

## **APPENDIX I**

### **Bald Eagle Conservation Measures**

(Note: Station numbers may differ slightly from those in the EA as a result of minor design changes that occurred to avoid sensitive resources.)

# STATE OF ALASKA

## DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SOUTHEAST REGION DESIGN & ENGINEERING SERVICES  
PRECONSTRUCTION - PRELIMINARY DESIGN & ENVIRONMENTAL

SEAN PARNELL, GOVERNOR

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JUNEAU, AK 99811-2506

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May 13, 2010

Steve Brockmann  
US Fish and Wildlife Service  
3000 Vintage Blvd., Suite 201  
Juneau AK 99801

Subject: Haines Hwy MP 3.5 to 25.3, Evaluation of Impacts to Bald Eagle Nests

Dear Mr. Brockmann,

We request your assistance in determining if the subject project, after construction is complete, would disturb nesting eagles.

The Alaska Department of Transportation and Public Facilities (DOT&PF), in partnership with the Federal Highway Administration (FHWA), proposes a project to upgrade the Haines Highway between Mileposts (MP) 3.5 to 25.3 (see the attached location and vicinity map). The proposed improvements will address safety deficiencies by realigning, widening and straightening portions of the roadway.

### **Proposed Changes to Separation Distances within the Primary Zone (330 ft.)**

See attached figures 1 and 2 and eagle nest locations table. Within the Primary Zone proposed improvements to the Haines Highway would

1. decrease the separation distance of four known bald eagle nests (nests 5,6,8, and 9 on figure 2), and
2. increases the separation distance of eight known bald eagle nests (nests 3,4,10,11,13,14,15,24)
3. maintains the existing separation distance of one nest – nest 12.

*“Providing for the safe movement of people and goods and the delivery of state services.”*

No direct take of an eagle is anticipated, nor is removal of any nest proposed. We believe no bald eagles would be disturbed since bald eagles currently nest closer to the road than the four nests proposed for a separation decrease. See nest 4 on figure 2.

US Fish and Wildlife and DOT&PF staff located eagle nests along the project corridor in January 2006. In 2009, DOT&PF accurately surveyed bald eagle nest locations. The attached figures and table detail the proposed road alignment as it relates to eagle nests. Note that Nest 9 is the only nest for which the proposed realignment will shift the roadway into the Primary Zone.

### **Conservation Measures Included to Avoid Disturbance at Nest Sites**

We have taken all practicable measures to maintain or increase the separation distances between eagle nests and the highway but some decrease is necessary. Measures to avoid adverse impacts to bald eagle nests in the project area are:

- Proposed improvements use the existing road alignment if practicable.
- In realignment areas separation distance is maximized to the greatest extent practicable.
- Adjustments to the elevation of the road minimize the width of the fill footprint.
- Removal of roosting trees between the road and the Chilkat River was avoided in the design of this project.

### **Potential Disturbance to Nesting Bald Eagles**

The Haines Highway was originally constructed in 1943. Since that time eagles have successfully nested in close proximity to the highway. The Alaska Chilkat Bald Eagle Preserve was created by the State of Alaska in June of 1982, 39 years after the construction of the highway. Most of the identified nests within the project corridor are visible from the highway. The bald eagles along the Haines Highway appear to be habituated to the activities associated with the highway.

In the 4 locations where the road alignment is moving closer to eagle nests, the alternative would place a significant amount of fill into the Chilkat River or would retain substandard curves. Given the importance of fish habitat and subsistence in the Haines area, filling important fish habitat in the Chilkat River would have a greater impact.

Overall, we believe the proposed action would not disturb bald eagles (constituting a “take”) because

- The Haines Highway bald eagle population is habituated to highway noise and disturbances, as well as human activities associated with eagle viewing.
- DOT&PF would shift the highway no closer to eagle nests than other separation distances that exist today.

We request your assistance to verify the project would not disturb bald eagle nests. If you disagree we request guidance on the new permitting process.

We currently anticipate distributing the draft Environmental Assessment for this project in summer 2010, with permitting to follow during the final design phases. Thank you for your assistance. If you have any questions or require additional information you may contact me at 907-465-4498 ([Jim.Scholl@alaska.gov](mailto:Jim.Scholl@alaska.gov)) or Reuben Yost, Project Manager, at 907-465-1774 ([Reuben.Yost@alaska.gov](mailto:Reuben.Yost@alaska.gov)).

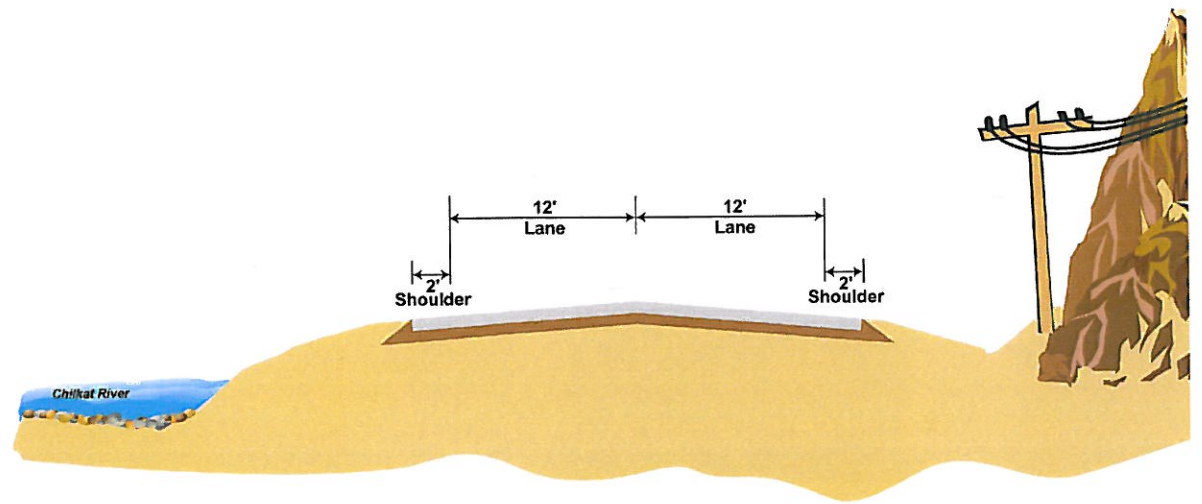
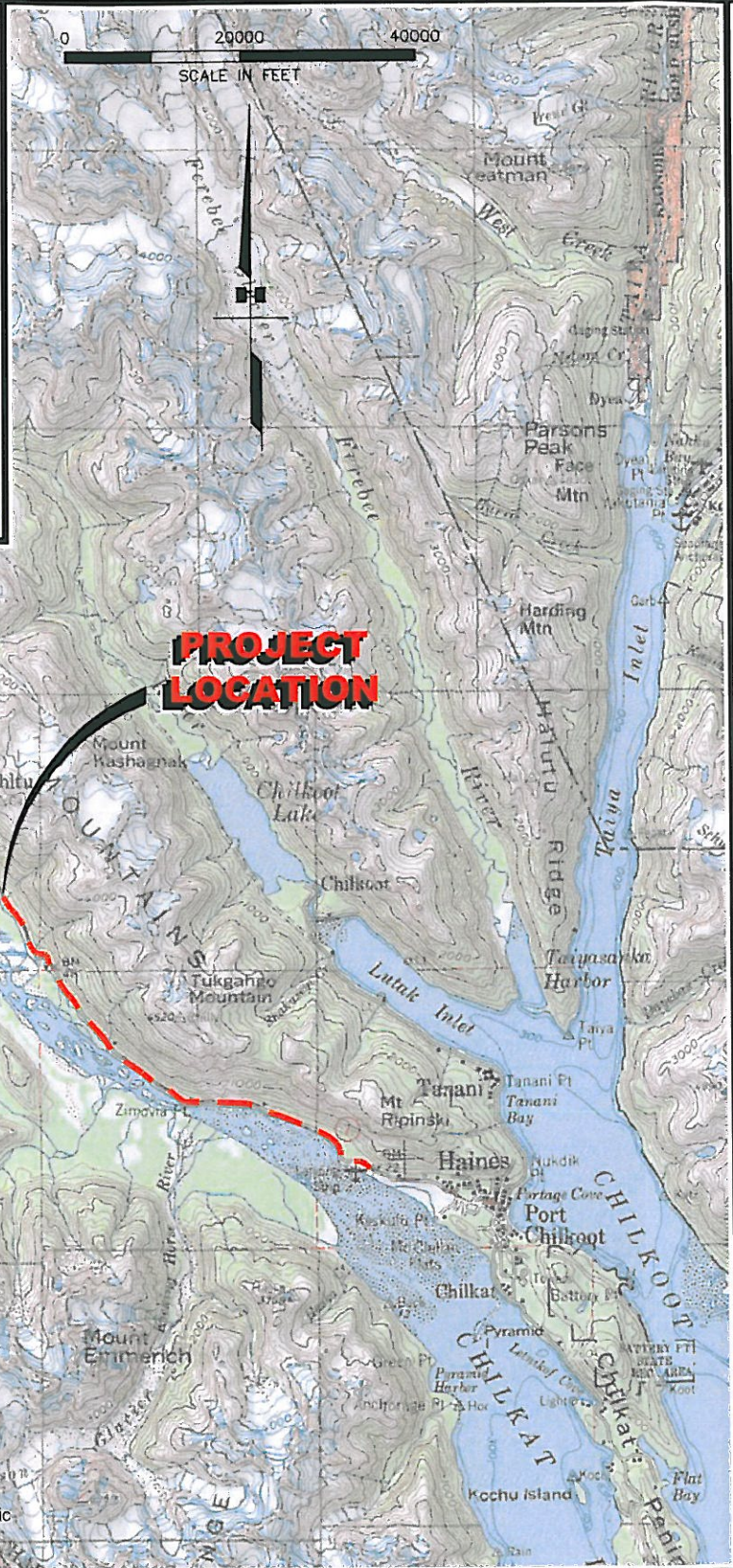
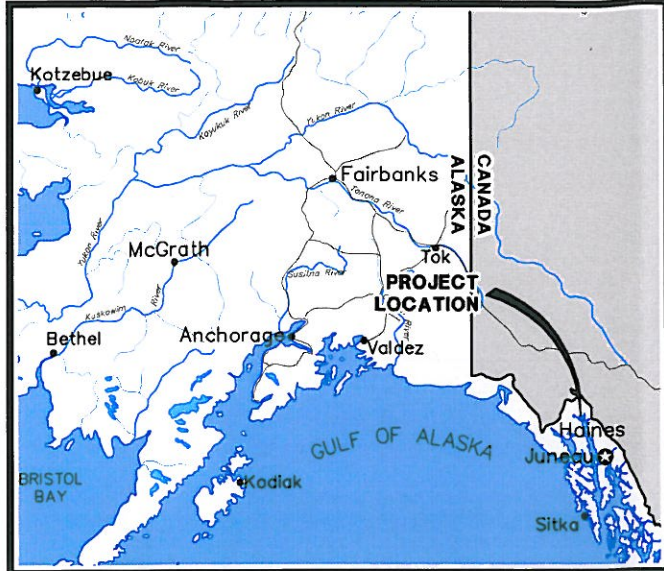
Sincerely,

A handwritten signature in blue ink, appearing to read 'James Scholl', with a stylized flourish at the end.

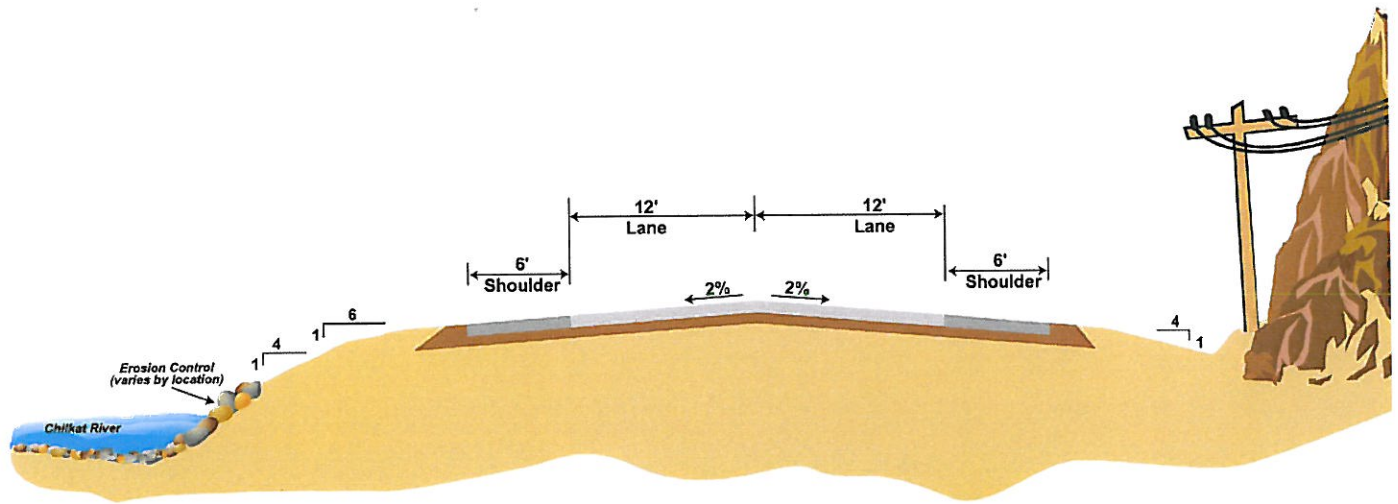
James Scholl

Environmental Analyst

Enclosures: Location and vicinity with typical road sections  
Figures 1 and 2 detailing Bald Eagle nest – Haines Highway separation  
Eagle Nest Survey table



EXISTING ROAD CROSS SECTION



PROPOSED ROAD CROSS SECTION

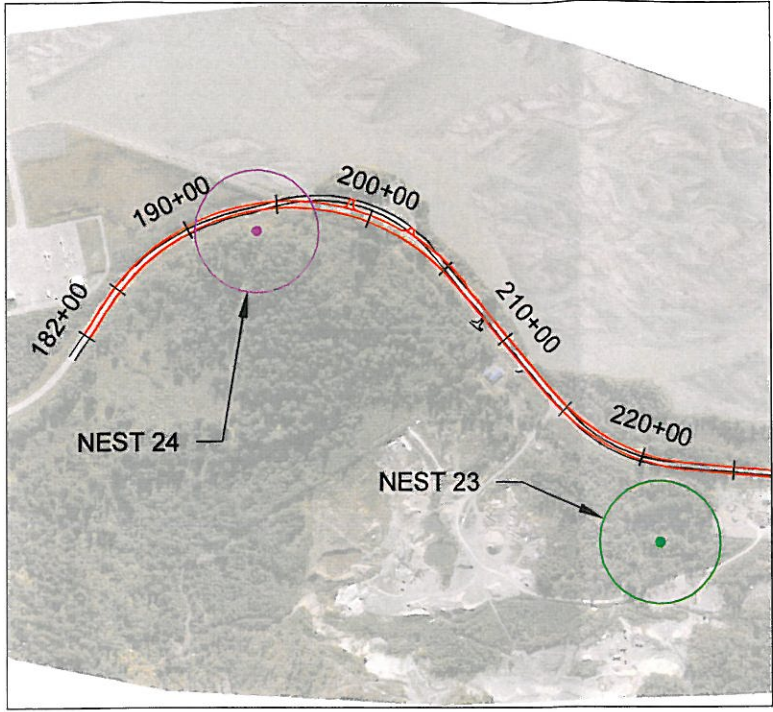
Project Location, Vicinity Map  
and  
Cross Sections  
T 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



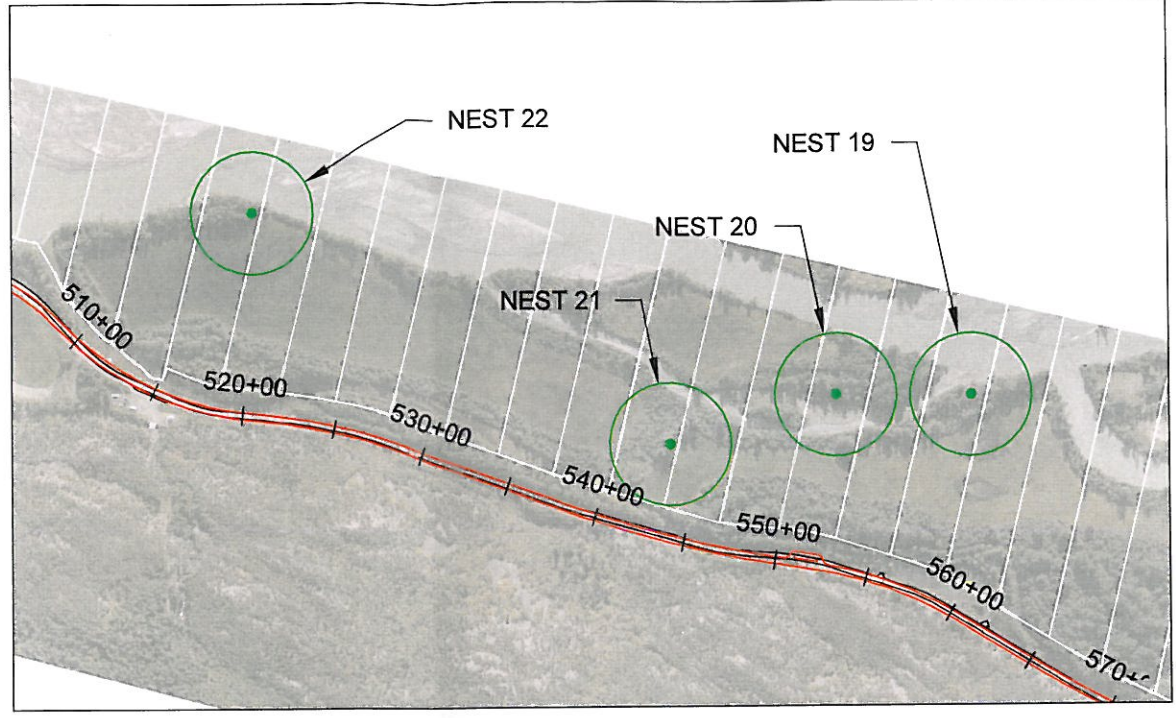
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
DOT & PF Project No. 68606  
HAINES HIGHWAY  
MILEPOST 3.5 - 25.3  
Haines, Alaska

DATE: APRIL 2010

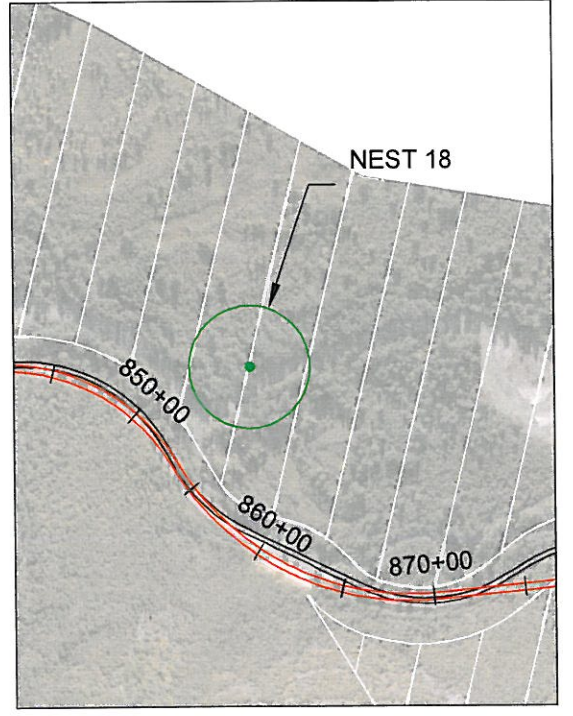
Map created with TOPO! ©2002 National Geographic  
(www.nationalgeographic.com/topo)



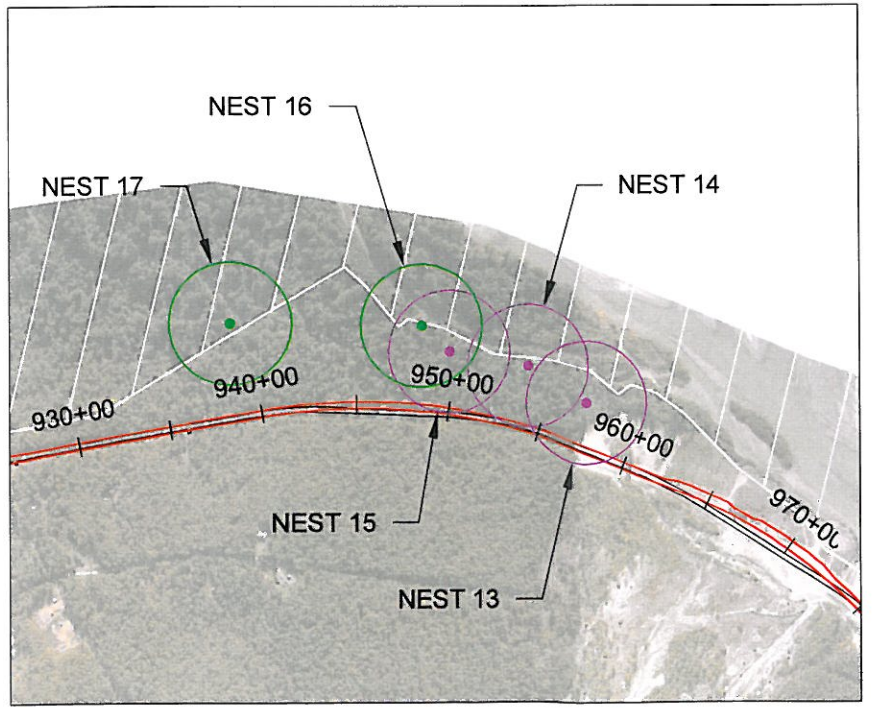
AREA 1



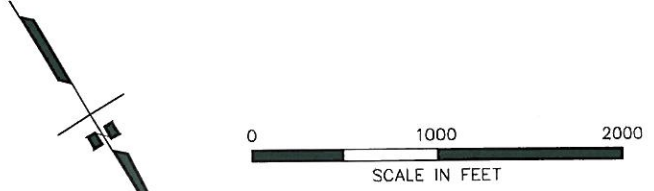
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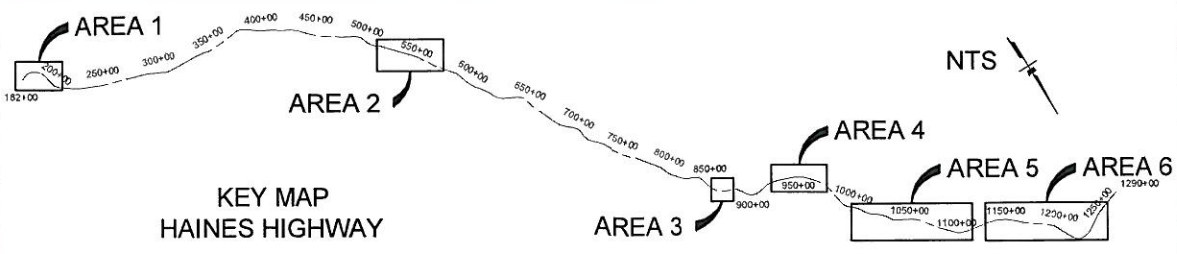
AREA 3



AREA 4



	PROPOSED ACTION MAINTAINS EXISTING SEPARATION OR INCREASES DISTANCE OF SEPARATION FROM PROPOSED EDGE OF PAVEMENT
	PROPOSED ACTION DOES NOT ENCROACH WITHIN PRIMARY ZONE, BUT DOES CHANGE DISTANCES FROM EDGE OF PAVEMENT
	PROPOSED ALIGNMENT WITH STATIONING
	EXISTING ALIGNMENT
	CHILKAT BALD EAGLE PRESERVE



EVALUATION OF IMPACTS TO EAGLE NESTS

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



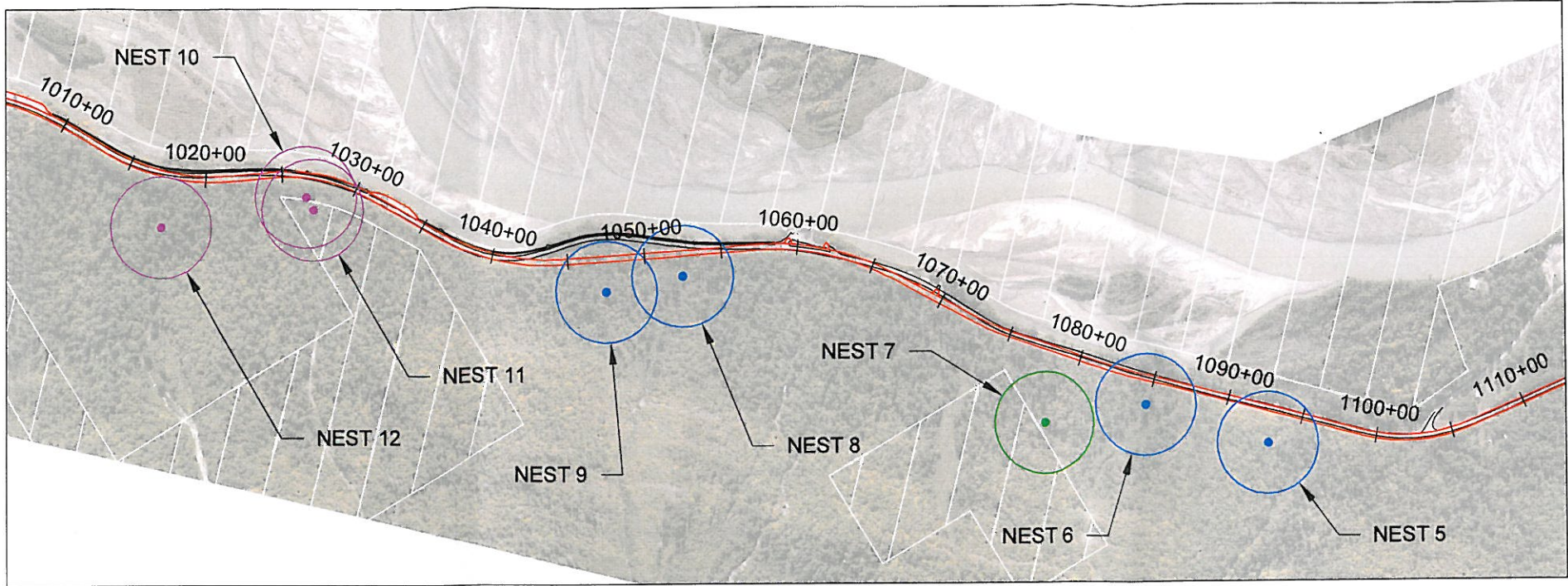
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DOT & PF Project No. 68606  
HAINES HIGHWAY  
MILEPOST 3.5 - 25.3

Haines, Alaska

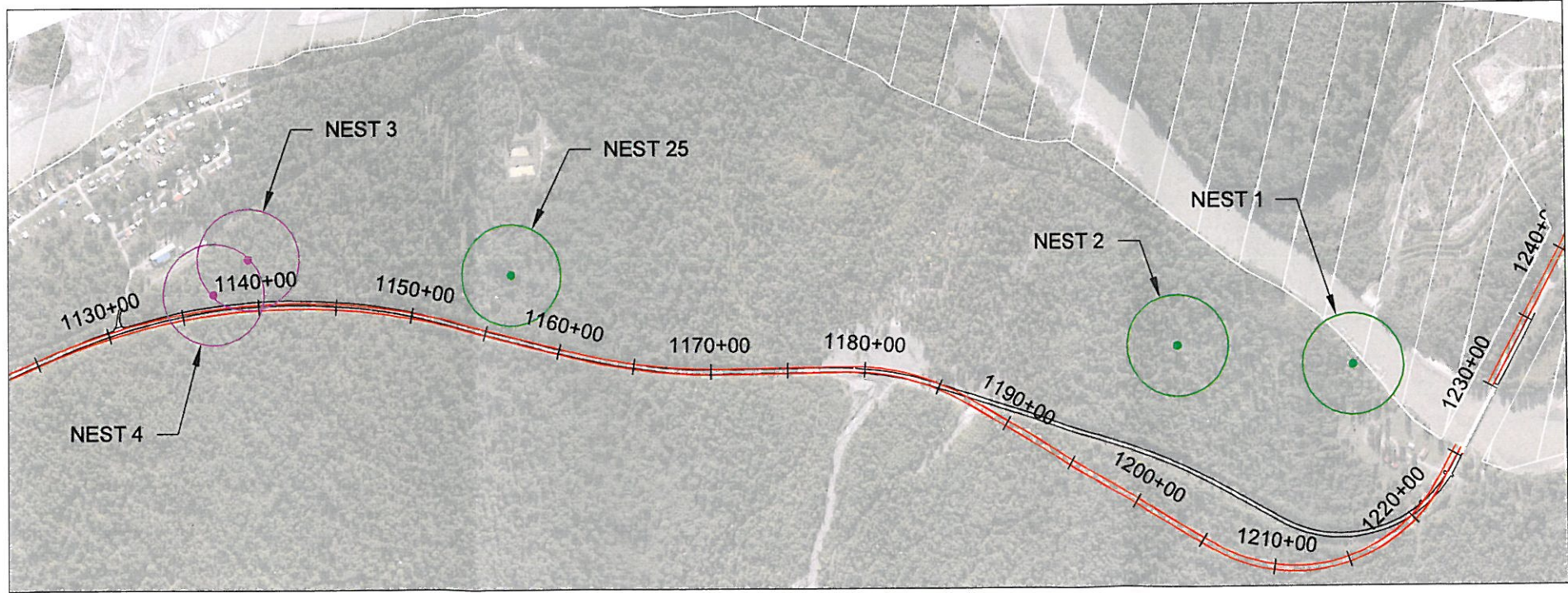
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FIGURE 1

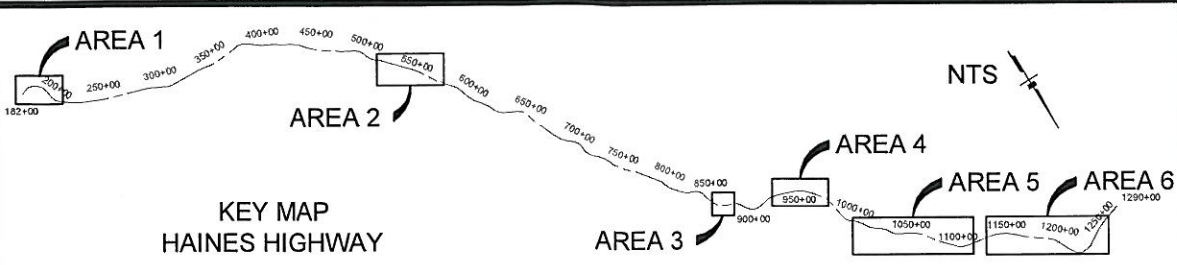


AREA 5

- PROPOSED ACTION MAINTAINS EXISTING SEPARATION OR INCREASES DISTANCE OF SEPARATION FROM PROPOSED EDGE OF PAVEMENT
- PROPOSED ACTION DOES NOT ENCLOSE WITHIN PRIMARY ZONE, BUT DOES CHANGE DISTANCES FROM EDGE OF PAVEMENT
- PROPOSED ACTION DECREASES SEPARATION DISTANCE WITHIN PRIMARY ZONE (FROM EDGE OF PAVEMENT)
- PROPOSED ALIGNMENT WITH STATIONING
- EXISTING ALIGNMENT
- CHILKAT BALD EAGLE PRESERVE



AREA 6



EVALUATION OF IMPACTS TO EAGLE NESTS

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DOT & PF Project No. 68606  
HAINES HIGHWAY  
MILEPOST 3.5 - 25.3

Haines, Alaska

DATE: 12/29/2009

FIGURE 2

HAINES HIGHWAY - EAGLE NEST LOCATIONS

Nest	Latitude	Longitude	Date and time point was taken	GS = Ground Shot or Accuracy in feet (GPS)	Distance from Existing Centerline	Distance from Proposed Centerline	Difference between Proposed and Existing	Distance from Existing cut/fill limits	Distance from Proposed cut/fill limits	Difference between Proposed and Existing	Within the Eagle Preserve	Station	Notes
EGL001	59.41316028	-135.9297505	5-Oct-09	GS	888'	852'	36'	830 LT	830 LT	0	No	1227+05	Outside the nest's 330 ft primary zone.
EGL002	59.41125021	-135.9248241	5-Oct-09	GS	724'	1007'	-283	711 LT	968 LT	-257	No	1197+21	Outside the nest's 330 ft primary zone.
EGL003	59.40132981	-135.8983322	5-Oct-09	GS	294'	315'	-21	265 LT	279 LT	-14	No	1139+51	Road is currently within the 330 ft primary zone. Proposed Action would increase separation distance slightly.
EGL004	59.40154388	-135.8967668	5-Oct-09	GS	91'	112'	-21	62 L T	77 LT	-15	No	1137+17	2009 survey did not locate nest at this location identified in 2006. Either 2006 coordinates in error or this is a new nest.
EGL005	59.3986543	-135.8738948	5-Oct-09	GS	236'	218'	18	206 RT	174 RT	32	No	1093+21	Would require significant river fill to maintain existing separation.
EGL006	59.39702939	-135.8710127	5-Oct-09	GS	185'	170'	15	159 RT	130 RT	29	No	1084+88	Would require significant river fill to maintain existing separation.
EGL007	59.39628248	-135.8676392	5-Oct-09	GS	488'	470'	18	469 RT	431 RT	38	No	1079+02	Outside the nest's 330 ft primary zone.
EGL008	59.3908562	-135.858914	5-Oct-09	GS	202'	149'	53	173 RT	104 RT	69	No	1052+40	Would require significant river fill to maintain existing separation.
EGL009	59.39021222	-135.8568144	5-Oct-09	GS	356'	214'	142	315 RT	170 RT	145	No	1047+37	Would require significant river fill to maintain existing separation.
EGL010	59.3859553	-135.8495238	5-Oct-09	GS	131'	142'	-11	105 RT	112 RT	-7	Yes	1026+71	Road is currently within the 330 ft primary zone. Proposed Action would increase separation distance slightly.
EGL011	59.38624087	-135.8494368	5-Oct-09	GS	204'	218'	-14	179 RT	188 RT	-9	Yes	1027+41	Road is currently within the 330 ft primary zone. Proposed Action would increase separation distance slightly.
EGL012	59.38511778	-135.8445162	5-Oct-09	GS	357'	357'	0	322 LT	322 RT	0	No	1017+76	Separation distance remains the same.
EGL013	59.3697452	-135.8321969	5-Oct-09	GS	239'	246'	-7	197 LT	208 LT	-11	No	956+88	Road is currently within the 330 ft primary zone. Proposed Action would increase separation distance slightly.
EGL014	59.36870442	-135.8310486	5-Oct-09	GS	325'	345'	-20	287 LT	302 LT	-15	No	953+55	Road is currently within the 330 ft primary zone. Proposed Action would increase separation distance slightly.
EGL015	59.36798224	-135.8294391	5-Oct-09	GS	338'	341'	-3	295 LT	298 LT	-3	No	949+61	Road is currently within the 330ft primary zone. Proposed Action would increase separation distance slightly.
EGL016	59.36750975	-135.8291948	5-Oct-09	GS	470'	462'	8	421 LT	417 LT	4	No	948+14	Outside the nest's 330 ft primary zone.
EGL017	59.36601492	-135.8244614	5-Oct-09	GS	505'	507'	-2	454 LT	475 LT	-21	Yes	939+13	Road is currently within the 330 ft primary zone. Proposed Action would increase separation distance slightly.
EGL018	59.21239364	-135.4723724	10-Jan-06	19	621'	637'	-16	595 LT	612 LT	-17	Yes	852+00	2009 survey did not locate nest identified in 2006. Accuracy of 2006 data is approximately 19 ft.
EGL019	59.29192007	-135.7028173	5-Oct-09	GS	1102'	1115'	-13	1074 LT	1081 LT	-7	Yes	556+88	Road is currently within the 330 ft primary zone. Proposed Action would increase separation distance slightly.
EGL020	59.29086973	-135.6994651	5-Oct-09	GS	900'	930'	-30	846 LT	838 LT	8	Yes	551+87	Outside the nest's 330 ft primary zone.
EGL021	59.29021737	-135.694675	5-Oct-09	GS	480'	494'	-14	456 LT	460 LT	-4	Yes	542+97	Outside the nest's 330 ft primary zone.
EGL022	59.28406145	-135.6877058	5-Oct-09	GS	1091'	1084'	7	1066 LT	1044 LT	22	Yes	517+82	Outside the nest's 330 ft primary zone.
EGL023	59.25564604	-135.5436315	5-Oct-09	GS	421'	423'	-2	397 RT	384 RT	13	No	221+64	Outside the nest's 330 ft primary zone.
EGL024	59.24852201	-135.5374864	5-Oct-09	GS	115'	128'	-13	89 RT	91 RT	-2	No	193+70	Road is currently within the 330 ft primary zone. Proposed Action would increase separation distance slightly.
EGL025	59.40399517	-135.90608	10-Jan-06	19	405'	404'	1	376 LT	370 LT	6	No	1155+74	2009 survey did not locate nest identified in 2006. Using conservative estimates of GPS accuracy, roadway is still outside the 330 ft primary zone.

Note: This data was taken with a Garmin GPSmap 76S handheld GPS unit (map datum WGS 84).





United States Department of the Interior  
FISH AND WILDLIFE SERVICE  
Juneau Fish & Wildlife Field Office  
3000 Vintage Blvd., Suite 201  
Juneau, Alaska 99801-7100  
(907) 780-1160



7/13/2010

Jim Scholl  
Alaska Department of Transportation  
and Public Facilities  
Post Office Box 112506  
Juneau, Alaska 99811

Dear Mr. Scholl,

The Juneau Fish and Wildlife Field Office has reviewed your letter dated May 13, 2010, concerning potential disturbance of nesting eagles by the Haines Highway Upgrade Project between MP 3.5 to 25.3. The project, which is intended to address safety deficiencies along the roadway, will move the highway closer to 5 known eagle nests. Although eagles have demonstrated tolerance to highway traffic along the route, we are concerned that activity during construction may disturb nesting eagles to an extent that would result in take. We therefore recommend that you obtain an Eagle Take Permit.

We appreciate the clarity and organization of your letter. You identify potential concerns, analyze effects on eagles, and clearly describe measures to minimize disturbance.

You ask for our assistance:

- 1) "...in determining if the subject project, *after construction is complete*, would disturb nesting eagles" (page 1, emphasis added); and
- 2) "... to verify the project would not disturb bald eagle nests." (page 3)

Concerning disturbance of nesting eagles after construction is complete: we agree that eagles in the area are habituated to highway traffic based on the proximity of eagle nest activity in relation to the current road.

As per our phone discussion, we agree that restoration of trees in portions of the existing road alignment that will be abandoned after the new road alignment has been established would reduce impacts of the project over time.

We conclude that a permit will not be needed for disturbance of eagles after construction is completed.

We are more concerned with disturbance of eagles **during** construction. The project would realign, widen, and straighten portions of the highway, to improve safety. The greatest risk from such activity is likely to be premature fledging by chicks, especially late in the nesting season. Chicks can be frightened from a nest by loud, obtrusive activity nearby. If

chicks flee and either jump or fall from the nest before their flight feathers and muscles are adequately developed, they may be injured or killed.

To minimize such risks, our National Bald Eagle Management Guidelines (Guidelines) recommend:

“Avoid timber harvesting operations, including road construction and chain saw and yarding operations, during the breeding season within 660 feet of the nest. The distance may be decreased to 330 feet around alternate nests within a particular territory, including nests that were attended during the current breeding season but not used to raise young, after eggs laid in another nest within the territory have hatched.”( U.S. Fish and Wildlife Service, 2007, p.13)

Of the 25 identified nest locations, 20 are within 660 feet of the proposed construction. If construction must occur during the nesting season (March 1 through September 30), there is potential to disturb eagles, which is defined as follows:

*Disturb* means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” (USFWS, 2007, p. 17)

If blasting will be necessary, the Guidelines make the following recommendations:

Category H. Blasting and other loud, intermittent noises. Avoid blasting and other activities that produce extremely loud noises within 1/2 mile of active nests, unless greater tolerance to the activity (or similar activity) has been demonstrated by the eagles in the nesting area. (USFWS, 2007, p.14)

Additional recommendations from the Guidelines include:

Clearing should take place outside the breeding season, (1 March-30 September) to decrease the chances of nest failure.

Pre-construction surveys should be conducted to determine if a particular nest is active or an alternate nest.

Eagle observers should be utilized while working in the area of active nests.

Blasting mats should be used to protect nesting trees in the vicinity of a blast.

The complete Guidelines are available at:

[http://alaska.fws.gov/eaglepermit/pdf/national\\_guidelines.pdf](http://alaska.fws.gov/eaglepermit/pdf/national_guidelines.pdf)

Even if construction can be done outside the breeding season, there is risk that eagles using important communal roosts and feeding areas will be disturbed. The Haines Highway traverses the Chilkat Bald Eagle Preserve, which is an important wintering area for several thousand eagles. Many of the trees along the highway are used as hunting perches and as communal roosts. Construction activities are likely to displace these birds, at least temporarily. Depending on how dispersed the construction activity is, large areas of important winter habitat could be avoided by eagles, potentially compromising survival for some.

Because of the potential to disturb both nesting and wintering eagles, we recommend that you apply for an Eagle Take Permit (50 CFR 22.26) for the proposed construction activities. Information and application procedures can be found at <http://alaska.fws.gov/eaglepermit/index.htm>.

By following the National Bald Eagle Management Guidelines to the extent practicable, the Department of Transportation and Public Facilities can minimize impacts to bald eagles. By obtaining an Eagle Take Permit, you can limit your legal vulnerability in the event that an eagle is inadvertently taken through disturbance.

We appreciate your efforts to protect bald eagles. Please coordinate with Scott Frickey of this office (phone 907-780-1184) if you have questions about the issues discussed above, or if you would like assistance in preparing your permit application, prior to submitting it to our Anchorage office.

Sincerely,

  
for Bill Hanson  
Field Supervisor

Cc:

Chilkat Bald Eagle Preserve, Haines  
Jackie Timothy, ADFG Habitat Division, Douglas  
Jordan Muir, USFWS-MBM, Anchorage

Reference:

U.S. Fish and Wildlife Service. 2007 National Bald Eagle Management Guidelines.  
[http://alaska.fws.gov/eaglepermit/pdf/national\\_guidelines.pdf](http://alaska.fws.gov/eaglepermit/pdf/national_guidelines.pdf)