

SUMMARY

Introduction

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Highway Administration (FHWA), has developed the Gravina Access Project to improve public access between Revillagigedo Island and Gravina Island. In July 2004, FHWA and DOT&PF issued a Final Environmental Impact Statement (FEIS) for the Gravina Access Project, identifying Alternative F1 as the preferred alternative. Alternative F1 would cross Tongass Narrows at Pennock Island, requiring two bridges (one across East Channel and one across West Channel) and roadway link to the airport on Gravina Island. Alternative F1 was the selected alternative in FHWA's Record of Decision, which was issued on September 15, 2004.

With Alternative F1 selected in FHWA's Record of Decision and identified and permitted as the Least Environmentally Damaging Practicable Alternative (LEDPA) by the U.S. Army Corps of Engineers (USACE), the DOT&PF moved forward with the first phase of implementing Alternative F1: construction of the Gravina Island Highway. Construction of the Gravina Island Highway was completed in 2008.

On September 21, 2007, due to rapidly escalating costs, Alaska Governor Sarah Palin directed the Department to look for the most fiscally responsible alternative for the Gravina Access Project instead of proceeding further with Alternative F1.

Purpose of the SEIS

Council on Environmental Quality (CEQ) Regulations for Implementing the National Environmental Policy Act (40 CFR 1500-1508) state that agencies shall prepare supplements to either draft or final EISs 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.

FHWA and DOT&PF determined that a Supplemental Environmental Impact Statement (SEIS) should be prepared for the Gravina Access Project and, on July 2, 2008, FHWA issued a notice of intent to re-examine alternatives in an SEIS and identify and select a new preferred alternative.

Similar to an EIS, the SEIS shall ~~identify~~, characterize, analyze, and document the project's environmental impacts, as well as specify ~~possible~~ proposed mitigation of adverse impacts. On June 21, 2013, FHWA and DOT&PF This Draft SEIS is made issued the Draft SEIS for the Gravina Access Project and gave available to the general public and other interested parties (including government entities, regulatory agencies, and Native organizations) who are given an opportunity to comment on its content during a 4554-day comment period. The 2013 Draft SEIS did not identify a preferred alternative. These comments may range from simple statements of support or opposition to complex technical discussions of project alternatives, study methods, determination and characterization of impacts, and mitigation recommendations.

On October 22, 2015, DOT&PF announced its recommendation to FHWA that Alternative G4v be identified as the preferred alternative for the Gravina Access Project. On March 3, 2016, FHWA and DOT&PF issued a joint public notice identifying Alternative G4v as their The Final SEIS will identify a preferred alternative and making know their FHWA's intent to issue a combined Final SEIS and Record of Decision. The FHWA and DOT&PF invited comments during a 35-day

comment period. Only one comment was received during the comment period: it was a letter from the Ketchikan Gateway Borough, Office of the Borough Mayor, David Landis. The letter from Mayor Landis expressed the Borough's support for the preferred alternative and endorsement of the Final SEIS/Record of Decision as a combined document.

Alternative G4v would include improvements to the existing airport ferry system. This Final SEIS and provides additional information about the preferred alternative and explains why it was preferred; documents and responds to all substantive comments on the 2013 Draft SEIS. If comments received on the Draft SEIS are minor, FHWA and DOT&PF, in accordance with Section 1319 of the Moving Ahead for Progress in the 21st Century Act (MAP-21), may elect to issue the Final SEIS as errata sheets. The errata sheets would explain factual corrections to the Draft SEIS and explain why Draft SEIS comments do not warrant further response in the form of a full Final SEIS. In either approach (a full Final SEIS or errata sheets), the Final SEIS will identify a preferred alternative and explain why it was selected; describes findings, including any on required for wetlands, floodplains, and section 106 effects cultural resources, as applicable; and provides a list of commitments for mitigation measures for the preferred alternative.; This Final SEIS and also identifies any other findings to be made in compliance with all environmental laws, regulations, Executive Orders, and other related requirements with associated agency consultation documentation. An additional 30-day review would follow publication of the Final SEIS. FHWA's The Record of Decision is issued concurrently with include responses to comments on the this Final SEIS. The Record of Decision identifies Alternative G4v as the selected alternative.

Organization of the **Final** SEIS

This **Final** SEIS is organized as follows:

- Summary
- Contents (including listings of all tables, figures, and appendices)
- Acronyms and Abbreviations
- Chapter 1.0: Purpose of and Need for Action
- Chapter 2.0: Alternatives
- Chapter 3.0: Affected Environment
- Chapter 4.0: Environmental Consequences
- Chapter 5.0: List of Preparers
- Chapter 6.0: SEIS Distribution List
- Chapter 7.0: Comments and Coordination
- Chapter 8.0: Index
- Appendices:
 - A – DOT&PF Commissioner Letters
 - B – Conceptual Stage Relocation Study and Assessment of Right-of-Way Acquisition Costs and Addendum
 - C – FAA Determination of No Hazard to Air Navigation
 - D – ADEC letter to FHWA on Air Quality Conformity Analysis
 - E – Essential Fish Habitat and Threatened and Endangered Species Consultation
 - F – Updated Cost Estimates for Alternatives
 - G – FAA Determination of Hazard to Air Navigation
 - H – Draft Section 404/10 Permit Application, Draft Section 404(b)(1) Analysis, and Wetland Finding
 - I – Comments on the Draft SEIS

The basis of this document is the 2013 Draft SEIS text in its entirety, with changes made throughout the document to reflect the selection of a preferred alternative, refinements to the project design, updated information on the affected environment, changes in the assessment of impacts, corrections, the selection of mitigation measures, the results of coordination, comments received on the 2013 Draft SEIS, and responses to those comments. Important changes are indicated with colored text for easy identification by the reader: added text is underlined; deleted text has a line through it. New appendices are included in printed versions of this Final SEIS. Appendices issued with the 2013 Draft SEIS (i.e., Appendices A through E) can be viewed on the CD version of the Final SEIS and on the project website (http://www.dot.alaska.gov/sereg/projects/gravina_access/index.shtml).

Proposed Action

The proposed action is to improve surface transportation between Revillagigedo Island and Gravina Island in the Ketchikan Gateway Borough (Borough) of Alaska. The purpose of and need for the Gravina Access Project, which have not changed since the 2004 FEIS was issued, are as follows:

Purpose: The purpose of the Gravina Access Project is to improve surface transportation between Revillagigedo Island and Gravina Island.

Need: The need for improving access is threefold:

- To provide the Borough and its residents more reliable, efficient, convenient, and cost-effective access for vehicles, bicycles, and pedestrians to Borough lands and other developable or recreation lands on Gravina Island in support of the Borough's adopted land use plans
- To improve the convenience and reliability of access to Ketchikan International Airport for passengers, airport tenants, emergency personnel and equipment, and shipment of freight
- To promote environmentally sound, planned long-term economic development on Gravina Island

Currently, there is no "hard link" (surface) transportation between Gravina Island and Revillagigedo Island. Public access between the islands is available via a ferry that transports vehicles, bicyclists, and pedestrians from Ketchikan across Tongass Narrows to the Ketchikan International Airport terminal on Gravina Island. The proposed action addresses the need for improved access to developable land, improved access to the airport, and long-term economic development on Gravina Island. Chapter 1 provides a detailed description of the purpose of and need for the project.

Summary of Gravina Access Project Alternatives Considered

The FHWA and DOT&PF have examined a range of alternatives for the Gravina Access Project in this SEIS: one bridge alternative that crosses Tongass Narrows near the airport, one bridge alternative that crosses Pennock Island, three ferry alternatives that would supplement the existing airport ferry service with new ferries and terminals, and one ferry alternative that makes improvements to the existing airport ferry facilities. All of the action alternatives include roadway improvements on Gravina Island to enhance the transportation links to developable land. The Gravina Access Project SEIS presents and analyzes the following alternatives.

Note that descriptions of the ferry alternatives have been revised in this Final SEIS to clarify terminology: “ferry terminal” refers to the site that includes all shoreside facilities at a given location, and “ferry berth” refers to the transfer bridge and ramp where a ferry vessel would moor to load and unload passengers.

No Action Alternative - Continued operation of existing airport ferry

Under the No Action Alternative, no bridge would be constructed and no additional ferry service would be provided between Revillagigedo Island and Gravina Island. The only public access between the two islands would continue to be provided by the existing airport ferry service across Tongass Narrows, private boats, and floatplanes. On Revillagigedo Island, the existing ferry terminal is located 2.8 miles north of downtown Ketchikan; on Gravina Island, the terminal is on the waterfront, just east of the airport terminal. The Borough operates the airport ferry service. The ferry service would continue to operate 16 hours per day and the frequency of service would remain the same, with departures every 30 minutes in winter and every 15 minutes in summer.

Alternative C3-4 – Airport Bridge with 200 feet of vertical navigational clearance

Alternative C3-4 would include construction of a road along a topographic bench on Revillagigedo Island connecting to Rex Allen Drive/Misty Marie Lane/Signal Road near Wal-Mart and a bridge across Tongass Narrows touching down on Gravina Island near the airport terminal. The Alternative C3-4 bridge would be approximately 4,190 feet long and total length of the alternative would be 1.9 miles. It would include an 8-foot-wide walkway on the bridge structure, which can be used by pedestrians and bicycles. The maximum height of the bridge over the navigational channel would be approximately 280 feet above mean higher high water (MHHW), which would penetrate FAA Part 77 airspace. The vertical navigational clearance would be 200 feet above MHHW. The horizontal navigational clearance would be 550 feet. These navigational clearances would accommodate one-way passage of cruise ships and two-way passage of most other ships, including Alaska Marine Highway System (AMHS) ferries.

Alternative F3 – Pennock Island bridges with 60 feet of vertical navigational clearance over the East Channel and 200 feet of vertical navigational clearance over the West Channel

Alternative F3 is approximately 5.9 miles long and would cross Tongass Narrows with two bridges via Pennock Island. The access would begin at South Tongass Highway south of the U.S. Coast Guard Station and cross the East Channel to Pennock Island and the West Channel to Gravina Island. The East Channel bridge would be approximately 1,985 feet long and have a maximum height of approximately 115 feet above MHHW. The bridge would have a vertical navigational clearance of 60 feet above MHHW and a horizontal clearance of approximately 350 feet. These clearances would not accommodate cruise ships, AMHS ferries, or tall freight barges that currently use the East Channel as their primary navigational route. The primary users of the East Channel are anticipated to be smaller tugs and barges, and commercial and recreational vessels

with air drafts less than 60 feet. The West Channel bridge would be approximately 2,470 feet long and have a maximum height of approximately 270 feet above MHHW. The bridge would have a vertical navigational clearance of 200 feet above MHHW and a horizontal navigational clearance of approximately 550 feet, which would accommodate one-way passage of cruise ships and two-way passage of most other ships, including AMHS ferries. Both bridge structures would include an 8-foot-wide walkway, which can be used by pedestrians and bicycles. Neither bridge would penetrate FAA Part 77 airspace. This alternative requires dredging the West Channel to improve its navigational characteristics. The dredged quantity is approximately 213,000 cubic yards over approximately 15 acres.

Alternative G2 - New ferry between Peninsula Point and Lewis Point; continued operation of existing ferry

Alternative G2 would be a new ferry service that would complement the existing airport ferry for vehicles and passengers between Peninsula Point on Revillagigedo Island and Lewis Point on Gravina Island. This alternative would cross Tongass Narrows approximately 2.0 miles north of the airport passenger terminal and would have a sailing distance of approximately 0.8 miles. Two new ferry vessels and construction of a new ferry terminal on each side of Tongass Narrows would be required for this alternative. A 0.8-mile-long road would be constructed on Gravina Island to connect the ferry terminal at Lewis Point with Seley Road.

Alternative G3 - New ferry between downtown and south of airport; continued operation of existing ferry

Alternative G3 would be new ferry service that would complement the existing airport ferry for vehicles and passengers between downtown Ketchikan at Jefferson Street (near the Plaza Mall at Bar Point) on Revillagigedo Island and a location approximately 1.3 miles south of the airport passenger terminal on Gravina Island near Clump Cove. The crossing distance would be approximately 1.3 miles. This alternative would require construction of a new ferry terminal on each side of Tongass Narrows and two new ferry vessels. Dredging may be required to provide adequate navigational depth for the ferry terminal on Revillagigedo Island. The existing breakwater could also be widened and extended for use as the ferry terminal pier. A paved road would be constructed on Gravina Island from the ferry terminal past the new Runway 11/29 extension approximately 0.2 mile to the Gravina Island Highway.

Alternative G4 - New ferry adjacent to existing ferry; continued operation of existing ferry

Alternative G4 would be new ferry service for vehicles and passengers adjacent to the existing airport ferry route between Charcoal Point on Revillagigedo Island and the existing ferry lay-up berth on Gravina Island on a quarter-mile crossing of Tongass Narrows, approximately 2.6 miles north of downtown. This alternative would require two new ferry vessels and construction of a new ferry ~~terminal~~ berth on each side of Tongass Narrows adjacent to the existing airport ferry ~~terminal~~ berths.

Alternative G4v - Continued operation of existing ferry with improved shoreside amenities

Alternative G4v ~~was added as is~~ a lower cost ~~alternative variant of~~ to Alternative G4; ~~because~~ it provides new, replaced, and reconstructed shoreside facilities to improve the convenience of airport travelers and heavy freight movement, but it does not ~~add~~ include new ferry vessels or ferry berths. ~~terminals until~~ The 2013 Draft SEIS described Alternative G4v as including new ferry vessels and ferry berths when ferry demand increases enough to warrant the additional capacity; however, based on traffic studies, ~~such~~ such demand is not anticipated in the 75-year design life of this alternative. This Final SEIS, therefore, eliminates any reference to new ferries or ferry berths

in association with Alternative G4v. Ferry operations under Alternative G4v would be the same as under the No Action Alternative.

Per a request by DOT&PF, bridge alternatives were evaluated with and without tolls to offset, in part, the cost of bridge construction and operation.

All ferry alternatives include:

- A ~~60~~-new passenger waiting facility and other improvements to the terminal site on Revillagigedo Island.
- Two shuttle vans to carry both pedestrians and their luggage from Revillagigedo Island to the airport terminal on Gravina Island.
- A new heavy freight ~~deck~~-mooring facility on Gravina Island for highway loads that cannot be accommodated by the shuttle ferry.
- Reconstruction of the existing airport ferry transfer bridges and ramps.
- Upgrades and improvements for all sidewalks and wheelchair ramps associated with the airport ferry facilities to meet applicable standards.
- ~~New~~ Toll facilities.
- Replacement of the existing ferry layup dock and transfer bridge to support layup and maintenance of the airport shuttle ferry system.

Each action alternative includes the maintenance and operation of:

- The recently constructed Gravina Island Highway;
- Lewis Reef and Seley roads to the northern airport reserve boundary; and
- Airport Access Road, which extends from the airport terminal to its intersection with the Gravina Island Highway and Lewis Reef Road.

Each action alternative also includes replacement of the existing 24-foot wide bridge over Airport Creek (west fork) at the end of Lewis Reef Road with a new 36-foot wide bridge and reconstruction of Seley Road to the northern airport reserve boundary. The existing Airport Creek bridge is a temporary structure constructed by a private entity for access to land in the Lewis Reef development area. While the creek crossing was authorized by FHWA as part of Alternative F1, it was not included in the first phase of construction by DOT&PF. Although Alternative F1 had been selected by FHWA in the 2004 Record of Decision and identified and permitted as the LEDPA by USACE, it was not carried forward as a reasonable alternative in the SEIS because its construction costs were estimated to exceed available funding. Under the USACE permit for Alternative F1, a total of 82.2 acres of permanent fill were permitted and DOT&PF provided \$405,000 of compensatory mitigation as a fee in lieu type of mitigation. With completion of Phase 1 (i.e., construction of the Gravina Island Highway), 54.3 acres of wetlands had been filled and DOT&PF had paid the compensatory mitigation to the Southeast Alaska Land Trust. The USACE permit expired June 30, 2011.

DOT&PF and FHWA Identification of the Preferred Alternative

Based on the analyses in the 2013 Draft SEIS and public and agency input, the DOT&PF and FHWA identified Alternative G4v to be the preferred alternative. Alternative G4v meets the immediate needs of improving access to Ketchikan International Airport and developable land on Gravina Island by improving shoreside facilities for travelers. It partially meets the need of promoting environmentally sound, planned long-term economic development on Gravina Island by providing and improving roads to developable lands (i.e., Gravina Island Highway as previously constructed and Seley Road/Airport Creek Bridge improvements). Alternative G4v would have

the least impact on natural habitat as compared with other build alternatives, would have no effect on historic properties, and would not require relocation of any residences or businesses.

Alternative G4v would not affect Federal Aviation Administration (FAA) Part 77 airspace¹ nor would it affect cruise ship access and operations.

Alternative G4v is the least expensive alternative to construct. With identification of Alternative G4v as their preferred alternative, FHWA and DOT&PF meet the State of Alaska's objective "to identify the most fiscally responsible alternative."

Summary of Beneficial and Adverse Impacts

No Action Alternative - Continued operation of existing airport ferry

The No Action Alternative would not affect airport property, existing airport or floatplane facilities, or FAA Part 77 airspace (14 CFR 77.1) in the vicinity of Ketchikan International Airport. Existing problems associated with access, convenience, and reliability for passengers, airport tenants, emergency personnel, equipment, and freight shipment would continue. Also, the No Action Alternative would have no change in the impact of current infrastructure and operation on cruise ship operations, the Ketchikan docking and berthing areas and facilities used by the cruise ships, or on facilities used by the AMHS ferries. There would be no traffic improvements that would change vehicular access to Ketchikan International Airport. The Gravina Island Highway and Lewis Reef Road would continue to provide access to other Borough and developable lands on Gravina Island. No wetlands or Essential Fish Habitat (EFH) would be lost to the construction of new facilities. Based on traffic forecasts and economic studies prepared for this project to assess indirect impacts, development would likely continue at the existing rate, with approximately 16 acres developed on Gravina Island by 2030.

Alternative C3-4 – Airport Bridge

Alternative C3-4 is estimated to have a \$305 million construction and project development cost, a \$322 million lifecycle cost, and a total life cost of \$490 million (\$427 million with a toll). The bridge associated with this alternative would intrude into the FAA Part 77 airspace for Ketchikan International Airport, obstruct flight under normal visual flight rules and could greatly reduce the effectiveness of special visual flight rules for seaplane operators. Cruise ship passage would continue, but some cruise lines may choose to change operations to avoid navigating under the bridge. Wetland habitat loss is estimated as 5.9 acres and 1.9 acres of EFH are expected to be lost. Based on traffic forecasts and economic studies prepared for this project, development on Gravina Island is projected to be about 336 acres by 2033. Adding a \$5 toll to the bridge would reduce the amount of development by approximately 13 percent.

Alternative F3 – Pennock Island Bridges

Alternative F3 is estimated to have a \$354 million construction and project development cost, a \$385 million lifecycle cost, and a total life cost of \$675 million (\$624 million with a toll). The Alternative F3 bridges would not intrude into the FAA Part 77 airspace, but would affect seaplane operations because seaplanes would need to fly over or taxi under them (primarily the East Channel bridge). The bridges associated with this alternative would alter cruise ship navigation patterns by requiring large vessels to use the West Channel around Pennock Island. Some cruise lines may choose to change operations to avoid navigating West Channel. Wetland habitat loss is estimated as 25.9 acres, 15.7 acres of marine EFH are expected to be lost and 6 anadromous

¹Part 77 airspace refers to the protected airspace for aeronautical navigation. Objects that affect navigable airspace are identified by the FAA in accordance with Part 77.

streams crossed. Based on traffic forecasts and economic studies prepared for this project, development on Gravina Island is projected to be about 336 acres by 2033. Adding a \$5 toll to the bridge would reduce the amount of development by approximately 14 percent.

Ferry Alternatives

Alternatives G2, G3, G4, and G4v would have lower construction and project development costs (\$46 million to \$122 million) and lower lifecycle costs (\$171 million to \$338 million) than the bridge alternatives, but would have higher total life costs (\$1,163 to \$2,017 million without toll or \$784 to \$1,512 million with toll) than the No Action and the bridge alternatives. The ferry alternatives would have no impacts to aviation. Alternatives G2, G3, and G4 would have a slight effect on marine navigation by increasing the amount of cross-channel traffic. These alternatives would not provide the convenience and reliability of access to the airport and other lands on Gravina Island as well as a bridge alternative would. Wetland habitat loss with Alternatives G2, G3, G4, and G4v is estimated as 17.1, 11.8, 5.9, and 5.9 acres, respectively, approximately 2.1, 5.1, 1.4, and 1.1 acres of marine EFH, respectively, are expected to be lost and Alternative G3 would cross 1 anadromous stream. Based on traffic forecasts and economic studies prepared for this project, development on Gravina Island under Alternatives G2, G3, and G4, at approximately 43 acres by 2033, is nearly three times the amount of development projected under the No Action Alternative and about one-tenth of what either bridge alternative would provide. Those same studies show Alternative G4v with the same level of projected growth on Gravina Island as the No Action Alternative.

The following table, “[Table S-1. Summary of Impacts by Alternative,](#)” presents the major environmental impacts, both beneficial and adverse, associated with each alternative. Alternative F1, the preferred alternative in the 2004 FEIS and selected alternative in the [2004](#) Record of Decision, is included in the table: although it is no longer a reasonable alternative under consideration in this [Draft](#) SEIS, its potential adverse impacts are provided here as a point of comparison.

Note that the construction cost estimate for each of the build alternatives has increased substantially relative to the construction costs presented in the 2013 Draft SEIS. This increase is also reflected in the lifecycle and total life costs for each alternative. The reason for the cost increases are related to having updated information and greater design detail, and correcting for previous unintentional omissions. Section 2.1 of this Final SEIS provides a detailed explanation of the cost differences between the 2013 Draft SEIS and this Final SEIS. Changes to environmental impacts are relatively minor and, for the most part (e.g., wetland loss and fill in marine waters), are the result of having more detailed design information in this Final SEIS.

Table S-1. Summary of Impacts by Alternative [Updated]

Impact Categories	No Action	Bridge Alternatives		Ferry Alternatives				2004 FEIS Preferred and Record of Decision Selected Alternative F1 ¹⁰
		C3-4 Airport Bridge	F3 Pennock Island Bridges	G2 Peninsula Point to Lewis Point	G3 Downtown to South of Airport	G4 New Ferry Adjacent to Existing	G4v Low Cost Variant of G4 ^v	
<i>Cost Factors</i>								
Construction and Project Development (\$ million)	0	305 <u>223</u>	354 <u>276</u>	122 <u>84</u>	107 <u>70</u>	91 <u>62</u>	23 <u>46</u>	375
Average Annual O&M Operations and Maintenance (\$ million)	2.4 <u>3.5</u>	0.2 <u>04</u>	0.19	5.9	5.9	5.9	3.6	ND
75-year Lifecycle (\$ million) ¹	35 <u>108</u>	222 <u>322</u>	286 <u>385</u>	334 <u>338</u>	314 <u>316</u>	304 <u>294</u>	182 <u>171</u>	ND
Total life cost (\$million)	1,024 <u>929</u>	490 <u>394</u>	675 <u>576</u>	2,017 <u>330</u>	1,942 <u>4,262</u>	1,872 <u>4,207</u>	1,163 <u>4,050</u>	ND

Impact Categories	No Action	Bridge Alternatives		Ferry Alternatives				2004 FEIS Preferred and Record of Decision Selected Alternative F1 ¹⁰
		C3-4 Airport Bridge	F3 Pennock Island Bridges	G2 Peninsula Point to Lewis Point	G3 Downtown to South of Airport	G4 New Ferry Adjacent to Existing	G4v Low Cost Variant of G4 ^v	
Total life cost assuming toll revenue (\$ million)	645590	427335	624534	1,512879	1,436814	1,366756	784742	ND
<i>Purpose and Need Factors</i>								
<u>Reliability of Access</u>								
Hours of operation per day ²	16	24	24	16	16	16	16	24
Round Trips (RT) per hour (summer/winter)	4 RT/ 2 RT	NA	NA	4 RT/ 2 RT	4 RT/ 2 RT	4 RT/ 2 RT	4 RT/ 2 RT	NA
Hours of downtime per day ²	8	0	0	8	8	8	8	0
Restrictions to hazmat transport and oversized/overweight ³ vehicles? (Yes/No)	Yes	No	No	Yes	Yes	Yes	Yes	No
<u>Efficiency & Convenience of Access</u>								
Vehicular travel time ⁴ (in minutes) to airport from:								
Downtown Ketchikan	28	14	13	43	35	25	28	13
Carlanna Creek	19	6	22	34	33	16	19	21
Ward Cove	25	8	28	34	39	22	25	27
Vehicular travel time ⁴ (in minutes) to developable land from:								

Impact Categories	No Action	Bridge Alternatives		Ferry Alternatives				2004 FEIS Preferred and Record of Decision Selected Alternative F1 ¹⁰
		C3-4 Airport Bridge	F3 Pennock Island Bridges	G2 Peninsula Point to Lewis Point	G3 Downtown to South of Airport	G4 New Ferry Adjacent to Existing	G4v Low Cost Variant of G4 ^v	
Downtown Ketchikan	32	17	11	35	29	29	32	7
Carlanna Creek	24	8	19	26	28	21	24	15
Ward Cove	30	11	25	26	34	27	30	21
<u>Economic Development</u>								
Projected development on Gravina Island (in acres):								
Residential	13	308	308	40	40	40	13	383
Industrial/commercial	3	23	23	3	3	3	3	22
Projected development on Pennock Island (in acres):								
Residential	0	0	12	0	0	0	0	75
Industrial/commercial	0	0	0	0	0	0	0	1
<i>Social and Economic Impacts</i>								
Private Property impacts (# of parcels; total acres)	0	19 parcels; 42 acres	7 parcels; 4 acres	0	6 parcels; <1 acre	0	0	ND
Residential Relocations	0	2	0	0	0	0	0	0
Business Relocations	0	6	0	2	0	0	0	0
Estimated number of affected parcels	0	24	14	7	11	5	5	30

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		C3-4 Airport Bridge	F3 Pennock Island Bridges	G2 Peninsula Point to Lewis Point	G3 Downtown to South of Airport	G4 New Ferry Adjacent to Existing	G4v Low Cost Variant of G4 ^v	
Total construction jobs ⁵	0	1,560	1,780	470	510	470	120	470
Annual <u>Operations and Maintenance</u> &M-jobs (without toll for bridge alternatives) ⁶	13	2	3	28	28	28	13	1
User economic benefits (\$ million) ⁷	0	63	51.4	(24.8)	(24.5)	(22.0)	(1.3)	ND
<i>Transportation Impacts</i>								
Intrusion into Part 77 airspace? (Yes/No)	No	Yes	No	No	No	No	No	No
Obstruction for seaplanes? (Yes/No)	No	Yes	Yes	No	No	No	No	Yes
<i>Natural Resources Impacts</i>								
Permanent upland habitat losses (acres)	0	10	2	4	3	1	1	10.7
Permanent wetland habitat losses – marine (acres)	0	0	0	1.2	2.9	0	0	96.5 (incl. fresh water)
below the high tide line (HTL)	0	0	0	0.6	1.1	0	0	ND
below the Mean High Water (MHW) mark	0	0	0	0.6	1.8	0	0	ND

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below the ordinary high water mark (OHWM)	0	0	0	0	0	0	0	ND
Permanent wetland habitat losses – fresh water (acres)	0	135.9	3325.9	2317.1	4611.8	435.9	435.9	ND
Temporary upland habitat disturbance (acres)	0	3	2	1	1	1	1	ND
Temporary wetland habitat disturbance – marine (acres)	0	0	0	0	0	0	0	0
Temporary upland wetland habitat disturbance – fresh water (acres)	0	5.3	16.3	13.3	9.3	4.3	4.3	11.3
Essential Fish Habitat losses (acres)								
Marine	0	1.9	15.73	1.22.1	45.1	0.71.4	0.41.1	0.2
Fresh water	0	0	0	0	0	0	0	0
Number of anadromous stream crossings ⁸	0	02	76	02	13	02	02	5
Number of piers in Tongass Narrows ⁹	0	12	6	0	0	0	0	6
Discharge of fill in marine waters of Tongass Narrows								
Quantity (cubic yards)	0	0	0	24,5004,000	21,50018,000	3,5009	3,5009	0
Area (acres)	0	0	0	1.21.9	2.93.6	0.7	0.7	0

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Dredging/removal of sediment from marine waters								
Quantity (cubic yards)	0	0	213,000	1,400	18,600	15,200	0	ND
Area (acres)	0	0	15 <u>14.8</u>	0.25 <u>3</u>	2.2	0.4 <u>0</u>	0.4 <u>0</u>	ND
<i>Cultural Resources Impacts</i>								
Eligible historic/archaeological properties in direct area of potential effect	NA	1	7	1	1	0	0	0

¹ Lifecycle costs reported are for the no toll option.

² Hours of operation and downtimes would be the same for all ferries.

³ Ferry service is typically limited to vehicles less than 20 feet in length. The weight limit is 30,000 pounds.

⁴ Numbers in **bold** type indicate travel times shorter than existing conditions. Values provided represent travel times using new ferry facility only. Travel time for the existing airport ferry would be the same as for the No Action alternative.

⁵ Assumes a three-year construction period. Jobs can be full-time, part-time, or seasonal.

⁶ Number of jobs represents ~~one~~ number of full-time employees.

⁷ Benefits are shown in 2012 dollars (with no toll option) and are a compilation of savings over 75 years (2012-2086). See Section 4.26.3.6 in the SEIS for more information.

⁸ Number of anadromous fish streams shaded by bridge or covered with culvert. No permanent loss of EFH is anticipated at these locations.

⁹ Bridge alternatives include piers 30 feet square. Ferry alternatives include small-diameter pilings which are not included in this total.

¹⁰ All table entries for Alternative F1 are derived from the 2004 FEIS with the exception of Construction and Project Development Costs, which were developed during the alternatives screening process for the SEIS.

NA = Not applicable

ND = Not determined

Major Unresolved Issues

There are no major unresolved issues related to the Gravina Access Project and FHWA and DOT&PF's preferred alternative.

Federal Actions Necessary

Alternative G4v requires a Section 404 permit from the USACE for impacts to waters of the United States, including wetlands, subject to Section 404 jurisdiction. Alternative G4v also requires a Section 10 permit from the USACE for work in navigable waters. A Section 10/404 permit application is attached to the Final SEIS in Appendix H. The permit public review period is 30 days.

As delegated under the Clean Water Act, Alaska Department of Environmental Conservation requires an Alaska Pollutant Discharge Elimination System construction permit for all construction activities that would result in ground disturbance of 1 acre or greater.

The SEIS considers, and the project complies with, the ~~The~~ following federal laws and executive orders, which are the primary federal laws that apply to one or more project alternatives:

- Clean Air Act
- Clean Water Act, Section 401
- Clean Water Act, Section 404
- Coastal Zone Management Act
- Endangered Species Act
- Fish & Wildlife Coordination Act
- Magnuson-Stevens Fishery Conservation & Management Act (Essential Fish Habitat)
- Marine Mammal Protection Act
- Marine Protection, Research, and Sanctuaries Act, Section 102/103
- Migratory Bird Treaty Act
- Bald and Golden Eagle Protection Act
- National Historic Preservation Act, Section 106
- Rivers and Harbors Act, Section 9
- Rivers and Harbors Act, Section 10
- Executive Order 11988 Floodplain Management
- Executive Order 11990 Protection of Wetlands
- Executive Order 12898 Environmental Justice
- Executive Order 13175 Consultation and Coordination with Tribes

Sections 3.13 and 4.13 provide additional information about the federal laws and regulations applicable to the Gravina Access Project.

SEIS and Record of Decision Availability

The ~~Draft Final~~ SEIS and Record of Decision are available free of charge on compact disk (CD) for viewing electronically. The documents is also available for viewing on the project web site at http://dot.alaska.gov/sereg/projects/gravina_access/. Bound versions of the documents s are available for public review at the following locations:

Ketchikan Public Library

629 Dock Street, Ketchikan, Alaska

Ketchikan Gateway Borough Department of Planning and Community Development

344 Front Street, Ketchikan, Alaska

DOT&PF Southcoasteast Region

6860 Glacier Highway, Juneau, Alaska

City of Ketchikan Clerk's Office

334 Front Street, Ketchikan, Alaska

City of Saxman Clerk's office

2841 South Tongass Highway, Ketchikan, Alaska

Ketchikan Indian Community

2960 Tongass Avenue, Ketchikan, Alaska

Organized Village of Saxman

Route 2, Box 2, Ketchikan

Metlakatla Library

4th and Milton Street, Metlakatla, Alaska

For information on obtaining a CD or bound version of the [Final SEIS and Record of Decision, or alternative formats of the documents, please contact Deborah Holman at DOT&PF at \[deborah.holman@alaska.gov\]\(mailto:deborah.holman@alaska.gov\) or \(907\) 465-1828](#), or visit the project web site at: http://dot.alaska.gov/sereg/projects/gravina_access/.