EXECUTIVE SUMMARY

ES-1 Introduction

The Juneau Access Improvements (JAI) Project is a proposed action by the Federal Highway Administration (FHWA) and Alaska Department of Transportation and Public Facilities (DOT&PF) to improve surface transportation to and from Juneau, Alaska, within the Lynn Canal corridor. To meet requirements of the National Environmental Policy Act (NEPA)[1], FHWA and DOT&PF have prepared this Draft Supplemental Environmental Impact Statement (Draft SEIS).

NEPA requires preparation of an EIS for any proposed action that:

- Is not categorically excluded or otherwise exempt from NEPA
- Is a major federal action (i.e., requires a permit, regulatory decision, or funding from a federal agency)
- May have a significant adverse effect on the quality of the human environment

In 2006, the FHWA and DOT&PF issued a Final EIS for the JAI Project and FHWA selected Alternative 2B, the East Lynn Canal Highway, for construction in its 2006 Record of Decision (ROD). A 2009 District Court decision ruled that the Final EIS was not valid because it did not consider an alternative that would improve surface transportation in Lynn Canal with existing Alaska Marine Highway System (AMHS) assets. This ruling was upheld by a 2 to 1 decision of a panel of the U.S. Court of Appeals for the Ninth Circuit Court in 2011.

Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 Code of Federal Regulations [CFR] 1502.9) state that agencies shall prepare supplements to either a draft or a final EIS if:

(i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or

(ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

In direct response to the court ruling, FHWA determined that an SEIS should be prepared for the JAI Project and, on January 12, 2012, FHWA issued a Notice of Intent to prepare an SEIS. This Draft SEIS assesses a new alternative that improves marine ferry service in Lynn Canal using existing AMHS assets, identified as Alternative 1B. It also updates the 2006 Final EIS by reassessing the reasonable alternatives presented in that Final EIS, including any changes to regulations, updated project conditions, updated analyses, or alternative revisions that were necessary to address new environmental and engineering information made available since the 2006 ROD. The basis of this Draft SEIS is the 2006 Final EIS text in its entirety, with changes made as appropriate throughout the document. Important changes are highlighted in gray for easy identification by the reader.

[1] National Environmental Policy Act of 1969 (Public Law 91-190, U.S. Code 4321-4347, January 1, 1970, as amended).

The Draft SEIS is an important element of the NEPA process because it provides an opportunity for the general public and interested parties (including governmental entities, regulatory agencies, Tribes, and Native organizations) to comment on the project. These comments may range from simple statements of support or opposition, to complex technical discussions of such issues as project alternatives, study methods, determination and characterization of impacts, and mitigation recommendations. The Final SEIS will document and respond to all comments made on this Draft SEIS and is intended to be issued concurrently with the FHWA's new ROD on the project.

ES-2 Proposed Action

DOT&PF proposes to improve surface transportation to and from Juneau within Lynn Canal. Juneau is the largest community on the North American continent not connected to the continental highway system. Because of its location and lack of highway access, all freight, vehicle, and passenger movement to and from Juneau is by air or sea. The only public surface transportation available to and from Juneau is the AMHS, a State-owned ferry system that provides transportation to many of Southeast Alaska's coastal communities. AMHS service from Juneau connects to the continental highway system in Prince Rupert, British Columbia (B.C.), and Bellingham, Washington, to the south, and in Haines and Skagway to the north. The AMHS is the National Highway System link to Juneau, Haines, and Skagway.

The JAI Project is included in the Statewide Transportation Improvement Program (STIP) for 2012–2015. This federally required document was approved by the FHWA and the Federal Transit Administration in June 2012. The project is also consistent with the DOT&PF 2004 Southeast Alaska Transportation Plan (SATP)[2]. The 2004 SATP is an approved element of the Alaska Statewide Transportation Plan and was prepared in accordance with 23 United States Code (USC) Section 135, Alaska Statute (AS) 44.42.050, and other related federal and State regulations.

ES-3 Project Purpose and Need

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

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

Chapter 1 contains detailed information on the purpose and need for the proposed JAI Project.

[2] See Section ES-6 for information on consistency with the SATP for all project alternatives.

ES-4 Alternatives Evaluated in the Draft Supplemental Environmental Impact Statement

Following are brief descriptions of the reasonable alternatives evaluated in the Draft SEIS. Chapter 2 includes more detailed descriptions of each alternative. Maps of the reasonable alternatives follow Chapter 2 in Figures 2-5 through 2-7a and 2-8 through 2-11.

ES-4.1 Alternative 1 – No Action Alternative

The No Action Alternative reflects the most likely AMHS operations without any of the capital improvements proposed in the JAI Project. The No Action Alternative includes a continuation of mainline AMHS service in Lynn Canal and incorporates two Day Boat Alaska Class Ferries (Day Boat ACFs) already programmed for construction by the AMHS. Other programmed improvements under Alternative 1 include changes to the vehicle and passenger staging areas at the Auke Bay and Haines ferry terminals to optimize traffic flow on and off the Day Boat ACFs, and expansion of the Haines Ferry Terminal to accommodate loading and unloading for the Day Boat ACFs. There would be no new roads or ferry terminals constructed under Alternative 1.

ES-4.2 Alternative 1B – Enhanced Service with Existing AMHS Assets

Alternative 1B includes all of the components of Alternative 1, No Action, but focuses on enhancing service using existing AMHS assets without major initial capital expenditures. Similar to Alternative 1, Alternative 1B includes: a continuation of mainline AMHS service in Lynn Canal, the two Day Boat ACFs, the programmed improvements to vehicle and passenger staging areas at the Auke Bay and Haines ferry terminals, and expansion of the Haines Ferry Terminal. Unlike Alternative 1, Alternative 1B keeps the *M/V Malaspina* in service as a summer shuttle, after the second Day Boat ACF is brought online, to provide additional capacity in Lynn Canal. Service to other communities would remain the same as the No Action Alternative. Enhanced services included as part of Alternative 1B are a 20 percent reduction in fares for trips in Lynn Canal and extended hours of operations for the reservation call center. There would be no new roads or ferry terminals constructed under Alternative 1B.

ES-4.3 Alternative 2B (Preferred): East Lynn Canal Highway to Katzehin, Shuttles to Haines and Skagway

Alternative 2B would widen Glacier Highway from Echo Cove to Cascade Point (2.9 miles) and construct a new highway from Cascade Point to a point just north of the Katzehin River delta (47.9 miles). Shuttle ferry service to Skagway and Haines would be provided from a new terminal at Katzehin using the redeployed Day Boat ACFs. The Haines to Skagway shuttle service would continue to operate in the summer using a new conventional monohull ferry. Mainline AMHS service would end at Auke Bay. The Skagway Ferry Terminal would be modified to include a new end berth.

ES-4.4 Alternative 3: West Lynn Canal Highway

Alternative 3 would widen the Glacier Highway from Echo Cove to Cascade Point and construct a new highway from Cascade Point to Sawmill Cove in Berners Bay (5.2 miles total). New ferry terminals would be constructed at Sawmill Cove and William Henry Bay, and the Day Boat ACFs would operate as shuttle ferries across Lynn Canal between the two terminals. A new 38.9-mile West Lynn Canal Highway would be constructed from William Henry Bay to Haines

with a bridge across the Chilkat River/Inlet connecting to Mud Bay Road. A new conventional monohull ferry would be constructed to provide shuttle service between Haines and Skagway. The Skagway Ferry Terminal would be modified to include a new end berth for the new vessel. Mainline ferry service would end at Auke Bay.

ES-4.5 Alternatives 4A through 4D

These four build alternatives include continued mainline ferry service in Lynn Canal with a minimum of two mainline vessel round trips per week in the summer, one round trip per week in the winter. The Haines-Skagway shuttle service would be provided by a new conventional monohull ferry. All of these alternatives would require construction of a new double stern berth at Auke Bay.

- **Alternative 4A: FVF Service from Auke Bay** – Alternative 4A would construct two new Fast Vehicle Ferries (FVFs) to provide daily service between Auke Bay, Haines, and Skagway. No new roads would be built. The Day Boat ACFs would no longer operate in Lynn Canal.
- **Alternative 4B: FVF Service from Berners Bay** – Alternative 4B would widen Glacier Highway from Echo Cove to Cascade Point and construct a new highway to Sawmill Cove (5.2 miles total) where a new ferry terminal would be constructed. The alternative includes two new FVFs, which would be constructed to provide daily service between Sawmill Cove, Haines, and Skagway in the summer and between Auke Bay, Haines, and Skagway in the winter. The Day Boat ACFs would no longer operate in Lynn Canal.
- **Alternative 4C: Conventional Monohull Service from Auke Bay** – Alternative 4C would use the two Day Boat ACFs to provide daily summer service between Auke Bay, Haines, and Skagway. No new roads would be built. The Skagway Ferry Terminal would be expanded to include a new end berth.
- **Alternative 4D: Conventional Monohull Service from Berners Bay** – Alternative 4D would widen Glacier Highway from Echo Cove to Cascade Point and construct a new highway to Sawmill Cove (5.2 miles total), where a new ferry terminal would be constructed. The alternative would use the two Day Boat ACFs to provide daily service between Sawmill Cove, Haines, and Skagway in the summer and between Auke Bay, Haines, and Skagway in the winter. The Skagway Ferry Terminal would be expanded to include a new end berth.

ES-4.6 Alternatives Eliminated from Further Consideration

A variety of potential alternatives for the JAI Project have been identified by the DOT&PF project team, resource agencies, and the public over the course of preliminary engineering studies and environmental review of the project. Many JAI Project alternatives were eliminated from further consideration in previous NEPA documents because they are not technically or financially feasible, are not practical, are similar to other alternatives carried through the environmental analysis, and/or do not meet the purpose of and need for the proposed project.

Other alternatives were removed from detailed consideration because they would adversely affect resources protected under Section 4(f) of the Department of Transportation Act of 1966. FHWA determined that alternatives requiring use of land in the Skagway and White Pass

District National Historic Landmark, a protected resource under Section 4(f), could not be considered reasonable alternatives.

Additional discussion regarding the elimination of these alternatives from further consideration is provided in Chapter 2, Project Alternatives.

ES-5 Affected Environment

Chapter 3 of this Draft SEIS describes the existing conditions of the environmental resources that could be affected by the JAI Project alternatives. The descriptions of the natural and human environment in Chapter 3 provide a baseline from which FHWA and DOT&PF characterized the potential impacts of the project alternatives.

ES-6 Environmental Consequences

Chapter 4 of this Draft SEIS presents the environmental consequences associated with the reasonable alternatives for the JAI Project. Table ES-1, provided at the end of the Executive Summary, summarizes many of the beneficial and adverse impacts associated with these alternatives. The following paragraphs summarize key elements of those impacts.

Transportation – In order to evaluate the impacts to transportation, FHWA and DOT&PF analyzed each alternative based on its consistency with the 2004 SATP, the traffic demand it would generate and accommodate, its capacity, the opportunities for travel/traveler flexibility, its travel times, and total costs, as well as cost to the State of Alaska and to the user.

Consistency with the SATP. The 2004 SATP calls for construction of a highway from Juneau to Skagway with a ferry from Katzehin to Haines. The DOT&PF is in the process of updating its SATP and released a Draft SATP in June 2014. The 2014 Draft SATP recommends a highway from Juneau to Katzehin with ferry service between Katzehin and Haines and Skagway; which is consistent with the JAI Project preferred alternative, Alternative 2B. Alternatives 1 (No Action), 1B, 3, and 4A through 4D are not consistent with the approved 2004 SATP or the 2014 Draft SATP.

Travel Demand and Capacity. DOT&PF conducted a new traffic forecast analysis for this Draft SEIS that predicts potential traffic volumes for each project alternative. The analysis used two different types of models. The first model estimated the total unconstrained traffic demand in the Lynn Canal corridor; that is, the number of vehicles that would travel between Juneau and Haines or Skagway if there were no impediments to travel other than ownership of a vehicle and the cost of fuel for that vehicle. Using the model, unconstrained demand in Lynn Canal in 2020 is estimated to be 1,240 vehicles per day, based on an annual average (also known as annual average daily traffic, or annual ADT) and an average of 2,000 vehicles per day in summer (also known as summer ADT[3].

The second model estimated the percentage of unconstrained demand that would be generated and accommodated by each JAI Project alternative. None of the reasonable alternatives would generate the level of unconstrained demand because they all include ferry links, which place constraints on travel in terms of increased cost and travel time. These increased constraints limit

[3] Traffic demand for 2050 is predicted to remain the same or decline for all alternatives because of relatively flat population projections in Southeast Alaska during the 30-year forecast period (0.004 percent decrease annually; ADOLWD, 2013a).

demand. None of the alternatives have been designed to have a capacity that would support the unconstrained demand; rather, they have been designed to have the capacity to accommodate the demand they would generate based on auto travel time and cost, ferry travel time and fares, and delay at ferry terminals. Figure ES-1 shows the 2020 forecast summer demand and capacity for each alternative in relation to the projected unconstrained summer ADT. The forecast summer demand and capacity for each alternative are listed in Table ES-1.

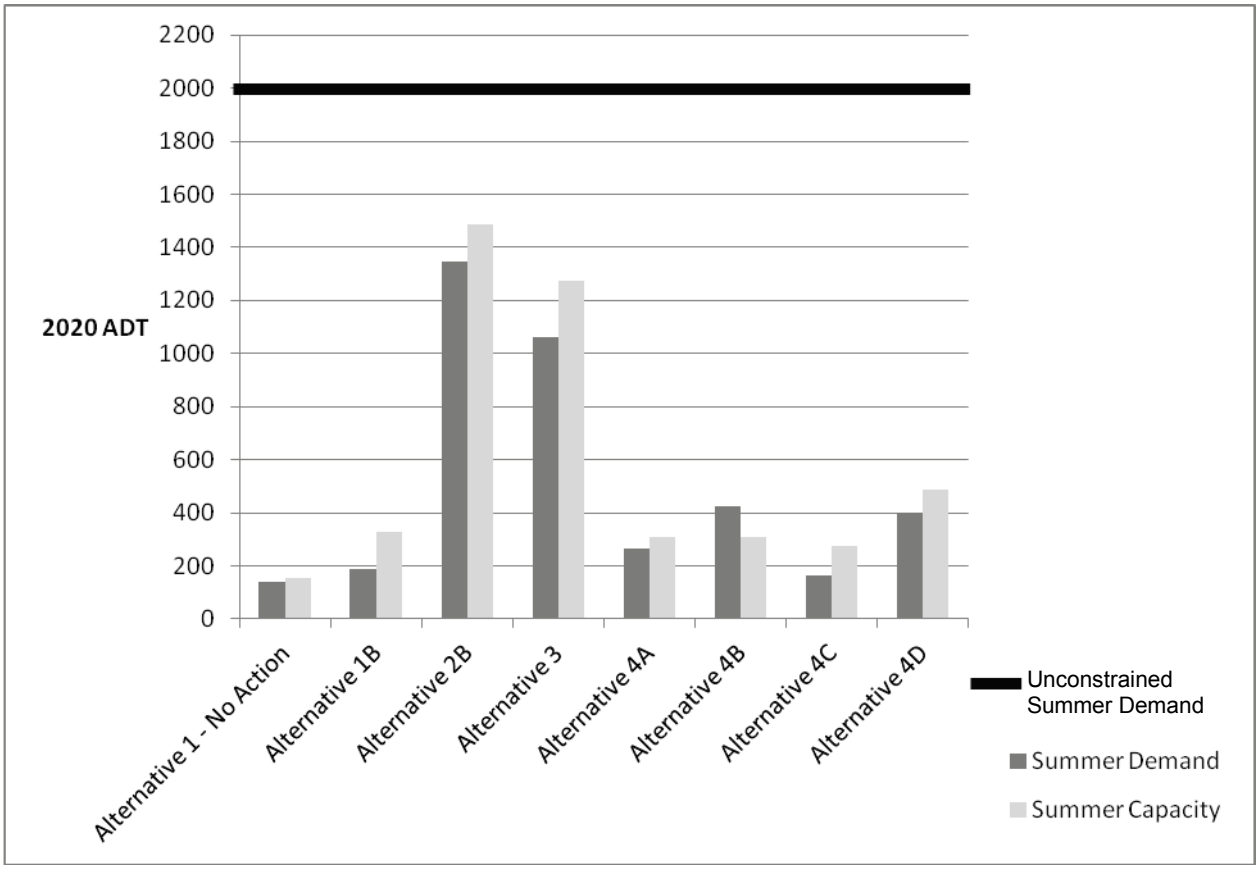

Figure ES-1:
2020 Forecast Summer Demand and Capacity in Lynn Canal for Each JAI Project Alternative

Travel Flexibility and Opportunity. All the build alternatives, through their provision of a road or additional ferry trips, would increase the opportunity for travel in Lynn Canal and would provide more flexibility for travelers. Travel frequency for each of the alternatives is measured by average number of ferry round trips per week (see Table ES-1). Comparing summer travel opportunities, Alternatives 1B and 4C would add the fewest number of ferry trips relative to the No Action Alternative and Alternatives 2B and 3 would add the greatest number of ferry trips (more than 5 times the No Action Alternative). Alternatives 4A, 4B, and 4D would double the number of summer ferry trips between Juneau and Haines or Skagway in summer relative to the No Action Alternative.

Travel Time. Travel time for each alternative was determined based on an average speed on the highway segments [45 miles per hour (mph)]; ferry travel times; and delay at ferry terminals associated with wait time or check-in time[4]. All alternatives would have shorter travel times in summer between Auke Bay and Skagway relative to the No Action Alternative (see Table ES-1). Travel time between Auke Bay and Haines would be the same as the No Action Alternative under Alternatives 1B and 4C, but shorter for all other alternatives. Alternatives 2B, 3, 4A, 4B, and 4D would reduce summer travel times between Auke Bay and Haines by several hours.

Total Cost. The total project life cost is the summation of all capital and annual operating costs, regardless of who pays, over the lifetime of the project minus any residual value left at the end of 36 years. All action alternatives would have greater total project life cost relative to the No Action Alternative (see Table ES-1). Alternatives 4C and 4D would have the lowest total project life costs and Alternatives 4A and 4B would have the highest, attributable primarily to the maintenance and operations costs of FVFs.

Maintenance Cost. With regard to annual maintenance and operating costs, the No Action Alternative would have the lowest cost of all alternatives (see Table ES-1). Alternatives 4A and 4B, with the FVF shuttles, would have the highest maintenance and operating costs, approximately $17 to $18 million higher than the No Action Alternative. Alternatives 1B, 2B, 3, 4C, and 4D would have maintenance and operations costs approximately $5 to $9 million higher than the No Action Alternative.

State Cost. This cost represents the State's share of the total project life costs minus the revenue the State collects. Compared to the No Action Alternative, none of the alternatives, except Alternative 4D, would reduce net State cost over a 36-year period (approximately 6 years of construction and 30 years of operation) when taking into consideration construction and refurbishment costs, operating costs, and revenues (see Table ES-1). Alternative 4D would reduce net State cost by approximately 20 percent; whereas the other alternatives would increase net State cost by approximately 20 to 120 percent. Alternative 4A would be the most costly alternative for the State.

Cost Per Vehicle. All of the build alternatives would carry more vehicles than the No Action Alternative (see Table ES-1). Because of the higher traffic volumes predicted to be generated, Alternatives 2B, 3, 4B, and 4D would cost the State less than the No Action Alternative on a per vehicle basis, with Alternative 2B having the lowest cost per vehicle at approximately $52.

User Cost. The out-of-pocket costs for a family of four in a 19-foot vehicle (standard size pickup) would be reduced for all alternatives relative to the No Action Alternative, with the exception of Alternatives 4A and 4C. Alternatives 2B and 3 would have the lowest out-of-pocket cost for travelers of all project alternatives relative to No Action Alternative (see Table ES-1).

Socioeconomics – Improved access in Lynn Canal would allow for better movement of goods and people to and within the northern reaches of Southeast Alaska, resulting in better connections among the economies of Juneau, Haines, Skagway, and Whitehorse.

[4] Due to the frequency of ferry trips with Alternatives 2B and 3, their ferry delay includes wait time based on a quarter of the ferry headway (time between arrivals) rather than check-in time. The wait time assumes half the ferry travelers would arrive randomly and half would schedule their arrival to match the ferry schedule.

In the short term, improved access to Juneau is not expected to result in new major economic development in Alaska. Instead, improved access to Juneau would redistribute within the state some of the economic benefits received from one of Alaska's primary industries, the visitor industry. As access is improved, independent visitors (i.e., non-cruise ship visitors) could shift their travel patterns, perhaps spending more time and money in currently remote communities in Southeast Alaska. In addition, improved access would have beneficial effects on other segments of the region's economy by reducing travel costs for residents and shipping costs for some industries.

The population and the overall demographics of Juneau, Haines, and Skagway would not be substantially affected by improved access. Of the three major communities in the Lynn Canal corridor, Juneau would experience the most population growth due to improved access, but the growth would not be considerable.

Alternative 2B is projected to cause the greatest influx of independent visitors to Lynn Canal of all the build alternatives; therefore, it would create the largest economic benefits to the region. All the other build alternatives would result in less independent visitor travel, with a corresponding reduction in visitor spending. Alternative 3 would provide the largest economic benefit to Haines of all the build alternatives, but essentially no economic benefit to Skagway. Alternatives 4A, 4B, and 4D would provide a small benefit to the region's economy. Alternatives 1B and 4C are similar to the No Action Alternative in regard to travel opportunity and flexibility and out-of-pocket travel costs; therefore, they would provide no discernible added economic benefits to Lynn Canal communities.

Visual Resources – No impacts to visual resources would result from Alternative 1 (No Action) or Alternative 1B. Alternative 2B would be visible at many points in Berners Bay and Lynn Canal, primarily at locations where transportation infrastructure is constructed close to the shore. From the highway, there would be many panoramic views of Lynn Canal with the Chilkat Range in the background.

Most views of Alternative 3 from the canal between William Henry Bay and Haines would be masked by vegetation except where the highway crosses the Endicott River, Sullivan River, the Davidson Glacier outwash plain, and the Chilkat River/Inlet. At those locations, Alternative 3 would introduce man-made forms into the natural landscape from views in Lynn Canal, the Chilkat River, Chilkat Inlet, and Haines. The ferry terminals for this alternative would also be visible from views in Berners Bay and William Henry Bay.

Alternatives 4A through 4D would primarily involve improved ferry transportation in Lynn Canal. They would have lesser visual impacts from views in Lynn Canal than the highway alternatives considered for the project.

Subsistence – Neither Alternative 1 (No Action) nor Alternative 1B is expected to impact subsistence resources. Alternatives 2B and 3 would provide access to areas used for subsistence harvest activities that previously were accessible only by boat or aircraft. Improved access to these areas could increase competition for subsistence resources from recreational hunting and fishing. Conversely, Alternatives 4A through 4D would not improve access in Lynn Canal enough to impact subsistence activities.

Cultural Resources – The FHWA has determined that none of the build alternatives would have an adverse effect on properties eligible for inclusion on the National Register of Historic Places.

Geology – Alternative 2B, East Lynn Canal Highway, would cross 41 avalanche paths and Alternative 3, West Lynn Canal Highway, would cross 19 avalanche paths. Alternative 2B incorporates hazard reduction methods that include adjusting the alignment of the highway, constructing barriers and snow sheds, avalanche forecasting and warnings, temporary highway closures, and release of unstable snow with explosives during highway closures. Alternative 3 also would incorporate measures to reduce avalanche impacts, such as avalanche forecasting and warnings, temporary highway closures, and release of unstable snow with explosives during highway closures. The risk of avalanche-associated accidents along any of the highway alternatives would be reduced to the generally accepted standard in North America for safe operation of a highway in avalanche-prone areas. None of the other alternatives would be in avalanche zones.

The potential risks associated with other geologic hazards, such as landslides (potentially affecting Alternatives 2B and 3), karst (potentially affecting Alternative 3), geochemical properties of waste rock (potentially affecting Alternatives 2B and 3), and outburst floods, would be further evaluated in geotechnical and hydrologic studies conducted in support of final design and construction.

Wetlands – Alternatives 1 (No Action), 1B, 4A, and 4C would not result in the construction of any new highways or ferry terminals; therefore, they would have no direct or indirect effects on wetlands.

Alternative 2B would result in the loss of approximately 61 acres of wetlands and approximately 32 acres of unvegetated intertidal and subtidal areas. This represents a reduction of approximately 9 acres of wetland impacts from what was presented in the 2006 Final EIS because DOT&PF made design changes to Alternative 2B during the 2008 U.S. Army Corps of Engineers (USACE) permitting process, and during more recent design refinements that minimized impacts to wetlands and reduced the extent of rock side cast areas. All but approximately 1 acre of the wetlands impacted by the Alternative 2B highway alignment would be forested wetlands, which store flood waters, keep sediment from entering nearby waterbodies, and provide wildlife habitat. The largest area of wetland loss, approximately 53 acres of palustrine forested wetlands, would occur between Slate Creek and Sherman Point north of Berners Bay.

Alternative 3 would result in the loss of approximately 26 acres of wetlands, and approximately 12 acres of other aquatic habitat would be would be filled or excavated. Approximately 82 percent of the wetlands impacted by the highway alignment would be forested wetlands.

Alternatives 4B and 4D would result in the loss of approximately 2 acres of wetlands and approximately 3 acres of other waters of the U.S. between Echo Cove and Sawmill Cove.

Marine and Freshwater Habitats (including Essential Fish Habitat) – Alternatives 1 (No Action), 1B, 4A, and 4C would have no adverse effect on marine and freshwater habitat or fish and other marine species from construction. Any increases in operations under Alternatives 1B, 4A, and 4C would not produce a measurable difference in habitat relative to the No Action Alternative.

Under Alternative 2B, a total of approximately 32 acres of unvegetated intertidal and subtidal marine habitat would be filled or dredged for construction of the highway and the Katzehin Ferry Terminal. All anadromous fish streams would be crossed with bridges. Piers for the bridges over the Lace, Antler, and Katzehin rivers would be placed at least 130 feet apart and would not impede fish movement in these rivers.

Alternative 3 would result in impacts to approximately 12 acres of unvegetated intertidal and subtidal habitat, primarily from construction of ferry terminals at Sawmill Cove and William Henry Bay. All anadromous fish streams would be crossed with bridges under Alternative 3, and bridges across the Sullivan, Endicott, and Chilkat rivers would be of similar design to the large bridges of Alternative 2B.

Alternatives 4A through 4D would cause disturbance to less than 1 acre of unvegetated subtidal habitat at the existing Auke Bay Ferry Terminal. Alternatives 4B and 4D would also result in impacts to approximately 3 acres of unvegetated marine habitat from construction of a ferry terminal at Sawmill Cove.

None of these impacts would be large enough to measurably affect fish and invertebrate populations in Lynn Canal. Conservation measures identified by DOT&PF and the National Marine Fisheries Service (NMFS) would be included in the design and construction of the selected alternative to further minimize impacts to intertidal and subtidal habitat (Essential Fish Habitat).

Terrestrial Habitat – No impacts to terrestrial habitat would occur under Alternative 1 (No Action), 1B, 4A, or 4C. Most of the terrestrial habitat that would be affected by Alternatives 2B and 3 is in the Tongass National Forest. Alternative 2B would remove approximately 400 acres of the approximately 103,500 acres of old-growth forest mapped along the east side of Lynn Canal. Alternative 3 would remove approximately 265 acres of old-growth forest mapped along the east and west sides of Lynn Canal (predominantly the west side, which has approximately 51,960 acres). Alternatives 4B and 4D would reduce the size of the old-growth forest stands in the area by less than 0.04 percent.

Wildlife – Alternatives 1 (No Action), 1B, 4A, and 4C would have no impacts on terrestrial wildlife. The direct loss of wetland and terrestrial habitat from the build alternatives that include a highway (Alternatives 2B, 3, 4B, and 4D) would have a minor effect on wildlife because that loss would be a small (less than 1 percent) part of the habitat available in the project study area. However, habitat fragmentation caused by the presence of a highway, mortality from vehicle collisions, and the indirect impact of improved access by hunters and trappers resulting from Alternatives 2B and 3 would have a larger impact on wildlife, particularly terrestrial mammals.

Currently, most of the habitat in the project area is undeveloped. Alternative 2B would create a potential barrier between upland habitats and important marine fringe along the east side of Lynn Canal that would fragment the habitat of animals that tend to avoid roads. It would reduce available habitat for moose and brown bears and increase the potential for mortality from vehicle collisions. To reduce habitat fragmentation impacts, wildlife underpasses would be constructed at anadromous streams and other known high-use wildlife corridors.

Alternative 3 would have similar but smaller impacts to wildlife than Alternative 2B. Alternatives 4B and 4D involve minor road construction through terrestrial habitats; therefore, their effect on wildlife would be small.

Bald Eagle – The U.S. Fish and Wildlife Service (USFWS) and DOT&PF conducted aerial surveys in April 2012 to obtain updated bald eagle nest information for the analysis of alternatives for the JAI Project Draft SEIS. The April 2012 surveys were flown on both sides of Lynn Canal and documented 60 new nests along East Lynn Canal and 21 new nests along West Lynn Canal.

Alternatives 1 (No Action), 1B, 4A, and 4C would have no impacts on bald eagles. The alignments of Alternatives 2B, 3, 4B, and 4D have been shifted, where possible, to avoid nests that would be less than 30 feet from project construction work limits. The highway under Alternative 2B would be located within 0.5 mile of 136 bald eagle nests and within 660 feet of 99 of these nests. Alternative 3 would be within 0.5 mile of 63 bald eagle nests, and within 660 feet of 48 of these nests. Twenty-three bald eagle nests are documented within 0.5 mile of the proposed ferry terminal in Sawmill Cove under Alternatives 4B and 4D, and seven nests are located within 660 feet of the estimated work limits for the highway portion of these alternatives.

A highway on the east or west side of Lynn Canal would involve a persistent source of highway traffic noise that might result in eagle pairs relocating to alternate nest trees within their nesting territory. Individual eagle pairs may even abandon their nesting territory and associated hunting perches altogether, especially during the summer months, when traffic volumes are predicted to peak. Food availability has been identified as a key factor that influences breeding success; therefore, eagle pairs less sensitive to noise disturbance would likely habituate to highway operation near prime feeding areas. This is likely to occur, given that new nests have been constructed along existing highway segments in Southeast Alaska with higher traffic volumes. In addition, opportunistic bald eagle pairs from other territories may use previously abandoned nest sites along the shoreline of Lynn Canal for breeding. As a result, a highway on either side of Lynn Canal would not affect the overall population of bald eagles in the Lynn Canal area. DOT&PF would coordinate with USFWS to determine if a Disturbance Permit is necessary for annual blasting in avalanche areas.

On-the-ground nest surveys would be conducted before clearing takes place to confirm the location of trees with eagle nests. Construction activities in the vicinity of bald eagle nests would be coordinated with the USFWS to determine the need for alignment changes, blasting plan changes, or other measures to avoid impacts to any new nests identified. DOT&PF would apply for permits to disturb bald eagles at nests within 660 feet of the work limits of the alignment and for nests within 0.5 mile of blasting activities. Under alternatives that require widening of 2.9 miles of the existing Glacier Highway (Alternatives 2B, 3, 4A, and 4D), DOT&PF would obtain permits to disturb bald eagle at nests within 660 feet unless no permit is needed due to existing activity that is already tolerated. None of the alternatives are anticipated to require removal of nest trees.

Threatened and Endangered Species – There are two species in the project study area that are protected under the Endangered Species Act (ESA): the western population of Steller sea lion (classified as endangered) and the humpback whale (classified as endangered). The eastern population of Steller sea lions was removed from the threatened and endangered species list in December 2013. Although the species is no longer protected under the ESA, it remains protected under the Marine Mammal Protection Act. There are two principal haulouts that are used on an annual basis by Steller sea lions in the project study area: Gran Point and Met Point. These haulout sites are on the east side of Lynn Canal. Gran Point is designated a Critical Habitat Area

under the Endangered Species Act. Although Met Point is not used as extensively by Steller sea lions as Gran Point, it also is an important haulout for this species.

Pile driving for construction of ferry terminals under Alternatives 2B, 3, 4B, and 4D and multi-span bridges under Alternatives 2B and 3 could disturb Steller sea lions and/or humpback whales. Vibratory hammers would be used during pile driving to the extent possible to minimize underwater noise. Monitors would also be used during pile driving to ensure that this activity does not occur when Steller sea lions are within 660 feet of the construction area.

Under Alternative 2B, noise associated with typical highway construction activities within 1,000 feet of the Gran Point and Met Point haulouts could be heard by Steller sea lions at the haulouts, but only blasting would potentially exceed the NMFS's in-air disturbance threshold. Blasting would be required for two tunnels near the Gran Point haulout, as well as for slope cuts in the vicinity of Gran Point and Met Point. For blasting within 600 feet of a haulout, DOT&PF would record noise levels at the haulout for 10 days of blasting. If noise levels are higher than NMFS's in-air disturbance threshold at the haulouts, DOT&PF would require the use of noise attenuation/mitigation methods to reduce noise levels.

Helicopter use, for construction of Alternative 2B, within 3,000 feet of Gran Point or Met Point would occur at a minimum altitude of 1,500 feet (when weather conditions permit) and a minimum distance of 1,000 feet from each haulout. No flights over the haulouts would be conducted. Additional mitigation measures have been proposed to minimize impacts to Steller sea lions during construction. The FHWA has initiated formal Section 7 Consultation under the Endangered Species Act with the NMFS under Alternative 2B, the preferred alternative, and results of this consultation will be documented in the Final SEIS/ROD.

Other than Alternative 2B, none of the build alternatives are in proximity to the Gran and Met Point haulouts; however, if another build alternative were selected, the FHWA would consult with the NMFS, as appropriate, on potential impacts to Steller sea lions. All of the build alternatives would increase ferry traffic in one or more areas of the Lynn Canal region; however, collisions between Steller sea lions and ferries are expected to be minimal, as Steller sea lions would likely avoid such encounters.

The increase in ferry traffic would not be high enough to substantially increase the risk of collisions with humpback whales. The NMFS has raised concerns that Alternatives 3, 4B, and 4D would adversely affect humpback whales due to the ferry traffic in Berners Bay during spring herring and eulachon spawning periods. The FHWA has committed to avoid operating in Berners Bay until May 15 under Alternatives 4B and 4D, after eulachon and herring spawning in April and early May.

ES-7 Identification of the Preferred Alternative

In its 2006 ROD for the JAI Project, FHWA selected Alternative 2B, East Lynn Canal Highway, for advancement to design and construction. Through development of this Draft SEIS, FHWA and DOT&PF reassessed the reasonable alternatives considered in the 2006 Final EIS, as well as an additional alternative identified as a result of a District Court ruling. This alternative would improve access to Juneau using existing AMHS assets and is identified as Alternative 1B.

After careful review and consideration of the updated information and analyses conducted in support of this Draft SEIS, FHWA and DOT&PF continue to prefer Alternative 2B. This

preference was established by balancing the identified needs, the economic costs, and the impacts to the human environment. All reasonable alternatives evaluated in this Draft SEIS are under consideration and have been evaluated to a comparable level of detail[5]. The selected alternative will be identified in a new ROD.

ES-8 Areas of Controversy

Providing highway access to Juneau is a contentious issue in northern Southeast Alaska. In October 2000, Juneau voters were split on an advisory ballot question regarding preference for a long-range plan for surface access north from Juneau, with 5,840 choosing enhanced ferry service and 5,761 choosing a road. A September 2002 motion by the City and Borough of Juneau Assembly supporting "completion of the EIS for the identified preferred alternative for the road into Juneau …" passed by a 5 to 4 vote.

In 1999, a survey conducted for the City of Skagway indicated that 49 percent of Skagway residents opposed a road while 46 percent were in favor of a road. In April 2003, the City Council of Skagway passed a resolution supporting improved ferry service and opposing a road connection by a 4 to 1 vote. In January 2003, the Haines Borough Assembly voted unanimously to request that a road to Haines (as opposed to a road to only Skagway) be included in the EIS. In April 2004, the Haines Borough Assembly adopted a resolution requesting that the State and federal governments focus on enhancing marine transportation within the region. In an October 2004 advisory ballot, Skagway residents voted 62 to 38 percent in favor of improved ferry service over a road.

Highway access received support from the City and Borough of Juneau in 2009, as evidenced in Assembly Resolution 2463. That resolution made recommendations for transportation projects to DOT&PF for the 2010–2013 STIP, one of which was extension of the Glacier Highway to Milepost 91.1 (just north of the Katzehin River delta, which is the proposed location of the Katzehin Ferry Terminal in Alternative 2B).

Telephone surveys of Haines, Skagway, and Juneau households conducted for the 2005 Supplemental Draft EIS confirmed that residents were divided in their opinions on the value of highway access. Aspects of this controversy included:

- Potential reduction in AMHS service to other Alaskan coastal communities because of the loss of revenue that would result from discontinuing AMHS mainline service in Lynn Canal
- High initial construction costs of a highway in Lynn Canal
- Aesthetic and biological impacts in Berners Bay
- Impacts to the economies of Haines and Skagway
- Impacts to the perceived quality of life in Juneau, Haines, and Skagway

Numerous letters, editorials, and opinion pieces in Haines, Juneau, Skagway, and Anchorage newspapers expressed support for, or opposition to, a highway in the Lynn Canal corridor.

[5] Additional information is known about Alternative 2B (more than the other alternatives) because Alternative 2B was selected as the preferred alternative in the 2006 ROD. Subsequent to the ROD, DOT&PF continued work to acquire permits and approvals necessary for the implementation of Alternative 2B.

Comments submitted during the review period for the 2005 Supplemental Draft EIS that expressed a preference were approximately 60 percent in support of a highway, with 40 percent preferring a marine alternative.

The 2006 Final EIS addressed issues and concerns raised in comments on the 2005 Supplemental Draft EIS by revising the document where appropriate and by directly responding to individual comments.

This Draft SEIS has been developed to address issues raised by the public and agencies during scoping in 2012 for the SEIS. These issues are outlined in Chapter 7. The FHWA and DOT&PF will respond to comments on this Draft SEIS and present responses in the Final SEIS.

ES-9 Related Actions and Projects

There are currently no related actions or projects that would affect the JAI Project.

ES-10 Federal Actions Necessary

If a build alternative were selected for the JAI Project, the following federal permits, consultations, and approvals may be required.

- USFS special use permit for project facilities in the Tongass National Forest
- USACE Section 404 (Clean Water Act) permit for fill in wetlands and other waters of the U.S.
- USACE Section 10 permit (Rivers and Harbors Act) for dredge, fill, and structures placed below mean high water
- USFWS Bald Eagle Disturbance Permit
- U.S. Coast Guard, Section 9 permits (Rivers and Harbors Act) for bridges over navigable waters not exempted under 23 CFR 650.805 or subject to FHWA advance approval under 33 CFR 115.70, as amended.
- NMFS ESA Section 7 consultation for threatened and endangered species
- NMFS MMPA Incidental Harassment Authorization for marine mammals

ES-11 Unresolved Issues

In 2008, the DOT&PF received a USACE permit for the alternative selected in the 2006 ROD: Alternative 2B. That permit expired in 2013. This Draft SEIS includes a draft USACE permit for the updated Alternative 2B. As part of the Section 404/10 permitting process, DOT&PF would coordinate with the USACE to develop a compensatory mitigation plan to offset impacts to waters of the U.S.

During development of the 2006 Final EIS, NMFS, ADF&G, and EPA did not concur with FHWA's assessment of the impacts in Berners Bay associated with Alternatives 3, 4B, and 4D. This disagreement involves projected direct impacts to Pacific herring spawning habitat and indirect impacts to Steller sea lions and humpback whales. If one of these three alternatives is selected for the proposed project, further consultation would be necessary.

ES-12 EIS Availability

This Draft SEIS, including appendices, is available free of charge on CD for viewing electronically. A printed copy of this Draft SEIS is available upon request for free. Printed copies of appendices are available for a printing charge. The document is also available for viewing on the project website at www.juneauaccess.alaska.gov. Printed copies of the document and all appendices are available for public review at the following locations:

Juneau Public Library 292 Marine Way Juneau, Alaska	Mendenhall Valley Public Library Mendenhall Mall Juneau, Alaska	Douglas Library 1016 3rd Street Douglas, Alaska
Haines Public Library 111 Third Avenue South Haines, Alaska	Skagway Public Library 769 State Street Skagway, Alaska	DOT&PF Southeast Region 6860 Glacier Highway Juneau, Alaska

For information on obtaining a CD or bound version of the Draft SEIS, contact the DOT&PF project office at (907) 465-1828, or visit the project website at www.juneauaccess.alaska.gov.

Table ES-1:
Summary of Estimated Beneficial and Adverse Impacts of Proposed Project Alternatives

Factors	Alternative							
	No Action	1B	2B	3	4A	4B	4C	4D
Cost Factors								
Initial Construction Costs ($million)	$0	$0	$574	$516	$228	$287	$63	$90
Total Project Life Costs[1]($millions)	$669	$1,030	$1,093	$1,125	$1,556	$1,605	$861	$905
Annual Maintenance and Operations Costs ($millions)	$15.4	$23.8	$20.4	$21.7	$33.7	$32.0	$20.0	$20.8
Net Present Value ($millions) relative to No Action Alternative	-	-$151	-$309	-$340	-$217	-$215	-$73	-$26
Purpose and Need Factors								
Forecasted Summer Demand to/from Skagway (vehicles per day)	55	90	615	380	120	195	75	180
Forecasted Summer Demand to/from Haines (vehicles per day)	85	100	730	680	150	235	95	220
Projected Summer Capacity to/from Skagway (vehicles per day)	61	201	636	456	149	237	131	237
Projected Summer Capacity to/from Haines (vehicles per day)	93	129	848	816	162	250	144	250
Summer Travel Time – Auke Bay to Skagway[2] (hours)	7.6	6.8	3.4	5.5NB/ 5.2SB	4.0	3.7	6.3	5.2
Summer Travel Time – Auke Bay to Haines[2] (hours)	5.9	5.9	3.0	3.0	3.8	3.5	5.9	4.8
Number of Ferry Round trips/Week – Auke Bay to Skagway (summer)	8	9[3]	42	42	16	16	9	16
Number of Ferry Round trips/Week – Auke Bay to Haines (summer)	8	8	56	84	16	16	9	16
State's Net Project Life Cost - ($millions) [4]	$301	$573	$494	$475	$770	$662	$446	$294
State's Net Cost Per Vehicle (dollars)	$210	$321	$52	$62	$333	$195	$277	$92
Total/Out-of-Pocket User Costs (one way) – Juneau-Skagway[5]	$286/ $286	$223/ $223	$101/ $67	$142/ $108	$286	$204/ $190	$286	$204/ $190
Total/Out-of-Pocket User Costs (one way) – Juneau-Haines[5]	$218/ $216	$174/ $173	$82/ $47	$91/ $59	$218/ $216	$148/ $132	$218/ $216	$148/ $132
Traffic-related Employment and Population Impacts								
Juneau								
New Local Employment (2020)	0	5	130	105	20	40	0	35
Population Increase (2020)	0	8	195	158	30	60	0	53
Skagway								
New Local Employment (2020)	0	5	85	50	15	30	5	25
Population Increase (2020)	0	8	128	75	23	45	8	38

Factors	Alternative							
	No Action	1B	2B	3	4A	4B	4C	4D
Haines								
New Local Employment (2020)	0	0	60	15	10	20	0	20
Population Increase (2020)	0	0	90	23	15	30	0	30
Natural Resources Impacts								
Number of Anadromous Streams Crossed	0	0	10	11	0	1	0	1
Old-growth Forest Habitat Losses (acres)	0	0	412	308	0	38	0	38
Wetland Habitat Losses (acres)	0	0	61	26	0	2	0	2
Intertidal/Subtidal Area Losses (acres)	0	0	32	12	<1	3	<1	3
Essential Fish Habitat Impacted (acres)	0	0	37	12	<1	2	<1	2
Eagle Nests Within 660 Feet	0	0	99	48	0	7	0	7
Total Eagle Nests within 0.5 mile	0	0	136	63	0	30	0	30

[1] The total project life cost is the summation of all capital and annual operating costs over the lifetime of the project minus any residual value left at the end of 36 years.

[2] Travel time for Day Boat ACF or FVF or *M/V Malaspina* as a shuttle. In all alternatives except 2B and 3, the mainline ferry would have a travel time of 9.1 hours between Auke Bay and Skagway and 7.2 hours between Auke Bay and Haines.

[3] An additional six trips per week could be made by taking the Day Boat ACF between Auke Bay and Haines and transferring ferries.

[4] This represents the total project life cost less the federal contribution and State revenue.

[5] First number is total user cost and second number is out-of- pocket cost. Total cost is based on fares plus $0.64 per mile for vehicular travel (AAA, 2012). Out-of-pocket cost based on fares and gasoline consumption.

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