APPENDIX F

LAND USE AND COASTAL MANAGEMENT TECHNICAL REPORT

JUNEAU ACCESS IMPROVEMENTS
SUPPLEMENTAL DRAFT
ENVIRONMENTAL IMPACT STATEMENT

STATE PROJECT NUMBER: 71100
FEDERAL PROJECT NUMBER: STP-000S (131)

Prepared for

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AAC	Alaska Administrative Code
ACMA	Alaska Coastal Management Act
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
AMHT	Alaska Mental Health Trust
AMSA	Area Meriting Special Attention
CBJ	City and Borough of Juneau
CMP	Coastal Management Plan
Coeur	Coeur Alaska, Inc.
DEIS	Draft Environmental Impact Statement
DOT&PF	(Alaska) Department of Transportation and Public Facilities
EIS	Environmental Impact Statement
FERC	Federal Energy Regulatory Commission
FVF	fast vehicle ferry
Goldbelt	Goldbelt, Inc.
HCMP	City of Haines Coastal Management Plan
JCMP	Juneau Coastal Management Plan
LUD	Land Use Designation
MMBF	million board feet (of timber)
NEPA	National Environmental Policy Act
NSEAP	Northern Southeast Area Plan
OCRM	Office of Ocean and Coastal Resource Management
OPMP	Office of Project Management and Permitting
ROS	recreation opportunity spectrum
ROW	right-of-way
RV	recreational vehicle
SCMP	Skagway Coastal Management Plan
SDEIS	Supplemental Draft Environmental Impact Statement
SEIS	Supplemental Environmental Impact Statement
SUD	Special Use Designation
TLMP	Tongass National Forest Land and Resource Management Plan
TRUCS	Tongass Resource Use Cooperative Survey
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USDOI	United States Department of the Interior
USFS	United States Forest Service

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EXECUTIVE SUMMARY

This report is an update to the 1995 *Land Use and Coastal Zone Technical Report* (Alaska Department of Transportation and Public Facilities [DOT&PF], 1995; revised in 1997) that was included as an appendix to the 1997 *Juneau Access Improvements Draft Environmental Impact Statement* (Eco-Systems et al., 1997). Additional information has been incorporated from sources such as the *Tongass National Forest Land and Resource Management Plan* (TLMP) (USFS, 1997); updated management plans from the Alaska Department of Natural Resources; revised comprehensive plans for the communities of Haines and Skagway; updated Juneau Access Improvements Project technical reports for traffic and socioeconomic effects (*Juneau Access Improvements Project Supplemental Draft Environmental Impact Statement,* Appendices C and G, respectively); and a new 2003 *Juneau Access Household Survey Report* (McDowell, 2003). Revisions and updates provide a comprehensive discussion of the current status of the affected environment and of potential impacts to land use and coastal management from the proposed alternatives.

The proposed alternatives would improve access between the communities of Juneau, Haines, and Skagway. The alternatives consist of the No Action Alternative, a highway on the east side of Lynn Canal, a highway on the west side of Lynn Canal, and ferry service options using either existing facilities or new terminals. All alternatives require some type of ferry service or changes to existing ferry vessels and seasonal schedules.

This technical report addresses characteristics of the affected environment related to land ownership and management; land and resource uses such as timber harvesting, mineral development, recreation, commercial fishing, subsistence, and residential/commercial/industrial use; and coastal management plans and regulations. Potential impacts resulting from construction and operation of access improvement alternatives include changes in land ownership and status, potential conflicts with land management plans and regulations, changes in land and resource use or potential conflicts with existing uses, and conflicts with approved coastal management plans and standards.

Each of these potential impacts to land use and resources is evaluated in this technical report. Based on the assessment of potential environmental consequences, construction and operation of the project alternatives would have potential impacts, some beneficial and others adverse. Acquisition of land for highway rights-of-way (ROWs) and ferry terminal sites would result in some changes in land ownership. Access improvement alternatives would generally be compatible with land and coastal management plans and regulations, depending on methods and mitigation measures used for design and construction. Impacts on land and resource use from access improvements could be beneficial or adverse. Improved highway access could benefit uses such as timber harvesting, mineral development, and development of state and private lands. Highway access would benefit some recreation, subsistence activities, and residential/commercial/industrial use of lands but could adversely affect some existing users. Alternatives associated with improved ferry access could have adverse effects on commercial fishing and marine subsistence activities, depending on the location of terminals and the frequency of vessel trips. Potential effects associated with construction (e.g., traffic, noise, dust, and workforce) would be temporary. However, some potential effects associated with improving access between Juneau, Haines, and Skagway and providing new highway access to remote areas would be long-term in duration, although seasonal in nature. Examples include increased access to and use of recreation and subsistence resources; increased access for development of timber, minerals, and state and private lands; and changes in the nature or character of existing uses.

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1.0 PROJECT DESCRIPTION

1.1 Project Purpose and Need

The purpose of and need for the Juneau Access Improvements Project is to provide improved surface transportation to and from Juneau within the Lynn Canal corridor that will:

- Provide the capacity to meet the transportation demand in the corridor
- Provide flexibility and improve opportunity for travel
- Reduce travel time between Lynn Canal communities
- Reduce state costs for transportation in the corridor
- Reduce user costs for transportation in the corridor

1.2 Project Description

Lynn Canal, located approximately 25 miles north of Juneau, is the waterway that connects Juneau with the cities of Haines and Skagway via the Alaska Marine Highway System (AMHS). At present there is no roadway connecting these three cities. The Glacier Highway originates in Juneau and ends at Echo Cove, approximately 40.5 miles to the northwest.

As required by the National Environmental Policy Act (NEPA), the Supplemental Draft Environmental Impact Statement (SDEIS) for the Juneau Access Improvements Project considers the following reasonable alternatives:

Alternative 1 – No Action Alternative – The No Action Alternative includes a continuation of mainline AMHS service in Lynn Canal as well as the operation of the fast vehicle ferry (FVF) *M/V Fairweather* between Auke Bay and Haines and Auke Bay and Skagway. The *M/V Aurora* would provide shuttle service between Haines and Skagway, beginning as early as 2005.

Alternative 2 (Preferred) – East Lynn Canal Highway with Katzehin Ferry Terminal – This alternative would construct a 68.5-mile-long highway from the end of Glacier Highway at the Echo Cove boat launch area around Berners Bay to Skagway. A ferry terminal would be constructed north of the Katzehin River delta, and operation of the *M/V Aurora* would change to shuttle service between Katzehin and the Lutak Ferry Terminal in Haines. Mainline ferry service would end at Auke Bay, and the existing Haines/Skagway shuttle service would be discontinued. The *M/V Fairweather* would be redeployed on other AMHS routes.

Alternative 2A – East Lynn Canal Highway with Berners Bay Shuttles – This alternative would construct a 5.2-mile highway from the end of Glacier Highway at Echo Cove to Sawmill Cove in Berners Bay. Ferry terminals would be constructed at both Sawmill Cove and Slate Cove, and shuttle ferries would operate between the two terminals. A 52.9-mile highway would be constructed between Slate Cove and Skagway. A ferry terminal would be constructed north of the Katzehin River delta, and the *M/V Aurora* would operate between the Katzehin and the Lutak Ferry Terminals. Mainline ferry service would end at Auke Bay, and the existing Haines/Skagway shuttle service would be discontinued. The *M/V Fairweather* would be redeployed on other AMHS routes.

Alternative 2B – East Lynn Canal Highway to Katzehin with Shuttles to Haines and Skagway – This alternative would construct a 50.5-mile highway from the end of Glacier Highway at Echo Cove around Berners Bay to Katzehin, construct a ferry terminal at the end of the new highway, and run shuttle ferries to both Skagway and Haines from the Katzehin Ferry

Terminal. The Haines to Skagway shuttle service would continue to operate, two new shuttle ferries would be constructed, and the *M/V Aurora* would be part of the three-vessel system. Mainline AMHS service would end at Auke Bay. The *M/V Fairweather* would be redeployed on other AMHS routes.

Alternative 2C – East Lynn Canal Highway with Haines/Skagway Shuttle – This alternative would construct a 68.5-mile highway from the end of Glacier Highway at Echo Cove around Berners Bay to Skagway with the same design features as Alternative 2. The *M/V Aurora* would continue to provide service to Haines. No ferry terminal would be constructed at Katzehin. Mainline ferry service would end at Auke Bay, and the *M/V Fairweather* would be redeployed on other AMHS routes.

Alternative 3 – West Lynn Canal Highway – This alternative would extend the Glacier Highway 5.2 miles from Echo Cove to Sawmill Cove in Berners Bay. Ferry terminals would be constructed at Sawmill Cove and William Henry Bay on the west shore of Lynn Canal, and shuttle ferries would operate between the two terminals. A 38.9-mile highway would be constructed between William Henry Bay and Haines with a bridge across the Chilkat River/Inlet connecting to Mud Bay Road. The *M/V Aurora* would continue to operate as a shuttle between Haines and Skagway. Mainline ferry service would end at Auke Bay, and the *M/V Fairweather* would be redeployed on other AMHS routes.

Alternatives 4A through 4D – Marine Options – The four marine alternatives would construct new shuttle ferries to operate in addition to continued mainline service in Lynn Canal. All of the alternatives would include a minimum of two mainline vessel round trips per week, year-round, and continuation of the Haines/Skagway shuttle service provided by the *M/V Aurora*. The *M/V Fairweather* would no longer operate in Lynn Canal. All of these alternatives would require construction of a new double stern berth at Auke Bay.

Alternative 4A – FVF Shuttle Service from Auke Bay – This alternative would construct two FVFs to provide daily summer service from Auke Bay to Haines/Skagway.

Alternative 4B – FVF Shuttle Service from Berners Bay – This alternative would extend the Glacier Highway 5.2 miles from Echo Cove to Sawmill Cove in Berners Bay, where a new ferry terminal would be constructed. Two FVFs would be constructed to provide daily service from Sawmill Cove to Haines/Skagway in the summer and from Auke Bay to Haines/Skagway in the winter.

Alternative 4C – Conventional Monohull Shuttle Service from Auke Bay – This alternative would construct two conventional monohull vessels to provide daily summer service from Auke Bay to Haines/Skagway. In winter, shuttle service to Haines and Skagway would be provided on alternate days.

Alternative 4D – Conventional Monohull Shuttle Service from Berners Bay – This alternative would extend the Glacier Highway 5.2 miles from Echo Cove to Sawmill Cove in Berners Bay, where a ferry terminal would be constructed. Two conventional monohull vessels would be constructed to provide daily service from Sawmill Cove to Haines/Skagway in the summer and alternating day service from Auke Bay to Haines/Skagway in the winter.

2.0 METHODS

Chapter 3.0 of this technical report discusses current land ownership and management status, land and resource uses, and coastal zone management policies within the Juneau Access Improvements Project area. Chapter 4.0 identifies direct effects to the land and water resources by implementation of any of the proposed project alternatives. The majority of the project area lies within the Tongass National Forest, which is owned and managed by the United States Forest Service (USFS). The state owns and manages parcels of land, while the municipalities of Juneau, Haines, and Skagway administer comprehensive plans and coastal management plans within their districts. A number of private entities also own land within the project area.

2.1 Studies and Coordination

This technical report is an update to the 1995 *Land Use and Coastal Zone Technical Report* (revised in 1997) from the 1997 J*uneau Access Improvements Draft Environmental Impact Statement* (DEIS) (Eco-Systems et al., 1997). Since completion of the 1997 DEIS, project alternatives have been modified, new estimates of traffic volumes have been prepared for each alternative, a new public opinion survey was conducted in 2003, and some land ownership and jurisdictional boundaries and management policies have changed. Updates to some key planning documents are reflected in the current analysis.

2.2 Updates

This update is based on a literature review of publications addressing current land use, enforceable policies of the Alaska Coastal Management Program (ACMP) and district coastal management plans, and land ownership and management within the project area. Multiple documents have been reviewed for this update: the current *Tongass National Forest Land and Resource Management Plan* (TLMP) (USFS, 1997), the most recent community comprehensive plans (Juneau, Haines, and Skagway), state land plans, land use and environmental studies by private landowners within the project area, and current state and federal law. Some of the referenced plans have not changed since production of the 1997 DEIS. Any information incorporated from these plans is considered current for the purposes of this document and has not been modified. This report documents additional contacts with federal, state, and local government officials and private entities to update planning and land management information. Finally, information from traffic projections for 2004, an updated socioeconomic analysis, and a public opinion survey has been incorporated into the description of the affected environment and analysis of potential impacts.

This analysis incorporates the new range of alternatives that were developed for the SDEIS, updates information on existing conditions, and revises the assessment of potential impacts. The topics covered and the methods used to describe the affected environment have not changed, nor have the potential impacts from the approach used in the 1997 technical report. The evaluation of impacts to land uses and applicability of enforceable policies in the ACMP is based on information currently available to describe project alternatives, facility siting, and associated facility construction. Potential improvements to existing ferry terminal facilities are not addressed in the impact analysis because these improvements do not impact land ownership and management or land and resource use.

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3.0 AFFECTED ENVIRONMENT

3.1 Land Ownership and Management Status

3.1.1 Introduction

This section describes the current ownership and management status within the Juneau Access Improvements Project area. The project area consists of mainly undeveloped land. Some project alternatives would connect developed areas of Juneau with the communities of Haines or Skagway. Current uses of these lands and waters between the communities include commercial and sport fishing and wildlife harvest, recreation, remote residences and cabins, tourism, mineral development, and subsistence harvest. The proposed highway alternatives are located along the east or west shores of Lynn Canal, skirting the bays, inlets, and coves and crossing river deltas that border the canal. Inland from the shoreline are steep, rugged mountains that are capped with icefields. Alternatives 4A through 4D would alter the frequency and speed of ferry trips between Juneau, Haines, and Skagway. Alternatives 4B and 4D would require construction of a new ferry terminal at Sawmill Cove in Berners Bay for summer use only, along with an extension of the Glacier Highway from Echo Cove to that ferry terminal.

Land ownership in the project area is illustrated in Figure 3-1. Landowners and managers potentially affected by alternatives were identified in the Alaska Department of Transportation and Public Facilities (DOT&PF) 1997 *Addendum to the Land Use and Coastal Zone Technical Report*. Because ownership and jurisdiction have generally remained the same, much of the 1997 information is applicable and therefore is included below. However, new information has been incorporated where appropriate.

- The USFS is the major land manager along Lynn Canal. Most of the lands in the project area are in the Tongass National Forest and are managed by the USFS. Management direction for these lands is set forth in the TLMP.
- Alaska Department of Natural Resources (ADNR) manages several state-owned parks, marine parks, and a state forest in the project area. ADNR also manages most of the state-owned tidelands, submerged lands, and lands under navigable waters along Lynn Canal. Specific management guidelines are set forth in the *Juneau State Land Plan* (ADNR, 1993), *Northern Southeast Area Plan* (NSEAP) (ADNR, 2002a), *Haines State Forest Management Plan* (ADNR, 2002b), and the *Alaska Chilkat Bald Eagle Preserve Management Plan* (ADNR, 2002c). The University of Alaska and the Alaska Mental Health Trust also own lands within the project area.
- Portions of the project area lie within jurisdictions of the City and Borough of Juneau (CBJ), Haines Borough, and the City of Skagway. Each local government either owns or has selected certain lands within the project area. Management guidelines for each community are set forth as follows:
  - CBJ: *City and Borough of Juneau Comprehensive Plan* (CBJ, 1996) and *Juneau Coastal Management Plan* (JCMP) (CBJ, 1992)
  - City of Skagway: *Skagway Comprehensive Plan* (City of Skagway, 1999) and *Skagway Coastal Management Plan* (SCMP) (City of Skagway, effective 1983, 1990, and 1991, Area Meriting Special Attention (AMSA) in effect 1992)
  - Haines Borough (including the former City of Haines): *Haines Borough Comprehensive Plan* (Haines Borough, 1999; 2004), *City of Haines Comprehensive Plan* (City of Haines, 2000a), City of Haines Land Use Code (City of Haines, 2001), and *City of Haines Coastal Management Plan* (HCMP) (City of Haines, 2000b). The

City of Haines and the Haines Borough were consolidated in 2002 to form the Home Rule Haines Borough, and consolidated land management plans are being developed.

- Private lands are clustered at several locations throughout the project area and include mines and patented mining claims, private homesteads, Goldbelt, Inc. (Goldbelt) land, and some Native allotments.

3.1.2 Federal Land Ownership and Management Status

Most of the land in the Juneau Access Improvements Project area is part of the Tongass National Forest, which is federally owned and managed by the USFS. The 1997 TLMP contains Land Use Designations (LUDs) of management parcels within the Tongass National Forest. Federal land in the project area not owned by the USFS is owned by the National Park Service. The 1997 *Addendum to the Land Use and Coastal Zone Technical Report* information on National Park Service land within the project area is current and is incorporated in the following subsections.

3.1.2.1 U.S. Forest Service Land Ownership and Management

The Tongass is the nation's largest national forest (17 million acres) and encompasses most of Southeast Alaska. The Juneau Access Improvements Project area is located in the northeastern corner of the Tongass National Forest, in the Juneau Ranger District.

The USFS owns much of the lands in East Lynn Canal. The Tongass National Forest includes the uplands along the eastern side of the Goldbelt Echo Cove shore lands, and almost all of the land between Cascade Point and Skagway from the east shore of Lynn Canal to the Canadian border. Most of the lands along the Alternative 3 (West Lynn Canal Highway) route are also within the Tongass National Forest, beginning at William Henry Bay and proceeding north to the Sullivan Mountain area, where the principal land ownership changes to the Haines State Forest, extending northward to Pyramid Harbor. Recognizing the potential for a future transportation corridor in the Lynn Canal area, the USFS management plan provides for a transportation corridor across Tongass lands along both the east and west sides of Lynn Canal.

The USFS management direction for the Tongass National Forest is set forth in the TLMP, as revised. The TLMP was adopted in 1979 and most recently revised in 1997. The Tongass Timber Reform Act of 1990 further modified management practices on USFS lands in the Tongass.

3.1.2.1.1 Current TLMP Land Use Designations

The TLMP guides natural resource decision making in the Tongass National Forest by establishing management standards and guidelines for a variety of activities. It describes resource management practices, levels of resource production and management, and the availability and sustainability of lands for different kinds of resource management.

The TLMP established two main LUD categories: Non-development (which maintains old-growth forest habitat) and Development. Each LUD category describes the purpose and objectives of management for each area of the Tongass National Forest and establishes specific constraints for the various uses. Figure 3-2 depicts the locations of current TLMP land use designations within the project area. Attachment A outlines the TLMP management prescriptions within the project area.

The Non-development LUD category contains two groups: Wilderness and National Monument, and Mostly Natural. The Development LUD category also consists of two groups: Moderate Development and Intensive Development. Each of these four groups consists of sub-categories of LUD designations, which are described below.

- Wilderness and National Monument
  - Wilderness – Preserves essentially unmodified areas to provide opportunities for solitude and primitive recreation. Limits motorized access.
  - Wilderness National Monument – Manages monuments to provide opportunities for solitude and primitive recreation. Limits motorized access.
  - Non-Wilderness National Monument – Facilitates the development of mineral resources in a manner compatible with the National Monument purposes.
- Mostly Natural
  - LUD II – Maintains the wildland characteristics of these Congressionally designated roadless areas; permits fish and wildlife improvements and primitive recreation facilities.
  - Old-Growth Habitat – Maintains old-growth forests in a natural or near-natural condition for wildlife and fish habitat.
  - Research Natural Areas – Manages areas for research and education and/or to maintain natural diversity of National Forest System lands.
  - Remote Recreation – Provides for recreation in remote natural settings outside Wilderness, where opportunities for solitude and self-reliance are high.
  - Semi-Remote Recreation – Provides for recreation and tourism in natural-appearing settings where opportunities for solitude and self-reliance are moderate to high.
  - Municipal Watersheds – Manages municipal watersheds to meet state water quality standards for domestic water supply.
  - Special Interest Areas – Preserves areas with unique archaeological, historical, scenic, geological, botanical, or zoological values.
  - Wild, Scenic, and Recreational Rivers – Maintains and enhances the outstandingly remarkable values of river segments that qualify the river to be classified as a Wild, Scenic, or Recreational River.
- Moderate Development
  - Modified Landscapes – Provide for natural-appearing landscapes while allowing timber harvest and a mix of resource activities, including mineral development.
  - Scenic Viewsheds – Maintains scenic quality in areas viewed from popular land and marine travel routes and recreation areas, while permitting timber harvest.
  - Experimental Forest – Provides opportunities for forest practices research and demonstration.
- Intensive Development
  - Timber Production – Manages the area for industrial wood production. Promotes conditions favorable for timber resources and for maximum long-term timber production.

- Minerals – Encourages mineral exploration and development of areas with high mineral potential.
- Transportation and Utility Systems – Emphasizes existing and potential major public transportation and utility systems. Until constructed, manage according to the other land use designation indicted.

3.1.2.1.2 Non-Development LUDs

East Lynn Canal – Much of the area around the east side of Berners Bay is designated LUD II and Semi-Remote Recreation. The north end of Berners Bay has two areas designated Old-Growth Habitat, located both east and west of Slate Cove; an additional area of Old-Growth Habitat occurs about midway between Comet and Met Point. This same area is also designated as Mineral LUD, as are Modified Landscape LUD for areas west of Berners Bay. The Katzehin River is proposed to be designated a Wild River; however, the lower 2 miles of the river adjacent to Lynn Canal are not designated Wild in recognition of the potential for a future transportation corridor in this area. Approximately 4 miles north of Met Point, USFS lands are designated Semi-Remote Recreation until entering the City of Skagway.

West Lynn Canal – From William Henry Bay north to nearly the Sullivan River, the USFS lands are designated Semi-Remote Recreation. The Endicott River Wilderness Area, which lies inland west and northwest of William Henry Bay, is not affected by the project. The lower 2.5 miles of the Endicott River, where the Alternative 3 highway would be located, is outside of the designated Wilderness category area.

3.1.2.1.3 Development LUDs

East Lynn Canal – Portions of Alternatives 2 through 2C (the East Lynn Canal Highway alternatives) extending north from Echo Cove to approximately 4 miles north of Met Point cross Tongass lands designated as Scenic Viewshed (Echo Cove area only) and Modified Landscape. The Modified Landscape lands include a Minerals designation. The TLMP includes a Proposed State Road Corridor from Echo Cove to Skagway. The TLMP contains a provision that this corridor would become a Transportation and Utility Systems LUD if a highway is constructed.

West Lynn Canal – LUDs in the Development category along the West Lynn Canal project area include Scenic Viewshed along the western shore surrounding the south and west sides of William Henry Bay and adjoining the lower 3 miles of the Endicott River. USFS lands are designated Modified Landscape from approximately the Sullivan River to the area of Sullivan Mountain at the boundary with the Haines State Forest. The Modified Landscape LUD west of Sullivan Island is partially overlaid with a Mineral LUD. The TLMP includes a Proposed State Road Corridor from the Point Howard area along the west side of Lynn Canal to north of Haines. If a highway is constructed within this corridor, the part occupied by the highway would become a Transportation and Utility Systems LUD.

3.1.2.1.4 Legislation Affecting the Tongass National Forest

In 2000, a Clinton Administration ban on timber harvest and highway construction within 58.5 million acres of the 192-million acre National Forest System (Roadless Area Conservation Rule) resulted in the assignment of approximately 9.6 million acres of the Tongass National Forest as Non-development lands along West Lynn Canal. The ban went into effect after April 2004. The State of Alaska, as well as six other states, challenged this ban. Exempting the Tongass National Forest from the Non-development land use designations along West Lynn Canal was part of the settlement reached in 2003 to satisfy the State of Alaska lawsuit against the USFS.

In October 2003, the United States (U.S.) House Resources Committee approved a bill allowing a land exchange within the Berners Bay area (Cape Fox Land Entitlement Adjustment Act of 2003). The trade would allow USFS-owned Tongass land near the Kensington Mine to be traded for land held by Sealaska Corporation and Cape Fox near Ketchikan (2,700 acres in the Johnson and Slate creek drainages to Cape Fox Corporation; 9,300 acres in the Johnson, Sherman, and Sweeny creek drainages to Sealaska). Cape Fox Corporation is the Native corporation for the village of Saxman, located near Ketchikan. The subsurface rights for this land would be transferred to Sealaska Corporation, the Southeast Alaska regional Native corporation. The bill (S. 1354) did not pass out of committee in the Senate. The bill is not expected to pass in the 108th Congress.

3.1.2.2 National Park Service Ownership and Management

The 1997 *Addendum to the Land Use and Coastal Zone Technical Report* includes the following discussion of National Park Service and state land and resource ownership and management in the project area:

> The Skagway unit of the Klondike Gold Rush National Historical Park covers [12,976] acres. The other park unit is in Seattle. Actual ownership is split between the State of Alaska [8,723 acres], the Federal government [2,419 acres], [the City of Skagway (1,477 acres)], and private owners [including Native allotments (220 acres), private land in Dyea (57 acres), and commercial land (80 acres)].
>
> In addition to the historic structures in downtown Skagway, the major attraction of the Klondike Gold Rush Park is the Chilkoot Trail, located nine highway miles west of Skagway in Dyea. The Chilkoot Trail unit covers 9,900 acres and begins at the north edge of Dyea and extends 16.5 miles north along the Taiya River valley to the Canadian border. The General Management Plan emphasizes developing and following a comprehensive approach that will protect the natural resources and ensure perpetuation of a pristine landscape compatible with the historic setting.

3.1.3 State Land Ownership and Management Status

The state owns and manages several state parks, marine parks, and a state forest within the project area. The state also owns and manages most of the tidelands, submerged lands, and lands under navigable fresh waters along Lynn Canal. Management of state lands is described in the *Juneau State Land Plan* (ADNR, 1993), the NSEAP (ADNR, 2002a), the *Haines State Forest Management Plan* (ADNR, 2002b), and the *Alaska Chilkat Bald Eagle Preserve Management Plan* (ADNR, 2002c). Other state-owned lands include the University of Alaska and Alaska Mental Health Trust lands. The locations of state lands are shown in Figure 3-1.

3.1.3.1 State Land and Resource Ownership

The majority of the state land and resource ownership information for the east and west sides of Lynn Canal provided in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* is still current and is included in the discussion below. Updates for East Lynn Canal parcels based on information from the NSEAP (ADNR, 2002a) have also been incorporated.

3.1.3.1.1 East Lynn Canal

The state owns all tidelands, submerged lands, and lands under navigable fresh waters within the project area, except those that have been patented to other owners. In addition, the state owns or has filed statehood selections on several parcels along the east side of Lynn Canal.

Within the Berners Bay area, state-owned and managed land is located at Point Bridget State Park west of Echo Cove. Near Skagway, state land in the area of Devil's Punchbowl would be crossed by the highway alignment and is managed for scenic and recreational values, with potential for development in the west portion of the parcel. There is also state land in the Twin Dewey Peaks area that would not be crossed by the alignment. The Twin Dewey Peaks area state land is managed as a viewshed, except for an area west of the railroad tracks where material extraction is permitted.

The state has selected four parcels of USFS land along East Lynn Canal. Selection by the state does not convey ownership or management, so these selected lands continue to be managed by the USFS. One of these selections is in the Berners Bay area, and the other three are in the area of the Katzehin River. All four parcels would be crossed by the highway alignment. The parcel in the Berners Bay area consists of 615 acres in Slate Creek Cove that have been selected as prospective community land related to the development of mining in the Kensington-Jualin area (ADNR, 2002a). The area has been used in the past as a barge landing and highway access to the Jualin mine. Two of the parcels in the Katzehin River area, totaling approximately 660 acres, are located south of the Katzehin River and were selected by DOT&PF as possible future ferry terminal sites. However, the DOT&PF is no longer interested in the parcels for this purpose (ADNR, 2002a). The fourth parcel (615-acres) was selected by the state on the north side of the Katzehin River delta for community recreation purposes (ADNR, 2002a). It is unlikely that the parcels in the Katzehin River area will be conveyed to the state because they are all affected by Public Land Order 5603 (1976), which withdrew these lands from federal lands available for selection. The Public Land Order would have to be withdrawn for any land transfer to occur (41 Federal Register 44041). In addition, these three parcels are currently classified as state land selection priority level "C," the lowest level of classification, and will not be considered for conveyance to the state unless the selection priority is changed (ADNR, 2002a). It is unlikely that Public Land Order 5603 will be withdrawn; therefore, it is expected that the three Katzehin River area parcels will remain under USFS management.

The existing ferry terminal at Skagway is also state property. Immediately adjacent tidelands and submerged lands are state owned, abutted by city tidelands on the east and city tidelands under long-term lease to the White Pass and Yukon Railroad on the west.

3.1.3.1.2 West Lynn Canal

On the west side of Lynn Canal, a 328-acre parcel of land along the northwest shore of William Henry Bay was transferred to the state for possible use as a ferry terminal site. Other areas of state land managed by ADNR on the west side of Lynn Canal that are not directly affected by the Juneau Access Improvements Project include Sullivan Island State Marine Park, Chilkat State Park on the Chilkat Peninsula, and the Chilkat Bald Eagle Preserve.

The northern boundary of the Tongass National Forest on the west side of Lynn Canal is oriented in an east-west direction from Sullivan Mountain toward Seduction Point on the southern tip of the Chilkat Peninsula. North of this boundary, most of the land in the project area is within the Haines State Forest. Pyramid Island, the tidelands surrounding the island, and the tidelands adjacent to both the west and east sides of Chilkat River and Chilkat Inlet are state owned. Alternative 3 (West Lynn Canal Highway) would terminate at the highway landfall on the east side of Chilkat River, at the point of intersection with the existing Mud Bay Highway.

The state owns all tidelands and submerged lands in the project area except where they have been conveyed (patented) to other landowners. Leases or easements granted by the state across tidelands or submerged lands do not convey ownership, and such lands remain state-owned.

On the north side of Pyramid Harbor, is a school selected state owned parcel. Under Alternative 3 (West Lynn Canal Highway), the proposed alignment would pass through this parcel.

The state owns tidelands and submerged lands at the existing Auke Bay Ferry Terminal and the ferry facilities. One-quarter of the Lutak dock, the current ferry terminal in Haines, is owned by the state. The DOT&PF manages the tidelands and submerged lands at the Lutak dock site and several small upland parcels on the west side of Lutak Highway.

3.1.3.2 State Land and Resource Management

The ADNR has developed two area plans for state lands within the project area: The *Juneau State Land Plan* (ADNR, 1993) and the NSEAP (ADNR, 2002a). The two plans share a common boundary and, together with the *Haines State Forest Management Plan* (ADNR, 2002b) and the *Alaska Chilkat Bald Eagle Preserve Management Plan* (ADNR, 2002c), address state lands in the Juneau Access Improvements Project area. Other categories of state lands include state parks such as Chilkat State Park and Sullivan Island State Marine Park, the University of Alaska, and Mental Health Trust lands.

The *Juneau State Land Plan* includes nearly all of the land within the CBJ, except for land on Admiralty Island (ADNR, 1993). The *Juneau State Land Plan* criteria summarized in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* for development projects on state land or tidelands within the CBJ are still appropriate and are presented below. Updated information is identified and included in the discussion.

> Within the CBJ, the State owns approximately 22,200 acres of uplands and 306,900 acres of tidelands and submerged lands. The State has selected another 22,200 acres of uplands. These lands are managed by ADNR, Division of Lands, generally for multiple uses. The Juneau State Land Plan, December 1993, establishes broad management policies for land, and more detailed LUD to specify intended uses and values. Selected policies generally applicable to any transportation or utility project on State land within the CBJ are listed below. These should be considered design criteria for highway projects:
>
> - **Roads or Causeways** – Temporary and permanent highways or causeways will, to the extent feasible and prudent, be routed to avoid wetlands and tide flats, avoid streams and minimize alteration of natural drainage patterns, and avoid long-term adverse effects on recreation, water quantity, or water quality. If a temporary highway is routed through tide flats, clean fill will be used and construction methods that facilitate removal of the fill will be required.
> - **Protect Hydrologic Systems** – Transportation facilities will, to the extent feasible and prudent, be located to avoid significant effects on the quality of adjacent surface water resources and to avoid detracting from recreational use of waterways. The following guidelines apply:
>   - Stream crossings should be minimized. Those in anadromous fish habitat require an Alaska Department of Fish and Game (ADF&G) permit. [In 2003, responsibility for anadromous fish habitat permitting was transferred to the ADNR, Office of Habitat Management and Permitting.] Where a stream must

be crossed to construct a highway, the crossing should be as close as possible to a 90-degree angle to the stream, consistent with good highway alignment practices. Stream crossings should be made at stable sections of the stream channel.

- Construction in wetlands, floodplains, and other poorly drained areas should be minimized and existing drainage patterns maintained. Culverts should be installed where necessary to enable free movement of fluids, mineral salts, and nutrients.
- Disturbed stream banks should be recontoured or revegetated or other protective measures should be taken to prevent soil erosion into adjacent waters.

An additional policy in the *Juneau State Land Plan* that relates to waterfront development projects on state land or tidelands within the CBJ is:

- Breakwaters, jetties, causeways, harbors, and marinas will, to the extent feasible and prudent, be sited and designed to minimize impacts on longshore transport, circulation, and mixing.
- The site and design should also optimize flushing to avoid concentration of pollutants. Harbors, marinas, and launch ramps should be sited where upland demands (such as parking, support facilities, and increased traffic flow) can be accommodated.

The 1997 *Addendum to the Land Use and Coastal Zone Technical Report* discusses specific management policies for state lands that would be affected by the project alternatives. The applicable guidelines cited in the 1997 addendum are as follows:

Auke Bay Terminal Area – The State owns the ferry terminal area and most adjacent tidelands. The *Juneau State Land Plan* designates the area for habitat, fish and wildlife harvest, public facilities, and waterfront development. The ferry terminal area is noted as being available for acquisition by a non-state public entity if management would continue to be consistent with identified uses.

Echo Cove/Sawmill Creek – State tidelands and submerged lands within the Echo Cove area are managed to provide a semi-primitive recreation experience, wildlife habitat, and harvest opportunities. Tidelands north and south of Sawmill Creek are designated for waterfront development, including ports among other uses. The proposed [Sawmill Cove Ferry Terminal] may involve acquiring a lease for [State submerged lands, tidelands, or shorelands]. The tidelands near the mouth of Sawmill Creek are not designated for waterfront development because this area is a popular campsite and contains an anadromous [fish] stream.

Management guidelines state that [A]DNR authorizations along the tidelands on the east side of Echo Cove should not block future opportunities for a port or transportation corridor. The *Juneau State Land Plan* notes that before [A]DNR authorizes any phase or segment of a regional road corridor north from Juneau, appropriate agencies and the public will have a chance to comment.

Berners Bay – State-owned tidelands, submerged lands, and lands under navigable waters [are located] at the head of Berners Bay. Most State lands in this area are managed to provide a semi-primitive recreational experience, and to protect fish and wildlife habitat and harvest opportunities. Over the long term, road and utility corridors that provide improved

access to mining or serve as part of a regional transportation and utility system may be considered. Most of the tidelands in the Slate Creek area are designated to provide support facilities for mining-related activities. The State has selected 615 acres of uplands near Slate Creek Cove for future mining-related community development. [This State selection is currently low priority and its status remains inactive.]

Tidelands Along Lynn Canal in Kensington Mine Area – The *Juneau State Land Plan* addresses the tidelands along East Lynn Canal between Point St. Mary and the northern boundary of the CBJ in a discussion of the management intent for Unit 11A. Two miles of tidelands near the mouth of Sherman Creek would be managed to support water-dependent activities associated with development of the Kensington Mine, while minimizing impacts to anadromous fish streams at Sherman and Sweeny Creeks, salmon and halibut sport fishing, and commercial gillnet fishing. The balance of the state lands in the Unit 11A area (primarily tidelands) would be managed to provide a semi-primitive recreation experience, wildlife habitat, and fish and wildlife harvest opportunities. As a long-term objective, roads and utility corridors that provide improved access for mining or that serve as part of a regional transportation system may be considered (ADNR, 1993).

ADNR Northern Southeast Area Plan – The NSEAP was adopted in October 2002, after the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* was completed. The planning area includes all state-owned and state-selected lands, as well as all tidelands, submerged lands, and shorelands in the project area north of Eldred Rock on the east side of Lynn Canal, and encompassing all state-interest lands on the west side of Lynn Canal, except the Haines State Forest and the Chilkat Bald Eagle Preserve. The *Haines State Forest Management Plan* (ADNR, 2002b) and the *Alaska Chilkat Bald Eagle Preserve Management Plan* (ADNR, 2002c) were developed concurrently with the NSEAP to ensure integrated development of state land use plans for this area of common boundaries and common river drainages, and due to the need for consistent management of resources. The NSEAP reflects the considerable effort that was expended during plan development to determine the intensity of community recreation and commercial recreation patterns, and the extent of resources associated with state uplands and tidelands. With the adoption of the NSEAP, the former *Haines-Skagway Land Use Plan* was superseded and replaced (ADNR, 2002a).

Haines State Forest – The 2002 *Haines State Forest Management Plan* is a revision of the original 1985 management plan. The Haines State Forest encompasses approximately 286,208 acres in the northwestern Lynn Canal area. The Alternative 3 highway along the west side of Lynn Canal would cross approximately 15 miles of the Haines State Forest. The ADNR Division of Forestry manages these lands in accordance with the *Haines State Forest Management Plan,* updated in August 2002 (ADNR, 2002b). The Legislative intent for establishment of the forest is as follows:

> The primary purposes for the establishment of the area are the utilization, perpetuation, conservation, and protection of the land and water, including but not limited to, the use of renewable and nonrenewable resources through multiple use management, and the continuation of other beneficial uses, including traditional uses and other recreational activities.

The purposes of the *Haines State Forest Management Plan* are the utilization, perpetuation, conservation, and protection of land and water through multiple-use management. The plan defines management intent for state lands and waters within the Haines State Forest boundaries and provides for the continuation of other beneficial uses including recreational activities and traditional uses.

The unit of the forest that extends from the boundary of the Tongass National Forest near Sullivan Mountain area northward to Pyramid Harbor (Unit 6) contains approximately 2,578 acres of operable forest land. However, the *Haines State Forest Management Plan* prohibits commercial timber harvest in Unit 6 and emphasizes management for scenic and recreational values, fish and wildlife, and potential mineral values. Unit 6 of the Haines State Forest is affected by a Special Use Designation allowing for commercial recreation operations. Subunit 6a (West Chilkat Inlet) allows for commercial recreation operations with limited clients per day and group size per trip. Subunit 6b (Glacier Point) allows for medium- and high-intensity commercial recreation operations.

Alaska Chilkat Bald Eagle Preserve – Information from the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* for the Alaska Chilkat Bald Eagle Preserve is still pertinent and is presented below.

> The Alaska Chilkat Bald Eagle Preserve is located near the communities of Haines and Klukwan. While outside the project area, it could be affected by changes in traffic levels resulting from the highway alternatives. The preserve is managed by the ADNR, Division of Parks and Outdoor Recreation. Management intent is documented in the *Alaska Chilkat Bald Eagle Preserve Management Plan,* 2002 [ADNR, 2002c]. The management plan is based largely on enabling legislation (Alaska Statute 41.21.610–630), which established the preserve to:
>
> - Protect and perpetuate the bald eagle and its natural habitat
> - Protect and sustain natural salmon runs
> - Provide opportunities for research, education, and enjoyment
> - Assure continued public use of the area
> - Ensure water quality and quantity
>
> General management guidelines in the plan for transportation projects include discussion on rights of access, access review, design and approval, maintenance of forest highways, gravel pits, highway realignment, and cooperative agreements with the DOT&PF. A goal of the plan for those portions of the preserve adjacent to the Haines Highway is to allow visitor access to the preserve and eagle concentration areas without creating traffic hazards or significantly impacting the eagles.
>
> While the Haines Highway right-of-way is excluded from management by the preserve, it is adjacent to or within the preserve for 24 miles. The common border and proximity of the eagle concentration area to the Haines Highway dictates that management of one will affect management of the other.

Chilkat State Park – Chilkat State Park contains 9,837 acres in two discrete units on the Chilkat Peninsula. This state park is located within the management area addressed by the NSEAP (ADNR, 2002a) and is managed consistent with the requirements of state parks and the enabling legislation that created the park (Alaska Statute 41.21.110). No formal management plan is in place for the park. Chilkat State Park is heavily used by Haines residents and visitors for recreation. Recreation facilities include a 32-site campground, boat ramp, dock, trails, picnic sites, and a log cabin visitor's center.

University of Alaska – As presented in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*, the University of Alaska owns over a dozen parcels of land in the northern Lynn Canal area, primarily along the west side of Lynn Canal, as shown on Figure 3-1. These

include four parcels totaling 600 acres at Glacier Point near the Davidson Glacier. South of Pyramid Harbor, the University also owns a 394-acre parcel, and north of the project area is a large block of University of Alaska land along the Takhini and Kicking Horse rivers. The University of Alaska also owns lands on the Chilkat Peninsula near Mud Bay, Letnikof Cove, and within the City of Haines that are not affected by project activities.

The 1997 addendum states:

> The University of Alaska has no specific land management plans for these parcels. The Board of Regents' overall policy is to manage real property for prudent trust management and long-term financial and/or educational use. University of Alaska lands have been used for logging operations, subdivisions, and various commercial ventures. Proposals for development activities are evaluated on a case-by-case basis for their revenue-generating capacity.

Mental Health Trust Lands – A general history of these lands is taken from the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*.

> Prior to statehood, Congress created a Mental Health Land Trust to provide a revenue stream to fund mental health services for Alaskans. Over one million acres of land were deeded to the State as mental health lands, to be held in trust and managed for revenue production. Over the years, many of these lands have been sold, leased, or dedicated to other purposes, generating litigation on behalf of the mental health community.
>
> In 1991, the Alaska Legislature passed a new mental health statute (Session Laws of Alaska Chapter 66) designed to resolve the litigation and reconstitute the Trust. Although the 1991 legislation did not resolve the case, a revised settlement received court approval in December of 1994. The settlement identified the lands to be included in the reconstituted trust.

The Trust Land Office manages Alaska Mental Health Trust (AMHT) lands for the Alaska Mental Health Trust Authority, under ADNR Title 38. AMHT lands are managed separately from other State of Alaska lands, in accordance with regulations adopted in 1997. AMHT lands are managed to protect and enhance value in order to maximize revenue from those lands over time. Decisions concerning land use are made on a parcel-by-parcel basis.

The Skagway area contains a number of Mental Health Trust parcels. A 60-acre tract is adjacent to the northeast corner of the Klondike Highway as it departs Skagway and crosses the Skagway River. This parcel extends to the southeast to a bench that surrounds most of Icy Lake. Another much larger parcel lies across the Skagway River from downtown Skagway, and others are located farther up the Skagway River valley. A portion of the Mental Health Trust parcels would be impacted by the Alternative 2 highway alignments.

The Haines area included many of the original Mental Health Trust lands. Most of these are not included in the reconstituted Trust. Several small parcels along the west side of Lynn Canal are identified as Mental Health Trust lands. One 4.9-acre parcel is located just south of the Davidson Glacier near the coast and could be impacted by Alternative 3 (West Lynn Canal Highway). Several parcels of Mental Health Trust lands exist on the Chilkat Peninsula (Figure 3-1), none of which will be directly affected by the proposed alternatives.

3.1.4 Local Government and Private Land Ownership and Management Status

3.1.4.1 City and Borough of Juneau

The land included in the CBJ was summarized in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* as follows:

> The CBJ is a unified home rule municipality covering more than 3,250 square miles ranging from Point Coke, 40 miles south of Juneau, to the Haines Borough boundary, approximately 11 miles north of the northernmost shore of Berners Bay. The western boundary of the city runs down the center of Lynn Canal through Stephens Passage. The CBJ eastern boundary is the U.S./Canadian border.

Only a small portion of the area is urbanized. The urban region occupies a slender strip between the Juneau Icefield and the sea. The remainder of the CBJ is used primarily for recreation, with some commercial business activity. A large part of the area is waterway and undeveloped land with no roads. Jurisdiction and management of the land within the CBJ is layered. Local, state, and federal government agencies claim ownership, management, and zoning rights.

3.1.4.1.1 CBJ Land Ownership

Approximately 2,080,000 acres of land are located within CBJ boundaries, including some tidelands and submerged lands. Roughly 82 percent of the CBJ (approximately 1,710,900 acres) is federal public land managed by the USFS as part of the Tongass National Forest. The ADNR claims ownership of approximately 17 percent of the land within the CBJ, as well as tidelands. For this and other reasons, quantification of exact land holdings by all entities within the CBJ is difficult. Within the Juneau Access Improvements Project vicinity, the CBJ owns an 11-acre boat launch and campground site at the head of Echo Cove near the end of the Glacier Highway. The CBJ owns another large block of land approximately 2 miles south of the end of Glacier Highway.

3.1.4.1.2 CBJ Management Status

All lands within the CBJ, regardless of ownership, are subject to CBJ land use and zoning policies. The ADNR has ownership and management jurisdiction over all state lands in the CBJ including state-owned uplands, state-selected uplands, and submerged lands and tidelands (including any that have been filled) below Mean High Water (approximately 15 feet). According to the *Juneau State Land Plan*, state lands in the CBJ encompass 351,300 acres, of which 44,400 acres are uplands and the remainder are tidelands or submerged lands (ANDR, 1993). ADNR can convey rights-of-way (ROWs) or transfer management of those lands through Interagency Land Management Authorities. Within the city and borough limits of the CBJ, Tongass National Forest lands are managed per the TLMP policies.

The regional transportation policy set forth in the *CBJ Comprehensive Plan* is to support the improvement and expansion of air, marine, and highway transportation systems to maintain and expand Juneau's role as the capital city and a regional transportation center (CBJ, 1996). The 1996 update to the *CBJ Comprehensive Plan* maintains plans for the consideration of all alternatives, such as highways, high-speed ferries, and light rail or railroad, to improve transportation links throughout Southeast Alaska and Canada. The plan also proposes to implement a port development plan that identifies available space to expand and build new facilities as well as the engineering and economic considerations related to such an expansion.

Portions of CBJ land lies directly within the Juneau Access Improvements Project area, and certain lands would be directly affected. Relevant comprehensive plan designation and policies, zoning, regulations, and JCMP policies would apply.

Auke Bay is zoned Waterfront Commercial/Industrial in the *CBJ Comprehensive Plan*, which allows fill to be placed for purposes consistent with plan designations. The Auke Bay Ferry Terminal is also in an area designated as Special Waterfront by the JCMP and is subject to specific policies.

The following areas within the CBJ are specifically addressed in the *CBJ Comprehensive Plan*.

Eagle River – Berners Bay Area

The *CBJ Comprehensive Plan* specifically addresses the area from Eagle River to Berners Bay, which it considers rural with potential for new growth areas. The management guidelines for that area are as follows:

- Preserve valuable, publicly owned recreation lands and wildlife habitat, including Lynn Canal shoreline areas, as public open space.
- Provide opportunities for new growth area development, including a mixture of residential and water-related uses in Echo Cove.
- Limit density or rural development north of Peterson Creek in response to the presence of sensitive areas; allow higher rural densities to the south.
- Recognize that Berners Bay and the river systems that feed it are important recreation and scenic areas that have significant local usage and have potential for tourist use.
- Develop a comprehensive, interagency plan for Tee Harbor to Berners Bay that recognizes, protects, and enhances the multiple recreational and educational programs in the area.
- Evaluate development of a hiking trail between Point Bridget and Point Bishop.
- Develop a management plan for CBJ lands at Bridget Cove to complement the recreational opportunities at the state land holdings at Point Bridget State Park.
- Expect increased commercial use of public land for tourism.

Proposals are under consideration to extend Glacier Highway past Echo Cove to Sawmill Creek, where there is potential to create a marine terminal that could serve mining, ferries, commercial watercraft and others.

3.1.4.1.3 Echo Cove Area

The *CBJ Comprehensive Plan* designates the uplands surrounding Echo Cove as New Growth Area and Resource Development lands. New Growth Areas are defined as sites in rural areas that are potentially suitable for urban/suburban residential development that could accommodate urban densities and a full complement of services and facilities, including water and sewer service, recreational and educational facilities, and neighborhood commercial services. The plan also states that nonresidential uses such as port facilities or resource-related industrial development may also be appropriate. Goldbelt worked with the CBJ to have the uplands surrounding Echo Grove designated as a new growth area and completed a master plan for Goldbelt properties in the area.

The shoreland around Echo Cove is designated for resource development use. Resource development lands are managed primarily to identify and conserve natural resources until specific land uses are identified and developed. Minimal residential development is allowed on these lands, and uses may include small-scale, visitor-oriented, seasonal recreational facilities.

The inland areas and CBJ lands in Berners Bay are designated as recreation resource lands in the *CBJ Comprehensive Plan.* A recreational resource designation means that land is primarily under federal or state management for a range of resources such as timber, minerals, wildlife, and recreation uses.

3.1.4.2 Haines Borough

The City of Haines and the third-class Haines Borough consolidated in 2002 to become the Home Rule Haines Borough, which has the same boundaries as the former Haines Borough. The Home Rule Haines Borough encompasses approximately 2,600 square miles along Lynn Canal within the project area. The borough owns three-quarters of the existing Lutak dock (Lutak Ferry Terminal), and the state owns the remaining one-quarter. Management authority for the tidelands and submerged lands at the Lutak dock site has been transferred from the ADNR to DOT&PF, and adjacent tidelands and submerged lands have been conveyed to the Haines Borough. The borough also owns much of the uplands near Lutak dock (B. Scott, personal communication, 2004).

The Haines Borough Assembly adopted a revised comprehensive plan on May 5, 2004, to reflect the consolidation of the city and borough. Areas of the borough that already had planning and zoning powers, the former City of Haines, Mud Bay, and Lutak Inlet, retained their existing zoning regulations. All other areas of the borough have been zoned general use as described in the Haines Borough Charter. Haines Borough Ordinance 03-02-007 indicates that the intent of the general use designation is to provide a minimum of planning, platting, and land use regulation in rural areas. This general use district allows any use but requires that high-impact uses such as landfills, power plants, and hazardous materials storage facilities obtain a conditional use permit. Construction of a highway or a ferry terminal would be considered a high-impact use and would require a conditional use permit (S. Hansen, personal communication, 2003).

The *Haines Borough Comprehensive Plan* transportation policy is to support improved ferry service as vital to the economy of the borough. The comprehensive plan supports promotion of daily ferry service. The plan acknowledges the current effort to improve Juneau access. The borough discusses a potential for one of the alternatives, a road from Juneau to Skagway with a shuttle ferry to connect Haines, and states concerns about potential negative impacts to the community's economics, safety, and visual impacts. While stating these concerns about a road providing access to Juneau, the Haines Borough Comprehensive Plan is very explicit about the benefits of an outside highway connection enjoyed by its own community (the Haines Highway, linking Haines to North America's road network).

The Haines Townsite Planning Zone contains approximately 7 square miles of uplands and 7 square miles of tidelands and submerged lands. The zone encompasses the area from the city reservoirs to 1 mile north of the city dock area along Lutak Inlet. Within the Haines Townsite Planning Zone, the Juneau Access Improvements Project would follow existing highways, and no new construction or improvements would occur. Land management within the Haines Townsite Planning Zone is in accordance with former City of Haines zoning, the policies of the previous *Haines Borough Comprehensive Plan*, and the HCMP.

3.1.4.3 City of Skagway

The City of Skagway encompasses the area between the borders of the Haines Borough and the U.S./Canada border. The southern and western boundaries of Skagway are adjacent to the northern and eastern boundaries of the Haines Borough, while the City's northern and eastern boundaries abut the U.S./Canada border. Skagway is a first-class city containing 443 square miles of land.

The city owns the land east of the White Pass and Yukon Route Railroad ROW within Sections 1, 12, 13, and 14 (T28S, R59E, Copper River Meridian) and portions of Sections 6 and 18 (T28S, R6OE, Copper River Meridian). The city also owns the tidelands between the White Pass dock and the state ferry terminal, and beneath the small boat harbor. City lands on nearby upland areas to the north include the Pullen Creek recreational vehicle (RV) Park and Pullen Creek Park. Lands owned by the City of Skagway are identified on Figure 3-1.

Land use within the City of Skagway is governed by the *Skagway Comprehensive Plan* (City of Skagway, 1999), the SCMP (City of Skagway, 1991), and city zoning designations. The *Skagway Comprehensive Plan* suggests a balance between well-located industrial and commercial land, future growth, port and waterfront utilities, and recreation areas. The City of Skagway supports port development.

The *City of Skagway Comprehensive* Plan transportation policy is to support maintaining and increasing year-round access to and from Skagway including public and private ferries, and air, road, and rail access to Canada. The city depends upon the Klondike Highway and the AMHS to transport goods and people in and out of Skagway. The plan acknowledges that the Skagway economy, population growth, and community development are closely tied to the movement of people and goods to and through town. The plan acknowledges the current effort to improve Juneau access. The City of Skagway states the preference for improved and more frequent ferry service over a new highway from Juneau to Skagway. The plan also states that Skagway residents are split on this issue based on an independent survey.

The Lower Dewey Lake area is a popular hiking and picnicking area and is owned by the City of Skagway. This land is zoned as Residential-Conservation, which allows for low-density residential development; natural resource development and conservation; and dispersed recreation and seasonal recreational lodges, cabins, and other facilities. Local zoning requires a conditional use permit for pipelines and roadways. A permit will likely be needed for a highway. The Lower Dewey Lake area is designated as Recreation and Open Space in the *Skagway Future Growth Plan* (City of Skagway, 1999).

Under Alaska Power and Telephone's Federal Energy Regulatory Commission (FERC) permit for development of Dewey Lake hydroelectric plant, FERC has reserved a 50-foot easement around Dewey Lake to preserve access to the lake for the hydroelectric plant. In addition, when the City of Skagway selected state lands around Dewey Lake, ADNR reserved easements around the lake and along the area's recreation trails to protect recreational uses.

3.1.4.4 Goldbelt

Goldbelt owns 1,382 acres surrounding Echo Cove (Figure 3-1). As a preliminary step in developing the Echo Cove area, Goldbelt worked with the CBJ to designate the Echo Cove area as a new growth area in accordance with the *CBJ Comprehensive Plan*. In 1996, Goldbelt prepared the *Echo Cove Master Plan.* The company subsequently prepared an environmental impact statement (EIS) for a proposed highway from Echo Cove to Cascade Point in Berners Bay. The highway would provide enhanced access for cultural, recreation, and business uses

and activities in the Echo Cove area. The USFS completed a Record of Decision in 1998, and Goldbelt received easements to cross USFS land, USFS special use permits, U.S. Army Corps of Engineers (USACE) permits, and a consistency determination with the ACMP for construction of the proposed highway to Cascade Point. The easements and USACE permits are still in effect (D. Goade, personal communication, 2003).

The Cascade Point Access highway includes 2.5 miles of highway across USFS land and 0.5 miles of highway across Goldbelt land to Cascade Point. Development would be dictated by market conditions and could include a lodge, a high-speed ferry facility, commercial fishery support, a small grocery store, a service station, a maintenance garage, and a small utility building.

3.1.4.5 Native Allotments

The Central Council of Tlingit and Haida Indian Tribes of Alaska and the U.S. Department of the Interior Bureau of Indian Affairs manage land and natural resources to protect the rights of Native tribal members during the transfer of land.

A pending Native allotment is located along the route of the East Lynn Canal Highway (Alternatives 2 through 2C) on the east shore of Berners Bay between the Lace and Antler rivers (Figure 3-1).

Two certified Native allotments and one pending Native allotment are located near the Sullivan River. One of these allotments has been subdivided and sold as individual lots.

One veteran designated pending Native allotment is located adjacent to state lands near William Henry Creek.

3.1.4.6 Kensington Gold Project

The Kensington Gold Project area is located on USFS lands designated as Modified Landscape, and the mine area is categorized as Intensive Development (for minerals), according to the TLMP. Coeur Alaska, Inc. (Coeur), the managing company for the Kensington Gold Project, acquired the Jualin gold prospect in 2001. State and federal agencies signed a Memorandum of Understanding in July 2003 outlining a permitting schedule for development of the mine. The Supplemental Environmental Impact Statement (SEIS) for the project was completed in January 2004. Coeur plans to make a final decision on developing the mine after completion of the permitting and feasibility studies (Coeur, 2003).

3.1.4.7 Other Private Lands

On the east side of Lynn Canal, two parcels in the Cowee Creek/Echo Cove area west of the Juneau Access Improvements Project area are owned by a private religious organization and used for religious, educational, recreational, and residential purposes. North of the proposed Sawmill Cove Ferry Terminal is a private, 13-acre mineral survey (U.S. Mineral Survey 318). Other than the Kensington Gold Project development described in Section 3.1.4.6, there are no known private lands between Echo Cove and Skagway on the east side of Lynn Canal.

Along West Lynn Canal, two private parcels at the head of William Henry Bay total approximately 370 acres. There are several private parcels at Glacier Point on the delta at the mouth of the Glacier River. These parcels include small private cabins or sheds. One parcel is being used to operate guided commercial boat trips on the lake near Davidson Glacier (S. Nelson, personal communication, 2003). There is one private parcel on the south side of Pyramid Harbor. The parcel is approximately 45 acres and has been jointly owned since 1973.

Within the limitations of mapping scale, the locations of private lands in the project area are shown in Figure 3-1.

3.2 Land and Resource Uses

This section describes land and resource uses in the project area. This description of the affected environment provides a baseline against which to evaluate likely impacts, which are presented in Chapter 4.0. Additional information on the economic and social aspects of these uses is provided in the *Socioeconomic Effects of Juneau Access Improvements SDEIS Update, Draft* (McDowell, 2004).

3.2.1 Timber Harvest

The 1997 *Addendum to the Land Use and Coastal Zone Technical Report* states:

> In southeast Alaska, timber is harvested for large- and small-scale commercial harvest and personal use harvest. In addition, timber can be salvaged in areas affected by natural catastrophic events or pest infestation, or to enhance or prevent damage to other resources such as a recreation area or fish stream.

Also as stated in the 1997 technical report update, "most of the project area is on federal lands managed by the USFS as part of the Tongass National Forest." Commercial timber harvest has historically been an important industry in southeast Alaska. However, harvest levels have been declining for several decades in the northern portion of southeast Alaska. Although Haines supported a healthy timber processing industry in the past, its last large sawmill closed in the early 1990s. Haines currently supports a small sawmill, which is mainly used to cut cedar for locally produced hot tubs. A quantity of beetle-killed timber exists on Mental Health Trust lands near Haines and has potential for future harvest (R. Venables, personal communication, 2003). Figure 3-3 identifies commercial-quality forested land within the project area. The intention is to show lands that have the capability of producing commercial quality timber; the figure is not meant to identify any potential future timber harvest activities.

3.2.1.1 East Lynn Canal

Lands directly surrounding Echo Cove have supported timber harvests in the past but Goldbelt, the current owner, has no plans to conduct future timber harvests (D. Goade, personal communication, 2003).

Adjoining the Goldbelt Echo Cove lands are 825 acres of former Goldbelt lands that were traded to the USFS in spring 1994 for commercial timberlands at Hobart Bay. This area currently has no formal USFS management designation. Management of these lands will likely be compatible with the adjacent Congressionally designated LUD II area that covers most of the Berners Bay uplands. LUD II does not allow commercial timber harvest. To the west of Berners Bay, USFS lands have been designated as Modified Landscape, which allows for commercial timber harvest. The USFS has no plans to harvest timber on the Modified Landscape lands during the next 5 to 10 years (K. Vaughn, personal communication, 2003). However, a potential log transfer site has been identified near this area, which would support future commercial timber harvest (K. Vaughn, personal communication, 2003). A proposed land exchange between the USFS and Cape Fox Corporation for these lands is pending (see Section 3.1.2.1).

The USFS has not designated any lands for commercial timber harvest on the east side of Lynn Canal within the Juneau Access Improvements Project area. One area of federal land along East Lynn Canal for which commercial timber harvest has been considered in the past is the

Johnson-Slate Creek-Kensington area on the northwest side of Berners Bay, where 7,600 acres of suitable and available timber were identified. This is primarily a mineral development area, and it is unlikely that commercial timber harvest of any magnitude would be proposed, even if the presence of a nearby highway associated with one of the Juneau Access Improvements Project alternatives decreased operating costs (B. Rene, personal communication, 1994). Timber removal in this area would more likely be in conjunction with clearing for mineral development and associated highway or commercial development.

3.2.1.2 West Lynn Canal

In the past, little timber harvest has taken place on the west side of the Lynn Canal, as summarized in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*:

> Several relatively small areas of timber harvest have occurred on the west side of Lynn Canal. Areas of past timber harvest included private lands, National Forest land, and State or University lands. These harvest areas are located in the vicinity of deltas at the mouths of the major streams at the head of William Henry Bay, Davidson [Glacier], Sullivan River, at Glacier River and Glacier Point, and at Pyramid Harbor and Green Point, and at several unnamed streams.

3.2.1.2.1 Federal Lands

In the West Lynn Canal vicinity, Tongass National Forest lands available for commercial timber harvest include lands designated as Scenic Viewshed and Modified Landscape along William Henry Bay and near Sullivan Island. The USFS has no plans to harvest timber in these areas during the next 10 years. However, log transfer station sites have been identified near these two areas for potential commercial timber harvests (K. Vaughn, personal communication, 2003).

3.2.1.2.2 State Lands

Haines State Forest – The Haines State Forest is located on the west side of Lynn Canal north of the Tongass National Forest. The Haines State Forest is primarily a mixture of western hemlock and Sitka spruce. Approximately 60,194 acres are considered forest land available for harvest; however, only 41,652 acres are managed for commercial timber harvest. An annual allowable harvest of 5.88 million board feet (MMBF) of timber could allow the forest to be commercially productive for the next 120 years. This annual allowable harvest is not a static figure and could change if noncommercial forest lands within the forest become commercial. The ADNR Division of Forestry has requested a new inventory for the Haines State Forest. When this inventory is completed, the annual allowable harvest will be updated (ADNR, 2002b). The state recently proposed a commercial timber sale for the West Herman area, northwest of Haines and outside of the Juneau Access Improvements Project area.

As described in Section 3.1.3.2, the unit of the forest that extends from the boundary of the Tongass National Forest near Sullivan Mountain area northward to Pyramid Harbor (Unit 6) contains approximately 2,578 acres of operable forest land. However, the *Haines State Forest Management Plan* prohibits commercial timber harvest in Unit 6.

University of Alaska – University of Alaska land holdings have not changed since the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*. However, more accurate information on the number of acres at Pyramid Harbor has become available. The current university land acreage includes an additional 94 acres not originally included in the 1997 technical report update.

The University of Alaska owns over 600 acres at Glacier Point and approximately 394 acres at Pyramid Harbor, as shown in Figure 3-1. Some of the timber on these parcels has been harvested in the past and will not be available for commercial harvest for a number of decades. No management plans are in place for these parcels. Generally, university lands are managed to maximize economic return.

North of the project area in the vicinity of the Kicking Horse River are several thousand acres of University of Alaska land holdings. If the timber is commercially viable, these lands could be managed for timber production. The University of Alaska currently has no specific management plan for these parcels (M. Montgomery, personal communication, 2003).

Mental Health Trust Lands – A small parcel of Mental Health Trust land lies near Glacier Point along the West Lynn Canal Highway (Alternative 3) corridor. The Mental Health Trust has no specific plans for this parcel. Their land holdings are generally managed for economic returns.

3.2.1.2.3 Private Lands

The west side of Lynn Canal contains many private parcels of land within the Juneau Access Improvements Project area. A number of these parcels are being used either for recreational or residential use, such as the subdivision near Sullivan River (Figure 3-1) or land that is being held for similar future uses. Some of the private parcels have been logged. One Glacier Point landowner is operating a commercial guide business on the property (S. Nelson, personal communication, 2003).

There are several Native allotments along the proposed West Lynn Canal Highway (Alternative 3) route in the William Henry Bay and Sullivan River areas. Some areas contain beetle-killed trees, and Native allotment owners have investigated harvesting the timber. Pre-commercial timber thinning was conducted on one Native allotment, and four other Native allotments contain possible commercial timber. However, harvest operations have not occurred and are not being considered at this time due to access and transportation costs and a soft timber market (P. Johnson, personal communication, 2003).

3.2.2 Mineral Exploration and Development

The following information on the geology and minerals of the project area provided in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* remains current:

> The Juneau Access Improvements Project area lies within a large mineral region known as the Juneau Mining District. It is bounded by the crest of the Fairweather Range on the west, the Alaska-Canada border on the north and east, and various marine waterways on the south. Historically, this has been a highly productive mineral area since 1869, producing large quantities of gold, silver, and lead.
>
> Gold, silver, copper, zinc, lead, nickel, cobalt, tungsten, molybdenum, chromium, uranium, and platinum-group-metals are all found in the Juneau Mining District. Approximately 300 of these mineral-rich areas were studied by the [U.S. Department of the Interior (USDOI)], Bureau of Mines, as reported in *Special Report: Mineral Investigations in the Juneau Mining District 1984-1988*.

3.2.2.1 Area Mining History

The 1997 *Addendum to the Land Use and Coastal Zone Technical Report* provides a description of historic mining locations in the project area:

The Juneau Mining District includes several historic mining areas located near Juneau, Alaska. [The Juneau Gold Belt stretches from the south at Windham Bay to the north at Berners Bay and is currently the most productive mining district in southeast Alaska.] The first recorded gold discoveries near the Juneau Mining District were placers found in 1869 just south of the Juneau Gold Belt boundary. Joseph Juneau and Richard Harris found placer gold in 1880, at what is now called Gold Creek, near present-day Juneau. On Douglas Island, the Treadwell Mine was developed into one of the world's largest underground gold mines by 1887. The Klondike gold rush in the Yukon Territory, beginning in 1896, brought an influx of miners through the Juneau Mining District, leading to gold discoveries near present-day Haines.

Since 1869, mines in the Juneau Mining District have produced more than 6.7 million troy ounces of gold, 3.1 million troy ounces of silver, and 45 million pounds of lead. The vast bulk of this production came from the Treadwell and Alaska-Juneau mines, rated as the largest lowest-grade gold mines in the world during the period when they were active.

The Juneau Mining District is subdivided into five geographical subareas: (1) Haines-Klukwan-Porcupine, (2) Glacier Bay, (3) West Lynn Canal, (4) Juneau Gold Belt, and (5) Coast Range. Portions of all these subareas, except Glacier Bay, are within the Juneau Access [Improvements] Project area.

3.2.2.2 Mineral Prospects, Occurrences, Claims, and Patents

Landowner rights to mineral exploration or development, claims, and rights to surface and subsurface estates were summarized in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*:

Mineral Occurrences and Prospects – The presence of a mineral occurrence or prospect does not in itself give a landowner any surface or subsurface rights to extract minerals. One must locate (stake) a mining claim in order to obtain rights to mine the subsurface estate. However, even without a valid mining claim, a landowner may assert that the presence of a mineral occurrence or prospect contributes to property value.

Mineral Claims – In general terms, a mineral claim gives the claim holder subsurface rights, or the right to mine the minerals (subsurface estate) therein. State claims do not make any distinction between types of mineral deposits. Federal claims make a distinction between lode claims, which are generally mined from underground, and placer claims, which are generally mined from the surface.

Mineral Patents – When a claim holder receives patent to mineral claims, the land becomes private property. The mineral patent holder has rights to the surface and subsurface estate.

Figure 3-4 shows the location of known, active mining claims in the project area.

Few areas of past mining operations still exist along West Lynn Canal. Mining activities in this part of the project area are historic, and information about them has remained unchanged since the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*:

West Lynn Canal has little historic mineral production. The prospects and mines where production has occurred are the Alaska Endicott Mine, near William Henry Bay, and the Dream Prospect, located on the mainland near Sullivan Island. These two mineral areas are part of the volcanogenic massive sulfide mineral belt that runs along West Lynn Canal down to the Greens Creek Mine on Admiralty Island. The Alaska Endicott was mined in the

early 1900s for copper and incidentally produced small amounts of gold and silver. The Dream Prospect was extensively explored for zinc and copper with no significant mineral recovery.

3.2.2.3 Mineral Occurrences, Prospects, and Mines

3.2.2.3.1 East Lynn Canal

Numerous mines, patents, claims, and prospects exist in this area. Historic annual production from the Kensington Mine and the former Jualin Mine north of Berners Bay was 2,600 ounces and 37,900 ounces of gold, respectively. Coeur owns the Kensington prospect and acquired the Jualin prospect in 2001. State and federal permits to reopen the Kensington Gold Mine are pending. An SEIS for further development was released in January 2004. The area north of Kensington to the City of Skagway contains little mineral activity and no known mineral deposits of economic value.

Mineral Occurrences, Prospects, and Mines – The following mineral occurrences, prospects, and mines are recognized in the area of East Lynn Canal Highway Alternatives 2 through 2C (USDOI Bureau of Mines, 1989). Mines that had historic mineral production are denoted with an asterisk (*).

- Berners Bay (gold, sand/gravel)
- Tacoma (gold)
- Yankee Cove* (gold)
- Johnson Creek (gold)
- Sweeny Creek (gold)
- Jualin Mine (gold, silver) (includes Indiana, Snowslide Gulch)
- Comet Mine* (gold)
- Kensington Mine (gold) (includes Ophír, Mexican Mine*, Eureka*, Horrible Mine*, etc.)
- Ivanhoe Mine* (gold)
- Antler-Gilkey rivers (sand/gravel)
- Kahuhan Range occurrence (gold)
- Katzehin River (sand/gravel)
- Skagway radioactive occurrences (uranium, thorium)

Mining Claims and Patents – There were 128 valid mining claims on the east side of Lynn Canal in 2002. All are grouped in the Berners Bay area, and all are held by Coeur, the operator of the Kensington Mine. Information on the location of many of the claims and patents is limited because no uniform standard exists for miners to record their claims. Locations of some claims are no more precise than 1/32 of a section, while other location information only specifies the section (1 mile square). Given these limitations, an in-depth research of titles would be required to determine ownership. The approximate locations of active mining claims along East Lynn Canal are shown in Figure 3-4.

3.2.2.3.2 West Lynn Canal

The following mineral occurrences, prospects, and mines exist in the area of the West Lynn Canal Highway Alternative 3 corridor (USDOI Bureau of Mines, 1989). Mines that had historic mineral production are denoted with an asterisk (*).

- Alaska Endicott Mine* (copper, gold, silver)
- William Henry Prospect (uranium)
- Endicott River fan (sand/gravel)
- Dream Prospect (zinc, gold)
- Hayes Prospect (copper)
- Sullivan Mountain occurrences (gold)
- Unnamed outwash (sand/gravel)
- Davidson Glacier outwash (sand/gravel)
- Road cut 11 prospect (copper, zinc, gold, silver)
- Road cut prospect (gold, silver, copper)

Mining Claims and Patents – In 2002, there were no active mining claims along the west side of Lynn Canal. Claims have been filed in the project area in the recent past, and claims can be filed at any time. Information on the location of many of the claims and patents is limited because no uniform standard exists for miners to record their claims. Locations of some claims are no more precise than 1/32 of a section, while other location information only specifies the section (1 mile square). Detailed title work would be required if ROW or other property acquisitions are required. Given these limitations, an in-depth research of titles would be required to determine ownership and for ROW or property acquisition. The approximate locations of active mining claims along West Lynn Canal are shown in Figure 3-4.

3.2.2.4 Areas Closed to Mineral Exploration and Development

The majority of the land within the study area is owned and managed by either the USFS or ADNR. Both of those agencies have authority to close land under their management to mineral entry. Recommendations for closure are coordinated between the two agencies. Closures on USFS land are authorized through the TLMP, and closures on State of Alaska land are authorized through Administrative Mineral Closing Orders issued by the commissioner of ADNR.

The Auke Bay Ferry Terminal area is closed to new mineral exploration and development (new mineral entry). Several areas on the east side of Lynn Canal are closed to new mineral entry: Point Bridget State Park; Echo Cove; Sawmill Creek tideland area, including Sawmill Cove; the north end of Berners Bay and the mouth of Cowee Creek; the Antler, Gilkey, Lace, and Berners rivers; and the Slate Creek Cove state land selection in Berners Bay. A portion of the Katzehin River, starting 1 mile upriver from its confluence with Lynn Canal, has been withdrawn from mineral entry within 24 miles of the ordinary high water mark on each side of the river. On the west side of Lynn Canal, the Endicott River Wilderness Area and Chilkat State Park are closed to new mineral activity.

3.2.3 Commercial Fishing

Commercial fishing has historically been an important part of the economy and lifestyle of southeast Alaska. Although market and other considerations have reduced profits in the salmon industry, commercial fishing strongly influences Juneau's economic and employment base and is an important sector of the Haines economy. Commercial fishing has not been significant in the Skagway economy, and only three Skagway residents held commercial fishing licenses in 2003. The locations of commercial fishing activities are shown in Figure 3-6.

State and federal fishery management plans control commercial fishing openings and harvest levels. Fishing openings are used as a management tool to focus commercial fishing harvests for salmon on specific stocks. Openings are subject to in-season changes in timing and location in response to the strength of fish runs and management objectives for specific stream escapement for spawning. As gear and technology have improved, adaptable fishery management has become increasingly important for long-term success of the industry as well as of the fish species. As reported in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*, the Chilkat and Chilkoot Rivers continue to be important salmon-producing rivers:

> The Chilkat and Chilkoot rivers have historically contributed very heavily to the sockeye salmon harvests in Lynn Canal and are among the most important sockeye salmon producing streams in southeast Alaska. These rivers also produce substantial populations of chum and pink salmon. The Chilkat River produces the only significant run of king salmon in Lynn Canal.

In Berners Bay, the Berners River is a very productive stream for coho salmon, with this stock contributing significantly to the Lynn Canal drift gillnet fishery. Between 1960 and 1968, there was a herring pound fishery in Lynn Canal. A herring purse seine fishery in Lynn Canal took place between 1969 and 1982. All herring fisheries in Lynn Canal and Berners Bay were halted after 1982 due to declines in herring stocks. ADF&G monitors herring in the project area and is uncertain why the Lynn Canal stock has not rebounded. The Lynn Canal area is still identified as a herring purse seine sac roe fishery in regulation. The Board of Fisheries has recently considered and rejected proposals for herring spawn-on-kelp fisheries in Berners Bay.

3.2.3.1 Commercial Salmon Fisheries

3.2.3.1.1 Drift Gillnet Salmon Fishery

The drift gillnet salmon fishery is the most important commercial fishery in Lynn Canal. Lynn Canal (District 15) is segmented into three regulatory areas: 15-A (Upper Lynn Canal), 15-B (Berners Bay), and 15-C (Lower Lynn Canal). This fishery targets sockeye, summer chum, coho, and fall chum salmon, with some king and pink salmon taken incidentally. Table 3-1 presents the 2003 commercial salmon catch in Lynn Canal.

Table 3-1
Commercial Salmon Harvest in Lynn Canal, 2003

Species	Gear	Number of Fish	Landed Pounds	Unique Permit Count
Chinook Salmon	Drift Gillnet	643	8,064	75
Sockeye Salmon	Drift Gillnet	95,128	608,093	129
Coho Salmon	Drift Gillnet and Power Gurdy Troll	56,467	476,314	110
Pink Salmon	Drift Gillnet	53,621	224,521	72
Chum Salmon	Drift Gillnet & Power Gurdy Troll	393,888	3,210,260	133

Source: Plotnik, 2003

The Lynn Canal drift gillnet sockeye salmon harvest was approximately 95,100 fish in 2003, well below the recent 10-year average of approximately 150,000 fish but above the 2002 harvest of 81,900 fish. The 2003 harvests of coho, pink, and chum salmon were approximately 56,500, 53,600, and 393,900 fish, respectively, slightly below the recent 10-year average for all three species (M. Plotnik, personal communication, 2003).

Harvests of summer chum salmon have increased in Lynn Canal since 1993 due to significant returns of hatchery chum salmon, a result of enhancement projects carried out by the Douglas Island Pink and Chum Hatchery at Boat Harbor and Amalga Harbor. A record harvest of 680,000 summer chum salmon was recorded in 2000, while the 1992 to 2001 average summer chum salmon harvest was 362,000 fish.

The Chilkoot River and Lake system has been estimated to produce an average annual fishery valued at $5 million (City of Haines, 1993). Lutak Inlet was a major commercial drift gillnet harvest area during the late 1980s, with hundreds of gillnet vessels fishing Chilkoot and Lutak Inlets. Since that time, effort levels within Lutak and Chilkoot Inlets have been lower than average because Chilkoot Lake sockeye salmon returns have been weaker than the historic high abundance period of the late 1980s. In 2003, a peak weekly harvest of 10,200 Chilkoot sockeye occurred in the first week of August. The total 2003 Chilkoot sockeye salmon catch was 32,300 fish (R. Bachman, personal communication, 2003). A significantly low escapement of Chilkoot Lake sockeye salmon from 1994 through 1999 necessitated management actions to reduce harvest of this stock. Strategies used to reduce the harvest rate of Chilkoot Lake sockeye salmon included closure of the east side of Lynn Canal from Point Sherman to Chilkoot Inlet for most of the summer fishing season. The preliminary total 2003 Chilkoot Lake sockeye salmon return was approximately 106,800 fish, about 10 percent above the previous ten-year average (M. Plotnik, personal communication, 2003). Lutak Inlet was open to commercial drift gillnetting in 2002 and 2003 after it was projected that Chilkoot Lake sockeye salmon escapement objectives would be met. The total Chilkat Lake sockeye harvest for 2003 was 50,100 fish (M. Plotnik, personal communication, 2003). The preliminary total for the 2003 Chilkat Lake sockeye salmon return was 194,600 fish, approximately 70 percent of the previous ten-year average (M. Plotnik, personal communication, 2003).

The Point Sherman area is traditionally a very heavily used gillnet fishing area. Hundreds of fishing boat crews concentrate their activities along the boundary between fishery management districts 15-A and 15-C to target Chilkoot and Chilkat Lake sockeye salmon, particularly when the north portion of Lynn Canal is closed to commercial fishing.

Another area of concentrated fishing activity is the Boat Harbor area located within 2 nautical miles of the west shoreline of Lynn Canal, south of a line from the latitude of Lance Point to 2.4 miles north of Point Whidbey. Commercial fishing openings within this area are designed to harvest hatchery chum salmon returning to this remote release site during the early to midsummer drift gillnet season. Hatchery chum salmon harvests from returns to Boat Harbor and Amalga Harbor accounted for approximately 328,000 fish, or 94 percent of the summer chum harvest in 2003 (R. Bachman, personal communication, 2003).

Berners Bay is generally open to commercial drift gillnet fishing to target coho salmon returns to this system. Fishing activity is generally concentrated outside the entrance of the bay to an area approximately 1.5 nautical miles inside of the bay at the latitude of Cove Point during the early to late fall periods. During the 2002 and 2003 fall gillnet fishery, Berners Bay fishermen harvested record returns of coho salmon returning to this system.

3.2.3.1.2 Salmon Troll Fishery

A limited power and hand troll fishery for king and coho salmon occurs in Lynn Canal. Historic trolling areas include Point Bridget, Berners Bay, Point St. Mary, Point Sherman, Chilkat Inlet, and Taiya Inlet. The summary of the commercial salmon harvest for Lynn Canal in Table 3-1 includes salmon harvested with troll gear because ADF&G is not able to segregate this harvest due to the limited number of participating fishermen and confidentiality restrictions.

3.2.3.2 Halibut and Groundfish Longline Fisheries

The longline halibut fishery is a contributor to the fishing industry in both Juneau and Haines. In 2003, the Lynn Canal halibut fishery opened on March 1 and closed on November 15. During 2002, 24 commercial vessels and one International Pacific Halibut Commission research vessel fished for halibut in Lynn Canal. The net weight of the dressed fish caught during 2002 was approximately 73,000 pounds (T. Kong, personal communication, 2004). The halibut fishery occurs primarily in the south part of Lynn Canal east of Point Bridget, and in the west part of Lynn Canal from the Endicott River north to Sullivan Island and into Chilkat Inlet.

The total harvest of other groundfish in Lynn Canal averaged an annual total of about 12,000 pounds between 1992 and 2002. The majority of the harvest typically consists of Pacific cod (ADF&G, unpublished data), and only a couple of vessels participated the Pacific cod fishery in 2002 (ADF&G statistics, 2003). Black cod are not commercially harvested in Lynn Canal.

3.2.3.3 Crab and Shrimp Pot Fisheries

Lynn Canal supports king, tanner, and Dungeness crab fisheries and a commercial shrimp pot fishery. The number of commercial shellfish permits held by Juneau residents increased from 59 to 104 between 1987 and 2002; Haines shellfish permits increased from 9 to 29 over the same period (ADF&G, 2003a).

Commercial and personal use king crab fisheries occur in Lynn Canal with harvest effort concentrated primarily near William Henry Bay and the Sullivan Island area.

The Dungeness crab fishery generally occurs in the shallower waters of bays and inlets, including Berners Bay, the south Chilkat Islands, Mud Bay, the Katzehin River area, the shoreline from Battery Point to Lutak Inlet, the east and west sides of Chilkat Inlet north and south of Pyramid Harbor, and adjacent to Glacier Point. Commercial harvests of Dungeness crab in Lynn Canal have averaged about 78,000 pounds since 1993.

Lynn Canal supports a commercial fishery for coonstripe shrimp, with annual harvests totaling about 20,000 pounds. Most of this fishing activity occurs during fall and winter. Table 3-2 presents the commercial shellfish catch in Lynn Canal for 2002, the most current year for which information is available.

Table 3-2
Commercial Shellfish Harvest in Lynn Canal, 2002

Species	Gear	Number of Fish	Landed Pounds	Permits
Dungeness Crab	Pot Gear	43,428	89,949	17
Red King Crab	Pot Gear	1,408	11,411	14
Blue and Brown King Crab	Pot Gear	1,301	10,032	6
Tanner (Bairdi) Crab	Ring Net and Pot Gear	35,854	91,519	13
Coonstriped and Spot Shrimp	Pot Gear	NA	22,218	31

Source: ADF&G, 2002a

3.2.4 Subsistence Land Use Areas

No new subsistence surveys have been conducted since the Tongass Resource Use Cooperative Survey in 1988, which was referenced in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*. Figures 3-7 through 3-10 show subsistence use areas for Klukwan, Haines, and Skagway, respectively, as presented in the 1997 report. The following information regarding the extent and distribution of subsistence harvest areas in the vicinity of the Juneau Access Improvements Project is still accurate and adequate, and the referenced map information is provided in Figures 3-7 through 3-10:

> Mapping information on Klukwan, Haines, and Skagway subsistence land use areas is from a joint project of the USFS and ADF&G, entitled the Tongass Resource Use Cooperative Survey, commonly referred to as TRUCS. The 1988 survey consisted of 1,465 interviews conducted in 30 southeast Alaska communities. The purpose of the study was to describe the extent and distribution of harvest of renewable natural resources by rural southeast Alaska residents. The TRUCS data were used to develop the maps (Kruse and Muth, 1990, p. iii). The ADF&G Division of Subsistence later interviewed community members to gather review comments on the maps.
>
> This subsistence land use section contains information from the TRUCS dataset-generated maps as well as narrative on additional areas identified by map reviewers. The maps accompanying the text are excerpts from the larger TRUCS maps that include the southeast Alaska region. The map excerpts plus additional narratives are limited to areas that are within the Juneau Access [Improvements] Project area and do not represent all communities' use areas. In addition, identified use areas are a snapshot in time of each community's use of resources. These areas are influenced by hunting and fishing regulations, changes in habitat quality, changes in fish and wildlife population levels, and other factors. Mapping information was collected only for deer, salmon, non-salmon finfish, marine invertebrates, and marine mammals. No mapped, specific land-use information exists for other species in the Juneau Access [Improvements] Project area.

Since statehood in 1959, ADF&G has managed all sport, subsistence, and personal use salmon harvesting under regulations set by the Alaska Board of Fisheries. Subsistence regulations have been in place for State residents since 1961. The personal use category was adopted for non-rural communities beginning in 1982. Since 1990, in southeast Alaska, salmon harvest under subsistence regulations has been allowed in discreet areas authorized by the Board of Fisheries. Salmon are harvested in other areas of the southeast Alaska region under personal use regulations (ADF&G, 1994). In the Juneau Access [Improvements] Project area, customary and traditional use areas for salmon, Dolly Varden, smelt, and steelhead identified by the Alaska Board of Fisheries include the Chilkat, Chilkoot, and Lutak inlets; the Chilkat River and its tributaries; and Chilkat Lake. Customary and traditional use areas for shellfish, bottom fish, and herring identified by the Alaska Board of Fisheries include almost all of upper Lynn Canal and its inlets to just south of the southern end of Sullivan Island (ADF&G, 1991[a and b]).

3.2.4.1 Klukwan

Though no new studies were found for subsistence harvest around Klukwan, some relevant information about the subsistence hooligan fishery of the Chilkat and Chilkoot rivers that was not included in the 1997 report is presented below.

According to studies conducted in 1982, 1990, and 1991 by ADF&G, there is a substantive fishery for hooligan in the Chilkat and Chilkoot rivers, participated in by mostly Tlingits from Klukwan and Haines (ADF&G, 1994b). Approximately 13 households from Klukwan and 21 households from Haines participated in the harvest in 1991 (ADF&G, 1994b). The Chilkat River supports one of the largest hooligan runs in southeast Alaska. Participants primarily use dip nets to scoop the fish from the river and into dirt pits or wooden boxes. This is done either directly, or by first scooping fish into five-gallon plastic buckets then transferring them to the pits or boxes. On the Chilkat River, the fishery was traditionally concentrated between 2 and 9 miles north of Haines along the Haines Highway (ADF&G, 1994b). Traditional fishing areas along the Chilkoot River centered at two camp sites: one at the historic Chilkoot Village near the lower reach of the river, and the second at a historic seasonal village located below the mouth of the river (ADF&G, 1994b). A study conducted in 1990 and 1991 indicated that fishing sites within those two years were primarily concentrated between the 4- and 6- mile sites, with some fishing occurring between 2 and 8 miles north of Haines, and little fishing done at the 8- or 9- mile fishing sites. Limited fishing occurs at the 8- and 9- mile sites because of poor productivity in more recent years resulting from difficult bank and channel conditions (ADF&G, 1994b). Residents drive to the Chilkoot River, where dip netting takes place along both banks. Fishermen on the Chikoot River concentrate in areas between a bridge and nearby salmon weir at the mouth of the river, and the Tlingit Chilkoot Cultural Camp. The hooligan run appears in the Chilkoot River some days after the run arrives in the Chilkat River. People may move their fishing to the Chilkoot River once the fish arrive there. Some people have a preference for the Chilkoot River fishery, as it has clearer water and requires less fishing time for the same quantity of hooligan (ADF&G 1994b).

The following information regarding the extent and distribution of subsistence harvest areas in the vicinity of Klukwan is still accurate and adequate, and the referenced map information is provided in Figure 3-7:

Klukwan is a Tlingit community located near the confluence of the Chilkat, Klehini, and Tsirku Rivers approximately 30 miles northwest of Haines. Subsistence is important economically and culturally to Klukwan residents, who use much of the Juneau Access (Improvements) Project area for these purposes. Because Klukwan is a major subsistence-user community, it is addressed separately in this section.

The accompanying maps [Figure 3-7], from the Tongass Subsistence Map Series, (Kruse and Muth, 1990), show where Klukwan residents have hunted and fished in upper Lynn Canal. Mapped information was compiled from a sample of 29 occupied Klukwan households interviewed in 1988. Households were asked to show where they had hunted, fished, and gathered during their lifetimes as residents of Klukwan. Mapped information was grouped into three resource use categories, each shown on one map: deer, salmon, and non-salmon finfish. In addition to use areas illustrated on the figures, comments by reviewers provide information on other areas not shown on the maps (Betts *et al.*, 1994). Information was not collected for marine mammals or shellfish. In 1992, however, Klukwan residents harvested eight harbor seals (ADF&G, 1993).

Deer – Deer hunting has not occurred in the immediate vicinity of Klukwan because of the scarcity of deer populations in the Chilkat Valley and other mainland areas in northern Lynn Canal. The closest deer hunting area to Klukwan was Sullivan Island. In general, Klukwan hunters must travel widely to access deer hunting areas, most commonly traveling more than 40 miles to hunt (Betts *et al.*, 1994).

Deer harvest areas for Klukwan residents occurred in portions of Sullivan, Lincoln, Shelter, and Benjamin islands within the Juneau Access [Improvements] Project area (Betts *et al.*, 1994). Additional harvest areas not shown on Klukwan maps (Betts *et al.*, 1994) include the eastern shoreline of Sullivan Island and the entire area of Lincoln and Shelter islands.

Salmon – Salmon harvest by Klukwan residents traditionally involved gaff or spear and net fishing on the Chilkat River and its tributaries, a large system in which all five salmon species spawn. Harvesters could take salmon in a variety of spawning conditions to suit cultural and individual preferences. Salmon of all species (primarily sockeye, coho, chinook, and chum) were harvested as they entered the Chilkat River in bright condition, as well as during in-river migration and after spawning in lakes and tributary streams (ADF&G, 1994). Residents of Klukwan generally fished for sockeye, pink, and chum salmon in designated subsistence harvest areas near their community.

Salmon harvest maps for Klukwan residents indicate that salmon were fished in Chilkat Inlet from Seduction Point to the mouth of the Chilkat River (ADF&G, 1994). Additional areas not shown on the maps include a large area of Lutak Inlet, as well as Lynn Canal as far south as Bridget Cove (for rod and reel trolling) and William Henry Bay (for rod and reel trolling) (ADF&G, 1994).

Non-Salmon Finfish – The presence of a large river system with major hooligan, trout, and char stocks allowed for local harvest of these fishes from early spring until late winter. The Chilkat River is one of the largest sources of hooligan in southeast Alaska. Travel to saltwater is necessary to harvest halibut and other saltwater finfish. Halibut was harvested by rod and reel in the inlets and saltwater of Lynn Canal as far south as Berners Bay. However, freshwater fishing is more common in areas closer to Klukwan (ADF&G, 1994).

The map depicting non-salmon harvest areas was found to have major inadequacies. Therefore, the ADF&G Subsistence Division does not include this figure in the TRUCS dataset. However, information collected during map review [is included in Figure 3-7]. Non-salmon harvest for Klukwan residents took place in all waters of Chilkat Inlet for halibut, Chilkoot and Lutak inlets for halibut, and Lynn Canal from Point St. Mary (entrance to Berners Bay) to Seduction Point, including waters around Sullivan Island and in William Henry Bay for halibut (ADF&G, 1994).

Other Wildlife Hunting Areas – Klukwan residents hunt black bear, brown bear, moose, and mountain goat. No specific mapped use areas have been documented for black bear. Black bear meat composes 5 percent of Klukwan household food harvests (ADF&G, 1990). Brown bear have been harvested by Tlingit of southeast Alaska since before historic contact, and continues today. However, past studies by the ADF&G Division of Subsistence have not documented any subsistence harvest of brown bear in recent years in the Juneau Access [Improvements] Project areas (ADF&G, 1990).

Historically, Chilkat Tlingit, now Klukwan residents, harvested mountain goat in areas near the Endicott River (ADF&G, 1990).

Moose are relative newcomers to the Chilkat Range, having migrated south from the Chilkat Valley. Harvests range from 6 to 12 moose annually. Two percent of harvests are by Klukwan/Haines residents. Although harvest numbers are low in this area, moose is an important subsistence food resource because of its large size compared to deer, mountain goat and black bear. A dressed moose will provide an average of 550 pounds of meat (ADF&G, 1990).

3.2.4.2 Haines

Though no new studies were found for subsistence harvest by residents from Haines, some relevant information about the subsistence hooligan fishery of the Chilkat and Chilkoot rivers that was not included in the 1997 report is presented below.

According to studies conducted in 1982, 1990, and 1991 by ADF&G, there is a substantive fishery for hooligan in the Chilkat and Chilkoot rivers, participated in by mostly Tlingits from Klukwan and Haines (ADF&G, 1994b). Approximately 13 households from Klukwan and 21 households from Haines participated in the harvest in 1991 (ADF&G, 1994b). The Chilkat River supports one of the largest hooligan runs in southeast Alaska. Participants primarily use dip nets to scoop the fish from the river and into dirt pits or wooden boxes. This is done either directly, or by first scooping fish into five-gallon plastic buckets then transferring them to the pits or boxes. On the Chilkat River, the fishery was traditionally concentrated between 2 and 9 miles north of Haines along the Haines Highway (ADF&G, 1994b). Traditional fishing areas along the Chilkoot River centered at two camp sites: one at the historic Chilkoot Village near the lower reach of the river, and the second at a historic seasonal village located below the mouth of the river (ADF&G, 1994b). A study conducted in 1990 and 1991 indicated that fishing sites within those two years were primarily concentrated between the 4- and 6- mile sites, with some fishing occurring between 2 and 8 miles north of Haines, and little fishing done at the 8- or 9- mile fishing sites. Limited fishing occurs at the 8- and 9- mile sites because of poor productivity in more recent years resulting from difficult bank and channel conditions (ADF&G, 1994b). Residents drive to the Chilkoot River, where dip netting takes place along both banks. Fishermen on the Chikoot River concentrate in areas between a bridge and nearby salmon weir at the mouth of the river, and the Tlingit Chilkoot Cultural Camp. The hooligan run appears in the Chilkoot River some days after the run arrives in the Chilkat River. People may move their fishing to the Chilkoot River once the fish arrive there. Some people have a preference for the Chilkoot River fishery, as it has clearer water and requires less fishing time for the same quantity of hooligan (ADF&G 1994b).

The following information regarding the extent and distribution of subsistence harvest areas in the vicinity of Haines is still accurate and adequate, and the referenced map information is provided in Figure 3-8:

[Figure 3-8, developed from the Tongass Subsistence Map Series (Kruse and Muth, 1990), indicates where Haines residents have hunted, fished, and gathered resources in the Lynn Canal area.] Mapped information was compiled from a sample of 62 occupied Haines households interviewed in 1988. Households were asked to show where they had hunted, fished, and gathered during their lifetimes as residents of Haines. Mapped information was grouped into five resource use categories, each shown on one map: deer, salmon, non-salmon finfish, marine invertebrates, and marine mammals. In addition to use areas illustrated on the maps, a significant number of comments by community reviewers provide information on other areas not shown on the maps.

Deer – As in Klukwan, relatively little deer hunting occurred in the vicinity of Haines because of the scarcity of deer in the upper Lynn Canal area. Haines hunters must travel widely to access deer hunting areas. The average distance traveled from Haines to deer hunting areas was 120 miles. Lower Lynn Canal and Chichagof and Admiralty Islands were most widely used. The closest deer hunting area to Haines was Sullivan Island, where deer were introduced.

Deer harvest maps [shown on Figure 3-8] for Haines residents indicated that deer were hunted in Lynn Canal, the south end of Sullivan Island, portions of Lincoln and Shelter Islands, and the south shore of St. James Bay within the Juneau Access [Improvements] Project area. Additional harvest areas not shown on the figure include the entire area of Sullivan Island, and Boat Harbor north of St. James Bay.

Salmon – Salmon harvest by Haines residents traditionally involved the use of basket traps and gaff or spear fishing on the Chilkoot River; Chilkoot Lake; the lower Chilkat River; and Lutak, Chilkoot, and Chilkat inlets. Since the mid-1960s, the Chilkoot River has been closed by regulation to subsistence harvest, and all species have been taken in set or drift gillnets in the Chilkat River or in the inlets or by rod and reel in the rivers and inlets. During some years, some locations in the inlets, such as Paradise Cove, have been closed to subsistence drift gillnetting. In addition, subsistence drift gillnet users may only fish in saltwater portions of ADF&G District 15 (Upper Lynn Canal) during, and one day before, the commercial gillnet openings (Betts *et al.*, 1994).

In 1991, Haines area permits allowed harvest of sockeye, pink, and chum salmon in Chilkat and Lutak inlets and the Chilkat River.

Salmon harvest maps [Figure 3-8] for Haines residents indicate that salmon were harvested in Lynn Canal from the southern end of Sullivan Island to Seduction Point (Chilkat and Chilkoot inlets), Chilkat Inlet and Chilkat River, and Lutak Inlet (Betts *et al.*, 1994). Additional areas not shown on the figures include: Berners Bay for coho using rod and reel and Taiya Inlet and St. James Bay for chum, pink, and coho using rod and reel (ADF&G, 1994).

Non-Salmon Finfish – Haines residents generally harvested non-salmon finfish in areas close to the community, generally as far south as the end of Sullivan Island. Areas productive for numerous resources, such as St. James Bay, were frequented by those with larger boats. Halibut and bottom fish were taken with rod and reel primarily in Lutak and Chilkoot inlets and St. James Bay. Dolly Varden and cutthroat and rainbow trout were harvested widely with rod and reels in the main rivers, as well as in tributary creeks and in lakes. These freshwater areas were largely inland and farther north than the Juneau Access [Improvements] Project area. Harvests of herring have been low for years, although increases were noted locally since 1992 (Betts *et al.*, 1994).

Non-salmon harvest for Haines residents took place in the following locations [shown on Figure 3-8]: Lutak, Chilkoot, and Chilkat inlets; waters among the Chilkat Islands; waters off the northwest and southern ends of Sullivan Island; and nearshore waters on the north side of Point Sherman. Additional harvest areas not shown on the maps include St. James Bay for halibut fishing (Betts *et al.*, 1994).

Marine Invertebrates – Most invertebrate harvest in upper Lynn Canal areas close to Haines involved crab or shrimp harvest. Clams and cockles were harvested in more distant areas (St. James Bay and the inlets of Icy Strait). Trade with residents of other communities for locally unavailable marine invertebrates was common. For example, clams, cockles, and black seaweed have been obtained by exchanging dried bear and goat meat and hooligan oil (Betts *et al.*, 1994).

Marine invertebrate harvest for Haines residents took place in the following locations, shown on [Figure 3-8]. These areas were used primarily for setting Dungeness crab or shrimp pots:

- Lutak Inlet
- Chilkoot Inlet from the mouth of the Katzehin River to the entrance to Taiya Inlet
- Flat Bay on the Chilkat Peninsula
- Waters along the western shoreline of the Chilkat Peninsula
- Waters around the Chilkat Islands
- Nearshore waters of Glacier Point
- Waters of Chilkat Inlet from Kochu Island to Pyramid Island.

Additional harvest areas not shown on the [original] Haines maps include:

- Portage Harbor for crab and shrimp
- Mud Bay (the head of Fiat Bay) for Dungeness crab and occasional harvest of limpets
- St. James Bay for harvest of Dungeness crab and clams
- Taiya Inlet for harvest of shrimp and king crab
- Waters off Flat Bay for harvest of king crab
- All of the waters of Chilkat Inlet and the waters from the west side of Sullivan Island, and between Sullivan and the Chilkat Islands, to the entrance of the Inlet, for shrimp and crab
- Berners Bay for clams
- Coves of Sullivan Island, and Letnikof and Paradise coves for Dungeness crab
- Locations along the shoreline of the Chilkat Peninsula where waters are deep for shrimp
- Letnikof and Paradise Coves and a location near Tanani Point for harvest of red seaweed (ADF&G, 1994)
- Windy Point and Viking Cove for crab and Viking Cove for red seaweed (J. Brainard, personal communication, August 16, 1994).

Marine Mammals – Under the Marine Mammal Protection Act of 1972, only Alaska Natives are allowed to harvest marine mammals in Alaska. Harbor seal was the only marine mammal hunted by Alaska Native Haines residents for subsistence purposes. Haines hunters take harbor seal in specific estuaries and rocky haul outs in upper Lynn Canal, generally close to the community. Seals were hunted both from land and from skiffs or boats. Boats traveled to nearby locations specifically to hunt seal. Hunters also took seals when fishing in the vicinity of the Chilkat Peninsula (Betts *et al.*, 1994).

In recent years, roads in the Lutak Inlet area have provided access to beaches at the head of the inlet, from which seals were hunted. Lutak Road access was preferred during times of the year when seals were less likely to float when killed, since the shallow flats at the head of the inlet improved success in retrieving seals. Presence of non-harvesters in the area has deterred hunting for some hunters. Seal hunting at the head of Lutak Inlet and at Mud Bay has reportedly declined as a result of the development of private land. Hunters noted in interviews that they are discouraged by homeowners from hunting seals in view of homes; hunters tend to avoid confrontations by finding other places to harvest (Betts *et al.*, 1994).

Marine mammal harvest for Haines residents took place in Lutak Inlet; Chilkat Inlet at Pyramid Harbor, from Letnikof Cove to Pyramid Island; and Taiyasanka Harbor shown on [Figure 3-8] (Betts *et al.*, 1994).

Additional harvest areas not shown on the [original] map (ADF&G, 1994) include:

- Lutak Inlet from the [Lutak] Ferry Terminal to the extreme head of the inlet
- Taiya Point
- The entire shore of the Chilkat Peninsula
- The Katzehin Flats
- The Eastern upper Lynn Canal shoreline from the mouth of the Katzehin River south to Sea Lion Rock near Eldred Rock
- The Chilkat Islands
- The south end of Sullivan Island
- St. James Bay
- Berners Bay

Other Wildlife Hunting Areas – Haines residents hunt black bear, brown bear, moose, and mountain goats. No specific mapped use areas have been documented for black bear. Black bear meat composes 12 percent of Haines household subsistence food harvests (ADF&G, 1990).

Brown bear have been harvested by the Tlingit of southeast Alaska since before historic contact and continuing to the present. However, past studies by the ADF&G Division of Subsistence have not documented any subsistence harvest of brown bear in recent years in the Juneau Access [Improvements] Project area (ADF&G, 1990).

Historically, Chilkoot Tlingit (now Haines residents), harvested mountain goat in areas near the Endicott and Katzehin Rivers, Glacier Point, near Dyea, and Taiyasanka Harbor (ADF&G, 1990).

Moose harvests range from 6 to 12 moose annually. Two percent of harvests are by Klukwan/Haines residents. Although the number of animals harvested is low, moose are an important subsistence food resource because of its large size compared to deer, mountain goat, and black bear. A dressed moose can provide an average of 550 pounds of meat (ADF&G, 1990).

3.2.4.3 Skagway

The following information regarding the extent and distribution of subsistence harvest areas in the vicinity of Skagway is still accurate and adequate, and the referenced map information is provided in Figures 3-9 and 3-10:

> [Figures 3-9 and 3-10 show] where Skagway residents have hunted, fished and gathered resources in upper Lynn Canal. Mapped information was compiled from a sample of 60 occupied Skagway households interviewed in 1988. Households were asked to show where they had hunted, fished, and gathered during their lifetimes as residents of Skagway. Mapped information was grouped into four resource use categories: salmon, non-salmon finfish, marine invertebrates and marine mammals. [Figure 3-9] shows invertebrate and salmon harvest areas, while [Figure 3-10] shows finfish and marine mammal harvest areas. In addition to use areas illustrated on the maps, a significant number of comments by community reviewers provide information on other areas not shown on the maps (Betts *et al.*, 1994).
>
> **Deer** – As with Klukwan and Haines, relatively little deer hunting occurred in the vicinity of Skagway because of the scarcity of deer in the upper Lynn Canal area. Skagway hunters must travel widely to access deer hunting areas. The average distance traveled from Skagway to deer hunting areas was 155 miles. No deer harvesting by Skagway residents occurred in any areas where the Juneau Access [Improvements] Project area (Betts *et al.*, 1994).
>
> **Salmon** – Most Skagway households conducted subsistence fishing from smaller boats and skiffs and used Taiya Inlet and Burro Creek for harvesting coho. Trolling was an effective means for catching chinook, coho, and pink salmon. A large proportion of salmon was harvested in saltwater with rod and reel. Few residents were involved in subsistence gillnetting on the Chilkat River, or in dip netting for sockeye salmon locally. The heaviest use area (greater than 25 percent of households) was shown to be adjacent to the salmon hatchery on the west shoreline of Taiya Inlet opposite Yakatania Point (Betts *et al.*, 1994).
>
> Residents of Skagway generally use subsistence permits designed for the Haines area, which includes the Chilkat and Chilkoot systems and a write-in authorization for chum salmon at the Taiya River (Betts *et al.*, 1994).
>
> Salmon harvest maps [shown in Figure 3-9] for Skagway residents indicate that salmon were fished in the following general locations (Betts *et al.*, 1994):
>
> - Taiya, Lutak, Chilkoot, and Chilkat inlets
> - West Creek and the Taiya River upstream from West Creek
> - Burro Creek
> - Taiyasanka Harbor
> - Chilkat Inlet and Lake system

- Lynn Canal from Seduction Point to Sullivan Island, including waters around the Chilkat Islands (Anyaka, Shikosi, and Kataguni Islands)
- Lynn Canal from Kataguni Island to Point Sherman
- Waters along the western shoreline of Lynn Canal from Glacier Point to St. James Bay
- Waters around Lincoln, Shelter, and Douglas islands

Non-Salmon Finfish – Skagway households conducted subsistence or sport fishing for non-salmon species mostly from smaller boats and skiffs. Bottom fish were taken in shallow waters of bays and stream mouths, as well as the deeper and more open marine waters of the bays, passages, and straits. The primary species harvested was halibut. Skagway residents fished for trout in creeks and lakes near the community (Betts *et al.*, 1994).

Non-salmon harvest for Skagway residents took place in Taiya, Chilkoot, and Chilkat inlets, shown on [Figure 3-10]. No additional non-salmon finfish harvest areas were identified in the Juneau Access [Improvements] Project alternative areas (Betts *et al.*, 1994).

Marine Invertebrates – Invertebrate harvesting by Skagway residents was commonly done along the beaches and in the bays and coves near town. In areas close to the community, including Dyea, Nahku Bay, and Taiya Inlet, residents harvested shrimp and crab. Harvest was undertaken from skiffs or on foot along the beaches. In the more distant areas such as Chilkoot Inlet and Lutak Inlet, residents harvested crab offshore. Skagway lacks good clam beaches; therefore, crab was more heavily harvested by Skagway residents (Betts *et al.*, 1994).

Marine invertebrate harvest for Skagway residents took place in the following locations shown on [Figure 3-9] (Betts *et al.*, 1994):

- Nearshore and deep waters of Taiya Inlet near Dyea Point
- Nearshore locations of Taiya Inlet
- Deep waters of Lutak and Chilkoot inlets
- Nearshore waters of Nukdik Point, Portage Bay, and Chilkoot Inlet north of the mouth of the Katzehin River
- Waters off the northern end of Sullivan Island

Marine Mammals – Harbor seal was the only marine mammal hunted by Skagway residents for subsistence purposes. Only two households in Skagway were involved in marine mammal harvest in 1985. No additional information was collected (Betts *et al.*, 1994). A more recent statewide study by the ADF&G Subsistence Division reports no harvest of marine mammals by Skagway residents (ADF&G, 1993).

Marine mammal harvest for Skagway residents took place in Dyea and Nahku Bay and deep waters of Taiya Inlet shown on [Figure 3-10] (Betts *et al.*, 1994).

Other Wildlife Hunting Areas – Skagway residents hunt black bear, brown bear, moose, and mountain goats. No specific mapped use areas have been documented for black bear. Black bear meat comprises 1 percent of Skagway household food harvests (ADF&G, 1990).

Brown bear have been harvested by the Tlingit of southeast Alaska since before historic contact, and continuing to the present. However, studies by the ADF&G Division of Subsistence have not documented any subsistence harvest of brown bear in recent years in the Juneau Access [Improvements] Project areas (ADF&G, 1990).

According to ADF&G hunting statistics, Skagway residents have consistently harvested mountain goat (ADF&G, 1990). No data are available regarding specific locations. Moose harvests in the project area range from six to 12 animals annually. Less than 1 percent of harvests are by Skagway residents (ADF&G, 1990).

3.2.5 Residential, Commercial, Industrial, and Public Land Use

The following discussions of residential, commercial, and industrial land use within the Juneau Access Improvements Project area are unchanged from the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*.

The Land Ownership and Management Status [discussion in Section 3.1] describes general land management direction within the Juneau Access [Improvements] Project area, and local policies that address improved access between Juneau, Skagway, and Haines. This section looks specifically at community land use.

Land use patterns in a community have a major influence on transportation, energy consumption, property taxes, and the pattern of future growth. Understanding community land use, as expressed in comprehensive plans, coastal management plans, zoning codes, and other documents, provides the framework for understanding the community's goals and evaluating the types of impacts any proposed project will have.

The basic land uses within a community are residential, commercial, industrial, and public, including parks, government, and institutional lands. When a community develops a land use strategy, it evaluates many factors, including suitability of land for different uses, the future demand for uses based on population projections, the location and relationship of compatible and incompatible land uses, and protection of the health, safety, and welfare of its citizens.

3.2.5.1 City and Borough of Juneau

From the Auke Bay Ferry Terminal north to the end of the road at Echo Cove, Glacier Highway is an arterial road designed to carry traffic at steady speeds. The CBJ LUDs in this area include Rural Dispersed Residential and General Commercial near Auke Bay, and Resource Development, Waterfront Commercial, and Recreation along the Glacier Highway to Bridget Cove, where state park land and a CBJ conservation area surround resource development areas. There is a potential school site northeast of Bridget Cove, south of the existing Glacier Highway. The CBJ LUD surrounding Echo Cove is Resource Development, including land at the mouth of Sawmill Creek. A Recreation Resource area continues north around Berners Bay. Management definitions for the *CBJ Comprehensive Plan* (CBJ, 1996) land use categories within the project area are as follows:

- **General Commercial** – Land for retail uses, including neighborhood retail and community commercial development such as shopping centers, mixed retail/residential/office uses, and office use, including leased government office space.

- **Proposed New Growth Areas** – Sites in rural areas suitable and available for future urban/suburban or a mixed-use development when specifically approved by the CBJ in accordance with the procedures and criteria set forth for New Growth Areas.
- **Recreation Resource** – Land primarily under federal or state management for a range of resources such as timber, minerals, wildlife and recreation uses, including recreation cabins. Uses may include small-scale, visitor-oriented, seasonal recreation facilities.
- **Resource Development** – Land to be managed primarily to conserve natural resources until specific land uses are identified and developed. Minimal residential development may occur. Uses may include small-scale, visitor-oriented, seasonal recreational facilities. The area outside of the study area addressed by the Comprehensive Plan is considered to be designated as Resource Development.
- **Rural Dispersed Residential** – Dispersed, very low-density development that has no municipal sewer or water service. Densities are intended to permit one dwelling unit per acre, but larger lot sizes may be appropriate based on existing platting and capability of the land to accommodate on-site septic systems and wells. Uses may include small-scale, visitor-oriented, seasonal recreational facilities.
- **Waterfront Commercial** – Land to be used primarily for water-dependent and water-related commercial uses and, in special cases, for water-related mixed uses including hotel and residential use.

The area from Eagle River north to Echo Cove is designated in the *CBJ Comprehensive Plan* (CBJ, 1996) as Rural Dispersed Residential with Potential New Growth Areas. Guidelines for its management are as follows:

- Preserve valuable, publicly owned recreation lands and wildlife habitat, including Lynn Canal shoreline areas, as public open space.
- Provide opportunities for New Growth Area development, including a mixture of residential and water-related uses in Echo Cove.
- Limit density of rural development north of Peterson Creek in response to presence of sensitive areas; allow higher rural densities to the south.
- Recognize Berners Bay and the river systems that feed it as important recreation and scenic areas that experience significant local usage and have potential for tourist use.
- Develop a comprehensive interagency plan for Tee Harbor to Berners Bay that recognizes, protects, and enhances the multiple recreational and educational programs found in the area.
- Evaluate the development of a hiking trail between Point Bridget and Point Bishop.
- Develop a management plan for CBJ lands at Bridget Cove to complement the recreational opportunities provided by Point Bridget State Park.
- Expect increased commercial use of public land for tourism.

Proposals are under consideration to extend Glacier Highway past Echo Cove to Sawmill Cove, where there is potential to create a marine terminal that could serve mining, ferries, commercial watercraft, and others.

The local importance of the Echo Cove vicinity is evidenced by its designation by the CBJ as a potential New Growth Area and identification as a potential AMSA in the JCMP. The *CBJ Comprehensive Plan* designates the uplands surrounding Echo Cove as New Growth Area and

Resource Development lands. It also states that nonresidential uses such as port facilities or resource-related industrial development may also be appropriate. Goldbelt worked with the CBJ to have this area designated a New Growth Area and completed a master plan for Goldbelt lands in the area as required.

The *CBJ Comprehensive Plan* designates the shorelands around Echo Cove as Resource Development and the inland areas and CBJ lands in Berners Bay as Recreation Resource. The designation of New Growth Area eclipses these designations.

3.2.5.2 Haines

The Haines Borough covers approximately 2,600 square miles and includes the northern portion of the Lynn Canal area. It is a Home Rule Borough and is the result of consolidation of the City of Haines and the Haines Borough in 2003. The borough revised its comprehensive plan dated April 2, 2004, to reflect this consolidation. The former City of Haines boundaries and Lutak Inlet and Mud Bay retain zoning regulations. All other areas of the borough are zoned general use. Coastal management plans are discussed in Section 3.3.

Land use within the Haines Borough is outlined in the *Haines Borough Comprehensive Plan*, which lists the following purposes:

- Present an opportunity for a community to assess how it is doing: identify strengths and values; identify weaknesses and problems; and examine current trends affecting the community.
- Facilitate community consensus on direction for the future, such as what types of growth are desirable and where that growth should occur, and what improvements are needed in roads, recreational facilities, and utilities.
- Serve as a basis for zoning and other land use regulations.
- Provide guidance on how land use and infrastructure decisions can facilitate economic development.
- Anticipate potential growth and forecast needs for land use, public infrastructure, and services.
- Develop strategies to accomplish community goals and objectives and assign responsibility for acting on those strategies.

3.2.5.3 City of Skagway

The City of Skagway is in the design stage of a $4 million project to move the existing seawall out by 50 feet into the harbor and add new uplands for pedestrian access, additional boat harbor parking, and a city park. The project is intended to better manage existing pedestrian, vehicle, and train traffic in the area. The area is within the waterfront zoning district and is zoned Waterfront Industrial. Current land use is a mixture of water-related commercial and industrial activities, pedestrian paths and amenities, shops and restaurants, small boat harbor uses, a staging area for the city transfer bridge, and the Pullen Creek picnic area and anadromous fish stream. Future land use for this area as established in the *Skagway Future Growth Plan* (City of Skagway, 1999) is also industrial. Although there is no specific restriction against roadways in this area, the City of Skagway has authority to decide if a conditional use permit is required for construction.

The Lower Dewey Lake area is a popular hiking and picnicking area and is owned by the City of Skagway. This land is zoned residential-conservation and allows for low-density residential development, natural resource development and conservation, and dispersed recreation and seasonal recreational lodges, cabins, and other facilities. Local zoning requires a conditional use permit for pipelines and roadways. A permit is likely to be needed for a highway. This area is considered recreation and open space in the *Skagway Future Growth Plan* (City of Skagway, 1999).

3.2.6 Recreation, Sport Fishing, and Hunting

This section describes recreational resources and activities such as sport fishing and hunting, camping, hiking, kayaking, and tourism activities in the Juneau Access Improvements Project area. The discussion includes the natural and urban areas where recreation activities occur and examines the extent of these activities.

Most of the following information was obtained through interviews with resource agency managers, recreation equipment suppliers, fishing charter operators, wilderness guides and outfitters, and recreationists. The USFS has a recreation inventory system (Recreation Opportunity Spectrum [ROS]) to classify the type of experience visitors may expect in various forest locations. The ADF&G maintains data on the fishing and hunting uses of the area. A survey of recreation users in Berners Bay was conducted for the Kensington Gold Project Draft SEIS (USFS, 2004). State agencies and private companies have published reports on the number of visitors to southeast Alaska and their methods of arrival (e.g., cruise ship, personal vehicle, aircraft).

The Lynn Canal area has high recreational value and annually attracts thousands of visitors from Alaska and all over the world. Over the last several years, Alaska's cruise ship passenger volume has increased, while the highway visitor market has decreased. Most of the terrain in the Lynn Canal area is extremely rugged and undeveloped. Marine wildlife and fish are plentiful. Terrestrial wildlife, including mountain goat, black and brown bear, Sitka black-tailed deer, and moose are distributed throughout the project area. This natural setting combined with the facilities of Juneau, Haines, and Skagway provides residents and visitors with many recreational opportunities such as fishing, hiking, camping, hunting, powerboating, sailing, kayaking, canoeing, skiing, wilderness guiding, and wildlife and scenery viewing.

The tourism industry has been Juneau's fastest-growing industry. In the last decade, the cruise ship passenger volume has more than doubled to 770,000 in 2003. Trends in independent recreation and tourism in Juneau are difficult to measure. Data from airlines and ferries indicate that the independent visitor market is growing slowly. The total number of non-southeast Alaskan independent visitors to Juneau for 2002 is probably between 95,000 and 110,000 (McDowell, 2004).

The number of cruise ship passengers visiting Skagway has more than doubled in the last eight years, from 260,000 in 1996 to almost 630,000 in 2003. In 2002, cruise ship passengers accounted for 78 percent of visitor traffic in the community. Only infrastructure-related limitations (e.g., dock space) could prevent cruise ship traffic in Skagway from growing at the predicted regional rate of 3 to 4 percent annually for the next 10 years. Personal vehicle highway use has been steadily declining in recent years, from 98,000 visitors by car in 1998 to 86,000 visitors by car in 2002. Similarly, bus traffic has decreased from 11,700 passengers in 1998 to 4,200 passengers by 2002. Ferry traffic has also declined in recent years, from over 40,000 passengers in 1995 to 32,600 passengers in 2002 (McDowell, 2004).

In Haines, the number of cruise ship passengers has dropped dramatically in recent years from a high of almost 200,000 visitors in 2000 to a low of 28,000 visitors in 2003. Haines is likely to remain a secondary port of call because of the lack of tour and excursion opportunities. Haines' independent visitor traffic has also been declining. In 1992, ferry traffic included 45,300 disembarking passengers and 15,100 vehicles. In 2002, disembarking traffic totaled 36,900 passengers and 13,400 vehicles. This reflects an overall decline in the Alaska highway visitor market in recent years (McDowell, 2004).

Figure 3-5 identifies general areas of dispersed recreation use areas by type of activity for the project area.

3.2.6.1 U.S. Forest Service Recreation Opportunity Spectrum

The portion of the Juneau Access Improvements Project area within the Tongass National Forest lies in or near areas identified by the Forest Service as general areas of dispersed recreation use. These areas are depicted on the Forest Service "Recreation Places Inventory" Map. The Inventory states, "Recreation places are identified geographical areas of small to moderate size which have one to several features that are particularly attractive to people engaging in recreation activities and receive recurring use. They may be beaches, stream-side or roadside areas, trail corridors, hunting areas, recreation facilities, or other features" (USFS, 1997).

In addition, the Tongass National Forest lands are classified by the TLMP under the Forest Service ROS for various recreation opportunities. The areas classified under the ROS system are managed by forest-wide standards and guidelines in the TLMP to provide direction for recreation opportunities. The ROS standards and guidelines are used in conjunction with recreation management prescriptions applicable to the specific LUDs. As an inventory tool, ROS is a system for planning and managing recreation resources and classifying recreation opportunities into seven categories of settings, ranging from primitive to urban settings. The classified lands are shown in the Forest Service ROS map. The 1997 *Addendum to the Land Use and Coastal Zone Technical Report* summarized these classifications and Lynn Canal activities as follows:

> The [United States Department of Agriculture (USDA)] Forest Service classifies recreation using an inventory process called the ROS. The ROS is used to identify, describe, and quantify the recreational resources in the forest. This information is used to establish the management goals for the recreation experience within the Tongass National Forest and give information about the appropriate combination of activities, settings, and experience expectations for the area. The ROS process is also used by the USFS to evaluate the potential impacts of proposed projects.
>
> The ROS classifications consist of seven recreation classes as follows in decreasing order of development: Urban, Rural, Roaded Modified, Roaded Natural, Semiprimitive, Semiprimitive Nonmotorized, and Primitive.

There are three ROS classes that apply to the Juneau Access Improvements Project area: Roaded Natural, Semiprimitive Nonmotorized, and Semiprimitive Motorized. The purpose and uses of these [three] ROS classifications are summarized below:

Roaded Natural – Areas where resource modification and utilization are evident, in a predominantly naturally appearing environment generally occurring within ½ mile (greater or less depending on terrain and vegetation, but no less than ¼ mile) from better-than-primitive roads and other motorized travel routes. Interactions between users may be moderate to high

(generally less than 20 group encounters per day), with evidence of other users prevalent. There is an opportunity to affiliate with other users in developed sites but with some chance for privacy. Self-reliance on outdoor skills is only of moderate importance with little opportunity for challenge and risk. Motorized use is allowed.

Semiprimitive Nonmotorized – A natural or natural-appearing environment generally greater than 2,500 acres in size and generally located at least ½ mile (greater or less depending on terrain and vegetation, but no less than ¼ mile) but not further than 3 miles from all roads and other motorized travel routes. Concentration of users is low (generally less than 10 group encounters per day), but there is often evidence of other users. There is a high probability of experiencing solitude, freedom, closeness of nature, tranquility, self-reliance, challenge, and risk. There is a minimum of subtle on-site controls. No roads are present in the area.

Semiprimitive Motorized – A natural or natural-appearing environment generally greater than 2,500 acres in size and generally located within ½ mile of primitive roads and other motorized travel routes used by motor vehicles; but not closer than ½ mile (greater or less depending on terrain and vegetation, but no less than ¼ mile) from better-than-primitive roads and other motored travel routes. Concentration of users is low (generally less than 10 group encounters per day), but there is often evidence of other users. There is a moderate probability of experiencing solitude, closeness to nature, and tranquility along with a high degree of self-reliance, challenge, and risk in using motorized equipment. Local roads may be present, or along saltwater shorelines there may be extensive boat traffic.

For recreation and other resources, the TLMP contains Forest-wide goals and objectives, Forest-wide Standards and Guidelines, and management prescriptions specific to LUDs. The Forest wide goal is to "Provide a range of recreation opportunities consistent with public demand, emphasizing locally popular recreation places and those important to the tourism industry." The Forest-wide objective is to "Manage the Forest's recreation settings in accordance with the ROS standards and guidelines for each LUD." The TLMP Forest-wide recreation Standards and Guidelines includes recreation settings for each ROS class, which provide for a broad spectrum of outdoor recreation opportunities in accordance with the existing capabilities of the National Forest as indicated by the ROS inventory, and in accordance with the ROS guidelines. This Standard directs that recreation use be managed in a manner that is compatible with the long-term objectives of the land use designations, and that maintains the capability of all LUDs to provide appropriate quality recreation opportunities. Thus, each LUD includes the Forest-wide goals, objectives, applicable Forest-wide Standards and Guidelines, and specific management prescriptions.

Figure 3-11 is a copy of the U.S. Forest Service Northern Lynn Canal Recreation Opportunity Spectrum. The map shows the areas of the National Forest by ROS class.

3.2.6.2 Overview of Recreation Activities Within the Juneau Access Improvements Project Area

An overview of recreation activities in the project area was provided in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*:

> Lynn Canal is a rugged, mountainous area with [a limited number of] protective coves. The area can be a hazard for small boats, because storms and high seas are common and develop rapidly. Because relatively long distances must be traveled for recreation activities north of Berners Bay and south of the Katzehin River and Chilkat Inlet, the majority of Lynn Canal receives relatively light [recreational boating] use.

> Recreation in Lynn Canal is primarily water-based, since there is little other means of [economically-feasible] access. Boating is both a recreational activity, as well as a means of transportation to other recreation activities, such as sport fishing and hunting. [In 2001, there were 4,472 valid boat registrations in Juneau, 436 in Haines, and 101 in Skagway (Alaska Division of Motor Vehicles, 2003)].
>
> Pleasure boats, sightseeing vessels, wilderness guides, sailboats, kayaks, and canoes all use portions of Lynn Canal for outings [ranging in length] from one day to several weeks.
>
> Camping and hiking occur throughout Lynn Canal, predominantly near the communities. Developed tent and [RV] campgrounds exist within Juneau, Skagway, and Haines. Outside of these urban areas, camping occurs at various locations both in developed campgrounds and at random wilderness sites. Hiking occurs primarily on maintained trails built by federal, state, and local government, and a few private nonprofit groups.
>
> The [USFS] has a public use recreation cabin in Berners Bay, and a cabin at the Katzehin River that is not available for use at this time. There are a number of private hunting shacks in the northern Berners Bay area and private cabins along the west side of Lynn Canal that are used primarily for recreation purposes.
>
> Sport fishing is extremely popular in Southeast Alaska. A 1979 survey found that sport fishing in Southeast Alaska is the most popular recreation activity (ADNR, 1988). [According to the ADF&G 2003 Charter Vessel Registration List, there were 1,127 charter boats registered in Juneau ports, 81 in Haines, and 13 in Skagway (ADF&G, 2003a)].

As noted in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*, "there are 37 freshwater and anadromous fish species found in southeast Alaska (USFS, 1991a)." The primary species harvested for sport fishing include the following:

- All five species of Pacific salmon: king (*Oncorhynchus tshawytscha*), silver (*O. kisutch*), red (*O. nerka)*, pink (*O. gorbuscha*), and chum (*O. keta*)
- Pacific halibut *(Hippoglossus stenolepis)*
- Rockfish (*Sebastes* spp.)
- Dolly Varden char (*Salvelinus malva*)

The 1997 technical report states:

> Shellfish, including red and blue king and dungeness crab, are also harvested for sport. There is relatively less sport fishing in Lynn Canal than in other parts of Southeast Alaska. This is attributed to the mountainous and rugged terrain that supports limited fish habitat. In addition, rapidly developing storms and high seas are common, which, when coupled with relatively few protected coves that boats can use for shelter, limit fishing activities. For these and other reasons the ADF&G devotes limited effort to studies of fish and game in Lynn Canal (P. Suchanek, personal communication, July 1994).

ADF&G developed an updated Sport Fish Harvest Survey in 2001. Table 3-3 summarizes the 2001 sport fish harvest in the Juneau, Haines, and Skagway areas, according to ADF&G Division of Sport Fish Harvest Survey information (ADF&G 2003b). In some areas, the survey sample size was quite small but is included in Table 3-3 to give an indication of sport fishing effort. This survey also includes charter fishing efforts. Although limited data are available

indicating the amount of the take, there is a personal-use pot shrimp fishery in Lynn Canal (B. Glynn, personal communication, 2003).

Hunting is a relatively minor activity in Lynn Canal compared to other areas in southeast Alaska. Sport hunting within the project area is for brown bear, black bear, moose, Sitka black-tailed deer, and mountain goat. Trapping of beaver, otter, lynx, wolf, wolverine, and marten also occurs. Ducks, geese, other waterfowl, ptarmigan, and other birds are hunted within the project area. The level of effort expended for the harvest of otters, wolves, wolverine, and beaver is variable and partly dependent on current market value. Most of the furbearer harvest is from the Berners Bay area, which several trappers use annually. Trappers also target St. James Bay and the lower Endicott River. Currently, few trappers target these small populations of furbearers, thereby limiting the harvest. A relatively small harvest of grouse occurs in the project area, primarily in the spring (P. Hessing, personal communication, 2003).

The most productive wildlife areas are the Chilkat River valley, the west side of Chilkat Inlet, Berners Bay, the Endicott River area, and William Henry Bay. Deer are hunted on Sullivan Island. The most productive upland wildlife habitats occur along the coast, in the riparian habitats of river valleys, and streams that support populations of anadromous fish. The habitats that are most productive are also the most accessible and the focus of recreational pursuits, particularly since inland habitats are often limited by the mountainous terrain surrounding Lynn Canal.

Table 3-3
Sport Fish Catch in the Juneau Access Improvements Project Area, 2001

	Skagway Area Saltwater	Skagway Area Freshwater	Haines Area Saltwater	Haines Area Freshwater	Lynn Canal Saltwater	Berners Bay Freshwater
Anglers	1,426	126	1,167	197	935	70
Trips	3,216	241	3,227	4,163	2,077	67
Days Fished	3,810	417	4,246	12,422	3,728	88
Catch (# of Fish)						
King Salmon	388	0	291	0	301	0
Coho Salmon	46	19	11	2,753	1,253	175
Sockeye Salmon	0	0	106	2,396	22	0
Pink Salmon	80	500	134	2,060	134	0
Chum Salmon	73	16	0	189	285	0
Dolly Varden	74	0	357	0	44	0
Halibut	51	0	445	0	402	0
Rockfish (*Sebastes* spp.)	0	0	101	0	306	48
Other Fish	9	22	26	182	26	11
King Crab (*Paralithoides* spp.)	0	0	0	0	147	0
Dungeness Crab *(Cancer magister)*	641	0	541	0	1,401	0
Tanner Crab *(Chionoecetes bairdi)*	21	225	11	259	25	0

Source: Sport Fish Statewide Harvest Survey (ADF&G, 2003b)

3.2.6.3 Recreational Activities and Facilities by Geographic Area

This section describes specific recreation activities and facilities along East and West Lynn Canal within the project area.

3.2.6.3.1 East Lynn Canal

Outside of the CBJ, recreation use along East Lynn Canal is most concentrated in the Berners Bay, Katzehin River, and Skagway areas. Table 3-4 lists the major recreational activities along East Lynn Canal by area, beginning with the Echo Cove area and moving north. Specific areas are discussed in more detail in the following sections.

Table 3-4
Recreation Activities by Area Along East Lynn Canal

Activity	Echo Cove to Berners Bay Area	Katzehin Area	Skagway Area
Viewing Scenery	X	X	X
Viewing Terrestrial Wildlife	X	X	
Viewing Marine Life	X	X	
Hiking and Walking			X
Camping	X	X	X
Pleasure Motorboating	X	X	X
Kayaking and Canoeing	X	X	X
Sport Fishing	X	X	X
Hunting	X	X	X
Trapping	X		
Sailing			X
Cross-Country Skiing/Telemarking	X		X
Snowshoeing			X
Sightseeing			X
Nature Study			X
Wilderness Guiding	X	X	X

Source: *Juneau Access Improvements Addendum to the Land Use and Coastal Zone Technical Report* (DOT&PF, 1997)

Juneau

In its role as the regional population center, Juneau has changed little since 1997. Information regarding wildlife viewing and RV park location and number has been updated, and additional detail has been added to the discussion of trail systems. Much of the research on recreation in Juneau gathered for the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*, however, remains accurate and is included with little change.

> Juneau is a hub for many recreational activities. Major attributes include numerous developed and undeveloped hiking and camping facilities and opportunities, diverse wildlife populations, abundant sport-fishing opportunities, gold rush history, the Mendenhall Glacier, flight-seeing, downhill and cross-country skiing, and scuba diving. Popular Juneau facilities include the Douglas Island Pink and Chum, Sheep Creek, and [Macaulay] hatcheries; Last Chance Basin Historic District; Centennial Hall; Alaska State Museum; the city museum; the

Twin Lakes Recreation Area; Eaglecrest Ski Area; [Mt. Roberts Tramway]; the Mendenhall wetlands and viewpoints; and Mendenhall Glacier visitors' center. Further from town are the Lena and [Eagle] Beach recreation areas, Shrine of St. Therese, and [Point Bridget State Park area].

Wildlife Viewing – Wildlife viewing is a popular recreation activity. Wildlife tour boats take residents and visitors on day trips near Juneau to view marine mammals such as harbor seals; Steller sea lions; Dall and harbor porpoises; and minke, humpback, and orca whales.

RV Parks – Juneau has two commercial and two public RV parks. The commercial parks are located at Auke Bay (33 sites) and the Mendenhall Loop Highway (59 sites). The public parks are the USFS-managed Auke Village Campground with 12 sites (ten of which are for vehicles over 20 feet) and the Mendenhall Lake Campground with 16 RV sites and 68 campsites. The CBJ also allows four RVs to park at the Sandy Beach parking lot and ten at the Norway Point parking area.

These facilities seem to meet existing demand. Facilities are generally more than half full during the summer, although during the 2003 tourist season there was less RV park and campground traffic than usual throughout Alaska (V. Kirkevold and L. Williams, personal communication, 2003).

Trail System – The Juneau area has an extensive trail system that is owned and maintained by the CBJ and the state and federal governments, as well as by private nonprofit groups and others. The CBJ contains over 100 trails of various lengths and conditions. The CBJ has recently developed policies, regulations, and a fee structure for commercial use of trails. A handful of local trails are available for use by guided tour groups. There are five USFS cabins and two state cabins along Juneau area trails. All of the trails are on or easily accessible from the Juneau road system.

Sport Fishing – As stated in the 1997 technical report, "sport fishing in the Juneau area has been increasing in popularity and, with the increase in the number of boats and the advent of faster private and charter boats, areas used for fishing are expanding as is the shift in length of operations to include more overnight trips (M. Bethers, personal communication, 1994)."

Hunting – Hunting efforts concentrate on Sitka black-tailed deer, brown and black bear, mountain goat, and moose. Prime hunting areas for Juneau residents are Admiralty Island, Douglas Island, and Berners Bay.

Boating – Juneau has four public and three private boat harbors. The CBJ facilities are the Harris, Aurora, Douglas, and Auke Bay harbors. Harris, Douglas, and Auke Bay have transient boat moorage with space available for periods of one to three days. Permanent mooring is available at Harris, Douglas, and Aurora harbors. These harbors are currently at capacity. Depending on boat size, a waiting period of up to 3 years can be expected. Private harbors are Donohues (Tee Harbor), Deharts, and Fisherman's Bend marinas. In addition, transient moorage is available at the public dock at the south end of downtown Juneau. Several public boat ramps are available in the area, including at North Douglas, Amalga Harbor, and Echo Cove.

Flight-seeing – Flight-seeing is a popular activity in the summer and, to a lesser extent, in the winter. Helicopters and fixed-wing aircraft take tourists for glacier landings, close-up views of glaciers and wildlife, and dogsledding. The majority of flight-seeing trips are over the Juneau Icefield and the Taku River.

Berners Bay to Skagway

Hunting – The Berners Bay area is a popular and accessible hunting area, particularly for Juneau residents. Black bear, mountain goat, and moose are the most sought after and heavily harvested big game animals. The Berners Bay moose hunt is a prized drawing hunt; between 1,000 and 2,000 people compete annually for 10 to 18 permits. For bears and goats in particular, the number of hunters who pursue game in this area far outweighs the actual harvest. Most of the harvest of black bears takes place in the spring. Brown bears are present although not in high numbers, and hunters harvest an average of one to two per year. Lower elevations near Lion's Head Mountain are important black bear habitat. Mountain goats are present throughout most of the mountains in and around Berners Bay. Goat hunters generally hunt the Lions Head Mountain area, Antler Lake, Kidney Lake, or the area adjoining the Berners Bay USFS cabin. Goat and bear populations are considered to be healthy in this area. Waterfowl are the most heavily hunted small game species (P. Hessing, personal communication, 2003).

Trappers regularly use the Berners Bay area. Beaver, otter, wolves, and wolverine are taken in the area between Slate Cove and Cowee Creek, and in the Berners, Antler, and Lace River deltas (P. Hessing, personal communication, 2003).

There is less use of wildlife for hunting between Berners Bay and the Katzehin River, although a few bears and mountain goats are harvested in this area each year. Mountain goats are found on many of the high mountain slopes, although they may descend to near sea level with winter snows. Nannies in particular may change their elevation in response to snow, which makes them more vulnerable to harvest (P. Hessing, personal communication, 2003).

Deer inhabit and are hunted on Lincoln, Shelter, Douglas and Sullivan islands. They are also present on the mainland on both sides of Lynn Canal, but in extremely low numbers. For example, in Game Management Unit 1D north of Sullivan Island, deer are present but in such low numbers that no hunting season exists, as there is likely no harvestable surplus (P. Hessing, personal communication, 2003.)

Berners Bay

Marine access to Berners Bay is currently by private boat. The Echo Cove boat ramp is a traditional launching spot for small boats. Although no quantitative data exist, resource agency management staff report that most of the activities in this area consist of water-based recreation; dispersed camping and hiking associated with boating; sea kayaking; boating in skiffs and other small vessels; sport hunting and fishing; and recreational cabin use. Wildlife viewing is popular in Lynn Canal. Large runs of eulachon attract large numbers of fish, birds, and marine mammals, creating substantial wildlife activity and viewing opportunities.

The 1997 *Addendum to the Land Use and Coastal Zone Technical Report* included the following discussion of survey data gathered regarding recreational use in Berners Bay:

> A Technical Report on the Recreation Resources of the Kensington Gold Project Area" was prepared by the USFS in 1991 and summarized a public survey of recreational use of the study area conducted in late 1990 and early 1991. The Kensington Gold Project area encompasses land on the East Lynn Canal from Echo Cove northward to Eldred Rock as well as the southern portion of Lynn Canal waters. Respondents (mostly Juneau residents) indicated that most recreational use of the area is in Berners Bay itself and on beaches around the southern and eastern sides of Berners Bay [Figure 3-5].

> Some [recreational] use on the west side of Berners Bay in the vicinity of Slate Cove was reported, as well as [use] of the Berners, Antler, and Lace rivers by air boaters, kayakers, and trappers. Respondents said they were most likely to participate in the following activities in Berners Bay [in decreasing order of preference]: fishing, wildlife viewing, camping, sightseeing, beachcombing, kayaking and canoeing, cross-country skiing, motor-boating, and other miscellaneous activities.
>
> Fifty-six percent of the respondents stated that they expect to experience solitude and isolation from the sights and sounds of humans in Berners Bay. When asked about the sense of [crowding] from too many users during their last visit to Berners Bay, 52 percent said they could see or hear human activities, but the area was not crowded. About 12 percent of respondents reported feeling crowded.

Sport Fishing – The Berners, Lace, Antler, and Gilkey river drainages in northern Berners Bay are difficult to access. Airboats are usually required for access. Substantial runs of coho salmon occur in the Berners and Antler Rivers, though much of the harvest of these runs occurs outside of the bay area. King and dungeness crabs are also caught in Berners Bay.

Katzehin River Area

Sport Fishing – Approximately 40 miles north of Berners Bay is a major drainage at the Katzehin River and Katzehin Flats. The Katzehin River is fished for Dolly Varden and coho salmon; the limited harvests have not been quantified by ADF&G. Independence Lake, located about 24 miles south of the Katzehin River along Lynn Canal, is a popular fishing spot during the peak of the sockeye salmon season.

Wildlife Viewing – Just south of the Katzehin River at Gran Point is a Steller sea lion haulout area. The haulout is a popular wildlife viewing area for motorboaters, kayakers, and commercial tourism guides. The growing popularity of trips to the Katzehin River area was evident in 1994 and recorded in the 1997 technical report. J. Ordonez, Manager of Chilkat Guides (quoted in 1994), attributed the growing popularity to “the undeveloped nature of the area and the opportunity for viewing the threatened Steller sea lion and other wildlife that inhabit the area.”

Boating and Camping – The Katzehin River area is growing in popularity for recreational uses such as kayaking and boating. The Katzehin Flats have meadows and flat beaches that provide excellent camping areas. The USFS cabin on the flats is in disrepair and no longer available for public use.

ROS Designation Change – Just south of the Katzehin River, the USFS recreational opportunity spectrum classification changes from Semiprimitive Motorized to Roaded Natural. Although no road exists in these areas, the area from the Katzehin River vicinity to Skagway is classified Roaded Natural because the frequent boat, cruise ship, and airplane use, coupled with the narrowness of northern Lynn Canal, magnifies the sounds and sights of motorized travel in this area. The areas classified as Semi-primitive Motorized and Roaded Natural, where the highway alignment occurs, are depicted on the ROS map as narrow strips along the shoreline of Lynn Canal, with the area upland of the shoreline area classified as Semi-primitive Non-motorized.

Skagway

The description of Skagway's geology, park facilities, trails, and flight-seeing activities presented in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* was reviewed and updated, as appropriate. The following description of Skagway, with minor updates, was presented in the 1997 technical report addendum.

> Skagway is an area of narrow fjords, mountains, and braided rivers. Its climate is sunnier than that to the south and warmer than that to the north. Skagway was [a] major gateway to the Klondike [gold fields] and retains the historic flavor of the gold rush days. Skagway is a center for recreation, cruise-ship sightseeing, and shopping in the historical district of town. Visitors to downtown Skagway enjoy walking through the historic district, the city museum, horse-drawn carriage and street car rides through town, and viewing shows about life during the gold rush era, among other pursuits.
>
> Less urban Skagway recreation activities (in the general area of Skagway) include hiking, camping, hunting, [mountain climbing,] and fishing. Developed recreational facilities consist of [USDA] Forest Service cabins and trails, [city cabins and trails,] dispersed campsites, small picnic areas, historic sites such as the Gold Rush Cemetery and [the town of] Dyea, railroad sightseeing tours on the White Pass & Yukon Route railroad, sightseeing from the Klondike Highway, and the National Park Service trails and campsites.
>
> The National Park Service's Klondike Gold Rush National Historical Park has both urban and non-urban recreation facilities. The urban Park Service facilities are in the Skagway Historical District, and include a collection of 15 structures dating back to the Klondike gold rush era. The non-urban Park Service facilities include a drive-in campground at Dyea that contains 22 sites, pit toilets, picnic tables, and fire rings and the Chilkoot and White Pass trail units. Recreational vehicles are prohibited in the Dyea campground.

Updated information on flight-seeing, hunting, sport fishing, boating, and park facilities and trails in the Skagway area is provided in the following sections.

Flight-seeing – Flight-seeing is a popular recreation activity in Skagway. The principal geographic areas of interest and level of helicopter flight-seeing activity originating from Skagway have changed since publication of the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*. More than 30,000 passengers were transported on helicopter flight-seeing excursions based from Skagway between May and September 2003. Approximately one-third of the flight-seeing trips follow West Creek Valley, and two-thirds of the flight-seeing trips fly up the Paradise Valley drainage near Otter Creek. When limited by weather conditions or visibility to these two primary destinations, the helicopter flight-seeing excursions generally fly south along Lynn Canal to the Katzehin River delta and up the Katzehin River drainage to either Denver Glacier or Mead Glacier (J. Naiman, personal communication, 2004).

Hunting – Like Berners Bay, the Skagway area receives a moderate amount of hunting interest for mountain goats. Goats are harvested along both the east and west sides of Taiya Inlet, particularly on the east side, as well as along the East Fork of the Skagway River and the Skagway River drainage north of Skagway. General hunter success for goats ranges from 10 percent to 40 percent (P. Hessing, personal communication, 2003).

In Game Management Unit 1D (Haines and Skagway), the moose hunt is a Tier II permit hunt primarily used by local residents. Although only a couple of moose are harvested in the Katzehin and Skagway areas, most are harvested north and west of Lynn Canal and Haines.

Sport Fishing – Skagway anglers include residents and tourists, as well as Yukon Territory citizens. Many of the anglers who fish out of Skagway are residents of the Yukon Territory. Sport fishing takes place in Taiya Inlet and involves mainly trolling for king and coho salmon. During the 2003 summer season, there were six fishing charter operations in Skagway with a total of 13 boats (B. Ward, personal communication, 2003).

Boating – The Skagway harbor, which has moorage for 140 boats, is generally at capacity during summer. During winter, approximately 45 boats are moored in the harbor, and 30 to 40 boats are in dry storage in the harbor parking area (City of Skagway, 2000; City of Hoonah, 2003). Boats in the harbor consist mainly of pleasure craft, two commercial fishing boats, 13 charter fishing boats, and three tugs. Because Skagway is the closest ocean port to Whitehorse and Yukon Territory in Canada, many Canadian residents keep pleasure boats in the Skagway harbor (B. Ward, personal communication, 2003).

Park Facilities and Trails – Approximately 775,000 tourists visited Skagway in 2002, and most used the Klondike Gold Rush National Historical Park in some way (National Park Service, 2003). For the Chilkoot Trail, the National Park Service has set a limit of approximately 70 hikers per day in size-regulated groups to protect the Park's cultural and natural resources. The trail is used predominantly by independent travelers and reaches the carrying capacity of 70 hikers per day during most of the summer.

Other trails in Skagway include the Lower and Upper Dewey Lake trails southeast of the city, which access a City of Skagway cabin; the Skyline and A.B. Mountain trails north of the city; the Denver Glacier Trail (used to access a USFS cabin) at the east fork of the Skagway River; and the Laughton Glacier Trail (used for access to a USFS cabin). The Lower Dewey Lake area hub south of Skagway is a very popular trail, with many connecting trails to Sturgill's Landing, Icy Lake, upper Reid Falls, Upper Dewey Lake, and Devil's Punchbowl. The Skagway area trails are generally not at capacity, although both the Lower Dewey Lake and the Yakatania Point trails appear to have a constant flow of foot and dog traffic (B. Ward, personal communication, 2003).

Skagway has three RV parks, all of which are nearly filled to capacity throughout the summer season (B. Ward, personal communication, 2003).

3.2.6.3.2 West Lynn Canal

Recreation along West Lynn Canal is concentrated at the Endicott Wilderness Area, along the shores of Chilkat Inlet, on the Chilkat Peninsula, in the Chilkat and Chilkoot River drainages, and within the City of Haines. Unit 6 of the Haines State Forest is affected by a Special Use Designation allowing for commercial recreation operations. Subunit 6a (West Chilkat Inlet) allows for commercial recreation operations with limited clients per day and group size per trip. Subunit 6b (Glacier Point) allows for medium- and high-intensity commercial recreation operations. Table 3-5 lists the major recreation activities by area along West Lynn Canal.

Several areas on West Lynn Canal are used by hunters from Juneau, Hoonah, Angoon, Gustavus, and Haines, as well as by hunters from other parts of Alaska and outside of the state. St. James Bay and William Henry Bay areas are important areas for moose and black bear hunting, as are the Murphy Flats west of Haines. Goat hunters use the area around the upper Endicott Bay and also frequent the Rainbow and Davidson Glacier areas (P. Hessing, personal communication, 2003).

Table 3-5
Recreation Activities By Area Along West Lynn Canal

Activity	William Henry Bay to Glacier Point	Glacier Point to Pyramid Harbor	Chilkat Peninsula & Haines Area
Viewing Scenery	X	X	X
Viewing Terrestrial Wildlife	X	X	X
Viewing Marine Life	X	X	
Hiking, Walking			x
Camping	X	X	X
Pleasure Motorboating	X	X	X
Kayaking and Canoeing	X	X	X
Sport Fishing	X	X	X
Hunting	X	X	X
Trapping	X		
Sailing		X	X
Cross-Country Skiing/Telemarking			X
Snowshoeing			X
Sightseeing			X
Nature Study			X
Wilderness Guiding	X	X	

Source: *1997 Land Use and Coastal Zone Technical Report*

Endicott River Wilderness

The Endicott River Wilderness is an important recreation area. Most of the following information presented in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* is still current. Where appropriate, additional information regarding hunting and fishing is also included.

> The Endicott River is largely within the Endicott River Wilderness Area, [and, as such, the river's outstanding values and free-flowing characteristics are protected; however, the Endicott River is not designated a Wild and Scenic River]. The Endicott's wilderness designation lures independent recreationists for various activities, although a large waterfall limits float trip potential, and the rugged terrain and heavy vegetation limit access into and within the river valley (T. Paul, personal communication, 1994). [The West Lynn Canal Highway Alternative 3 corridor crosses the lower Endicott River.]
>
> The Endicott River Wilderness Area receives light recreational use for hunting, and intermittent use for fishing and boating. (Limited hunting for mountain goats occurs at the upper end of the Endicott River valley [P. Hessing, personal communication, 2003]). Access to this area is by aircraft using small landing strips. From Sullivan Mountain to Pyramid Harbor, there are scattered cabins used for recreational purposes.

Haines

Additional information has been gathered since the completion of the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* regarding sightseeing, shopping, boating, hunting, camping, national and USFS parks, and flight-seeing in the Haines area. The 1997 technical report described the area of Haines as follows:

> Haines is an area with narrow fiords, mountains, and braided rivers. Like Skagway, the area boasts a climate sunnier than that to the south and warmer than that to the north, making it a prime recreation destination for Southeast Alaska. There are camping, hiking, fishing, hunting, mountain climbing, rafting, kayaking, wildlife viewing, cross country skiing, and motor-boating recreation uses in the Haines area.
>
> The city of Haines is at the base of two major river drainages that have (a) strong salmon run: the Chilkat and Chilkoot rivers. This strategic location, at the end of both highway and State ferry service, and the spectacular scenery, combine to make it a popular destination for independent travelers.

Sightseeing and Shopping – Sightseeing and shopping are attractions in the city of Haines, though not at the level found in Skagway. A large collection of historical documents, a history of events, and artifacts can be found at the Sheldon Museum and the Cultural Center. Additional attractions and popular activities include the golf course; a public facility that showcases Tlingit carvers and artisans creating Alaskan art; Chilkat dancing; the American Bald Eagle Foundation; and horse-drawn tours of Haines (R. Venables, personal communication, 2003). Special events that draw visitors to the Haines area year-round include the Southeast Alaska State Fair in August, the Chilkat Bald Eagle Festival in November, the Kluane to Chilkat Bike Relay in June, the Great Alaska Craft Beer and Homebrew Festival in May, and the ALCAN 200 International Snowmachine Race in January. Highway traffic is growing, and the Golden Circle route between Haines and Skagway is now a National Scenic Byway that could attract additional visitors (DOWL Engineers, 2003).

Boating – The Haines harbor has 140 slips and is full all year, with a long waiting list. In addition to Haines residents, Canadian residents from Whitehorse and Haines Junction, Yukon Territory, keep boats in the Haines harbor. The harbor at Letnikof Cove has transient vessel slips (E. Braatan, personal communication, 2003). The Haines Borough, in conjunction with the USACE, is planning to undertake a major new harbor expansion that will triple the space and double the number of slips available in the Haines harbor (R. Venables, personal communication, 2003).

Hunting – The Haines area is popular for moose, mountain goat, and brown bear hunting. The Chilkat River drainage, particularly the Murphy Flats area near the delta, provides an important hunting area for moose. The Chilkat Peninsula also provides good habitat for moose, with a small number harvested from this area during the annual hunting season (P. Hessing, personal communication, 2003). This moose hunt, regulated through a Tier II permit harvest, limits the harvest to primarily Haines residents and others who can demonstrate historic use of the area for hunting.

RV Campgrounds – Haines has four private RV campgrounds with full hook-ups and several smaller private RV parking areas with limited amenities. Limited parking/camping facilities are available at four state parks in the area. One of the private parks was expanded in 1993 in response to increasing demand. Currently, the RV parks are busy during the summer, though not at full capacity (R. Venables, personal communication, 2003).

State Parks – The state manages Chilkat State Park, Chilkoot Lake State Recreation Site, Portage Cove State Recreation Site, and Mosquito Lake State Recreation Site. In addition, the state manages marine parks at the Chilkat Islands and Sullivan Island near Haines. The Chilkoot Lake State Recreation Site is one of the most popular sites in the area and is open from April to mid-October. This 80-acre, 32-unit campground is busy but not filled to capacity for most of the season. The site is located along the shore of Chilkoot Lake and is surrounded by mountains. The 7.42-acre Portage Cove State Recreation Site is situated on a prominent bluff with commanding views of the area south of old Port Chilkoot. It has day use and picnic facilities as well as nine heavily used campsites with a panoramic view of the Chilkat Mountains. Mosquito Lake State Recreation Site has a total of 10 acres and five campsites.

Chilkat State Park, surrounded by water on three sides, provides 15 campsites with views of Chilkat Inlet, mountain peaks, glaciers, icefields, and streams. Within the park boundaries, wildlife populations include black and brown bear, moose, bald eagles, grouse, coyotes, and wolverine. There are several miles of trails, scenic vistas, marine mammal and wildlife viewing opportunities, remote camping sites, a concrete pad launch for boats, and a small dock. Chilkat State Park is used by area residents and as a stopover by independent travelers using the Haines Highway and State ferries.

Flight-seeing – The proximity to several parks of international significance (Glacier Bay, Kluane, Tatshenshini-Alsek, and Wrangell-St. Elias) makes Haines a prime location as a base for flight-seeing operations. In addition, the popularity of helicopter skiing (heli-skiing) as a winter sport in the Haines area is growing. Numerous skiable peaks around Haines make it a world-class heli-skiing destination. Cross-country skiing is also a popular winter activity north of Haines (R. Venables, personal communication, 2003).

In 2002, the ADNR established a Special Land Use Area to regulate commercial heli-skiing operations on state land in the Haines area. This Special Use Designation established specific areas and dates for heli-skiing operations and set standards for these operations. This designation prohibits helicopter landings on state lands for the purpose of commercial recreational tours (such as the glacier landing tours) and prohibits the use of commercial helicopter access to state lands in the Special Land Use Area after April 30 of each year (ADNR, 2002a).

Sport fishing, trail systems, and wildlife viewing data from Haines have changed little since the publication of the 1997 *Addendum to the Land Use and Coastal Zone Technical Report*. This information is presented below. The only change being that the 1997 report identified the historic Dalton trail, which was located across Chilkat Inlet, beginning at Pyramid Harbor and leading to Ft. Selkirk, on the Yukon River as part of the trail system. This trail is no longer a part of the current trail system.

Sport Fishing – The major sport fishery saltwater species in the Haines area are halibut and salmon. Over 80 boats residing in Haines' harbors have charter-fishing licenses. The Chilkat River and Inlet have been heavily fished for many years. Recently, the Chilkat River has rebounded with substantial Dolly Varden and chinook harvests. The Chilkat River produces the only significant run of king salmon in Lynn Canal. Chilkat Inlet is best known among anglers for the chinook runs in early spring and coho in late fall.

Chilkat Lake is accessible by air and water only. Harvest levels from the lake are consistent each year, and it continues to be a popular sport-fishing destination. Alaskans, Canadians, and other tourists converge on Chilkoot Lake each year from May through October. The lake has a scenic outlet stream used by sport fishermen to catch coho salmon.

Trail System – There is a diverse and well-maintained trail system within the Haines Borough, which is mostly owned and maintained by the State. The Battery Point Trail is a level, shoreline walk with a primitive camping spot. Battery Point Trail has good beach access and is one of the most popular recreation areas for Haines residents. Mt. Ripinski is an all-day hike. From the top of the trail, Lutak Inlet, Taiya Inlet, and an array of peaks and icefields can be seen. The Battery Point Trail connects with the Mt. Ripinski Trail system.

Wildlife Viewing – Some area residents visit the Chilkat Peninsula for wildlife viewing. Bears and often goats can be seen walking the beaches. The west side of Chilkat Inlet from Pyramid Harbor to Glacier Point is a popular recreation area for kayakers and boaters interested in wildlife viewing.

North of Haines is one of the premiere wildlife viewing areas in Southeast Alaska: the concentrations of eagles in the Alaska Chilkat Bald Eagle Preserve. Access to the preserve is limited to the Haines Highway. During eagle gatherings, this stretch of highway is quite congested and causes safety concerns. For example, during December 1991, a concentration of over 3,000 eagles attracted so much attention that motorists were stopping vehicles in the center of the highway and parking at random (B. Zack, personal communication, 1994). Traffic management measures such as construction of turnouts at more frequent intervals and increased signage have helped reduce the problem.

3.3 Coastal Management

Following the passage of the Federal Coastal Zone Management Act of 1972, the State of Alaska passed the Alaska Coastal Management Act (ACMA) in 1977. The intent of the ACMA, in part, was to preserve, protect, develop, use, and, where necessary, restore or enhance the coastal resources of the state. The ACMP, with enforceable policies, was approved in 1979.

All proposed Juneau Access Improvements Project alternatives are geographically within the coastal zone. However, federal lands are excluded from the coastal zone boundary. Uses and activities on excluded federal lands that affect the coastal area must be consistent with the ACMP and consistency provisions of Section 307 of the Coastal Zone Management Act, as amended.

Within the area traversed by the Juneau Access Improvements Project alternatives are three coastal districts (CBJ, City of Skagway, and former City of Haines [now the Haines Borough]). Each community has an approved district coastal management plan containing enforceable policies that apply to activities within its coastal area boundaries. These local enforceable policies were incorporated into the ACMP at the time of plan approval or amendment. The City of Skagway has four AMSAs within its boundaries, two of which would be affected by Juneau Access Improvements Project alternatives. Within the CBJ and the Haines Borough, no AMSAs would be affected by project alternatives. AMSAs are special specific areas designated under the ACMP that are sensitive to change or alteration, and possess unique physical, cultural, or biological characteristics. AMSAs can be within or outside a coastal district, and an AMSA inside a district is part of the district's program and, as such, its policies are enforceable. The Juneau Access Improvements Project alternative that is proposed and selected must comply with the statewide standards of the ACMP and coastal district management plans.

ACMP and local coastal district plans and regulations applicable to Juneau Access Improvements Project alternatives include the following:

State Standards and Consistency Review Process

- ACMP, 11 Alaska Administrative Code (AAC) 110, as revised January 21, 2003 – State and local review processes for consistency with ACMP
- ACMP, 11 AAC 112 – ACMP standards for the management of land and water uses in the coastal zone (with the exception noted under Section 3.3.1 below)

City and Borough of Juneau

- JCMP (October 12, 1992)

City of Haines

- HCMP (July 22, 1993, revised November 20, 2000, to include newly annexed areas and clarify AMSAs)

City of Skagway

- SCMP (March 23, 1990, as revised May 1991)
- Skagway River AMSA (October 31, 1991)
- Port of Skagway AMSA (October 31, 1991)

The ACMP statewide coastal standards apply to all areas within the state coastal area boundary, both within and outside of local district coastal boundaries. The enforceable policies of the Juneau, Haines, and Skagway coastal management plans apply only to activities within their approved coastal boundaries or to activities outside of a coastal district that could affect coastal resources inside the district (see Figure 3-12).

An overview of the ACMP statewide standards and each of the coastal district plans in the Lynn Canal area is provided in the following sections. This overview identifies the inclusive coastal boundary, objectives and key components of the district plans, and focus of the enforceable policies that would be applicable to development of the Juneau Access Improvements Project.

3.3.1 ACMP Statewide Standards

The statewide standards of the ACMP set the basic criteria for the use and application of coastal development standards by local districts and state agencies in carrying out their respective responsibilities under the ACMA. Key subject areas of the statewide standards that are applicable to the type of activities potentially associated with the Juneau Access Improvements Project are briefly summarized below. The full text of the ACMP statewide coastal standards is presented in Attachment B.

- **Coastal Development** – Priority given to water-dependent and water-related uses and activities.
- **Geophysical Hazard Areas** – Districts and state agencies to identify geophysical hazard areas; development in hazard areas must address potential property damage and human safety.
- **Recreation** – Districts to designate areas of recreational use based on actual or potential uses; high priority to be given to maintaining and increasing public access to coastal waters.

- **Transportation and Utilities** – Transportation and utility routes to be sited, designed, and constructed to be compatible with local district coastal management plans; transportation routes and facilities must be sited inland from beaches and shorelines unless the route or facility is water-dependent, or no feasible and prudent inland alternative exists to meet the public need.
- **Timber Harvest and Processing** – Incorporates the Alaska Forest Resources and Practices Act (Alaska Statute 41.17) into the ACMP by reference. (If ROW clearing activity is considered a conversion of use rather than a timber harvest, the Alaska Forest Resources and Practices Act would not apply.)
- **Mining and Mineral Processing** – Mining and mineral processing to be regulated, designed, and conducted to be compatible with other statewide coastal standards, adjacent uses and activities, statewide and national needs, and local district coastal management plans; sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits when there is no feasible and prudent alternative to meet the public need.
- **Subsistence** – Recognize and assure opportunities for subsistence use of coastal areas and resources; districts to identify any priority subsistence use areas; any activity or use which potentially conflicts with subsistence priority areas must implement appropriate safeguards to assure subsistence use is protected.
- **Habitats** – Identifies specific coastal habitats (offshore areas; estuaries; wetlands and tideflats; rocky cliffs and seacliffs; barrier islands and lagoons; exposed high energy coasts; rivers, lakes, and streams; important upland habitats); requires management to maintain or enhance the biological, physical, and chemical characteristics of the habitat that contribute to its capacity to support living resources; and describes unique features of each habitat to be maintained and protected.
- **Air, Land, and Water Quality** – Incorporates the statutes and regulations of the Alaska Department of Environmental Conservation (ADEC) by reference and specifies that these standards constitute the air, land, and water quality components of the ACMP.
- **Historic, Prehistoric, and Archaeological Resources** – Requires local districts and appropriate state agencies to identify areas important to the study, understanding, or illustration of national, state, or local history or prehistory.

The ACMP statewide standards are also the coastal criteria used during a coastal consistency review associated with federal or state permits for activities on lands within the state coastal area but outside of approved local district coastal management plan boundaries. Within the Juneau, Haines, and Skagway coastal management plan boundaries, the same coastal consistency review process is used for activities requiring federal or state local permits, using both ACMP statewide standards and the enforceable polices of the approved local district plan. All uses and activities on excluded federal lands that affect the coastal area must be consistent with the ACMP.

On January 21, 2003, revisions to the ACMP Coastal Consistency Review process (6 AAC 50) went into effect to improve the clarity of the regulations and to modify the process used to evaluate a proposed project against district coastal management plan enforceable policies. Effective April 15, 2003, the responsibilities for the ACMP were transferred from the Office of the Governor, Division of Governmental Coordination, to the ADNR, Office of Project management and Permitting (OPMP), by Executive Order 106. Under the requirements of Alaska State House Bill 191 (Chapter SLA 2003, as amended May 21, 2003), the OPMP will oversee the revisions of ACMP regulations 11 AAC 110 (the coastal consistency review process), 11 AAC

112 (the process for development of district coastal management plans [CMP], and 11 AAC 114 (the statewide standards for management of land and water uses in the coastal zone). Revisions to most of the ACMP regulations 6 AAC 50, 6 AAC 80, and 6 AAC, 85 are effective as of July1, 2004 and have been re-titled as 11 AAC 110, 11 AAC 112, and 11 AAC 114 respectively. The exception to the July 1, 2004 effective date is that the new statewide standards (11 AAC 112) do not apply to consistency reviews until after approval of the Office of Ocean and Coastal Resource Management (OCRM). Consistency reviews will follow the existing standards 11 AAC 112 until after the required approval by OCRM.

In response to these program changes, districts will have until July 1, 2005 to submit amendments to their district programs as per section 47 of House Bill (HB) 91. In formulating revised district plans, districts must rely immediately on the new statewide standards, including those at 11 AAC 112.200 – 11 AAC 990.

CMPs for Juneau, Haines, and Skagway, will need to be approved and incorporated into the ACMP by July 2006. Also, the new legislation provides that the issuance of an authorization by the ADEC constitutes the state's determination of consistency for the project with the Air, Land, and Water Quality Standards. These requirements will necessitate that the current Juneau, Haines, and Skagway plans and enforceable policies be updated as described below:

- Eliminate policies that duplicate existing statutes or regulations
- Use precise, prescriptive enforceable language
- Focus on matters of local concern (e.g., local siting criteria such as setbacks and exclusions, coastal resource protection issues not adequately addressed by existing statutes and regulations, attention to coastal resources and issues of unique concern to coastal districts as demonstrated by local use of resources or scientific evidence)

Until the Juneau, Haines, and Skagway coastal management plans and enforceable policies are formally revised and approved, the current plans and enforceable policies will remain in effect for purposes of coastal consistency review of the Juneau Access Improvements Project areas. An overview of the key components of the Juneau, Haines, and Skagway coastal management plans is presented below.

3.3.2 Juneau Coastal Management Plan

In the Juneau Access Improvements Project vicinity, the jurisdiction of the JCMP includes coastal areas and marine waters of Lynn Canal within the CBJ, extending north to Eldred Rock. Alternatives 2 through 2C are partially within the JCMP jurisdiction, as is the FVF route across Lynn Canal to William Henry Bay (part of Alternative 3). Neither the proposed ferry terminal at William Henry Bay nor the Alternative 3 West Lynn Canal Highway is within the JCMP. Alternatives 4A and 4C are routed within Lynn Canal and would be partially within the JCMP. The ferry terminal in Sawmill Cove and part of the ferry route from Berners Bay to Skagway and Haines under Alternatives 4B and 4D would also be partially within the JCMP.

The JCMP designates certain areas as suitable only for water-dependent and water-related uses (other uses prohibited). There are no use restrictions in the coastal area specified in the JCMP for the area of the Juneau Access Improvements Project north of Echo Cove. During an ACMP review, however, activities may be prohibited based on enforceable policies of the coastal management plan. The JCMP recognizes that the management and maintenance of state roads, highways, parklands, airports, and ferry terminals are "Uses of State Concern," and the JCMP acknowledges that it will not arbitrarily or unreasonably restrict or exclude these uses.

Key subject areas of the JCMP enforceable policies that apply to the type of activities potentially associated with the Juneau Access Improvements Project alternatives are identified below. The full text of the JCMP enforceable policies is presented in Attachment C.

- **Coastal Development** – Use best available technology to minimize hazards associated with physical conditions of the landforms; dredging and filling prevented in highly productive tideflats and wetlands, subtidal areas important to shellfish, and important habitat for resident and anadromous fish; docks should be located away from extensive tideflats and wetlands so as not to obstruct fish passage; solid fill structures in marine waters shall be located and constructed to maintain water circulation and minimize shoreline alteration and disturbance of anadromous fish streams, tideflats, and wetlands; ports and harbors shall minimize negative aesthetic impacts of their use and activities; shoreline development shall be compatible with shorelines and not block scenic vistas; filling of intertidal areas below mean high tide is specifically prohibited without clear and convincing evidence of certain conditions being met (transportation facilities are exempt from this policy); development in coastal areas shall give priority to water-dependent and water-related uses.
- **Geophysical Hazards** – Surface modification that induces excessive erosion, undermines support of nearby land, or unnecessarily scars the landscape is prohibited; development in known hazard areas requires protection of property and public safety; retain existing vegetation, and prevent erosion through revegetation; development in moderate hazard areas requires mitigating measures; structures near watercourses shall allow for natural drainage; sand and gravel mining may be allowed in 100-year floodplains if the activity does not increase the flood hazard.
- **Transportation and Utilities** – Road design and construction shall take all feasible and prudent steps to prevent alteration of water courses, wetlands, and intertidal marshes or aesthetic degradation; road crossings of anadromous fish streams shall allow free passage of fish and take steps to prevent habitat disturbance; timing restrictions may be imposed to avoid critical periods for anadromous fish; highways shall be designed and constructed to protect shore features; transportation routes and facilities shall be sited inland from beaches and shorelines unless route is water dependent or no feasible and prudent alternative exists; parking areas are to address suitable drainage controls, vegetated buffer strips, and dust control.
- **Mining and Mineral Processing** – Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits when there is no feasible and prudent alternative that will meet the public need.
- **Subsistence** – Projects shall be designed so that opportunities for subsistence usage of coastal areas and resources are recognized and assured.
- **Habitat** – Coastal habitats are to be managed to maintain or enhance characteristics of habitat to support living resources; management criteria for each type of coastal habitat are stipulated; coastal habitat uses that cannot conform to the management criteria may be allowed if there is significant public need and no feasible and prudent alternative; proposed development that adjoins a river or stream degraded by previous human activity shall include provisions for rehabilitation of the stream or river, as approved by the ADF&G; structures and foundations located adjacent to streams or lakes (as listed in Appendix C of the JCMP) shall have a 50-foot setback from each side of the stream or lake (water supply intakes, docks, bridges, culverts, and public structures for access across watercourses are exempted from this policy); watershed areas that contribute to drinking water supplies require a minimum 50-foot buffer along or around watercourses and wetlands.

- **Air, Land, and Water Quality** – ADEC statutes, regulations, and procedures incorporated by reference; berms and planting strips shall be placed along roads and major arterials wherever feasible and prudent.
- **Special Waterfront Areas** – Not applicable to Juneau Access Improvements Project area.
- **Juneau Wetlands Management Plan, April 2002** – Juneau Access Improvements Project area wetlands are outside the geographic area addressed by the Juneau Wetlands Management Plan.

The JCMP is an adopted component of the *CBJ Comprehensive Plan* and reinforces many of the policies and objectives of that plan. The transportation section of the JCMP mirrors the transportation policy of the *CBJ Comprehensive Plan* stated above. It is the JCMP's stated policy to participate as actively as possible in the preparation, review, and approval of any transportation or utility corridor plans or routes undertaken by the state or federal government.

3.3.3 Haines Coastal Management Plan

Within the Juneau Access Improvements Project area, the HCMP coastal boundary includes the lands and waters within the former City of Haines (Figure 3-12) and additional annexed lands per the 1999 annexation and a minor HCMP amendment that took effect on November 20, 2000. The annexed areas are immediately west of the central urban area in Haines and south of the original city limits. They encompass a portion of Deshu Isthmus, including the Chilkat landfall of the West Lynn Canal Highway Alternative 3 route (Chilkat Inlet bridge). The area of enforceable coastal policy application also changed with the modification of the former City of Haines boundary. Therefore, the HCMP applies to all lands and waters within the original and annexed city limits. While the City of Haines and Haines Borough recently unified into one municipal government that includes the larger boundary of the former Haines Borough, areas outside of the annexed city limits are governed by the state coastal boundary and the statewide ACMP standards.

The HCMP, as amended November 20, 2000, has both nonenforceable and enforceable policies that apply to resource uses and development activities. Although AMSAs are designated in the HCMP, none would be affected by project activities. Key subject areas of the HCMP enforceable policies that apply to the type of activities associated with the Juneau Access Improvements Project alternatives are identified below. The full text of the former City of Haines coastal policies is presented in Attachment D.

- **Coastal Development** – Dredge or fill activities adjacent to streams, rivers, lakes, wetlands, or saltwater areas including tideflats must comply with criteria for protection of habitat, limit disturbance to as small an area as feasible, control sediments, and maintain circulation; dredge disposal areas shall not alter important habitats or adversely affect shoreline processes; minimize accelerated shoreline erosion, retain vegetative cover in erosion-prone areas, revegetate to control erosion; development structures and facilities in or adjacent to marine and estuarine waters shall not create a hazard or obstruction to commercial and subsistence fishing, or adverse impacts on fish migration patterns; all land and water use activities shall mitigate adverse impacts on fish and wildlife populations and habitats.
- **Geophysical Hazard Areas** – Geophysical hazard areas are identified in the HCMP Flood Plain and Hazard Map, and developers are obligated to obtain information and develop mitigation measures to address designated hazardous areas.

- **Recreation and Tourism** – Certain areas within the City of Haines are designated primarily for recreational use; activities that conflict with recreational use in the designated areas shall minimize adverse impacts to recreation resources and activities; public access to coastal waters and recreational land shall be maintained; development shall provide for public access to the shoreline, where traditional access has previously been established.
- **Transportation and Utilities** – Transportation facilities and corridors shall be sited, designed, and operated to minimize significant adverse impacts to habitats, biological resources, recreation, and traditional subsistence use; bridges and culverts shall be designed for 100-year flood events; docks shall be designed to avoid adverse impacts on tideflats and wetlands, and designed and located to minimize obstruction to fish migration.
- **Fish and Seafood Processing** – Coastal development shall mitigate adverse impacts to fisheries resources, habitats, migration patterns, and harvest areas.
- **Mining and Mineral Processing** – Sequential priorities are established for extraction of sand, gravel, and rock (existing pits, reuse, new upland sites); borrow site operation shall not interfere with natural drainage, shall include vegetated filter strips and buffers, shall be segregated from active channels, and shall avoid entrapment of anadromous fish; release of dust shall be prevented.
- **Subsistence** – Customary and traditional access to subsistence use areas shall be maintained.
- **Habitats** – Maintenance and enhancement of wetlands and anadromous fish habitat is the highest priority when reviewing proposals for land and water uses that may adversely affect wetlands or anadromous fish habitats; mitigation of adverse impacts to freshwater or saltwater wetlands or anadromous fish habitat is required; special habitat management areas identified for Sawmill Creek (in Haines) and Portage Cove; special protection criteria for threatened and endangered species and bald eagles; land and water development activities shall not impede or interfere with in-stream movements of fish, and fish passage shall be provided for all drainage structures on fish streams; bank stabilization adjoining wetlands and waterbodies is required to minimize erosion and sedimentation; water intake from fish streams is required to have screened intake structures.
- **Air, Land, and Water Quality** – Fuel storage facilities shall not be sited in the 100-year floodplain and shall require a minimum 100-foot buffer from ordinary high water outside of floodplains; hazardous materials disposal shall occur only at authorized facilities.
- **Historic, Prehistoric, and Archaeological Resources** – Resource survey may be required prior to permitting development activities; sites of concern identified for Fort William H. Seward, Haines Townsite Local Historic District, Tlingit Park and historic cemetery, and T'anani Village Site and Nukdik/Tanani Beach Site; criteria set for protection of previously undiscovered cultural resources.

The applicable statewide coastal standards and former City of Haines local district enforceable policies likely to be pertinent to Juneau Access Improvements Project alternatives are provided in Attachments B and D.

Lands within the HCMP are managed under the enforceable policies of the HCMP (2000), which added areas annexed by the former City of Haines to the coastal zone boundary (City of Haines, 2000b). The policies had been adopted by local ordinance, through local zoning, and through the *City of Haines Comprehensive Plan*. These policies remain applicable to the same

boundaries previously known as the City of Haines and the annexed lands (S. Hansen, personal communication, 2003). The HCMP (2000) discusses the proposed Juneau Access Improvements Project in its resource analysis discussion. The plan notes, "The Juneau Highway is not a Haines to Juneau highway issue as many locals assume but a Juneau to the interior highway issue." The HCMP (2000) advocates improved AMHS service to Haines, including more convenient and frequent service.

3.3.4 Skagway Coastal Management Plan

In the Juneau Access Improvements Project area, the SCMP jurisdiction's coastal boundary includes the lands and waters within the City of Skagway (Figure 3-12). The coastal boundary for the SCMP's jurisdiction corresponds to the biophysical boundary of the state's coastal zone.

A new highway would be constructed from Berners Bay to Skagway under Juneau Access Improvements Project Alternatives 2, 2A, and 2C. Modified ferry/shuttle service to the City of Skagway from a ferry terminal near the Katzehin River would occur under Alternative 2B. Modified ferry/shuttle service between the City of Skagway and Haines would occur under Alternatives 3, 4A, 4B, 4C, and 4D. The existing ferry dock in Skagway would be used for any modified ferry or shuttle service; ferry terminal and dock improvements may be needed to address specific requirements of AMHS service improvements. The Port of Skagway AMSA recognizes that water-dependent and water-related transportation of all kinds is a priority use in the port, and continued improvement in ferry service is desirable, including development of fast shuttle ferries.

The SCMP, as revised May 1993, has enforceable policies that apply to resource uses and development activities. The SCMP includes four AMSAs; however, only two of these AMSAs would be affected by the Juneau Access Improvements Project. The Skagway River AMSA boundary includes the Juneau Access Improvements Project proposed highway alignment in the area near the intersection with the Klondike Highway (Alternatives 2, 2A, and 2C). The Port of Skagway AMSA would be affected by improvements or modifications to the Skagway ferry terminal or dock under Alternatives 2B, 3, and 4A through 4D (Figure 3-12). Therefore, the enforceable policies of these AMSAs will apply to project activities. Key subject areas of the Port of Skagway and Skagway River AMSAs are identified below, followed by the key subject areas of the SCMP enforceable policies that apply to the type of activities potentially associated with the Juneau Access Improvements Project alternatives. The full text of the City of Skagway coastal policies, including applicable AMSAs, is presented in Attachment E.

Port of Skagway AMSA – Established water-dependent/water-related priority for land uses in the port area; activities in the AMSA shall be compatible with adjacent land and water uses; minimize negative aesthetic and noise impacts; small boat harbor and surrounding area reserved for boating and fishing, and marine and fish-related commercial businesses; petroleum products and supplies shall be sited a minimum of 100 feet from rivers and streams and use of impermeable berms or containment basins is required for fuel tanks; land and water uses shall not degrade water quality or quantity needs for the Jerry Myers Fish Hatchery.

Skagway River AMSA – Developments shall be sited, constructed, and operated to reduce the impact of flooding and other geophysical hazards, to allow for natural drainage, and to minimize damage to life and property; major projects within the 100-year floodplain may have to complete an investigation of the flooding potential and hydraulic capacity of the Skagway River; mining of sand and gravel from the Skagway River shall be located to improve the hydraulic capacity and minimize changes to channel hydraulics or probability of channel diversion; to the extent feasible and prudent, development within the Skagway River floodway is prohibited.

The implementation techniques used by the City of Skagway to incorporate the coastal management plan into local land management, permitting, and development approvals include the Waterfront Zoning Ordinance, Planning, Public Lands, and the Capital Improvement Plan. The coastal consistency review of activities based on permit applications and supporting documentation will evaluate compliance of the Juneau Access Improvements Project development plans with the applicable enforceable policies of the ACMP statewide coastal standards, and the applicable enforceable policies of the SCMP. In addition, specific enforceable policies exist for the Skagway River AMSA and the Port of Skagway AMSA.

The SCMP contains two specific objectives directly related to this project: (1) improve port transportation facilities to ensure the role of Skagway as a port to interior Alaska and Canada, and (2) support continued improvements in ferry service and scheduling and encourage the development of FVFs if appropriate. The plan also addresses local road improvements. Port developments and water-dependent uses are given high priority, including tourism, marine transportation, and industrial projects.

Relevant land management goals for the port area, as stated in the Port of Skagway AMSA Plan (City of Skagway, 1991) include:

- Maintain and enhance the interface of air, land, and marine transportation services in support of tourism and commerce.
- Maintain and enhance the Port's appearance and public access.
- Establish polices that will promote compatibility between the various adjacent uses.

4.0 IMPACTS

Although some components of the Juneau Access Improvements Project alternatives have changed by varying degrees for mitigation, engineering, and feasibility reasons, much of the impact analysis in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report* is still pertinent to the current discussion of project impacts on land uses. Where appropriate, the impact evaluations for project alternatives in the following discussions incorporate updated information to supplement the analysis in the 1997 technical report.

The evaluation of impacts and potential mitigation associated with Juneau Access Improvements Project alternatives in the following sections used a similar approach and methodology to the process described in the 1997 technical report. Updated resource information and current planning documents and land use policies are considered in this current impact analysis; however, conclusions reached regarding effects on land use are generally similar to the impact evaluations presented in the 1997 technical report.

4.1 General Land Ownership and Management Considerations

4.1.1 Overview

This chapter focuses on three topics:

- Potential impacts of project alternatives on land ownership
- Compatibility of each alternative with land management policies and designations
- Compatibility of each alternative with existing land and resource uses identified in Section 3.2

The analysis of each alternative is organized by geographic area, following the proposed route from south to north.

4.1.2 General Effects from Construction of Any Action Alternative

No direct impacts on land ownership would be associated with construction of the East or West Lynn Canal Highway alternatives (Alternatives 2 through 2C and Alternative 3) for Tongass National Forest lands or state lands managed by ADNR. Direct impacts on land ownership and management would result from construction of the East or West Lynn Canal Highway alternatives where ROW acquisition is necessary to cross private lands, mining claims, Native allotments, Mental Health Trust lands, and University of Alaska lands. Some existing land and resource uses on federal, state, Native, and private lands would be directly affected during the period of construction activities for any of the action alternatives.

General impacts on land ownership and management or land and resource uses from construction of the East or West Lynn Canal Highway alternatives or construction of a new ferry terminal could include the following:

- Impacts on land ownership would include the “taking” of land for a ROW or an easement and the associated loss of use for the owner. Private landowners would be compensated for lands taken for a ROW at fair market value in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Changes in land ownership are noted as an effect of a particular alternative.

- Construction activities within the highway corridors or at the ferry terminal sites would result in the following general impacts to recreation activities in the immediate vicinity of construction: displacement of any recreation occurring in the same area as construction; increased noise, surface disturbance and surface runoff; loss of vegetation; disruption of the visual landscape and viewshed; increased air or boat traffic in the project vicinity, as workers and equipment are transported to and from the construction site; and localized disturbance of wildlife and habitat.
- Construction of a highway or a new ferry terminal would include location-specific temporary interruption of recreation activities. The experience anticipated by recreationists would be temporarily diminished by construction activities.
- Location-specific, temporary interruption or displacement of some commercial use and subsistence harvest could also occur. Potential effects would result from construction-related noise and potential restrictions on access to areas under construction. Location-specific and temporary residential use associated with construction work camps would comply with pertinent local, state, and federal regulations.

4.2 Alternative 1 – No Action Alternative

The No Action Alternative would result in no change in land ownership and management or land and resource uses.

4.3 Alternatives 2, 2A, 2B, and 2C – East Lynn Canal Highway Alternatives

4.3.1 Effects on Land Ownership and Management

General impacts from the construction of Alternatives 2 through 2C are addressed in Section 4.1.2. Impacts specific to geographic areas along the proposed route for Alternatives 2 through 2C are similar for all East Lynn Canal alternatives and are summarized in the following paragraphs, along the proposed East Lynn Canal Highway route from south to north. Current ownership of the land that would be required for the highway right-of-way and any new ferry terminal facilities for Alternatives 2, 2A, 2B, and 2C is presented in Table 4-1. Road access could increase the need for management and monitoring, but it would also facilitate access for these purposes by land managers and owners. Differences among effects of these four alternatives on management are discussed, as appropriate, for each of the geographic sections.

Table 4-1
Land Ownership of Required Right-of-Way for Alternatives 2 through 2C

Alternative[1]	Ownership (acres)							Total (acres)
	USFS	U.S. Coast Guard	State of Alaska	Mental Health Trust	Goldbelt	Skagway	Private	
2	2,223	37	32	3	55	37	5	2,392
2A	1,820	37	32	3	55	37	5	1,989
2B	1,719	29	0	0	55	0	5	1,808
2C	2,223	37	32	3	55	37	5	2,392

Note: [1] 300 foot right-of-way on federal and state lands and 150 foot right-of-way on private and municipal lands.

4.3.1.1 Echo Cove and Berners Bay

Lands surrounding Echo Cove are designated by CBJ for Resource Development. Local importance of the Echo Cove vicinity is evidenced by its designation as a potential New Growth Area and its potential future nomination as an AMSA (CBJ, 1996). The *CBJ Comprehensive Plan* and JCMP policies support improvement of marine and highway transportation systems in the Echo Cove/Berners Bay region. East Lynn Canal Highway Alternatives 2 through 2C are compatible with these policies. The *CBJ Comprehensive Plan* has selected tidelands in Berners Bay for a potential ferry terminal site. The construction of a new highway through the Echo Cove area would be compatible with ADNR state land management plans.

Congress has designated a large portion of Berners Bay as LUD II, and the USFS has designated much of the remainder of the bay as Semi-Remote Recreation. Both designations promote protection of "primitive wildland environment" (USFS, 1997). Other LUDs in the area include Old Growth Habitat, Minerals, and Modified Landscape (see Section 3.1.2.1 for explanations of USFS LUDs). All of these LUDs have a Proposed State Road Corridor shown running through them in the TLMP. If highway construction occurs, the LUD of the highway segment would change to a Transportation and Utility Systems LUD. For this reason, Alternatives 2 through 2C are compatible with federal land management plans in the area. It is likely that future TLMP revisions would reflect the presence of a highway and the change in access it would provide. Figure 3-2 shows the TLMP land use designations in the project area.

Under Alternative 2A, a ferry terminal is proposed for the north shore of Sawmill Cove on USFS lands. The USFS has designated the area as Semi-Remote Recreation. State tidelands and submerged lands near Sawmill Cove are managed to provide a dispersed recreation experience, wildlife habitat, harvest opportunities, and waterfront development by ADNR. The *CBJ Comprehensive Plan* identifies the shorelands around the potential Sawmill Cove Ferry Terminal as Resource Development, with the potential to create a marine terminal that could serve mining, ferries, commercial watercraft, and tourist-related recreational use. A ferry terminal at Sawmill Cove would be compatible with USFS, ADNR, and CBJ management plans.

Alternatives 2, 2B, and 2C include multispan bridges that cross the Antler and Lace rivers. Tidelands and submerged lands are managed to provide a dispersed recreation experience, wildlife habitat, and harvest opportunities by ADNR. The bridges would be compatible with ADNR state land management plans.

There is a pending Native allotment at the head of Berners Bay. Alternatives 2, 2B, or 2C would not directly impact this allotment. However, the improved access to the Native allotment would likely benefit the private owners by increasing property accessibility and value.

Better access and through-traffic will facilitate development opportunities, including transportation-related activities, recreation and tourism, and residential development for Goldbelt's Echo Cove lands. These effects would be compatible with Goldbelt's future plans.

4.3.1.2 Kensington Gold Project Area

Road access to the Kensington, Jualin, or other mines would facilitate mine development and is compatible with future plans of Coeur. To the extent that these mines are allowed and encouraged by the USFS, the highway would be compatible with proposed USFS management and beneficial to the private owners.

Alternative 2A includes a proposed ferry terminal on the west side on Slate Cove. State tidelands and submerged lands near Slate Cove are managed to provide a dispersed recreation experience, wildlife habitat, harvest opportunities, and waterfront development by ADNR. A ferry terminal at Slate Cove would be compatible with ADNR land management plans.

4.3.1.3 Kensington Mine Area North to Katzehin River

The USFS owns land from the Kensington Mine area to the Katzehin River, currently designated Semi-Remote Recreation, Modified Landscape, Minerals, and Old Growth Habitat. The 1997 Record of Decision approving the revised TLMP Forest Plan determined that the upper 10 miles of the Katzehin River are suitable for inclusion in the National Wild and Scenic Rivers System as a Wild River. Until a river is officially declared Wild or Scenic, the USFS manages all eligible rivers at the highest and most protective level. The lower 2 miles of the Katzehin River is not managed at this level because it lies within the proposed utility and transportation corridors. Since the proposed highway corridor would not cross the portion of the Katzehin River currently recommended for a Wild designation, it would be compatible with USFS land use designations.

4.3.1.4 Katzehin River North to Skagway

Portions of the area from the Katzehin River to Skagway are within the Haines Borough and the City of Skagway. Neither the *Haines Borough Comprehensive Plan* (April 2004) nor the *Skagway Comprehensive Plan* (1999) preclude a highway link with Juneau, but they do identify local community preferences related to highway and AMHS alternatives for improving access to the communities.

Alternatives 2 through 2C include a multispan bridge over the Katzehin River, and Alternatives 2, 2A, and 2B include a ferry terminal at the Katzehin River. Tidelands and submerged lands south and north of the mouth of the Katzehin River and adjacent to the proposed terminal are designated as a wildlife habitat and harvest area by ADNR and are managed to protect sensitive wildlife habitats and areas important to fisheries. Development authorization can be granted by ADNR for ferry terminal construction and use in this area as long as fisheries and wildlife resources, among other resources, are protected.

A 60-acre Alaska Mental Health Land Trust parcel is adjacent to the northeast corner of the Klondike Highway as it leaves Skagway to cross the Skagway River. This parcel continues up the hill to the bench above the city and surrounds most of Icy Lake. The Lower Dewey Lake approach into Skagway under this alternative would cross this Mental Health Land Trust parcel, affecting approximately 3 acres of Mental Health Trust Land within the 300-foot right-of-way (Table 4-1). As Mental Health Trust lands are generally managed to generate revenue, and road access to this parcel would likely increase its value, a roadway would be beneficial to and compatible with Trust goals.

Land owned and managed by the City of Skagway in the Dewey Lake area southeast of the city is currently zoned as Residential/Conservation and has a designation of Recreation and Open Space in the *Skagway Future Growth Plan* (City of Skagway, 1999). Local zoning calls for a conditional use permit for roadways. As this area is highly valued as Recreation and Open Space, a project-related change in zoning to residential, commercial, or industrial land use is unlikely.

More traffic would result from the Haines/Skagway ferry service. However, the existing highway can accommodate this traffic, and an increase in traffic would not present a land use conflict or result in management impacts. Expanded use of the Skagway ferry facilities would be a continuation of a well-established, water-related transportation/industrial use within the area.

Construction of Alternatives 2 through 2C would not represent a conflict with the *City of Skagway Comprehensive Plan* or the Port of Skagway AMSA Plan.

4.3.1.5 Katzehin River to Haines

Under Alternatives 2, 2A and 2B, the Katzehin and Haines areas would be connected by shuttle ferries. As described above, the Katzehin area lies within the Haines Borough and is managed through the *Haines Borough Comprehensive Plan* (April 2004). The *Haines Borough Comprehensive Plan* discusses long-range transportation planning for southeast Alaska and the importance of the state pursuing consistent and daily AMHS service. The plan expresses concern about a highway on the east side; however, at the same time, the plan emphasizes how vital the outside link provided by the Haines Highway to the outside is to the economy of Haines. Increased traffic on Lutak Road would result from more frequent ferry service from the Katzehin Ferry Terminal under Alternatives 2, 2A and 2B and from the Haines/Skagway shuttle ferry under Alternative 2B and, to a lesser extent, under Alternative 2C. However, the existing highway can accommodate this traffic, and an increase in traffic would present no land use conflict. Expanded use of the Lutak Ferry Terminal would be a continuation of a well-established, water-related transportation/industrial use within the area. These alternatives create no conflict with Haines Borough land management goals, excepting the Haines community's concerns with a road.

4.3.2 Effects on Land and Resource Uses

General impacts from the construction and operation of Alternatives 2 through 2C are addressed in Section 4.1.2. Differences among effects of these East Lynn Canal Highway alternatives on land and resource uses are discussed, as appropriate, for each of the geographic sections following the proposed East Lynn Canal Highway route from south to north.

4.3.2.1 Timber Removal

Under any of the East Lynn Canal Highway alternatives, timber removal would occur in the highway ROW. Assuming a 100-foot-wide strip of trees would be cleared for the ROW, approximately 872 acres of timber would be cleared under Alternative 2. Based on an average yield of 11,000 board feet per acre for the east side of Lynn Canal, the estimated timber removal could total 10 MMBF for Alternatives 2 and 2C. Less timber would be cleared under Alternatives 2A and 2B due to shorter road lengths. Most of the clearing would occur on USFS lands, but under Alternatives 2, 2A, and 2C, ROW timber clearing would also occur on about 2.5 miles of state lands near Skagway and about 0.75 miles of land owned by the City of Skagway. No Skagway lands would be impacted under Alternative 2B. The USFS currently has no plans to harvest timber on Modified Landscape lands in the Juneau Access Improvements Project area during the next 5 to 10 years (K. Vaughan, personal communication, 2003).

4.3.2.2 Mineral Exploration and Development

Six patented mining claims and several hundred valid federal mining claims lie within 3 miles of the Kensington Mine area, all of which would be accessible from the highway alignment proposed under Alternatives 2 through 2C. Because mining claim locations have not been precisely identified for this evaluation, it is impossible to definitively determine how many claims the proposed highway alignments would cross. However, it is estimated that direct impacts would occur to approximately 18 mining claims in the Berners Bay area and 30 mining claims in the Kensington Mine area. Because ownership of land under mineral claims and patents is complicated, the following discussion of impacts from the project alternatives is general. Landowner rights to mineral exploration or development, claims, and rights to surface and

subsurface estates were summarized as follows in the 1997 *Addendum to the Land Use and Coastal Zone Technical Report.*

4.3.2.2.1 Mineral Occurrences and Prospects

The presence of a mineral occurrence or prospect does not in itself give a landowner any surface or subsurface rights to extract minerals. One must locate (stake) a mining claim in order to obtain rights to mine the subsurface estate. However, even without a valid mining claim, a landowner may assert that the presence of a mineral occurrence or prospect contributes to property value. In addition, a landowner could raise objections to a particular route if it appears to preclude future mineral exploration or development.

4.3.2.2.2 Mineral Claims

In general terms, a mineral claim gives the claim holder subsurface rights, or the right to mine the minerals (subsurface estate) therein. A project (such as a road or ferry terminal) that crosses over a mining claim could take away the right to mine the subsurface estate if the surface activities prevent or prohibit mineral extraction. If this occurs, the claim holder is due compensation for the loss. Accordingly, it is important to note where valid claims occur along the Juneau Access Improvements routes.

If a road or ferry terminal will cross a mineral claim, the claim holder's right to extract the minerals may be negatively affected. Potential loss of the ability to mine must almost always be assessed on state claims, because there is no distinction between types of mineral deposits. Federal claims make a distinction between lode claims, which are generally mined from underground, and placer claims, which are generally mined from the surface. Depending upon the geology of the mineral deposit and the surface configuration of the highway or ferry terminal, the claimant possessing a lode claim that can be mined from underground may not experience a loss in the ability to extract minerals (and thus is not due compensation). By contrast, a road constructed on top of a placer claim would almost certainty prevent mineral extraction, unless mining occurred before or simultaneously with construction of the access improvement.

4.3.2.2.3 Mineral Patents

When a claim holder receives patent to mineral claims, the land becomes private property. The mineral patent holder has rights to the surface and subsurface estate. If a Juneau Access Improvements alternative crosses patented mineral claims, the patent owner's rights must be respected as with any other private land owner. Compensation would be mandatory for any valid surface and subsurface losses.

4.3.2.3 Commercial Fishing

The potential for the new ferry routes associated with Alternatives 2, 2A, and 2B to interfere with commercial fishing activities is limited by the seasonal and mobile nature of the fishing industry. Commercial fleets' fishing activities are currently adjusted to accommodate the ferry routes. The Katzehin or Berners Bay ferries associated with these alternatives would establish routes, and the commercial fleet would adapt their fishing to take into account the new ferry routes. The new ferry routes would affect commercial fishing in a small area for a short period of time.

4.3.2.4 Subsistence

General construction impacts are discussed in Section 4.1.2. East Lynn Canal Highway Alternatives 2 through 2C would improve access to potential subsistence harvest areas previously only accessible by boat or plane. The area with the highest habitat values for

subsistence harvest is the Katzehin River area. Haines residents use the Katzehin River area for harvesting marine invertebrates and marine mammals. Skagway residents use the Katzehin River area for harvesting marine invertebrates and have historically harvested marine mammals in Taiya Inlet. Juneau is a nonsubsistence harvest area.

Marine mammals and invertebrates are harvested in the coastal areas and mountain goats are harvested in the upland areas of East Lynn Canal. Increased access from the proposed highway could provide better access for subsistence gathering and increase competition for resources in this area. Shuttle ferries between the proposed Katzehin Ferry Terminal and Skagway could displace some marine mammal hunting, although fishing activities in the past have worked around primary ferry activity areas.

4.3.2.5 Residential, Commercial, Industrial, and Public Land Use

General construction impacts are discussed in Section 4.1.2. This section discusses potential impacts on residential, commercial, industrial, and public land uses from Alternatives 2 through 2C. There will likely be more seasonal and year-round residents or increased use of private lands within the project area as a result of improved access. Private property values would likely increase with improved access. Currently, the remote areas between communities receive relatively low levels of use.

New or improved highways and marine routes increase traffic through an area, which can increase demand for certain residential, public, commercial, and industrial resources. Increased traffic to and through public lands can be beneficial because it enables more people to use those lands, but it can be considered a negative impact if the increased traffic results in a disruption to or overuse of public lands. Increased traffic through land used for commercial and industrial development can improve business and/or conflict with industrial traffic.

A new highway generally opens land for use, and adjacent communities look to their plans and ordinances, such as the comprehensive plan and zoning regulations, for guidance on what types of land use are appropriate in a newly accessible area. Improved access generally raises the value of nearby land. On the east side of Lynn Canal, the federal government owns most of the lands affected by Alternatives 2 through 2C. Federal management guidelines, along with CBJ, Haines Borough, and City of Skagway land use regulations, will largely determine the extent to which residential, commercial, industrial, and public land uses are allowed or encouraged in this area.

4.3.2.6 Recreation, Sport Fishing, and Hunting

General construction impacts are discussed in Section 4.1.2. This section discusses potential impacts on recreation, sport fishing, and hunting from Alternatives 2 through 2C. General impacts due to operations of any of the alternatives would include varying degrees of enhanced access for sport fishing and hunting and improved opportunities for recreational activities such as hiking, camping, sightseeing, rafting, canoeing, kayaking, and, where allowed, touring in off-road vehicles. Such opportunities could provide benefits for residents and visitors and spread out recreation, sport fishing, and hunting activities that currently occur along the existing road systems in Juneau, Haines, and Skagway. However, improved access to previously remote, undeveloped lands could diminish the recreational experience for wilderness tour operators, flight-seeing tourists, and recreationists who previously sought or depended on wildland characteristics. This could cause some activities to be displaced to other areas that are removed from the development corridor.

The immediate impacts to existing recreation facilities in the communities of Juneau, Haines, and Skagway due to improved access would be an increase in the number of visitors during summer months and an increase in the use of recreation facilities and resources. The DOT&PF and the USFS have identified recreation opportunities at 12 sites along the various East Lynn Canal Highway alignments. These developments include converting the cabin at Berners Bay to a road-accessible cabin and creating highway pullouts at Berners and Lace Rivers (not applicable to Alternative 2A), Slate Cove, Comet, Brown Point, Eldred Rock, Yeldagalga Creek, south and north of Katzehin River, Dayebas Creek, Long Falls, and Sturgill's Landing. DOT&PF would create the pullouts, which would provide suitable areas for construction to occur by others. In addition, paved shoulders suitable for bicyclist and pedestrian use will be constructed along the highway.

Any East Lynn Canal Highway alternative would result in more nonresident visitors arriving in Juneau, Haines, or Skagway by personal vehicle, but is not expected to impact the number of cruise ship visitors to southeast Alaska ports (McDowell, 2004). The numbers of overall visitors to Juneau and Haines would increase because the highway would offer a previously untapped visitor population a more independent, flexible, and economic access option. The forecasted increased percentage of nonresident visitors to Skagway is less than that predicted for Juneau. This is because Skagway is already on the road system. In contrast to Juneau, a new access mode and traveler market is not being created.

Increased demand for harbor slips could be generated by charter operators vying for the opportunity to serve the expanded visitor market, recreational boaters, and visitors from interior Alaska who can now boat to Juneau. This demand for harbor slips could create pressure to expand the existing boat harbors and create new ones. Observations from similar access projects when road connections were improved between Anchorage and Valdez and between Anchorage and Seward showed that demand for recreational boat harbor slips increased dramatically.

An increase in visitors could stimulate the demand for more RV parks. All East Lynn Canal Highway alternatives would increase the number of RVs arriving in Juneau, thereby increasing demand for RV camping space, dump stations, and related infrastructure; however, additional capacity is currently available (L. Williams, personal communication, 2003). Skagway currently has three RV parks, all of which are near capacity (B. Ward, personal communication, 2003). The four RV parks in Haines are busy during the summer but still have additional capacity available (R. Venables, personal communication, 2003).

Alternatives 2 through 2C would not create any major conflicts with sport fishing in the area. Anglers who prefer a wilderness experience will find fishing areas away from the road system, while other anglers will take advantage of the increased access to freshwater streams and marine shorelines. Sport fishing charter operators would continue to serve tourists, and Alternatives 2 through 2C could facilitate increased operations for fishing charters due to increases in the number of visitors.

The construction of highways in previously inaccessible areas, such as the Dalton Highway in the North Slope of Alaska, has shown that increased human access to such areas leads to increased hunting and trapping pressure on local wildlife populations. Any of the East Lynn Canal Highway alternatives could facilitate the hunting of mountain goats, black bear, and brown bear. Trappers could also benefit from the improved access that construction of any of the East Lynn Canal Highway alternatives would provide. Improved access would be expected to attract increased numbers of hunters and fishers. Sport-hunting impacts to moose would likely be minimal because moose harvest in the Berners Bay area is already strictly regulated.

Sport fisherman and hunters could experience increased competition and pressure on some fish and wildlife resources. Any expansion of the road-accessible area in southeast Alaska could require re-evaluating harvest limits and current management, monitoring, and enforcement duties for state and federal agencies.

4.4 Alternative 3 – West Lynn Canal Highway

4.4.1 Effects on Land Ownership and Management

General impacts from the construction of Alternative 3 are addressed in Section 4.1.2. Current ownership of the land that would be required for the highway right-of-way and new ferry terminal facilities for Alternative 3 is presented in Table 4-2. The entire West Lynn Canal Highway corridor and William Henry Bay Ferry Terminal are within the Haines Borough general use zoning district until the highway reaches Mud Bay. Impacts specific to geographic areas along the proposed route for Alternative 3 are discussed in the following paragraphs, along the proposed West Lynn Canal Highway route from south to north.

Table 4-2
Land Ownership of Required Right-of-Way for Alternative 3

Ownership (acres)						Total (acres)
USFS	State of Alaska	Alaska Native Allotment	Goldbelt	University of Alaska	Private	
912	246	35	55	35	42	1,324

Note: 300 foot right-of-way on federal and state lands and 150 foot right-of-way on private and municipal lands.

4.4.1.1 Echo Cove to Sawmill Cove

Under Alternative 3, an access road would be built from the current northern terminus of Glacier Highway to Sawmill Cove in Berners Bay where an AMHS ferry terminal site would be located. Aside from the taking of or an easement across land for ROW and temporary disruption during construction activities, no impacts on land ownership and management from construction and operation of this access road are anticipated.

The USFS has designated the Sawmill Cove area as Semi-Remote Recreation. The alignment for Alternative 3 is included in the TLMP; therefore, this alternative is consistent with the TLMP. In the event that a highway is built on the Alternative 3 alignment, the highway would be designated a Transportation and Utility Systems LUD.

State tidelands and submerged lands near Sawmill Cove area are managed to provide a dispersed recreation experience, wildlife habitat, harvest opportunities, and waterfront development by ADNR. The *CBJ Comprehensive Plan* designates the shorelands around the potential Sawmill Cove Ferry Terminal as Resource Development, with the potential to create a marine terminal that could serve mining, ferries, commercial watercraft, and tourist-related recreational use. The *CBJ Comprehensive Plan* and JCMP policies support the improvement and expansion of marine and highway transportation systems in the Echo Cove/Berners Bay region. A ferry terminal at Sawmill Cove would be compatible with USFS, ADNR, and CBJ management plans.

4.4.1.2 William Henry Bay to Sullivan River

The area from William Henry Bay north to Sullivan River is owned and managed by the USFS. The USFS land in the area is currently designated as Semi-Remote Recreation, Modified Landscape, and Scenic Viewshed and includes a state transportation corridor. With increased access, the USFS would need to evaluate resources required to meet increased management demands.

The State of Alaska owns land along the shore of William Henry Bay. ADNR manages state tidelands north and south of the ferry terminal site for shoreline use and wildlife habitat. Construction of a ferry terminal at William Henry Bay would be compatible with ADNR state land management plans.

There is one Alaska native Vietnam veteran pending native allotment adjacent to the state lands at William Henry Bay. The proposed alignment for Alternative 3 West Lynn Canal Highway would not traverse through this parcel.

The Endicott River lies mostly within the Endicott River Wilderness Area (a USFS designation), which serves to protect the river's remarkable values and free-flowing characteristics. The lower 2.5-mile segment of the river is outside of the Wilderness Area. The Alternative 3 West Lynn Canal Highway would not cross any part of the Endicott River Wilderness Area and therefore would not directly conflict with this LUD.

4.4.1.3 Sullivan River North to Haines

In the Sullivan River area, the Alternative 3 highway alignment would cross one certified Native allotment and one pending Native allotment. One other certified Native allotment is located away from the highway on the seaward side. One of these allotments has been subdivided and sold as individual lots. If the Juneau Access Improvements Project alternative that is ultimately chosen affects a Native allotment, the Central Council of Tlingit and Haida Indian Tribes of Alaska will work with the owner and the state on the appraisal, survey, and easement location. Improved access to the Native allotments would likely benefit the private owners by increasing property accessibility and value.

Tongass National Forest land north of the Sullivan River is designated as Modified Landscape and allows for a state transportation corridor. At the Sullivan Mountain area, Tongass National Forest gives way to the Haines State Forest. The majority of land between Sullivan Mountain and Pyramid Harbor is owned by the state and managed by the ADNR under the *Haines State Forest Management Plan* (ADNR, 2002b).

The University of Alaska owns lands near Glacier Point and Pyramid Harbor. Three of these parcels would be crossed by the Alternative 3 highway alignment. A highway would likely increase the value of university lands. The university has no restrictions in place for land use in these parcels, other than the general direction that the land is to be used to generate revenue for the university or for educational purposes.

The Alaska Mental Health Trust owns a small parcel south of the Davidson Glacier near the coast. Mental Health Trust land is managed to maximize revenue for the trust. A highway near this land would likely increase its value and allow easier access to its natural resources.

There are several private parcels at Glacier Point on the delta at the mouth of the Glacier River that contain small private cabins or sheds. One parcel is being used by the owner to conduct a commercial guide business, which consists of guided boat trips on the lake near Davidson Glacier (S. Nelson, personal communication, 2003).

The highway would cross the Chilkat River/Inlet at Green Point just north of Pyramid Harbor and within the boundary of the Haines State Forest. This parcel at Green Point is patented to the state as a school selection. The area between Green Point, Pyramid Harbor, and Haines is Haines State Forest. The *Haines State Forest Plan* states that Haines State Forest lands are managed for their scenic and recreational values. Scenic values are high because the area is visible from the City of Haines, Mud Bay Road, and Chilkat State Park. Remote cabins and commercial timber harvest are prohibited; however, the state is in the process of re-evaluating potential timber sales within the Haines State Forest. Cut-and-fill activities related to highway construction could conflict with management for scenic values.

Pyramid Island, located in Chilkat Inlet, is managed under the NSEAP (DNR, 2002a). The NSEAP area wide land management policies that apply to Pyramid island include the following resource categories: Cultural Resources; Shorelines, Stream Corridors and Coastal Areas; and Public Access (DNR 2002a). The island is managed as Unit H-21, with land use designations of Public Recreation and Tourism-Undeveloped and Habitat, and the adjacent tidelands are managed as Unit HT-11, with land use designations of Habitat (DNR 2002a). These designations serve to protect the island's waterfowl and seabird habitat and compatible recreation uses. The NSEAP notes that recreational activities must avoid disturbance of seabirds and marine mammals and that introduced species, including predators and livestock, are not allowed on the island. The NSEAP also notes two prehistoric shell middens located in the surrounding area (DNR 2002a).

A Special Use Designation (SUD) (ADL 106859) applies to Pyramid Island uplands and adjacent tidelands, which requires that the lands be managed to maintains public use of the tidelands and limits or prohibits commercial and motor vehicle operations without a permit (DNR 2002a). This SUD works in combination with a similar SUD applied in the Haines State Forest Plan (DNR 2002b). ADL 106859 is limited to the general state lands, and because many of the recreational uses that concern to DNR occur on lands within the State Forest, the Haines State Forest Plan assigned another SUD to this area (DNR 2002b).

The bridge crossing of Chilkat Inlet would consist of an east bridge section (3,000 feet in length), a west bridge section (5,800 feet in length), and a 2,000-foot embankment causeway across the tidelands north of Pyramid Island. With regards to the land use policies mentioned above, the proposed bridge crossing of Chilkat Inlet under this alternative would not conflict with current management of Pyramid Island.

4.4.1.4 Haines

The Alternative 3 bridge crossing to the Chilkat Peninsula would connect with the existing Mud Bay Road. This area is within Haines Borough but outside of the Mud Bay Land Use Service Area. This area is zoned General Use. Minor ROW or easement acquisition may be required at the bridge landfall on Chilkat Peninsula, representing takings and change in land ownership. Property owners would be compensated at fair market value. Project engineers believe that the existing Mud Bay Road meets project design standards and would not need to be upgraded or widened. All of the land from Chilkat River along Mud Bay Road to where it intersects Haines Highway is private, except for a narrow strip between the highway and the water, which belongs to the state.

Land management intent within the Haines Borough is expressed in the *Haines Borough Comprehensive Plan* (2000a), the HCMP (2000b), and the City of Haines Land Use Code (Title 18) for planning and zoning. The comprehensive plan discusses long-range transportation planning for Southeast Alaska and the importance of the state to pursue consistency and daily AMHS service. The plan considers new highway construction that might occur in the Lynn

Canal area, and expresses concern about a highway on the east side. At the same time, the plan emphasizes how vital the outside link provided by the Haines Highway to the outside is to the economy of Haines.

Traffic would increase on Lutak Road as a result of more frequent service from the Haines/Skagway shuttle ferry. However, the existing highway can accommodate this traffic, and an increase in traffic would present no land management conflict. Expanded use of the Lutak Ferry Terminal would be a continuation of a well-established, water-related transportation/industrial use within the area. This would create no conflict with Haines Borough land management goals.

4.4.1.5 Alaska Chilkat Bald Eagle Preserve

Although the Alaska Chilkat Bald Eagle Preserve lies outside of the immediate project area, the proposed highway may affect the preserve. The state manages the preserve with the intent to allow visitor access to the preserve and to eagle concentration areas without creating traffic hazards or significantly impacting the eagles. Contrary to this goal, safety problems currently occur along the Haines Highway when large numbers of vehicles stop during periods of high eagle concentrations, as viewing and parking areas along the highway corridor are inadequate. Increased visitation that could result from improved access could exacerbate this problem. Alternative 3 could affect the southern unit of the preserve, which is accessed by Mud Bay Road. The *Alaska Chilkat Bald Eagle Preserve Management Plan* calls for coordination between the DOT&PF and the Division of Parks and Outdoor Recreation to address these common concerns (ADNR, 2002c).

4.4.2 Effects on Land and Resource Uses

The general effects of the construction of the West Lynn Canal Highway alternative are discussed in Section 4.1.2. Differences among effects of Alternative 3 on land and resource uses are discussed, as appropriate, for each of the geographic sections following the proposed West Lynn Canal Highway route from south to north.

4.4.2.1 Timber Removal

The west side of Lynn Canal has a more complex pattern of land ownership and management than the east side. Approximately two-thirds of the Alternative 3 highway alignment occurs within the boundary of the Tongass National Forest, and one-third of the highway alignment is within the Haines State Forest. A number of private in-holdings, as well as specially designated state lands such as University of Alaska and Mental Health Trust lands, lie within these jurisdictions. The following discussion is organized by impacts to major landowners (federal, state, and private).

4.4.2.1.1 Federal Lands

The most direct impact from the construction of Alternative 3 would be the removal and sale of the timber cleared from the highway ROW. The USFS has specific procedures for such sales and would undertake such a sale prior to construction. Assuming a 100-foot wide cut, it is estimated that 365 acres of timber would be removed from the approximately 30-mile highway ROW crossing federal lands (including 4 miles of highway on federal lands on the east side of Lynn Canal in the approach to a Sawmill Cove Ferry Terminal facility). Timber removal from the Alternative 3 ROW could yield 9 MMBF based on an average of 27,000 board feet per acre for the west side of Lynn Canal.

Tongass National Forest lands on the west side of Lynn Canal that are available for commercial timber harvest include lands designated as Scenic Viewshed and Modified Landscape along William Henry Bay and on the mainland west of Sullivan Island. The USFS currently has no plans to harvest timber in these areas during the next 10 years. However, potential log transfer sites have been identified near the tidewater in these two areas for potential commercial timber harvest (K. Vaughan, personal communication, 2003). If future timber sales occur, the presence of highway access in the area would decrease the operating expenses and provide a beneficial impact on commercial timber uses.

4.4.2.1.2 State Lands

Haines State Forest – The construction of a highway along West Lynn Canal under Alternative 3 would impact state lands through the sale of the timber in approximately 15 miles of ROW across the Haines State Forest. The affected area of removal would be approximately 120 acres if a 100-foot-wide area were cleared for highway construction. The timber removed could total 2.4 MMBF, based on an average of 20,000 board feet per acre.

The impact on timber removal from improved access to potential timberlands would be limited under current state management plans and policies. An annual allowable harvest of 5.88 MMBF of timber would allow the forest to be commercially productive for the next 120 years. This annual allowable harvest is not a static figure and could change if noncommercial forest lands within the forest become commercial. The Division of Forestry has requested a new inventory for the Haines State Forest. When this inventory is completed, the annual allowable harvest will be updated (ADNR, 2002b).

Although improved access would decrease the cost of removing and transporting timber from state lands adjacent to the Alternative 3 highway, it is unlikely that the presence of the highway would cause management policies and plans to be changed to allow commercial timber harvest. A limited amount of personal use timber harvest could likely occur if highway access were provided in this area.

University Lands – The proposed ROW for Alternative 3 would cross approximately 2.5 miles of University of Alaska lands at Glacier Point and Pyramid Harbor. Portions of these areas have been harvested in the last few decades, but there is also mature timber in the highway ROW, which would be removed if a highway were built. Approximately 30 acres of ROW could be cleared, but the amount of commercial timber present in the affected area is unknown.

The University of Alaska manages its lands to maximize revenues and could sell its commercial timber. Improved access to these lands could increase the net value of the timber by decreasing harvest operation and transportation costs, thereby providing a beneficial impact. Improved access may increase the relative value of these lands for other uses, such as remote subdivisions and recreation and tourism facilities.

The presence of a highway near Pyramid Harbor is unlikely to affect the prospects for commercial timber harvest in the Kicking Horse area, where a large block of University land is present. The University currently has no specific timber management plan for these parcels (M. Montgomery, personal communication, 2003).

Mental Health Trust Lands – Alternative 3 would have negligible impacts on Mental Health Trust lands. There is a small parcel of Mental Health Trust land near Glacier Point east of the Alternative 3 highway alignment. The trust has no specific timber harvest plans for this parcel, but its land holdings are generally managed for economic returns.

4.4.2.1.3 Private Lands

The various private landowners along the West Lynn Canal Highway alignment would receive proceeds from the sale of timber removed within approximately 3 miles of ROW across private lands. In addition, the improved access to their property would likely decrease the cost of transport, thus increasing the net value of any future commercial timber harvest from those private lands. Timber has been harvested previously from much of the private lands at Glacier Point and from some of the other private property that would potentially be affected by Alternative 3.

4.4.2.2 Mineral Exploration and Development

No active mining claims currently exist on the west side of Lynn Canal. The two most significant mineral areas on West Lynn Canal are the former Alaska Endicott Mine and the Dream Prospect. World metal prices for silver, copper, and zinc are more important factors in determining the feasibility of mining than the presence of an accessible tidewater highway under Alternative 3.

Alternative 3 would cross the Endicott River fan, an unnamed outwash, and the Davidson Glacier outwash, which contain sand and gravel resources that could be mined for highway construction and maintenance according to mineral investigations in the Juneau Mining District (USDOI Bureau of Mines, 1989).

4.4.2.3 Commercial Fishing

The potential for the new ferry route associated with Alternative 3 to interfere with commercial fishing activities is limited by the seasonal and mobile nature of the fishing industry. The commercial fleets' fishing activities are currently adjusted to the ferry routes. The Sawmill Cove/William Henry Bay ferry would establish a route, and the commercial fleet would adapt their fishing to take it into account. The new ferry route would affect commercial fishing in a small area for a short period of time.

4.4.2.4 Subsistence

General construction impacts of Alternative 3 are discussed in Section 4.1.2. Alternative 3 could provide beneficial as well as adverse impacts to subsistence harvest. Beneficial impacts could result from increased access to areas with current and future subsistence harvest opportunities. Alternatively, improved access could displace current uses and result in increased competition for resources.

Areas currently known for subsistence land use in the West Lynn Canal corridor include the following:

- Endicott River for moose harvesting by Haines residents
- Sullivan Island for deer harvesting by Klukwan and Haines residents
- Nearshore waters of western Chilkat Inlet and western coves of Sullivan Island for marine invertebrate and nonsalmon finfish harvesting by Klukwan and Haines residents
- William Henry Bay for coho and halibut fishing by Klukwan residents

Some subsistence resource use would be temporarily displaced in William Henry Bay due to the movement of the ferry through areas used for harvesting crabs with pot gear. However, as with the commercial fleet, subsistence users would adapt their activities to accommodate the ferry route.

4.4.2.5 Impacts to Residential, Commercial, Industrial, and Public Land Use

General construction impacts of Alternative 3 are discussed in Section 4.1.2. This section discusses potential impacts on residential, commercial, industrial, and public land uses from Alternative 3. Improved access will likely result in more seasonal and year-round residents or increased use of private lands within the project area. Private property values would likely increase with improved access. Currently, the west side of Lynn Canal receives relatively low levels of use.

New or improved highways and marine routes increase traffic through an area, which can increase demand for certain residential, public, commercial, and industrial resources. Increased traffic to and through public lands can be beneficial because it enables more people to use public lands. Increased traffic can also be considered a negative impact if it results in a disruption to or overuse of public lands. Increased traffic through land used for commercial and industrial development can improve business and/or conflict with industrial traffic.

A new highway generally opens land for use, and adjacent communities look to their plans and ordinances, such as the comprehensive plan and zoning regulations, for guidance on what types of land use are appropriate in a newly accessible area. Improved access generally raises the value of nearby land. The west side of Lynn Canal is primarily undeveloped federal and state land with some privately owned lots and recreational cabins.

Federal management guidelines along with CBJ, Haines Borough, and state land use regulations will largely determine the extent to which residential, commercial, industrial, and public land uses are allowed or encouraged in this area.

4.4.2.6 Recreation, Sport Fishing, and Hunting

General construction impacts of Alternative 3 are discussed in Section 4.1.2. This section discusses the potential impacts on recreation, sport fishing, and hunting from Alternative 3. General impacts due to operations of any of the alternatives would include varying degrees of enhanced access for sport fishing and hunting and improved opportunities for recreational activities such as hiking, camping, sightseeing, rafting, canoeing, kayaking, and where allowed, touring in off-road vehicles. Such opportunities could provide benefits for residents and visitors and spread out the recreation, sport fishing, and hunting activities that currently occur along the existing road systems in Juneau, Haines, and Skagway. However, improved access to previously remote, undeveloped lands could diminish the recreational experience for wilderness tour operators, flight-seeing tourists, and recreationists who previously sought or depended on wildland characteristics. This could cause some activities to be displaced to other areas that are removed from the development corridor.

The immediate impacts to existing recreation facilities in the communities of Juneau and Haines due to improved access would be an increase in the number of visitors during summer months and an increase in the use of recreation facilities and resources. The USFS and DOT&PF have identified seven recreation opportunities along the West Lynn Canal Highway alignment. The joint development plans include trailheads, pullouts, or overlooks at the William Henry Bay Ferry Terminal, Lance Point, the Endicott River, north of the Cant geodetic marker near the Sullivan River, and near the Gen and Deep geodetic markers. DOT&PF would construct the pullouts,

which would provide suitable areas for construction to occur by the USFS. The USFS has indicated it may develop trails at some of the pullouts in the future. In addition, the highway would include paved shoulders for bicyclist and pedestrian use.

A West Lynn Canal Highway alternative would result in more nonresident visitors arriving in Juneau and Haines by personal vehicle, but is not expected to impact the number of cruise ship visitors to southeast Alaska ports (McDowell, 2004). The numbers of overall visitors would increase because a highway would offer a more independent, flexible, and economic access option to a previously untapped visitor population.

Increased demand for harbor slips could be generated by charter operators vying for the opportunity to serve the expanded visitor market, recreational boaters, and visitors from interior Alaska who can now boat to Juneau. This demand for harbor slips could create pressure to expand the existing boat harbors and create new ones. Observations from similar access projects when road connections were improved between Anchorage and Valdez and between Anchorage and Seward showed that demand for recreational boat harbor slips increased dramatically.

An increase in visitors could stimulate the demand for more RV parks, thereby increasing demand for RV camping space, dump stations, and related infrastructure. In Juneau, additional capacity is currently available (L. Williams, personal communication, 2003). Currently, the four RV parks in Haines are busy during the summer but still have additional available capacity (R. Venables, personal communication, 2003).

Alternative 3 would not create any major conflicts with sport fishing in the area. Anglers who prefer a wilderness experience will find fishing areas away from the road system, while other anglers will take advantage of the increased access to freshwater streams and marine shorelines. Sport fishing charter operators would continue to serve tourists, and Alternative 3 could facilitate increased operations for fishing charters due to increases in the number of visitors.

The construction of highways in previously inaccessible areas, such as the Dalton Highway in the North Slope of Alaska, has shown that increased human access to such areas leads to increased hunting and trapping pressure on local wildlife populations. Both hunters and trappers could benefit from the improved access. Improved access would be expected to attract increased numbers of hunters and fishers.

Sport fisherman and hunters could experience increased competition and pressure on some fish and wildlife resources. Any expansion of the road-accessible area in Southeast Alaska could require re-evaluating harvest limits and current management, monitoring, and enforcement duties for state and federal agencies.

4.5 Alternatives 4A through 4D – Marine Options

4.5.1 Effects on Land Ownership and Management

4.5.1.1 Auke Bay Ferry Terminal

The Auke Bay Ferry Terminal area is designated for Waterfront Commercial/Industrial development in the CBJ Comprehensive Plan and zoned as Waterfront Industrial and Special Waterfront Area in the JCMP. The state owns adjacent property that could be impacted by any expansion. The *Juneau State Land Plan* (ADNR, 1993) notes that the land in the area is a transportation corridor and designates it for habitat, fish and wildlife harvest, and public facilities

(specifically those that non-state public entities can acquire). Expansion of ferry facilities at Auke Bay would be an improvement to an existing, well-established, water-related transportation/industrial use within the area and compatible with plans for the area.

4.5.1.2 Sawmill Cove Ferry Terminal and Road to Sawmill Cove

Alternatives 4B and 4D would construct a road over USFS and Goldbelt land and create a Sawmill Cove Ferry Terminal. The USFS has designated the area from the head of Echo Cove to Sawmill Cove as Semi-Remote Recreation and includes a state highway alignment. ADNR manages state tidelands and submerged lands near the Sawmill Cove area to provide a dispersed recreation experience, wildlife habitat, harvest opportunities, and waterfront development. The *CBJ Comprehensive Plan* designates the shorelands around the proposed Sawmill Cove Ferry Terminal as Resource Development, with the potential to create a marine terminal that could serve mining, ferries, commercial watercraft, and tourist-related recreational use. The *CBJ Comprehensive Plan* and JCMP policies support the improvement and expansion of marine and highway transportation systems in the Echo Cove/Berners Bay region. A ferry terminal at Sawmill Cove would be compatible with USFS, ADNR, and CBJ management plans.

4.5.1.3 Lutak Ferry Terminal

Neither Alternatives 4A through 4D nor the highway alternatives that address ferry access to Haines include new construction for the Lutak Ferry Terminal in Haines. The ferry terminal in Lutak Inlet has sufficient shoreside facilities to accommodate both the current mainline service and other ferry shuttles. However, ferry facility or dock improvements may be needed to address new requirements for smaller shuttle ferries or new vessels entering the AMHS fleet. The HCMP (2000b) and the *Haines Borough Comprehensive Plan* (2000a) put a high priority on assuring adequate space for future port development. They also support improvements in AMHS service and scheduling and port improvements.

Traffic would increase on Lutak Road as a result of more frequent ferry service. However, the existing highway can accommodate this traffic, and increased traffic would present no land management conflict. Expanded use of the Lutak Ferry Terminal would be a continuation of a well-established, water-related transportation/industrial use within the area. Increased use of the dock might increase the value of adjacent properties.

4.5.1.4 Skagway Ferry Terminal

The existing ferry terminal in Skagway has one side-loading berth, where loading is conducted from a float. Improvements to dock or shoreside facilities may be required to accommodate Alternatives 4A through 4D.

The *Skagway Comprehensive Plan* (1999) and the SCMP (1993) put a high priority on assuring adequate space for future port development. These planning and land management documents also support improvements in the AMHS service and scheduling.

More traffic would result from more frequent ferry service. However, the existing highway can accommodate this traffic, and increased traffic would present no land management conflict. Expanded use of the Skagway ferry facilities service would be a continuation of a well-established, water-related transportation/industrial use within the area.

4.5.2 Effects on Land and Resource Uses

4.5.2.1 Timber Harvest

None of the marine alternatives would have foreseeable impacts on the timber harvest in the Lynn Canal area. Alternatives 4B and 4D would result in a potential timber salvage along the 4 miles of ROW for the new highway to the Sawmill Cove Ferry Terminal site. This small segment of highway construction would entail timber harvest on approximately 48 acres and produce approximately 1.3 MMBF of salvaged timber, assuming 27,000 board feet per acre.

4.5.2.2 Commercial Fishing

The potential for the new ferry routes associated with Alternatives 4B and 4D to interfere with commercial fishing activities is limited by the seasonal and mobile nature of the fishing industry. The commercial fleets' fishing activities are currently adjusted to the ferry routes. The ferries providing service from Berners Bay in the summer would establish a route, and the commercial fleet would adapt their fishing to take it into account. The new ferry routes would affect commercial fishing in a small area for a short period of time.

4.5.2.3 Subsistence

Alternatives 4A through 4D would not increase access to areas where subsistence harvests currently occur.

4.5.2.4 Residential, Commercial, Industrial, and Public Land Use

Alternatives 4A and 4C would not provide any new opportunities for residential, commercial, industrial, or public land use. Alternatives 4B and 4D could provide opportunities for commercial and industrial development in the Sawmill Cove Ferry Terminal area because the state and CBJ management plans allow for waterfront and recreation development.

4.5.2.5 Recreation, Sport Fishing, and Hunting

All marine alternatives include continuing mainline service to Juneau, Skagway, and Haines. The *Juneau Access Traffic Forecast* indicates that the average daily vehicle traffic on the four marine alternatives would increase from 2002 levels by 1.25 to 2.3 times by 2008 (McDowell, 2004). Continued or slightly increased traffic levels would result in a minimal change in recreation use surrounding Juneau, Haines, and Skagway.

Under Alternatives 4A and 4C, no new access to public or private lands and subsequent opportunities would occur. Recreation, sport fishing, and hunting surrounding these communities would remain relatively unchanged. The Sawmill Cove Ferry Terminal proposed under Alternatives 4B and 4D would result in improved access to CBJ, Goldbelt, and federal lands, which could result in increased recreation in the areas adjacent to the highway connection and ferry terminal. This increased access would be viewed as beneficial to those who gain highway access to recreation, sport fishing, and hunting opportunities. However, users looking for more remote and semiprimitive qualities would be forced to move further north, away from the ferry terminal, for their semiremote experience.

4.6 Consistency with Coastal Management Plans

The analysis in this section pertains to state and local coastal management plans as they currently exist. On January 21, 2003, revisions to the ACMP Coastal Consistency Review process (6 AAC 50) went into effect to clarify the regulations and to modify the process used to

evaluate a proposed project against district CMP enforceable policies. Revisions to most of the ACMP regulations went into effect as of July 1, 2004, with the exception of the new statewide standards (11 AAC 112), which will not apply to consistency reviews until after approval by the Office of OCRM. Consistency reviews will follow the standards 11 AAC 112 until after the required approval by OCRM. In response to these program changes, the coastal management plans for Juneau, Haines, and Skagway will likely be revised by July 1, 2005, and the revised plans and enforceable policies will need to be approved and fully incorporated into the new CMPs by July 2006. Also, the new legislation provides that the issuance of an authorization by the ADEC constitutes the state's determination of consistency for the project with the Air, Land, and Water Quality Standards. These requirements will necessitate that the current JCMP, HCMP, and SCMP and their enforceable policies be updated to achieve the following:

- Eliminate policies that duplicate existing statutes or regulations
- Use precise, prescriptive enforceable language
- Focus on matters of local concern (e.g., local siting criteria such as setbacks and exclusions, coastal resource protection issues not adequately addressed by existing statutes and regulations, attention to coastal resources, and issues of unique concern to coastal districts as demonstrated by local use of resources or scientific evidence)

Once those revisions are completed and approved, Juneau Access Improvements Project alternatives may need to be revised to comply with state and local coastal management plan enforceable policies.

All proposed Juneau Access Improvements Project alternatives are geographically within the coastal zone and are subject to enforceable policies of either the ACMP statewide standards or policies established by the JCMP, HCMP, or SCMP, including applicable AMSAs. Federal lands are excluded from the coastal zone boundary; however, uses and activities on excluded federal lands that affect the coastal area must be consistent with the ACMP and consistency provisions of Section 307 of the Coastal Zone Management Act of 1972, as amended.

The state could determine that the Juneau Access Improvements project would be considered "uses of state concern." Federal and state coastal management laws specify that uses of state concern may not be arbitrarily or unreasonably restricted by districts. Specifically, the Federal Coastal Zone Management Act regulations (15 Code of Federal Regulations 932) direct state coastal programs to assure that district policies do not unreasonably restrict or exclude uses of regional benefit. The state law mentioned such uses, and in Alaska Statute 46.40.040, directed state programs to provide a process for identifying and managing uses of state concern.

The coastal development standards and policies applicable to all Juneau Access Improvement Project alternatives are identified in Attachment B (ACMP statewide standards), Attachment C (JCMP), Attachment D (HCMP), and Attachment E (SCMP). The determination of consistency with the ACMP would occur at the time of application for permits and authorizations necessary to construct the road or ferry terminal improvements or modifications.

The No Action alternative would result in continued ferry service, and any ferry terminal improvements or modifications would require a review of consistency with ACMP and local coastal management plans.

East Lynn Canal Highway Alternatives 2 through 2C would be required to comply with the state standards of the ACMP and the enforceable policies of the applicable local district coastal management plans for Juneau and Skagway. Under Alternatives 2, 2A, and 2B, ferry service would be established between the Katzehin Ferry Terminal and Haines, and compliance with

the state standards of the ACMP and the enforceable policies of the HCMP (for activities at the Lutak Ferry Terminal) would be required. Construction of any of the East Lynn Canal Highway alternatives would trigger enforceable polices that address coastal development; shoreline and intertidal habitat alterations; air, land, and water quality; geophysical hazards; transportation facilities; and protection of coastal resources and uses.

The West Lynn Canal Highway Alternative 3 would be required to comply with the state standards of the ACMP and the enforceable policies of the local district coastal management plans for Juneau, Haines, and Skagway. The West Lynn Canal Highway Alternative 3 highway, ferry terminal construction at Sawmill Cove and William Henry Bay, and shuttle ferry service between Sawmill Cove and William Henry Bay would occur within the Juneau and Haines coastal district boundaries. Improvements or modifications to the ferry terminals in Haines and Skagway to accommodate modified ferry service between these communities would occur within the Haines and Skagway coastal district boundaries. Development of the West Lynn Canal Highway Alternative 3 will trigger enforceable policies that address coastal development, shoreline and intertidal habitat alterations, transportation facilities, and protection of coastal resources and uses.

Alternatives 4A and 4C could require construction of a new double-stern berth at Auke Bay. Ferry terminals at Haines and Skagway could also require modifications or improvements. Alternative 4A would involve activities in or travel through the Juneau, Skagway, and Haines coastal management districts and require compliance with the state standards of the ACMP and the enforceable policies of these local district programs. Alternative 4A and 4C activities would trigger enforceable policies that address coastal development, shoreline and marine habitat alteration, transportation facilities, and protection of coastal resources and uses

Alternatives 4B and 4D could necessitate construction of a new double-stern berth at the Auke Bay Ferry Terminal, extension of the Glacier Highway from Echo Cove to Sawmill Cove, and construction of a ferry terminal at Sawmill Cove. During the winter, ferry service would run from Auke Bay to Haines and Skagway. Ferry terminals at Haines and Skagway could also require modifications or improvements to accommodate FVF or improved AMHS service. Alternative 4B would include activities in or travel through the Juneau, Skagway, and Haines coastal management districts and require compliance with the state standards of the ACMP and the enforceable policies of these local district programs. Alternative 4B and 4D activities would trigger enforceable policies that address coastal development, shoreline and marine habitat alteration, transportation facilities, water quality, and protection of coastal resources and uses.

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6.0 REFERENCES

Alaska Department of Fish and Game (ADF&G). 1982. Historical and Contemporary Fishing for Salmon and Eulachon at Klukwan: An Interim Report. December.

ADF&G. 1990. Determining Customary and Traditional Uses of Selected Populations of Moose, Goat, Black, and Brown Bear in Southeast Alaska. ADF&G, Division of Subsistence. October.

ADF&G. 1991a. An Overview of the History and Current Status of Subsistence Fisheries in Southeast Alaska. ADF&G, Division of Subsistence. January.

ADF&G. 1991b. Customary and Traditional Uses of Fish and Shellfish in Southeast Alaska. ADF&G, Division of Subsistence. January.

ADF&G. 1993. Subsistence Harvest of Harbor Seal and Sea Lion by Alaska Natives in 1992. Technical No. 229, Parts 1 and 2. ADF&G, Division of Subsistence. July.

ADF&G. 1994a. Reports on Klukwan, Haines and Skagway. ADF&G, Division of Subsistence. June.

ADF&G. 1994b. The Subsistence Hooligan Fishery of the Chilkat and Chilkoot Rivers. March.

ADF&G. 2002a. Report to the Board of Fisheries. Southeast Alaska Shellfish Fisheries, 2002. Region 1: Southeast Alaska – Yakutat. ADF&G, Division of Commercial Fisheries. Regional Information Report No. 1J02-45. November.

ADF&G. 2003a. Commercial Fisheries Entry Commission, Reports. http://www.cfec.state.ak.us/ (accessed September 2003).

ADF&G. 2003b. Sport Fish Statewide Harvest Survey obtained October 2003 from the Southeast Regional Office, Division of Sport Fish.

Alaska Department of Natural Resources (ADNR). 1988. Outdoor Recreation in Alaska. ADNR, Division of Parks and Outdoor Recreation. February.

ADNR. 1993. Juneau State Land Plan. ADNR, Division of Mining, Land, and Water. December.

ADNR. 2002a. Northern Southeast Area Plan (NSEAP). ADNR, Division of Mining, Land and Water. October. Also at http://www.dnr.state.ak.us/mlw/planning/nseap/index.htm.

ADNR. 2002b. Haines State Forest Management Plan. ADNR, Division of Mining, Land and Water. August.

ADNR. 2002c. Alaska Chilkat Bald Eagle Preserve Management Plan. ADNR, Division of Parks and Outdoor Recreation. October.

Brainard, J. 1994. Personal communication with owner of Blue Heron Sea Farm, August 16, 1994.

Alaska Department of Transportation and Public Facilities (DOT&PF). 1995. *Juneau Access Improvements: Environmental Impact Statement, Land Use and Coastal Zone Technical Report.* April.

DOT&PF. 1997. *Juneau Access Improvements: Environmental Impact Statement, Addendum to the Land Use and Coastal Zone Technical Report.* January.

Alaska Division of Motor Vehicles. 2003. 2001 Currently Registered Boats. http://www.state.ak.us/local.akpages/ADMIN/dmv/research/boat01.htm (accessed September 2003).

Braatan, Elli. 2003. Personal communication with Assistant Harbor Master, Haines, Alaska. October.

Bachman, Randy. 2003. Personal communication with representative from ADF&G, Commercial Fisheries Division, Southeast Alaska Region regarding preliminary salmon harvest data. October.

Bethers, Mike. 1994. Personal communication with Area Management Fisheries Biologist, Alaska Department of Fish and Game. July 21.

Betts, Martha F., Mathew Kookesh, Robert F. Schroeder, Thomas F. Thornton and Anne Marie Victor. 1994. Subsistence Resource Use Patterns in Southeast Alaska: Summaries of 30 Communities, Technical Paper Number 216, Alaska Department of Fish and Game.

City and Borough of Juneau (CBJ). 1992. Juneau Coastal Management Plan (JCMP), November 20, 1986, and Routine Program Changes Approved October 12, 1992.

CBJ. 1996. City and Borough of Juneau Comprehensive Plan. November.

City of Haines. 1993. *City of Haines Alaska District Coastal Management Plan*. February 9, 1993.

City of Haines. 2000a. *City of Haines Comprehensive Plan*. March.

City of Haines. 2000b. City of Haines Coastal Management Plan. 1993 Update with 2000 Minor Amendment. November 15, 1993 and November 20, 2000.

City of Haines. 2001. Title 18 Land Use Code. June.

City of Hoonah. 2003. Feasibility Study for a Bulkhead and Boat Haul-out Facility. Prepared by R&M Engineering and Southeast Strategies. June.

City of Skagway. 1991. Skagway Coastal Management Plan. May.

City of Skagway. 1999. *Skagway Comprehensive Plan*. October.

City of Skagway. 2000. Skagway Economic Impact Study. Prepared by Southeast Strategies and Dean Runyon Associates. February.

Coeur Alaska, Inc. (Coeur). 2003. Properties, Kensington. http://www.coeur.com/index.asp?pageItem=developmental (accessed September 2003).

DOWL Engineers. 2003. Haines Airport Master Plan Update. Prepared for DOT&PF, Juneau, AK.

Eco-Systems et al. 1997. Juneau Access Improvements Draft Environmental Impact Statement. Prepared for FPE/Roen-Lochner Juneau Access Joint Venture, Juneau, Alaska and Alaska Department of Transportation & Public Facilities by Eco-Systems Resource Management Group, Sheinberg Associates, and McDowell Group.

Glynn, Brian. 2003. Personal communication with representative of ADF&G, Division of Sport Fish. September and October.

Goade, David. 2003. Personal communication with Executive Vice President, Goldbelt. October.

Haines Borough. 1999. *Haines Borough Comprehensive Plan*. March.

Haines Borough. 2004. *Haines Borough, Alaska, Draft Comprehensive Plan*. April.

Hansen, Scott. 2003. Personal communication with Coastal Management Plan Manager, Haines Borough. October.

Hessing, Polly. 2003. Personal communication with Wildlife Biologist, ADF&G, Division of Wildlife Conservation, Southeast Alaska Region. October.

Johnson, Phil. 2003. Personal communication with representative of Natural Resources Section, Tlingit Haida Central Council. November.

Kirkevold, Vivian. 2003. Personal communication with Owner, Auke Bay RV Park, Juneau, Alaska. October.

Kong, Tom. 2004. Personal communication with representative of International Pacific Halibut Commission, Seattle Office. February 12.

Kruse, John and Robert Muth. 1990. Subsistence Use of Renewable Resources by Rural Residents of Southeast Alaska. August.

Lagoudakis, Cindy. 2003. Personal communication with representative of USFS, Recreation and Planning. December.

McDowell. 2003. *Juneau Access Household Survey Results: Juneau, Skagway, Haines, and Whitehorse.* Prepared for Alaska Department of Transportation and Public Facilities, Juneau, Alaska, by McDowell Group, Inc., Juneau, AK. October.

McDowell. 2004. The Socioeconomic Effects of Juneau Access Improvements SDEIS Update, Draft. Prepared for DOT&PF, Juneau, AK by McDowell Group, Inc., Juneau and Anchorage, AK. February.

Montgomery, Mari. 2003. Personal communication with Director, Statewide Office of Land Management, University of Alaska. October.

Naiman, J. 2004. Personal communication with Temsco Helicopters, Skagway, Alaska. March.

National Park Service. 2003. Economic Impact of the Klondike Gold Rush National Historical Park on the Economy of Skagway, Alaska. Prepared by Southeast Strategies. March.

Nelson, S. 2003. Personal communication with Commercial Guide and Glacier Point Landowner. October.

Paul, T. 2004. Personal communication with Alaska Department of Fish and Game, Division of Wildlife Conservation, August 21, 1994.

Plotnik, Michael. 2003. Personal communication with Research Analyst, ADF&G, Commercial Fisheries Division, Southeast Alaska Region regarding 2003 preliminary salmon harvest data and past salmon and shellfish harvest data. October.

Rene, Bruce. 1994. Personal communication with Documents Coordinator, TLM Planning Team, USFS. July.

Scott, Brady. 2004. Personal communication with representative of ADNR, Southeast Regional Office. March.

Suchanek, Paul. 1994. Personal communication with Fishery Biologist, ADF&G. July.

United States Department of the Interior (USDOI), Bureau of Mines. 1989. Special Publication: Mineral Investigations in the Juneau Mining District 1984–1988. Volumes I and II.

United States Forest Service (USFS). 1997. Tongass National Forest Land and Resource Management Plan (TLMP). R10-MB-338dd. USDA Forest Service, Alaska Region. 1997. http://www.fs.fed.us/r10/tlmp/ (accessed September 24, 2003).

USFS. 2004. Kensington Gold Project Supplemental Environmental Impact Statement, Volumes I and II. January.

Vaughan, Ken, P.E. 2003. Personal communication with Deputy Director, Engineering and Aviation Management, USFS. October.

Venables, Robert. 2003. Personal communication with City and Borough of Haines Economic Development Director. October.

Ward, Bob. 2003. Personal communication with City Manager, City of Skagway, Alaska. October.

Ward, Bob. 2004. Personal communication with City Manager, City of Skagway, Alaska. February.

Williams, Linda. 2003. Personal communication with Owner, Spruce Meadow RV Park, Juneau, Alaska. October.

Zack, Bill. 1994. Personal communication with Haines Chief Ranger, ADNR, Division of Parks and Outdoor Recreation. July 13 and 14.

FIGURES

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LEGEND

East Route

Current Alignment as of 12/15/2003

West Route

Current Alignment as of 12/30/2003

Existing Highway

New Multi-span Bridge

0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles

1 inch equals 3.5 miles

CANADA (British Columbia)

USA (Alaska)

Mount Bagot

DENVER GLACIER

Boundary Peak 111

Mount Crafty

Boundary Peak 109

H GLACIER

Twin Dewey Peaks

Upper Dewey Reservoir

Devils Punch Bowl

SCHUBEE GLACIER

Skagway

Klondike Highway

Klondike Gold Rush National Historical Park

Skagway River

Kasidaya Creek

Mount Villard

Katzehin River

Katzehin Ferry Terminal

Taiya Inlet

Douglas Creek

Burro Creek

Face Mountain

Mount Harding

Halutu Ridge

Ferebee River

Lutak Road

Tanani

Haines

Lutak Inlet

Mount Ripinski

Haines Airport

Chilkoot

Haines Highway

Chilkat River

GARRISON GLACIER

Mount Emmerich

Mount Rice

Port Chilkoot

DESHU ISTHMUS

Lily Lake

Chilkat Peninsula

Mud Bay Road

Pyramid Island

Glacier Point

Ludaseka Creek

Sullivan Mountain

DAVIDSON GLACIER

Mount Young

Sinclair Mountain

Yeldagalga Creek

Gran Point

Met Point

Eldred Rock

Chilkat Islands

Lynn Canal

Sullivan Island

Sullivan River

Kakuhan Range

Ivanhoe Mine

Comet Mines

Kensington Mine

Horrible Mine

Ophir Mine

Sweeny Creek

Comet

Sherman Rock

Gilkey River

Antler Lake

Antler River

Lace River

Berners River

Johnson Creek

Jualin Mine

Slate Creek

Slate Cove Ferry Terminal

Berners Bay

Point Saint Mary

Sawmill Creek

Sawmill Cove Ferry Terminal

Glacier Highway

Echo Cove

Cowee Creek

William Henry Bay

Endicott River

William Henry Creek

Beardslee River

William Henry Bay Ferry Terminal

Yang-Webste Peak

Chilkat R

Alaska

Canada

Study Area

Anchorage

Skagway

Juneau

Juneau Access Improvements

General Project Vicinity Map

JOB NO: 26219581.20008	DRAWN BY: TEK	Figure 1-1
DATE: November 30, 2004	M:\Data\ADOT\Juneau_Access\Figures\Tech Report Figures\Land Use\Figure_1_1_90_v2.mxd	

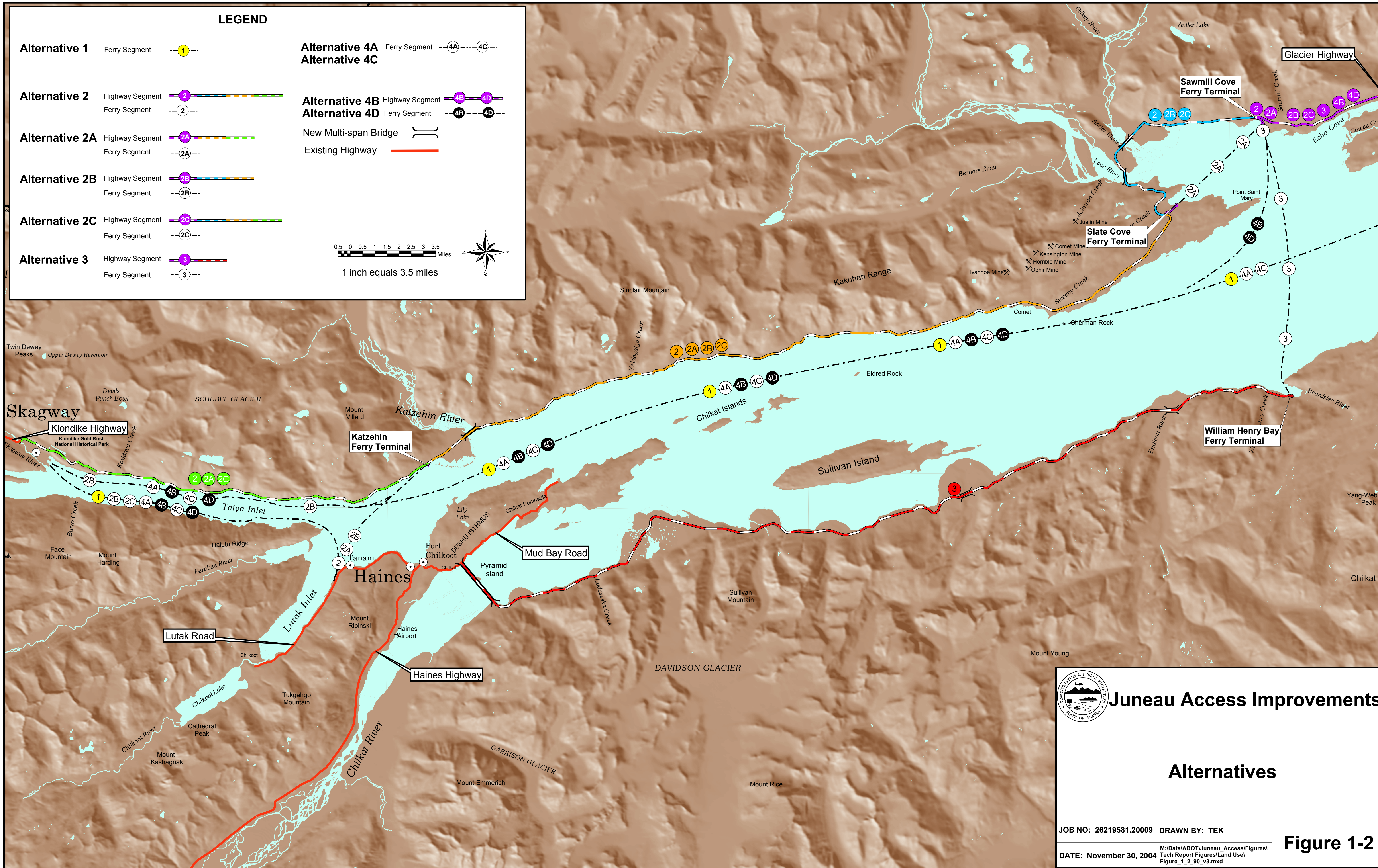
LEGEND
Alternative 1 Ferry Segment 1
Alternative 2 Highway Segment 2
Ferry Segment 2
Alternative 2A Highway Segment 2A
Ferry Segment 2A
Alternative 2B Highway Segment 2B
Ferry Segment 2B
Alternative 2C Highway Segment 2C
Ferry Segment 2C
Alternative 3 Highway Segment 3
Ferry Segment 3
Alternative 4A
Alternative 4C
Ferry Segment 4A 4C
Alternative 4B
Alternative 4D
Highway Segment 4B 4D
Ferry Segment 4B 4D
New Multi-span Bridge
Existing Highway
0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles
1 inch equals 3.5 miles
Skagway
Klondike Highway
Klondike Gold Rush National Historical Park
Katzehin Ferry Terminal
Katzehin River
Taiya Inlet
Haines
Tanani
Port Chilkoot
Lutak Inlet
Lutak Road
Haines Highway
Haines Airport
Mud Bay Road
Pyramid Island
Chilkat Peninsula
Chilkat River
Chilkoot Lake
Chilkat Islands
Sullivan Island
Eldred Rock
Sherman Rock
Comet
Kakuhan Range
Sinclair Mountain
Slate Cove Ferry Terminal
Sawmill Cove Ferry Terminal
Glacier Highway
William Henry Bay Ferry Terminal
Berners River
Antler River
Lace River
Point Saint Mary
Echo Cove
Cowee Creek
Antler Lake
Gilkey River
Sweeny Creek
Johnson Creek
Endicott River
Beardslee River
Yeldagalga Creek
Sullivan Mountain
Mount Young
DAVIDSON GLACIER
GARRISON GLACIER
Mount Emmerich
Mount Rice
Mount Ripinski
Tukgahgo Mountain
Cathedral Peak
Mount Kashagnak
Chilkoot River
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Burro Creek
Twin Dewey Peaks
Upper Dewey Reservoir
Devils Punch Bowl
SCHUBEE GLACIER
Mount Villard
Lily Lake
DESHU ISTHMUS
Ludaseska Creek
Yang-Webster Peak
Chilkat Range
Juneau Access Improvements
Alternatives
JOB NO: 26219581.20009
DRAWN BY: TEK
DATE: November 30, 2004
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Figure 1-2

LEGEND

Land Ownership

- Tongass National Forest
- Glacier Bay Park and Preserve
- State Park/Forest
- Chilkat Bald Eagle Preserve
- City and Borough of Juneau
- City of Skagway
- Goldbelt
- Kensington Dry Tailing Facility
- Mental Health Trust
- Native Allottment Certified
- Native Allottment Pending
- Private
- State
- State Selected
- University of Alaska
- Active Mining Claims
- Detailed Land Status Not Shown
- Shoreline of Digital Elevation Model: Data Unavailable

Data Source: BLM Land Status GIS Data; August 2003

East Route

- Current Alignment as of 12/15/2003

West Route

- Current Alignment as of 12/30/2003
- Existing Highway
- New Multi-span Bridge

0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles

1 inch equals 3.5 miles

Tongass National Forest

Glacier Highway

Sawmill Cove Ferry Terminal

U.S. Mineral Survey 318

Berners Bay

Point Bridget State Park

Slate Cove Ferry Terminal

Point Saint Mary

Gilkey River

Antler Lake

Sawmill Creek

Echo Cove

Antler River

Lace River

Berners River

Johnson Creek

Slate Creek

Sweeny Creek

Jualin Mine

Comet Mines

Kensington Mine

Horrible Mine

Ophir Mine

Ivanhoe Mine

Comet

Sherman Rock

Kakuhan Range

Sinclair Mountain

Yeddagelga Creek

Met Point

Eldred Rock

Gran Point

Chilkat Islands

Lynn Canal

Sullivan Island State Marine Park

Sullivan Island

Mental Health Trust Land

Seduction Point

Glacier Point

William Henry Bay Ferry Terminal

William Henry Bay

Endicott River

William Henry Creek

Beardslee River

Sullivan River

Yang-Webste Peak

Chilkat R

Twin Dewey Peaks

Upper Dewey Reservoir

Devils Punch Bowl

SCHUBEE GLACIER

Skagway

Klondike Gold Rush National Historical Park

Mount Villard

Katzehin River

Katzehin Ferry Terminal

Chilkat State Park

Klondike Highway

Taiya Inlet

Boundary Peak 109

TH GLACIER

Kasidaya Creek

Dayebas Creek

Burro Creek

Face Mountain

Mount Harding

Halutu Ridge

Ferebee River

Lily Lake

Chilkat Peninsula

DESHU ISTHMUS

Mud Bay Road

Fort Chilkoot

Tanani

Haines

Pyramid Island State Land

Haines Highway

Haines Airport

Lutak Inlet

Lutak Road

Mount Ripinski

Chilkoot

Haines State Forest

Ludaseska Creek

Sullivan Mountain

Mount

DAVIDSON GLACIER

Chilkoot Lake

Tukgahgo Mountain

Chilkoot River

Cathedral Peak

Mount Kashagnak

Chilkat Bald Eagle Preserve

Chilkat River

GARRISON GLACIER

Mount Emmerich

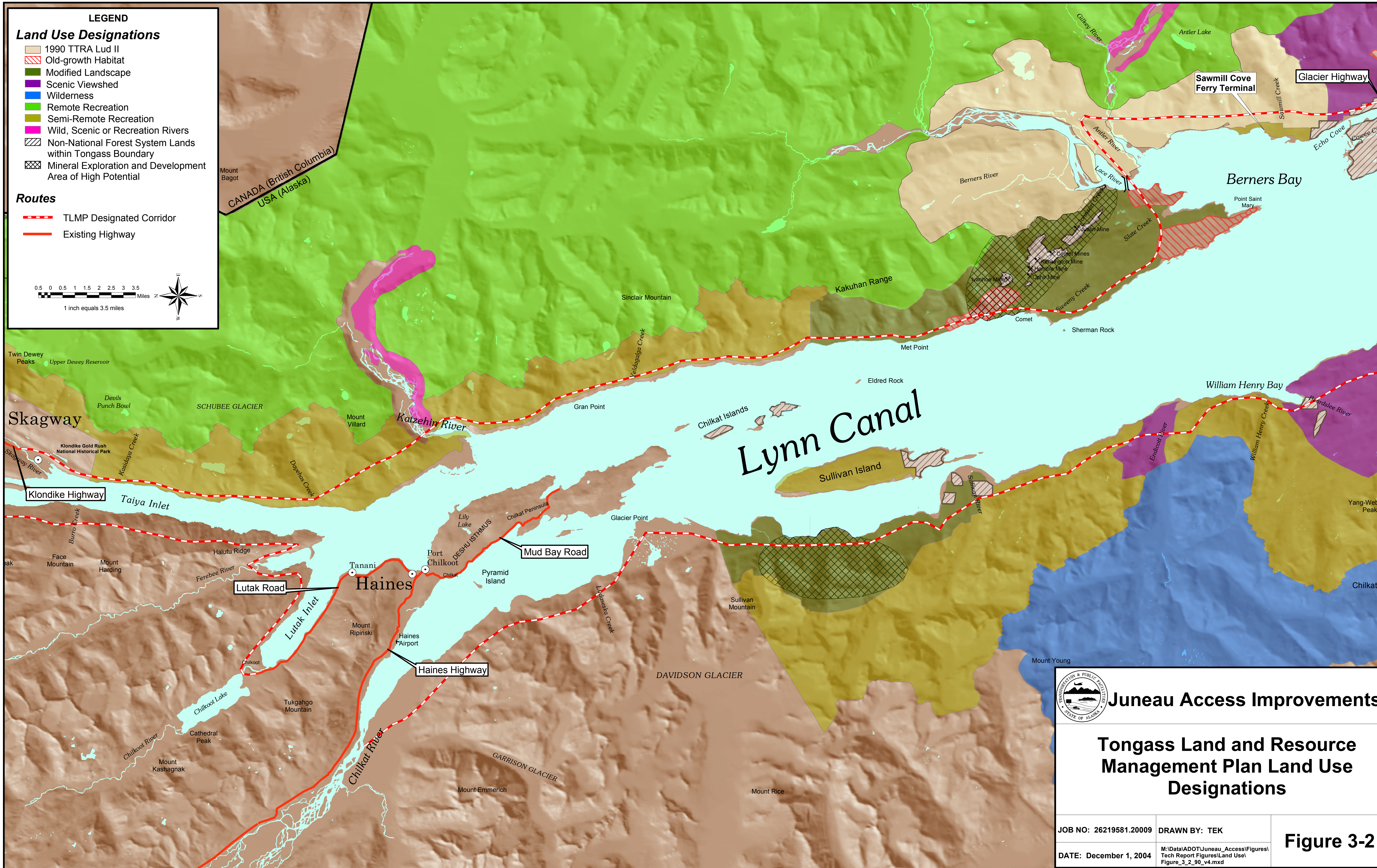
Mount Rice

Glacier Bay Park and Preserve

Juneau Access Improvements

Land Ownership

JOB NO: 26219581.20009	DRAWN BY: TEK	Figure 3-1
DATE: December 9, 2004	M:\Data\ADOT\Juneau_Access\Figures\Tech Report Figures\Land Use\Figure_3_1_90_v7.mxd	



LEGEND
Land Use Designations
1990 TTRA Lud II
Old-growth Habitat
Modified Landscape
Scenic Viewshed
Wilderness
Remote Recreation
Semi-Remote Recreation
Wild, Scenic or Recreation Rivers
Non-National Forest System Lands within Tongass Boundary
Mineral Exploration and Development Area of High Potential
Routes
TLMP Designated Corridor
Existing Highway
0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles
1 inch equals 3.5 miles
Juneau Access Improvements
Tongass Land and Resource Management Plan Land Use Designations
JOB NO: 26219581.20009
DRAWN BY: TEK
DATE: December 1, 2004
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Figure 3-2
Lynn Canal
Skagway
Haines
Berners Bay
William Henry Bay
Sullivan Island
Chilkat Islands
Taiya Inlet
Lutak Inlet
Chilkoot Lake
Chilkat River
Katzehin River
Kakuhan Range
CANADA (British Columbia)
USA (Alaska)
Klondike Highway
Lutak Road
Mud Bay Road
Haines Highway
Glacier Highway
Sawmill Cove Ferry Terminal
Klondike Gold Rush National Historical Park
Sinclair Mountain
Eldred Rock
Met Point
Sherman Rock
Comet
Point Saint Mary
Gran Point
Glacier Point
Sullivan Mountain
Mount Young
DAVIDSON GLACIER
GARRISON GLACIER
SCHUBEE GLACIER
Mount Emmerich
Mount Rice
Mount Ripinski
Haines Airport
Port Chilkoot
Tanani
Pyramid Island
Tukgahgo Mountain
Cathedral Peak
Mount Kashagnak
Face Mountain
Mount Harding
Halutu Ridge
Mount Villard
Mount Bagot
Devils Punch Bowl
Twin Dewey Peaks
Upper Dewey Reservoir
DESHU ISTHMUS
Chilkat Peninsula
Lily Lake
Antler Lake
Echo Cove
Chilkat Range
Yang-Webster Peak

LEGEND

Timber Type

- 0 To 8 MBF/acre
- 8 to 20 MBF/acre
- 20 To 30 MBF/acre
- 30 To 50 MBF/acre
- More Than 50 MBF/acre

No data available for commercial timber within the project area for Haines State Forest and lands within its boundaries.

East Route

- Current Alignment as of 12/15/2003

West Route

- Current Alignment as of 12/30/2003
- Existing Highway
- New Multi-span Bridge

0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles

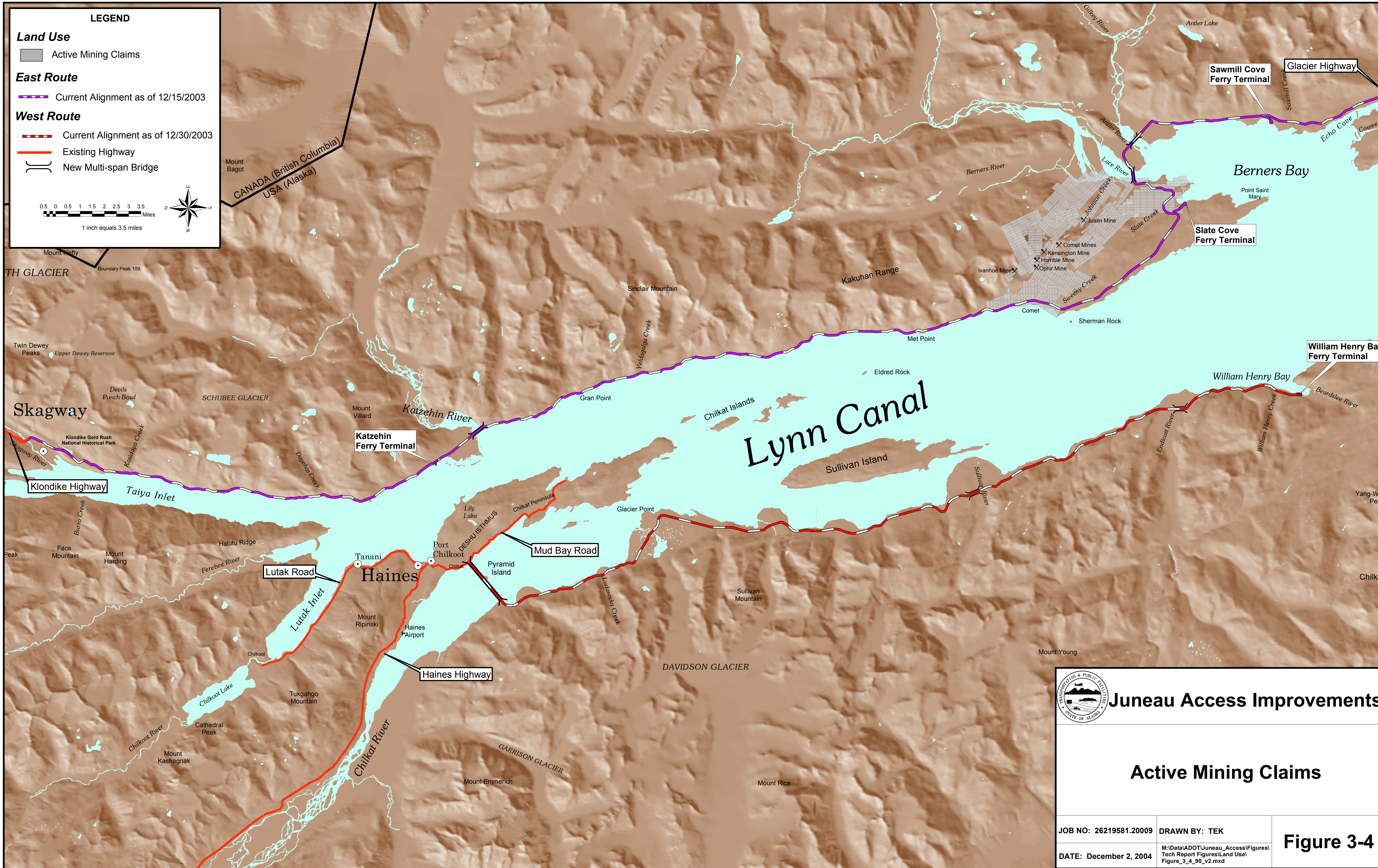
1 inch equals 3.5 miles

CANADA (British Columbia)
USA (Alaska)
Mount Bagot
Gilkey River
Antler Lake
Sawmill Cove Ferry Terminal
Glacier Highway
Sawmill Creek
Antler River
Lace River
Berners River
Berners Bay
Echo Cove
Couvee Creek
Point Saint Mary
Johnson Creek
Jualin Mine
Slate Creek
Slate Cove Ferry Terminal
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Ivanhoe Mine
Kakuhan Range
Sinclair Mountain
Sweeny Creek
Comet
Sherman Rock
Met Point
Twin Dewey Peaks
Upper Dewey Reservoir
Yeldagalga Creek
Eldred Rock
Gran Point
Chilkat Islands
Lynn Canal
William Henry Bay Ferry Terminal
William Henry Bay
Beardslee River
Devils Punch Bowl
SCHUBEE GLACIER
Skagway
Mount Villard
Katzehin River
Katzehin Ferry Terminal
Klondike Gold Rush National Historical Park
Skagway River
Kasidaya Creek
Dayebas Creek
Endicott River
William Henry Creek
Klondike Highway
Taiya Inlet
Sullivan Island
Sullivan River
Yang-Webster Peak
Burro Creek
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Lily Lake
DESHU ISTHMUS
Chilkat Peninsula
Port Chilkoot
Glacier Point
Mud Bay Road
Tanani
Haines
Pyramid Island
Lutak Road
Lutak Inlet
Mount Ripinski
Haines Airport
Ludaseka Creek
Sullivan Mountain
Chilkat Ra
Mount Young
Chilkoot
Haines Highway
DAVIDSON GLACIER
Chilkoot Lake
Tukgahgo Mountain
Cathedral Peak
Chilkoot River
Mount Kashagnak
Chilkat River
GARRISON GLACIER
Mount Emmerich
Mount Rice

Juneau Access Improvements

Lands Capable of Producing Commercial Volume Timber

JOB NO: 26219581.20009	DRAWN BY: TEK	Figure 3-3
DATE: December 8, 2004	M:\Data\ADOT\Juneau_Access\Figures\Tech Report Figures\Land Use\Figure_3_3_90_v3.mxd	



LEGEND
Land Use
Active Mining Claims
East Route
Current Alignment as of 12/15/2003
West Route
Current Alignment as of 12/30/2003
Existing Highway
New Multi-span Bridge
1 inch equals 3.5 miles
Lynn Canal
Berners Bay
Skagway
Haines
Taiya Inlet
Chilkat Islands
Sullivan Island
Klondike Highway
Katzehin Ferry Terminal
Mud Bay Road
Lutak Road
Haines Highway
Sawmill Cove Ferry Terminal
Glacier Highway
Slate Cove Ferry Terminal
William Henry Bay Ferry Terminal
William Henry Bay
Lutak Inlet
Chilkat River
Chilkoot Lake
Katzehin River
Kakuhan Range
Eldred Rock
Met Point
Gran Point
Glacier Point
Pyramid Island
Port Chilkoot
Tanani
Jualin Mine
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Ivanhoe Mine
Comet
Sherman Rock
Point Saint Mary
DAVIDSON GLACIER
GARRISON GLACIER
SCHUBEE GLACIER
CANADA (British Columbia)
USA (Alaska)
Juneau Access Improvements
Active Mining Claims
JOB NO: 26219581.20009
DRAWN BY: TEK
DATE: December 2, 2004
M:\Data\ADOT\Juneau_Access\Figures\Tech Report Figures\Land Use\Figure_3_4_90_v2.mxd
Figure 3-4

LEGEND

Recreation Use

- Boating
- Camping
- Hiking
- Hunting
- Kayaking
- Public Use Cabin
- Scenic Flying
- Sport Fishing
- Wilderness Guiding/ Wildlife Viewing

East Route

- Current Alignment as of 12/15/2003

West Route

- Current Alignment as of 12/30/2003
- Existing Highway
- New Multi-span Bridge

0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles

1 inch equals 3.5 miles

CANADA (British Columbia)
USA (Alaska)
Mount Bagot
Gilkey River
Antler Lake
Glacier Highway
Sawmill Cove Ferry Terminal
Sawmill Creek
Echo Cove
Cowee Creek
Antler River
Lace River
Berners River
Berners Bay
Point Saint Mary
Johnson Creek
Jualin Mine
Slate Creek
Slate Cove Ferry Terminal
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Ivanhoe Mine
Kakuhan Range
Sinclair Mountain
Sweeny Creek
Comet
Sherman Rock
Met Point
Yeldagalga Creek
Eldred Rock
William Henry Bay Ferry Terminal
William Henry Bay
Beardslee River
Endicott River
William Henry Creek
Yang-Webster Peak
Twin Dewey Peaks
Upper Dewey Reservoir
Devils Punch Bowl
SCHUBEE GLACIER
Skagway
Klondike Highway
Klondike Gold Rush National Historical Park
Skagway River
Kasidaya Creek
Dyea Inlet
Taiya Inlet
Burro Creek
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Lutak Road
Tanani
Haines
Lutak Inlet
Mount Ripinski
Haines Airport
Haines Highway
Chilkoot
Chilkoot Lake
Chilkoot River
Cathedral Peak
Mount Kashagnak
Tukgahgo Mountain
Mount Villard
Katzehin River
Katzehin Ferry Terminal
Gran Point
Chilkat Islands
Camping
Lynn Canal
Sullivan Island
Sullivan River
Lily Lake
DESHU ISTHMUS
Chilkat Peninsula
Port Chilkoot
Chilkat
Pyramid Island
Mud Bay Road
Glacier Point
Ludusesku Creek
Sullivan Mountain
Mount Young
Chilkat R
DAVIDSON GLACIER
GARRISON GLACIER
Mount Emmerich
Mount Rice
Chilkat River

Juneau Access Improvements

General Areas of Dispersed Recreation

JOB NO: 26219581.20009	DRAWN BY: TEK	Figure 3-5
DATE: December 2, 2004	M:\Data\ADOT\Juneau_Access\Figures\Tech Report Figures\Land Use\Figure_3_5_90_v3.mxd	

LEGEND

Commercial Fishing

- Anchorage
- Halibut
- Hatchery/ Release Site
- Historic Salmon Trolling Areas
- Crab and Shrimp
- Halibut
- Salmon Drift Gilnetting

East Route

- Current Alignment as of 12/15/2003

West Route

- Current Alignment as of 12/30/2003
- Existing Highway
- New Multi-span Bridge

0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles

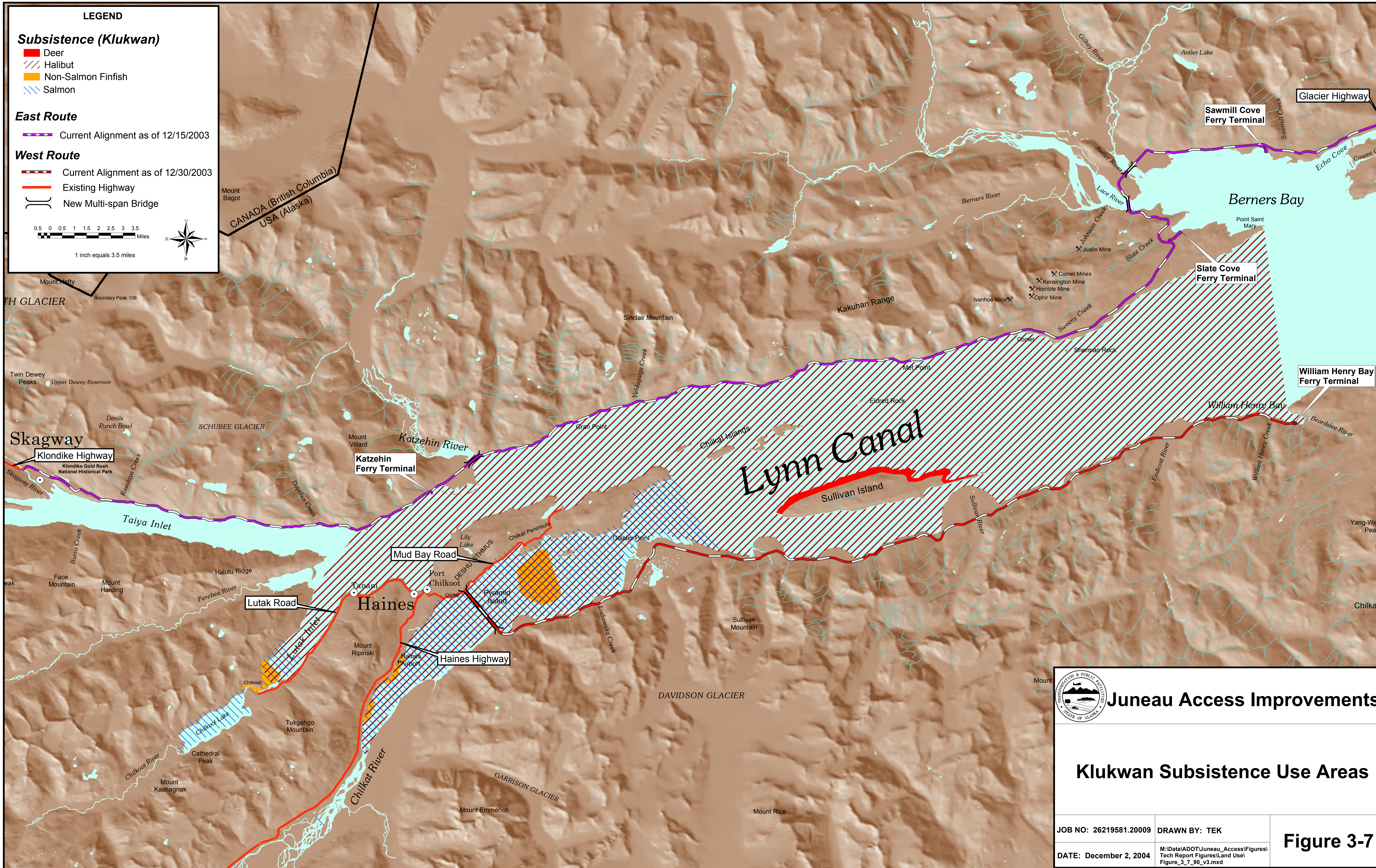
1 inch equals 3.5 miles

CANADA (British Columbia)
USA (Alaska)
Mount Bagot
Gilkey River
Antler Lake
Sawmill Creek
Glacier Highway
Sawmill Cove Ferry Terminal
Salmon Drift Gilnetting area extends south of Lance Point to the Boat Harbor area
Antler River
Lace River
Berners River
Berners Bay
Point Saint Mary
Johnson Creek
Julain Mine
Slate Creek
Slate Cove Ferry Terminal
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Ivanhoe Mine
Kakuhan Range
Sinclair Mountain
Sweeny Creek
Comet
Sherman Rock
Met Point
Eldred Rock
Gran Point
Yeldagalga Creek
Twin Dewey Peaks
Upper Dewey Reservoir
Devils Punch Bowl
SCHUBEE GLACIER
Skagway
Klondike Gold Rush National Historical Park
Skagway River
Klondike Highway
Kasidaya Creek
Mount Villard
Katzehin River
Katzehin Ferry Terminal
Dyea Inlet
Dyea Creek
Chilkat Islands
Lynn Canal
Mud Bay Road
Chilkat Peninsula
Glacier Point
Sullivan Island
Sullivan River
Endicott River
William Henry Bay
William Henry Bay Ferry Terminal
Beardslee River
Williams Henry Creek
Yang-Webster Peak
Chilkat R
Lily Lake
DESHU ISTHMUS
Port Chilkoot
Chilkat
Pyramid Island
Burro Creek
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Taiya Inlet
Haines
Lutak Road
Lutak Inlet
Haines Highway
Mount Ripinski
Haines Airport
Ludaseska Creek
Sullivan Mountain
Chilkoot
Chilkoot Lake
Tukgahgo Mountain
Cathedral Peak
Chilkoot River
Mount Kashagnak
Chilkat River
DAVIDSON GLACIER
GARRISON GLACIER
Mount Emmerich
Mount Rice

Juneau Access Improvements

Commercial Fishing Use Areas

JOB NO: 26219581.20009	DRAWN BY: TEK	Figure 3-6
DATE: December 9, 2004	M:\Data\ADOT\Juneau_Access\Figures\Tech Report Figures\Land Use\Figure_3_6_90_v4.mxd	



LEGEND
Subsistence (Klukwan)
Deer
Halibut
Non-Salmon Finfish
Salmon
East Route
Current Alignment as of 12/15/2003
West Route
Current Alignment as of 12/30/2003
Existing Highway
New Multi-span Bridge
0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles
1 inch equals 3.5 miles
Lynn Canal
Berners Bay
Skagway
Haines
Klondike Highway
Glacier Highway
Sawmill Cove Ferry Terminal
Slate Cove Ferry Terminal
William Henry Bay Ferry Terminal
Katzehin Ferry Terminal
Mud Bay Road
Lutak Road
Haines Highway
Sullivan Island
Taiya Inlet
Lutak Inlet
Katzehin River
Chilkat River
Chilkat Islands
Chilkat Peninsula
Kakuhan Range
CANADA (British Columbia)
USA (Alaska)
DAVIDSON GLACIER
GARRISON GLACIER
SCHUBEE GLACIER
Juneau Access Improvements
Klukwan Subsistence Use Areas
JOB NO: 26219581.20009
DRAWN BY: TEK
DATE: December 2, 2004
M:\Data\ADOT\Juneau_Access\Figures\Tech Report Figures\Land Use\Figure_3_7_90_v3.mxd
Figure 3-7

LEGEND

Subsistence (Haines)

- Deer
- Invertebrates
- Marine Mammals
- Non- Salmon Finfish
- Salmon

East Route

- Current Alignment as of 12/15/2003

West Route

- Current Alignment as of 12/30/2003
- Existing Highway
- New Multi-span Bridge

0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles

1 inch equals 3.5 miles

CANADA (British Columbia)
USA (Alaska)
Mount Bagot
Gilkey River
Antler Lake
Sawmill Cove Ferry Terminal
Glacier Highway
Sawmill Creek
Antler River
Echo Cove
Cowee Creek
Lace River
Berners River
Berners Bay
Point Saint Mary
Johnson Creek
Jualin Mine
Slate Creek
Slate Cove Ferry Terminal
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Ivanhoe Mine
Kakuhan Range
Sinclair Mountain
Sweeny Creek
Comet
Sherman Rock
Met Point
Twin Dewey Peaks
Upper Dewey Reservoir
Yeldagalga Creek
Eldred Rock
William Henry Bay Ferry Terminal
William Henry Bay
Devils Punch Bowl
SCHUBEE GLACIER
Gran Point
Chilkat Islands
Lynn Canal
Beardslee River
Endicott River
William Henry Creek
Skagway
Klondike Highway
Klondike Gold Rush National Historical Park
Skagway River
Kasidaya Creek
Mount Villard
Katzehin River
Katzehin Ferry Terminal
Douglas Creek
Taiya Inlet
Sullivan Island
Sullivan River
Mud Bay Road
Chilkat Peninsula
Glacier Point
Lily Lake
DESHU ISHTMUS
Burro Creek
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Port Chilkoot
Tanani
Haines
Pyramid Island
Yang-Webster Peak
Chilkat Ra
Lutak Road
Lutak Inlet
Mount Ripinski
Haines Airport
Haines Highway
Chilkoot
Sullivan Mountain
Liddaseska Creek
Mount
DAVIDSON GLACIER
Chilkoot Lake
Tukgahgo Mountain
Cathedral Peak
Chilkoot River
Mount Kashagnak
Chilkat River
GARRISON GLACIER
Mount Emmerich
Mount Rice

TRANSPORTATION & PUBLIC FACILITIES STATE OF ALASKA

Juneau Access Improvements

Haines Subsistence Use Areas

JOB NO: 26219581.20009	DRAWN BY: TEK	Figure 3-8
DATE: December 2, 2004	M:\Data\ADOT\Juneau_Access\Figures\Tech Report Figures\Land Use\Figure_3_8_90_v3.mxd	

LEGEND

Subsistence (Skagway)

- Invertebrates
- Salmon

East Route

- Current Alignment as of 12/15/2003

West Route

- Current Alignment as of 12/30/2003
- Existing Highway
- New Multi-span Bridge

0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles

1 inch equals 3.5 miles

CANADA (British Columbia)
USA (Alaska)
Mount Bagot
Mount Hefty
Boundary Peak 109
TH GLACIER
Twin Dewey Peaks
Upper Dewey Reservoir
Devils Punch Bowl
SCHUBEE GLACIER
Skagway
Klondike Highway
Klondike Gold Rush National Historical Park
Skagway River
Kasidaya Creek
Mount Villard
Katzehin River
Katzehin Ferry Terminal
Douglas Creek
Taiya Inlet
Burro Creek
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Lutak Road
Lutak Inlet
Tanani
Haines
Port Chilkoot
Chilkoot
DESHU ISTHMUS
Lily Lake
Chilkat Peninsula
Pyramid Island
Mud Bay Road
Haines Airport
Haines Highway
Mount Ripinski
Chilkoot
Chilkoot Lake
Tukgahgo Mountain
Cathedral Peak
Chilkoot River
Mount Kashagnak
Chilkat River
GARRISON GLACIER
Mount Emmerich
Mount Rice
DAVIDSON GLACIER
Sullivan Mountain
Ludoveska Creek
Glacier Point
Chilkat Islands
Lynn Canal
Sullivan Island
Sullivan River
Gran Point
Eldred Rock
Met Point
Sherman Rock
Comet
Sweeny Creek
Ivanhoe Mine
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Kakuhan Range
Sinclair Mountain
Yeldagalga Creek
Berners River
Lace River
Johnson Creek
Julain Mine
Slate Creek
Slate Cove Ferry Terminal
Point Saint Mary
Berners Bay
Antler River
Gilkey River
Antler Lake
Sawmill Creek
Sawmill Cove Ferry Terminal
Glacier Highway
Echo Cove
Cowee Creek
William Henry Bay
William Henry Bay Ferry Terminal
Beardslee River
Endicott River
William Henry Creek
Yang-Webster Peak
Chilkat R

Juneau Access Improvements

Skagway Subsistence Use Areas (Invertebrates and Salmon)

JOB NO: 26219581.20009	DRAWN BY: TEK	Figure 3-9
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LEGEND

Subsistence (Skagway)

- Marine Mammals
- Non-Salmon Finfish

East Route

- Current Alignment as of 12/15/2003

West Route

- Current Alignment as of 12/30/2003
- Existing Highway
- New Multi-span Bridge

0.5 0 0.5 1 1.5 2 2.5 3 3.5 Miles

1 inch equals 3.5 miles

CANADA (British Columbia)
USA (Alaska)
Mount Bagot
Mount Patty
Boundary Peak 109
TH GLACIER
Twin Dewey Peaks
Upper Dewey Reservoir
Devils Punch Bowl
SCHUBEE GLACIER
Skagway
Klondike Highway
Klondike Gold Rush National Historical Park
Skagway River
Kasidaya Creek
Taiya Inlet
Burro Creek
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Mount Villard
Katzehin River
Katzehin Ferry Terminal
Douglas Creek
Tanani
Haines
Lutak Road
Lutak Inlet
Mount Ripinski
Haines Airport
Chilkoot
Chilkoot Lake
Chilkoot River
Cathedral Peak
Mount Kashagnak
Tukgahgo Mountain
Haines Highway
Chilkat River
Gran Point
Chilkat Islands
Lynn Canal
Eldred Rock
Sullivan Island
Lily Lake
Chilkat Peninsula
DESHU ISTHMUS
Port Chilkoot
Pyramid Island
Mud Bay Road
Glacier Point
Ludoseska Creek
Sullivan Mountain
DAVIDSON GLACIER
GARRISON GLACIER
Mount Emmerich
Mount Rice
Sinclair Mountain
Veldagaga Creek
Kakuhan Range
Met Point
Ivanhoe Mine
Comet
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Sherman Rock
Sweeny Creek
Jualin Mine
Johnson Creek
Slate Creek
Slate Cove Ferry Terminal
Point Saint Mary
Berners Bay
Berners River
Lace River
Antler River
Gilkey River
Antler Lake
Sawmill Creek
Sawmill Cove Ferry Terminal
Glacier Highway
Echo Cove
Cowee Creek
William Henry Bay
Beardslee River
Endicott River
William Henry Creek
William Henry Bay Ferry Terminal
Yang-Webste Peak
Chilkat R

Juneau Access Improvements

Skagway Subsistence Use Areas (Non-Salmon Finfish and Marine Mammals)

JOB NO: 26219581.20009	DRAWN BY: TEK	Figure 3-10
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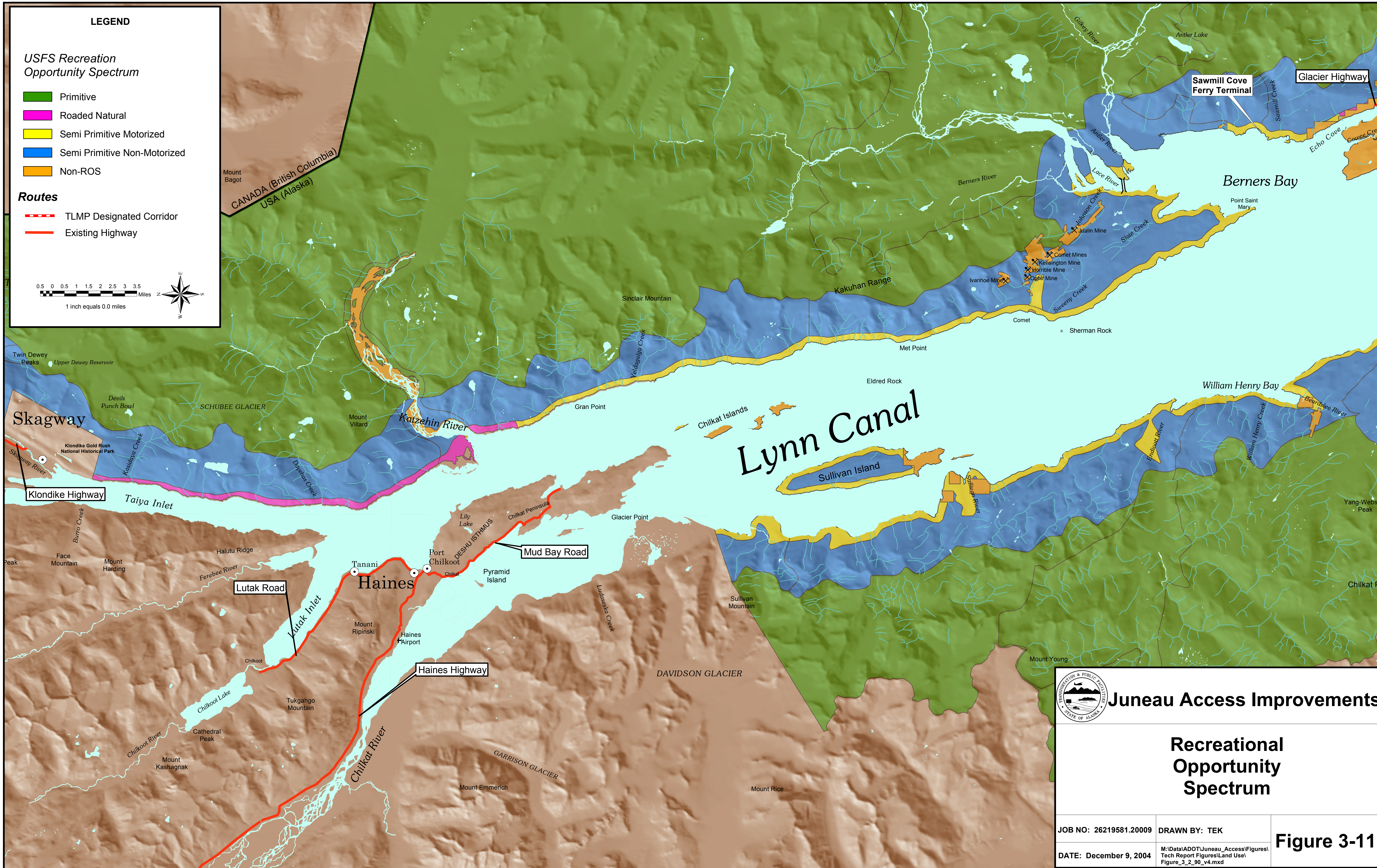

LEGEND
USFS Recreation Opportunity Spectrum
Primitive
Roaded Natural
Semi Primitive Motorized
Semi Primitive Non-Motorized
Non-ROS
Routes
TLMP Designated Corridor
Existing Highway
Miles
1 inch equals 0.0 miles
Lynn Canal
Berners Bay
Skagway
Haines
Taiya Inlet
Lutak Inlet
Chilkat River
Katzehin River
Sullivan Island
Chilkat Islands
William Henry Bay
Klondike Highway
Lutak Road
Mud Bay Road
Haines Highway
Glacier Highway
Sawmill Cove Ferry Terminal
CANADA (British Columbia)
USA (Alaska)
Mount Bagot
Kakuhan Range
Sinclair Mountain
Gran Point
Met Point
Eldred Rock
Glacier Point
Comet
Sherman Rock
Point Saint Mary
Echo Cove
Antler River
Lace River
Berners River
Gilkey River
Antler Lake
Sawmill Creek
Cowee Creek
Johnson Creek
Slate Creek
Sweeny Creek
Jualin Mine
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Ivanhoe Mine
Twin Dewey Peaks
Upper Dewey Reservoir
Devils Punch Bowl
SCHUBEE GLACIER
Mount Villard
Klondike Gold Rush National Historical Park
Skagway River
Kasidaya Creek
Dayebas Creek
Burro Creek
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Tanani
Port Chilkoot
DESHU ISTHMUS
Chilkat Peninsula
Lily Lake
Pyramid Island
Mount Ripinski
Haines Airport
Chilkoot
Chilkoot Lake
Chilkoot River
Tukgahgo Mountain
Cathedral Peak
Mount Kashagnak
Ludaseska Creek
Sullivan Mountain
DAVIDSON GLACIER
GARRISON GLACIER
Mount Emmerich
Mount Rice
Mount Young
Chilkat Range
Yang-Webster Peak
Endicott River
William Henry Creek
Beardslee River
Sullivan River
Juneau Access Improvements
Recreational Opportunity Spectrum
JOB NO: 26219581.20009
DRAWN BY: TEK
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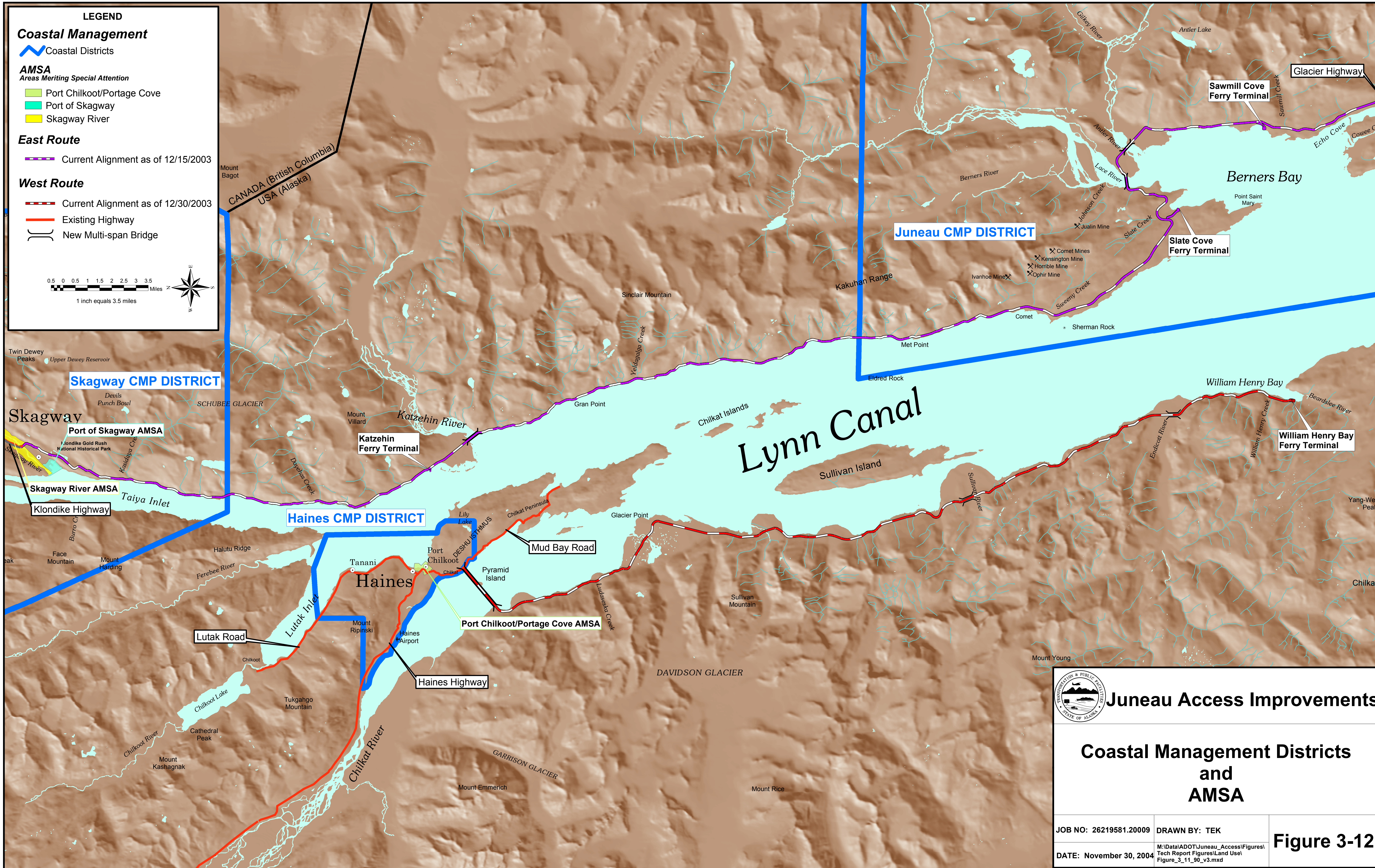
Figure 3-11


LEGEND
Coastal Management
Coastal Districts
AMSA
Areas Meriting Special Attention
Port Chilkoot/Portage Cove
Port of Skagway
Skagway River
East Route
Current Alignment as of 12/15/2003
West Route
Current Alignment as of 12/30/2003
Existing Highway
New Multi-span Bridge
0.5 0 0.5 1 1.5 2 2.5 3 3.5
Miles
1 inch equals 3.5 miles
CANADA (British Columbia)
USA (Alaska)
Mount Bagot
Skagway CMP DISTRICT
Haines CMP DISTRICT
Juneau CMP DISTRICT
Skagway
Port of Skagway AMSA
Klondike Gold Rush National Historical Park
Skagway River AMSA
Klondike Highway
Taiya Inlet
Twin Dewey Peaks
Upper Dewey Reservoir
Devils Punch Bowl
SCHUBEE GLACIER
Mount Villard
Katzehin River
Katzehin Ferry Terminal
Dayebas Creek
Face Mountain
Mount Harding
Halutu Ridge
Ferebee River
Tanani
Haines
Port Chilkoot
Lily Lake
DESHU ISTHMUS
Chilkat Peninsula
Mud Bay Road
Pyramid Island
Port Chilkoot/Portage Cove AMSA
Lutak Inlet
Lutak Road
Mount Ripinski
Haines Airport
Haines Highway
Chilkoot Lake
Chilkoot River
Cathedral Peak
Mount Kashagnak
Tukgahgo Mountain
Chilkat River
GARRISON GLACIER
Mount Emmerich
DAVIDSON GLACIER
Mount Rice
Sullivan Mountain
Ludaseska Creek
Glacier Point
Lynn Canal
Chilkat Islands
Sullivan Island
Sullivan River
Gran Point
Yeldagalga Creek
Sinclair Mountain
Kakuhan Range
Met Point
Eldred Rock
Comet
Sherman Rock
Sweeny Creek
Ivanhoe Mine
Comet Mines
Kensington Mine
Horrible Mine
Ophir Mine
Jualin Mine
Johnson Creek
Slate Creek
Slate Cove Ferry Terminal
Berners River
Lace River
Antler River
Point Saint Mary
Berners Bay
Sawmill Cove Ferry Terminal
Sawmill Creek
Glacier Highway
Echo Cove
Cowee Creek
Antler Lake
Gilkey River
William Henry Bay
William Henry Bay Ferry Terminal
William Henry Creek
Endicott River
Beardslee River
Yang-Webster Peak
Chilkat R
Mount Young
Juneau Access Improvements
Coastal Management Districts
and
AMSA
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DRAWN BY: TEK
DATE: November 30, 2004
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Figure 3-12

ATTACHMENT A

TONGASS NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN
LAND MANAGEMENT PRESCRIPTIONS WITHIN THE
JUNEAU ACCESS IMPROVEMENTS PROJECT AREA

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Attachment A
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

WILDERNESS
Endicott River (Alternative 3 does not cross Wilderness land)
Goals
To manage all designated Wilderness to maintain an enduring wilderness resource while providing for public access and uses consistent with the Wilderness Act of 1964 and the Alaska National Interest Lands Conservation Act of 1980 (ANILCA).
To protect and perpetuate natural biophysical and ecological conditions and processes.
To provide a high degree of remoteness from the sights and sounds of humans, and opportunities for solitude and primitive recreation activities consistent with wilderness preservation.
Objectives
Manage recreation activities to meet the appropriate levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the adopted or existing Recreation Opportunity Spectrum, as appropriate.
Provide for public use of the Wilderness in accordance with ANILCA provisions for motorized and nonmotorized access and travel, including reasonable traditional subsistence use by rural residents.
Provide trails and primitive facilities that are in harmony with the natural environment and that promote primitive and semi-primitive recreation experiences.
Desired Condition
Extensive, unmodified natural environments. Ecological processes and natural conditions are not measurably affected by past or current human uses or activities.
Users have the opportunity to experience independence, closeness to nature, solitude and remoteness, and may pursue activities requiring self-reliance, challenge and risk.
Motorized and mechanized use is limited to the minimum needed for the administration of the wilderness, access to state and private lands, subsistence uses, and for public access and other uses specifically allowed by ANILCA.
Facilities
Construct no new permanent administrative facilities in Wilderness, except as consistent with ANILCA Sections 1303, 1306, 1310 and 1315.
Allow the continued operation and maintenance of permanent administrative facilities for which there is an ongoing need (ANILCA Section 1306 (b)).
Allow temporary facilities and crew barges for administration seasonally.
Allow administrative use of public cabins and shelters in wilderness. Scheduling should avoid conflict with public use.
Allow radio repeaters when necessary to provide essential communications for the health and safety of people involved in the administration of the area. Allow permanent radio repeaters currently located in Wilderness to remain.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent land use areas, may lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Emphasize suppression tactics resulting in the least possible disturbance or evidence of human presence.
As a general management practice, do not use management-ignited prescribed fire.
Fish
Plan for fisheries in Wilderness consistent with ANILCA Section 1315(b) that recognizes the goal of restoring and maintaining fish production in the State of Alaska to optimum sustained yield levels and in a manner, which adequately assures protection, preservation, enhancement, and rehabilitation of the wilderness resource.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

WILDERNESS
Endicott River (Alternative 3 does not cross Wilderness land)
Fish (continued)
Permit reasonable access, including the temporary use of motorized equipment, subject to reasonable regulation to maintain the wilderness character, water quality, and fish and wildlife values of the area.
Heritage Resources
Heritage Resources are available for recreational, scenic, scientific, educational, conservation, and historic uses, consistent with management of Wilderness.
Identify heritage properties that require stabilization or other protective measures.
Karst and Caves
Identify opportunities for interpretation of caves for public education and enjoyment. Interpretation will generally occur outside this Land Use Designation.
Manage caves as Class 1 (Sensitive) or Class 3 (Undeveloped) as described in the Karst and Cave Resources Forest-wide Standards & Guidelines.
Lands Special Use Administration (non-recreation): LAND122
Authorize only activities, which are consistent with the Wilderness Act or specifically allowed by ANILCA and are otherwise in compliance with management direction of this plan. (Consult FSM 2700, FSM 2320, and Regional Supplements.)
Analyze proposals on a case-by-case basis.
Permit only activities that will not adversely affect the purposes for which the Wilderness was established.
Integrate special use management with the ROS so that approved uses and activities conform to adopted ROS criteria.
Avoid authorizing uses that are not dependent upon Wilderness resources or uses for which reasonable alternative locations exist outside the Wilderness.
Recreation and Tourism
To the degree consistent with the overall purposes of designation, provide a spectrum of wildland recreation opportunities, which reflects the inherent ecological, cultural, historical, prehistorical, scientific and sociological conditions found within the Wilderness.
Manage for Primitive and Semi-primitive ROS settings, which emphasize existing opportunities, while recognizing exceptions due to ANILCA authorizations and development activities outside of wilderness. Provide for the appropriate activities throughout the Wilderness.
Protect the integrity of wilderness resources through integrated project planning and implementation within the Wilderness.
Scenery
Design activities to not be visually evident to the casual observer.
Apply Forest-wide Standards & Guidelines for the Retention Visual Quality Objective. This objective defines the maximum limit of allowable change to the visual character of the area; less visible evidence of activities such as those compatible with the Preservation Visual Quality Objective is acceptable.
Timber
Forested land is classified as unsuitable for timber production and withdrawn from the timber base. However, removal, or use of trees cut as part of some other authorized use within the Wilderness (for example, clearing for a fish ladder), is acceptable.
Trees may be cut for use in construction and maintenance of authorized structures when it is not feasible to obtain the necessary material from outside the Wilderness.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

WILDERNESS
Endicott River (Alternative 3 does not cross Wilderness land)
LAND USE DESIGNATION II
Berners Bay – Alternatives 2 through 2C
Goal
To manage these areas in a roadless state to retain their wildland character.
Objectives
Manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated by the Primitive and Semi-primitive Recreation Opportunity Spectrum classes.
Apply the LUD II direction from the 1979 Tongass Land Management Plan, which is summarized as follows: Prohibit commercial timber harvest. Permit salvage logging only to prevent significant damage to other resources. Allow personal use of wood for cabin logs, fuelwood, float logs, trolling poles, etc. Permit water and power developments if designed to be compatible with the primitive characteristics of the area. Permit roads only for access to authorized uses, for transportation needs identified by the state or for vital linkages (See the Standards & Guidelines in this prescription). Allow mineral development. Permit boats, aircraft, and snow machines, unless such uses become excessive. Permit fish and wildlife habitat improvements. Design structures to minimize the effects to permit fish and wildlife habitat improvements. Design structures to minimize the effects to recreation resources. Permit primitive recreational facilities. Major concentrated recreational facilities will generally be excluded. Salvage logging, personal use of wood, water and power development, fish and wildlife habitat improvement, and research facilities will be designed to be compatible with the primitive characteristics of the area.
Desired Condition
Areas in this Land Use Designation are characterized by extensive, generally unmodified natural environments, and retain their wildland character. Ecological processes and natural conditions are only minimally affected by past or current human uses or activities. Users have the opportunity to experience a high-to-moderate degree of independence, closeness to nature, solitude and remoteness and may pursue activities requiring self-reliance, challenge, and risk. Interactions between users are infrequent. Recreational facilities and structures are primitive.
Facilities
Permanent administrative facilities may be constructed in a manner, which blends with the natural character of the area.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent land use areas, may lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Emphasize suppression tactics resulting in the least possible disturbance or evidence of human presence.
Allow management-ignited prescribed fire for fuels management, insect and disease protection, and wildlife habitat improvement. As a general management practice, do not use prescribed natural fire, although natural ignitions may be used to perpetuate natural ecological processes.
Heritage Resources
Heritage Resources are available for recreational, scenic, scientific, educational, conservation, and historic uses, consistent with management of Wilderness.
Develop priorities and schedule management activities to implement heritage resource inventory, evaluation, protection, and interpretation.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

LAND USE DESIGNATION II
Berners Bay – Alternatives 2 through 2C
Heritage Resources (continued)
Identify heritage properties that require stabilization or other protective measures.
Lands Special Use Administration (non-recreation): LAND122
Water and power developments are permitted if they can be designed to retain the overall primitive characteristics of the allocated area.
Except as authorized by the Tongass Timber Reform Act (TTRA), permit only those activities, which are consistent with the wildland character of the area.
This Land Use Designation represents a Transportation and Utility System (TUS) "Avoidance Area." Transportation and utility sites or corridors may be located within 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.
Recreation and Tourism
Generally provide for semi-primitive ROS settings, recognizing that more developed settings may be present due to authorized activities, existing use patterns, and activities in adjacent Land Use Designations.
Primitive recreation facilities such as recreation cabins, boat docks, moorings and trails may be constructed and maintained.
Major concentrated recreation facilities such as development scale IV and V (those heavily modified or with a high degree of site modification) will generally be excluded.
If a transportation link is constructed through this Land Use Designation, recreation facilities needed to serve the traveling public, to reduce impacts of recreation use to adjacent wildlands, or to provide interpretation, may be constructed in proximity to the transportation link.
Major developments are generally not consistent with the objectives of the Land Use Designation. Development proposals require scrutiny of the magnitude and scope for Land Use Designation conformance. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
Minor developments may be compatible with the Land Use Designation objectives depending on the scope, purpose, and magnitude of the proposal. Each proposal will be evaluated on a case-by-case basis.
Scenery
Landscapes are managed to retain a natural-appearing visual condition, where activities are not visually evident to the casual observer.
Seek to mitigate visual impacts through location, siting, design, material, and coloring of structures.
Transportation
Existing roads are generally closed to highway vehicular use. Any proposed roads will use the following guidelines.
Allow vital Forest transportation system linkages including roads and transfer facilities. Vital Forest transportation system linkages refer to necessary additions to the permanent road network. Such linkages may be built through LUD II areas when either: 1) no other feasible routes exist to access adjacent Land Use Designations, or 2) when it can be demonstrated that the routing through the LUD II area is clearly environmentally preferable and site-specific mitigation measures can be designed to minimize the impact of the road on the surrounding LUD II area. A clear need to build such linkages must be demonstrated through a comparative analysis of feasible transportation alternatives through the NEPA process and must be approved by the alternatives through the NEPA process and must be approved by the Forest Supervisor, in consultation with the other Tongass Forest Supervisors.
Roads, other than vital transportation linkages, will not be built except to serve authorized activities such as mining, power and water developments, aquaculture developments, or transportation needs determined by the State of Alaska (also the Transportation and Utility Systems Land Use Designation).

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

MINERALS
Alternatives 2 through 2C
Alternative 3 – West of Sullivan Island
Goals
To encourage the prospecting, exploration, development, mining, and processing of locatable minerals in areas with the highest potential for minerals development. To insure that minerals are developed in an environmentally sensitive manner, and that other high-valued resources are considered when minerals developments occur.
Objectives
Apply this management prescription to the project areas of currently approved minerals plans of operation. Use the prescription as criteria in the planning and design of proposed mineral developments and plans of operation. During the period before approval of the plan of operation, the underlying (initial) LUD(s) continue to apply to the project area.
For minerals activities: authorize special uses which facilitate such activities; allow reasonable access, consistent with other resource values; apply the Modification Visual Quality Objective to foreground areas viewed from the Visual Priority Travel Routes and Use Areas (Appendix F); otherwise, the Maximum Modification objective applies; maintain present and continued soil productivity and water quality to the extent feasible. Apply Best Management Practices to meet State Water Quality Standards.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent land use areas, may lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Emphasize suppression tactics resulting in the least possible disturbance or evidence of human presence.
As a general management practice, do not use management-ignited prescribed fire.
Fish
Maintain the present and continued productivity of anadromous fish and other foodfish habitat to the maximum extent feasible. (Consult ANILCA Section 505 (a).)
Stress protection of fish habitat to prevent the need for mitigation. Mitigation, rehabilitation and monitoring of mining impacts to fish habitat or populations shall be identified in environmental documents and plans of operation.
Consider the need to maintain instream flows for fish during the development of minerals management activities.
Heritage Resources
Provide heritage resource assistance to all development proposals. Coordination includes participation and support for environmental analysis, inventory, evaluation, assessment, monitoring and protection of Heritage Resources during activities.
Lands Special Use Administration (non-recreation): LAND122
Generally, authorize special uses to facilitate mineral-related activities. Evaluate alternative facility designs and locations (including off-site) which consider: the amount of land disturbance; the effects on other resources; and, effects resulting from human use.
Generally, authorize non-mineral development related uses if they do not substantially conflict with present or anticipated mineral-related activities or the underlying (initial) Land Use Designation.
This Land Use Designation represents either a Transportation or Utility Systems (TUS) "Window" or "Avoidance Area" depending upon the TUS category of the initial Land Use Designation.
Recreation and Tourism
For any new investment in recreation facilities, consider the potential effects to those facilities by future minerals development.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

MINERALS
Alternatives 2 through 2C
Alternative 3 – West of Sullivan Island
Recreation and Tourism (continued)
Seek to maintain the recreation experience along existing trail corridors by locating road crossings and clearing so they are not directly adjacent to the trail when feasible.
Seek to minimize impacts to areas directly adjacent to developed recreation facilities (such as cabins and campgrounds).
Where effects on existing maintained recreation facilities and trails cannot be avoided due to mineral development, analyze alternatives for reasonable substitute facilities.
Major and minor developments may be compatible with the LUD objectives depending on the scope, purpose, and magnitude of the proposal. Proposals will be evaluated on a case-by-case basis. (See Recreation and Tourism Forest-wide Standards & Guidelines.)
Scenery
Apply Forest-wide Standards & Guidelines for Modification in the foreground distance as seen from Visual Priority Travel Routes and Use Areas.
Soil and Water
For use in designing mineral management activities, delineate the location of important soil and water protection areas on project maps to insure their recognition, proper consideration, and protection on the project area.
Manage watersheds for beneficial uses consistent with State Water Quality Standards. Apply Best Management Practices to control nonpoint sources of water pollution.
Design mineral management activities to maintain the present and continued productivity of soil and water resources to the extent feasible.
Stress protection of soil and water resources to prevent the need for mitigation. Identify mitigation, rehabilitation, and monitoring of mining impacts to soil and water resources in environmental documents and plans of operation.
Transportation
Authorize reasonable access, consistent with other resource values, to allow for the exploration and development of mineral resources.
Any transportation development in association with minerals extraction will be in accordance with an approved Plan of operations, and subsequent annual work plans.
Roads in this Land Use Designation may be closed to public use.
Apply Best Management Practices in the development and maintenance of transportation facilities.
Wildlife
Prior to the development of minerals management activities, establish or use existing baseline wildlife inventories.
Maintain the present and continued productivity of wildlife habitat to the extent feasible.
Address protection of wildlife habitat and the need for mitigation. Identify any need for mitigation, rehabilitation and monitoring of mining impacts to wildlife habitat or populations in environmental documents and Plans of Operation.
Coordinate road management with the needs of wildlife.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

MODIFIED LANDSCAPE
Alternatives 2 through 2C
Alternative 3
Goals
To provide a sustained yield of timber and a mix of resource activities while minimizing the visibility of developments in the foreground distance zone.
To recognize the scenic values of suitable timber lands viewed from identified popular roads, trails, marine travel routes, recreation sites, bays, and anchorages, and to modify timber harvest practices accordingly.
To maintain and promote industrial wood production from suitable timber lands, providing a continuous supply of wood products to meet society's needs.
To seek to provide a supply of timber from the Tongass National Forest, which meets the annual, and planning-cycle market demand, consistent with the standards and guidelines of this Land Use Designation.
Objectives
Within this Land Use Designation, apply the Visual Quality Objectives of Partial Retention, in the foreground distance zone, and Modification, in the middle ground and background distance zones, as seen from the Visual Priority Travel Routes and Use Areas (see Appendix F). Apply the Maximum Modification VQO to all other areas.
Suitable forestlands are available for timber harvest. Utilize appropriate silvicultural systems consistent with the adopted VQOs. Other timber management considerations include: seek to reduce clear cutting when other methods will meet land management objectives; identify opportunities for diversifying the wood products industry (such as special forest products, and value-added local production); use forest health management to protect resource values; improve timber growth and productivity on commercial forest lands; plan, inventory, prepare, offer, sell, and administer timber sales and permits to ensure the orderly development of timber production; emphasize the overall reduction of costs, increase of revenues, and improvement of public service within the timber program.
Provide a spectrum of recreation and tourism opportunities consistent with the capabilities of this Land Use Designation. Semi-primitive to roaded experiences may be offered. Avoid changes to semi-primitive non-motorized settings when feasible.
Design roads and associated rock quarries to meet the applicable Visual Quality Objective.
Desired Condition
In areas managed under the Modified Landscape Land Use Designation, forest visitors, recreationists, and others using popular travel routes and use areas will view a somewhat modified landscape.
Management activities in the visual foreground will be subordinate to the characteristic landscape, but may dominate the landscape in the middle and backgrounds. Within the foreground, timber harvest units are typically small and affect only a small percentage of the seen area at any one point in time.
Roads, facilities, and other structures are also subordinate to the foreground landscape. Recreation opportunities associated with natural-appearing to modified settings are available. A variety of successional stages provide a range of wildlife habitat conditions. A yield of timber is produced which contributes to Forest-wide sustained yield.
Facilities
Locate and construct facilities for administrative use that meet the Visual Quality Objective.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent land use areas, may lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

MODIFIED LANDSCAPE
Alternatives 2 through 2C
Alternative 3
Heritage Resources
Provide heritage resource assistance to all development proposals. Coordination includes participation and support for environmental analysis, inventory, evaluation, assessment, monitoring and protection of Heritage Resources during activities.
Lands Special Use Administration (non-recreation): LAND122
Authorize only those development activities compatible with LUD objectives. Avoid issuing, or limit the duration of permits for uses which require natural surroundings.
Permit only activities which can be designed to meet the Visual Quality Objectives for this LUD.
This Land Use Designation represents a Transportation and Utility Systems (TUS) "Window" and provides opportunities for the future designation and location of transportation and utility sites or corridors.
Provide adequate landline marking for USFS contractors.
Minerals and Geology
Forest lands within this Land Use Designation are open to mineral entry.
Permit reasonable access to mining claims in accordance with the provisions of an approved Plan of operations.
Apply Transportation Forest-wide Standards & Guidelines to the location and construction of mining roads.
Recreation and Tourism
Provide a spectrum of outdoor recreation and tourism opportunities consistent with the objectives of the Land Use Designation.
Manage for the existing recreation settings and opportunities until approved activities and practices change the ROS setting(s). Manage recreation and tourism use in a manner that is compatible with the timber harvest objectives.
In locations where approved activities change the recreation setting(s), manage the new setting(s) with the appropriate ROS guidelines (generally Roaded Modified).
Seek to maintain the recreation opportunity along existing trail corridors by minimizing road crossings and clearing directly adjacent to the trail.
Seek to minimize impacts to areas directly adjacent to developed recreation and tourism facilities (such as cabins and campgrounds) through scheduling and location of project activities.
In those areas inventoried as Recreation places, seek to maintain the existing ROS setting. When approved activities nearby may result in a change to the ROS setting, minimize the impacts so they maintain a Roaded Natural or more natural ROS setting.
Major and minor developments may be compatible with the LUD objectives depending on the scope, purpose, and magnitude of the proposal.
Proposals will be evaluated on a case-by-case basis. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
Scenery
In foreground settings, design management activities to be subordinate to the characteristic landscape. Management activities may dominate areas seen in the middle ground and background distance. In all settings, activities should utilize existing form, line, color, and texture found in the characteristic landscape.
Apply the Partial Retention Visual Quality Objective (VQO) in the foreground distance zone, and the Modification VQO in the middle ground and background distance zones, as seen from Visual Priority Travel Routes and Use Areas (see Appendix F). In areas of this allocation not seen from the Visual Priority Travel Routes and Use Areas, apply the Maximum Modification VQO. These objectives define the maximum limit of allowable change to visual character of the area; less visible evidence of activities is acceptable.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

MODIFIED LANDSCAPE
Alternatives 2 through 2C
Alternative 3
Scenery (continued)
Exceptions for small areas of non-conforming developments, such as recreation sites, transportation developments, log transfer facilities and mining development, may be considered on a case-by-case basis.
Apply Best Management Practices (BMPs) to all land-disturbing activities as a process to protect the beneficial uses of water from non-point sources of pollution. Also consult FSM 2530, Facilities and Transportation Forest-wide Standards & Guidelines, U.S. Army Corps of Engineers Regulations (33 CFR 323.4) and the Clean Water Act.
Timber
Suitable forested land is available for harvest and is included in the Allowable Sale Quantity calculation. Tentatively suitable lands assigned to no harvest by standard or guideline are unsuitable and not included in the Allowable Sale Quantity calculation.
Transportation
Develop and manage cost-effective transportation systems, which integrate resource requirements consistent with Land Use Designation direction. To meet the Visual Quality Objectives, give special consideration to minimizing apparent landform modification (as seen from sensitive travel routes) during road and Log Transfer Facility location, design, and construction.
Perform integrated logging system and transportation system analysis to determine the least-cost facility (considering cost of construction, maintenance, and hauling) and design standards necessary to meet Land Use Designation objectives.
Give special emphasis to maintaining fish and wildlife habitat values, especially during road location and development of road management objectives.
If the need to restrict access is identified during project interdisciplinary review, roads may be closed, either seasonally or yearlong. (See Transportation Forest-wide Standards & Guidelines.)
Provide recreation access where appropriate.
Seek to avoid road crossings on existing trails or locating roads parallel to trails. Should no other feasible alternative exist, minimize site disturbance visible from the trail. Locate rock source developments away from trails to the extent possible, while meeting the objectives of this Land Use Designation.
Wildlife
Use existing inventories and evaluate the need for further project-specific inventories of wildlife habitat conditions during project analysis.
Select Management Indicator Species (MIS) appropriate to the project area for project analysis. (See Wildlife Forest-wide Standards & Guidelines.)
Consider wildlife habitat needs during project planning and implementation.
Use the habitat needs of MIS to evaluate opportunities for and consequences on wildlife.
In project planning consider opportunities to allow for the elevational migration of wildlife.
Coordinate road management with the needs of wildlife.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

OLD-GROWTH RESERVE
Alternatives 2 through 2C
Goals
Maintain areas of old-growth forests and their associated natural ecological processes to provide habitat for old-growth associated resources.
Manage early seral conifer stands to achieve old-growth forest characteristic structure and composition based upon site capability. Use old-growth definitions as outlined in Ecological Definitions for Old-growth Forest Types in Southeast Alaska (R10-TP-28).
Objectives
Provide old-growth forest habitats, in combination with other Land Use Designations, to maintain viable populations of native and desired non-native fish and wildlife species and subspecies that may be closely associated with old-growth forests.
Contribute to the habitat capability of fish and wildlife resources to support sustainable human subsistence and recreational uses.
Maintain components of flora and fauna biodiversity and ecological processes associated with old-growth forests.
Allow existing natural or previously-harvested early seral conifer stands to evolve naturally to old-growth forest habitats, or apply silvicultural treatments to accelerate forest succession to achieve old-growth forest structural features. Consider practices such as thinning, release and weeding, pruning, and fertilization to promote accelerated development of old-growth characteristics.
To the extent feasible, limit roads, facilities, and permitted uses to those compatible with old-growth forest habitat management objectives.
Desired Condition
All forested areas within this Land Use Designation have attained old-growth forest characteristics. A diversity of old-growth habitat types and associated species and subspecies and ecological processes are represented.
Facilities
Allow administrative and recreational facilities when compatible with Land Use Designation objectives.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent land use areas, may lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Suppression tactics are limited only by the standards for this Land Use Designation, such as soil and watershed concerns.
Allow management-ignited prescribed fire where its use maintains old-growth characteristics
Do not use prescribed natural fire.
Fish
Emphasize the protection and restoration of fish habitat, fish production and aquatic biodiversity. Enhancement projects that may change the natural distribution of fish species within a watershed are consistent with Land Use Designation objectives.
Forest Health
Insect and disease management measures consistent with this Land Use Designation may be implemented to protect the old-growth forest component and adjacent resources.
Survey and inventory visible outbreaks.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

OLD-GROWTH RESERVE
Alternatives 2 through 2C
Heritage Resources
Develop priorities and schedule management activities to implement heritage resource inventory, evaluation, protection, and interpretation.
Lands Special Use Administration (non-recreation): LAND122
Permit only improvements (such as tent platforms, fish weirs, minor waterlines, minor powerlines, etc.) that are compatible with Land Use Designation objectives.
This Land Use Designation represents a Transportation and Utility Systems (TUS) "Avoidance Area." Transportation and utility sites or corridors may be located within this Land Use Designation only after an analysis of potential TUS corridor opportunities has been completed and no feasible alternatives exist outside this Land Use Designation.
Mining
Forest lands within this Land Use Designation are open to mineral entry.
Apply Transportation Forest-wide Standards & Guidelines to the location and construction of mining roads.
Recreation and Tourism
Manage recreation and tourism use to meet Land Use Designation objectives for fish and wildlife resources and habitat.
Design and locate recreation-related structures to be compatible with habitat needs of old-growth associated species.
Manage Off-Highway Vehicle use to prevent degradation of habitat or adverse disturbance to fish and wildlife populations.
Generally provide for semi-primitive ROS settings, recognizing that more developed settings may be present due to authorized activities, existing use patterns, and activities in adjacent Land Use Designations.
Minor recreation and tourism developments may be compatible with the Land Use Designation objectives depending on the scope, purpose, and magnitude of the proposal. Proposals will be evaluated on a case-by-case basis. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
Scenery
Apply Forest-wide Standards & Guidelines for the Retention Visual Quality Objective. Design activities to not be visually evident to the casual observer.
Exceptions for small areas of non-conforming developments, such as recreational developments, transportation developments, Log Transfer Facilities, and mining development, may be considered on a case-by-case basis. Use designs and materials that are compatible with forms, colors, and textures found in the characteristic landscape.
Timber
Forest land is classified as unsuitable for timber production.
Transportation
New road construction is generally inconsistent with Old-growth Habitat Land Use Designation objectives, but new roads may be constructed if no feasible alternative is available.
Perform integrated logging system and transportation analysis (including Access and Travel management planning) to determine if other feasible routes avoiding this Land Use Designation exist during the project environmental analysis process. If no feasible alternative routes exist, locate, design, and construct roads in a manner, which minimizes adverse impact, to fish and wildlife resources to the extent feasible, and will be compatible with Land Use Designation objectives. Keep clearing widths to the minimum feasible. Consider enforcement costs of road closures in the integrated logging system and transportation analysis.
If reserve design criteria are no longer met, adjust reserve locations to meet reserve size, spacing and composition criteria if lands are available (see Wildlife Planning, section B below, and Appendix K).

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

OLD-GROWTH RESERVE
Alternatives 2 through 2C
Transportation (continued)
For timber salvage, use logging systems that do not require additional permanent road construction.
Manage existing roads to meet Land Use Designation objectives.
Road management objectives may include temporary or permanent road closures and may be specific to individual road specification types (e.g., keep mainlines open, close arterial and spur).
Road maintenance and reconstruction may be permitted if consistent with road management objectives.
Wildlife
Maintain contiguous blocks of old-growth forest habitat in a forest-wide system of old-growth reserves to support viable and well-distributed populations of old-growth associated species and subspecies.
A system of large, medium and small old-growth habitat reserves has been identified and mapped in the forest plan as part of a forest-wide old-growth habitat reserve strategy. The mapped large and medium reserves generally achieve reserve strategy objectives.
REMOTE RECREATION
Alternatives 2 through 2C (East [inland] of road corridor and along proposed alignment; proposed corridor will not cross any remote recreation land)
Goals
To provide extensive, unmodified natural settings for primitive types of recreation and tourism.
To provide opportunities for independence, closeness to nature, and self-reliance in environments offering a high degree of challenge and risk.
To minimize the effects of human uses, including subsistence use, so that there is no permanent or long-lasting evidence.
Objectives
Manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the Primitive Recreation Opportunity Spectrum class.
Provide trails and primitive facilities that are in harmony with the natural environment and that promote primitive recreation experiences.
Apply the Retention Visual Quality Objective.
Desired Condition
Areas in the Remote Recreation Land Use Designation are characterized by extensive, unmodified natural environments. Ecological processes and natural conditions are not noticeably affected by past or current human uses or activities. Users have the opportunity to experience independence, closeness to nature, solitude and remoteness, and may pursue activities requiring self-reliance in an environment that offers a high degree of challenge and risk. Interactions between users are infrequent.
Motorized access is limited to traditional means: boats, aircraft and snow machines. Facilities and structures are minimal, and rustic in appearance.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent Land Use Designations may lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Emphasize suppression tactics that result in the least possible disturbance or evidence of human presence.
Keep use of mechanized equipment to a minimum.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

REMOTE RECREATION
Alternatives 2 through 2C (East [inland] of road corridor and along proposed alignment; proposed corridor will not cross any remote recreation land)
Fire (continued)
Suppression tactics will avoid human/bear conflicts and existing policy will be emphasized to leave no trash or any other kinds of bear attractants in the area.
Lands Special Use Administration (non-recreation): LAND122
This Land Use Designation represents a Transportation and Utility System (TUS) "Avoidance Area." Transportation and utility sites and corridors may be located within 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.
Recreation and Tourism
Major developments are generally not consistent with the objectives of this Land Use Designation. Development proposals require scrutiny of the magnitude and scope for Land Use Designation conformance. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
Manage for Primitive recreation settings, recognizing other Recreation Manage for Primitive recreation settings, recognizing other Recreation Opportunity Settings (ROS) may be present due to authorized activities, existing use patterns, and activities in adjacent Land Use Designations. Strive to minimize these changes from the Primitive ROS objective. Manage recreation and tourism use to meet the levels of social encounters, on-site development, and visitor impacts indicated by the ROS charts in the Recreation and Tourism Forest-wide & Guidelines.
Scenery
Provide a visual condition in which activities are not visually evident to the casual observer.
Transportation
New roads are not permitted except to access valid mining claims (or as excepted under Lands).
Existing roads in this Land Use Designation are closed to motorized uses subject to ANILCA provisions.
Use of snow machines, motorboats, and aircraft is permitted.
Wildlife
Wildlife habitats are generally subject to ecological changes only.
Indigenous species are maintained.
Habitat improvement projects are acceptable if designed to emulate natural conditions and appearance.
SCENIC VIEWSHED
Alternatives through 2C, 3, 4B, and 4D
Goals
To provide a sustained yield of timber and a mix of resource activities while minimizing the visibility of developments as seen from Visual Priority Travel Routes and Use Areas.
To recognize the scenic values of suitable timber lands viewed from selected popular roads, trails, water travel routes, recreation sites, bays and anchorages, and to modify timber harvest practices accordingly.
To seek to provide a supply of timber from the Tongass National Forest that meets the annual and planning-cycle market demand, consistent with the standards and guidelines of this Land Use Designation.
Objectives
Within this Land Use Designation, apply the Visual Quality Objectives (VQOs) of Retention in the foreground distance zone, and Partial Retention in the middle ground and background distance zones, as seen from the Visual Priority Travel Routes and Use Areas (see Appendix F). Apply the Maximum Modification VQO to all other areas.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

SCENIC VIEWSHED
Alternatives 2 through 2C, 3, 4B, and 4D
Objectives (continued)
Suitable forest lands are available for timber harvest. Utilize appropriate silvicultural systems consistent with the adopted VQO's. Other timber management considerations include: seek to reduce clear cutting when other methods will meet land management objectives; identify opportunities for diversifying the wood products industry (such as special forest products, and value-added local production); use forest health management to protect resource values; improve timber growth and productivity on commercial forest lands; plan, inventory, prepare, offer, sell, and administer timber sales and permits to ensure the orderly development of timber production; emphasize the overall reduction of costs, increase of revenues, and improvement of public service within the timber program.
Perform viewshed analysis in conjunction with project development to provide direction for retaining or creating a scenically-attractive landscape over time, and for rehabilitation of areas overly modified in the past.
Provide a spectrum of recreation and tourism opportunities consistent with the capabilities of this Land Use Designation. Semi-primitive to roaded experiences may be offered.
Design roads and trails to be compatible with the characteristic landscape.
Extend rotations, as necessary, to meet the Visual Quality Objectives.
Desired Condition
In areas managed under the Scenic Viewshed Land Use Designation, forest visitors, recreationists, and others using identified popular travel routes and use areas will view a natural-appearing landscape. Management activities in the foreground will not be evident to the casual observer. Activities in the middle ground and background will be subordinate to the characteristic landscape. Areas topographically screened from Visual Priority Travel Routes and Use Areas may be heavily modified. Within these viewsheds, timber harvest units are typically small and affect only a small percentage of the seen area. At any given point in time, roads, facilities, and other structures are either not visually evident or are subordinate to the landscape. A variety of successional stages providing wildlife habitat occur, although late successional stages predominate. Recreation and tourism opportunities in a range of settings are available. In the areas managed for Retention or Partial Retention VQOs, timber yields will generally be obtained through the use of small openings or uneven-aged systems. A yield of timber is produced which contributes to Forest-wide sustained yield.
Facilities
Meet the Visual Quality Objectives for this Land Use Designation when siting and constructing facilities for administrative use.
Retention: Structures and activities should not be visually evident to the casual observer from sensitive viewpoints.
Partial Retention: Structures and activities should be subordinate to the landscape character of the area.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent Land Use Designations may lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Karst and Caves
Identify opportunities for interpretation of caves for public education and enjoyment. Interpretation may occur inside or outside of this Land Use Designation.
Lands Special Use Administration (non-recreation): LAND122
Allow construction of structures only when Visual Quality Objectives can be achieved.
Permit only structures that will not be evident to casual observers when viewed in the foreground distance from Visual Priority Travel Routes and Use Areas. In the middle to background distance, design structures to be subordinate to the characteristic landscape.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

SCENIC VIEWSHED
Alternatives 2 through 2C, 3, 4B, and 4D
Lands Special Use Administration (non-recreation): LAND122 (continued)
Specify that materials and fabrication techniques for all new facilities be compatible with form, color and texture found in the immediately surrounding landscape.
This Land Use Designation represents a Transportation and Utility Systems (TUS) "Window" and provides opportunities for the future designation and location of transportation and utility sites or corridors.
Minerals and Geology
Forest lands within this Land Use Designation are open to mineral entry.
Recreation and Tourism
Provide a spectrum of recreation and tourism opportunities consistent with the objectives of this Land Use Designation.
Where possible, management activities should avoid change to inventoried Recreation places unless analysis indicates a need to provide a different recreation opportunity.
In locations where approved activities occur, the recreation setting may change to the Semi-primitive Motorized, Roaded Natural, and Roaded Modified ROS classes.
Seek to maintain recreation opportunities along existing trail corridors by minimizing road crossings and clearing directly adjacent to the trail.
Seek to minimize impacts to areas directly adjacent to developed recreation and tourism facilities (such as cabins and campgrounds) through scheduling and location of timber harvest activities.
In those areas identified as inventoried Recreation places, seek to maintain the existing ROS setting. When scheduled activities nearby may result in a change in the ROS setting, minimize the impacts so they maintain a Roaded Natural, or more natural setting.
Major and minor developments are compatible with this Land Use Designation, and applicants are encouraged to examine these areas first. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
Scenery
Manage areas to maintain scenic quality as seen from Visual Priority Travel Routes and Use Areas.
Soil and Water
Delineate the location of soil and water protection areas on appropriate project maps to insure their recognition, proper consideration, and protection of the sale area.
Manage non-designated domestic water use watersheds for multiple use, while providing water suitable for human consumption under of State Water Quality Standards and water supply regulations.
Apply Best Management Practices (BMPs) to all land-disturbing activities as a process to protect the beneficial uses of water from non-point sources of pollution. (Appendix C of this plan includes a summary of Best Management Practices that are found in Chapter 10 of the Soil and Water Conservation Handbook, 2502.22). Also consult FSM 2530, Facilities and Transportation Forest-wide Standards & Guidelines, U.S. Army Corps of Engineers Regulations (33 CFR 323.4) and the Clean Water Act.
Transportation
Develop and manage cost-effective transportation systems that integrate resource requirements consistent with Land Use Designation direction.
To meet the Visual Quality Objectives, give special consideration to minimizing apparent landform modification (as seen from sensitive travel routes) during road and log transfer facility location, design, and construction.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

SCENIC VIEWSHED
Alternatives 2 through 2C, 3, 4B, and 4D
Transportation (continued)
Perform integrated logging system and transportation system analysis to determine the least cost facility (considering cost of construction, maintenance, and hauling) and design standards necessary to meet Land Use Designation objectives.
Give special emphasis to maintaining fish and wildlife habitat values, especially during road location and development of road management objectives.
If the need to restrict access is identified during project interdisciplinary review, roads may be closed, either seasonally or yearlong. (See Transportation Forest-wide Standards & Guidelines.)
Provide recreational access where appropriate.
Seek to avoid road crossings on existing trails or locating roads parallel to trails. Should no other feasible alternative exist, minimize site disturbance visible from the trail. Locate rock source developments away from trails to the extent possible, while meeting the objectives of this Land Use Designation.
Wildlife
Use existing inventories and evaluate the need for further project-specific inventories of wildlife habitat conditions during project analysis.
Select Management Indicator Species (MIS) appropriate to the project area for project analysis. (See Wildlife Forest-wide Standards & Guidelines.)
Coordinate all activities with consideration for the needs of wildlife, within the overall objectives of this Land Use Designation.
Use the habitat needs of MIS to evaluate opportunities for, and consequences on, wildlife.
In project planning, consider opportunities to allow for the elevational migration of wildlife.
Consider silvicultural techniques that establish and prolong understory forb and shrub production in important habitat areas. Such techniques can include prescribed burning, precommercial thinning, canopy gaps, and uneven-aged management.
Coordinate road management with the needs of wildlife.
Design and implement wildlife habitat improvement projects to meet the Visual Quality Objectives.
SEMI-REMOTE RECREATION
Alternatives through 2C, 3, 4B, and 4D
Goals
To provide predominantly natural or natural-appearing settings for semi-primitive types of recreation and tourism and for occasional enclaves of concentrated recreation and tourism facilities.
To provide opportunities for a moderate degree of independence, closeness to nature, and self-reliance in environments requiring challenging motorized or non-motorized forms of transportation.
Objectives
Manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the Semi-primitive Recreation Opportunity Spectrum classes. Enclaves of concentrated recreation and tourism developments within the Land Use Designation or management activities in adjacent Land Use Designations may cause the ROS setting to become Rural.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

SEMI-REMOTE RECREATION
Alternatives 2 through 2C, 3, 4B, and 4D
Objectives (continued)
Determine on a case-by-case basis whether roads, trails, and other areas should be closed to motorized recreation activities. If so, incorporate into Off-Highway Vehicle (OHV) plans. If not, the use of boats, aircraft, and snow machines for traditional activities is allowed.
Permit small-scale, rustic recreation and tourism facilities, and occasional enclaves of concentrated recreation and tourism facilities.
Apply the Partial retention Visual Quality Objective to any developments, facilities, or structures.
Fish enhancement and wildlife habitat improvement may occur.
Desired Condition
Areas in the Semi-remote Recreation Land Use Designation are characterized by generally unmodified natural environments. Ecological processes and natural conditions are only minimally affected by past or current human uses or activities. Users have the opportunity to experience a moderate degree of independence, closeness to nature, solitude and remoteness, with some areas offering motorized opportunities and others non-motorized opportunities (except for the traditional uses of boats, aircraft, and snow machines). Interactions between users are infrequent. Facilities and structures may be minimal or occasionally may be larger in scale, but will be rustic in appearance, or in harmony with the natural setting.
Facilities
Design and locate administrative and non-recreation structures to reduce adverse effects on recreation and tourism opportunities.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent Land Use Designations, May lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Emphasize suppression tactics that result in the least possible disturbance or evidence of human presence.
Heritage Resources
Heritage Resources are available for recreational, scenic, scientific, educational, conservation, and historic uses.
Karst and Caves
Identify opportunities for interpretation of caves for public education and
enjoyment. Interpretation may occur inside or outside of this Land Use Designation.
Lands Special Use Administration (non-recreation): LAND122
Permit only facilities and uses consistent with Semi-remote Recreation Land Use Designation objectives.
This Land Use Designation represents a Transportation and Utility System (TUS) "Window" and provides opportunities for the future designation and location of Transportation and Utility sites.
Minerals and Geology
Forest lands within this Land Use Designation are open to mineral exploration and development.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

SEMI-REMOTE RECREATION
Alternatives 2 through 2C, 3, 4B, and 4D
Recreation and Tourism
Generally, manage for Semi-primitive Recreation Opportunity Spectrum (ROS) settings. Enclaves of concentrated recreation and tourism developments within the Land Use Designation or management activities in adjacent Land Use Designations may cause the ROS setting to become Roaded Natural, Roaded Modified, or Rural.
Determine on a case-by-case basis whether roads, trails, and other areas should be closed to motorized recreation activities; incorporate determinations in Off-Highway Vehicle (OHV) Plans.
Manage roads for Traffic Service Level D except when level C roads provide access to or through the Land Use Designation. Occasional enclaves of concentrated recreation and tourism developments could warrant higher service levels in those areas.
Where roads, trails, and other areas are closed to motorized recreation activities or vehicles, provide Semi-primitive Non-motorized recreation opportunities.
Permit use of snow machines, motorboats, and aircraft for traditional activities.
Permit small scale, rustic recreation and tourism facilities such as recreation cabins, shelters, docks, and enclaves of concentrated recreation and tourism development.
During all construction activity: minimize site modification; minimize vegetation clearing adjacent to the site; use colors found in the natural environment.
Major and minor developments are compatible with this Land Use Designation. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
Scenery
Design resource activities to remain visually subordinate to the characteristic landscape. Activities may repeat form, line, color or texture common to the landscape. New form, line, color, or texture will be subordinate to the characteristic landscape.
Timber
Forested land is classified as unsuitable for timber production.
The following types of uses may be authorized when they meet Land Use Designation objectives. Removal or use of trees for improvement of recreation and tourism opportunities, such as clearing for vistas, campsites, or trails.
Removal, or use of trees cut as a part of some other authorized use within this Land Use Designation. For example, clearing for a fish ladder or road.
Trees may be cut for use in construction and maintenance of authorized structures when it is not feasible to obtain the necessary material from outside this Land Use Designation.
Transportation
Where Semi-primitive Motorized recreation opportunities are emphasized, existing low standard roads are generally managed for use by high clearance or Off-Highway Vehicles, snowmobiles or motorcycles subject to an approved Off-Highway Vehicle Management Plan. Generally, new roads are not constructed in this area, except to link existing roads or provide access to adjacent Land Use Designations.
Limit the design standards of Forest Development Roads to those commensurate with the intended use.
Maintain as necessary to provide passage of planned traffic.
Locate and design new roads to consider semi-primitive recreation opportunities in this Land Use Designation.
Where Semi-primitive Non-motorized recreation opportunities are emphasized, provide foot or cross-country ski trails. Roads and trails may be closed or seasonally restricted. Close or obliterate existing roads except for transportation system links.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

TRANSPORTATION AND UTILITY SYSTEM
Potential Power Transmission Corridor
Alternatives 2 through 2C, 3, 4B, and 4D
Goals
To provide for, and/or facilitate the development of, existing and future major public Transportation and Utility Systems, including those identified by the State of Alaska and the Alaska Energy Authority.
Objectives
Apply this management prescription to existing major systems corridors. Use the prescription as criteria in the planning and design of future system corridors. During the period before actual construction of new systems occurs, the management prescription(s) of the (initial) Land Use Designation(s) underlying the corridors will remain applicable. Upon initiation of construction, and during system operation, this management prescription will apply.
For application of this Land Use Designation, "major systems" are defined as state and Federal highways, railroads, powerlines 66 kV or greater, and pipelines 10 inches or greater in diameter.
Allow special uses and facilities not related to transportation or utility systems, if compatible with present or future systems.
If the development of systems changes the Recreation Opportunity System setting, manage recreation and tourism opportunities in accordance with the new setting. Consider the development of recreation and tourism facilities in conjunction with the planning of state or Federal highways or reservoirs.
Following construction of systems, lands in the Right-of-Way, if permanently cleared, will be considered unsuitable for timber production.
Transportation and utility corridors, to the extent feasible, should follow the same route.
Transportation and Utility Systems may dominate the seen foreground area, yet are designed with consideration for the existing form, line, color, and texture of the characteristic landscape.
Minimize and/or mitigate adverse effects to wildlife habitat and populations to the extent feasible.
Maintain the present and continued productivity of anadromous fish and other fish habitat to the extent feasible.
Desired Condition
Transportation and Utility Systems have been constructed in an efficient and economic manner, and have been designed to be compatible with the adjacent Land Use Designation to the maximum extent feasible. The minimum land area consistent with an efficient, safe facility is used for their development. Effects on other resources have been recognized and resource protection has been provided. Other resources uses and activities in the area do not conflict with utility operations. State and Federal highways and reservoirs offer new developed recreation opportunities, as appropriate.
Facilities
Allow administrative facilities that are compatible with present and/or future site uses.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent Land Use Designations, May lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Fish
Design Transportation and Utility System activities to maintain the present and continued productivity of anadromous fish and other fish habitat to the extent feasible.
Stress protection of fish habitat to prevent the need for mitigation. Mitigation, rehabilitation, and monitoring of impacts to fish habitat or populations shall be identified in environmental documents.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

TRANSPORTATION AND UTILITY SYSTEM
Potential Power Transmission Corridor
Alternatives 2 through 2C, 3, 4B, and 4D
Heritage Resources
Develop priorities and schedule management activities to implement heritage resource inventory, evaluation, protection, and interpretation within this Land Use Designation.
Lands Special Use Administration (non-recreation): LAND122
Manage Special Use Authorizations related to Transportation and Utility Systems according to the following standards and guidelines.
Coordinate special use proposals with state and Federal Agencies, such as the Federal Energy Regulatory Commission (FERC), the Federal Highway Administration, or Alaska Department of Transportation. Analyze new proposals on a case-by-case basis, using an interdisciplinary process. Obtain input from local communities and other affected publics.
Use designated corridors for multiple compatible Transportation and Utility Systems to the extent feasible.
Require proponents of hydroelectric power projects to obtain a license or exemption from the FERC as a condition of project approval by the USFS.
Leave transportation and utility corridors open to public use unless special considerations, such as public safety or resource damage, warrant closures or restrictions.
Bury or submerge powerlines where feasible.
Minerals and Geology
Coordinate with claimant to ensure the location of roads, transmission lines, and pipelines across mining claims do not interfere with mining activities, markers, or improvements.
Depending on the underlying Land Use Designation, sites and corridors may or may not be open to mineral entry.
Recreation and Tourism
Prior to the construction of a Transportation or Utility System (TUS), provide recreation settings and opportunities consistent with the initial Land Use Designation.
For any new investment in recreation facilities, consider the potential effects to those facilities by TUS development.
When TUS's are developed, consider construction of recreation facilities in conjunction with the planning of state and Federal highways and reservoirs.
Manage the changed recreation setting with appropriate ROS guidelines.
If necessary, discourage or restrict recreation use to prevent damage to facilities or to provide for public safety.
Manage recreation use in a manner compatible with adjacent Land Use Designations.
Major and minor developments may be compatible with the LUD objectives depending on the scope, purpose, and magnitude of the proposal and the underlying Land Use Designation. Proposals will be evaluated on a case-by-case basis.
Scenery
The landscape may be dominated by activities associated with Transportation and Utility Systems. Although TUS developments may dominate the seen area, they are designed with consideration for existing form, line, color, and texture found in the characteristic landscape.
Apply Forest-wide Standards & Guidelines for the Modification Visual Quality Objective. Perform viewshed analysis in conjunction with project development to provide direction for retaining or creating a visually attractive landscape over time.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

TRANSPORTATION AND UTILITY SYSTEM
Potential Power Transmission Corridor
Alternatives 2 through 2C, 3, 4B, and 4D
Scenery (continued)
Work with topographic and vegetative features to screen the development when seen from Visual Priority Travel Routes and Use Areas.
Consider the following during the design phase of routes which are, or are seen from, Visual Priority Travel Routes and Use Areas: vegetation of slopes seen from the road; providing "planting pockets" or terraces or slopes, where needed; maintaining landforms through road location and design; breaking up the straight line effect of linear corridors by considering special treatment of vegetation on clearing slopes or application of other design techniques and principles; requiring roadside clean-up on all roads receiving general public use or expected to have such future use.
Timber
Prior to the construction of transportation or utility corridors, base timber suitability on the underlying (initial) Land Use Designation. Following construction, if the rights-of-way are permanently cleared, lands in the Right-of-Way are considered unsuitable for timber production.
For areas where the initial Land Use Designation authorizes timber harvest, suitable forested land is available for harvest and is included in the Allowable Sale Quantity calculation.
For initial Land Use Designations that do not allow timber harvest, forested land is classified as unsuitable for timber production and withdrawn from the timber base. Any timber harvest associated with facility development is nonchargeable to the Allowable Sale Quantity.
Following the construction of a Transportation and Utility System in an area with initial direction authorizing timber harvest, the Right-of-Way is considered unsuitable for timber production unless the utility is buried in the ground or is suspended above the maximum height of the trees.
Personal use wood cutting activities are compatible with this Land Use Designation provided that management objectives are met.
Transportation
Locate and design Transportation and Utility Systems using opportunities to be compatible with the theme of the underlying and adjacent Land Use Designations to the maximum extent feasible.
Follow existing and planned future land transportation routes with corridors for future utilities to the extent feasible.
Consider potential conflicts and opportunities with future roads, timber harvest, and other management activities.
Wildlife
Reduce impacts to wildlife habitat and populations to the extent feasible.
WILD RIVER
Alternatives 2 through 2C – Katzehin River (Excluding lower 2 miles of river that the proposed road corridor will cross)
Goals
To manage designated river segments according to the "Wild and Scenic Rivers Act" (Public Law 90-542), "National Wild and Scenic Rivers System; Final Revised Guidelines for Eligibility, Classification, and Management of River Areas" (Federal Register Volume 47, Number 173, 1982), and direction in USFS Manuals and Handbooks.
To maintain, enhance and protect the free-flowing character and outstandingly remarkable values of rivers and river segments designated as Wild Rivers and included in the National Wild and Scenic River Systems.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

WILD RIVER
Alternatives 2 through 2C – Katzehin River (Excluding lower 2 miles of river that the proposed road corridor will cross)
Goals
To maintain Wild Rivers in a natural, free-flowing, unmodified condition, and provide recreation and tourism opportunities affording a high degree of independence, closeness to nature and self-reliance.
To manage recommended Wild River segments to maintain their outstandingly remarkable values and classification eligibility until Congress designates the segments or decides not to designate them.
Objectives
Manage Wild River segments to maintain an enduring wildland and free-flowing river resource, while providing for access and use consistent with the Wild and Scenic Rivers Act and the Alaska National Interest Lands Conservation Act (ANILCA).
Withdraw Wild River segments from mineral entry when designated by Congress, subject to valid existing rights, and classify forested lands as unsuitable for timber production.
Manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the Primitive or Semi-primitive ROS classes.
Apply the Retention Visual Quality Objective within the river corridor.
Desired Condition
Wild Rivers and river segments are in a natural, free-flowing, and undisturbed condition. Ecological processes and changes predominate. The outstandingly remarkable values for which the river was designated remain outstanding and remarkable. Recreation users have the opportunity for primitive and semi-primitive experiences, solitude and remoteness in a natural setting. Interactions between users are infrequent, and evidence of human activities is minimal. Facilities and structures are rustic in appearance and promote primitive recreation and tourism experiences.
Facilities
Avoid construction of new administrative facilities unless needed for administration of river resources and users. If needed, facilities will be rustic and kept to a minimum.
Fire
Suppress wildfires using the suppression option identified in the Southeast Alaska/Prince William Sound Fire Management Plan. An Escaped Fire Situation Analysis (EFSA) of expected fire behavior, time of year, and locations with respect to private land and adjacent Land Use Designations, may lead to a lower strategy. If an EFSA discloses no adverse effects and it is more cost-efficient, the lower strategy will be used.
Emphasize suppression tactics that result in the least possible disturbance or evidence of human presence.
Fish
Fish enhancement projects may be allowed after considering the following during project planning if: a naturally-appearing free-flowing condition can be maintained; Effects on the outstandingly remarkable values for which the river was designated; the appropriateness of structures both in type and scale to the primitive and natural character of the area; it has the ability to meet a Retention Visual Quality Objective.
Use construction techniques, which are consistent with the ROS setting. Land-disturbing activities necessary for construction will be temporary. Design development to minimize impact on the primitive character of the corridor.
Weirs or other stream obstructions are not permitted.
Forest Health
Implement insect and disease management measures consistent with this Land Use Designation to protect the character and values of Wild Rivers.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

WILD RIVER
Alternatives 2 through 2C – Katzehin River (Excluding lower 2 miles of river that the proposed road corridor will cross)
Heritage Resources
Heritage Resources are available for scientific study to the extent that the study is consistent with the intent of the Wild and Scenic Rivers Act.
Develop priorities and schedule management activities to implement Develop priorities and schedule management activities to implement heritage resource inventory, evaluation, protection, and interpretation.
Lands Special Use Administration (non-recreation): LAND122
Permit only those uses consistent with management objectives.
Do not authorize water supply dams or major diversions.
Do not permit development of hydroelectric power facilities for 1) projects exempted from licensing by the Federal Energy Regulatory Commission or 2) projects on rivers designated through sections 2,3, and 5(a) of the Wild and Scenic Rivers Act. The USFS will recommend to FERC that a project on a river found eligible and suitable for inclusion in the Wild and Scenic Rivers System should not be licensed because it is inconsistent with the purposes for which the National Forest was created or acquired and, if necessary, impose conditions on any license issued for a project on that river that fully protect its outstandingly remarkable characteristics and free-flowing nature.
Maintain the natural appearance and primitive character of the river area. Do not authorize flood control dams, levees, or similar structures, in the channel or river corridor.
Do not authorize new structures that would have a direct adverse effect on river values.
Transportation and utility corridors will be allowed in accordance with ANILCA, Title XI. This Land Use Designation represents a Transportation and Utility Systems (TUS) "Avoidance Area".
Transportation and utility sites or corridors may be located within this Land Use Designation only after an analysis of potential TUS corridors is completed and no feasible alternative exists outside this Land Use Designation.
Allow motorized access in accordance with ANILCA Sections 811 and 1110 (b).
Minerals and Geology
When designated by Congress, Forest lands within 1/4 mile of the river are withdrawn from mineral entry subject to valid existing rights.
Permit reasonable access to valid existing claims in accordance with the provisions of an approved Plan of operations.
Recreation and Tourism
To the degree consistent with the overall purposes of designation, provide primitive wildland recreation opportunities which reflect the ecological, historical, and sociological conditions found within the River corridor and adjacent lands.
Manage for Primitive and Semi-primitive ROS settings and activities that emphasize existing opportunities. Protect the integrity of river resources through integrated project planning and implementation.
Manage for the existing or less developed recreation settings and opportunities unless activities and practices authorized by the USFS officer with delegated authority causes change in the ROS setting(s). Seek to minimize the changes through project design and mitigation. Manage recreation and tourism use in a manner that is compatible with the long-term objectives of the Land Use Designation.
Manage recreation and tourism use and activities to meet the appropriate levels of social encounters, on-site development, methods of access, and visitor impacts indicated for the ROS settings. (Consult the ROS USFS Handbook and the Recreation and Tourism Forest-wide Standards & Guidelines).
Minor, rustic, recreation and tourism facilities, including public recreation cabins, floatplane and boat docks, trails and trail bridges may be constructed in the river corridor.

Attachment A (continued)
Tongass National Forest Land and Resource Management Plan
Land Management Prescriptions Within the Juneau Access Improvements Project Area

WILD RIVER
Alternatives 2 through 2C – Katzehin River (Excluding the lower 2 miles of river that the proposed road corridor will cross)
Recreation and Tourism (continued)
Manage all designated Wild River segments to maintain an enduring wildland and free-flowing river resource, while providing for access and use consistent with the purposes of the Wild and Scenic Rivers Act, as amended, and the Alaska National Interest Lands Conservation Act (ANILCA) of 1980 (P.L. 96-487). Traditional activities and practices authorized by ANILCA will be regulated or restricted only where it is determined that the effects of continued or expanded use is likely to cause one or more of the following: the degradation of the long-term successional changes in wildland and water ecosystems; adequate determination of the cumulative effects of activities and equipment use must be demonstrated as well as site-specific or singular effects; be detrimental to the natural dynamics of the composition or structure of wildland and water ecosystems. Be detrimental to identified objects of heritage, historic, prehistoric, and scientific interest.
Be detrimental to the ROS setting conditions or where the cumulative effects of various activities are likely to become detrimental to those settings.
A specific use is not in accordance with applicable law.
Encourage and enlist public and private sector interest groups to work together in meeting Wild River management objectives. Emphasize programs, which help to educate the public in the appropriate conduct of activities and uses within Wild River corridors.
Major developments are illegal or not consistent with agency policy and regulations. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
Minor developments may be compatible with the Land Use Designation objectives depending on the scope, purpose, and magnitude of the proposal. Proposals will be evaluated on a case-by-case basis. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
Scenery
Landscapes are managed to retain a natural-appearing visual condition, where activities are not visually evident to the casual observer.
Low visual-impact recreation and tourism facilities, cabins, infrequent fish or wildlife management activities, and other authorized structures, which are compatible with the primitive character of the corridor, may be acceptable and should be considered on a case-by-case basis (also see the Recreation and Tourism Standards & Guidelines in this prescription).
Timber
Forested land is classified as unsuitable for timber production.
Transportation
Permit no new roads, except to access valid mining claims or as TUS corridors in accordance with ANILCA Title XI.
Close roads in this Land Use Designation to motorized vehicle use.
Allow continued existing use of snow machines and aircraft, however, restrictions may be imposed on a case-by-case basis to protect outstandingly remarkable river values.

Source: 1997 TLMP

ATTACHMENT B

6 AAC 80: STANDARDS OF THE ALASKA COASTAL MANAGEMENT PROGRAM APPLICABLE TO JUNEAU ACCESS IMPROVEMENTS ALTERNATIVES

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Attachment B
6 AAC 80: Standards of the Alaska Coastal Management Program
Applicable to Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
6 AAC 80: Standards of the Alaska Coastal Management Program										
6 AAC 80.040. COASTAL DEVELOPMENT.										
(a) In planning for and approving development in coastal areas, districts and state agencies shall give in the following order, priority to:										
(1) water-dependent uses and activities;	X	X	X	X	X	X	X	X	X	X
(2) water-related uses and activities; and	X	X	X	X	X	X	X	X	X	X
(3) uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.		X	X	X	X	X		X		X
(b) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with the standards contained in Parts 320-323, Title 33, Code of Federal Regulations (Vol. 42 of the Federal Register, pp. 37133 - 47 (July 19, 1977)). (Eff. 7/18/78, Register 67; am 8/18/79, Register 71) **Authority: AS 44.19.161 AS 46.40.040**	X	X	X	X	X	X		X		X
6 AAC 80.050. GEOPHYSICAL HAZARD AREAS.										
(a) Districts and state agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur.		X	X	X	X	X		X		X
(b) Development in areas identified under (a) of this section may not be approved by the appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided. (Eff. 7/18/78, Register 67) **Authority: AS 44.19.161 AS 46.40.040**		X	X	X	X	X		X		X
6 AAC 80.060. RECREATION.										
(a) Districts shall designate areas for recreational use. Criteria for designation of areas of recreational use are:										
(1) The area receives significant use by persons engaging in recreational pursuits or is a major tourist destination; or **(not applicable)**										
(2) the area has potential for high quality recreational use because of physical, biological, or cultural features. **(not applicable)**										
(b) Districts and state agencies shall give high priority to maintaining and, where appropriate, increasing public access to coastal water. (Eff. 7/18/78, Register 67; am 8/18/79, Register 71) **Authority: AS 44.19.161 AS 46.40.040**		X	X	X	X	X		X		X
6 AAC 80.070. ENERGY FACILITIES. (not applicable)										
6 AAC 80.080. TRANSPORTATION AND UTILITIES.										
(a) Transportation and utility routes and facilities in the coastal area must be sited, designed, and constructed so as to be compatible with district programs.	X	X	X	X	X	X	X	X	X	X
(b) Transportation and utility routes and facilities must be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility. (Eff. 7/18/78, Register 67; am 8/18/79, Register 71) **Authority: AS 44.19.161 AS 46.40.040**	X	X	X	X	X	X		X		X
6 AAC 80.090. FISH AND SEAFOOD PROCESSING. (not applicable)										

Attachment B
6 AAC 80: Standards of the Alaska Coastal Management Program Applicable to Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
6 AAC 80.100. TIMBER HARVEST AND PROCESSING. AS 41.17, Forest Resources and Practices Act, and the regulations and procedures adopted under that chapter with respect to the harvest and processing of timber, are incorporated into the Alaska coastal management program and constitute the components of the coastal management program with respect to those purposes. (Eff. 7/18/78, Register 67; am 8/18/79, Register 71; am 3/30/84, Register 89) **Authority: AS 44.19.161 AS 46.40.040** *(Note: AS 41.17 was amended in 1990. The revised Forest Resources and Practices regulations were incorporated into the ACMP effective August 4, 1993.)*		X	X	X	X	X		X		X
6 AAC 80.110. MINING AND MINERAL PROCESSING.										
(a) Mining and mineral processing in the coastal area must be regulated, designed, and conducted so as to be compatible with the standards contained in this chapter, adjacent uses and activities, statewide and national needs, and district programs.		X	X	X	X	X		X		X
(b) Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel. (Eff. 7/18/78, Register 67; am 8/18/79, Register 71) **Authority: AS 44.19.161 AS 46.40.040**		X	X	X	X	X		X		X
6 AAC 80.120. SUBSISTENCE.										
(a) Districts and state agencies shall recognize and assure opportunities for subsistence usage of coastal areas and resources.		X	X	X	X	X	X	X	X	X
(b) Districts shall identify areas in which subsistence is the dominant use of coastal resources. **(not applicable)**										
(c) Districts may, after consultation with appropriate state agencies, Native corporations, and any other persons or groups, designate areas identified under (b) of this section as subsistence zones in which subsistence uses and activities have priority over all nonsubsistence uses and activities.		X	X	X	X	X	X	X	X	X
(d) Before a potentially conflicting use or activity may be authorized within areas designated under (c) of this section, a study of the possible adverse impacts of the proposed potentially conflicting use or activity upon subsistence usage must be conducted and appropriate safeguards to assure subsistence usage must be provided.		X	X	X	X	X	X	X	X	X
(e) Districts sharing migratory fish and game resources must submit compatible plans for habitat management. (Eff. 7/18/78, Register 67) **Authority: AS 44.19.161 AS 46.40.040 (not applicable)**										
6 AAC 80.130. HABITATS.										
(a) Habitats in the coastal area, which are subject to the Alaska coastal management program include		X	X	X	X	X	X	X	X	X
(1) offshore areas;		X	X	X	X	X		X		X
(2) estuaries;		X	X	X	X	X		X		X
(3) wetlands and tideflats;		X	X	X	X	X		X		X
(4) rocky islands and seacliffs;		X	X	X	X	X		X		X
(5) barrier islands and lagoons; **(not applicable)**										
(6) exposed high energy coasts;		X	X	X	X	X		X		X
(7) rivers, streams, and lakes; and		X	X	X	X	X		X		X
(8) important upland habitat.		X	X	X	X	X		X		X
(b) The habitats contained in (a) of this section must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources,		X	X	X	X	X	X	X	X	X

Attachment B
6 AAC 80: Standards of the Alaska Coastal Management Program Applicable to Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
(c) In addition to the standard contained in (b) of this section, the following standards apply to the management of the following habitats:		X	X	X	X	X	X	X	X	X
(1) offshore areas must be managed as a fisheries conservation zone so as to maintain or enhance the state's sport, commercial, and subsistence fishery;	X	X	X	X	X	X	X	X	X	X
(2) estuaries must be managed so as to assure adequate water flow, natural circulation patterns, nutrients, and oxygen levels, and avoid the discharge of toxic wastes, silt, and destruction of productive habitat;	X	X	X	X	X	X		X		X
(3) wetlands and tideflats must be managed so as to assure adequate water flow, nutrients, and oxygen levels and avoid adverse effects on natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances;		X	X	X	X	X	X		X	
(4) rocky islands and seacliffs must be managed so as to avoid the harassment of wildlife, destruction of important habitat, and the introduction of competing or destructive species and predators;		X	X	X	X	X				
(5) barrier islands and lagoons must be managed so as to maintain adequate flows of sediments, detritus, and water, avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of barrier islands, and discourage activities which would decrease the use of barrier islands by coastal species, including polar bears and nesting birds; **(not applicable)**										
(6) high energy coasts must be managed by assuring the adequate mix and transport of sediments and nutrients and avoiding redirection of transport processes and wave energy; and		X	X	X	X	X				
(7) rivers, streams, and lakes must be managed to protect natural vegetation, water quality, important fish or wildlife habitat and natural water flow.		X	X	X	X	X		X		X
(d) Uses and activities in the coastal area which will not conform to the standards contained in (b) and (c) of this section may be allowed by the district or appropriate state agency if the following are established:	X	X	X	X	X	X	X	X	X	X
(1) there is a significant public need for the proposed use or activity;	X	X	X	X	X	X	X	X	X	X
(2) there is no feasible prudent alternative to meet the public need for the proposed use or activity which would conform to the standards contained in (b) and (c) of this section; and	X	X	X	X	X	X	X	X	X	X
(3) all feasible and prudent steps to maximize conformance with the standards contained in (b) and (c) of this section will be taken.	X	X	X	X	X	X		X		X
(e) In applying this section, districts and state agencies may use appropriate expertise, including regional programs referred to in 6 AAC 80.030(b). (Eff. 7/18/78, Register 67) **Authority: AS 44.19.161 AS 46.40.040 (not applicable)**										
6 AAC 80.140. AIR, LAND, AND WATER QUALITY. Notwithstanding any other provision of this chapter, the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality, in effect on August 18, 1992, are incorporated into the Alaska coastal management program and, as administered by that agency, constitute the components of the coastal management program with respect to those purposes. (Eff. 7/18/78, Register 67; am 5/20/93, Register 126) **Authority: AS 44.19.161 / AS 46.40.040 / AS 46.40.010**	X	X	X	X	X	X	X	X	X	X

Attachment B
6 AAC 80: Standards of the Alaska Coastal Management Program Applicable to Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
6 AAC 80.150. HISTORIC, PREHISTORIC, AND ARCHAEOLOGICAL RESOURCES. Districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local history or prehistory. (Eff. 7/18/78, Register 67) **Authority: AS 44.19.161 AS 46.40.040**		X	X	X	X	X	X	X	X	X

Note: Standards of the Alaska Coastal Management Program that may be applicable to an alternative are marked with an "X".

ATTACHMENT C

CITY AND BOROUGH OF JUNEAU COASTAL MANAGEMENT PROGRAM ENFORCEABLE POLICIES APPLICABLE TO JUNEAU ACCESS IMPROVEMENTS ALTERNATIVES

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Attachment C
City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
City and Borough of Juneau Coastal Management Program Enforceable Policies										
November 20 1986, Revised October 12 1992										
49.70.900 General Provisions										
49.70.905 Coastal Development										
The following policies apply to coastal development throughout the coastal zone:										
(1) To the extent feasible and prudent, coastal development shall be designed using best available technology to minimize hazards associated with physical conditions such as soil characteristics, slopes, geological features, surface and subsurface drainage, water tables, floodplains and shore forms of the site.	X	X	X	X	X	X	X	X	X	X
(2) To the extent feasible and prudent, coastal development shall be designed and operated to prevent adverse impact upon beaches and other physical shore features in the coastal zone.	X	X	X	X	X	X	X	X	X	X
(3) The placement of structures and the discharge of dredged or fill material into coastal water shall, at a minimum, comply with Parts 320 through 330, et seq., Title 33, Code of Federal Regulations (Vol. 51 of the Federal Register, pp. 4120641260, November 13, 1986).	X	X	X	X	X	X	X	X	X	X
(4) Dredging and filling shall be prevented in highly productive tideflats and wetlands, subtidal areas important to shellfish, and water important for migration, spawning and rearing of salmon and other sportfish species, unless there is a significant public need for the project and there is no feasible and prudent alternative to meet the public need.	X	X	X	X	X	X		X		X
(5) Shoreline industrial developments, ports, harbors and marinas shall be sited, designed, constructed and operated such that:										
(A) Lawful navigation is not impaired;	X	X	X	X	X	X		X		X
(B) Facilities for proper handling of sewage, refuse, fuel and waste oil are provided;	X		X	X	X	X		X		X
(C) All feasible and prudent steps are taken to prevent water pollution by incorporating best management practices; and	X		X	X	X	X		X		X
(D) Adequate access and utility access are available or can be provided.	X		X	X	X	X		X		X
(6) To the extent feasible and prudent, ports, harbors and docks shall be located away from extensive tideflats and wetlands and so as not to obstruct fish passage along the coast or in waters used by anadromous fish.	X		X	X	X	X		X		X
(7) To the extent feasible and prudent, piers, wharfs, and floating docks shall be installed in waters that have adequate natural flushing capacities. If solid fill must be used, it shall be located and constructed to maintain water circulation in the harbor.	X	X	X	X	X	X		X		X
(8) Excavation, shoreline alteration and disturbance of anadromous streams, tideflats and wetlands shall be minimized in the construction and operation of port, harbor, dock and industrial facilities.	X	X	X	X	X	X		X		X
(9) To the extent feasible and prudent, the area immediately surrounding small boat harbors shall be reserved for water- related and water-dependent uses. **(not applicable)**										
(10) To the extent feasible and prudent, port and harbor uses shall minimize the negative aesthetic impact of their use and activities, shall enhance and maintain the positive visual aspects of their development, and shall provide opportunities for public viewing of such positive aspects.	X	X	X	X	X	X		X		X
(11) Navigable waters shall be kept free of unnecessarily hazardous or obstructive development.	X	X	X	X	X	X	X	X	X	X

Attachment C
City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
(12) To the extent feasible and prudent, development shall not detract from the scenic qualities of the shorelines, shall be compatible with its surroundings and shall not significantly block scenic vistas.	X	X	X	X	X	X		X		X
(13) Filling of intertidal areas below mean high tide, not specifically addressed in Section 49.70.960, for the expansion of upland area is specifically prohibited unless clear and convincing evidence is provided showing that all of the following conditions exist:		X	X	X	X	X		X		X
(A) That strict compliance with the policy would prevent the applicant from making a reasonable use of the property or would make compliance unreasonably burdensome;		X	X	X	X	X		X		X
(B) That fill is the only means to allow development of the property which is similar to other properties in the vicinity;		X	X	X	X	X		X		X
(C) That less than the proposed fill would prevent the applicant from making a reasonable use of the property or would make compliance unreasonably burdensome;		X	X	X	X	X		X		X
(D) That the proposed project meets the requirements of the other enforceable policies of the JCMP;		X	X	X	X	X		X		X
(E) That the proposed project will not be detrimental to the public health, welfare and safety or to other properties in the vicinity;		X	X	X	X	X		X		X
(F) That approval of the project will not authorize uses on the property otherwise not allowed by other state, federal and local laws and regulations; and		X	X	X	X	X		X		X
(G) That, if applicable, the meaning of the phrase "feasible and prudent" has been considered and found to support approval of the proposal to fill.		X	X	X	X	X		X		X
Provided, log and mining transfer facilities and the following public facilities are exempt from this policy: bridges, causeways, boat ramps, utility transmission facilities, pipelines, treatment plant lines and outfalls, and transportation facilities.	X	X	X	X	X	X		X		X
(14) Floathomes, or any floating structures or watercraft intended for moored or anchored residential use, shall be approved through the conditional use process before they may be anchored or moored in one location for more than thirty days. Floathomes must also have Alaska Department of Natural Resources or city and borough tideland permits as applicable. Such structures must either be connected to an approved onshore sewage disposal system or have U.S. Coast Guard approved marine sanitation devices, and may not dispose of sewage by any other means. In addition, floathomes must meet all of the following standards: **(policies 14A through 14N not applicable)**										
(15) Floating camps or multipurpose floating structures intended in whole or in part for residential purposes and meant to support mining, fishing, logging, tourist or other activities may be allowed under the conditional use procedure provided they meet all of the standards for floathomes set forth in subsection (14) of this section. **(not applicable)**										
(16) Development intended to provide moorage for two or more floathomes may be allowed as conditional uses in the nonprohibited areas shown on JCMP Map 2, provided the developer: (A) Owns, or has a nonrevocable lease, for at least thirty years in duration, for the upland area adjacent to the water area to be developed; **(policies 16A through 16E not applicable)**										

Attachment C
City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
(17) Floating structures, other than those addressed in subsections (14), (15) and (16) of this section, intended for commercial or industrial purposes including but not limited to fish propagation, mineral extraction, mineral processing, timber extraction or processing, lodging, seafood processing, research, marine service and repairs, which will be fixed in one location for more than thirty days, may do so only after having obtained approval through the conditional use process. Provided, the following are exempt from the conditional use process requirement: **(not applicable)**										
(A) Mooring devices for watercraft;		X				X		X		X
(B) Watercraft transiting the city and borough that are not intended for residential use in excess of thirty days in any twelve calendar months;		X				X		X		X
(C) Seafood processors whose primary purpose is to receive fish and shellfish from harvesting boats and prepare it for further transportation; and **(not applicable)**										
(D) Watercraft intended to transport cargo to, from or within the city and borough.		X				X		X		X
(18) Industrial and commercial uses on or adjacent to the shorelines of navigable waters must be located in the appropriate special waterfront designation established in Section 49.70.960 unless: **(not applicable)**										
(A) There is no feasible and prudent alternative to meet the public need for the use; and **(not applicable)**										
(B) The nature of the use requires a specific location and no other location will suffice. **(not applicable)**										
(19) In approving development in coastal areas, priority shall be given, in the following order, to:										
(A) Water-dependent uses and activities;	X		X			X		X		X
(B) Water-related uses and activities; and	X	X	X	X	X	X		X		X
(C) Uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity. (Serial No. 92-41 ' 2, 1992; Serial No. 87-49 ' 2 (part), 1987).		X	X	X	X	X		X		X
Geophysical Hazards 49.70.910										
(a) Surface modification that would induce excessive erosion, undermine the support of nearby land or unnecessarily scar the landscape is prohibited. Any other modification shall be limited to the smallest extent that is needed for development.		X	X	X	X	X		X		X
(b) Development in areas having known hazards may not be approved until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.		X	X	X	X	X		X		X
(c) Developers shall retain existing vegetative cover to the greatest extent feasible and prudent. In cases where development necessitates removal of vegetation, erosion shall be prevented through revegetation or, if revegetation is not feasible, by other appropriate measures.		X	X	X	X	X		X		X
(d) Industrial and resource extraction activities in high landslide or avalanche areas are prohibited unless it is determined that these activities will reduce the threat of landslides and avalanches on existing and potential development.		X	X	X	X	X		X		X
(e) Mitigating measures are required for development in areas of moderate hazard. These may include dissipating structures or dams, appropriate structural engineering, or other techniques that respond to the specific site hazards.		X	X	X	X	X		X		X

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City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
(f) Residential, commercial and industrial development is prohibited in floodways. Culverts and bridges are not subject to this prohibition.		X	X	X	X	X		X		
(g) Structures near watercourses shall be designed to reduce the impact of flooding and to allow for natural drainage.		X	X	X	X	X		X		X
(h) Sand and gravel operations, recreation activities, open space, and parking lots may be allowed in one-hundred-year floodplains only if they do not increase the flood hazard.		X	X	X	X	X		X		X
(i) Industrial equipment and raw materials stored in 100 year floodplains shall be adequately bermed or otherwise protected.		X	X	X	X	X		X		X
(j) Disposal of hazardous materials in one-hundred-year floodplains is prohibited. No new development which will involve storage of hazardous materials will be permitted in the one-hundred-year floodplain unless there is no feasible and prudent alternative and unless safety measures are provided to prevent accidental discharge.		X	X	X	X	X		X		X
(k) Establishment of sanitary landfills in floodplains is prohibited. (Serial No. 87-49 ' 2 (part), 1987). **(not applicable)**										
NOTE: Standards of the Alaska Coastal Management Program that may be applicable to an alternative are marked with an "X".										
Energy Facilities 49.70.920 (not applicable)										
Transportation and Utilities 49.70.925										
(a) Highway and airport design, construction and maintenance shall take all feasible and prudent steps to prevent alteration of water courses, wetlands and intertidal marshes, and aesthetic degradation.		X	X	X	X	X		X		X
(b) Where roads and trails cross anadromous streams, the design and construction of bridges and culverts shall allow free passage of fish, and shall take all feasible and prudent steps to prevent habitat disturbance. Phasing of construction shall be done to avoid critical migration periods for salmon and other anadromous species.		X	X	X	X	X		X		X
(c) Roads and utilities shall be designed and built so as to protect shore features and other uses that may be affected by pollution, flooding, erosion and other adverse effects.		X	X	X	X	X		X		X
(d) Prior to disposal of state or city and borough lands, public access routes, such as roads and trails, shall be identified and dedicated. **(not applicable)**										
(e) Where feasible and prudent, bike trails shall be provided.		X	X	X	X	X		X		X
(f) Transportation and utility routes and facilities shall be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.		X	X	X	X	X		X		X
(g) Parking areas shall include suitable drainage controls to prevent ponding and excessive concentrated runoff. Such areas shall be buffered by a minimum ten-foot-wide natural vegetation strip, as feasible and prudent, from shorelines and adjacent uses, and shall be sited, screened, and maintained to minimize dust.	X	X	X	X	X	X		X		X
(h) Development shall only locate in areas where utilities are available, or can be economically extended, or can be developed as part of the project, or where suitable on-site utilities are possible.	X	X	X	X	X	X		X		X
(i) Utility corridors shall, wherever feasible and prudent, be integrated with roads and other transportation corridors.		X	X	X	X	X		X		X
(j) Where feasible and prudent, overhead lines shall be located so as not to interfere with scenic vistas. (Serial No. 87-49 ' 2 (part), 1987).		X	X	X	X	X		X		X

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City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
Fish and Seafood Propagation and Processing 49.70.930										
(a) Shoreline use shall not adversely impact important fisheries habitat, migratory routes and harvest of significant fish or shellfish species. Shorelines having banks, beaches, and beds critical to the preservation or enhancement of the fisheries resource base shall be maintained in, or restored to, their original condition wherever and whenever feasible and prudent. Upland areas shall be managed to maintain water quality standards necessary for the propagation of anadromous fish species.	X	X	X	X	X	X		X		X
(b) Fisheries enhancement and aquaculture shall maintain or restore quality and normal circulation patterns of affected waters at optimum levels consistent with applicable state standards. Aquaculture hatcheries and fisheries shall be protected from significant water quality degradation by other users. **(not applicable)**										
(c) Aquaculture development and fisheries enhancement shall be located, designed and operated so that aesthetic values of local shorelines are maintained to the extent feasible and prudent. **(not applicable)**										
(d) Fisheries enhancement and aquaculture practices, including disposal of wastes, viscera or fish scrap, shall be conducted so as not to violate applicable state water quality and litter control standards. (Serial No. 87-49 ' 2 (part), 1987). **(not applicable)**										
Timber Harvest and Processing 49.70.935										
(a) AS 41.17, Forest Resources and Practices, and the regulations and procedures adopted under that chapter with respect to the harvest and processing of timber, are incorporated into the JCMP and constitute, in part, the components of the JCMP with respect to those purposes.		X	X	X	X	X		X		X
(b) Commercial timber harvest activities and land clearing in the coastal area shall be conducted so as to meet the following standards:										
(1) The location of facilities and the layout of logging systems shall be sited so as to take all feasible and prudent steps to prevent adverse environmental impacts.		X	X	X	X	X		X		X
(2) Free passage and movement of fish in coastal waters shall be assured.		X	X	X	X	X		X		X
(c) Commercial timber transport and land clearing, storage, and processing in the coastal area shall be conducted so as to meet the following standards:										
(1) Sites for in-water dumping and storage of logs shall be selected and these activities conducted so as to minimize adverse affects on the marine ecosystem, minimize conflicts with recreational uses and activities, be safe from storms and not constitute a hazard to navigation. Shared use of such facilities shall be required wherever feasible.		X	X	X	X	X		X		X
(2) Roads for log transport and harvest area access shall be planned, designed, and constructed so as to minimize mass wasting, erosion, sedimentation, and interference with drainage, and shall be adequately maintained until they are returned to their pre-road natural drainage patterns unless the roads can be converted to another use, such as recreational access. Approvals and permits for logging activities shall specify what will be done with the roads after logging is completed.		X	X	X	X	X		X		X
(3) Stream crossings, including bridges and culverts, shall be kept to a minimum number, shall be designed to withstand seasonal high water and flooding, and shall provide free passage and movement of fish.		X	X	X	X	X		X		X
(d) Fuelwood cutting practices shall be conducted so as to meet the following standards: **(not applicable)**										

Attachment C
City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
Mining and Mineral Processing 40.70.940										
(a) Mining and mineral processing in the coastal areas shall be regulated, designed, and conducted so as to be compatible with the standards in this article, adjacent uses and activities, statewide and national needs, and district programs.		X	X	X	X	X		X		X
(b) Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for sand or gravel. (Serial No. 87-49 ' 2 (part), 1987).		X	X	X	X	X		X		X
Subsistence 49.70.945										
Project proposals shall be designed so that opportunities for subsistence usage of coastal areas and resources are recognized and assured. (Serial No. 87-49 ' 2 (part), 1987).		X	X	X	X	X	X	X	X	X
Habitat 49.70.950										
(a) Habitats in the coastal area which are subject to the Alaska Coastal Management Program include:										
(1) Offshore areas;	X		X			X	X	X	X	X
(2) Estuaries;	X	X	X	X	X	X		X		X
(3) Wetlands and tideflats;		X	X	X	X	X		X		X
(4) Rocky islands and seacliffs;		X	X	X	X					
(5) Barrier islands and lagoons; **(not applicable)**										
(6) Exposed high energy coasts;		X	X	X	X	X		X		X
(7) Rivers, streams, and lakes; and		X	X	X	X	X		X		X
(8) Important upland habitat.		X	X	X	X	X		X		X
(b) The habitats contained in subsection (a) of this section shall be managed so as to maintain or enhance the biological, physical and chemical characteristics of the habitat which contribute to its capacity to support living resources.	X	X	X	X	X	X	X	X	X	X
(c) In addition to the standard contained in subsection (b) of this section, the following standards shall apply to the management of the following habitats:										
(1) Offshore areas shall be managed as a fisheries conservation zone so as to maintain or enhance the state's sport, commercial, and subsistence fishery;	X		X			X	X	X	X	X
(2) Estuaries shall be managed so as to assure adequate waterflow, natural circulation patterns, nutrients, and oxygen levels, and to avoid the discharge of silt, toxic wastes and the destruction of productive habitat;	X	X	X	X	X	X		X		X
(3) Wetlands and tideflats shall be managed so as to assure adequate waterflow, nutrients, and oxygen levels, to avoid the adverse effects on natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances;		X	X	X	X	X		X		X
(4) Rocky islands and seacliffs shall be managed so as to avoid the harassment of wildlife, the destruction of important habitat, and the introduction of competing or destructive species and predators;		X	X	X	X	X		X		X
(5) Barrier islands and lagoons shall be managed so as to maintain adequate flows of sediments, detritus, and water, avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of barrier islands, and discourage activities which would decrease the use of barrier islands by coastal species, including polar bears and nesting birds; **(not applicable)**										

Attachment C
City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
(6) High-energy coasts shall be managed so as to assure the. adequate mix and transport of sediments and nutrients and avoid redirection of transport process and wave energy; and		X	X	X	X	X		X		X
(7) Rivers, streams and lakes shall be managed so as to protect natural vegetation, water quality, important fish or wildlife habitat and natural waterflow.		X	X	X	X	X		X		X
(d) Uses and activities in the coastal area which will not conform to the standards contained in subsections (b) and (c) of this section may be allowed if the following standards are met:										
(1) There is a significant public need for the proposed use or activity;	X	X	X	X	X	X	X	X	X	X
(2) There is no feasible and prudent alternative to meet the public need for the proposed use or activity which would conform to the standards contained in subsections (b) and (c) of this section; and	X	X	X	X	X	X	X	X	X	X
(3) All feasible and prudent steps to maximize conformance with the standards contained in subsections (b) and (c) of this section will be taken.	X	X	X	X	X	X	X	X	X	X
(e) Each development which adjoins a river or stream which has been degraded by previous human activity shall, as part of its development plan, include provisions for rehabilitation of the stream or river, and shall be approved by the Alaska Department of Fish and Game. Such provisions shall be limited to removal of debris, removal of abandoned machinery and vehicles, grading and stabilization of banks and related clean up activities, and shall include preservation or restoration of riparian vegetation. Restoration shall not be required beyond that needed to return the area to natural appearance and function. Provided, the following are exceptions to this policy:		X	X	X	X	X		X		X
(1) Construction of one single-family or duplex dwelling on a lot of record; **(not applicable)**										
(2) Construction of single-family or duplex dwellings on lots created by subdivisions of four or fewer lots. (**not applicable)**										
(f) All structures and foundations located adjacent to streams or lakes listed in Table VI-2 of Appendix C of the JCMP, shall have a fifty-foot setback from each side of the stream or lake measured from the ordinary high water mark, where feasible and prudent; provided, docks, bridges, culverts and public structures whose purpose is access to or across the stream or lake are not subject to this policy, and provided further, uses which must be in or adjacent to the stream or lake in order to function, such as mining activities, fish culturing, water supply intakes and similar uses, are exempt from the setback requirement. The setback shall be vegetated or revegetated, where feasible and prudent, and such vegetation or revegetation shall be kept or arranged to maximize shade on the stream.		X	X	X	X	X		X		X
(g) Where feasible and prudent, watershed areas which contribute to existing drinking water supplies, as defined by the Alaska Department of Environmental Conservation, shall be protected by buffer strips at least fifty feet in width along each side of streams, the edges of wetlands, and lakes. Measures shall be taken to prevent erosion. The "side" or "edge" of the water body shall be the ordinary high water mark. The buffer shall be vegetated or revegetated. **(not applicable)**										
(h) Development in buffer areas prescribed in subsections (f) and (g) of this section shall incorporate measures to prevent erosion and subsequent increases in turbidity and sediment within the waterway and adjacent wetlands within the buffer. (Serial No. 87-49 ' 2 (part), 1987).		X	X	X	X	X		X		X
Air, Land and Water Quality 49.70.955										

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City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
(a) Notwithstanding any other provision of this article, the statutes, regulations and procedures of the Alaska Department of Environmental Conservation protecting air, land and water quality are incorporated into the JCMP and, as administered by that agency, constitute the components of the JCMP with respect to those purposes.	X	X	X	X	X	X	X	X	X	X
(b) Streamside and lakeside development shall not cause downstream water degradation below state standards.		X	X	X	X	X		X		X
(c) Berms and planting strips shall be placed along highways and major arterials wherever feasible and prudent. (Serial No. 87-49 ' 2 (part), 1987).		X	X	X	X	X		X		X
Special Waterfront Areas 49.70.960 (Modification to Auke Bay Ferry Terminal is in Special Waterfront Area within the Juneau Access Improvements project area)							X	X	X	X
The JCMP Special Waterfront Area Map, dated December 1, 1990, shows the boundaries of each special waterfront area, and the maximum seaward limits for permanent development in each special waterfront area. The land or water inside the boundaries shown on the JCMP Special Waterfront Area Map is subject to the provisions of this section. Uses allowed within the special waterfront areas as provided in this section are not allowed along other waterfronts within the city and borough unless such uses are allowable outside the special waterfront areas under the terms of subsections (13) or (18) of Section 49.70.905 and other applicable provisions of the JCMP.							X	X	X	X
Fill proposals within the special waterfront areas are not subject to the fill prohibition of Section 49.70.905(13) relating to coastal development.Each fill proposal shall be individually reviewed to ensure that configuration, timing, composition and construction practices will minimize impacts on habitats and meet the water quality standards and other JCMP provisions. The size of any fill shall not exceed that necessary for the use unless a larger fill is needed to maintain integrity of the fill, maintain or enhance habitat values, or to fulfill other enforceable provisions of this section.							X	X	X	X
Existing uses or activities in the subject areas may continue, provided, if conversion to another use or other modification is to be made, it shall conform to the requirements of the special waterfront areas.							X	X	X	X
Uses identified as permissible in this article may be conditioned, through the coastal management consistency review process, to be consistent with or conform to the habitat standards contained in subsections (b) and (c) of Section 49.70.950. However, if new site-specific information becomes available after May 22, 1986, which clearly indicates that crucial habitats exist within the subject areas and if the Alaska Division of Governmental Coordination, after consultation with the city and borough and state resource agencies, concurs a specific evaluation pursuant to subsection (d) of Section 49.70.950 will be immediately required for projects within the crucial habitat areas.							X	X	X	X
A change to the special waterfront areas may be initiated by the submittal of new information regarding habitats to both the Division of Governmental Coordination and the city and borough, by the Alaska Department of Fish and Game, the Alaska Department of Environmental Conservation, the Alaska Department of Natural Resources, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, theNational Marine Fisheries Service, the city and borough, or other interested parties. The Division of Governmental Coordination shall expeditiously process new information as a routine program change in accordance with 6 AAC 85.120(c). To initiate a program change new information must be based on detailed site-specific studies whichindicate that the habitat is substantially more productive than was indicated in the information which was available on May 22, 1986.							X	X	X	X

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City And Borough Of Juneau Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
Except as provided in subparagraph (4) of this subsection, the significant public need and feasible and prudent alternative analysis under subsection (d) of Section 49.70.950 will not apply to state, federal or local permit applications previously submitted for all, or a part, of the affected area unless a change to the affected special waterfront area has become effective.							X	X	X	X
Proponents of land and water uses shall be advised that in cases where the use of dredged or fill materials in waters of the United States is proposed, the requirements of the Clean Water Act Section 404(B) (1) guidelines shall apply and must be met before development may proceed.							X	X	X	X
When the use of dredged or fill materials in the waters of the United States is required, uses that do not require direct siting in or access to the water to fulfill their basic purpose will generally be directed to upland areas unless it is clearly demonstrated that upland alternatives are not available.							X	X	X	X

Note: Enforceable policies of the Juneau Coastal Management Program that may be applicable to an alternative are marked with an "X".

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ATTACHMENT D

CITY OF HAINES COASTAL MANAGEMENT PROGRAM ENFORCEABLE POLICIES APPLICABLE TO JUNEAU ACCESS IMPROVEMENTS ALTERNATIVES

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Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
City of Haines Coastal Management Program Enforceable Policies										
October 22, 1980 Original coastal management program in effect **October 22, 1980** Port Chilkoot/Portage Cove AMSA goes into effect and supplements the Haines Coastal Management Program. **July 22, 1993** Revision **November 20, 2000** Revision to expand coastal boundary for City of Haines to annexed areas.										
Coastal Development Policies										
A-2 Policy. It shall be a general policy of the Haines District Program to require specific proposals for land and water uses or activities to meet the policies in this chapter before approval.						X				
A-3 Policy. It shall be a general policy of the district to approve specific proposals for uses and activities within areas designated for those uses and activities.						X				
A-4 Water-Dependent and Water-Related Activities. The following land and water uses and activities shall be categorically allowable in approved zoning districts as water-dependent or water-related: fisheries related, public recreation and tourism, recycling, and energy and materials transshipment and storage.						X				
A-5 Dredging and Filling. Projects that require dredging or filling in, or immediately adjacent to, streams, rivers, lakes, wetlands, or saltwater areas including tideflats, shall be located, designed, constructed, and maintained in a manner so as to:						X				
a. Avoid significant adverse impacts to important fish and wildlife habitat;						X				
b. Avoid significant interference with fish migration, spawning, and rearing, and with wildlife during critical life history phases;						X				
c. Limit areas of direct disturbance to as small an area as feasible;						X				
d. Minimize the amount of waterborne sediment traveling away from the dredge or fill site;						X				
e. Maintain circulation and drainage patterns in the area of the fill.						X				
f. Be conducted in compliance with all State and federal regulations.						X				
A-6 Disposal of Dredged Material										
a. Shoreline dredge disposal sites shall not cause significant alteration of important habitats or significant adverse impacts to shoreline processes, such as circulation, sediment transport, coastal erosion, and deposition patterns, and shall be stabilized to prevent erosion and leaching into adjacent waters.						X				
b. Onshore disposal sites for dredged material shall be contained and stabilized to prevent erosion and leaching into adjacent waters.						X				
c. Offshore disposal of dredge spoil shall avoid important habitats and be conducted in compliance with state and federal water quality regulations.						X				
A-7 Navigational Obstructions. Structures, pipelines and buoys placed in navigable waters within the district shall be visibly marked and/or constructed, placed, operated and maintained to minimize navigational hazards or obstructions for marine transportation and commercial fishing operations.						X				
A-8 Floating Facilities. The following criteria shall be used by the Haines district in determining whether a floating facility is consistent with the Haines CMP and whether to issue a local permit: **(policies A-8a through A-8f not applicable)**										

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
A-9 Erosion. Development and resource extraction activities shall be sited and conducted to minimize accelerated shoreline erosion or significant adverse impacts to shoreline processes. Developers shall retain existing vegetative cover in erosion prone areas to the extent feasible and prudent. In cases where development or other activities lead to removal of vegetation, erosion shall be prevented or, if it occurs, shall be remedied first through stabilizing the area at the conclusion of the activities and then minimized thorough revegetation or by other appropriate erosion control measures.						X				
A-10 Commercial and Subsistence Fishing. To the extent feasible and prudent, all temporary and permanent developments, structures, and facilities in, or immediately adjacent to, marine and estuarine waters shall be sited, constructed and operated in a manner that does not create a hazard or obstruction to commercial and subsistence fishing operations, or cause significant adverse impacts on the established migration patterns of commercial and subsistence fish species.						X				
A-11 Mitigation, General. All land and water use activities shall be planned and conducted to mitigate potentially significant adverse impacts on fish and wildlife populations and their valuable habitats, on commercial, sport and subsistence harvest activities, on air and water quality, and on cultural and recreational resources of local, State or national significance. Mitigation requirements shall be as specified within the most current applicable State and federal laws and regulations and ordinances of the City of Haines.						X				
A-12 Mitigation Within Geophysical Hazard Areas. Applicants for uses and activities within designated geophysical hazard areas shall meet the performance standards specified in section "B. Geophysical Hazard Areas" of this chapter.						X				
Coastal Development Administrative Policies - (not applicable)										
B. Geophysical Hazard Areas Policies										
B-1 Alaska CMP Standard (6 AAC 80.050)						X				
a. District and State agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur.						X				
b. Development in areas identified under (a) of this section may not be approved by the appropriate State or local authority until siting, design, and construction measure for minimizing property damage and protection against loss of life have been provided."						X				
B-2 Identification of Hazardous Areas. Geophysical hazard areas are identified on the Flood Plain and Hazards Map of the City of Haines which is immediately available from the City upon request. The district program map at the end of this chapter also locates the most important hazards areas. They are 1) Mt. Ripinski, 2) Lutak Highway hazardous slopes areas, 3) the shoreline of Portage Cove, and 4) the floodplain of Sawmill Creek. Additionally, any areas with slopes over 30%, as well as the routes of all natural streams and improved drainages are hazardous areas.						X				
B-3 Management within Hazardous Areas (General). Hazardous areas shall be managed for the protection of lives and property. Developers shall, to the extent required by the Haines coastal district, be obligated to conduct the surveys and studies needed to determine exactly what siting, design, construction and mitigation measures are needed to meet the objectives of Policy B-1(b) above. The burden of proof shall be on the developer to meet all performance standards required by applicable City Ordinances						X				
B-4 Management within Designated Hazardous Areas. The management guidelines specified below in paragraph a through d shall apply within the following designated hazardous areas.						X				

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
a. Mt. Ripinski Hazardous Slopes Area. This area is described as follows: The area of cliffs, very steep slopes greater than 30%, and the hazardous zone along the base of these slopes of Mt. Ripinski within the City limits. Management within this area shall be to protect lives and property, to control erosion, and to maintain or enhance the water quality of streams and springs. **(not applicable)**										
b. Lutak Highway Hazardous Slopes Area. This area is described as follows: The area of cliffs and very steep slopes greater than 30% along the east side of Mt. Ripinski, and immediately upland of the Lutak Highway from the northeast City limits to Oceanview Drive. This area shall be managed to prevent erosion by protecting the natural trees and vegetation on the steep slopes, to maintain or enhance the water quality of streams, and to protect against the loss of life and property. **(not applicable)**										
c. Portage Cove Shoreline. The U.S. Army Corps of Engineers Flood Hazard Boundary Map, and the City of Haines Flood Plain and Hazards Map indicate that run-up from a seismically induced tsunami, seiche or a high storm surge could adversely effect the Portage Cove shoreline up to 25 feet above mean lower low water (MLLW). This area shall be managed to protect life and property, and to the extent feasible and prudent, to maintain or enhance the quality of the fresh and saltwater wetlands. All residential and commercial construction shall meet the siting and flood proofing requirements of the Federal Emergency Management Agency's National Flood Insurance Program.										
d. Sawmill Creek Flood Plain. This area is described as follows: All geographic depressions, ponds, streams, and improved drainage routes at or near the elevation of Sawmill Creek. These areas are indicated on the City of Haines Flood Plain and Hazards Map. Management in this area shall be to protect property from flood hazards, and to maintain or enhance the water quality and flood bearing capacity of the flood plain. **(not applicable)**										
B-5 and B-6 Geophysical Hazard Areas Administrative Policies **(not applicable)**										
C. Recreation and Tourism Policies										
C-2 Recreational Use Designation. The following public, and private areas within the City of Haines shall be designated primarily for recreational use.						X				
a. Tlingit Park and Lookout Park (City owned).						X				
b. Oslund Park (City owned).						X				
c. The City owned beaches and tidal pools within the intertidal zone of Portage Cove as follows:										
1. Between the City Port Chilkoot Dock and the City Small Boat Harbor;						X				
2. Between the Klukwan Inc. petroleum dock and the City limits at the State Park and Campgrounds; and						X				
3. Beyond the developed areas north of the small boat harbor along the beaches of Portage Cove to the northeast City limits.						X				
d. The Southeast Alaska State Fairgrounds.						X				
e. The Fort Seward Parade Grounds (as long as the current public land use agreement between the private owner and the Haines Borough remains in effect).						X				

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
C-3 Protection of Recreational Values. Projects and activities on public recreation lands and activities on private lands and waters where the landowner has granted formal permission for recreational activities, shall be located, designed, constructed, and operated to minimize adverse impacts to recreation resources and activities, including access.						X				
C-4 Conflicts with Recreation Use. To the extent feasible and prudent, activities which conflict with recreational uses in designated recreation use areas shall be conducted in a manner which minimizes significant adverse impacts to recreation resources and activities, including access.						X				
C-5 Public Access. Public access routes to coastal waters and recreational land shall be maintained and to the extent feasible and prudent, increased when public land is leased, disposed of, or subdivided.						X				
C-6 Open Space Areas. Publicly owned shorelines, beaches and upland areas which are vacant and have high recreation, scenic, wildlife and/or water quality values or are subject to natural hazards for development purposes, shall be considered as public open space or recreation areas until such time as other uses are required by the public interest.						X				
C-7 Easements and Rights-of-Way. Public and private landowners shall identify and maintain easements and public rights-of-way which provide public access to recreation areas and coastal waters. When access is obstructed by development, comparable or better access shall be provided. In areas where the shoreline and water are easily accessible and usable or where traditional access or use has been established, development shall provide for public access to the shoreline.						X				
C-8 Parks and Recreation Planning. Administrative Policies (Recreation and Tourism). No specific zoning designations or management requirements exist in Title 18, the Land Development Code, for parks and recreation lands, and vacant public lands (local and State) which comprise around 20% of the land area of the City. City lands currently in use for parks and recreation purposes should be designated within Title 18, The Land Development Code. **(not applicable)**										
D. Energy and Industrial Facilities										
D-1 Alaska CMP Standard (6 AAC 80.070)										
a. Sites suitable for the development of major energy facilities must be identified by districts and the State in cooperation with districts. **(not applicable)**										
b. The siting and approval of major energy facilities by districts and State agencies must be based, to the extent feasible and prudent, on the following standards: **(policies b-1 through b-16 not applicable for energy facilities)**										
1. Site facilities so as to minimize adverse environmental and social effects while satisfying industrial requirements;										
NOTE: Standards of the Alaska Coastal Management Program that may be applicable to an alternative are marked with an "X".										
3. Consolidate facilities;										
4. Consider the concurrent use of facilities for public or economic reasons										
5. Cooperate with landowners, developers, and federal agencies in the development of facilities;										
6. Select sites with sufficient acreage to allow for reasonable expansion of facilities;										
7. Site facilities where existing infrastructure, including roads, docks, and airstrips, is capable of satisfying industrial requirements;										

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
8. Select harbors and shipping routes with least exposure to reefs, shoals, drift ice, and other obstructions;										
9. Encourage the use of vessel traffic control and collision avoidance systems;										
10. Select sites where development will require minimal site clearing, dredging, and construction in productive habitats;										
11. Site facilities so as to minimize the probability, along shipping routes, of spills or other forms of contamination which would affect fishing grounds, spawning grounds, and other biologically productive or vulnerable habitats, including marine mammal rookeries and hauling out grounds and waterfowl nesting areas;										
12. Site facilities so that design and construction of those facilities and support infrastructures in coastal areas of Alaska will allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns and so that areas of particular scenic, recreational, environmental, or cultural value will be protected;										
13. Site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained;										
14. Site facilities where winds and air currents disperse airborne emissions which cannot be captured before escape into the atmosphere;										
15. Select sites in areas which are designated for industrial purposes and where industrial traffic is minimized through population centers;										
16. Select sites where vessel movements will not result in overcrowded harbors or interfere with fishing operations and equipment.										
c. Districts shall consider that the uses authorized by the issuance of State and federal leases for mineral and petroleum resource extraction are uses of State concern." **(not applicable)**										
D-2 Siting of Major Industrial Facilities. The siting and approval of "major industrial facilities" are subject to the Alaska Standards (6 AAC 80.070(b)) quoted above in section D-1 of this policies chapter for "energy" facilities with the following additions: numbers 1-7 and numbers 11- 14 of the Alaska standard shall be expanded to encompass "related activities" in addition to "facilities."						X				
D-3 Water Resources. Operators of energy and industrial facilities shall use all necessary measures to prevent contamination of surface and groundwater from wasting, leaking or spilling of any toxic or hazardous substance.						X				
D-4 Navigation and Commercial Fishing. Uses and activities associated with energy and industrial facilities development shall minimize navigational interference and be located or timed to avoid potential damage to fishing gear. Any underwater structures shall be located, designed or protected so as to allow fishing gear to pass over or around without snagging or otherwise damaging the structure or gear.						X				
D-5 Storage of Petroleum Products and Hazardous Substances. Above ground storage tanks for petroleum products and other toxic or hazardous substances shall be located and bermed in accordance with policies in the section "K. Air, Land and Water Quality" policies of this chapter.						X				
D-6 through D-8 Energy and Industrial Facilities Administrative Policies (not applicable)										

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
E. Transportation and Utilities Policies										
E-2 Siting and Operations. Transportation, pipeline, and utility facilities and corridors shall be sited, designed, and operated using the following standards:						X	X	X	X	X
a. Significant adverse impacts to habitats, biological resources, coastal resources and uses, and recreation and traditional subsistence use activities shall be minimized.						X	X	X	X	X
b. To the extent feasible and prudent, transportation and utilities corridors, systems, and facilities shall be consolidated.						X	X	X	X	X
c. Where feasible and prudent, pipelines in the Waterfront District of Portage Cove shall be installed underground (see map). **(not applicable)**										
d. To the extent feasible and prudent, underwater pipelines shall be buried or shall be designed to allow for the passage of fishing gear, and in known anchorage areas they shall be designed so as not to snag anchors to prevent loss of anchor gear and damage to the pipeline. **(not applicable)**										
e. Pipelines and pipeline rights-of-way shall, to the extent feasible and prudent, be sited, designed, constructed, and maintained to avoid important fishing grounds and to minimize risk to fish and wildlife habitats from spills, pipeline breaks, or any operations activities. **(not applicable)**										
f. Pipeline crossings of fish bearing waters and wetlands important to waterfowl and shorebirds shall incorporate mitigative measures, to the extent feasible and prudent, to minimize significant adverse impacts. **(not applicable)**										
g. Overhead utility lines shall be visibly marked where necessary to avoid hazard to low flying aircraft. **(not applicable)**										
E-3 Stream Crossings. New or replacement bridges and culverts shall be designed, constructed, and maintained so as to allow passage of the flow of approximate 100 year flood events, and to maintain or enhance fisheries habitat values.						X				
E-4 Marine Transportation.						X	X	X	X	X
a. Marine transportation facilities such as ports, harbors and docks shall be designed to the extent feasible and prudent to avoid significant adverse impacts on tideflats and wetland areas and be designed and located so as to minimize obstruction to the established migration patterns of fish.						X	X	X	X	X
b. Solid fill shall be located and designed to maintain water circulation in harbor areas.						X	X	X	X	X
E-5 through E-8 Transportation and Utilities Administrative Policies **(not applicable)**										
F. Fish and Seafood Processing Policies										
F-2 Suitable Sites The City should work with the DOT&PF to plan continuing improvements to the State highway and international truck route through Haines. **(not applicable)**										
a. Coastal locations identified as suitable for facilities related to commercial fishing and seafood processing include the Port Chilkoot Dock area, and uplands and tidelands lots adjacent to (and north of) the Small Boat Harbor in Portage Cove. The City Lutak Dock and the City operated floating dock in Letnikof Cove (outside the City) are also suitable sites. **(not applicable)**										

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
b. Uplands locations for custom seafood processing and packing facilities may be suitable where they conform with applicable municipal, State and federal laws and regulations. **(not applicable)**										
F-3 Maintenance and Enhancement of Fisheries. Maintenance and enhancement of fisheries resources shall be given high priority in fisheries management and review of uses and activities which might have a significant adverse impact on fisheries habitat, migration routes, or the subsistence and commercial harvest of fish.						X	X	X	X	X
F-4 Coastal Development. Coastal development shall incorporate appropriate designs and measures to mitigate potential significant adverse impacts to fisheries resources, habitats, migration patterns and harvest areas.						X	X	X	X	X
F-5 and F-6 Fish and Seafood Processing Administrative Policies **(not applicable)**										
G. Timber Harvest and Processing Policies *Note: The following policies apply to those associated activities not preempted by the Alaska Forest Resources and Practices Act.*										
G-2 Timber Harvest Activities. As no significant commercial stands of timber remain within the Haines city limits, and remaining stands are required for landslide and erosion control and watershed protection, timber harvest activities shall generally be allowed for site clearing and development purposes on private, municipal, State, Mental Health Trust Authority lands (pursuant to Chapter 66 SLA 1991), and University of Alaska lands. Timber harvest and site clearing shall be planned and managed so as to minimize significant adverse impacts on the following:						X				
a. Fish populations and their habitat;						X				
b. Public access;						X				
c. Natural and improved drainage patterns;						X				
d. Healthy forests by spreading of infestations of forest pests or increasing the hazard of forest fire.						X				
G-3 Timber Processing Activities. Timber processing, storage, and transfer activities shall be located on sites approved by the City of Haines for that purpose and shall be operated, maintained, and closed-out to ensure that no wood waste products create significant adverse impacts on natural streams and drainages, wetlands, tidelands or the marine waters of the district.						X				
Timber Harvest and Processing Administrative Policies (not applicable).										
H. Mining and Mineral Processing Policies										
H-2 Location of Borrow Sites. To the extent feasible and prudent, extraction of sand, gravel and rock shall be permitted in the following order of priority:						X				
a. Existing, approved upland sand and gravel pits;						X				
b. Reuse of sand and gravel from abandoned development areas, unless reuse would cause more environmental damage than non-use from the area; and						X				
c. New upland sites approved for the purpose.						X				
H-3 Operation of Borrow Sites. Sand, gravel and rock borrow sites shall be operated to meet the following standards:						X				
a. The location and operation of borrow pits shall not interfere with natural drainage routes or shall fully mitigate impacts by establishing equal or better drainage routes in the area of impact which minimize siltation, debris and any other effects of erosion;						X				

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
b. Vegetative cover filter strips and buffers for the control of runoff and erosion shall be designed and maintained to minimize impacts on natural drainage, banks, surrounding vegetation, and adjacent property;						X				
c. Borrow areas inundated by high water shall be diked where required to segregate the work area from active channels and streams, and avoid the entrapment of anadromous fish;						X				
d. To the extent feasible and prudent, borrow site configurations shall be shaped to blend with physical features and surroundings; and						X				
e. Close-out of borrow pits shall include the reclamation and restoration required to ensure that anadromous fish will not be entrapped, and siltation and erosion is controlled.						X				
f. Excavated pits may be converted to fish and wildlife habitat upon recommendation and approval by ADF&G, Habitat and Fisheries Rehabilitation, Enhancement and Development Divisions.						X				
H-4 Operation of Mineral Transport Activities. All pipelines, stockpile and storage locations, transshipment equipment and facilities, and any other related minerals transport uses and activities shall generally be managed under the policies of "A. Coastal Development" and "D. Energy and Industrial Facilities" of this policies chapter. The following additional standards apply: **(policies H-4a through H-4c not applicable)**										
Mining and Mineral Processing Administrative Policies (not applicable)										
I. Subsistence Policies										
I-2 Subsistence Use and Access. Although there are no areas within the Haines coastal management boundaries where subsistence use is the dominant use, customary and traditional access to subsistence use areas shall be maintained to the extent feasible and prudent.						X	X	X	X	X
I-3 through I-4 Subsistence Administrative Policies **(not applicable)**										
J. Habitats Policies										
J-2 Wetlands and Anadromous Fish Habitat. Maintenance and enhancement of local, State, and/or federally identified wetlands and anadromous fish habitat shall be given the highest priority when reviewing proposals for land and water uses and activities which may cause significant adverse impacts to wetlands or to the spawning, rearing, migration or overwintering habitats of anadromous fish.						X	X	X	X	X
J-3 Protection of Wetlands and Anadromous Fish Habitat						X	X	X	X	X
a. All land and water uses and activities subject to State and/or federal consistency review and permits shall, to the extent required by State and federal laws and regulations, be obligated to conduct the surveys and studies needed to ensure that the siting, design, construction, mitigation, and operations performance standards for habitat protection are met.						X	X	X	X	X
b. All local land and water uses and activities subject only to City of Haines Coastal District review and permits shall mitigate potential significant adverse impacts upon freshwater or saltwater wetlands and anadromous fish habitat as specified in Policy A-11. The burden of proof shall be on the developer to meet all performance standards for mitigation which may include the following:						X	X	X	X	X
1. A local applicant may be required to provide the district with written recommendations from a professional biologist which specify the mitigation measures necessary to avoid significant adverse impacts on officially identified wetlands and anadromous fish habitat.						X				

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
2. Mitigation measures specified by the district for a local permit, and State and federal agencies (where State and/or federal permits are required), shall become conditions or stipulations to the approval of a local development permit by the district.						X	X	X	X	X
J-4 State and Federal Jurisdictional Wetlands and Anadromous Fish Habitat within the District										
a. Federal jurisdictional wetlands within the district have been identified and are shown on the National Wetlands Inventory USGS Map "Skagway A-2" on file in the City Office.						X				
b. State and federal jurisdictional anadromous fish habitat within the district has been identified as the main stem of Sawmill Creek (system #2002, ADF&G).										
J-5 Locally Identified Wetlands and Anadromous Fish Habitats These habitat management areas incorporate the State and federal jurisdictional habitat identified in J-4 above, and are further identified as follows:										
a. Sawmill Creek Wetlands and Anadromous Fish Habitat Management Area. Management within this area shall be for protection of the flood plain which supports anadromous fish and wildlife habitat. This area is identified on the district program map at the end of this policies chapter and on the City of Haines Flood Plain and Hazards Map and is further described as follows: That area which includes and extends 50' into the uplands beyond the banks of all anadromous fish streams, anadromous fish drainage channels, anadromous fish ponds, and major topographic depressions which are part of the Sawmill Creek flood plain; **(not applicable)**										
b. Portage Cove Saltwater Wetlands Management Area. This area shall be managed to protect public safety, to maintain, wherever feasible and prudent the natural vegetation, beaches, tidal pools, and aquatic life bordering Portage Cove, and to maintain the scenic, recreation, and education values along the waterfront. This area is identified on the district program map and is further identified as follows: the intertidal zone and adjacent uplands within Portage Cove seaward of the Lutak Highway, Front Street, and Beach Road rights-of-way within the Haines district boundaries.										
J-6 Habitats of Threatened and Endangered Species. No known critical habitat areas exist within the Haines coastal district boundary; however, several American bald eagle nest sites have been active within the City, and bald eagles are commonly seen throughout the district (the U.S. Fish and Wildlife Service enforces regulation and protection of bald eagles). Steller sea lions, Peregrine falcons, trumpeter swans, and humpback whales are known to migrate throughout the district. No haul-outs for sea mammals exist within the district, there are no known Peregrine falcon or trumpeter swan nests, and humpback whales only rarely and briefly enter the waters within the district (the National Marine Fisheries Service regulates protection of humpback whales and Steller sea lions).						X	X	X	X	X
a. Land and water uses and activities within the district shall avoid harming or disturbing bald eagles or their nest sites in accordance with the Bald Eagle Protection Act (16 USC 668) by timing operations when eagles are not breeding or nesting (generally September 1 to March 1), and/or retaining a buffer of undisturbed natural vegetation around occupied nest trees (generally 330 feet wide).						X	X	X	X	X

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
b. Humpback whales and Steller sea lions are protected by the federal Mammal Protection Act and Endangered Species Act and disturbance should be kept to a minimum. Humpback whales should be viewed from a distance from boats so as not to disrupt their feeding and migration patterns or cause any significant change in the activity of the animal. Shooting at or near any Steller sea lion is prohibited except for native subsistence uses. Commercial fishermen may use non-lethal and noninjurious means of harassment to deter humpback whales and sea lions from interfering with fishing gear.						X	X	X	X	X
J-7 Development Standards. The following additional performance standards apply to development activities in relation to habitats:										
a. Maintenance of Fish Passage and Stream Characteristics. Land and water development activities, facilities, and structures shall be designed, sited, constructed, operated and maintained in a manner which does not impede or interfere with timely access to spawning streams by adult anadromous fish or in-stream movements of juvenile anadromous fish. Existing fish passage problems shall be corrected by the entity responsible for the problem. All cross drainage structure on fish streams, including bridges and culverts shall:						X				
1. Be sited, constructed, and maintained to avoid changes to the direction or velocity of the stream flow;						X				
2. Be adequately sized to accommodate the best available estimate of the 25 year peak discharge without significantly interfering with the volume, velocity, sediment transport, or substrate characteristics of the stream;						X				
3. Provide for efficient passage or movement of fish upstream, downstream and in associated aquatic habitats, including wetlands;						X				
4. Avoid disturbance of fish spawning habitat.						X				
b. Geophysical Surveys. Geophysical surveys shall, to the extent feasible and prudent, be located, designed, and conducted to avoid disturbances to fish and wildlife populations, habitats, and harvests. Seasonal restrictions, restrictions on the use of explosives, or restrictions relating to the type of transportation utilized in such operations may be required as necessary to mitigate potential adverse impacts. Geophysical surveys in fresh and marine waters supporting fish or wildlife shall use energy sources such as air-guns, gas exploders, or other sources that have been demonstrated to be harmless to fish and wildlife. The in-water use of explosives for purposes other than geophysical surveys shall be considered on a case by case basis after all steps have been taken to minimize impacts and when no feasible or prudent alternatives exist to meet the public need. **(not applicable)**						X	X	X	X	X
c. Bank Stabilization. All bank cuts, fills and exposed earthwork adjacent to a wetland or waterbody shall be stabilized to prevent erosion and sedimentation into adjacent waters which may occur during or after construction. Bank stabilization measures shall be designed and constructed to protect habitat values by including irregular bank contours where appropriate and insuring that nearshore water velocities are not altered.						X				
d. Water Intake Structures. Water intake pipes used to remove water from anadromous fish waters shall be surrounded by a screened enclosure and velocity shall be limited so as to prevent fish entrainment and impingement.						X				

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
J-8 Uplands Habitats. To the extent feasible and prudent, upland habitats shall be managed to retain natural drainage patterns and vegetation cover on steep slopes and along shorelines and stream banks to avoid excessive runoff and erosion, protect surface water quality and natural groundwater recharge areas and provide for open space and scenic value. To the extent feasible and prudent, development of building sites and subdivisions will be conducted in such a manner that minimal destruction of mature trees results, while protecting human life and property.						X				
Habitats Administrative Policies (policy J-9 not applicable)										
K. Air, Land, and Water Quality Policies										
K-2 Storage of Petroleum Products and Other Hazardous Substances						X	X	X	X	X
a. To the extent feasible and prudent, facilities for the storage, processing, or treatment of petroleum products and other hazardous substances shall not be sited within the 100-year floodplain.						X	X	X	X	X
b. Where petroleum and hazardous materials storage is permitted outside of the 100-year floodplain, buffer zones of not less than 100 feet from ordinary high water shall be required, to the extent feasible and prudent, for separation of these facilities from rivers, streams, wells, wetlands, or marine waters which provide domestic or public water supplies, or support anadromous fish populations, as well as areas of human settlement or use which are highly susceptible to petroleum contamination.						X	X	X	X	X
c. At their discretion, the City of Haines will require the owner/operator of any above-ground petroleum products and hazardous substance storage facilities with tanks of under 10,000 barrels total capacity to verify that all EPA guidelines, and any other State and federal requirements are being met. Verification by a professional engineer hired by the owner/operator will be required. The City will notify the EPA if an enforcement action by the EPA is required.						X	X	X	X	X
K-3 Hazardous Materials. Storage, transportation, cleanup, and disposal of hazardous materials, as defined in the Hazardous Materials Transportation Act, shall comply with federal, state, and local laws and regulations. When a quantity of hazardous material meets or exceeds the threshold level set under the Emergency Planning and Community Right-to-Know Act, the City of Haines shall be notified of the type, quantity, mode and schedule of transportation or storage.		X	X	X	X	X	X	X	X	X
K-4 Disposal of Hazardous and Toxic Substances. Hazardous materials, petroleum, or petroleum products, as defined in State and federal regulations, shall not be disposed of in the City unless done so at a facility designed and approved for this purpose.		X	X	X	X	X	X	X	X	X
K-5 Effluents. All effluents in pipes and outfalls discharged into uplands areas, streams, or marine waters shall be treated, as required, so that water quality at the point of discharge at the end of the pipe meets all State and federal water quality standards. Mixing zones or zones of deposit in marine waters may be approved by DEC under the Alaska Water Quality Standards as short-term variances or by permit. **(not applicable)**										
K-6 and K-8 Air, Land, and Water Quality Administrative Policies **(not applicable)**										
L. Historic, Prehistoric, & Archaeological Resources Policies										

Attachment D
City Of Haines Coastal Management Program Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
L-2 Historic and Prehistoric Sites. Prior to permitting proposed development activities, historic and prehistoric sites identified and listed on the Alaska Heritage Resource Inventory will be reviewed by the Department of Natural Resources. The inventory is maintained by the Division of Parks and Outdoor Recreation, Office of History and Archaeology. Where there is potential for undiscovered cultural or historic sites in a project area, a resource survey may be required by the State Historic Preservation Office prior to surface disturbance. Within the Haines coastal district the following historic sites are recorded by the local, State, and/or federal governments.						X				
a. Fort William H. Seward, listed on the National Historic Register as a National Historic Landmark, has a "Significant Structures Area" (SSA) designated within Title 18, The City of Haines Land Development Code. All development activities within the SSA district are managed as required by Title 18. **(not applicable)**										
b. The Haines Townsite Local Historic District is defined by the boundary lines established in the original 1913 Haines Townsite Survey and is established in Title 18 as a local historic district. Within the historic townsite, 35 structures have been inventoried by the Division of Parks and Outdoor Recreation, Office of History and Archaeology. Management of development within the historic townsite is established in Title 18 under the "General Business" and "Residential" zoning districts. The Deishu Village site is also within the historic district. **(not applicable)**										
c. Tlingit Park and historic cemetery are managed as a parks and recreation and historical preservation area. Tlingit Park is within the "Waterfront" district in Title 18.						X				
d. The T'anani Village Site and Nukdik/Tanani Beach Site are within the area annexed to the City in June, 1993 and are currently not within an official zoning district.						X				
L-3 Protection of Sites.						X				
a. If previously undiscovered artifacts or areas of historic, prehistoric, or archaeological significance are encountered during development activities, the site shall be protected from further disturbance and the State Historic Preservation Office shall immediately be notified to evaluate the site or artifacts.						X				
b. After consultation with the landowner and the Haines coastal coordinator, the State Historic Preservation Office shall then make a determination as to further actions required on the development site to protect and preserve finds of significance.						X				
c. When development activities are located in areas designated as significant in local, state, and federal historic registers, and in areas of significant discoveries, mitigation required to the extent feasible and prudent to prevent significant adverse impacts on historic, prehistoric or archaeological resources shall be the responsibility of the developer.						X				
Historic, Prehistoric, & Archaeological Administrative Policies (policy L-4 not applicable)										

Note: Enforceable policies of the City of Haines coastal management program that may be applicable to an alternative are marked with an "X".

ATTACHMENT E

CITY OF SKAGWAY COASTAL MANAGEMENT PROGRAM AND AREAS MERITING SPECIAL ATTENTION ENFORCEABLE POLICIES APPLICABLE TO JUNEAU ACCESS IMPROVEMENTS ALTERNATIVES

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Attachment E
City Of Skagway Coastal Management Program And Areas Meriting Special Attention
Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2 A	2 B	2 C	3	4 A	4 B	4 C	4 D
City of Skagway Coastal Management Program Enforceable Policies										
August 15, 1983 Original Coastal Management Program goes into effect. **March 23, 1990** Revision **October 31, 1991** Port of Skagway and Skagway River AMSA Plans go into effect, and supplement the Skagway Coastal Management Program.										
Coastal Development Policies										
1.1 In planning for and approving plans for development in coastal areas, districts and state agencies shall give, in the following order, priority to:										
a) Water-dependent uses and activities;						X	X	X	X	X
b) Water-related uses and activities;						X	X	X	X	X
c) Uses and activities which are neither water-dependent nor water-related for which there is no feasible or prudent inland alternative to meet the public need for the use or activity.						X	X	X	X	X
1.2 The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with Parts 320-323, Title 33 Code of Federal Regulations.		X	X		X	X				
1.3 Skagway's development proposal review process will include consideration of potentially adverse effects of dredging or filling on the coastal ecosystem. While the ultimate effect such activity will have upon the fisheries resource habitats is of principal concern, other non-fisheries values will be dutifully considered in the development of the coastal zone.					X					
1.4 Dredging and filling shall be minimized in productive tideflats and wetlands, subtidal areas important to shellfish and anadromous water important for migration, spawning and rearing of salmon and other sportfish species.		X	X		X					
General Policies										
1.5 Development must be sensitive to the ecosystem in which it is located and incorporate mitigating measures into its design features to minimize adverse impacts on that ecosystem.		X	X	X	X	X	X	X	X	X
1.6 Development shall be located, designed, constructed and managed to wisely use natural features which are valuable or scarce in the region and to facilitate appropriate human use of such features while conserving them, including but not limited to beaches, natural wetlands, soils, aquifers, surface water, native plant and animal life, and shore processes.		X	X		X					
1.7 Development shall be managed according to the severity of natural constraints in order to reduce risks and minimize damage to life and property.		X	X		X					
1.8 The type and concentration of development in an area shall be dictated by the physical limitations and opportunities of the area. Physical conditions such as soil characteristics, slopes, geological features, surface and subsurface drainage, water tables, floodplains, and shoreforms shall be taken into consideration when planning development in an area.	X	X	X		X					
1.9 Development shall be located, designed and operated so that plant and animal populations, their respective habitats and the local ecological balance are maintained, where feasible and prudent.		X	X	X	X	X	X	X	X	X
1.10 Development shall be located, designed and operated, to the extent feasible and prudent, so as to have minimal adverse impact upon valuable physical shore features and processes, including accretion shoreforms, beaches, and littoral drift.	X			X		X				
1.11 Industrial, port and harbor development shall be located, designed and managed, to the extent feasible, so that other appropriate uses are neither subject to substantial or unnecessary adverse environmental impacts, nor deprived of reasonable, lawful use of navigable waters.	X			X		X	X	X	X	X

Attachment E
City Of Skagway Coastal Management Program And Areas Meriting Special Attention Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2 A	2 B	2 C	3	4 A	4 B	4 C	4 D
1.12 Water quality shall not be lowered below state standards on a long-term basis by development or any other activity, whether industrial, commercial or residential in nature.	X	X	X	X	X	X	X	X	X	X
Industrial Port and Harbor Development										
1.13 Ports, harbors and docks shall locate away from extensive tideflats and wetlands, and shall not obstruct fish passage along the coast or in anadromous waters.	X			X		X	X	X	X	X
1.14 Where conditions permit, piers, wharfs and floating docks shall be used in waters that have adequate flushing capabilities rather than areas requiring solid fill. In cases where solid fill has to be used, it shall be located to maximize circulation in the harbor.	X			X		X	X	X	X	X
1.15 Harbor, small boat harbor and marina designs must incorporate facilities for proper handling of sewage, refuse, fuel and waste oil. Discharge of untreated sewage from boats is prohibited.				X		X	X	X	X	X
1.16 Excavation, shoreline alteration and disturbance of anadromous streams, tideflats and wetlands shall be minimized in the construction and operation of port, harbor, dock and industrial facilities.	X			X		X	X	X	X	X
1.17 Ports, small boat harbors, marinas and docks shall be located, constructed and operated to minimize pollution.	X			X		X	X	X	X	X
1.18 Industrial and port development which is consistent with this program shall be protected from encroachment or interference by incompatible uses with less-critical site requirements, such as residential or commercial use. With the exception of the public use area which extends from the Small Boat Harbor to Pullen Creek Shoreline Park, the waterfront is and shall continue to be zoned and used for industrial purposes. Incompatible uses shall be prohibited except as a variance. Public access shall, however, be provided along the shoreline and the Skagway River to accommodate sightseeing and sportfishing where appropriate.	X			X		X	X	X	X	X
1.19 The industrial waterfront zone shall be managed to avoid or minimize conflict with the development or operation of the Small Boat Harbor or activities and developments proposed for the public use area. The area immediately surrounding the Small Boat Harbor shall, to the extent practicable, be reserved for marine-related and water-dependent uses.	X			X		X	X	X	X	X
1.20 The waterfront public use area shall be developed as a transitional buffer between the industrial waterfront and the Historic District.	X	X	X	X	X	X	X	X	X	X
1.21 The Port Authority and industrial users of the port and harbor shall minimize the negative aesthetic impact of their use and activities, shall enhance and maintain the positive visual aspects of their development, and provide opportunities for public viewing of such positive aspects whenever practical and safe.	X			X		X	X	X	X	X
1.22 This program's multiple-use objectives shall be implemented in the following manner:										
a) Recreational use of undeveloped shorelines not needed for port or industry operations shall be encouraged for employees and/or the public, whenever possible, as long as such uses are safely compatible with operations; **(not applicable)**										
b) Cooperative uses of piers, cargo handling, storage, parking and other accessory facilities among private or public entities shall be strongly encouraged or required whenever feasible.	X			X		X	X	X	X	X
c) Navigable waters shall be kept free of unnecessary hazardous or obstructing development; the historic open character of these waters is important to all harbor uses which are dependent on marine transportation. No one (1) use shall be allowed to effectively exclude other appropriate uses from significant portions of navigable waters.	X			X		X	X	X	X	X

Attachment E
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Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2 A	2 B	2 C	3	4 A	4 B	4 C	4 D
1.23 Port and industrial facilities shall be located, to the extent feasible, where adequate land access and utility services are available or can be provided, and where required site development can be carried out and maintained without significant adverse impact on water quality, valuable shore features, or real property. The Port of Skagway shall, where feasible and prudent, be developed more intensely before committing new areas, to make full use of the available space and infrastructure, to maintain options for alternative uses of other sites, to forego potential public costs associated with developing a new site, and to prevent unnecessary degradation of coastal resources.	X			X		X	X	X	X	X
1.24 New development will be encouraged to provide physical or visual access to shorelines when such access does not cause interference with operations or hazards to life and property.	X	X	X	X	X	X	X	X	X	X
1.25 through 1.29 Commercial Development **(not applicable)**										
1.30 through 1.39 Residential Development **(not applicable)**										
Geophysical Hazard Areas Policies										
2.1 Skagway shall encourage appropriate state and federal agencies to improve information on types and locations of hazard areas in the district.		X	X		X					
2.2 Detailed investigations of the potential for flooding shall be required, as deemed appropriate by the city council, prior to allowing any development in the one-hundred (100) year floodplain of the upper Skagway Valley (north of the northernmost limit of the White Pass and Yukon Route (WPYR) railroad terminal grounds). *Note: Because Skagway has limited engineering expertise on staff, the City has chosen to lay the burden of proof upon developers to demonstrate, through geo-technical investigations, the safety and mitigating measures for developments proposed in suspected hazardous areas.* **(not applicable)**										
2.3 Development in areas identified below may not be approved by the appropriate state authority or by the city until siting, design and construction measures for minimizing property damage and protecting against loss of life have been provided. Known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur are:		X	X		X	X	X	X	X	X
a) The lower Skagway Valley (seismic risk, landslide risk, and isostatic rebound);		X	X		X	X	X	X	X	X
b) The Taiya River Valley (seismic risk, avalanche, isostatic rebound); **(not applicable)**										
c) The Skagway River floodplain, as described and mapped by the Federal Insurance Administration, U.S. Department of Housing and Urban Development, under authority of Section 201 of the Flood Disaster Protection Act (flood hazard).		X	X		X					
2.4 Development shall be precluded in rapidly eroding, slide-prone or geologically unstable shorelines. Development shall be severely limited where resulting damage to life and property is highly probable. Any development in these areas must be based on a geo-technical investigation attesting to the safety of the area and/or specific engineering practices or structures that would alleviate or mitigate the hazard.		X	X		X					
2.5 The city shall regulate the location of structures in order to reduce the impact of flooding and to allow for natural drainage.		X	X		X					
2.6 The city shall require special development procedures for developments in natural constraint areas, and require specific geo-technical information to identify possible problems and methods for mitigating undesirable impacts.		X	X		X					
2.7 Surface modification that would induce excessive erosion, undermine the support of nearby land, or unnecessarily scar the landscape shall be limited. Surface modifications in natural constraint areas shall be limited to the smallest extent that is needed for development.		X	X		X					

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Plan	Alternative									
	1	2	2 A	2 B	2 C	3	4 A	4 B	4 C	4 D
2.8 Developers shall retain existing vegetative cover to the greatest extent feasible. In cases where development necessitates removal of vegetation, a reasonable amount of landscaping shall be required to replace vegetation removed during construction.		X	X		X					
2.9 Historic landslide areas or areas prone to landslides, slumping or forms of mass wasting shall be subject to a geo-technical investigation to determine if development is allowable and, if so, what design measures shall be required to protect life and property.		X	X		X					
2.10 City floodplain management regulations apply (SCC Chapter 15.12).		X	X		X					
Recreation Policies										
3.1 The state standard (6 AAC 80.060) is adopted as a part of the Skagway Coastal Management Program.		X	X	X	X	X	X	X	X	X
3.2 The following areas meet that standard and are designated as recreational areas:										
a) City-selected lands in the West Creek Valley; **(not applicable)**										
b) State lands classified for public recreation by the Haines-Skagway area land use plan;		X	X		X					
c) Yakutania Point Park; **(not applicable)**										
d) Pullen Creek Shoreline Park	X									
e) City Small Boat Harbor;	X					X	X	X	X	X
f) Hanousek Park; **(not applicable)**										
g) Molly Walsh Park; **(not applicable)**										
h) State lands at Reid Falls/Gold Rush Cemetery;		X	X		X					
These designations are not to prohibit consideration and development of hydroelectric power facilities nor the construction of campgrounds. **(not applicable)**										
3.3 The city shall encourage recreational and tourist use and development, as well as provide public access to the shoreline and recreation areas.		X	X	X	X	X	X	X	X	X
3.4 Recreational developments shall be located, designated, constructed and managed to minimize adverse effects on other appropriate shoreline uses, whether existing or officially planned, and to provide safe, healthy conditions for recreationists. **(not applicable)**										
3.5 Recreational and access developments shall, wherever appropriate, preserve or enhance scenic views and vistas, as well as improve the aesthetic value of the area.		X	X		X					
3.6 Access to natural-character recreational areas such as fishing streams and hunting areas shall be a combination or series of linear shoreline trails or easement and small parking areas to minimize user concentration on small portion of the shoreline or upland areas.		X	X		X					
3.7 There is a scarcity of suitable sites for public shoreline-oriented recreation. Therefore, provision for reasonable recreation use shall be encouraged in suitable port, industrial, commercial and residential areas.		X	X		X					
3.8 Shoreline areas such as beaches that are suitable for several forms of recreation are scarce. These areas shall not be developed for uses which can be located elsewhere.		X	X		X					
3.9 Where recreational developments are composed primarily of a single-purpose use (e.g., camping), adequate open space shall be provided to preserve the natural features of the area and to provide a sufficient amount and variety of recreation opportunities for the users of the development. **(not applicable)**										

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Enforceable Policies Applicable To Juneau Access Improvements Alternatives

Plan	Alternative									
	1	2	2 A	2 B	2 C	3	4 A	4 B	4 C	4 D
3.10 Since shorelines with a high value for recreation are limited and the long term demand is unlimited, facilities for water-dependent recreation, such as fishing, swimming, and boating, and water-oriented recreation such as picnicking, hiking and walking shall be located near the shoreline, while nonwater-related recreation facilities shall be located where feasible and prudent. **(not applicable)**										
Energy Facilities (Policies 4.1 through 4.10 not applicable)										
Transportation and Utilities Policies										
5.1 State Standard. The state standard (6 AAC 80.080) is adopted as a part of the Skagway Coastal Management Program.	X	X	X	X	X	X	X	X	X	X
5.2 Developers shall be required to install or establish access roads and utilities of a quality and type as needed to best protect shore features and other users that may be affected by pollution, nuisances, flooding, erosion, and other adverse effects unless no feasible and prudent sites exist.		X	X		X					
5.3 Any conveyances of land near the Dyea Road shall reserve a sufficient right-of-way for major roadway improvements and widening.		X	X		X					
5.4 Highway and airport design, construction and maintenance shall minimize alteration of watercourses, wetlands and intertidal marshes, and aesthetic degradation.		X	X		X					
5.5 Roads and trails shall only cross anadromous streams when necessary to provide access, as deemed necessary by the city. Bridge or culvert construction and design must minimize habitat disturbance and allow fish passage. Phasing of construction shall be done to avoid critical migration periods for salmon and other anadromous species.		X	X		X					
5.6 Where practicable, the city shall establish buffers and setbacks to maintain the scenic quality of the Dyea Road and Klondike Highway transportation corridors. Prior to development activities within one hundred (100) feet of the centerline of the Dyea Road and Klondike Highway rights-of-way, development plans must be reviewed to determine that the project was designated to blend with the area's visual character. Any development along the Klondike Highway shall, to the extent feasible, conform to the DNR Haines-Skagway Area Land Use Plan.		X	X		X					
5.7 The city shall have active participation in the writing, review and approval of any scenic corridor study undertaken by the state.		X	X		X					
5.8 Commercial development in the Klondike Highway corridor shall be concentrated in suitable locations. Businesses shall blend with the natural surroundings to the extent possible, and provide safe ingress and egress. **(not applicable)**										
5.9 Use of vehicles off established or designated roads is prohibited on tidelands, shorelands, community or public backshore beaches, streamways or natural wetlands, except as necessary or for public health and safety, maintenance or water access.		X	X		X					
5.10 Parking areas shall be surfaced, whenever possible, with permeable materials and provided with suitable drainage controls to minimize ponding and excessive concentrated runoff with its resulting erosion, pollution and sedimentation. Such areas shall be buffered, as feasible and prudent, from shorelines and less-intense adjacent uses by vegetation or underdeveloped space. They will also be sited, screened and surfaced to minimize dust problems.	X			X		X	X	X	X	
5.11 To the extent practicable, underground installation of utilities is required in areas designated at subsection A1 of Section 17.40.030 of this code as being of high recreational or scenic value. **(not applicable)**										

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Plan	Alternative									
	1	2	2 A	2 B	2 C	3	4 A	4 B	4 C	4 D
5.12 New outfall pipes shall be located to minimize adverse impact on habitats, particularly wetlands. New outfalls shall be placed at an adequate distance and depth from shore, and shall be designed to provide optimal dispersal of the effluent, or shall utilize authorized land application of treated sewage effluent. **(not applicable)**										
5.13 To avoid leachate pollution, sanitary landfills shall be located at sites approved by the Alaska Department of Environmental Conservation. **(not applicable)**										
5.14 Development shall only locate in areas where utilities are either available, can be economically extended, can be developed as part of the project, or suitable on-site systems are possible.	X	X	X	X	X	X	X	X	X	X
Fish and Seafood Processing Policies										
6.1 State Standard. The state standard (6 AAC 80.090) is adopted as part of the Skagway Coastal Management Program.										
6.2 Maintenance and enhancement of fisheries shall be given priority consideration in reviewing shoreline use proposals which might adversely impact fisheries habitat, migratory routes, and harvest of significant fish or shellfish species. Alternate locations or designs shall be seriously considered for such proposals if such potential adverse impacts are significant. Shorelines having banks, beaches, and beds critical to the preservation or enhancement of the fisheries resource base shall be maintained or restored to a productive natural condition whenever feasible and prudent.		X	X	X	X	X	X	X	X	X
6.3 Development and operation of hatcheries shall comply with the fishery-enhancement policies and regulations in this plan. Upland areas must be managed to maintain water quality standards necessary to the operation of hatcheries. **(not applicable)**										
6.4 Fisheries enhancement and aquaculture shall aim toward maintaining or restoring the quality and normal circulation patterns of affected waters at optimum levels consistent with applicable state standards. Aquaculture/hatcheries and fisheries shall be protected from significant water quality degradation by other uses. **(not applicable)**										
6.5 Aquaculture development and fisheries enhancement shall be located, designed and operated so that aesthetic values of local shorelines are maintained to the extent feasible and prudent. **(not applicable)**										
6.6 Fisheries enhancement and aquaculture practices, including disposal of wastes, viscera or fish scrap, shall be conducted so that applicable state water quality and litter control standards are not violated. **(not applicable)**										
6.7 Other land and water uses shall not degrade waters used for fishery enhancement or aquaculture.	X	X	X	X	X	X	X	X	X	X
6.8 Development accessory to fisheries enhancement and aquaculture shall be located inland unless clearly dependent upon a shore or water surface location. Accessory development of a mainly commercial or industrial nature will be subject to appropriate policies and standards of this program. **(not applicable)**										
6.9 Aquaculture or fisheries enhancement development shall be located where interference with navigation, commercial fishing, shoreline-dependent recreation or lawful access to shorelines will not become significant. A reasonable portion of regional navigable waters shall be allocated to such development on a long-term basis, however, because of high potential for regional economic and recreational benefits. **(not applicable)**										
Timber Harvest and Processing Policies										
7.1 The State standard and superseding provisions of the Alaska Forest Resources and Practices Act are adopted as part of the Skagway Coastal Management Program.		X	X		X					

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Plan	Alternative									
	1	2	2 A	2 B	2 C	3	4 A	4 B	4 C	4 D
7.2 Fuelwood cutting within one hundred (100) feet of the centerline of the Dyea Road and the Klondike Highway rights-of-way must be done in a manner that minimizes visual impact. **(policies 7.2-1 to 7.2-3 not applicable)**										
Mining and Mineral Extraction Policies										
8.1 The state standard (6 AAC 80.110) is adopted as part of the Skagway Coastal Management Program. The state standard reads:										
a) Mining and mineral processing in the coastal area must be regulated, designed, and conducted so as to be compatible with the standards contained in this chapter, adjacent uses and activities, statewide and national needs, and district programs.		X	X		X					
b) Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel.		X	X		X					
Subsistence Policies										
9.1 The state standard is adopted as part of the Skagway Coastal Management Program. The state standard reads:										
a) District and state agencies shall recognize and assure opportunities for subsistence usage of coastal areas and resources.		X	X	X	X	X	X	X	X	X
b) Districts shall identify areas in which subsistence is the dominate use of coastal resources. **(not applicable)**										
c) Districts may, after consultation with appropriate state agencies, Native corporations, and any other persons or groups, designate areas identified under (b) of this section as subsistence zones in which subsistence uses and activities have priority over all nonsubsistence uses and activities. **(not applicable)**										
d) Before a potentially conflicting use or activity may be authorized within areas designated under (c) of this section, a study of the possible adverse impacts of the proposed potentially conflicting use or activity upon subsistence usage must be conducted and appropriate safeguards to assure subsistence usage must be provided. *Note: Because subsistence use areas have not be identified and documented in the Skagway area, Skagway is not proposing to designate any subsistence zones, at this time. If, at a later date, and after coordination with federal and state agencies, and public review, it appears necessary to safeguard subsistence areas, Skagway will consider an amendment to its district program.* **(not applicable)**										
Habitats Policies										
10.1 State Standard. The state standard (6 AAC 80.130) is adopted as a part of the Skagway Coastal Management Program.	X	X	X	X	X	X	X	X	X	X
10.2 The following habitats are subject to coastal management standards: a) The Taiya Inlet estuary and off-shore area; b) Wetlands and tideflats along Taiya River, Skagway River and along Taiya Inlet; c) Rivers, streams and lakes, including the Taiya and Skagway Rivers, those portions of the Nourse River within the district and West, Pullen and Kasidaya Creeks; and d) Important upland habitat for goats, moose and bear, plus a two-hundred-foot (200') buffer along the coastlines, streams and water supplies, as defined by Alaska Department of Fish and Game. *Note: This policy is intended to identify areas subject to the following habitat policies. All uses and activities within or affecting the coastal zone boundary are subject to all relevant ACMP standards and district policies.*	X	X	X	X	X	X	X	X	X	X
10.3 Coastal habitats are interdependently linked by flows of energy, water and nutrients. These habitats should, therefore, be managed using a holistic approach which maintains or enhances the physical, biological and chemical characteristics of those habitats, contributing to their capacity to support living resources.	X	X	X	X	X	X	X	X	X	X

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Plan	Alternative									
	1	2	2A	2B	2C	3	4A	4B	4C	4D
10.4 The Taiya Inlet estuary and adjacent uplands shall be managed so as to assure adequate water flow, natural circulation patterns, nutrient and oxygen levels. Discharge of toxic wastes, silt, stormwater and sewage shall be regulated in compliance with state and federal regulations governing point and non-point pollution sources.	X			X		X	X	X	X	X
10.5 Remaining natural estuarine and wetland shorelines shall be maintained, where feasible and prudent, in their natural, productive condition.	X			X		X	X	X	X	X
10.6 Upland habitats shall be managed, to the extent feasible, to retain natural drainage patterns and vegetarian cover on steep slopes, and along shorelines and stream banks to prevent excessive runoff and erosion, protect surface water quality and natural groundwater recharge areas, and provide for open space and scenic value.		X	X		X					
10.7 The portion of Skagway River tideflats and wetlands north of the southernmost city well shall be managed so as to assure adequate water flow, nutrient and oxygen levels, and to avoid adverse effects on natural drainage patterns, the destruction of important habitat and the discharge of toxic substances.				X		X	X	X	X	X
Historic, Prehistoric, and Archaeological Resources Policies										
11.1 The State Standard (6 AAC 80.150) is adopted as a part of the Skagway District Coastal Management Program. The State Standard reads: "Districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local history or prehistory." **(not applicable)**										
Air, Land, and Water Quality Policies										
12.1 State Standard. The state standard (6 AAC 80.140) is adopted as a part of the Skagway Coastal Management Program.	X	X	X	X	X	X	X	X	X	X
12.2 Notwithstanding any other provisions of this chapter the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land and water quality are incorporated into the Alaska Coastal Management Program and, as administered by that agency, constitute the components of the Skagway Coastal Management Program with respect to those purposes.	X	X	X	X	X	X	X	X	X	X
12.3 The city shall require reasonable control of surface runoff on-site so that water quality and nearby shore features and properties are not adversely affected. Where appropriate, such measures shall include, but are not limited to, dikes, catchbasins or settling ponds, interceptor drains, planted buffers, or other suitable devices.	X	X	X		X	X				
12.4 Oil and hazardous materials shall not be disposed of without state authorization. Facilities and procedures utilizing the best available technological pollution control systems for handling, disposal and prompt spill-cleanup of such materials shall be required, where feasible and prudent, of new or expanded shoreline development using such materials.		X	X		X					
12.5 Hazardous materials, hazardous wastes and explosives shall not be transported through the city, nor stored in the city, without prior notification and approval of the city. Notice shall include the provision of a detailed manifest. Absence of objection within three (3) working days of receipt of notice by the city shall constitute approval.		X	X		X					
12.6 Land clearing, grading, filling and alteration of natural drainage features and landforms shall be limited to the minimum necessary. Surfaces cleared of vegetation and not to be developed shall be replanted as soon as possible with native or compatible plants. Surface drainage systems or substantial earth modifications shall be designed to prevent maintenance problems and adverse impact on shore features and processes.		X	X		X					
12.7 Water quality shall not be lowered below state standards on a long-term basis by development or any activity, whether industrial, commercial or residential in nature.	X	X	X	X	X	X	X	X	X	X

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Port of Skagway Area Meriting Special Attention (AMSA) Enforceable Policies										
(*Port of Skagway AMSA policies duplicate many of the enforceable policies in the Skagway coastal management plan; only the text of those that are different or specifically apply to the AMSA are identified in the following section)										
A. WATERFRONT DEVELOPMENT										
A-1 Water-Dependent and Water-Related Activities (duplicates City of Skagway general coastal management program policies)										
A-2 Mitigation. All land and water uses and activities in the Port of Skagway AMSA shall be conducted with appropriate planning and implementation to mitigate potentially adverse effects on the following resources or values of local, State or national importance:										
a) Air and water quality;	X	X	X	X	X	X	X	X	X	X
b) fish and wildlife populations and their habitats in and adjacent to Pullen Creek and the mouth of the Skagway River;	X	X	X		X	X				
c) use of the small boat harbor;				X		X	X	X	X	X
d) fishing activities;		X	X	X	X	X	X	X	X	X
e) recreational resources.		X	X	X	X	X	X	X	X	X
The public and private costs of mitigation relative to the public and private benefits to be gained will be considered in the implementation of this policy. Mitigation shall include and be considered in the following order of preference:	X	X	X	X	X	X	X	X	X	X
a) avoid the loss altogether by not taking a certain action or parts of an action;										
b) when the loss cannot be avoided, minimize the loss by limiting the degree or magnitude of the action and its implementation;										
c) when the loss of resources and/or associated activities of local, State or national importance cannot be minimized, restore or rehabilitate the resource to its pre-disturbance condition, to the extent feasible and prudent; and										
d) where the loss of important habitat or activities of local, State or national importance is substantial and irreversible and can not be avoided, minimized, restored or replaced, compensate for the loss by replacing, enhancing, or providing substitute resources or environments. Compensation may be in-kind or out-of-kind and off-site or on-site.										
A-3 Multiple Use. To the extent feasible and prudent, piers, docks, cargo handling, fuel, and other storage, parking, and other necessary facilities shall be designed and used to minimize the need for duplicative facilities.	X			X		X	X	X	X	X
A-4 Consolidation of Facilities. To the extent feasible and prudent, facilities and activities shall be located adjacent to similarly used facilities and areas.	X	X	X	X	X	X	X	X	X	X
A-5 Compatibility. Activities on and uses of Port of Skagway lands and water shall be compatible with adjacent land and water uses. Compatibility shall be given priority attention when industrial uses locate adjacent to or share facilities with docks used by tourists and the recreational portion of the AMSA. Compatibility may be achieved by visual and sound buffering and screening.	X	X	X	X	X	X	X	X	X	X
A-6 Shoreline Access. Shoreline uses shall, to the extent feasible and prudent, provide shoreline access.	X			X	X	X	X	X	X	X
A-7 Navigational Obstruction. Uses and activities in coastal waters shall meet the following requirements:										
a) Structures and buoys placed in navigable waters shall be visibly marked and placed in a manner to minimize navigational hazards or obstructions.	X			X	X	X	X	X	X	X

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	1	2	2 A	2 B	2 C	3	4 A	4 B	4 C	4 D
b) To the extent feasible and prudent, all temporary and permanent developments, structures and facilities in marine and estuarine waters shall be sited, constructed, operated, and maintained in a manner that does not create a hazard or obstruction to marine transportation or commercial fishing operations.	X			X	X	X	X	X	X	X
c) No one use shall effectively exclude other appropriate uses from significant portions of navigable waters.	X			X		X	X	X	X	X
A-8 Dredge and Fill Requirements. Projects that require dredging and filling in productive waterfront habitats will be located, designed, constructed, and maintained to:										
a) mitigate significant impacts or destruction of important fish habitat;				X		X	X	X	X	X
b) mitigate significant interference with fish migration, spawning, and rearing;				X		X	X	X	X	X
c) limit the extent of direct disturbance to as small an area as possible;				X		X	X	X	X	X
d) minimize turbidity and waterborne sediment transported away from the dredge or fill site; and				X		X	X	X	X	X
e) maintain circulation and drainage patterns in the area of the fill.				X		X	X	X	X	X
A-9 Disposal of Dredge Materials. Dredged materials disposed of in shoreline fills shall, to the extent feasible and prudent, not cause significant adverse impacts to shoreline processes or habitats. Where adverse impacts to shoreline processes and important habitats are unavoidable, they shall be mitigated. Upland disposal sites for dredge materials shall be contained and stabilized to prevent erosion and leaching into adjacent waters. Upland or offshore disposal of dredge materials shall avoid important habitats and be conducted in compliance with State and federal water quality regulations.				X		X	X	X	X	X
A-10 Aesthetic Impacts. Because the small Port area is very busy and accommodates industry, local residents and tourists, uses and activities shall avoid or minimize negative aesthetic and noise impacts. Buffering between adjacent uses shall be required where feasible and prudent.				X		X	X	X	X	X
A-14 Allowable Uses. The small boat harbor and surrounding area shall be reserved for boating and fishing uses, including marine and fish related commercial businesses. These uses shall be protected from encroachment or interference by incompatible uses. Uses include, but are not limited to, a small boat haul-out, businesses such as boat rentals, boat repair, marine service stations and marine equipment. Pedestrian-related amenities and public access to this area will be enhanced to accommodate sightseeing and sportfishing where appropriate. To the extent feasible and prudent, uses that jeopardize the existence or safe operation of small boats shall be prohibited. Any physical or operational loss of the small boat harbor shall be mitigated.				X		X	X	X	X	X
A-15 Avoid Conflict with Small Boat Harbor Uses. The industrial waterfront area shall be managed to avoid or minimize conflict with the development and operation of the small boat harbor and marine and boat related commercial activities.				X		X	X	X	X	
A-16 Visual Impact. Marine and fish related shoreline business shall not detract from the scenic qualities of the shoreline, shall be compatible in design with its surroundings and to the extent feasible and prudent, shall not significantly block scenic vistas.				X		X	X	X	X	X
B. FISHERIES										
B-1 Maintaining Jerry Myers Hatchery. Maintenance and enhancement of the Jerry Myers Hatchery and its fisheries shall be given high priority in reviewing any proposal that might impact the fisheries habitat, migratory routes, recreational fish harvest, or the ability of the Jerry Myers Hatchery to operate.		X	X		X					
B-2 Protection of Water for Jerry Myers Hatchery. Land and water uses shall not degrade water quality or quantity below required needs for the Jerry Myers Hatchery.		X	X		X					

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B-3 Aquaculture development and fisheries enhancement shall be located, designed and operated so that aesthetic values of local shorelines are maintained to the extent feasible and prudent. **(not applicable)**										
B-4 Disposal of Fish Wastes. Fisheries enhancement and aquaculture practices, including disposal of wastes, viscera or fish scrap, shall be conducted so that State water quality and litter control standards are not violated. **(not applicable)**										
B-5 Pullen Creek Spillway. Sportfishing opportunities around the spillway shall be improved. To the extent feasible and prudent, opportunities to rear fish in saltwater at the base of Pullen Creek shall not be jeopardized	X			X		X	X	X	X	X
C. HABITAT										
(*policies duplicate criteria of City of Skagway general coastal management plan)										
D. AIR, LAND AND WATER QUALITY										
D-1 Air, Land and Water Quality. Notwithstanding any other provisions of this chapter, the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land and water quality are incorporated into the Port of Skagway AMSA Plan. Water quality shall not be lowered below State standards by development or any activity.	X	X	X	X	X	X	X	X	X	X
D-2 Waste-Water Discharge. All permits, leases, or plans of operation for projects shall require siting, design, construction, and operation to provide reasonable assurance that waste water discharges will meet water quality standards. Where appropriate, such measures shall include, but are not limited to, dikes, catch basins or settling ponds, interceptor drains, planted buffers or other suitable devices.				X		X	X	X	X	X
D-3 Development Considerations. Development shall incorporate facilities for proper storage, disposal and handling of petroleum products and fuel, solid waste, waste oil, sewage and refuse in accordance with State and federal regulations. Discharge of untreated sewage from boats is prohibited.				X		X	X	X	X	X
D-4 Ore Transport and Containment. Transportation of mining ore shall take place in containerized vessels to prevent the spread and consequent contamination from ore or ore dust. Handling of ore material shall take place in full compliance with DEC and EPA regulations. **(not applicable)**										
D-5 Hazardous Materials. Storage, transportation, cleanup, and disposal of hazardous materials (as defined in the Hazardous Materials Transportation Act) shall comply with federal, State and local regulations. The City shall be notified of the quantity of material when it meets or exceeds the threshold quantity set under the federal Emergency Planning and Community Right To Know Act (SARA Title III).		X	X	X	X	X	X	X	X	X
D-6 Storage of Petroleum and Petroleum Products. New facilities for the storage, processing, or treatment of 500 gallons or more of petroleum or petroleum products shall be sited a minimum of 100 feet from domestic water supplies or from rivers and streams. Impermeable berms or basins capable of retaining 100 percent of the tank capacity (or capacity of the largest tank where multiple tanks are separately valved) plus 12 inches of freeboard shall be required to minimize the potential for inadvertent pollution.		X	X	X	X	X	X	X	X	X
D-7 Spill Containment and Cleanup Equipment. In accordance with federal EPA regulation, any petroleum transport, storage, and refueling operation that involves a single above ground tank of more than 660 gallons, an aggregate of 1320 gallons above the ground or 42,000 gallons or more below the surface shall maintain and have access to oil spill containment and cleanup equipment located in Skagway.		X	X	X	X	X	X	X	X	X

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D-8 Environmental Protection Technology. To the extent feasible and prudent, equipment and procedures using the most effective technology for limiting emissions and effluent, and for the storage, handling, cleanup, and disposal of oil and hazardous materials shall be required for industrial, energy, and transportation facilities.		X	X	X	X	X	X	X	X	X
D-9 Cumulative Impacts. (Administrative Policy - **not applicable**)										
E. TRANSPORTATION										
E-1 Stream Crossings. Bridges and culverts shall be designed, constructed and maintained to allow sufficient fish passage of anadromous and resident fish. Stream crossings shall be consolidated. Construction shall be completed at times to avoid sensitive life stages.		X	X		X					
E-2 Road and Railroad Location and Maintenance. Roads and railroads within the AMSA shall, to the extent feasible and prudent, be sited to avoid disruptions to adjacent uses, shall be constructed and maintained to minimize blowing dust and other hazards, and maximize public safety.		X	X		X					
E-3 Airport Expansion. Airport expansion will be permitted in the northwest corner of the AMSA to provide adequate apron, hanger lots, a terminal building and vehicle parking, if the proposed airport improvements are supported by an airport plan approved by the city council. **(not applicable)**										
E-5 Amenities. The portion of Congress Way that is within the small boat harbor-marine commercial area shall be enhanced with increased landscaping, benches, windbreaks, a bike path and racks and other recreation and pedestrian-related amenities. **(not applicable)**										
F. RECREATION										
F-1 Designation of Recreation and Public-Oriented Areas. The Pullen Creek area, portions of Congress Way, and the small boat harbor within the Port of Skagway AMSA are designated as recreation areas (see AMSA Existing and Future Land Use map at Figure 6 in the Resource Analysis chapter [of the Skagway coastal management plan]). These three areas are off-site target locations for the "5% amenities-enhancement funds" collected under the City of Skagway waterfront zoning ordinance at Skagway City Code 19.08.060.				X		X	X	X	X	X
F-2 Protection of Pullen Creek Area Values. Use of the Pullen Creek area is restricted to fish hatchery, recreation, and pedestrian-related amenities. The public maintenance or enhancement of habitat is allowed. Public access to the Pullen Creek shoreline for sightseeing, fish-viewing, sportfishing and other recreational pursuits shall be maintained and enhanced. **(not applicable)**										
F-3 Protection of Congress Way Area Values. Opportunities for public use and access to the shoreline and small boat harbor around Congress Way shall be enhanced. Amenities such as landscaping, board sidewalks, benches, windbreaks, a bike path and racks, interpretative displays, banners, and other recreational and pedestrian-related features shall be established and maintained. **(not applicable)**										
F-4 Protection of Small Boat Harbor Values. Recreational and commercial fishing use of the small boat harbor area are generally compatible and will be maintained and enhanced. Water dependent and related commercial business is encouraged in adjacent designated uplands and the proposed new deck area on the east side of the harbor. Public access, visual and pedestrian-related amenities shall be maintained and enhanced in these areas to the extent feasible and prudent. **(not applicable)**										
F-5 Recreational Development Design. Recreational developments shall be located, designed, constructed, and managed to minimize adverse effects on other allowable appropriate shoreline uses, whether existing or officially planned, and to provide safe, healthy conditions for recreationists. **(not applicable)**										
F-6 Scenic Views. Recreational and access developments shall blend into the surroundings and preserve or enhance scenic views and vistas.		X	X		X					

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Skagway River AMSA Enforceable Policies										
(*Skagway River AMSA policies duplicate many of the enforceable policies in the Skagway coastal management plan; only the text of those that are different or specifically apply to the AMSA are identified in the following section)										
G. SHORELINE DEVELOPMENT										
G-1 Water-Dependent and Water-Related Activities. In planning for and approving development plans in the Skagway River AMSA, the City, State and federal agencies shall give priority in the following order to:										
a) water-dependent uses and activities;				X		X	X	X	X	X
b) water-related uses and activities;				X		X	X	X	X	X
c) uses and activities which are neither water-dependent nor water-related for which there is no feasible or prudent alternative to meet the public need for the use [or] activity; and				X		X	X	X	X	X
d) uses and activities which are neither water-dependent nor water-related for which there are upland alternatives. Permitting of such uses and activities will be evaluated on a case-by-case basis to insure that a future significant potential water-dependent or water-related use for that site is not preempted.				X		X	X	X	X	X
G-2 Mitigation. All land and water uses and activities in the Skagway River AMSA shall be conducted with appropriate planning and implementation to mitigate potentially adverse effects on the following resources or values of local, State or national importance:										
a) air and water quality;		X	X		X					
b) fish and wildlife populations and their habitats; and		X	X		X					
c) the river's hydraulic capacity.		X	X		X					
The public and private costs of mitigation relative to the public and private benefits to be gained will be considered in the implementation of this policy. Mitigation shall include and be considered in the following order of preference:		X	X	X	X	X	X	X	X	X
a) avoid the loss altogether by not taking a certain action or parts of an action;										
b) when the loss cannot be avoided, minimize the loss by limiting the degree or magnitude of the action and its implementation;										
c) when the loss of resources and/or associated activities of local, State or national importance cannot be minimized, restore or rehabilitate the resource to its pre-disturbance condition, to the extent feasible and prudent; and										
d) where the loss of important habitat or activities of local, State or national importance is substantial and irreversible and can not be avoided, minimized, restored or replaced, compensate for the loss by replacing, enhancing, or providing substitute resources or environments. Compensation may be in-kind or out-of-kind and off-site or on-site.										
G-3 Design and Siting Criteria. Development shall be sited, constructed and operated to reduce the impact of flooding and other geophysical risks, to allow for natural drainage and to minimize damage to life and property. To the extent feasible and prudent, development within the Skagway River floodway is prohibited. Those areas protected by permitted dikes and other flood control devices, can be developed if density, siting, setback and structural requirements reflect the physical opportunities and constraints of the site (e.g., flooding and a high groundwater table).		X	X		X					
G-4 Dredge and Fill Requirements. Projects that require dredging and filling in productive Skagway River habitat shall be located, designed, constructed, and maintained to:		X	X	X	X	X	X	X	X	X
a) mitigate significant impacts or destruction of important fish habitat;										
b) mitigate significant interference with fish migration, spawning and rearing;										

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c) limit the extent of direct disturbance to as small an area as possible;										
d) minimize turbidity and waterborne sediment transported away from the dredge or fill site; and										
e) provide for adequate circulation and drainage in the area around the fill.										
G-5 Disposal of Dredge Materials. Dredged materials disposed of in shoreline landfills shall, to the extent feasible and prudent, not cause degradation of water quality or significant adverse impacts to shoreline processes or important habitats. Where adverse impacts to shoreline processes and fish and wildlife habitats are unavoidable, they shall be mitigated. Upland disposal sites for dredge materials shall be contained and stabilized to prevent erosion and leaching into the river waters. Upland or offshore disposal of dredge materials shall avoid important habitats and be conducted in compliance with State and federal water quality regulations.				X		X	X	X	X	X
H. HAZARDOUS AREAS										
H-1 Hydraulic Capacity Considerations. Major projects within the 100 year floodplain of the Skagway River may be required, as deemed appropriate by the City, State, or federal agencies, to complete an investigation of the project's impact on the river's flooding potential and hydraulic capacity. Measures may be required to assure that the river's hydraulic capacity in not decreased or that improvements to flood control structures takes place. When appropriate, design or mitigation measures will be sensitive to and seek to enhance fish habitat and offer suitable sites for material sale.		X	X		X					
H-2 Erosion. Development and resource extraction activities shall be sited and conducted to minimize accelerated river erosion that could contribute to increased flood potential. To the extent feasible and prudent, development activities shall retain existing vegetative cover in erosion-prone areas. In cases where development necessitated removal of vegetation, the area must first be stabilized at the conclusion of activities, and then erosion be minimized through revegetation or other appropriate control measures.		X	X		X					
I. HABITAT										
I-1 State Standard. The Alaska Coastal Management Program Habitat Standard (6 AAC 80.130) is adopted as part of the Skagway River AMSA Plan. The river, shoreline and adjacent wetlands and uplands within the AMSA boundary are subject to coastal management program standards.		X	X		X					
I-2 River Channel Stability. Development of resource extraction activities in or adjacent to the river shall, to the extent feasible and prudent, create a more stable river channel, maximize river channel stability and enhance fish habitat.		X	X		X					
I-3 Fish Passage. Development activities, facilities, and structures shall be designed, sited, constructed, operated, and maintained in a manner that allows efficient passage of fish and does not impede the use of anadromous fish spawning and rearing areas.		X	X		X					
J. AIR, LAND, AND WATER QUALITY										
J-1 Air, Land and Water Quality. Notwithstanding any other provisions of this chapter, the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land and water quality are incorporated into the Skagway River AMSA Plan. Water quality shall not be lowered below State standards by development or any activity.		X	X		X					
J-2 Drinking Water Protection. Projects in the Skagway River floodway and wetlands shall be designed, constructed, and managed to assure adequate water flow, nutrient and oxygen levels and to avoid adverse effects on natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances.		X	X		X					

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J-3 Waste-Water Discharge. All permits, leases or plans of operation for projects shall require siting, design, construction, and operation to provide reasonable assurance that waste water discharges will meet water quality standards. Where appropriate, such measures shall include, but are not limited to, dikes, catch basins or settling ponds, interceptor drains, planted buffers or other suitable devices.		X	X		X					
J-4 Development Considerations. Development shall incorporate facilities for proper storage, disposal, and handling of petroleum products and fuel, solid waste, waste oil, sewage and refuse in accordance with State and federal regulations. Discharge of untreated sewage from boats is prohibited.		X	X		X					
J-5 Hazardous Materials. Storage, transportation, cleanup, and disposal of hazardous materials (as defined in the Hazardous Materials Transportation Act) shall comply with federal, State and local regulations. The City shall be notified of the quantity of material when it meets or exceeds the threshold quantity set under the federal Emergency Planning and Community Right To Know Act (SARA Title III).		X	X		X					
J-6 Storage of Petroleum and Petroleum Products. New facilities for the storage, processing, or treatment of 500 gallons or more of petroleum or petroleum products shall be sited a minimum of 100 feet from domestic water supplies or from rivers and streams. Impermeable berms or basins capable of retaining 100 percent of the tank capacity (or capacity of the largest tank where multiple tanks are separately valved) plus 12 inches of freeboard shall be required to minimize the potential for inadvertent pollution.		X	X		X					
J-7 Spill Containment and Cleanup Equipment. In accordance with federal EPA regulation, any petroleum transport, storage, and refueling operation that involves a single above ground tank of more than 660 gallons, an aggregate of 1320 gallons above the ground or 42,000 gallons or more below the surface shall maintain and have access to oil spill containment and cleanup equipment located in Skagway. Personnel trained in the use and maintenance of this equipment shall be available in Skagway.		X	X		X					
J-8 Environmental Protection Technology. To the extent feasible and prudent, equipment and procedures using the most effective technology for limiting emissions and effluent, and for the storage, handling, cleanup, and disposal of oil and hazardous materials shall be required for industrial, energy, and transportation facilities.		X	X		X					
J-9 Cumulative Impacts. (Administrative Policy - **not applicable**)										
K. MINING AND GRAVEL EXTRACTION										
K-1 Siting Material Sources. To consolidate resource extraction activity and its impacts in and adjacent to the river, sources of sand, gravel and other construction materials from the AMSA area shall, to the extent feasible and prudent, be limited to a single material site until this resource is exhausted. Exceptions may occur if other River areas are targeted for dredging as part of a comprehensive hydraulic/flooding management program for the River or if access is a problem.		X	X		X					
K-2 In Stream Mining. Mining of sand and gravel from the Skagway River floodplain shall be located to improve the River's hydraulic capacity and minimize changes to channel hydraulics or the probability of channel diversion through the mining site.		X	X		X					
a) A buffer zone of appropriate width consisting of undisturbed material paralleling the active channel shall be left in place to segregate the river from the working area and prohibit the entrance of anadromous fish into the pit during periods of high water.		X	X		X					
b) Clearing of riparian vegetation and disturbance of natural banks shall be minimized.		X	X		X					
c) Cells within a mining plan shall be used sequentially. One cell shall be exhausted before extraction in another cell has begun. At the conclusion of mining within each cell, riparian and aquatic habitat shall be maintained and, to the extent feasible and prudent, enhanced.		X	X		X					

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d) Usable firewood cleaned from the pit shall be made available to the public. Other cleared material shall be disposed of (burned) within excavation boundaries.		X	X		X					
e) Gravel washing operations that discharge effluent into the river shall use settling ponds and recycle treatment waters, as necessary to comply with State and federal water quality regulations. Settling ponds shall be adequately diked or set back from active channels to avoid breaching by the 10 year frequency flood.		X	X		X					
K-4 Reclamation and Restoration. Upon completion of mining, excavated gravel extraction cells may be converted to fish rearing ponds and habitat. At gravel extraction sites within the floodplain, at the end of each gravel extraction activity, the area will be regraded so that fish will not be trapped, significant alteration of stream hydraulics will not occur, and adequate circulation and flow through sites is maintained. In cases where development necessitated vegetation removal, the area must first be stabilized at the conclusion of the activities, and then erosion minimized through revegetation or other appropriate control measures.		X	X		X					
K-5 Mining in Fish Habitat. Sand and gravel shall not be removed from locations that have been documented to provide spawning, rearing or over-wintering habitat for anadromous fish, unless impacts can be mitigated and habitat enhancement efforts will be completed when work is finished.		X	X							
K-6 Petroleum and Other Toxic Storage on Mining Sites. Fuels, oils and other toxic materials will be stored in a designated area of the pit. This storage area will be constructed in such a manner that if a spill occurs, it will be retained in a storage area. Surface waters will be kept away from the storage area to prevent any fuel, oil, or toxic materials from reaching the watercourse in the event of a spill.		X	X		X					
K-7 Scenic Quality. Since several places along the Skagway River within the AMSA are noted for and benefit from their scenic and recreational nature, the scenic qualities of the River will be maintained to the maximum extent practicable both during gravel extraction or mining and after the activities are completed. Since natural scenery is important, any changes should blend in with the natural surroundings to the maximum extent practicable.		X	X		X					
L. TRANSPORTATION										
L-1 Airport Expansion. Airport expansion into a portion of the Skagway River and its tributaries may occur if, in addition to meeting all other state and federal regulatory requirements, the following conditions are met: (policies L-1a through L-1e are **not applicable**)										
L-2 Klondike (Skagway-Carcross) Highway Maintenance and Expansion. The width of the highway and its shoulder shall be maintained or enlarged to maximize public safety and facilities uses.		X	X		X					
L-3 River Crossings. Bridges and culverts shall be designed to allow sufficient fish passage of anadromous and resident fish. Stream crossings shall be consolidated. Construction shall be completes at times to avoid sensitive life stages.		X	X		X					
L-4 Road and Railroad Location and Maintenance. Roads and railroads within the AMSA shall, to the extent feasible and prudent, be sited to minimize disruptions to adjacent uses, shall be constructed and maintained to minimize blowing dust and other hazards and to maximize public safety.		X	X		X					
M. RECREATION										
M-1 Designation of Recreation and Public-Oriented Areas. The State lands (City selections) at Reid Falls/Gold Rush Cemetery, the viewing platform and viewshed on Lot 30 off Dyea Road, the foot bridge access to the Yakutania Point Park AMSA, and the highway corridor from the 23rd Avenue Highway Bridge to Liarsville, are areas within the Skagway River AMSA designated as recreation areas. Other uses may take place in these areas only if the recreational values cited in policies [M]-2 through [M]-9 below are maintained or enhanced.		X	X		X					

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M-2 Protection of Viewshed Area. Maintain and enhance the viewing platform on Lot 30 off Dyea Road for its scenic vista and recreational use and value. **(not applicable)**										
M-3 Protection of Reid Falls/Gold Rush Cemetery Area Values. Recreational and tourist use of this scenic falls along the River and this historic cemetery shall be maintained and enhanced.		X	X		X					
M-4 Access to Reid Falls/Gold Rush Cemetery. Safe public access shall be provided and maintained to facilitate use of this recreation area.		X	X		X					
M-5 Access to Yakutania Point Park AMSA. Safe public access across a foot bridge shall be provided and maintained to facilitate use of this recreation area. **(not applicable)**										
M-6 Multi-Use of Klondike (Skagway-Carcross) Highway Corridor. The Klondike Highway from the 23rd Avenue Highway Bridge to Liarsville is used heavily for pedestrian travel such as sightseeing, jogging, access to the River for picnicking and camping, and bike-riding. This corridor also has heavy industrial truck traffic and thousands of tourist vehicles each year traveling along it. Accordingly, projects along the highway and its shoulder must maximize public safety and facilitate these multiple uses.		X	X		X					
M-7 Shoreline Camping and Picnic Areas. Shoreline areas that are suitable for several forms of recreation such as beaches are scarce. To the extent feasible and prudent, these areas shall not be developed for uses which can be located elsewhere. Recreational developments shall provide adequate open space to preserve the natural features of the area.		X	X		X					
M-8 Recreational Development Design. Recreational developments shall be located, designed, constructed and managed to minimize adverse effects on other allowable shoreline uses, whether new or existing, and to provide safe, healthy conditions for recreationists. **(not applicable)**										
M-9 Scenic Views. Recreational and access developments shall blend into the surroundings and preserve or enhance scenic views and vistas. **(not applicable)**										

Note: Enforceable policies Skagway coastal management program that may be applicable to an alternative are marked with an "X".