

## **Appendix D: Wildlife**

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# KATLIAN BAY ROAD

## Wildlife and Fish Biological Evaluation Report

05 May 2016

Prepared for:  
**Alaska Department of Transportation  
& Public Facilities**  
6860 Glacier Highway  
Juneau, AK 99801-7999

**Agreement No. 02543017**  
**AKSAS No. 67672**

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**Threatened, Endangered, Candidate, Sensitive,  
Management Indicator & Other Species Project Level Analysis  
Tongass National Forest**

**Biological Evaluation (BE) & Fish & Wildlife Project Level Analysis**

This document provides a process to meet Alaska National Interest Lands Conservation Act (ANILCA) section 810 (Subsistence) and Endangered Species Act (ESA) requirements, Executive Order 13186 (Migratory Birds and Bird Species of Concern) and Migratory Bird Treaty Act, Forest Service Manual (FSM) direction, and the analysis requirements for the National Environmental Policy Act (NEPA). In compliance with FSM, the effects of the Proposed Action to management indicator species (MIS) and threatened, endangered, proposed, or sensitive species will be assessed. In addition, Forest Plan requirements, goals, and objectives for these species will be met at the project level (FSM 2621.3, 2621.4 and 2672.4). The United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) provide the status of threatened and endangered species known to be present within the area planned for the Proposed Action (Appendix A).

This document will address threatened, endangered, and sensitive (TES) and candidate species that are likely to occur in and around the Tongass National Forest. This document also provides a description of the Proposed Action and discloses the direct, indirect, and cumulative effects of this action on MIS, TES and candidate species, migratory birds, subsistence resources, and essential fish habitat. To meet the requirements for a biological evaluation (BE) as described in the ESA and FSM, this document tiers to United States Forest Service (USFS) Fish and Wildlife Resource Information (USFS 2014) and wildlife survey results conducted for the project area.

**Proposed Project**

<b>Project Name:</b> Katlian Bay Road Project
<b>Date:</b> 14 July 2015
<b>Land Use Designations (LUDs):</b> Semi-Remote Recreation
<b>List CE Category or state if supporting EA:</b> Supporting EA
<b>Project Location:</b> See Figure 1.
<p><b>Will project activities alter habitat or affect TES, candidate, or MIS species? (<u>Underline</u> correct response)</b></p> <p><b><u>YES</u></b>      Complete the Description of Proposed Project and Analysis Area, provide an explanation in the Effects Analysis section, and update Table 2 and Management Measures and Consultation as needed.</p> <p><b>NO</b>            Complete the Description of Proposed Project and Analysis Area, review Table 2 and update if needed, and Sign and Date the end of the document.</p>

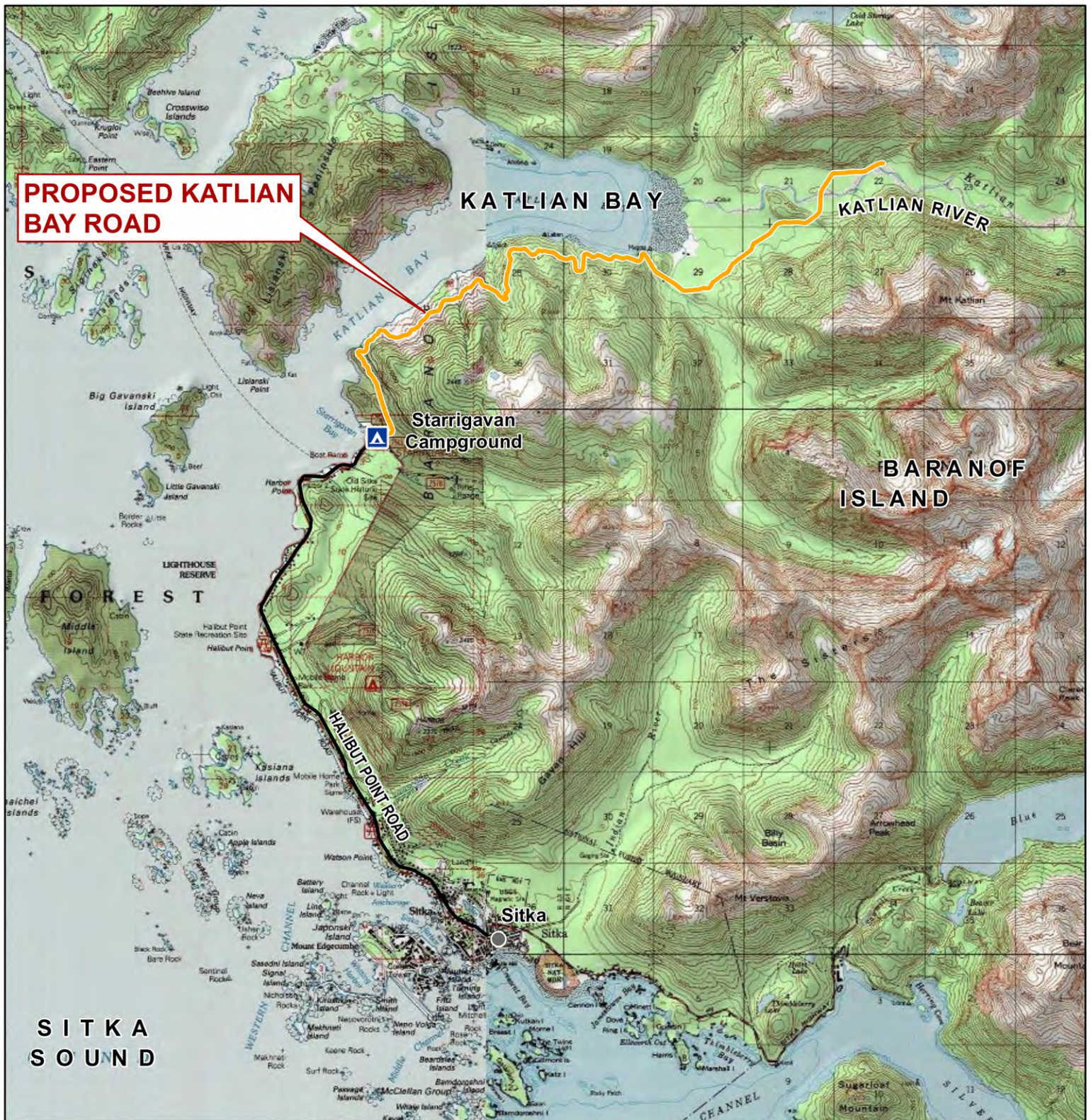
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**Description of Proposed Project and Analysis Area**

**Description of Proposed Action (Define where, when, how, and why):** This BE is confined to that part of the Katlian Bay Road corridor located within the Tongass National Forest, which starts at Milepost (MP) 1.27 and ends at MP 3.64 (Figure 1) and is located within the right-of-way (ROW) easement for this road as signed by the USFS and Alaska Department of Transportation and Public Facilities (DOT&PF). Project effects include the surrounding forest and marine environment within 0.5 miles of the road corridor. This area is considered as the BE action area. The overall project (including areas beyond the BE action area) would result in the construction of approximately 8.8 miles of new single-lane, unpaved roadway built for passenger car use, 3 bridge crossings, and 0.6 miles of off-highway vehicle (OHV) trail. The road would begin at the northern termination of Halibut Point Road (near Starrigavan Bay), extending east along the southern shoreline of Katlian Bay, crossing the Katlian River, and terminating 4 miles inland and east of the Katlian Bay estuary. The road would cross Alaska State, Tongass National Forest, and Shee Atiká, Incorporated (Shee Atika) owned lands. The new roadway would end with an OHV and hiking trail connection to USFS Road No. 75797. The project would include rehabilitation of a portion of this USFS road. At the termination of the Katlian Bay Road, a turnaround and trailhead parking.

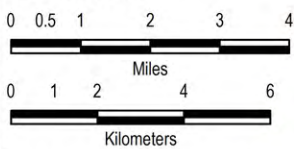
Construction access would include use of an existing log transfer facility (LTF) and two existing roads (No. 7579 and No. 75797) (Figure 1). The LTF and these existing roads are on Shee Atika property. Road No. 7579 will be rerouted with a new bridge in the vicinity of Coxe River to protect stream habitat.

The project would provide Sitka residents and the public direct road access (via passenger car) to USFS trails from an existing road (Halibut Point Road) currently in use for passenger vehicles. The new road would provide recreational and subsistence opportunities in the Sitka Ranger District of the Tongass National Forest. Road access may also provide access to Native Corporation lands (Shee Atiká, Incorporated) and Mental Health Trust lands that could be developed in the future.



**FIGURE 1  
KATLIAN BAY  
PROJECT LOCATION**

1 inch = 14,583 feet



- Populated Place
- ▲ Campground
- Existing Road
- Proposed Katlian Bay Road



DRAWN BY: WJR CHECKED BY: PG

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**Description of Analysis Area (Define the boundaries of and the habitat present within analysis area and the time period analyzed):** The BE action area located within USFS lands is predominantly forested on steep slopes. Predominant trees include Sitka spruce and western hemlock with riparian vegetation of red alder. Due to the steep topography, the action area is not known to have been previously harvested, except where timber was directly accessed from Katlian Bay.

Productive old growth (POG) occurs within the action area (Figure 2). Although the Proposed Action avoids POG to the extent feasible, POG is present within the ROW easement and cannot be avoided if the road is to remain within the designed ROW easement. Provided in Table 1 is the amount of POG that would be impacted by the proposed road, which represents 2 percent of the POG polygons that would be intersected by the road. No POG designated by the USFS as low would be impacted by the Proposed Action.

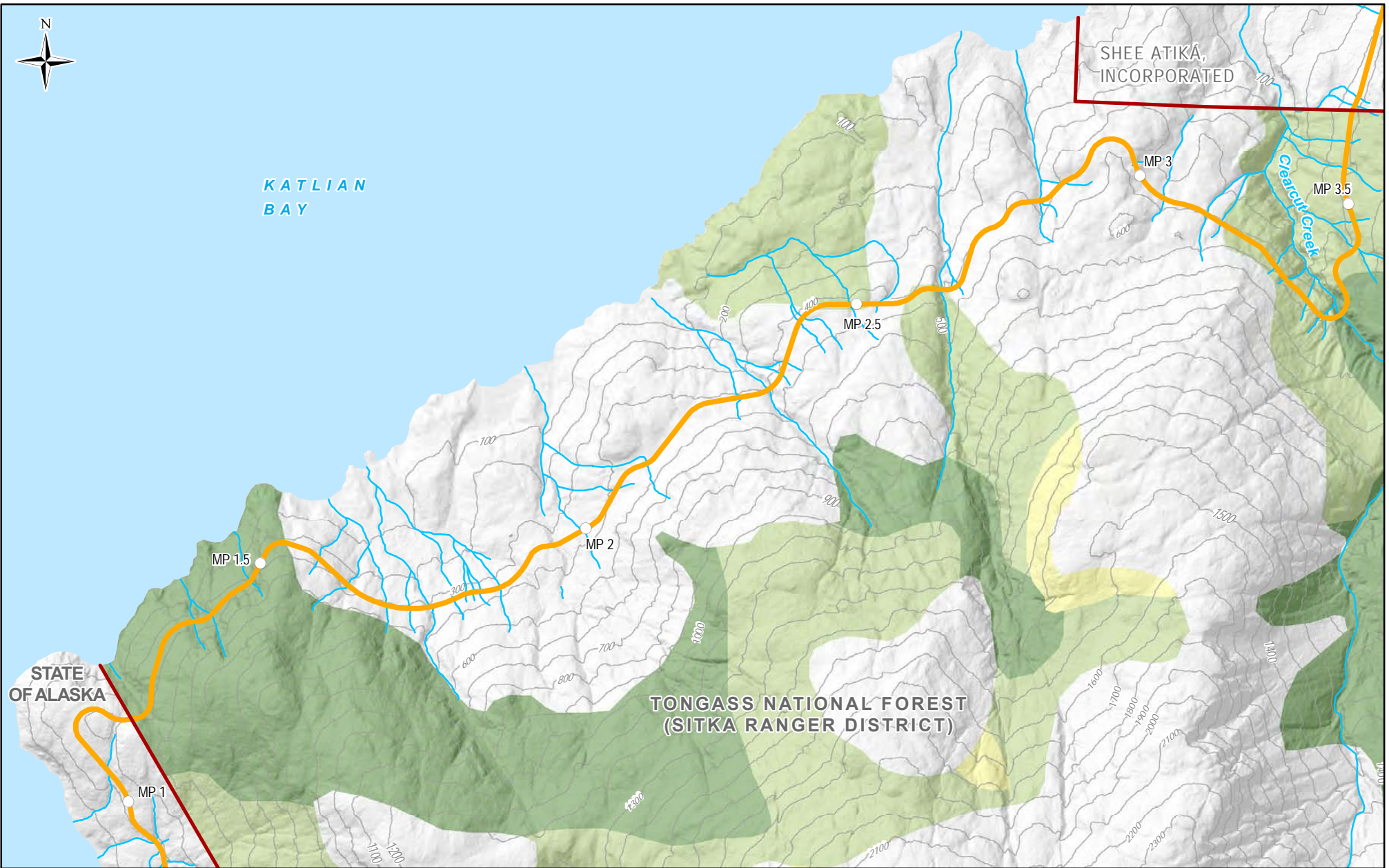
**Table 1: Acres of POG Impacted by the Proposed Action**

POG Type	Milepost Beginning	Milepost Ending	Area Impacted <sup>1</sup>	Total Size of POG Polygon <sup>1</sup>
High POG	1.27	1.56	3.4	124.3
Medium POG	2.45	2.53	0.7	33.5
Medium POG	2.58	2.63	0.6	22.8
Medium POG	3.14	3.34	2.3	65.2
High POG	3.34	3.40	0.7	125.6
Medium POG	3.40	3.65	2.7	65.2
Total High POG			6.12	249.9
Total Medium POG			7.13	186.6
<b>Total POG</b>			<b>13.26</b>	<b>436.5</b>

**Notes:** <sup>1</sup> Acres are rounded.

**Surveys or Site Visits Completed:** The area was surveyed for wildlife in September 2014, as well as in May, June, and July 2015. USFS, Alaska Department of Fish and Game (ADF&G), USFWS, and NMFS were contacted in July 2015 for historical survey information in the Katlian Bay area.

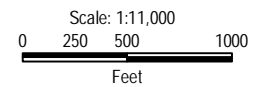




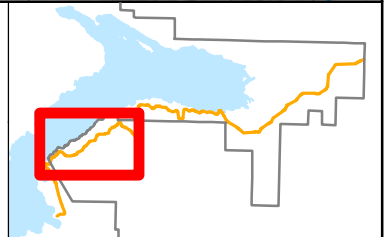
**KATLIAN BAY ROAD CONSTRUCTION**  
 FIGURE 2 USFS Productive Old Growth in Vicinity of Katlian Bay Road

- Milepost
- Alignment
- Ownership Boundary
- Stream

- Productive Old Growth (POG)**
- High
  - Medium
  - Low



Reference:  
 Alaska State  
 Geo-Spatial Data Clearinghouse  
[www.asgdc.state.ak.us](http://www.asgdc.state.ak.us)



DRAWN BY: MRC CHECKED BY: PG

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## Effects Analysis

Table 2 summarizes the effects of the proposed activities on TES and candidate species, MIS, and other species that may occur in the analysis area. The effects analysis assesses the direct, indirect, and cumulative effects of the Proposed Action on fish and wildlife resources in the analysis area. Direct and indirect effects can occur as a result of project activities and their connected actions. A direct effect is an effect caused by an action that occurs in the same time and place as the action. An indirect effect is caused by an action but is later in time or farther removed in distance, but is still reasonably foreseeable. Under NEPA, cumulative effects represent the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects for ESA compliance are therefore considered in the analysis of TES species and include the effects of future state or private activities but not other federal activities because those actions are subject to future consultation (50 CFR 402.02).

Effects analyses were based on professional judgment using professional judgment and information provided by USFS staff, relevant references and technical literature citations, and subject matter experts. Technical reports from published literature describing the most susceptible aspects of species life cycle and/or habitat needs were used to generate quantitative and qualitative information regarding the presence and status of these species within the analysis area. Knowledgeable scientists and ecologists, including those from ADF&G, USFWS, and NMFS, were contacted and asked to provide unpublished information and professional judgments regarding the status of species, habitats, special habitat features, and old-growth reserve development.

General criteria were developed to assess the intensity or level of influence of the effects. Where applicable, mitigation measures to offset or minimize potential adverse impacts were developed.

This analysis also considered effects to the old-growth reserve system as designated in the Forest Plan. There would be negligible effects on the old-growth reserve system because activities would not occur within non-development land use designations (LUDs) or change non-development LUD boundaries (minor modifications to old-growth LUD boundaries as a result of precise mapping are considered a "correction in map errata"). Within this Semi-Remote LUD where the Katlian Bay Road would be located, POG habitat acres are present and the road would cross 10.3 acres of medium and high POG, which is crossed by the ROW easement (Figure 2).

A new road to encourage recreational activities is acceptable for a Semi-Remote LUD. The management prescription for this LUD states "permit small-scale, rustic recreation and tourism facilities, and occasional enclaves of concentrated recreation and tourism facilities." The Forest Plan LUD description further states that "some areas may offer motorized opportunities. Facilities and structures may be minimal or occasionally may be larger in scale, but will be rustic in appearance, or in harmony with the natural setting (USFS 2008)."

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**Table 2: Summary of effects of the proposed activities to species that occur or are more likely to occur on the Tongass National Forest or in adjacent Katlian Bay waters**

Species/Issue	Presence		Direct, Indirect, and Cumulative Effects	
	Species Present in Action Area <sup>1</sup>	Species Habitat Present in Action Area	Level of Influence <sup>2</sup> / Determination	Reason for Determination / Level of Influence
<b>Threatened and Endangered<sup>3</sup></b>				
Humpback Whale	Yes	Yes	Negligible / No Effect	Proposed construction activities have a potential to increase marine noise disturbance or alter habitat that could affect streams and/or the marine environment. To avoid this impact, blasting will not occur within 656 feet (200 meters) of an observed marine mammal species per general guidance recommendations from NMFS. Observers will be present to determine presence of marine mammals during blasting. Disturbance may occur through marine construction access and temporary floating camps.
Steller Sea Lion (western/eastern)	Yes	Yes	Negligible / No Effect	See humpback whale above.
Columbia Pacific salmon and steelhead	Yes	Yes	Negligible / No Effect	Placement of new culverts and bridges in or across fish bearing streams will follow applicable best management practices (BMPs) of the Tongass National Forest to protect fish and fish habitat (BMPs 13.16, 14.11, 14.12, 14.14, 14.15, 14.17, 14.20, 14.22, 16.1, 18.3). ADF&G (2013) has blasting standards for the protection of anadromous fish. These standards generally apply to blasting within and/or adjacent to streams and would be applied by ADF&G through their Fish Habitat Permit. However, ADF&G may have additional requirements where blasting planned for the Proposed Action is near marine waters. The ADF&G blasting mitigation is generally site specific .
<b>Candidate<sup>3</sup></b>				
Kittlitz's Murrelet	Yes	Yes	Negligible / No Impacts	Potential to forage in outer Katlian Bay. Species occurs offshore of glaciers, which are present on Baranof Island. The project would not alter recently deglaciated areas or scree slopes or shoreline breeding habitat.. To avoid this impact, blasting would not occur within 656 feet (200 meters) of an observed Kittlit'z murrelet.
Yellow-billed Loon	Possible	Yes	Negligible / No Effect	Not known to be within project vicinity. The Proposed Action would not reduce or alter shoreline or marine habitat.
<b>Sensitive</b>				
Aleutian Tern	No	No	Negligible / No Impacts	Not known to be present in vicinity of Baranof island. Proposed activities would not reduce or alter shoreline habitat.
Black Oystercatcher	Yes	Yes	Negligible / No Impacts	Proposed activities would not reduce or alter shoreline habitat. Although construction blasting could deter nesting birds during the construction period, the blasting area is along steep cliffs which is not considered black oystercatcher breeding or foraging habitat. Disturbance may occur through marine construction access and temporary floating camps.
Dusky Canada Goose	No	Yes	Negligible / No Impacts	Species is not known to breed in the analysis area. Proposed activities would not alter its foraging habitat.
Queen Charlotte Goshawk	No	Yes	Negligible / No Impacts	Species not observed in the action area during 2014 and 2015 surveys, although habitat is present. Proposed activities would result in the loss of 10.3 acres of POG in the action area; sufficient habitat to support the goshawk will continue to be present similar to existing conditions.
<b>Management Indicator</b>				
Alexander Archipelago Wolf	No	No	Negligible	Species does not occur in the action area.

**Threatened, Endangered, Candidate, Sensitive,  
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Species/Issue	Presence		Direct, Indirect, and Cumulative Effects	
	Species Present in Action Area <sup>1</sup>	Species Habitat Present in Action Area	Level of Influence <sup>2</sup> / Determination	Reason for Determination / Level of Influence
American Marten	Yes	Yes	Negligible	Proposed activities would result in the loss of 10.3 acres of POG in the action area. The roadway corridor is unlikely to affect the abundance and distribution of marten because of the low expected road usage.
Bald Eagle	Yes	Yes	Negligible	Proposed activities would impact four nests identified in 2015. A bald eagle take authorization will be necessary due to construction noise disturbance. Nest disturbance is not anticipated once construction is complete.
Black Bear	No	No	Negligible	Species does not occur in the action area.
Brown Bear	Yes	Yes	Minor	Proposed activities would result in the loss of 10.3 acres of POG in the action area. The road corridor may affect the distribution of brown bear (as well as result in vehicular impacts), although, with its wide range, the species is expected to continue to use the action area.
Brown Creeper	Yes	Yes	Negligible	Proposed activities would result in the loss of 10.3 acres of POG in the action area. The roadway corridor is unlikely to affect the abundance and distribution of brown creeper because of the low expected road usage.
Hairy Woodpecker	Yes	Yes	Negligible	Proposed activities would result in the loss of 10.3 acres of POG in the action area. The roadway corridor is unlikely to affect the abundance and distribution of hairy woodpecker because of the low expected road usage.
Mountain Goat	Yes	Yes	Negligible	Proposed activities would not reduce or alter cliffs, alpine and subalpine, or POG forest in the vicinity of mountain goat habitat.
Red-breasted Sapsucker	Yes	Yes	Negligible	Proposed activities would result in the loss of 10.3 acres of POG in the action area. The roadway corridor is unlikely to affect the abundance and distribution of red-breasted sapsucker because of the low expected road usage.
Red Squirrel	Yes	Yes	Negligible	Proposed activities would result in the loss of 10.3 acres of POG in the action area. The roadway corridor is unlikely to affect the abundance and distribution of red squirrel.
River Otter	Yes	Yes	Negligible	Proposed activities would result in the loss of 10.3 acres of POG in the action area. The roadway corridor is unlikely to affect the abundance and distribution of river otter.
Sitka Black-tailed Deer	Yes	Yes	Negligible	Proposed activities would result in the loss of 10.3 acres of POG in the action area. In addition, the new road could increase hunting activity for black-tailed deer. The Proposed Action may also increase forest fragmentation in habitats currently in use by deer. success.
Vancouver Canada Goose	Yes	Yes	Negligible	Proposed activities would result in the loss of 10.3 acres of POG in the action area. However, it is not confirmed whether this species is present in the action area.
Pink Salmon	Yes	Yes	Negligible	Placement of new culverts and bridges in or across fish bearing streams will follow applicable best management practices (BMPs) of the Tongass National Forest to protect fish and fish habitat (BMPs 13.16, 14.11, 14.12, 14.14, 14.15, 14.17, 14.20, 14.22, 16.1, 18.3). ADF&G (2013) has blasting standards for the protection of anadromous fish. These standards generally apply to blasting within and/or adjacent to streams and would be applied by ADF&G through their Fish Habitat Permit. However, ADF&G may have additional requirements where blasting planned for the Proposed Action is near marine waters. The ADF&G blasting mitigation is generally site specific .
Coho Salmon	Yes	Yes	Negligible	
Dolly Varden Char	Yes	Yes	Negligible	
Cutthroat Trout	Yes	Yes	Negligible	

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Species/Issue	Presence		Direct, Indirect, and Cumulative Effects	
	Species Present in Action Area <sup>1</sup>	Species Habitat Present in Action Area	Level of Influence <sup>2</sup> / Determination	Reason for Determination / Level of Influence
<b>Other</b>				
Migratory Birds	Yes	Yes	Negligible	Proposed activities would result in the removal of forested habitat in the action area, which has the potential of impacting migratory birds. The roadway corridor is unlikely to affect the abundance and distribution of migratory birds because of the low expected road usage.
Subsistence	Yes	Yes	Negligible	Consistent with Section 810 of ANILCA, the potential effects of the Proposed Action on subsistence opportunities and resources were evaluated. Because there would be no change in abundance or competition for subsistence resources (but increased access), the proposed project will not result in a restriction of subsistence uses.
<b>Essential Fish Habitat (EFH) Determination</b>				
Fish Habitat	Yes	Yes	No adverse Effects	Placement of new culverts and bridges in or across fish bearing streams will follow applicable best management practices (BMPs) of the Tongass National Forest to protect fish and fish habitat (BMPs 13.16, 14.11, 14.12, 14.14, 14.15, 14.17, 14.20, 14.22, 16.1, 18.3)...

**Notes:**

- <sup>1</sup> "Yes" if the species is known or is likely to occur in the analysis area or in marine waters adjacent to the analysis area. "No" if the species has not been documented or is not likely to occur in the analysis area.
- <sup>2</sup> Level of influence of the effects for management indicator species includes "negligible", "minor", "moderate", or "major". Levels of influence are defined in the "Fish and Wildlife Resource Report". Determinations are only required for listed and sensitive species. Determinations for threatened and endangered species include "no effect", "not likely to adversely affect", or "likely to adversely affect" (Bosch 2004). Determinations for candidate species include "no effects", "not likely to jeopardize proposed species, or adversely modify proposed critical habitat", or "likely to jeopardize proposed species, or adversely modify proposed critical habitat". Determinations for sensitive species include "no impacts", "beneficial impacts", "may impact individuals but not likely to cause a trend to federal listing or a loss of viability", or "likely to result in a trend to federal listing or a loss of viability" (Bosch 2004).
- <sup>3</sup> There will be negligible/no effect to other listed or candidate species because these species do not or rarely occur and/or key habitats are not present in or around the analysis area.

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**References**

- ADF&G. 2013. Alaska Blasting Standard for the Proper Protection of Fish. Technical Report No. 13-03. Jackie Timothy, November 2013.
- Bosch, M. (2004). BA and BE Effects, and Determinations of Effects, for TESP Species. USFS. Region 10.
- USFS. (2008a). Tongass Land and Resource Management Plan. Forest Service, R10-MB-603b.
- USFS. (2008b). Tongass Land and Resource Management Plan, Final Environmental Impact Statement, Plan Amendment. Forest Service, R10-MB-603c.
- USFS. (2014). Fish and Wildlife Resource Information Supplement Information for Support of Biological Evaluations and Fish and Wildlife Project Level Analysis. Tongass National Forest.

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## Notes/Further Analysis

### Effects Common to All Species

The Forest Plan contains a comprehensive conservation strategy using a system of Old-growth LUDs designed to provide old-growth habitats in combination with other non-development LUDs to maintain viable populations of native and desired non-native fish and wildlife species and subspecies that may be associated with old-growth forests (USDA 2008b, p. 3-174 through 3-175). This strategy, in addition to the implementation of Forest Plan standards and guidelines, was developed to maintain species viability. The application of the Forest Plan standards and guidelines (USFS 2008a, pp. 4-89 to 4-100) is integral to protecting and providing habitat to maintain viable fish and wildlife populations. Population viability would be maintained for all species addressed in this document because the Proposed Action is consistent with the Forest Plan conservation strategy and would implement Forest Plan standards and guidelines.

### Management Measures

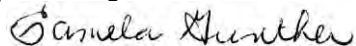
If any previously undiscovered endangered, threatened, candidate, or sensitive species or key habitats for any MIS or other species identified in this document are encountered at any point in time prior to or during the implementation of this project, a DOT&PF and USFS District Biologist would be consulted and appropriate measures would be enacted.

### Consultation and/or Contacts

ESA does not require consultation for "no effect" determinations. Therefore consultation with the USFWS and NMFS to review the effects of this project on threatened, endangered, and candidate species is not required.

### Prepared By:

Pamela Gunther, Amec Foster Wheeler  
Principal Ecologist and Life Sciences Lead



July 15 2015

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**Appendix A**

**Correspondence with USFWS Regarding Threatened and Endangered Species**



**Wildlife Final Report**  
**July 17, 2015**

**DOT Project #67672: Sitka Katlian Bay Road**  
**Work and Tasks: Raptor Surveys**  
**Consultant: Kent Bovee, Wildlife Consulting (907-738-3295)**

**Project Scope**

Raptor surveys will be completed for DOT Project #67672: Sitka Katlian Bay Road. The primary focus will be for northern goshawks using broadcast acoustical surveys and bald eagles using foot and boat surveys. While performing these tasks, general wildlife observations will be recorded, with a focus on Threatened and Endangered Species (T and E) and Management Indicator Species (MIS) listed in Table 1.

**Project Methods**

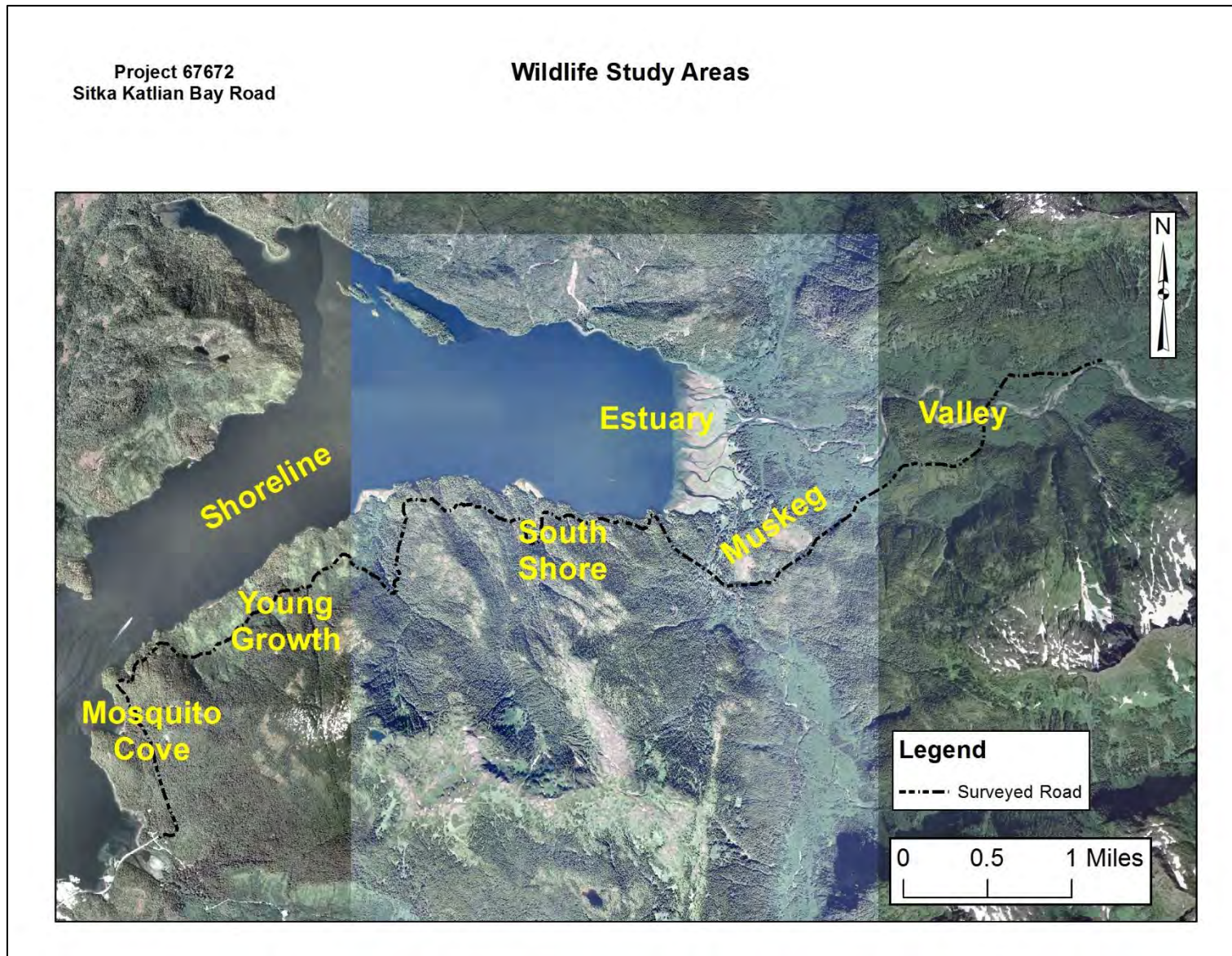
Project methods will include completing 3 main tasks:

- Task 1: Goshawk broadcast survey
- Task 2: Eagle nest survey
- Task 3: General wildlife survey with a focus on species listed in Table 1.

**Study Areas**

The project area was divided into 7 study areas based on similar habitat type (Figure 1) –

- Shoreline
- Mosquito Cove
- Young Growth
- South Shore
- Muskeg
- Valley
- Estuary



**Figure 1: Wildlife Study Areas**

### Field Work Completed

A total of eleven days were spent in the field completing the project methods (Table 1).

**Table 1: Field Work Task, Date, and Study Area**

Task	Dates	Study Area
General wildlife survey	4 April	Mosquito Cove
Eagle nest survey	5 April	Shoreline
Goshawk broadcast survey General wildlife survey	2 May	Mosquito Cove Young Growth
Eagle nest survey	3 May	Shoreline
Goshawk broadcast survey General wildlife survey	9 May	Young Growth
Goshawk broadcast survey General wildlife survey	16 May	Young Growth South Shore
Goshawk broadcast survey General wildlife survey	23 May	Muskeg Valley
Eagle nest survey	30 May	Shoreline
Eagle nest survey	29 June	Shoreline
Eagle nest survey	1 July	LTF
Goshawk broadcast survey General wildlife survey	6 July	Mosquito Cove Young Growth

### Species in Project Area

#### Conservation Status, Estimated Relative Abundance, Residency, and Observed Species by Study Area

Conservation status (or rank) for Threatened and Endangered and other species of concern are ranked by various agencies and summarized by the Alaska Natural Heritage Program (2014). Descriptions and abbreviations for these rankings, along with descriptions of residency and relative abundance are described in Table 2. Each species in the project area was tabulated using these rankings (Table 3). Residency and relative abundance of these species were based on field observations, local agencies, local knowledge and literature (Goff 2015). It should be noted that although the relative abundance rankings are included, they are only a rough estimate and are not meant to be a robust estimate of actual abundance or density.

**Table 2: Descriptions and Abbreviations for Conservation Rank, Residency, and Relative Abundance**

Abbreviation	Description
<i>Alaska Natural Heritage Program Tracking List</i>	
1	Critically imperiled
2	Imperiled
3	Vulnerable
4	Apparently secure
5	Demonstrably widespread, abundant, and secure.
G	Global
S	State
B	Status refers to breeding population
N	Status refers to nonbreeding population
<i>Residency in Project Area</i>	
R	Resident
B	Breeder - known or thought to breed in project area
M	Migratory - latitudinal and/or altitudinal
<i>Relative Abundance in Project Area</i>	
A	Abundant - present almost everywhere in large numbers
C	Common - present almost everywhere or commonly observed in area
U	Uncommon – present almost everywhere but in low numbers and not commonly observed
R	Rare - Present locally and in very small numbers
V	Very rare - only a few scattered records
Ac	Accidental - Occasional visitor, no permanent population
Un	Unknown - Confirmed sightings, insufficient data to estimate population

**Table 3: Residency, Conservation Ranks, Estimated Relative Abundance, and Observations of Threatened, Endangered, Candidate and Other Species of Concern in the Project Area**

Species Category	Common Name	Residency in Project Area	Rank		Estimated Relative Abundance and Observed Species (O) by Study Area						
			G	S	Mosquito Cove	Young Growth	South Shore	Muskeg	Valley	Estuary	Shoreline
<b>Federal Endangered Species</b>	Humpback Whale	M	3	3						C, O	C
<b>Federal Threatened Species</b>	Steller Sea Lion (Eastern stock)	M	3	3						C	C
<b>Federal Candidate Species</b>	None known to occur in project area										
<b>USFS Sensitive Listed Species</b>	Queen Charlotte Goshawk		2	2	No response to broadcast surveys; not observed in project area; considered rare to very rare in Sitka area						
	Osprey*		5	3	Not observed; considered very rare to accidental in Sitka area						
	Peale's Peregrine Falcon*		2	2	Not observed; considered uncommon to rare in Sitka area						
	Trumpeter Swan*	M	4	3			O			C	
<b>USFS Other Species of Concern</b>	Marbled Murrelet	M	3	2						C, O	C
<b>USFS Management Indicator Species</b>	Brown Bear	R, B	4	4	Common throughout project area, with the lowest density in Young Growth area.						
	Mountain Goat	M	5	4	Goats likely use valley area during November rut, especially males, to move between wintering areas.						
	Sitka Black-tailed Deer	R, B	5	4	Common throughout project area, with the lowest density in Young Growth area.						
	River Otter	R, B	5	5	Not observed, but likely occurs in project area, especially along shoreline and waterways.						
	American Marten	R, B	5	5	Not observed, but likely common to uncommon depending on prey abundance.						
	Red Squirrel	R, B	5	5	C, O	A, O	C, O	C, O	A, O	C	C
	Bald Eagle	R, B	5	5	Observed in all areas, abundant along shoreline, known breeder with 4 active nests observed						
	Vancouver Canada Goose	R, B	4	4						C, O	
	Red-breasted Sapsucker	R, B	5	5	O, A					C, O	
	Hairy Woodpecker	R, B	5	5	O, U	O, U	O, A	O, A	O, A		
Brown Creeper	R, B	5	4	Not observed; considered uncommon, but are likely more common than they seem due to small size and cryptic nature							

**Note:** \* USFS recommended removal from list in 2009 (Goldstein et al. 2009)

### *Humpback Whale*

On 23 May, two humpback whales were seen feeding near the shoreline of the estuary. Several types of feed fish (salmon fry, needlefish, etc.) were noted in the area, which likely attracted them to the area. The humpbacks will likely leave the area as the feed moves out of the bay. They are common in the Sitka area and are probably found seasonally in Katlian Bay, especially during winter and spring when herring are present.

### *Steller Sea Lion*

No Steller sea lions were observed. However, they are common, year round residents in the Sitka area, and likely use the Katlian Bay area, especially in the spring, when herring are spawning.

### *Goshawk*

Goshawk broadcast surveys were completed at 108 sites along the surveyed road corridor (Figure 2). The entire road corridor was surveyed in June with an additional survey completed in July on Federal Lands. No goshawks responded or were observed during these surveys or at any other time in the project area.

### *Osprey*

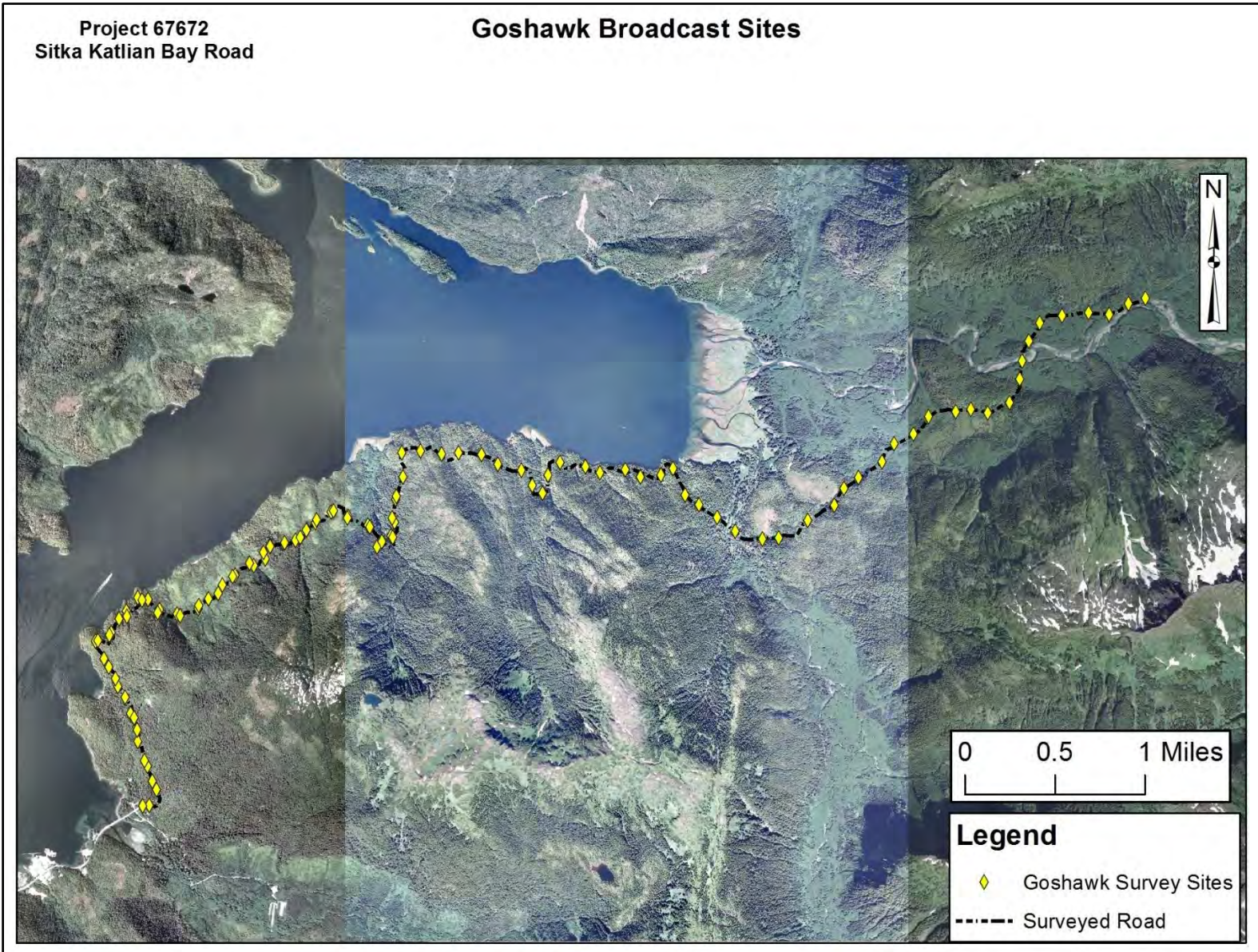
No ospreys were observed. They are considered very rare to accidental in the Sitka area.

### *Peregrine Falcon*

No falcons were observed during field work in May. They are considered uncommon to rare in the Sitka area.

### *Trumpeter Swan*

One immature trumpeter swan was seen along the south shore of Katlian Bay on 5 April. This species commonly overwinters in the Sitka area and they are often seen in local lakes and estuaries. They likely occur in the estuary of Katlian Bay, more frequently during winter months rather than the summer. They are not known to breed in the project area.



**Figure 2: Goshawk Broadcast Sites**

### *Marbled Murrelet*

Marbled murrelets (approximately 6) were observed on 23 May, resting on the water and diving and feeding in the estuary/head of Katlian Bay. As with the humpback whales, they were probably feeding on prey fish in the area. It is unlikely they are nesting in the project area, since most nests of this species are found further from the shoreline.

### *Brown Bear*

Brown bear sign was common in all study areas, except for the Young Growth area. They are a common large mammal in the Sitka area, especially near salmon streams, such as Katlian and Starrigavan Rivers. They are known to breed and raise young in the project area.

### *Mountain Goat*

No mountain goats were observed in the project area, but were seen in their typical summer habitat in the adjacent alpine areas. However, it is likely they use Katlian valley during the winter, especially the males during the rut to access nannies in winter ranges.

### *Sitka Black-tailed Deer*

The most common large mammal observed was the Sitka Black-tailed deer. It was common to abundant in all study areas, except for the Young Growth, where there was little sign of them. This species is known to breed and raise young in the project area.

### *River Otter*

No river otters were observed, but they are known to occur in the Sitka area and likely have healthy populations in or adjacent to the project area. They are most common along the shoreline and waterways, but will also use forested areas and other habitats for access between water bodies.

### *Marten*

Although no marten were observed in the project area, they are known to occur there and likely breed and raise young there. Their numbers correlate with prey species, in particularly voles, and the previous year of trapping was an unusually low year for both voles and marten in the Sitka area.

### *Red Squirrel*

Red squirrels were common to abundant in all study areas and their occurrence and density is directly correlated to their main food source, the cones of the Sitka Spruce. The breed and raise young in the project area.

### *Bald Eagle*

Four active bald eagle nests were located within the project area (Table 4, Figure 3 and following photos). Two of the 3 nests, nest #1 and 2, were already included in the USFWS database. Nest #3 was



not in the database. There were 2 other nests near Nest #3. One smaller nest above the active nest, in the same tree, perhaps a nest started by eagles and not completed or a crow or raven nest. Crows were active in the immediate area and are likely nesting nearby. Another larger nest in a tree a couple trees to the south of the active nest appears to be remnants of an eagle nest. Four other nests in the USFWS database were not found (Figure 3). Table 4 includes nest #, latitude/longitude, distance to Katlian Road, distance to shoreline, and tree species.

**Table 4: Eagle Nest #, Latitude/Longitude, Distance to Katlian Road, Distance to Shoreline, and Tree Species**

<b>Nest #</b>	<b>Latitude/ Longitude (approx.)</b>	<b>Distance to Katlian Road (meters, approx.)</b>	<b>Distance from Shoreline (meters, approx.)</b>	<b>Tree Species</b>
1	57.136082/ -135.369728	300	75	Sitka Spruce
2	57.156471/ -135.350592	270	0	Sitka Spruce
3	57.163806/ -135.329929	170	10	Western Hemlock
4	57.175820/ -135.28720	65 m to LTF	65	Western Hemlock

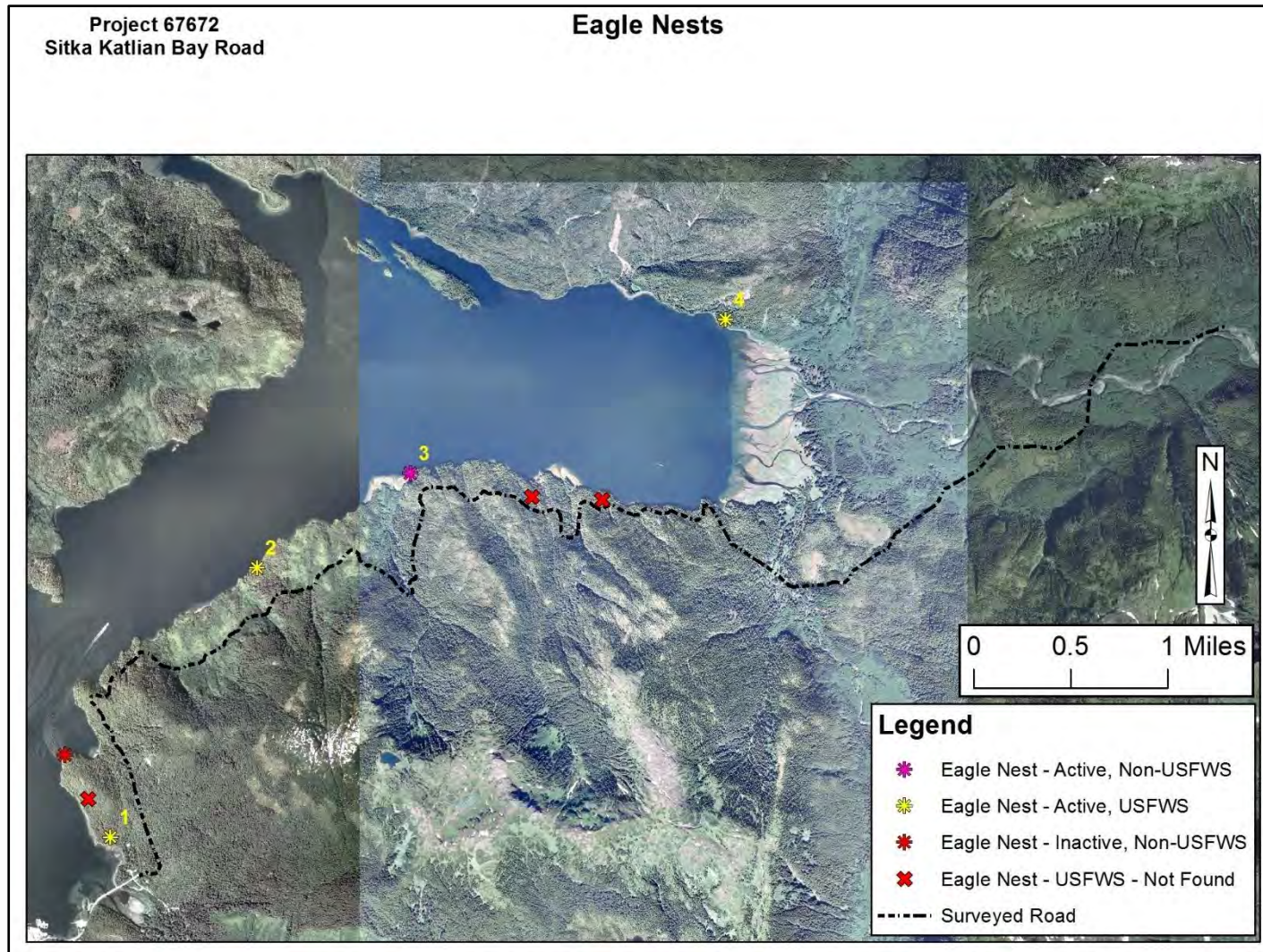


Figure 3: Bald Eagle Nests within Project Area

**Eagle Nest #1**

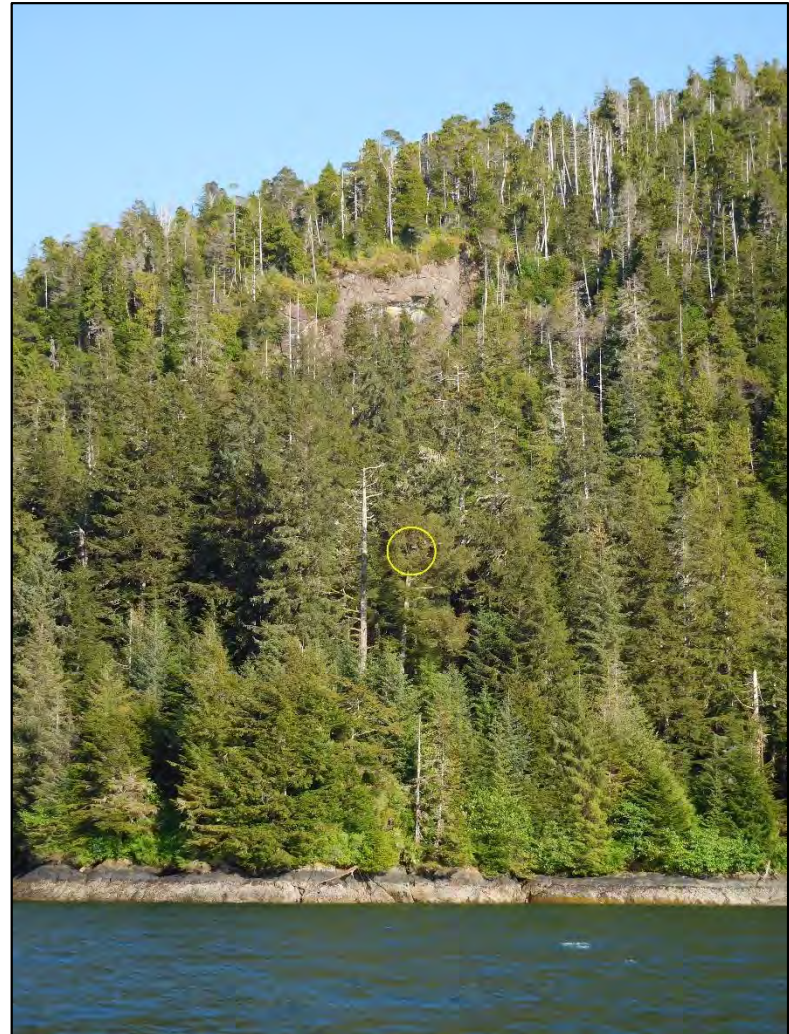


**Eagle Nest #2**





**Eagle Nest #3**



**Eagle Nest #4**



Nest out of view, below overhead canopy







*Vancouver Canada Geese*

A flock of 6 Canada geese were seen feeding and resting on the mud flats of the estuary on 23 May. It was not possible to positively identify them as the Vancouver subspecies. This coastal subspecies are known to nest on Baranof Island and it would not be surprising if there was nesting occurring in the project area. They use a variety of habitat, in addition to the typical water associated habitat, including forest and muskeg.

*Red-breasted Sapsucker*

Red-breasted sapsuckers were abundant most study areas, especially those with hemlock trees, which is one of their preferred trees for drilling their sap holes (Joy 2000). These birds are cavity excavators and nesters and undoubtedly nest in the project area, providing nest cavities for other birds, including swallows and chickadees.

*Hairy Woodpecker*

One pair of hairy woodpeckers was seen near Mosquito Cove feeding and mating on 2 May. Young birds were heard chirping from a nearby snag tree and were likely young from this pair. Hairy woodpeckers are considered uncommon in the Sitka area, especially as compared to the ubiquitous red-breasted sapsucker.

*Brown Creeper*

No brown creepers were seen during field surveys. They are considered uncommon to common, but very few are observed due to their small size and cryptic coloration and behavior. They prefer high volume stands of timber and a nest has been observed in the Starrigavan area (Goff 2015). This species likely breeds in the project area.

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