tolled highways.
- Tolls will be used to generate revenue for transportation projects and provide a return on the investment of private-sector partners.
- The same maintenance, safety and other standards, and rules of the road will apply to tolled highways as to non-tolled highways.
- The privacy of personal information used to levy and collect tolls will be protected.
- A fair and expeditious process will be available for resolving toll disputes.
- The consequences of failing to pay tolls will be fair and reasonable.

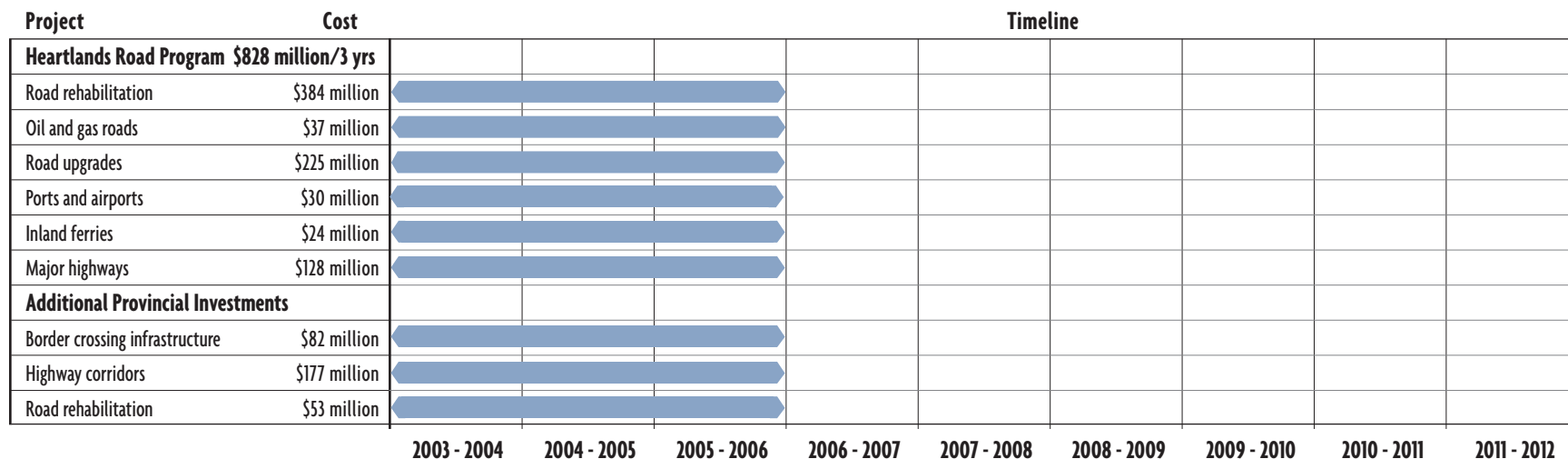
HIGHWAY 97, OUTSIDE WESTBANK: Under the government’s tolling guidelines, small improvements to existing highways like this will not be subject to tolling.

A Comprehensive Plan to Improve B.C.'s Transportation Network

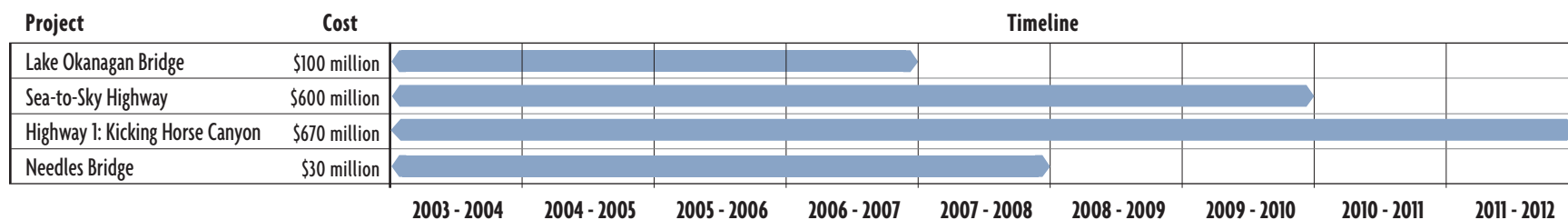
Many priority transportation projects the province is funding are now underway and will be completed within three years.

Other major projects – some of which involve funding partners and extensive planning – will take several years to complete.

\$1.1 Billion in Direct Provincial Transportation Investments Over Three Years

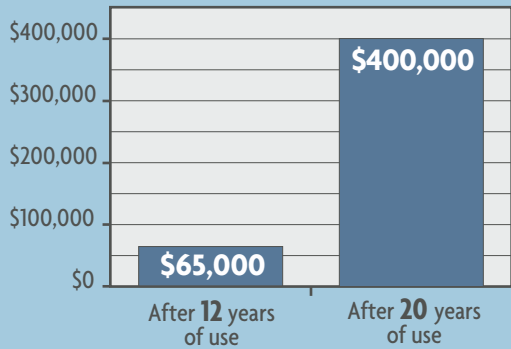


Additional Longer-Term Partnership Projects



Timely Maintenance Saves Tax Dollars

Cost of repaving 1 km of highway



New Economic Opportunities with Better Transportation

Benefit: New jobs and investment

It's estimated that our government's transportation plan will create 17,500 direct person-years of employment in construction and operations jobs alone – not to mention new jobs resulting from increased economic growth.

FACT:

Every year, \$81 billion worth of goods moves on B.C.'s highways and through our international airports, international seaports and border crossings.

As the plan progresses, it will provide the infrastructure needed to support increased trade, improved access to resources, expanded tourism and new business development.

Benefit: Freer, safer movement of goods

By helping to reduce congestion and make major roadways safer, the plan will improve quality of life by safely connecting people to valuable services. It will reduce costs for consumers and improve our competitiveness.

Benefit: Better infrastructure now

Dedicated fuel-tax revenues will fund overdue priority improvements to key highway corridors, while new partnerships with the federal government and others will support major capital investments and rehabilitation projects and help improve maintenance services.

Benefit: Responsible financial management

By expanding public infrastructure while honouring the government's balanced budget commitment, the province's plan will protect taxpayers' resources and help to support other vital public services.

The Heartlands Transportation Strategy

B.C.'s Heartlands and resource communities are the economic engine of the B.C. economy.

Geography and distance make a reliable transportation system especially important to B.C. Heartlands communities.

A decade of neglect reduced the percentage of Heartlands side roads that are rated in good condition to 34 per cent today from an estimated 66 per cent 10 years ago.

B.C. must invest in the network that provides access to resources, supports industry and investment, and helps new sectors like adventure tourism to grow. The province's three-year investment plan will increase the percentage of Heartlands side roads rated in good condition to 43 per cent.

The Heartlands:

- Encompass 99 per cent of B.C.'s land mass, with 72 per cent of its roads.
- Home to more than 40 per cent of B.C.'s population.
- Contribute three times as much, per capita, as the Lower Mainland and Victoria do to B.C.'s exports.

Opening up heartlands roads

The government is investing \$1.1 billion to improve transportation infrastructure over the next three years. Most of that investment – \$828 million – will go to improve Heartlands transportation alone, including:

- \$384 million for rehabilitation.
- \$224 million for rural side roads.
- \$37 million for roads to support the oil and gas industry.

Improving B.C.'s vital highway corridors

Of the \$1.1 billion in direct provincial investment throughout B.C., \$652 million is for Heartlands highway corridors:

- Highway 1: \$249 million
- Highway 3: \$61 million
- Highway 4: \$5 million
- Highway 5: \$16 million
- Highway 16: \$42 million
- Highway 1/19: \$21 million
- Highway 20: \$10 million
- Highway 37: \$44 million
- Highway 97: \$201 million
- Highway 93/95: \$3 million



HIGHWAY 16, BETWEEN TERRACE AND PRINCE RUPERT: Heartlands roads represent 72 per cent of B.C.'s highway network.

Revitalizing Heartlands Corridors

Government is dedicating \$652 million to Heartlands corridors

Highway 1 Projects

Total Provincial Investment: \$249 million

- Replacing the **Five Mile Bridge**, east of **Golden**, with a new four-lane bridge, and four-laning three km of highway. Completion: fall 2006
- Building a new four-lane **Park Bridge**, east of **Golden**, and four-laning five km of highway. Completion: end of 2007
- Four-laning 4.2 km between **Sorrento** and **Salmon Arm**. Completion: summer 2004
- Four-laning Highway 1 and Victoria Road intersection in **Revelstoke** and realigning the Highway 23N intersection. Completion: fall 2003
- Replacing the **Woods Overhead** over the CPR mainline, realigning two km of the highway, 18 km west of **Revelstoke**. Completion: fall 2003

Highway 1/19 Projects

Total Provincial Investment: \$21 million

- Realigning and reconstructing the northern six km of the Misty Lakes section of Highway 19 between **Port McNeill** and **Port Hardy**. Completion: fall 2004
- Upgrading Highway 19 from Elk Falls to Roberts Lake, north of **Campbell River**. Completion: fall 2003
- Improving safety between Mays Road and James Road in **Duncan**. Completion: fall 2003
- Resurfacing 6.3 km from Aspen to Whittaker in the **Malahat** area. Completion: summer 2003

Highway 3 Projects

Total Provincial Investment: \$61 million

- Highway realignment through **Moyie Bluffs**, including widening the **Peavine Bridge**, 25 km south of **Cranbrook**. Completion: July 2003
- Replacing the **Michel Oldtown Bridge**, six km east of **Sparwood**, and realigning 1.5 km of the highway. Completion: August 2004
- Replacing the **Hosmer Bridge**, 10 km east of **Fernie**. Completion: summer 2003

Highway 4 Projects

Total Provincial Investment: \$5 million

- Widening the S-bend curves west of **Cathedral Grove**. Completion: summer 2004
- Resurfacing the decks of the **Cameron East** and **West Bridges** east of **Cathedral Grove Park**. Completion: spring 2004
- Widening the highway at **Hydro Hill** east of **Ucluelet**. Completion: fall 2004



over the next three years. Key corridor investments and projects include:

Highway 5 Projects

Total Provincial Investment: \$16 million

- Realigning a 1.6-km section of Highway 5 at Preacher Hill, 74 km north of **Kamloops**. Completion: fall 2004
- Rehabilitating the Brodie East and West bridges, the Kingsvale West Bridge and the Kingsvale West Overpass on the **Coquihalla Highway** south of **Merritt**. Completion: August 2003

Highway 16 Projects

Total Provincial Investment: \$42 million

- Resurfacing a 41-km section between the **Tintagel** rest area and the **Endako Overhead**, 17 km west of **Fraser Lake**. Completion: summer 2003
- Resurfacing 28 km of highway beginning 20 km west of **Vanderhoof** to the **Blackwater Road** junction, six km east of Vanderhoof. Completion: summer 2003
- Realigning the highway from **Andimaul Creek** to **Shandilla Creek, Kitwanga**. Completion: fall 2004
- Upgrading the intersections with Lund, Jardine and Meier roads in the **Cluculz Lake** area, 30 km east of **Vanderhoof**. Completion: fall 2003

Highway 20 Projects

Total Provincial Investment: \$10 million

- Widening a section of Highway 20 on the **Bella Coola Hill**. Completion: summer 2003
- Realigning and reconstructing 3.5 km of Highway 20 between **Green River** and the **Bella Coola Hill**. Completion: fall 2003

Highway 37 Projects

Total Provincial Investment: \$44 million

- Upgrading 18 km of gravel highway to a hard surface between **Burrage** and **Willow Creek**, 80 km south of **Dease Lake**. Completion: summer 2004
- Resurfacing 21 km from the Nass River Bridge to Meziadin Junction 37A/Hanna Creek North, 157 km north of **Kitwanga**. Completion: fall 2003
- Resurfacing 33 km from **Bell 1** to **Deltaic Creek**, 250 km north of **Kitwanga**. Completion: fall 2003
- Replacing the **Todagin Bridge**, 90 km south of **Dease Lake**. Completion: fall 2003
- Resurfacing 31 km from **Kitimat** to **Onion Lake Road**. Completion: summer 2003

Highway 93/95 Projects

Total Provincial Investment: \$3 million

- Resurfacing 42 km of the highway from **Canal Flats** to **Invermere**. Completion: summer 2003
- Upgrading the railway crossing at **Canal Flats**. Completion: summer 2003

Highway 97N Projects

Total Provincial Investment: \$54 million

- Realigning the highway through South Peace Hill, south of **Taylor**. Completion: end of 2003
- Replacing the **Cottonwood Bridge**, 15 km north of **Quesnel**. Completion: December 2004
- Resurfacing 53 km from **East Pine** to **Arras**, 43 km southeast of **Dawson Creek**. Completion: end of 2003
- Design for the future four-lane expansion of sections of Highway 97 in **Fort St. John**. Design completion: 2003

Highway 97S Projects

Total Provincial Investment: \$147 million

- Constructing an interchange to replace the congested intersection at the Highway 97/97A north of **Vernon**, widening 4.6 km of Highway 97A from two lanes to four lanes and constructing 5.1 km of service roads. Completion: fall 2004
- Four-laning a five-km section of two-lane highway between **Peachland** and **Summerland**. Completion: end of 2004
- Resurfacing 27 km from **Pinaus Lake Road** to **Hanna Road, Westwold**. Completion: summer 2003

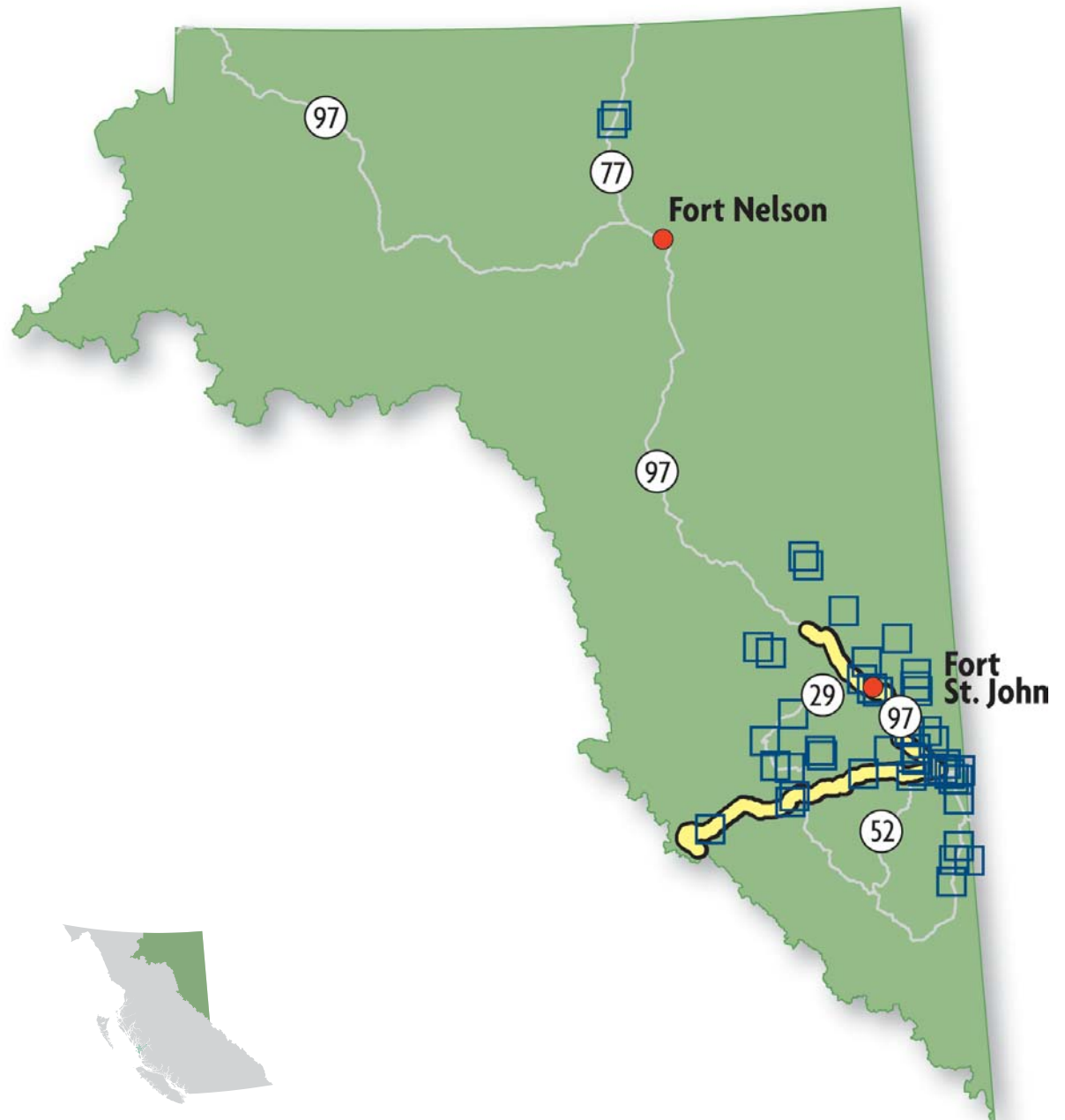
Peace River Region

Total Provincial Investment Over Three Years: \$153 million

Investments in northeastern British Columbia will support the growing oil and gas industry, rehabilitate and improve Highway 97 as a key north-south corridor, and widen and upgrade key provincial roads in Heartlands communities. Major projects include:

- Provincial investment of \$37 million in reliable roads to support B.C.'s growing **oil and gas** industry.
- Realigning Highway 97 through **South Peace Hill**, south of **Taylor**, to lessen the risk of landslides closing the highway.
- Realigning the curve at **Cairns Creek Bridge**, 60 km west of **Chetwynd**, to improve safety.
- Reconstructing and widening various roads in the **Dawson Creek** area to provide safer, dust-free, hard-surfaced roads leading in and out of the city.
- Making gravel and drainage improvements to various roads throughout the **Peace region** to provide better access for rural residents and industrial users.

For more details, see page 41.



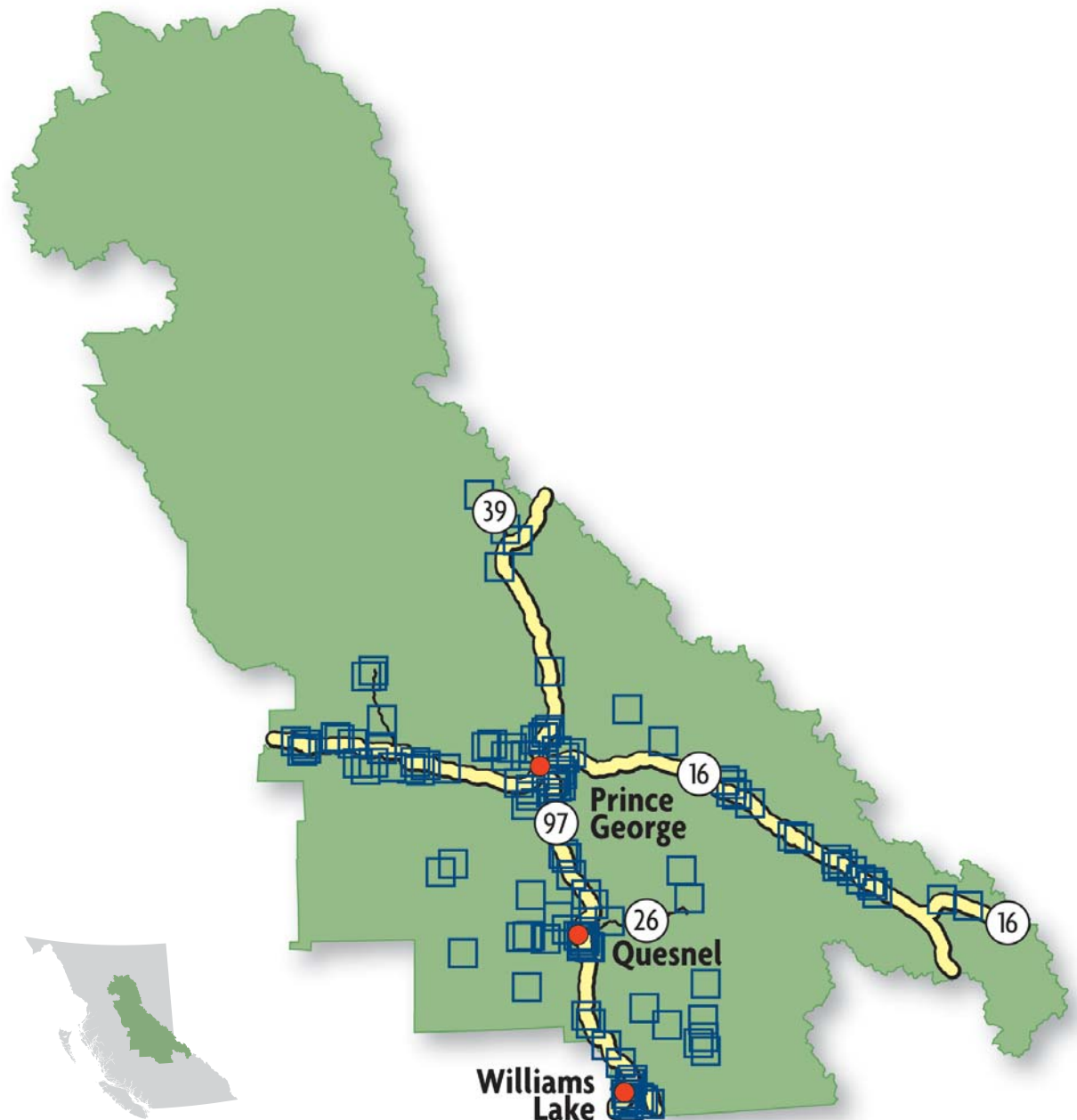
Prince George Central

Total Provincial Investment Over Three Years: \$114 million

Investments in the Prince George and Quesnel areas will improve highways 16, 97 and 27, as well as provincial roads, for resource-sector vehicles and other users. Major projects include:

- Hardsurfacing rural gravel roads in the **Prince George** area to provide better access for residents and industrial users.
- Resurfacing 28 km of Highway 16, beginning about 20 km west of **Vanderhoof** and ending at the **Blackwater Road junction**, six km east of Vanderhoof.
- Designing and constructing a westbound climbing lane and an eastbound passing lane on Highway 16, about 10 km west of **Vanderhoof**.
- Building a new **Cottonwood Bridge**, 15 km north of **Quesnel**, and upgrading 1.4 km of Highway 97 serving the bridge, with cost shared by the federal government.
- Resurfacing a seven-km section of **Highway 27** from the Highway 16 junction to Braeside Road.

For more details, see page 40.



The Northwest

Total Provincial Investment Over Three Years: \$135 million

Investments in northwestern British Columbia will focus on improving highways and resource roads, building Prince Rupert's capacity as a port and cruise-ship terminal, and fulfilling government's commitment to upgrading the Nisga'a Highway. Major projects include:

- Port expansion at **Prince Rupert**, beginning with a proposed **container port**, for which planning is underway.
- An expanded **cruise-ship facility** at **Prince Rupert**, for which planning is underway in partnership with the federal government.
- Completing the upgrading of the **Nisga'a Highway**, with paving of 26 km between **Greenville** and **New Aiyansh**.
- Replacing the **Pleasant Valley Bridge**, 10 km west of **Houston**, to increase clearance and safety for large transport vehicles on Highway 16.
- Replacing the **Todagin Bridge**, 90 km south of **Dease Lake** on Highway 37, to improve safety and reduce maintenance costs.



For more details, see page 35.

Vancouver Island Region

Total Provincial Investment Over Three Years: \$71 million

Investments on Vancouver Island will focus on improving safety and traffic flow on highways 1, 4 and 19, as well as various provincial roads. Major projects include:

- Making safety improvements between Mays Road and James Road in **Duncan**, including resurfacing, installing new signals and restricting turning movements to reduce collisions.
- Constructing a northbound, right-turn deceleration lane at Aspen Road, **Malahat**, to improve safety.
- Designing and beginning construction to widen the S-bend curves west of **Cathedral Grove** on Highway 4.
- Improving safety between **Nanaimo** and **Parksville** by extending the median barrier between Northwest Bay Road and Northwest Bay Logging Road.
- Starting realignment and reconstruction of the northern six km of the Misty Lakes section between **Port McNeill** and **Port Hardy**, to reduce travel times, provide more places to pass and improve safety.



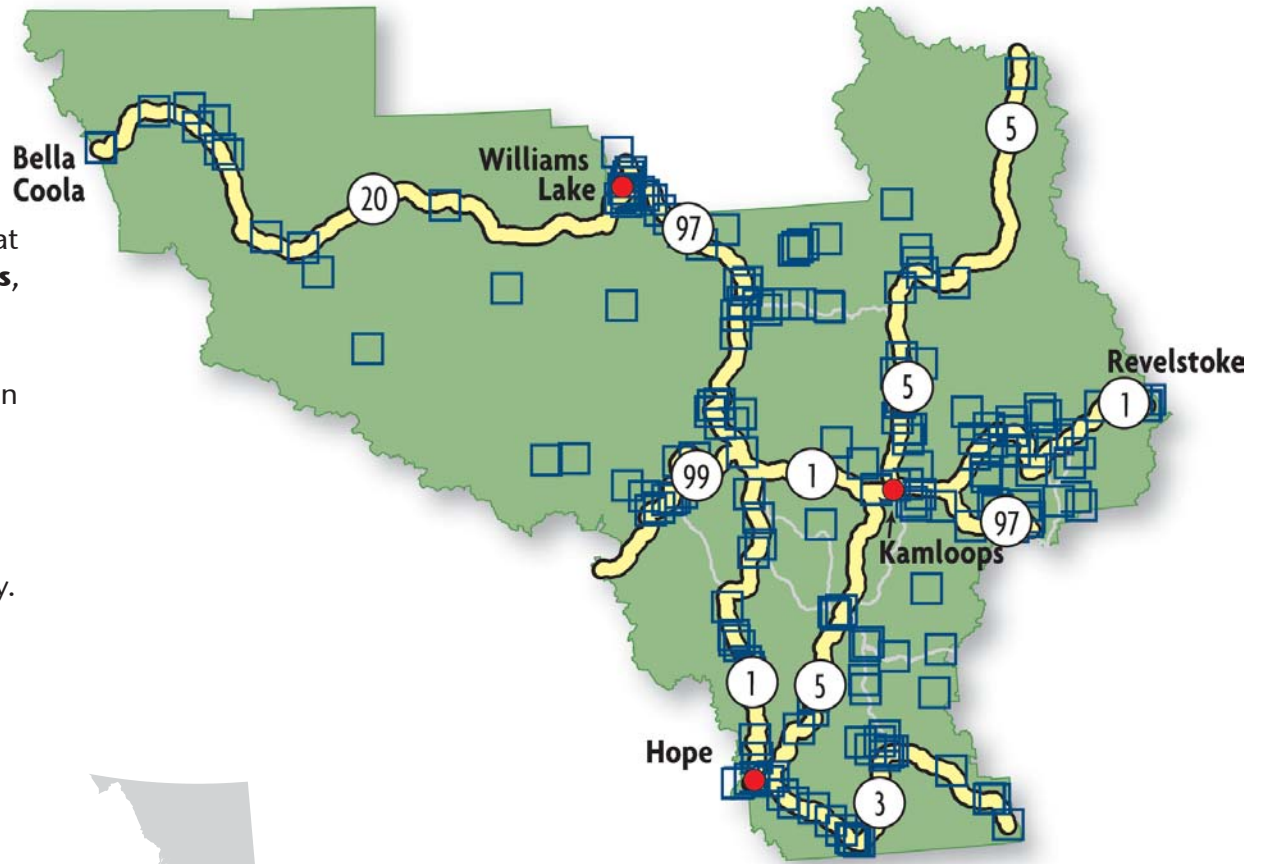
For more details, see page 36.

Kamloops Region

Total Provincial Investment Over Three Years: \$182 million

Various investments will be made in the region extending from south of Kamloops to west of Williams Lake, to upgrade road surfaces and improve safety. Some examples of these projects include:

- Realigning a 1.6-km section of Highway 5 at **Preacher Hill**, 74 km north of **Kamloops**, with costs shared by the federal government.
- Designing and engineering for construction in 2005 to four-lane 8.2 km of the **Okanagan Connector** between **Garcia Lake** and **Courtney Lake**.
- Constructing shoulders on the **Merritt–Princeton Highway 5A** to improve safety.
- Widening a section of Highway 20 on the **Bella Coola Hill** to improve safety.
- Modifying the intersection of Highway 20 at **MacKenzie Avenue** in **Williams Lake** to improve safety.



For more details, see page 38.

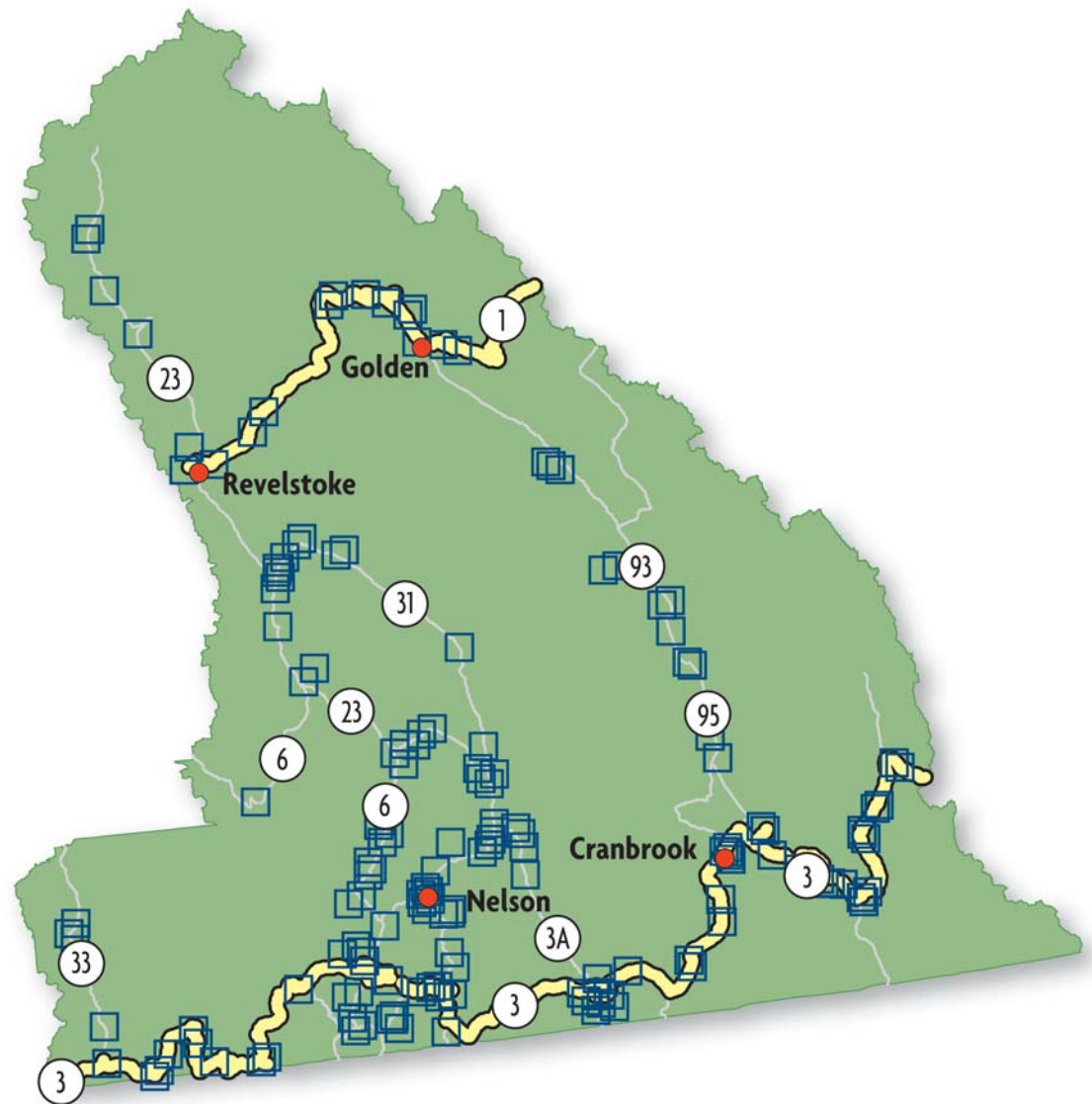
Kootenays Region

Total Provincial Investment Over Three Years: \$243 million

Investments in the southeastern corner of the province will enhance the safety of Kicking Horse Canyon and expand Cranbrook’s airport to improve tourists’ access to the Kootenays. Major projects include:

- Replacing the **Five-Mile Bridge**, east of **Golden** with a new four-lane bridge.
- Adding a 3,000-foot runway extension and doubling terminal building capacity at **Cranbrook Airport**, to accommodate non-stop air services to and from Europe.
- Realigning one km of Highway 3 at **Steamboat Hill**, 26 km east of **Cranbrook**, to eliminate a sharp curve and construct a new eastbound passing lane.
- Carrying out rock slope stabilization at **Irisman Bluff**, 15 km east of **Yahk**, **Loop Road**, 44 km east of Yahk and west of the **Elko Tunnel**, 17 km west of **Fernie**.

For more details, see page 39.



Okanagan Region

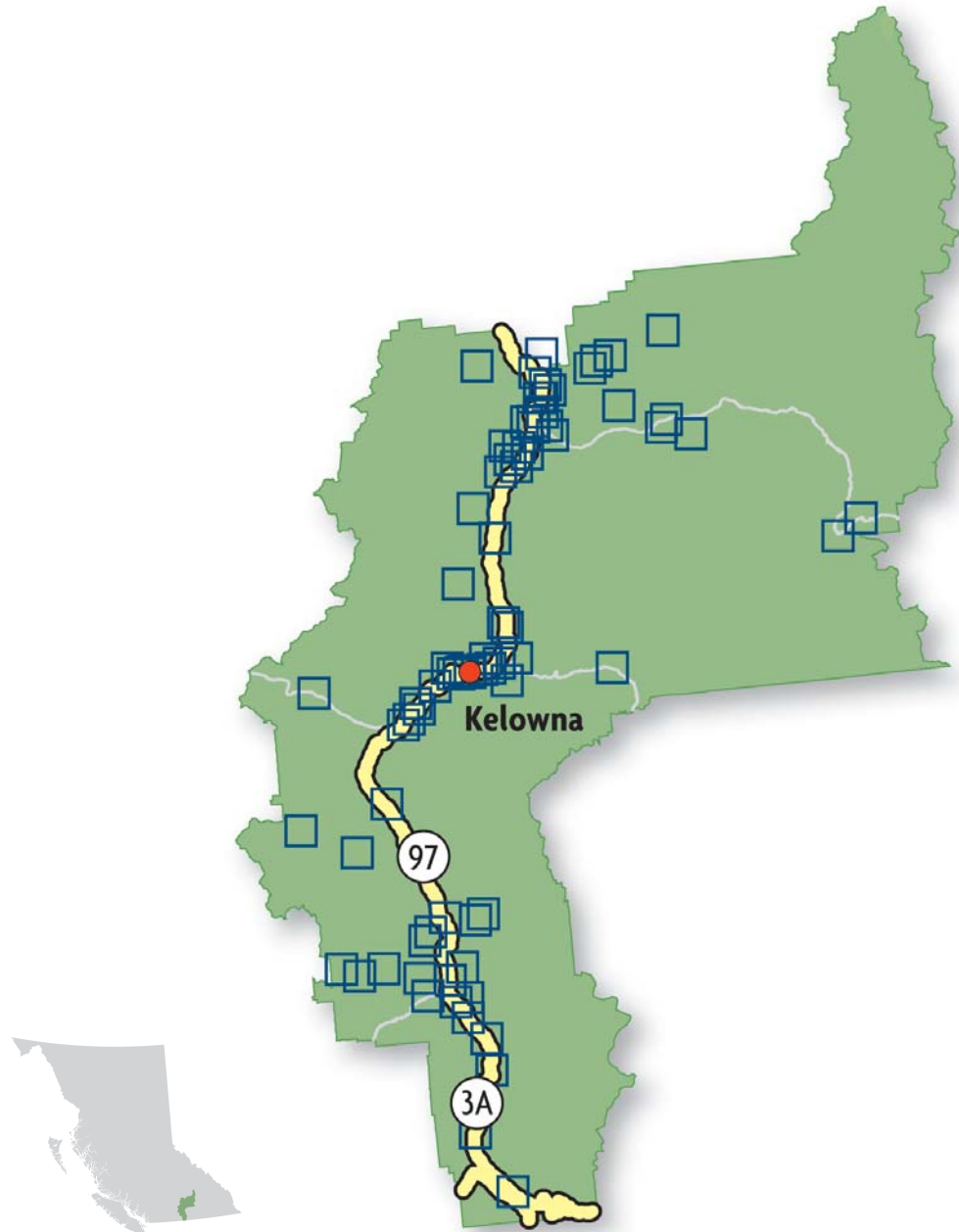
Total Provincial Investment Over Three Years: \$153 million*

Investments in the Okanagan will four-lane and upgrade key portions of Highway 1, upgrade and ease congestion on Highway 97 and establish how to replace the Needles ferry with a bridge. Major projects include:

- Four-laning 4.2 km of Highway 1 between **Sorrento** and **Salmon Arm**, with costs shared with the federal government.
- Constructing an interchange to replace the congested intersection at the Highway 97/97A junction just north of **Vernon**, and widening 4.6 km of Highway 97A to four lanes.
- Completing design of a bridge to replace the **Needles ferry**.

* This three-year total does not include the new \$100-million Lake Okanagan Bridge at Kelowna, which will be completed between 2004 and 2007.

For more details, see page 39.



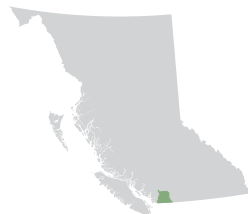
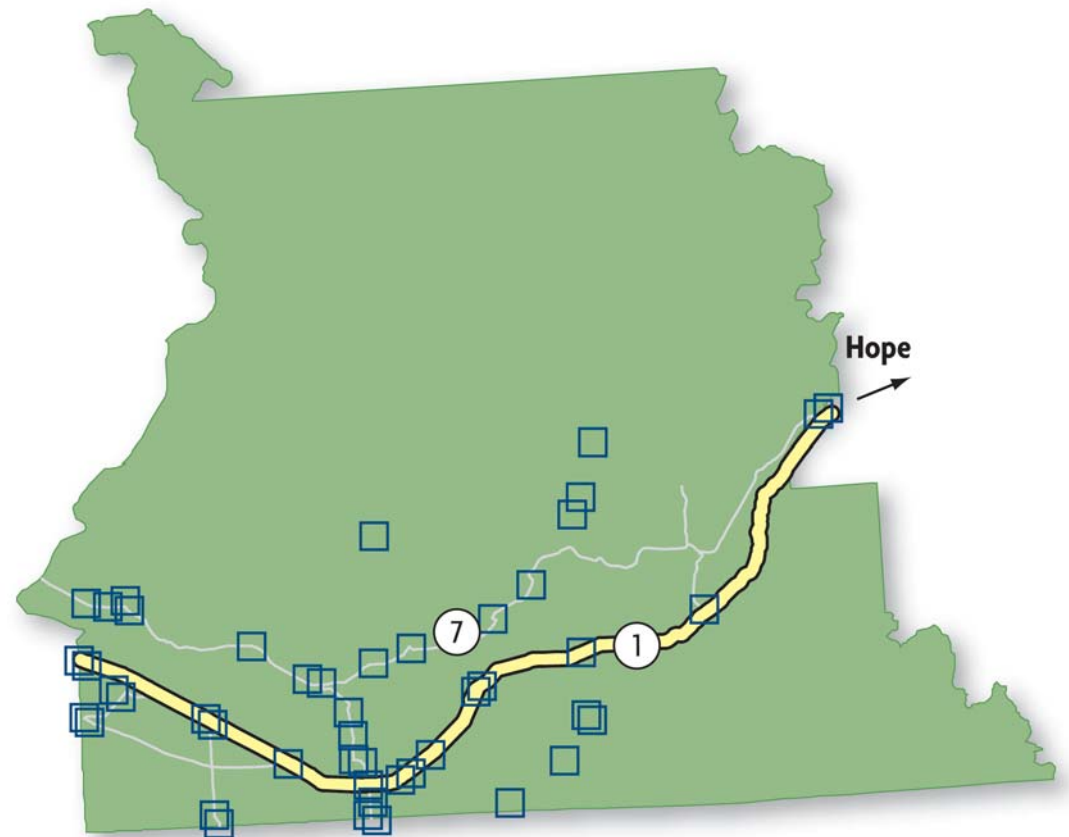
Fraser Valley Region

Total Provincial Investment Over Three Years: \$135 million

Investments in the Fraser Valley will upgrade and improve safety on Highway 1, reduce border congestion and stabilize rock slopes along provincial roads east and west of Hope. Major projects, the first three of which are cost-shared with the federal government, include:

- Realigning a 3.4-km section of Highway 1 between **Annis Road** and **Highway 9** near **Chilliwack**, reducing sharp curves and widening road shoulders to increase safety.
- Building a commercial vehicle staging area to alleviate congestion at the **Huntingdon border crossing**.
- Planning and evaluation for future improvements to the Trans-Canada Highway interchange in **Abbotsford**. Stabilizing the rock slopes on Highway 7 at **Odlum**, 5 km west of **Hope**, to protect travellers from rock fall.

For more details, see page 37.





KICKING HORSE CANYON: The proposed 10-Mile (Park) Bridge replacement near Golden.

Improving Heartlands Roads: Major Initiatives

Kicking Horse Canyon

Investment: \$670 million

Time frame: Between 2003 and 2010

Trans-Canada Highway improvements through the Rockies are the province's Number 1 transportation priority, due to safety concerns and the route's importance in making B.C. a gateway.

Highway 1 is B.C.'s gateway to Canada. It must be made safe for all who use it.

Revitalizing Highway 1 is critical to strengthening the province as Canada's gateway to the world. The corridor has had no major upgrading since it was built in the 1950s, and between 1996 and 2001, 21 people lost their lives in 700 accidents on this stretch of winding, mountainous road.

In partnership with the federal government, we plan to invest a total of \$670 million to upgrade the 26-km section between Golden and Yoho National Park into a four-lane highway.

\$205.8 million in work underway

Canada and B.C. have already committed \$205.8 million in shared funding for four projects on Highway 1 in this area:

- Replacing the aging 5-Mile (Yoho) Bridge near Golden (substantial completion: September 2006).
- Upgrading a 1.5-km section of highway and the Victoria Road intersection in Revelstoke (substantial completion: July 2003).
- Replacing the Woods overhead structure near Revelstoke and upgrading 1.5 km of the highway to a 100-km/h design standard (substantial completion: September 2004).
- Replacing the 10-Mile (Park) Bridge near Golden and four-laning five km of the highway on either side of the bridge (target for delivery: fall 2007).

A new, safer Trans-Canada Highway

In addition to the investment in the Kicking-Horse Canyon, the provincial and federal governments are funding improvements to sections of Highway 1 across the province.

Highway 1: Kicking Horse Canyon: \$670 million



Lake Okanagan Bridge, Kelowna
 Investment: \$100 million
 Time frame: Between 2004 and 2007

This project will ease congestion on the busiest stretch of highway in B.C.'s Heartlands.

Highway 97 at the Lake Okanagan Bridge is the most congested stretch of highway outside the Lower Mainland and southern Vancouver Island. A new, toll-free, four-lane bridge – with capacity for a fifth lane – will alleviate congestion now and in the future.

An additional \$20 million will be invested in interchange improvements at either end of the bridge.

A new bridge to relieve congestion in Kelowna

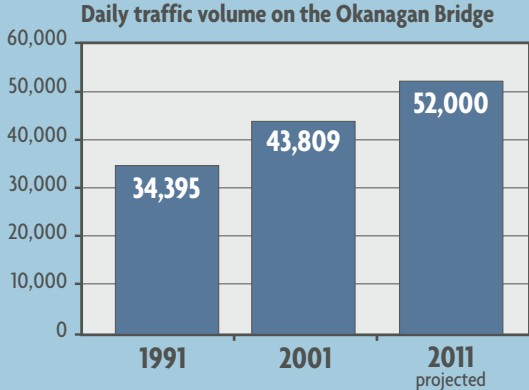


New Bridge Across Lower Arrow Lake at Needles
 Investment: \$30 million (est.)
 Time frame: To begin in 2005

This new link will provide a primary connection between the growing south Okanagan and Kootenay regions, strengthening transportation and opening up tourism.

This bridge will open up a primary connection between the south Okanagan and the Kootenays. The Ministry of Transportation is reviewing a study of how a bridge can accommodate expected community growth in the region over the next 20 years.

Opening up access to the Southern Interior



TODAY: Kelowna's floating bridge, 1957-2007



TOMORROW: Artist's rendering of one option for a new bridge, 2007-the future



Oil and Gas Roads

Investment: \$37 million

Time frame: Between 2003-04
and 2005-06

This significant investment will open up the industry's potential, strengthening northern communities and B.C.'s economy.

Northern B.C. continues to benefit from the oil and gas industry, which sustains more than 30,000 well-paid jobs.

Reliable roads are critical to ensuring continued expansion of one of B.C.'s most important industries, and will support government's goal of attracting \$24 billion in new oil and gas investment and 8,000 new jobs in the industry within six years.

Nisga'a Highway Completion

Investment: \$52 million

Time frame: Completion by
March 31, 2006

This continuing investment will honour government's agreement with, and expand the economic potential of, the Nisga'a First Nation.

A seven-year project to upgrade the Nisga'a Highway to a 70-km/h paved road is in its fifth year. Construction is creating jobs in the Northwest, and a reliable, safe route in the remote Nass Valley will help to ensure the future prosperity of the Nisga'a.

NISGA'A HIGHWAY: B.C. is in Year 5 of funding a seven-year upgrade of the Nisga'a Highway.

Improving Rail Service for All of B.C.

Making BC Rail sustainable

BC Rail is vital to the province's resource industries and northern communities – but it is failing to meet their needs. We need a more integrated and efficient network that provides access to the continental railway grid.

Northern mayors and communities have clearly told the province that a new model is needed to ensure them a sustainable industrial freight rail network. The province has responded with a proposed new partnership that will ensure:

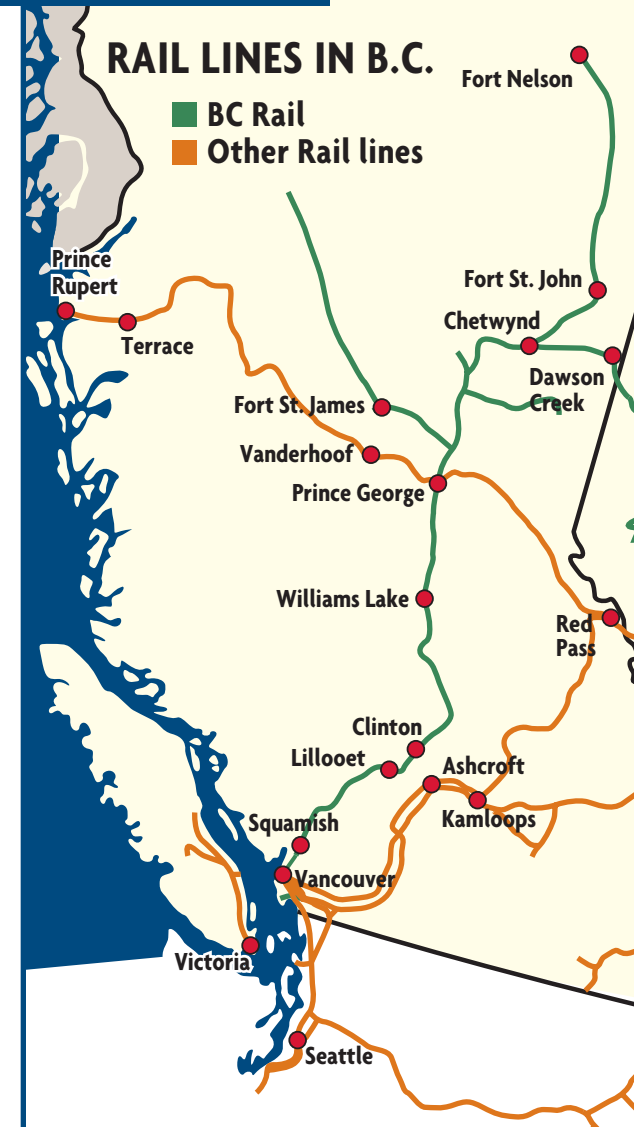
- Public ownership of the BC Rail rail beds, railway rights-of-way and tracks.
- More competitive rates.
- A better-integrated rail network.
- Improved ability to get B.C. products to markets throughout North America and beyond.

- New private-sector investment for capital improvements like rail cars, sidings, loading facilities and rail lines.
- Economic development and revitalization of communities that depend on BC Rail.
- No new public debt and no further risk to taxpayers.

FACT:

BC Rail has cost taxpayers \$857 million in asset writeoffs over the last 15 years, on top of its current \$502-million debt.

Debt-servicing costs now absorb about half of the company's operating income.



BC RAIL FREIGHT TRAIN, IN THE ROCKIES: Revitalizing B.C.'s rail services and integrating them into the continental network is critical to the future of the Heartlands.



B.C.'S LARGEST FERRIES IN ACTIVE PASS: Our coastal ferry system is among the world's largest, carrying 21.4 million passengers and 7.9 million vehicles a year.



Better Ferry Service

Restructuring BC Ferries to secure its future

BC Ferries' services are vital to the economic health of the province's island and coastal communities. To renew the corporation's infrastructure and ensure its sustainability, however, a new approach was required.

FACT:

As a result of a decade of political interference and mismanagement, BC Ferries now requires \$2 billion in capital improvements. The new BC Ferry Authority will meet this need.

The new BC Ferry Authority established this year is modelled after the successful Vancouver Airport Authority. It will deliver:

- Improved service.
- Increased customer choice.
- Guaranteed service levels and fair rates.
- Increased economic development and job creation.
- Ongoing accountability.
- No new public debt.

In addition, an independent regulator will control rates and protect consumers' interests.

Partnerships to renew the fleet

The new BC Ferry Services will seek funding partners to support the \$2 billion required for capital investment and fleet expansion and improvement over the next 15 years.

Better representation of coastal communities' interests

Coastal communities will have input into the operation of the new ferry authority. Four representatives on the authority's board will voice the needs of coastal regional districts and help to ensure ferries support their economic development.

Inland ferries remain toll-free

Inland ferries provide essential transportation links where roads or bridges do not exist. All provincially owned inland ferries will be toll-free.

Opening Up Ports and Airports

As a province, we welcome the world to visit and invest.

B.C. is Canada's gateway to the world. Improving airports and ports is critical to building our shipment and passenger volumes. Accordingly, government is committing \$10 million a year over three years to airports and ports to open up new economic opportunities.

Expanding Cranbrook Airport to increase tourism opportunities

Cranbrook Airport is the primary airport serving the East Kootenay region. The province is funding a major expansion of the airport to accommodate non-stop air services to and from Europe.

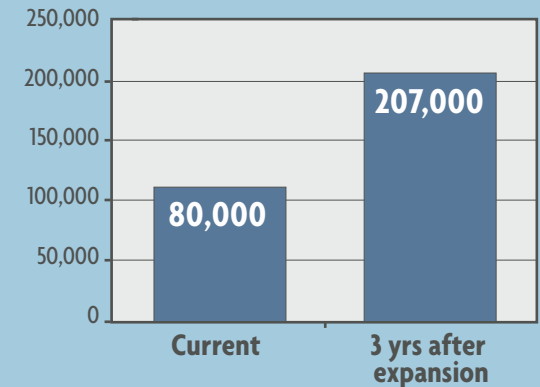
The airport currently handles 75,000 to 80,000 passengers a year. The expansion would result in an estimated increase of 127,000 passengers during the first three years alone.

Cranbrook Airport Expansion:

- A 900-metre runway extension and doubling the capacity of the terminal building.
- Estimated cost: \$12.6 million.
- Time line: to be determined pending completion of agreements between the province, Cranbrook and others.



Expanding Cranbrook Airport will increase tourism (passenger volumes)



B.C.'s Transportation Gateways

Together, B.C.'s airports, ports and highway network help B.C. export more than \$30 billion in goods and move 22 million tourists each year.

Expanding the Port of Prince Rupert – the Northern Advantage

The North Coast is one of the most spectacular cruise-ship destinations in the world. Prince Rupert is its Canadian heart.

FACT:

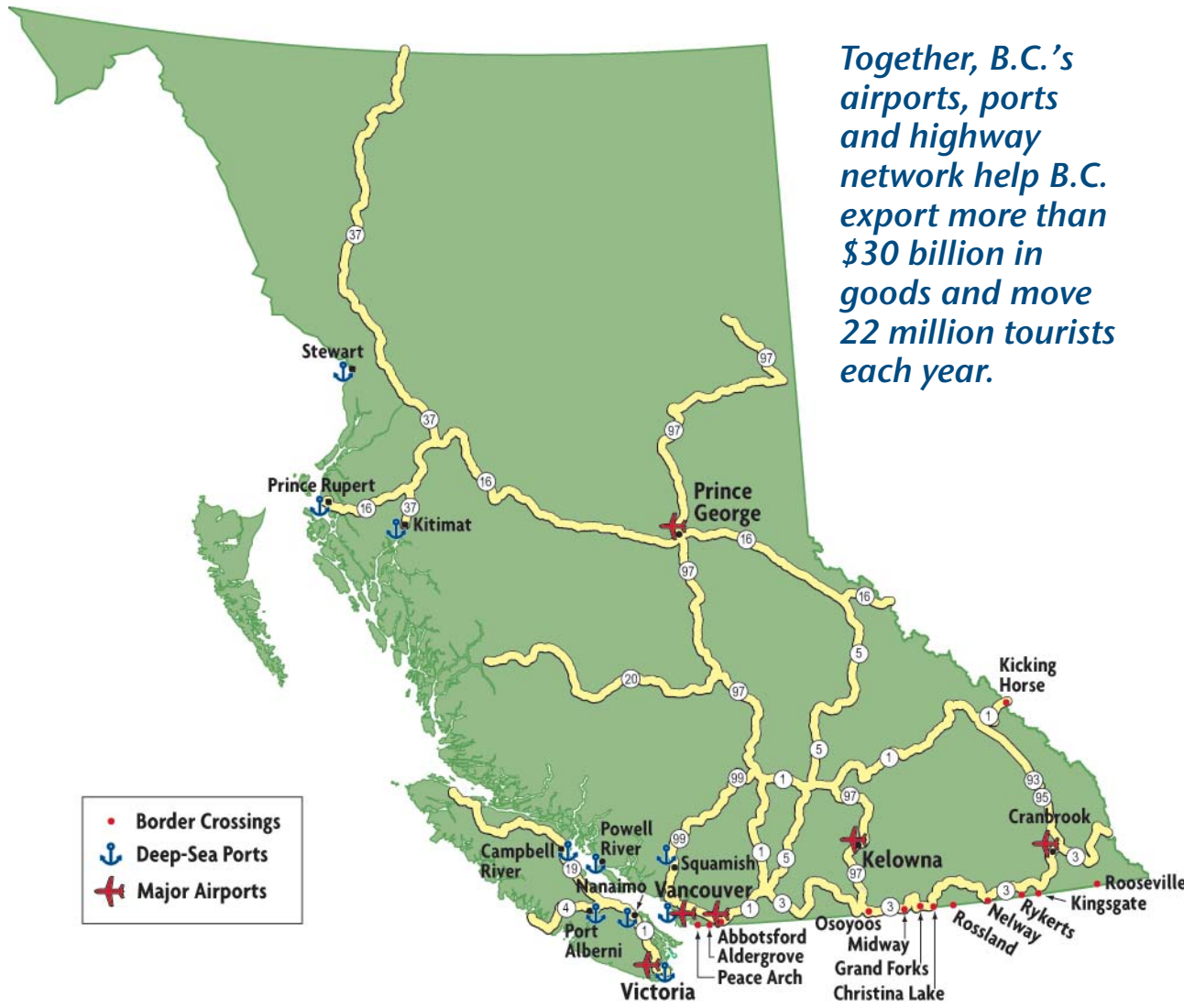
Prince Rupert is 16 hours closer to Asia than Vancouver and 30 hours closer than U.S. ports.

The \$30 million the province will invest in ports and airports over the next three years includes the provincial component of a major expansion of the Port of Prince Rupert, beginning with a proposed container port.

A project plan is now being developed with funding from the province. The details and timeline will be determined through the community planning process now underway.

Cruise: Prince Rupert

The government has also committed to expand cruise-ship capacity at Prince Rupert. Planning is underway in partnership with the federal government and local authorities.



The Gateway Transportation Strategy

B.C.'s strategic location makes the entire province a gateway to the world – and the Lower Mainland plays a primary role in linking businesses and communities throughout B.C. to opportunities to the south and west.

FACTS:

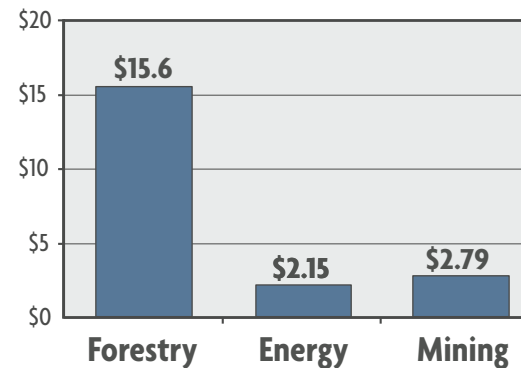
- Lower Mainland travel times have increased 30 per cent over the past decade.
- The B.C. Trucking Association estimates trucks are stopped or slowed 75 per cent of the time – and truck traffic is expected to rise by 50 per cent by 2021.
- The Lower Mainland population is forecast to rise by 34 per cent – almost one million people – by 2021.

Challenge: Congestion is hurting economic opportunity across B.C.

While traffic has increased 14 per cent in the past five years, infrastructure investments have not kept pace with demand.

Current congestion in the Lower Mainland costs B.C.'s economy as much as \$1.5 billion a year. Estimates of future population and traffic growth confirm that if we don't invest in enhancing our transportation network now, the cost – in jobs, opportunities and increased prices for consumers – will only rise.

B.C. Exports Depend on Strong Transportation Gateways
(2002 exports in \$ billions)



IRONWORKERS' MEMORIAL BRIDGE, VANCOUVER: The Gateway Transportation Strategy will improve transportation efficiency and quality of life.



THE GATEWAY TRANSPORTATION STRATEGY

FACTS:

- Vancouver International Airport provides 26,000 direct jobs and generates \$5.3 billion in annual economic activity.
- The Greater Vancouver Port ships more cargo than any other port on North America's west coast.
- More than two-thirds of B.C.'s exports go to the U.S.; most of these travel by truck through Lower Mainland border crossings.

Challenge: Building a more integrated and efficient transportation network

B.C.'s competitiveness as a gateway is limited by a lack of integration between ports, airports, rail connections and border crossings.

For example, the lack of a direct and efficient road connection between Highway 1 and the Deltaport facility means increased shipping times and costs.

Solution: Quicker border crossings and safer, more efficient road links

The province will:

- Ease congestion at B.C.'s border crossings, opening up freer trade with the U.S.
- Create a safer and more efficient Sea-to-Sky link to better serve B.C.'s fastest-growing district and the 2010 Olympic Games.
- Establish partnerships, together with the Greater Vancouver Transportation Authority, to build new links that will integrate the Lower Mainland road network, cutting travel times for businesses, shippers and other travellers.

Ultimately, reduced congestion and a smoother flow of goods to our international customers will make B.C. more attractive to business and increase economic growth.

THE DELTAPORT: A more integrated transportation network will help deliver B.C. exports to ports and on to international destinations.



Improving Our Gateways To The World

More Efficient Border Crossings

Investment: \$241 million

Time frame: 2003-04 to 2005-06

Alleviating border delays for shippers and travellers will reduce costs and increase our competitiveness.

B.C. exports more than \$21 billion in goods to the U.S. every year, and most travel by truck over border crossings in the Lower Mainland. In addition, almost five million visitors cross our southern border each year.

The provincial and federal governments have announced shared funding of \$241.4 million for border infrastructure projects.

Border Facts:

- Commercial vehicle traffic at the Pacific Highway border crossing has doubled since 1991; close to one million trucks used the crossing in 2000.
- Delays at Lower Mainland border crossings cost B.C.'s trucking industry \$60 million a year.

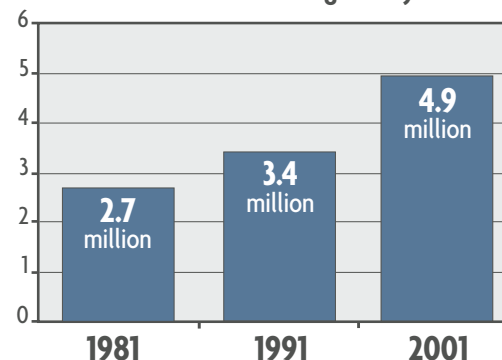
Opening up our border crossings

The federal government has committed \$104.1 million and the province \$137.3 million to improve international border crossings and related highway corridors on the highways shown, in addition to funding commitments to improve our Trans-Canada gateway to Alberta.

- Highway 10
- Highway 11
- Highway 13
- Highway 15
- Highway 91
- Highway 91A
- Highway 99
- 8th Avenue (Surrey)
- Highway 1 (to Alberta via Kicking Horse)

Demand for Efficient Borders Has Nearly Doubled

U.S. travellers entering B.C. by car



TRUCKS AT PACIFIC HIGHWAY BORDER CROSSING: Current border delays cost B.C. truckers \$60 million a year.



Making the Sea-to-Sky Safer Investment: \$600 million Time frame: Completion by 2009

B.C.'s fastest-growing district needs a safer link to the Lower Mainland. So do travellers bound for Whistler. The 2010 Olympic Games will require the province to speed up improvements by about two years.

The existing mountainous route is dangerous. It is also prone to sudden changes in weather and driving conditions. It must be made safer.

IMPROVING SEA-TO-SKY CAPACITY: The \$600-million expansion of the Sea-to-Sky Highway will include using the nearby rail bed to accommodate Olympics traffic in 2010.

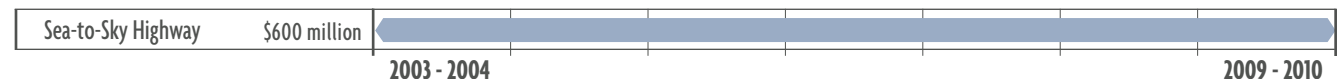
A Safer Sea-to-Sky

- Upgrading of the treacherous stretch between Culliton Creek and Cheakamus Canyon (already underway).
- A mix of three- and four-lane sections.
- Separated portions of highway.
- Improvements to the section through urban Squamish.

Sea-to-Sky Facts:

- Between 1991 and 2001, 56 people were killed and 1,887 injured on the busy Sea-to-Sky corridor.
- The existing route will reach its functional capacity by 2012.

Sea-to-Sky improvements in time for the Olympics



RAV: Faster Connections, Less Congestion

Time frame: Completion by 2009

The Richmond-Vancouver corridor is among the busiest ones in the Lower Mainland – and it's estimated the number of trips on it will increase by 35 per cent over the next 20 years.

Led by TransLink and facilitated by the province, the planned Richmond/Airport/Vancouver (RAV) Rapid Transit Project will:

- Be a major source of economic development, providing new tourist links to downtown, the convention centre and cruise ships.
- Improve air quality and reduce greenhouse gas emissions right up the Fraser Valley.
- Reduce congestion and travel times, opening new economic opportunities.

The Funding Partnership

The province, TransLink, Vancouver International Airport and Ottawa each will contribute approximately \$300 million in today's dollars. A private builder/operator is expected to contribute \$300 million more, bringing total funding to close to \$1.6 billion.

Strong Safeguards to Protect Taxpayers

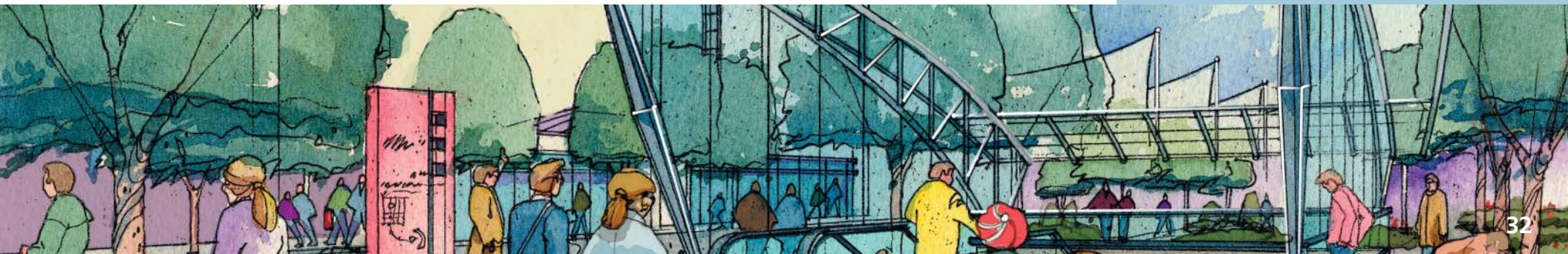
RAV has had the highest level of study and analysis of any public transportation initiative undertaken in the GVRD. Each partner involved has conducted independent analysis and planning, ensuring multiple safeguards to protect taxpayers.

In addition, the private-sector partner will assume significant responsibility for managing potential risks, including full responsibility for completing the project on time and covering any potential cost overruns.

RAV Benefits:

- Improved travel times within the GVRD.
- Reduced congestion on critical corridors.
- More transportation choices and better connections for commuters and travellers.
- Improved air quality with reduced greenhouse gas emissions.

ARTIST'S RENDERING OF DOWNTOWN RAV STATION: The final shape of RAV will depend on the private-sector response to the request for proposals.





Working With TransLink

Delays caused by congestion on key Lower Mainland routes are costly for industry, trucking companies and commuters. TransLink and the province are considering highway improvements that would better integrate ports, airports, rail yards and border crossings. These projects will benefit the entire province by freeing up critical gateways.

These projects will require significant planning and new partnerships. If there is strong support and leadership from TransLink, local communities, industry and the public, the province will work with these partners to undertake major improvements to its highway system, while TransLink improves the regional transportation system.

Why an Integrated Transportation Network Is Needed for All of B.C.

A truck bringing value-added forest products from the Kootenays could arrive in Vancouver along a less-congested Highway 1, follow an intersection-free South Fraser Perimeter Road out to the Deltaport terminal at Roberts Bank and unload its cargo for shipment to Asia. The result: estimated travel time savings of 25 to 30 minutes and lower transportation costs.

In partnership with TransLink, potential investments include:

New Fraser River Crossing: a new six-lane bridge along the 200th Street corridor to connect Maple Ridge and Pitt Meadows with Surrey and Langley, reducing trip times by 20 to 25 minutes and reducing traffic on the Port Mann Bridge.

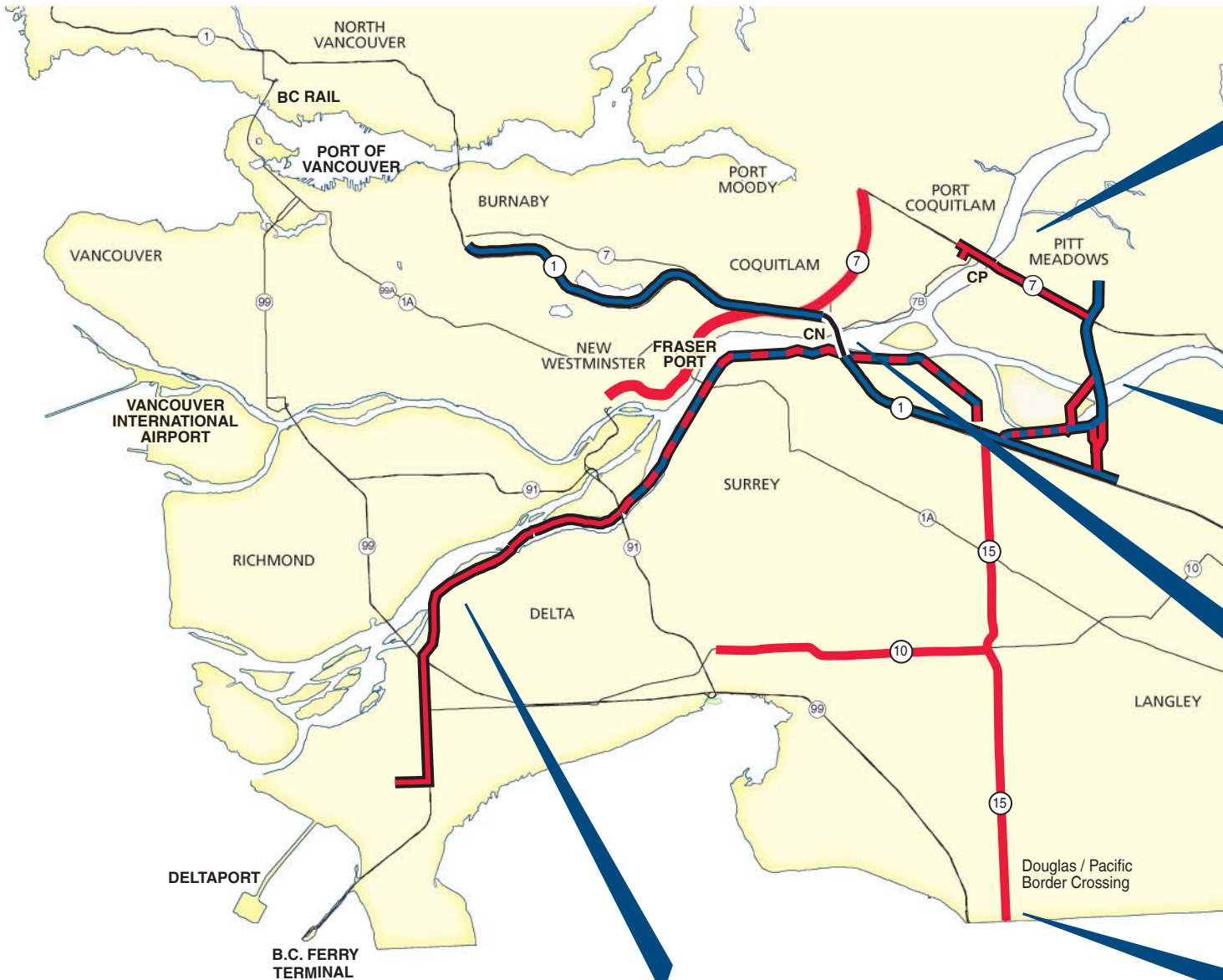
South Fraser Perimeter Road: a primarily four-lane, intersection-free commercial route along the south bank of the Fraser River connecting highways 1, 91 and 99, reducing trip times by up to 15 minutes.

North Fraser Perimeter Road: expands the capacity of existing arterial routes on the north bank of the Fraser River, providing a more efficient commercial route through New Westminister to Burnaby and Vancouver.

Twinning the Port Mann Bridge: widening about 33 kilometres of the Trans-Canada between Vancouver and Langley and twinning the Port Mann Bridge, to reduce travel times by up to 20 minutes.

PORT MANN BRIDGE: *Twinning this bridge and widening 33 km of the Trans-Canada Highway is one of three major projects the province is considering through new partnerships, given support from TransLink, local communities, industry and the public.*

THE GATEWAY TRANSPORTATION STRATEGY



Potential North Fraser Perimeter Road

This route would go from the Queensborough Bridge in New Westminster to an expanded Pitt River Bridge in Pitt Meadows, including Highway 7 improvements through Coquitlam.

A New Fraser Crossing

Planning has already begun for a new Fraser River crossing along the 200th Street corridor to connect Maple Ridge and Pitt Meadows with Surrey and Langley.

Potential Twinning of the Port Mann Bridge

Widening of the Trans-Canada Highway from Langley to Vancouver, and twinning the Port Mann Bridge.

Border Corridor Improvements

Twenty-seven projects worth \$241.4 million, cost-shared by the provincial and federal governments, are already underway to improve highway corridors leading to border crossings, especially Highway 15.

Potential South Fraser Perimeter Road

This new perimeter road would run from Highway 1/15 in Surrey to Highway 17/DeltaPort in Tsawwassen.

Conclusion: Building Our Route to Prosperity

Transportation is fundamental to economic growth and quality of life – and as B.C.'s population and traffic levels grow, so must its transportation network.

A *real* transportation plan will:

- Renew aging transportation infrastructure now, protecting taxpayers from higher maintenance costs in the future.
- Improve the scope and integration of our transportation network to ensure the free flow of goods and travellers, and to maximize investment, create jobs and keep B.C. competitive.
- Decrease congestion and improve quality of life.
- Use new, fair and beneficial approaches to pay for improvements as they are made.

We have laid out a real plan with construction projects, deadlines for completion and potential projects for the future.

Our roads, ports, airports and ferries are a valuable resource. This plan enhances that value. It will preserve the vast network that British Columbians have inherited from previous generations.

We plan to expand on that inheritance and give an improved transportation legacy to our children, to meet the province's needs, challenges and opportunities, now and in the future.

ALASKA HIGHWAY, NORTHEASTERN B.C.: The government's goal is an integrated transportation system that moves goods, services and people safely, quickly and economically throughout B.C.

The government is investing \$1.1 billion in transportation capital projects over the next three years, including \$544 million in 2003-04 alone. Most of the funding will go toward more than 1,000 road capital and rehabilitation projects summarized in this appendix.

THE NORTHWEST

Highway 16 Projects

- Replacing the Pleasant Valley Bridge, 10 km west of Houston, to increase clearance and safety for larger transport vehicles.
- Design and engineering to extend the eastbound climbing lane, along with intersection improvements at Viewmount and Old Babine Road, Smithers.
- Design and engineering for future grade realignment from Andimaul Creek to Shandilla Creek, Kitwanga.
- Planning and engineering for future intersection improvements to the four-way stop intersection at Highway 37, Terrace.

Highway 37 Projects

- Resurfacing 31 km from Kitimat to Onion Lake Road to address the deteriorating surface condition and reduce maintenance costs.
- Resurfacing 21 km from the Nass River Bridge to Meziadin Junction 37A/Hanna Creek North, 157 km north of Kitwanga, to provide improved access.
- Resurfacing 33 km from Bell 1 to Deltaic Creek, 250 km north of Kitwanga, to provide improved access.
- Upgrading 18 km of gravel highway to a hard surface between Burrage and Willow Creek, 180 km south of Dease Lake, to handle fully loaded trucks year round, and designing a further six km of improvements to be built next spring.
- Sealcoating 15 km of recently reconstructed sections between Hodder Lake and Iskut, and making road base and surface improvements in various other locations in preparation for paving.
- Replacing the Todagin Bridge, 90 km south of Dease Lake, to improve safety and reduce maintenance costs.
- Repairing the Durham Creek Culvert, 140 km south of Dease Lake, to extend the life of the bridge and improve safety.
- Making repairs to the Dease River Bridge, 30 km north of Dease Lake, to extend the life of the bridge and reduce maintenance costs.

Provincial Roads

- Continuing the upgrading of the Nisga'a Highway by paving 26 km between Greenville and New Aiyansh.

- Constructing about nine km of new road and reconstructing about eight km of the existing Tuck Inlet Rd on the Tsimpsean Peninsula north of Prince Rupert to serve the village of Port Simpson. This project is cost-shared with the federal government and the Lax Kw'alaams band.
- Making road improvements to the Hazelton-Kitwanga Alternate Route, 19 km west of Hazelton, to provide a reliable alternative route.
- Making repairs to the Hagwilget Bridge, 10 km north of Hazelton, to extend the life of the bridge and reduce long-term maintenance costs.
- Making structural repairs to the Quick Bridge, 30 km east of Smithers, to extend the life of the bridge and improve safety.
- Reconstructing and gravelling eight km of Driftwood Road and Park Rd, 14 km north of Smithers, to provide improved access.
- Reconstructing a portion of Billeter Road, four km northwest of Smithers, to improve safety and provide improved access.
- Reconstructing various parts of Ootsa Nadina and East Ootsa Roads, 90 km south of Burns Lake, to provide safe and unrestricted access for extracting beetle damaged timber and better access for agricultural and residential users.
- Reconstructing 7.5 km of Palling Road, 12 km west of Burns Lake, to provide a consistent driving surface.
- Reconstructing Buck Flats Road, two km west of Houston.
- Reconstructing portions of Lake Kathlyn Area roads, five km west of Smithers.
- Reconstructing various gravel roads on the Queen Charlotte Islands and in the Terrace area to improve safety.
- Widening Kalum Lake Road, 30 km north of Terrace, to two lanes, and paving to provide better access to Lava Bed Lake Provincial Park and Nass Valley communities.
- Paving five km of Old Lakelse Lake Road, from Highway 37 to Williams Creek Bridge, to provide better access.
- Reconstructing and gravelling about 45 km of Telegraph Creek Road, west of Dease Lake, to improve safety and access.

VANCOUVER ISLAND REGION

Highway 1 Projects

- Making various safety improvements between Mays Road and James Road in Duncan, including resurfacing, installing new signals at Mays Road and Drinkwater Road, and restricting turning movements on and off the highway.
- Improving the co-ordination of traffic signals through Duncan to improve safety and traffic flow.
- Resurfacing 6.3 km from Aspen to Whittaker in the Malahat area.
- Constructing a northbound, right-turn deceleration lane at Aspen Road, Malahat.

- Lengthening the southbound left-turn slot at McKenzie Avenue in Saanich to increase capacity and improve safety.
- Co-ordinating the traffic signals from Tolmie Avenue to Admirals Road in Saanich.

Highway 4 Projects

- Designing and beginning construction to widen the S-bend curves, west of Cathedral Grove. Construction will finish next year.
- Resurfacing the decks of the Cameron East and West bridges, east of Cathedral Grove Park, to preserve the infrastructure and maintain safety.
- Surveying and detailed design for the future widening of the section of highway at Hydro Hill, east of Ucluelet.
- In partnership with the municipality, adding a left-turn phase to the traffic signal at Gertrude Street in Port Alberni.

Highway 19 Projects

- Starting realignment and reconstruction of the northern 6 km of the Misty Lakes section between Port McNeill and Port Hardy to reduce travel times, provide more places to pass and improve safety.
- Resurfacing between Elk Falls and Roberts Lake north of Campbell River.
- Designing, constructing and paving shoulders from Elk Falls to Roberts Lake, as well as making intersection improvements and minor road realignments.
- Improving safety between Nanaimo and Parksville by extending the median barrier between Northwest Bay Road and Northwest Bay Logging Road.
- Lengthening the southbound left-turn slot at College/Fifth Street in Nanaimo to increase capacity and improve safety.
- Designing and building a larger brake check north of Sayward to accommodate the increase in truck traffic.

Highway 101 Projects

- Improving safety by extending a second westbound lane from Seamount Road to Pratt Road in Gibsons to provide a lane for traffic wishing to turn right onto Pratt Road. This project will also provide drainage improvements and sidewalks, in partnership with the Town of Gibsons, on the north side of Highway 101.
- Reconstructing and resurfacing sections of the highway between Powell River and Lund.
- Improving the traffic signal co-ordination in Sechelt and Gibsons.
- Sealcoating various Sechelt-area side roads.
- Making improvements to the traffic signals at Payne and Pratt roads in Gibsons.
- Installing a new traffic signal at Mahan Drive in Gibsons.
- Providing a safe holding area for traffic turning left across the highway at Ocean View Drive in Gibsons.

Provincial Roads

- Replacing the Dry Creek Bridge on Coal Harbour Road near Port Hardy.
- Regravelling intermittent sections of Holberg Road near Port Hardy.
- Regravelling Horne Lake area roads to improve access and reduce maintenance costs.
- Gravelling and sealcoating Spider Lake and Turnbull Roads.
- Replacing the deteriorating retaining wall on the north side of the 17th Street Bridge on Highway 19A in Courtenay.
- In partnership with the Comox Valley Airport Commission, widening and paving the shoulders of Knight Road to improve access to the new Comox Valley Airport Terminal.
- Replacing the Sutton Creek Bridge at Honeymoon Bay with a new bridge.
- Replacing the Bonsall Creek Bridge on Crofton Road with a new bridge.
- Adding a protected left turn to the traffic signal for traffic turning north onto the Trans-Canada Highway from Highway 18.
- Repaving one km of Tzouhalem Road, one km east of Duncan, to improve access to the lakeside and First Nations communities.
- First-time hard-surfacing, 1.2 km of Colman Road and repaving 500 metres of Kilmalu Road in Cobble Hill to improve safety for residents.
- Widening, improving the alignment, and paving Fisher Road in Cobble Hill.
- Paving and shoulder widening on Powder Point Road in the Nanoose area.
- Removing rock alongside a curve on Highway 14 near Gillespie Road to improve sight lines for drivers.
- Widening sections of West Coast Road for guardrail placement in warranted areas.
- Repaving about two km of roads on Pender Island to improve ride quality and safety for residents.
- First-time paving of one km of Musgrave Road on Saltspring Island and strengthening and repaving about 500 metres of Isabella Road, starting at Fulford – Ganges Road.
- Resurfacing portions of Highway 19A through Nanaimo.
- Sealcoating Mountain Road in the Duncan area.
- Widening Hudgrove Road in the Lake Cowichan area to improve safety for residents.
- Sealcoating sections of Head Bay Road between Gold River and Tahsis.
- Co-ordinating the traffic signals on Highway 17 from Tolmie Avenue to Saanich Road in Saanich.
- Resurfacing Highway 17 between Beacon Avenue and Mt. Newton Road.
- Adding an advance left-turn signal for traffic eastbound on Mt. Newton turning north onto Highway 17 in Central Saanich.
- Repairing and widening Egmont Road on the Sunshine Coast.

LOWER MAINLAND

Highway 1 Projects

- Repaving Highway 1 from 152nd Street in Langley to 264th Street in Surrey.

Highway 10 Projects

- Paving the truck-staging area at the Pacific Border Crossing on Highway 15.
- Planning the future four-laning of the highway from the existing four-lane section south of 32nd Avenue to the Cloverdale Bypass in Surrey. This project is cost-shared with the federal government.
- Planning for future four-laning from 59th Avenue to 66th Avenue in Surrey and for upgrading the 60th Avenue and 64th Avenue intersections. This project is cost-shared with the federal government.
- Planning for future four-laning from 66th Avenue to Fraser Highway in Surrey. This project, which is cost-shared with the federal government, would provide continuous four-laning from south of 32nd Avenue to 88th Avenue.
- Planning the future widening of the intersection at Fraser Highway to complement the planned four-laning of Highway 15. This project is cost-shared with the federal government.
- Planning the future four-laning of the highway from Fraser Highway to 88th Avenue in Surrey. This project is cost-shared with the federal government.
- Designing a dedicated truck-crossing lane at the Pacific Border crossing in Surrey for trucks with commercial shipments that are pre-approved for border clearance. This project is cost-shared with the federal government.
- Designing and constructing additional southbound commuter lanes at the approaches to Pacific Border Crossing to reduce border wait times for commuters. This project is cost-shared with the federal government.
- Replacing timber piles on the Nicomekl Bridge in Surrey to extend the life of the bridge.
- Designing and constructing improvements to the intersection at 88th Avenue in Surrey. This project is cost-shared with the federal government.
- Planning the four-laning of the highway from Fraser Highway to 88th Avenue in Surrey, including widening the shoulders and median and putting signals at the 80th Avenue intersection. This project is cost-shared with the federal government.

Highway 99 Projects

- Rehabilitating the North Culliton Creek Bridge and reconstructing seven km of the Sea-to-Sky Highway between Culliton Creek and Cheakamus Canyon.
- Completing the upgrade of the Massey Tunnel counterflow system including design work, software development and installation.
- Carrying out a seismic retrofit of the Massey Tunnel.

- Designing an extension of the dedicated commuter lane at the Highway 99 Peace Arch border crossing to improve cross-border traffic flow. This project is cost-shared with the federal government.
- Improving the traffic signal operation on Highway 99 at South Surrey Interchange.
- Installing a queue-detection system on Highway 99/1A (Marine Drive) at the Taylor Way intersection in West Vancouver to improve traffic flow.
- Repairing deteriorating piers on the Old Capilano East Bridge on Highway 99/1A.

Provincial Roads

- Planning and evaluation for the future upgrade of the Queensborough Bridge North Interchange. This project is cost-shared with the federal government.
- Planning for the future construction of a diamond interchange at Highway 91A and Howes Street in New Westminster. This project is cost-shared with the federal government.
- Replacing corroding metal sidewalks on the Highway 17 Ladner underpass to maintain pedestrian and cyclist safety.
- Carrying out a seismic retrofit of the Highway 17 Tsawwassen Overhead in Delta.
- Resurfacing the intersection of Highways 17 and 10.
- Designing the four-laning of 8th Avenue from Highway 99 to Highway 15 in Surrey. The project will include intersection improvements at 176th Street (Highway 15), and interchange improvements at Highway 99. This project is cost-shared with the federal government.
- Installing an automated traveller information system to inform motorists of congestion delays at the Peace Arch and Pacific border crossings. This project is cost-shared with the federal government.
- Improving the traffic signal operation on Highway 7 at the Haney Bypass in Maple Ridge to improve safety and increase traffic efficiency.
- Improve the co-ordination of traffic signals on Highway 7 through Maple Ridge.
- Improving the traffic signal operation on Bridgeport Road at No. 3 Road in Richmond to increase traffic efficiency.
- Improving the lighting on the eastbound ramp of Highway 91 to Highway 91A in Richmond.
- Replacing the Bailey bridge over the Birkenhead River on Pemberton Portage Road, 6.6 km north of Mt. Currie.
- Repairing and widening Pemberton Portage Road.
- Repairing and widening Ring Creek/Garibaldi Park Road.

FRASER VALLEY REGION

Highway 1 Projects

- Resurfacing the highway between Vedder Canal and Chilliwack River Road.

APPENDIX: 2003/04 HIGHWAYS PROJECTS

- Designing and engineering for the future straightening of curves near the eastbound off-ramp of the Whatcom Interchange.

Highway 11 Projects

- Building a commercial vehicle staging area to relieve congestion at the Huntingdon Border Crossing. This project is being cost-shared with the federal government.
- Depositing up to 90,000 cubic metres of gravel along the highway from Clayburn Road to Harris Road in Abbotsford to prepare for next year's widening, grading and paving of the 3.2-km section of road.
- Repaving the slow lanes from Old Clayburn Road to the Abbotsford-Mission Highway and from the U.S. border to 8th Avenue.
- Planning and evaluation for future improvements to the intersection at Vye Road in Abbotsford. This project, which is cost-shared with the federal government, will improve safety and reduce delays to traffic by trains.
- Planning and evaluation for future improvements to the Trans-Canada Highway interchange in Abbotsford. This project is being cost-shared with the federal government.

Provincial Roads

- Designing and engineering for the future four-laning of Highway 7 from 285th Street to Hayward/Donatelli in Mission.
- Planning and engineering for the future widening of the intersection of Highway 7 and Highway 11 in Mission.
- Sealcoating various sections of Chilliwack Lake Road.
- Sealcoating various Chilliwack-area side roads.
- Rehabilitating the structural components of the Kontney Road Bridge to extend the life of the bridge.
- Improving the grade and repaving Morris Valley Road in Harrison Mills.
- Stabilizing the rock slopes on Highway 7 at Odlum, 5 km west of Hope.

KAMLOOPS REGION

Highway 1 Projects

- Designing and building a new 1.3-km-long concrete retaining wall to replace the Thompson River Bin Wall at Shaw Springs, 23 km north of Lytton.
- Rehabilitating the Nine Mile Bridge, 10 km north of Boston Bar.
- Repaving between Anderson Bridge and Jackass Mountain, Boston Bar.
- Four-laning 4.2 km between Sorrento and Salmon Arm. This project is being cost-shared with the federal government.

- Replacing Woods Overhead over CPR mainline on Highway 1 and realigning two km of the highway, 18 km west of Revelstoke. This project is cost-shared with the federal government.
- Resurfacing intermittent sections between the Crazy Creek Bridge and Columbia River Bridge, east of Revelstoke.
- Resurfacing sections of the highway from Revelstoke to Perry River.

Provincial Roads

- Resurfacing Highway 3 from Skagit River Bridge to Allison Pass, east of Hope.
- Stabilizing the rock slopes on Highway 3 at Skagit Bluffs, 31 km east of Hope.
- Designing and engineering for construction in 2005 to four-lane 8.2 km of the Okanagan Connector between Garcia Lake and Courtney Lake.
- Realigning a 1.6-km section of Highway 5 at Preacher Hill, 74 km north of Kamloops. This project is cost-shared with the federal government.
- Realigning a curve at Fishtrap Canyon, about 14 km south of Barriere.
- Graveling 25 km of Tranquille Criss Creek Road.
- Sealcoating a total of 8.5 km of Agate Bay Road and Sinmax Road in the Barriere area so that the entire road between Highway 5N and Adams Lake will be hard-surfaced.
- Reconstructing and widening sections of Trinity Valley Road near Enderby to safely accommodate increasing traffic volumes.
- Resurfacing 23 km of Sun Peaks Road and reconstructing 1.2 km of road from Burfield Drive to Fairways Drive.
- Constructing shoulders on the Merritt-Princeton Highway 5A.
- Resurfacing a 13.5-km section of Highway 3 from the Whipsaw Bridge to Princeton.
- Designing, surveying and starting reconstruction of three km of the Chase-Falkland road.
- Rehabilitating the decks of the Brodie East and West bridges, the Kingsvale West Bridge and the Kingsvale West Overpass on the Coquihalla Highway south of Merritt.
- Sealcoating 18 km of Tunkwa Lake Road to improve access for industrial traffic.
- Designing and engineering for future realignment and widening from Doyle Road to Lac La Hache Provincial Park.
- Widening a section of Highway 20 on the Bella Coola Hill.
- Regraveling eight km and repaving seven km of Canim Hendrix Road.
- Building a new Waterfall Bridge to replace the existing timber bridge.
- Regraveling about 8 km of Bridge Lake area roads.
- Spot graveling Pettyjohn Road.
- Paving a 2.5-km gravel section of Chimney Lake South Road.
- Realigning and reconstructing 3.5 km of Highway 20 between Green River and the Bella Coola Hill.
- Regraveling roads in the Sheridan Lake area.
- Regraveling Christiansen/Dean Road.

OKANAGAN REGION

Highway 97 Projects

- Constructing an interchange to replace the congested intersection at the Highway 97/97A junction just north of Vernon, widening 4.6 km of Highway 97A from two lanes to four lanes and constructing 5.1 km of service roads.
- Resurfacing five km from Stickle Road to the Swan Lake Junction at Highway 97A.
- Resurfacing 27 km from Pinaus Lake Road to Hanna Road, Westwold.
- Installing median barrier from Bernie Road to Kalamalka Lakeview Drive, Vernon.
- Designing and engineering for the future construction of northbound and southbound left-turn slots at the intersection with 35th Avenue in Vernon.
- Designing and engineering for the future construction of southbound left-turn slots at 21st Avenue in Vernon.
- Designing and engineering for the future construction of a southbound passing lane south of Falkland.
- Replacing the McAlpine Bridge, 11 km north of Oliver, with a wider bridge.
- Constructing a new Schweps Bridge to replace the existing timber bridge.
- Designing and engineering for the start of construction in 2004 to four-lane a five-km section midway between Peachland and Summerland.
- Designing and engineering for future construction of a southbound passing lane and the extension of a northbound passing lane about 20 km north of Clinton.
- Designing and engineering for future construction of a passing lane between Oliver and Osoyoos.
- Designing and engineering for future construction of a passing lane between Okanagan Falls and Vaseaux Lake.
- Designing and engineering for future construction of dual left-turn lanes on the Channel Parkway section of the highway at the Eckhardt and Railway intersection in Penticton.

Provincial Roads

- Widening the shoulders of Apex Mountain Road.
- Resurfacing various Kelowna and Westbank side roads.
- Constructing and paving shoulders on Silver Star Road.
- Resurfacing four km of side roads in the Penticton area this year and another 3.5 km next year.
- Widening and realigning Robinson Avenue from the intersection with Naramata Road West to increase sight distance and make it safer for pedestrians.
- Reconstructing 1.5 km of Beaverdell (Carmi) Road to provide better access.

KOOTENAYS REGION

Highway 1 Projects

- Continuing construction to replace the Five Mile Bridge, east of Golden, with a new four-lane bridge. This project is being cost-shared with the federal government.
- Complete four-lane construction of the Highway 1 and Victoria Road intersection in Revelstoke and realignment of the Highway 23N intersection. This project is cost-shared with the federal government.
- Designing for the future replacement of the Park Bridge, east of Golden, with a new four-lane bridge. This project is being cost-shared with the federal government.

Highway 3 Projects

- Realigning one km of the highway at Steamboat Hill, 26 km east of Cranbrook, to eliminate a sharp curve and construct a new eastbound passing lane.
- Continuing construction of the highway realignment through Moyie Bluffs, including widening the shoulders, building truck-climbing lanes and widening the Peavine Bridge, 25 km south of Cranbrook.
- Designing, engineering and reconstructing the Erickson Road intersection, just east of Creston.
- Designing and engineering for the future Cook Street upgrade through downtown Creston.
- Building a new bridge to replace the 54-year-old Michel Oldtown Bridge, six km east of Sparwood, and realigning 1.5 km of the highway.
- Completing construction of a new Hosmer Bridge, 10 km east of Fernie, to replace the narrowest remaining bridge on the highway.
- Carrying out preliminary design of a bridge to replace the Loop Bridge in Sparwood, including design of the roadway approaches and railway crossing.
- Resurfacing the deck of the Beaver Creek Bridge, 28 km southeast of Castlegar.
- Resurfacing the deck of Meadows Siding Overpass on Highway 3, between Salmo and Castlegar.
- Carrying out rock slope stabilization at Irisman Bluff, 15 km east of Yahk, at Loop Road, 44 km east of Yahk and west of the Elko Tunnel, 17 km west of Fernie.
- Resurfacing sections of the highway from the junction of Highway 41 to Phoenix Road in Grand Forks.

Highway 6 Projects

- Designing, engineering and beginning construction to realign Hicks Corner in New Denver.
- Completing design of a bridge that could replace the Needles ferry.
- Resurfacing a 21-km section from Appledale to Silverton.
- Resurfacing a four-km section from Cape Horn to Enterprise Creek.
- Resurfacing an eight-km section from Red Mountain Road to Silverton.

Provincial Roads

- Removing local traffic from Highway 93/95 by constructing a Windermere connector road and intersection improvements to provide an alternative route for local traffic onto Athalmer Road.
- Reconstructing the intersection of Highway 22 and 24th Street in Castlegar.
- Designing and constructing a southbound passing lane on Highway 22 at Birchbank between Castlegar and Trail.
- Designing and engineering for the future realignment of the two 90-degree corners on Highway 3B in Fruitvale.
- Designing and engineering for future highway improvements on Highway 3A at Glade Ferry Road, which will involve upgrading the intersection to improve safety and extending the westbound climbing lane.
- Strengthening and resurfacing the deck as well as replacing the railings on Carmi Bridge on Highway 33.
- Intermittent sealcoating of 4.5 km of Lazy Lake Road, Wasa, to improve recreation and tourism access.
- Removing the abandoned Bull River Wagon Bridge near Fort Steele.
- Resurfacing about 42 km of roadway and shoulders on Highway 93/95 from Canal Flats to Windermere.
- Resurfacing Wills Road, Fairmont Resort Road and Hot Springs Road in the Fairmont Hot Springs area to improve access to tourism and recreation opportunities.
- Reconstructing and resurfacing a portion of Sheep Creek Road, Skookumchuk, to reduce maintenance costs and improve access to the provincial park.
- Reconstructing and resurfacing four km of Wardner-Fort Steele Road.
- Resurfacing the deck of the Halfway River Bridge on Highway 23, about 25 km north of Nakusp.
- Replacing the Whitewater Bridge, south of Nelson, with a new concrete bridge.
- Regravelling 4.5 km of Highway 31 near Howser to improve industrial access.
- Carrying out rock slope stabilization on Highway 31 at Coffee Creek, 10 km north of Balfour.
- Reconstructing, widening, and resurfacing Nakusp Hot Springs Road to provide better access for tourists travelling to the hot springs.
- Resurfacing sections of Perry's Back Road, Slocan River Road and Lower Passmore Road in the Winlaw area.
- Upgrading and resurfacing Winlaw; 26th Avenue North; 25th Avenue South; 27th Avenue North; Crawford Hill; Beam; 16th Avenue South; Connel; 11th Avenue South in the Creston area.
- First-time hard-surfacing of 2.7 km of gravel roads in the Creston area, including: Lakeview-Arrowcreek, 20th Street and Mill Street.
- Resurfacing two km of side roads in the Fruitvale area.

- Making improvements to Kokanee Glacier Road near Nelson by constructing pullouts, regravelling sections and paving two steep sections.
- Resurfacing a 12-km section of Highway 31 from Queen's Bay to Ainsworth.
- Resurfacing Passmore, Passmore Lower Road and Passmore Old Road in the Slocan Valley.
- Resurfacing sections of Highway 23 North from 50 Mile Camp to Mica Creek.
- Sealcoating 18 km of Highway 23N from Keystone Creek to Wallace Road north of Revelstoke.

PRINCE GEORGE CENTRAL REGION

Highway 16 Projects

- Resurfacing 28 km of highway beginning about 20 km west of Vanderhoof to the Blackwater Road junction, six km east of Vanderhoof.
- Resurfacing a 41-km long section between the Tintagel rest area and the Endako Overhead, 17 km west of Fraser Lake.
- Designing and constructing a westbound climbing lane and an eastbound passing lane on Highway 16 about 10 km west of Vanderhoof.
- Making improvements, including constructing a left-turn slot and deceleration lanes where needed, at the intersections with Lund, Jardine and Meier roads in the Cluculz Lake area, 30 km east of Vanderhoof.
- Designing and engineering for a future realignment of one km of the highway through the Catfish Creek S curves, 145 km east of Prince George.
- Resurfacing 34 km of the highway from 10 km east of Ptarmigan Creek to West Twin Bridge, about 57 km west of McBride.
- Resurfacing the deck of the Robson River Bridge on Yellowhead Highway 16, 15 km east of the Tete Jaune junction.
- Resurfacing the deck of the Moose Lake Overhead on Yellowhead Highway 16, 44 km east of the Tete Jaune junction.

Highway 97 Projects

- Building a new Cottonwood Bridge, 15 km north of Quesnel, and upgrading 1.4 km of the highway serving the bridge. This project is cost-shared with the federal government.
- Designing and engineering for the future construction of a passing lane just north of 150 Mile House.
- Designing and engineering for the future construction of a climbing lane extension, about seven km south of 150 Mile House.
- Designing and engineering for the future construction of a southbound left-turn slot at Naver Creek Road, Quesnel.

Provincial Roads

- Resurfacing a seven-km section of Highway 27 from the Highway 16 junction to Braeside Road.
- Upgrading and repaving a two-kilometre section of Soda Creek Road starting at the north end of the Williams Lake municipal boundary.
- Sealcoating 10 km and gravel resurfacing 16 km of West Fraser Road to provide a better road for west side residents.
- Reconstructing and paving Nazko Road at Dunn's Corner.
- Paving a six-km gravel section of Garner Road, south of Quesnel.
- Regravelling 12 to 15 km of Beaver Valley Road.
- Realigning and widening Blackwater Road.
- Modifying the intersection of Highway 20 and MacKenzie Avenue, Williams Lake.
- Reconstructing Buckhorn Lake Road, 30 km south of Prince George.
- Hardsurfacing rural gravel roads in the Prince George area. Portions of network roads in the following areas will be included: 15 Mile area, about 20 km south of Prince George; Buckhorn area, about 30 km south of Prince George; Shelly South area, about 15 km east of Prince George; and the Tabor Lake South and Pineview areas, southeast of Prince George.
- Reconstructing and resurfacing roads in the North Kelly area, 10 km north of Prince George, to improve access for residents.
- Reconstructing Thorley Road where a minor slide caused damage.
- Completing the sealcoating of Blackwater Road northwest of Quesnel.
- Reconstructing a 10-km section of Blackwater Road, southwest of Prince George, to accommodate increased resource traffic.
- Reconstructing East Perry Road in the Ferndale area, 15 km southeast of Prince George, to provide better access.
- Paving Geddes Road, 15 km east of Prince George, to provide better access.
- Reconstructing and gravelling various sections of Saxton Lake Road, 40 km northwest of Prince George.
- Realigning and reconstructing Francois Lake Road, 30 km southwest of Fraser Lake.
- Hard-surfacing Ness Lake North Road, 20 km north of Prince George.
- Reconstructing and gravelling various sections of Vivian Lake Road, 40 km northwest of Prince George.
- Reconstructing Kenny Dam Road, 10 km south of Vanderhoof.
- Resurfacing the first 4.7 km of Sowchea Road, Fort St. James, to provide better access for residents and industrial traffic, as well as improving the intersection with Highway 27 to increase safety and move logging trucks more efficiently.

PEACE RIVER REGION

Highway 97 Projects

- Realigning the highway through South Peace Hill, south of Taylor, to lessen the risk of landslides closing the highway. This project is cost-shared with the federal government.
- Resurfacing 53 km from East Pine to Arras, 43 km southeast of Dawson Creek.
- Realigning the curve at Cairns Creek Bridge, 60 km west of Chetwynd.
- Carrying out detailed design for the future four-lane expansion of sections of Highway 97 in Fort St. John.
- Designing and engineering for future reconstruction of the highway between Bennett Creek and Link Creek, Chetwynd.
- Designing and engineering for future reconstruction of the intersection at Bessborough Road, Dawson Creek.

Oil and Gas Road Projects

- Reconstructing the Liard Highway from Km 93 to the Northwest Territories border and carrying out survey and design work from Km 43 to Km 93 to prepare for road base reconstruction and hard surfacing next year.
- Reconstructing the Beatton River Airport Road from Km 53 to Km 74 and carrying out survey and design work from Km 34 to Km 53 to prepare for widening next year.
- Surveying and design for future reconstruction and paving of Montney Highway Road.
- Widening and paving 30.7 km of Cecil Lake/Goodlow Road from the New Beatton Crossing to the Clearview School to provide a stronger, more reliable road that will serve the oil and gas industry year-round.

Provincial Roads

- Resurfacing 40 km of Highway 2 from the Alberta border to the traffic circle in Dawson Creek.
- Resurfacing seven km of Highway 49 from Briar Ridge Road to the Alberta border.
- Reconstructing, widening and hard surfacing Upper Halfway Road, 30 km north of Fort St. John, to improve safety and provide better access.
- Improving the intersection on the dangerous goods route at Road 208 in Dawson Creek to improve safety and increase efficiency.
- Reconstructing and widening Boundary Road, 32 km southeast of Dawson Creek, to provide an improved road for industrial traffic.
- Reconstructing and widening various roads in the Dawson Creek area. Roads include Pederson, Pouce Coupe Back Road, Berry Road, Old Edmonton Highway, Imperial Access/McQueens Road and North Rolla Road.
- Improving various bridges or culverts throughout the Peace region.
- Making gravel and drainage improvements to roads throughout the Peace region.

**For more information on B.C.'s transportation
strategy, visit the government's Web site:**

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