

Gravina Access Project

Appendix E - Part 2 Endangered Species Act Consultation

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U.S. Department
of Transportation
**Federal Highway
Administration**

Alaska Division

June 21, 2012

P.O. Box 21648
Juneau, AK 99802-1648
(907) 586-7418
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www.fhwa.dot.gov/akdiv

In Reply Refer To:
FHWA-AK-EIS-03-01-F/67698

Ms. Kaja Brix
Director
National Marine Fisheries Service
Protected Resources Division
P.O. Box 21688
Juneau, AK 99802

Dear Ms. Brix:

The Federal Highway Administration (FHWA), in cooperation with the Department of Transportation and Public Facilities (DOT&PF), is preparing a Supplemental Environmental Impact Statement (SEIS) for the Gravina Access Project near Ketchikan, Alaska.

In July 2004, FHWA and DOT&PF issued a Final Environmental Impact Statement (FEIS) for the Gravina Access Project. The FEIS included a biological assessment (BA) (Attachment A) and a letter of concurrence from National Marine Fisheries (NMFS; Attachment B) for a *not likely to adversely affect* determination for Steller sea lions (*Eumetopias jubatus*), designated Steller sea lion habitat, and humpback whales (*Megaptera novaeangliae*) for all alternatives in the FEIS.

FHWA issued a Record of Decision on September 15, 2004, and identified Alternative F1 as the Selected Alternative. Alternative F1 crosses Tongass Narrows at Pennock Island, requiring construction of bridges across the East Channel and West Channel. In addition, the Gravina Island Highway was proposed to connect the bridge crossing with the airport. Following completion of the EIS and permitting, the DOT&PF moved forward with the first phase of implementing Alternative F1: construction of the Gravina Island Highway, which was completed in 2008.

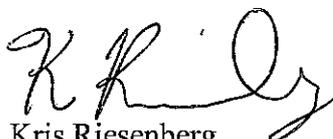
On September 21, 2007, Alaska Governor Sarah Palin directed the DOT&PF to look for a lower cost alternative for access to the airport and Gravina Island. On July 2, 2008, FHWA issued a notice of intent to re-examine alternatives in an SEIS and identify and select a new preferred alternative.

Attachment C describes the changes to the Gravina Access Project alternatives and associated effects to Steller sea lions (*Eumetopias jubatus*), designated Steller sea lion habitat, and humpback whales (*Megaptera novaeangliae*). Based on our review of the changes to the proposed action, the FHWA and DOT&PF conclude that the changes to the proposed action are consistent with the effects analyzed in the 2003 BA (Attachment A), and the NMFS *not likely to adversely affect* determination for Stellar sea lions, Steller sea lion designated critical habitat,

and humpback whales (Attachment B). As such, the FHWA and DOT&PF request that NMFS concur with the determination of *not likely to adversely affect* for the revised project. This consultation request is also made on behalf of the U.S. Army Corps of Engineers and U.S. Coast Guard, which are cooperating agencies for the Gravina Access Project SEIS.

Please submit your written response via mail to Kris Riesenber, Project Manager, Federal Highway Administration, P.O. Box 21648, Juneau, Alaska 99802 or email at kris.riesenberg@dot.gov . Please feel free to contact me at (907) 586-7413 with any questions.

Sincerely,



Kris Riesenber
FHWA Project Manager

Enclosures:

- Attachment A: 2003 Biological Assessment
- Attachment B: 2004 Letter of Concurrence
- Attachment C: MMPA and ESA Section 7 Consultation Updates

cc w/o enclosures:

- John Barnett, DOT&PF, Southeast, Project Environmental Coordinator
- Jim Lowell, DOT&PF, Special Projects Manager
- Mark Dalton, HDR Alaska, Inc

Attachment A:
2003 Biological Assessment

Gravina Access Project Threatened and Endangered Species Biological Assessment for Humpback Whale and Steller Sea Lion

Updated November 2003

Introduction

An environmental impact statement (EIS) is underway for the Gravina Access Project in the Ketchikan Gateway Borough, Alaska. There are no species under the jurisdiction of the U.S. Fish and Wildlife Service listed as threatened or endangered under the Endangered Species Act in the project area. The National Marine Fisheries Service (NOAA Fisheries—part of the National Oceanic and Atmospheric Administration) lists two species within the project area as endangered or threatened: the Steller sea lion and the humpback whale. Both species are additionally protected under the Marine Mammal Protection Act of 1972. The text of this document is substantially the same as the text intended for the final EIS and constitutes a biological assessment as required by 50 CFR 402.12. The measures outlined here to protect these two species will also protect other mammals protected by the Marine Mammal Protection Act. As described below, employing these measures, the project is not likely to adversely affect protected species or any identified critical habitat.

Construction Background

The project is anticipated to take up to three years to construct. Seasonal construction timing is discussed at the end of this document. On-site construction of ferry terminals could be completed more quickly than three years, and the in-water components would be completed in 1-2 construction seasons. Bridge construction alternatives likely would require three years. The most critical construction components related to marine mammals is in-water work, particularly drilling rock for pier placement, possible blasting, and possible dredging.

Drilling, using reverse rotary drill technology, would create holes 10-12 feet in diameter and 50-100 feet deep in substrate rock to anchor the piers. Each bridge pier foundation would require drilling 4-6 such holes. There are six in-water piers for Alternative F1 (the preferred alternative) and approximately equal numbers for other bridge alternatives. Each hole would take approximately one week to complete. This amounts to a total of approximately 30 weeks of in-water drilling, although it is possible that more than one hole could be drilled simultaneously.

Underwater blasting is possible with any of the alternatives. However, based on the preliminary nature of the engineering, it is not known how much blasting would be necessary, if any. Only under Alternative F3, for which increasing West Channel navigation clearances is proposed to mitigate shipping impacts, is there a known quantity of dredging and blasting. This would entail removal of a ridge of rock approximately 2,000 feet long and up to 750 feet wide would involve dredging of 63,000 cubic yards of surficial sediment and blasting to remove 16,100 cubic yards of bedrock. For this alternative only, the combination of drilling, blasting, and dredging is anticipated to last 1-3 months. Blasting under any other alternative is not anticipated to take place for more than 2-3 days total and may not be required at all. Ferry alternatives would likely require blasting and dredging near shore to provide adequate depth for the ferries. Except for the mitigation measures just described for Alternative F3, dredging is not considered likely under the

bridge alternatives. Under any alternative, dredged and blasted material is anticipated to be dumped at sea in accordance with section 103 of the Marine Protection, Research, and Sanctuaries Act, in areas permitted by the Environmental Protection Agency and Corps of Engineers.

Humpback Whale

The humpback whale (*Megaptera novaeangliae*) was federally listed as endangered in 1966. Before the mechanization of commercial whaling, the population of humpback whales was about 15,000. The International Whaling Commission (IWC) first protected humpback whales from commercial whaling in 1965, and such whaling ceased in the North Pacific. The whales were listed as endangered under the Endangered Species Act in 1973. The humpback whale is listed as “depleted” under the Marine Mammal Protection Act.

The Central North Pacific Stock, currently estimated at about 4,000 animals, is the group in question for this project. This stock of humpback whales generally winters in Hawaiian waters and summers along the North Pacific coast. Humpback whale distribution in summer is continuous from British Columbia to the Russian Far East, and humpbacks are present offshore in the Gulf of Alaska. The whales appear to return to the feeding areas where their mothers first brought them as calves, with evidence of some crossover to other areas but only at a rate of approximately one percent.

More than 500 humpback whales inhabit the waters near Southeast Alaska during the summer.¹ A NOAA Fisheries stock report² indicates 404 individual whales have been documented in the portion of Southeast Alaska that includes Chatham Strait and waterways to the north, and 275 have been documented in northern British Columbia (primarily near Langara Island). No counts have been completed specific to southern Southeast Alaska and the project area. There is no designated critical habitat for humpback whales as there is for Steller sea lions.

According to the NOAA Fisheries stock report, this stock is the focus of a large whale watching industry in Hawaii and a growing whale watching industry in Alaska and B.C. Regulations concerning minimum distance to keep from whales and how to operate vessels when in the vicinity of whales have been developed for Hawaiian waters in an attempt to minimize the impact of whale watching. In 2001, NMFS issued regulations to prohibit most approaches to humpback whales in Alaska to 100 yards (66 FR 29502; May 31, 2001). The growth of the whale watching industry is a concern to NOAA Fisheries, because preferred habitats could be abandoned if disturbance levels became too high. Noise is another, related concern. Continual noise appears to be the primary concern, with noise from an Acoustic Thermometry of Ocean Climate program, the U.S. Navy’s Low Frequency Active sonar program, shipping, and whale watching cited by NOAA Fisheries. Incidental or short-term noises are not mentioned.

Humpback whales commonly feed and breed over shallow banks but traverse the open ocean during migration. They prey on small schooling fish such as herring and swarms of krill by using bubbles that concentrate prey. They also feed in formation, herd prey, and practice lunge

¹ MacDonald, S.O., and J.A. Cook., The Mammal Fauna of Southeast Alaska, *University of Alaska Fairbanks*, 1999.

² NOAA Fisheries. 2002. “Stock Assessment Report: Humpback Whale (*Megaptera novaeangliae*): Central North Pacific Stock”

feeding as a group.³ Most of the Alaska summer whale population leaves by about October or November for Hawaii. Calving takes place in the wintering grounds. A few humpback whales stay in Alaska and may be seen in winter.

NOAA Fisheries documented human-caused injury or mortality to this stock of whales. Entanglement or other injury caused by fishing gear and nets appears to be the primary issue. Two incidents were noted in the general Ketchikan area. There is documentation of apparent injury to and death of humpback whale related to repeated underwater blasting in Newfoundland.

There is no data about seasonal abundance and distribution of humpback whales specific to Tongass Narrows. However, there is informed anecdotal information from a member of the marine mammal stranding network,⁴ an ADF&G biologist,⁵ and a spotter pilot,⁶ all based in Ketchikan, to indicate use of the area. Humpback whales may be found in Tongass Narrows year round, although the numbers are small much of the year, and they are seen only perhaps once or twice per month. There is a peak in activity in April and May, corresponding to herring spawning season, when daily sightings are common. Whales do not appear to use Tongass Narrows specifically as a migration route, and there is no evidence that Tongass Narrows is a favored location for critical activities, although the whales presumably may feed in the Narrows. As indication of relatively low numbers of whales in summer, a flightseeing air service based in Ketchikan advertises flying more than 100 miles north to Frederick Sound to see humpback whales. Another advertises flying south 40 miles or more to the shores of Prince of Wales Island near the mouth of Clarence Strait to view whales in summer.

Potential Impacts to Whales. The completed project is expected to have no population-level effects that are distinguishable from natural variation in numbers. Occasional individual passing whales could be exposed to increased noise from project operation (principally ferry engines/propellers); however, whales hear such noise in the area now, because Tongass Narrows is a busy shipping lane. They would likely move away from areas of excessive noise and disturbance. They do not stay in Tongass Narrows for extended periods; therefore, these disturbances are not expected to have a measurable impact on humpback whales.

Construction of the project would include activities that could disturb whales if completed while whales were present. These include the noise of reverse rotary drilling in submerged rock and substrate for placement of bridge piers, dredging West Channel for shipping (Alternative F3 only), and dredging near shore for ferry terminal construction. Underwater blasting is anticipated for Alternative F3 (for widening the shipping lane in West Channel), and blasting is a possibility for any of the alternatives. All of these activities would be scheduled for fall and winter, after most whales leave Alaska for wintering grounds and after the busy cruise ship season. Project commitments to ensure no measurable disturbance to humpback whales and other marine mammals are listed at the end of this document. Employing these measures, the project is not likely to adversely affect the humpback whale.

³ Wynne, Kate. Guide to Marine Mammals of Alaska, *University of Alaska Fairbanks*, 1997.

⁴ Freitag, Gary. 2000. *Personal communication*.

⁵ Porter, Boyd. 11/20/2003. *Personal communication*.

⁶ Masden, Michelle. 11/20/2003. *Personal communication*.

Steller Sea Lions

Steller sea lions (*Eumetopias jubatus*) number 100,000-140,000 worldwide.⁷ Approximately half live in Alaska. The western Alaska population of Steller sea lions, inhabiting the western Gulf of Alaska and Bering Sea, has declined substantially and is endangered. The Eastern Stock is the population of interest for this project, extending through the eastern Gulf of Alaska and along the coastal areas of Alaska, Canada, and the western Lower 48 states. This stock was listed as threatened in 1990. According to a NOAA Fisheries stock report,⁸ the eastern stock is stable or increasing in the northern portion of its range (Southeast Alaska and British Columbia). For the Southeast Alaska population, the trend is growth, from 6,898 animals in 1982 to 9,862 in 2000.

Steller sea lions feed on a wide variety of prey such pollock, flounder, herring, crab, rockfish, cod, salmon, squid, and octopus. Feeding occurs from the intertidal zone to the continental shelf.⁹

Critical habitat has been defined in Southeast Alaska at major haulouts and major rookeries (50 CFR 226.202). The nearest rookery is Forrester Island, and the nearest major haulouts are at Timbered Island and Cape Addington. All three sites are about 80 miles west of Tongass Narrows.

Steller sea lions have not been specifically studied or counted in Tongass Narrows. However, there is informed anecdotal information from a member of the marine mammal stranding network,¹⁰ an ADF&G biologist,¹¹ and a spotter pilot,¹² all based in Ketchikan, to indicate use of the area. Sea lions may be found in Tongass Narrows year round, although the numbers are small much of the year. There is a peak in activity in March-early May, corresponding to herring spawning season. At this time, it is reported that large pods of sea lions may occur the area (20-80 animals possible). In summer, most sea lions move to large rookeries (such as Forrester Island) for pupping and the next mating cycle. Small numbers of non-mating animals remain in the Tongass Narrows area but are infrequently seen. There is another small peak in activity in later summer, associated with salmon. There are not large numbers in winter.

There are no established haul-out sites in Tongass Narrows. Grindall Island, 12 miles west of the northern tip of Gravina Island, is a year round sea lion haulout but not a rookery. This appears to be the nearest haulout area. ADF&G has done aerial surveys of this site over a number of years (1982-1996) and never recorded animals there in summer (June/July) but has counted more than

⁷ Wynne, Kate. 1997. *Guide to Marine Mammals of Alaska*. Sea Grant College Program, University of Alaska Fairbanks.

⁸ NOAA Fisheries. 2002. "Stock Assessment Report: Steller Sea Lion (*Eumetopias jubatus*): Eastern U.S. Stock"

⁹ ADF&G, September 5, 2002. *Wildlife Notebook Series: Steller Sea Lions*, <http://www.state.ak.us/adfg/notebook/marine/sealion.htm>.

¹⁰ Freitag, Gary. 2000. *Personal communication*.

¹¹ Porter, Boyd. 11/20/2003. *Personal communication*.

¹² Masden, Michelle. 11/20/2003. *Personal communication*.

200 animals each on the only two non-summer counts: March 1993 and December 1994.¹³ The sea lions have been observed in Tongass Narrows around the fish hatchery, where large numbers of salmon congregate in late summer. In Ketchikan harbor itself, daily sighting of sea lions are not unusual in winter—more than in summer, when the harbor is busiest.

NOAA Fisheries reports concerns about fishing related injury and mortality, such as entanglement in fishing gear. Other causes of mortality are also reported (subsistence hunting, illegal shooting, elimination of sea lions for protection of aquaculture in B.C., etc.). There is no indication of substantial problems related to construction.

Potential Impact to Steller Sea Lions. No impact to the Steller Sea Lion population is anticipated from operation of any of the alternatives, once constructed. The habitat and population of sea lion prey, principally off-bottom fish, is not expected to be substantially affected. Sea lions could be exposed to increased noise from project operation (principally ferry engines), but this would be of the same character of noise already present in the Tongass Narrows shipping lanes and not distinguishable from daily and annual variations. Collision with vessels is not likely, because marine mammals in general tend to avoid collisions by using their excellent acoustic capabilities.

Construction of the project would include activities that could disturb sea lions if completed while sea lions were present. These include the noise of reverse rotary drilling in submerged rock and substrate, for placement of bridge pilings, dredging West Channel for shipping (Alternative F3 only), and dredging near shore for ferry terminal construction. Underwater blasting is anticipated for Alternative F3 (for widening the shipping lane in West Channel), and blasting is a possibility for any of the alternatives. NOAA Fisheries stated in a June 4, 2001 letter, “Steller sea lions are unlikely to be affected by underwater noise associated with project construction activities because they have higher thresholds for noise disturbance and are able to raise their heads out of the water to avoid noise transmission.” Nonetheless, all of these activities would be scheduled for fall and winter, between late summer salmon runs and spring herring runs that attract sea lions. Project commitments to ensure no disturbance to Steller sea lions and other marine mammals are listed at the end of this document. Employing these measures, the project is not likely to adversely affect the Steller sea lion.

Mitigating Measures for Marine Mammal Protection

The June 4, 2001 letter from NOAA Fisheries (Alaska) provided an initial response to a request for informal consultation in accordance with Section 7 of the Endangered Species Act and recommended mitigation measures. An October 3, 2003 letter from NOAA Fisheries (Maryland), in response to the draft EIS, recommended further mitigation measures. Note that the draft EIS erroneously indicated that pile “driving” would be part of project construction. A reverse rotary drill actually would be employed to drill into submerged rock and substrate for the bridge alternatives. Noise would occur, but the intense spikes of sound and shock waves of pile driving would not be produced. To ensure no injury to or harassment of Steller sea lions, humpback whales, or other marine mammals, the project is committed to the measures listed

¹³ Gerke, Brandee. 2003.

below. These are designed to be compatible with Essential Fish Habitat (EFH) mitigation measures for the project.

- In-water work will occur outside the springtime months, when there is greatest sea lion use of the project area. The EFH work window for in-water work in Tongass Narrows is July 1 to February 28, and this would be followed for marine mammals as well. Major work, such as any dredging or in-water blasting required, would occur only November 1 to February 28. This timing avoids runs of salmon and herring, on which humpback whales and Steller sea lions feed.
- The construction contract will require a blasting plan approved by NOAA Fisheries, should blasting be necessary.
- The construction contract will require a dredging plan approved by NOAA Fisheries, should dredging be required.
- The project will ensure use of trained and approved observers to indicate when sea lions are within a 50 m zone around pier work or other in-water work, and activity will wait until the animals move out of the area, or work would be stopped if mammals were to enter the area.
- An in-water warning sound will be issued prior to drilling or blasting to allow any marine mammals to voluntarily move to a comfortable distance.
- All necessary permits and agency approvals will be acquired prior to construction and stipulations will be incorporated into contract specifications.
- If necessary, based on the alternative ultimately selected and the design and construction methods ultimately decided upon, an incidental harassment authorization might need to be obtained from NOAA Fisheries.

References

- Alaska Department of Fish and Game. September 5, 2002. ADF&G, Wildlife Notebook Series: Steller Sea Lions, <http://www.state.ak.us/adfg/notebook/marine/sealion.htm>.
- Behavioural Ecology Research Group, Department of Biological Sciences, Simon Fraser University. 2003. www.sfu.ca/biology/berg/whale/abcwhale.html. Burnaby, B.C., Canada.
- Frietag, Gary. February 23, 2000. Personal communication between Freitag, marine mammal regional stranding coordinator (under National Marine Fisheries Service Stranding Network), Ketchikan, and Robin Reich, HDR Alaska, Inc.
- Gerke, Brandee. November 19, 2003. Personal communication between Gerke, National Marine Fisheries biologist, Juneau, and John Wolfe, HDR Alaska, Inc.
- HDR Alaska, Inc. April 2000. Gravina Access Project Federal and State Listed Threatened and Endangered Species Technical Memorandum. Prepared for the Alaska Department of Transportation and Public Facilities. Juneau.
- HDR Alaska, Inc. August 6, 2003. Gravina Access Project Draft Environmental Impact Statement. Prepared for the Alaska Department of Transportation and Public Facilities and Federal Highway Administration. Juneau.
- Hollingshead, Ken. October 29, 2003. Personal communication between Hollingshead, of NOAA Fisheries, and Sirena Brownlee of HDR Alaska, Inc., regarding marine mammal incidental harassment permits.
- MacDonald, S.O., and J.A. Cook. 1999. *The Mammal Fauna of Southeast Alaska*, University of Alaska Fairbanks.
- Masden, Michelle. November 19, 2003. Personal communication between Masden, owner and pilot for Island Wings Air Service, Ketchikan, and John Wolfe of HDR Alaska, Inc. Also "Whale Watching." in www.islandwings.com. Ketchikan, Alaska. Masden flies for ADF&G, NOAA Fisheries, and charter tours spotting sea lions, humpback whales, and other wildlife.
- Misty Fjords Air & Outfitting. 2003. www.mistyfjordsair.com. Ketchikan, Alaska.
- NOAA Fisheries. 2002. "Stock Assessment Report: Steller Sea Lion (*Eumetopias jubatus*): Eastern U.S. Stock" in [www.nmfs.noaa.gov/prot_res/PR2/Stock_Assessment_Program/Pinnipeds/Steller_\(East\)/AK02stellersealion_East.PDF](http://www.nmfs.noaa.gov/prot_res/PR2/Stock_Assessment_Program/Pinnipeds/Steller_(East)/AK02stellersealion_East.PDF). Revised 9/29/01.
- NOAA Fisheries. 2002. "Stock Assessment Report: Humpback Whale (*Megaptera novaeangliae*): Central North Pacific Stock" in [www.nmfs.noaa.gov/prot_res/PR2/Stock_Assessment_Program/Cetaceans/Humpback_Whale_\(Central_N._Pacific\)/AK02humpbackwhale_CentralN.Pacific.PDF](http://www.nmfs.noaa.gov/prot_res/PR2/Stock_Assessment_Program/Cetaceans/Humpback_Whale_(Central_N._Pacific)/AK02humpbackwhale_CentralN.Pacific.PDF). Revised 10/30/01.
- Perry, Simona L., Douglas P. DeMaster, and Gregory K. Silber. 1999. The Great Whales: History and Status of Six Species Listed as Endangered Under the U.S. Endangered Species Act of 1973, section on the Humpback Whale, in *Marine Fisheries Review*, vol. 61. number 1. National Marine Fisheries Service Scientific Publications Office. Found on spo.nwr.noaa.gov/mfr611/mfr6113.pdf.

Porter, Boyd. 11/20/2003. Personal communication between Boyd, Alaska Department of Fish and Game wildlife management biologist, Ketchikan, and John Wolfe, HDR Alaska Inc. Prior to his current position, Boyd was a Steller sea lion research biologist for ADF&G at Forrester Island and other Southeast Alaska sea lion rookeries.

Schneider, Doug. August 8, 2003. "Ultimate Whale Watching," in Sitnews: Stories In The News (www.sitnews.us). Ketchikan, Alaska.

Wynne, Kate. 1997. Guide to Marine Mammals of Alaska. Sea Grant College Program, University of Alaska Fairbanks.

Attachment B:
2004 Letter of Concurrence



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

February 17, 2004

Bill Ballard, State Environmental Coordinator
Statewide Design and Engineering Services Division
Alaska Department of Transportation and Public Facilities
3132 Channel Drive
Juneau, Alaska 99801-7898

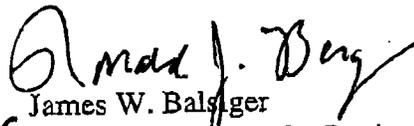
Dear Mr. Ballard:

This letter responds to your Biological Assessment of the Gravina Access Project on federally listed humpback whales (*Megaptera novaeangliae*) and Steller sea lions (*Eumetopias jubatus*). NOAA Fisheries has reviewed the November, 2003 Biological Assessment and concurs with your conclusion, that, as described, the Gravina Access Project is not likely to adversely affect listed species or their designated critical habitat.

No further consultation on the effects of the Gravina Access Project on endangered humpback whales or threatened Steller sea lions is required. This determination will be reconsidered should the proposed action change in a manner that may result in additional effects on listed species.

If you have any questions regarding this project, please contact Brandee Gerke of my staff at (907) 586-7248. Thank you for your cooperation in the effort to protect threatened and endangered species.

Sincerely,

For

James W. Balsiger
Administrator, Alaska Region



Attachment C:

MMPA and ESA Section 7 Consultation Updates

To: Jim Lowell, DOT&PF John Barnett, DOT&PF	
From: Leandra Cleveland, HDR	Project: Gravina Access Project Supplemental Environmental Impact Statement
Copy: File	
Date: November 30, 2011	Job No: 162165
Re: MMPA and ESA Section 7 Consultation Updates	

This memorandum describes the changes to the Gravina Access Project alternatives and associated effects to Steller sea lions (*Eumetopias jubatus*), designated Steller sea lion critical habitat and humpback whales (*Megaptera novaeangliae*) since the 2004 letter of concurrence was issued by National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA).

1 Consultation History

Consultation with the U.S. Fish and Wildlife Service (USFWS) and NMFS regarding the potential effects of the Gravina Access Project, a proposed federal action, on species listed as threatened or endangered under ESA and MMPA was concluded in 2004. In 2003, when ESA Section 7 consultation for the project was underway, there were no species under the jurisdiction of the USFWS listed as threatened or endangered in the project area. For NMFS, the primary species of concern were threatened Steller sea lions and endangered humpback whales, which are also protected under the MMPA. The applicants, FHWA and DOT&PF, prepared a Biological Assessment (BA) in 2003 and NMFS concurred that, with the proposed mitigation measures, the proposed project may affect, but was not likely to adversely affect listed species or their designated critical habitat in the project area.

In July 2004, FHWA and DOT&PF issued a Final Environmental Impact Statement (FEIS) for the Gravina Access Project, identifying a preferred alternative (F1). Alternative F1 was the selected alternative in FHWA’s Record of Decision, which was issued on September 15, 2004.

A Supplemental Environmental Impact Assessment (SEIS) is currently being prepared to address modifications and to reevaluate alternatives to the proposed project. This memorandum describes project modifications that may affect the listed species identified in the 2003 BA, their designated critical habitat, and any new species that have been listed since ESA consultation was completed.

2 ESA Listed Species

Since 2003, no additional USFWS or NMFS species have been listed as threatened or endangered under the ESA and there have been no changes to critical habitat designations in the project action area. No additional listings under the MMPA have occurred since 2003.

3 SEIS Alternatives

The 2003 BA and FEIS evaluated the effects of six bridge alternatives (C3a, C3b, C4, D1, F1, and F3) and three ferry alternatives (G2, G3, and G4). The SEIS alternatives consist of two bridge alternatives (C3-4 and F3) and four ferry alternatives (G2, G3, G4, and G4v).

3.1 Bridge Alternatives

The FHWA and DOT&PF identified two reasonable bridge alternatives to evaluate in the SEIS: Alternatives C3-4 and F3. The Alternative C3-4 bridge is located near the airport. Alternative F3 includes two bridges crossing at Pennock Island: one bridge crosses over East Channel and one crosses over West Channel.

Alternative C3-4 is a new alternative similar to Alternatives C3a and C4 evaluated in the 2003 BA. Alternative F3 is nearly identical to Alternative F3 evaluated in the 2003 BA with minor modifications to bridge design, dredging quantities, and pier placement in Tongass Narrows. The remaining bridge alternatives evaluated in the 2003 BA (C3a, C3b, C4, D1, and F1) have been eliminated from detailed consideration in the SEIS.

3.1.1 Alternative C3-4 (Airport Bridge)

This alternative would follow the conceptual Bench Road alignment on Revillagigedo Island and would cross over Tongass Avenue and Tongass Narrows, and then turn southward to parallel the northern airport taxiway and airport runway, and ultimately touch down (reach the ground surface) on Gravina Island north of the airport terminal at the existing parking lot.

The Alternative C3-4 bridge across Tongass Narrows would be 48 feet wide and approximately 4,190 feet long. The maximum height of the bridge over the navigational channel would be approximately 280 feet above Mean Higher High Water (MHHW). Alternative C3-4 would require placement of twelve piers and 42,000 cubic yards of fill in Tongass Narrows.

3.1.2 Alternative F3 (Pennock Island Bridges)

The East Channel bridge would connect directly to South Tongass Highway on Revillagigedo Island. From this terminus, the bridge would cross the East Channel to Pennock Island. From Pennock Island, the West Channel bridge would cross to Gravina Island and connect with the Gravina Island Highway, approximately 3 miles south of the airport. The East Channel bridge would be approximately 1,985 feet long and have a maximum height of approximately 115 feet. The bridge would have a vertical navigational clearance of 60 feet above MHHW. The West Channel bridge would be approximately 2,470 feet long and have a maximum height of approximately 270 feet. The bridge would have a vertical navigational clearance of 200 feet above MHHW. In addition, the bridge will require placement of six piers in Tongass Narrows; three in the east channel and three in the west channel.

In order to improve its navigational characteristics for cruise ships transiting the West Channel, the narrowest portion of the channel bottom would be widened. The proposed modifications would widen this portion of the channel to 750 feet. The center 550 feet would have a minimum depth of 40 feet at low tide and the 100 feet of channel on either side would have a minimum depth of 30 feet at low tide. The dredged quantity is approximately 213,000 cubic yards over 15 acres of fractured rock and bedrock that would require blasting before removal by dredge. All material removed would be disposed of at a pre-approved marine location. Channel widening would impact intertidal and subtidal habitat in areas adjacent to Gravina and Pennock islands.

3.2 Ferry Alternatives

Alternatives G2, G3, and G4 would augment the existing airport ferry service with two new ferry vessels and construction of a new ferry terminal on each side of Tongass Narrows. Alternative G4v is a variant of Alternative G4 that includes development and improvement of some ferry facilities, but no new ferry terminals or new ferry service. All ferry alternatives include:

- A 60-passenger waiting facility at the existing ferry terminal on Revillagigedo Island.
- A new heavy freight dock on a 2.5-acre site near the airport, just to the south of the existing ferry berth to provide heavy freight access to Gravina Island for highway loads that cannot be accommodated by the shuttle ferry.
- Reconstruction of the existing airport ferry transfer bridges and ramps, if needed to meet current design standards.
- Upgrades and improvements for all sidewalks and wheelchair ramps associated with the airport ferry facilities to meet applicable standards.
- Replacement of the deficient existing ferry layup dock and transfer bridge to support layup and maintenance of the airport shuttle ferry system.

Alternatives G2, G3, and G4 are nearly identical to the ferry alternatives evaluated as part of the 2003 BA. Minor changes to dock design and dredging quantities in Tongass Narrows have occurred since the 2003 BA.

3.2.1 Alternative G2 (Peninsula Point to Lewis Point)

Alternative G2 would be a new ferry service for vehicles and passengers between Peninsula Point on Revillagigedo Island and Lewis Point on Gravina Island. Two new ferry vessels and construction of a new ferry terminal on each side of Tongass Narrows would be required for this alternative. Alternative G2 would require the removal of approximately 1,400 cubic yards of material in Tongass Narrows near the new Gravina Island terminal at Lewis Point, and the placement of 21,000 cubic yards of fill material.

3.2.2 Alternative G3 (Downtown to South of Airport)

Alternative G3 would be new ferry service for vehicles and passengers between Ketchikan (near the Plaza Mall at Bar Point) on Revillagigedo Island and a location near Clump Cove on Gravina Island. This alternative would require construction of a new ferry terminal on each side of Tongass Narrows and two new ferry vessels. Dredging (18,600 cubic yards) may be required to provide adequate navigational depth for the new ferry terminal on Revillagigedo Island. The existing breakwater could also be widened and extended for use as the ferry terminal pier. The placement of 18,000 cubic yards of fill material would also be required.

3.2.3 Alternative G4 (New Ferry Adjacent to Existing Ferry)

Alternative G4 would be new ferry service for vehicles and passengers with new ferry terminals adjacent to the existing ferry terminals and an adjacent airport ferry route from Charcoal Point on Revillagigedo Island to the airport on Gravina Island. Alternative G4 would require the removal of approximately 15,200 cubic yards of material near both the Revillagigedo Island and Gravina Island terminals.

3.2.4 Alternative G4v (Lower Cost Variant of Alternative G4)

Alternative G4v is a lower cost variant to Alternative G4 to address immediate needs for improved facilities for airport travelers and heavy freight movement. No dredging would occur as a result of this alternative. Improvements under this alternative include a new waiting facility on Revillagigedo Island, shuttle vans, new freight dock, new ferry lay up dock, upgraded ferry transfer bridges, and improved sidewalks.

4 Project Impacts to Listed Species

Although the SEIS alternatives are slightly modified relative to the alternatives evaluated in the FEIS, the project effects presented in the 2003 BA for humpback whales and Steller sea lions, and designated critical habitat for Steller sea lions, remain the same. Refer to the 2003 BA for a detailed discussion of project impacts. Therefore, **the project may affect, but is not likely to adversely affect** Steller sea lions, Steller sea lion designated critical habitat, or humpback whales within the action area.

5 Mitigating Measures for Marine Mammal Protection

Mitigation measures developed for the 2003 BA are still applicable and are proposed for use with the SEIS alternatives. To ensure no injury to or harassment of Steller sea lions, humpback whales, or other marine mammals, the project is committed to the measures listed below. These are designed to be compatible with Essential Fish Habitat (EFH) mitigation measures for the project.

- In-water work will occur outside the springtime months, when there is greatest sea lion use of the project area. The EFH work window for in-water work in Tongass Narrows is July 1 to February 28, and this would be followed for marine mammals as well. Major work, such as any dredging or in-water blasting required, would occur only November 1 to February 28. This timing avoids runs of salmon and herring, on which humpback whales and Steller sea lions feed.
- The construction contract will require a blasting plan approved by NMFS, should blasting be necessary.
- The construction contract will require a dredging plan approved by NMFS, should dredging be required.
- The project will ensure use of trained and approved observers to indicate when sea lions and humpback whales are within a 50 m zone around pier work or other in-water work, and activity will wait until the animals move out of the area, or work would be stopped if marine mammals were to enter the area.
- An in-water warning sound will be issued prior to drilling or blasting to allow any marine mammals to voluntarily move to a comfortable distance.
- All necessary permits and agency approvals will be acquired prior to construction and stipulations will be incorporated into contract specifications.
- If necessary, based on the alternative ultimately selected and the design and construction methods ultimately decided upon, an incidental harassment authorization might need to be obtained from NMFS.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

September 14, 2012

Kris Riesenber
Federal Highway Administration
P.O. Box 21648
Juneau, AK 99802

Dear Mr. Riesenber:

The National Marine Fisheries Service (NMFS) has reviewed the Federal Highway Administration (FHWA) Biological Assessment (BA) for the Gravina Access Project near Ketchikan, Alaska. In your accompanying letter to NMFS, you requested concurrence that the proposed action “may affect, but is not likely to adversely affect” humpback whales and Steller sea lions pursuant to Section 7 of the Endangered Species Act (ESA). An agency action is considered not likely to adversely affect listed species or designated critical habitat when its effects are expected to be completely beneficial, discountable or insignificant. Beneficial effects are synchronous positive effects without any adverse effects to the species or critical habitat. Discountable effects are those extremely unlikely to occur. Insignificant effects relate to the size of the impact and may not reach the scale where take occurs. Based on best judgement, a person would not expect discountable effects to occur; or to be able to meaningfully measure, detect or evaluate insignificant effects.

Summary of Action

In 2004, FHWA issued a Record of Decision which identified Alternative F1 in the Final Environmental Impact Statement as the Selected Alternative. This Alternative involved the construction of bridges across the East Channel and West Channel of Tongass Narrows at Pennock Island connecting Gravina Island to the mainland. In addition, the Gravina Island Highway was proposed to connect the bridge crossing to the airport. This construction was completed in 2008. NMFS issued a letter of concurrence at this time based on the 2003 BA that the action *may affect, but is not likely to adversely affect* listed species in the action area.

Since that time, FHWA has been directed to find a lower cost alternative for access to the airport and Gravina Island. NMFS understands that FHWA is re-examining the alternatives in a Supplemental Environmental Impact Statement (SEIS) to identify and select a new alternative.



Two bridge alternatives are being considered: C3-4 and F3. The C3-4 bridge is located near the airport, while the F3 alternative includes two bridges crossing at Pennock Island. The C3-4 alternative would result in a bridge 48 feet wide and 4,190 feet long, and would require placement of twelve piers and 42,000 cubic yards of fill in Tongass Narrows. The F3 alternative would involve building an East Channel and West Channel bridge connecting Revillagigedo Island with Gravina Island. NMFS understands that the East Channel Bridge would be 1,985 feet long and 115 feet high, while the West Channel bridge would be 2,470 feet long and 270 feet high. These bridges would require the placement of six piers in Tongass Narrows and would involve dredging the channel bottom to improve navigation. The dredging quantity is estimated at 213,000 cubic yards over 15 acres of fractured rock and bedrock that would require blasting before removal.

Three ferry alternatives are also being considered, which are almost identical to those considered in the 2003 BA and 2004 letter of concurrence from NMFS. These alternatives would involve the construction of new ferry terminals and dredging in Tongass Narrows with quantities removed ranging from 1,400 to 18,600 cubic yards. Two of these alternatives would also involve the placement of 18,000-21,000 cubic yards of material.

Listed Species

Species included in this consultation include the endangered humpback whale (*Megaptera novangliaea*) and the Eastern distinct population segment (DPS) of Steller sea lion (*Eumetopias jubatus*).

Humpback whales

Humpback whales are the most common large cetacean in Southeast Alaska. The abundance of whales that forage throughout British Columbia and Southeast Alaska is estimated at between 3000 and 5000 individuals with an increasing population trend of 4 to 8% annually (Calambokidis et al. 2008; Barlow et al. 2011). Although migration timing varies among individuals, most whales depart for Hawaii in fall or winter and begin returning to Southeast Alaska in spring, with continued returns through the summer giving a peak occurrence in Southeast Alaska during late summer to early fall. However, there are significant overlaps in departures and returns (Baker et al. 1985; Straley 1990). In Southeast Alaska, primary prey species include euphausiids and small schooling fishes such as capelin, Pacific sand lance, walleye pollock and Pacific herring (Wing and Kreiger 1983; Kreiger and Wing 1984, 1986; Straley 1990).

Within Southeast Alaska, humpback whales are found throughout all major waterways and in a variety of habitats, including open-ocean entrances, open-strait environments, near-shore waters, areas with strong tidal currents and secluded bays and inlets. However, annual concentrations are consistent at several locations primarily around northern southeast Alaska, with lesser historical presence in Sumner and Clarence Strait (Baker et al. 1985; Straley et al. 1995; Dahlheim 2009). These patterns of occurrence likely follow the spatial and temporal changes in types, densities and distribution of prey (Bryant et al. 1981; Baker et al. 1985; Kreiger and Wing 1986; Baker et al. 1992) and the presence of whales may reflect local abundance and availability. Both fish and euphausiid densities

show significant annual, seasonal and spatial variations (Wing and Kreiger 1983) and humpbacks adjust their foraging locations to areas of high prey densities.

Steller sea lion

In Southeast Alaska, most Steller sea lions are considered to be part of the threatened eastern DPS, although some intermingling of animals from the endangered western DPS may occur. Steller sea lions are marine based predators, but rely on terrestrial rookeries and haulouts for activities such as reproduction and predator avoidance. Steller sea lion critical habitat is defined as a terrestrial zone, an aquatic zone, and an air zone that extends 3,000 feet (0.9 km) landward, seaward, and above, respectively, from each major rookery and major haulout in Southeast Alaska.

The foraging strategy of Steller sea lions is strongly influenced by seasonality of both sea lion reproductive activities, which occur on rookeries, and the ephemeral nature of many prey species. Steller sea lions in Southeast Alaska are considered opportunistic foragers as they will include prey items and relocate based upon seasonal prey availability. In general, sea lions forage on herring aggregations in winter, spawning fish, including herring and eulachon, in spring, and various other species throughout the year, including herring (Winship and Trites 2003; Sigler et al. 2009; Womble et al. 2009). No rookeries or major haulouts designated as critical habitat are found in the action area.

Effects of Proposed Action on Listed Species

Marine Mammal Distribution

Humpback whales and Steller sea lions may be found in and around Gravina Island in the Tongass Narrows at any given time. However, concentrated numbers are most likely to occur during periods of seasonal prey aggregation. Herring, salmon, eulachon and euphausiids are among the species that congregate ephemerally. In the spring and fall, humpback whales are considered fairly common in the Narrows and are locally observed at least 1-2 times per month (G. Freitag, pers. comm.).

Given that any in-water dredging or blasting would occur only from November 1 to February 28, avoiding seasonal concentrations of listed species, in-water acoustic disturbance and disruption of foraging is expected to be discountable. In addition, observers will be used to ensure that in-water work will not occur if listed species are within a 50 m zone. Thus, effects from construction activities are considered to be both discountable and insignificant.

Vessels transiting the marine environment have the potential to collide with, or strike, marine mammals (Laist et al. 2001; Jensen and Silber 2003). Most collisions that have killed or severely injured whales involved vessels greater than 80 meters in length traveling at speed in excess of 13 knots (Laist et al. 2001). In the case of the Gravina Access Project, it is possible that an increased risk of vessel strike could occur with additional ferry operation. However, this is expected to be discountable and insignificant as ferries operate at six knots (Riesenberg pers. comm.), which is a lower speed than those associated with most cases of injury or mortality to marine mammals. In addition, humpback whale numbers are generally not concentrated in Tongass Narrows.

Information provided in the NMFS marine mammal stranding database includes only three reports of vessel collision with marine mammals in the Ketchikan and Metlakatla areas since 1999. It is likely that collisions related to vessels of all types in this region will continue to be rare occurrences. Thus, vessel operations related to this project are not expected to present a significant risk to listed species.

Anthropogenic sources of noise can negatively impact marine mammals by changing their behavior, possibly resulting in decreases in health and reproduction. Research in Alaska has shown that humpback whales disturbed by marine vessels will move away from feeding areas to avoid the disturbance (Baker and Herman 1989), or change the rate and repetitiveness of their feeding calls (Doyle et al. 2008). Ferry service or marine vessels engaged in bridge construction have the potential to change the behavior of marine mammals, particularly if they approach the animals too quickly or too closely. However, these vessels must comply with the Marine Mammal Protection Act, ESA and regulations for approaching humpback whales in Alaska (50 CFR 224.103) which require that vessels maintain a 100 yard approach distance from these animals. Given these regulations, and the fact that most in-water work will be conducted during winter months when few listed species are present in the action area, we would expect effects to be discountable.

Conclusion

NMFS concurs with your agency's determination that the planned action "may affect, but is not likely to adversely affect" ESA-listed species under NMFS jurisdiction, including humpback whales and Steller sea lion. Given the lack of significant temporal and spatial overlap between the action and listed species as well as precautionary measures in place should overlap occur, NMFS concludes that this action will have, at most, an insignificant or discountable effect on these listed species. In addition, there is no designated critical habitat in or near the action area for Steller sea lions or humpback whales.

Re-initiation of consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) take of a listed species occurs, (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered, (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered, or (4) a new species is listed or critical habitat designated that may be affected by the action. Should you have further questions or concerns, please contact Aleria Jensen at (907)586-7248 or Aleria.Jensen@noaa.gov.

Sincerely,



James W. Balsiger, Ph.D. for JD
Administrator, Alaska Region

References

- Baker, C.S. and L.M. Herman. 1989. Behavioral responses of summering humpback whales to vessel traffic: Experimental and opportunistic observations. U.S. National Park Service, Alaska Regional Office, Anchorage, AK. 50 pp.
- Baker, C.S., L.M. Herman, A. Perry, W.S. Lawton, J.M. Straley and J.H. Straley 1985. Population characteristics and migration of summer and late-season humpback whales (*Megaptera novaeangliae*) in southeastern Alaska. *Marine Mammal Science* 1: 304-323
- Baker, C.S., J.M. Straley and A. Perry. 1992. Population characteristics of individually identified humpback whales in southeastern Alaska: summer and fall 1986. *Fishery Bulletin*, U.S. 90:429 – 437.
- Barlow, J., J. Calambokidis, C.S. Baker, A.M. Burdin, P.J. Clapham, J.K. Ford, C.M. Gabriele, R. LeDuc, D.K. Mattila, T.J. Quinn, L. Rojas-Bracho, J.M. Straley, B.L. Taylor, J. Urban R., P. Wade and D. Weller. 2011. Humpback whale abundance in the North Pacific estimated by photographic capture-recapture with bias correction from simulation studies. *Marine Mammal Science* 27:793-818.
- Bryant, P.J., G. Nichols, T.B. Bryant and K. Miller. 1981. Krill availability and the distribution of humpback whales in Southeastern Alaska. *Journal of Mammalogy*, 62: 430-432.
- Calambokidis, J., E.A. Falcone, T.J. Quinn, A.M. Burdin, P.J. Clapham, J.K.B. Ford, C.M. Gabriele, R. LeDuc, D. Mattila, L. Rojas-Bracho, J.M. Straley, B.L. Taylor, J. Urban R., D. Weller, B.H. Witteveen, M. Yamaguchi, A. Bendlin, D. Camacho, K. Flynn, A. Havron, J. Huggins and N. Maloney 2008. SPLASH: Structure of populations, levels of abundance and status of humpback whales in the North Pacific. Final Report for US DOC Contract No. AB133F-03-RP-0078. 57 pp.
- Dahlheim, M.E., P.A. White and J.M. Waite. 2009. Cetaceans of Southeast Alaska: distribution and occurrence. *Journal of Biogeography* 36: 410-426.
- Doyle, L.R., B. McCowan, S.F. Hanser, C. Chyba, T. Bucci, and J.E. Blue. 2008. Applicability of information theory to the quantification of responses to anthropogenic noise by Southeastern Alaskan humpback whales. *Entropy*, 10:33-46.
- Freitag, Gary. Sea Grant Marine Advisory Program. Personal Communication, August 6, 2012.
- Kreiger, K.J. and B.L. Wing. 1984. Hydroacoustic surveys and identification of humpback whale forage in Glacier Bay, Stephens Passage and Frederick Sound, southeastern Alaska, Summer 1983. NMFS Auke Bay Lab., Juneau, 60 p.

- Kreiger, K.J. and B.L. Wing. 1986. Hydroacoustic monitoring of prey to determine humpback whale movements. NOAA Technical Memorandum NMFS F/NWC-66, NMFS Auke Bay Lab., Juneau, 62 pp.
- Jensen, A.S. and G.K. Sibley. 2003. Large whale ship strike database. U.S. Department of Commerce, NOAA Technical Memorandum. NMFS-OPR-, 37 pp.
- Laist, D.W., A.R. Knowlton, J.G. Mead, A.S. Collet and M. Podesta. 2001. Collisions between ships and whales. *Marine Mammal Science*, 17(1):35-75.
- Riesenberg, K. Personal communication via email, September 7, 2012.
- Sigler, M.F., D.J. Tollit, J.J. Vollenweider, J.F. Thedinga, D.J. Csepp, J.N. Womble, M.A. Wong, M.J. Rehberg, and A.W. Trites. 2009. Steller sea lion foraging response to seasonal changes in prey availability. *Marine Ecology Progress Series* 388:243–261.
- Straley, J.M. 1990. Fall and Winter Occurrence of Humpback Whales (*Megaptera novaeangliae*) in Southeast Alaska. Report International Whaling Commission (Special Issue 12):319-323.
- Straley, J., Gabriele, C. and C.S. Baker. 1995. Seasonal Characteristics of Humpback Whales (*Megaptera novaeangliae*) in Southeastern Alaska. Proceedings of the Third Glacier Bay Science Symposium, 1993 (D. Engstrom, ed.), National Park Service, Anchorage, AK.: 229-237.
- Wing, B. L., and K. Krieger. 1983. Humpback whale prey studies in southeastern Alaska, summer 1982. Unpubl. rep., 60 p. Auke Bay Laboratory, Northwest and Alaska Fisheries Center, National Marine Fisheries Service, NOAA, P.O. Box 210155, Auke Bay, AK 99821.
- Winship, A.J., and A.W. Trites. 2003. Prey consumption of Steller sea lions (*Eumetopias jubatus*) off Alaska: How much prey do they require? *Fishery Bulletin* 101:147–167.
- Womble, J., M. Sigler, and M. Willson. 2009. Linking seasonal distribution patterns with prey availability on a central-place forager, the Steller sea lion. *Journal of Biogeography* 36: 439–451.